Water Meter 2016-2017

Drinking water production and distribution in figures

FLANDERS
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WATER METER IN A NUTSHELL

100 %
public shareholder

9
water companies

3
million subscribers

360
million m^3 invoiced water in 2015

3,4%
more invoiced consumption in 2015 vs 2014

84
m^3 annual consumption for an average family

100
litre drinking water per person per day

100 %
quality guaranteed

€ 4,5
per m^3 (incl. 6% VAT) op 1/1/2016

€ 1,9
per m^3 drinking water

€ 2,6
per m^3 waste water treatment

62
thousand km pipe lines

82
water production centers

171
water towers

1
million m^3 storage capacity

603
million € turnover from water sale

CONTENTS

INTRODUCTION

This report provides a statistical overview of the drinking water sector in Flanders, from source to tap.

With the 'Water Meter', the WaterRegulator (the Flemish Regulation Authority) aims to paint a clear picture of the sector in Flanders, by means of figures and statistics, in order to contribute to greater transparency. The purpose of this document is to provide the reader with clear information about the production and the distribution of drinking water in Flanders.

Each year the WaterRegulator aims to further refine and complete the information provided about all aspects of the water chain, yet without any claim to completeness. For example, only a limited amount of information about drinking water quality and waste water treatment is included in this document. More detailed information on this can be found in other VMM reports which are specifically devoted to these subjects. They can be consulted at www.vmm.be.

The information in this report relates to the situation as at 1 January 2016 (as known at 31 December 2015), unless stated otherwise. The calculations in the tables were made using the most detailed figures available. In order to make the document more readable, the numbers have been rounded to 2 decimal places. As a result, some rounding errors may occur. A glossary is included at the end of the document.

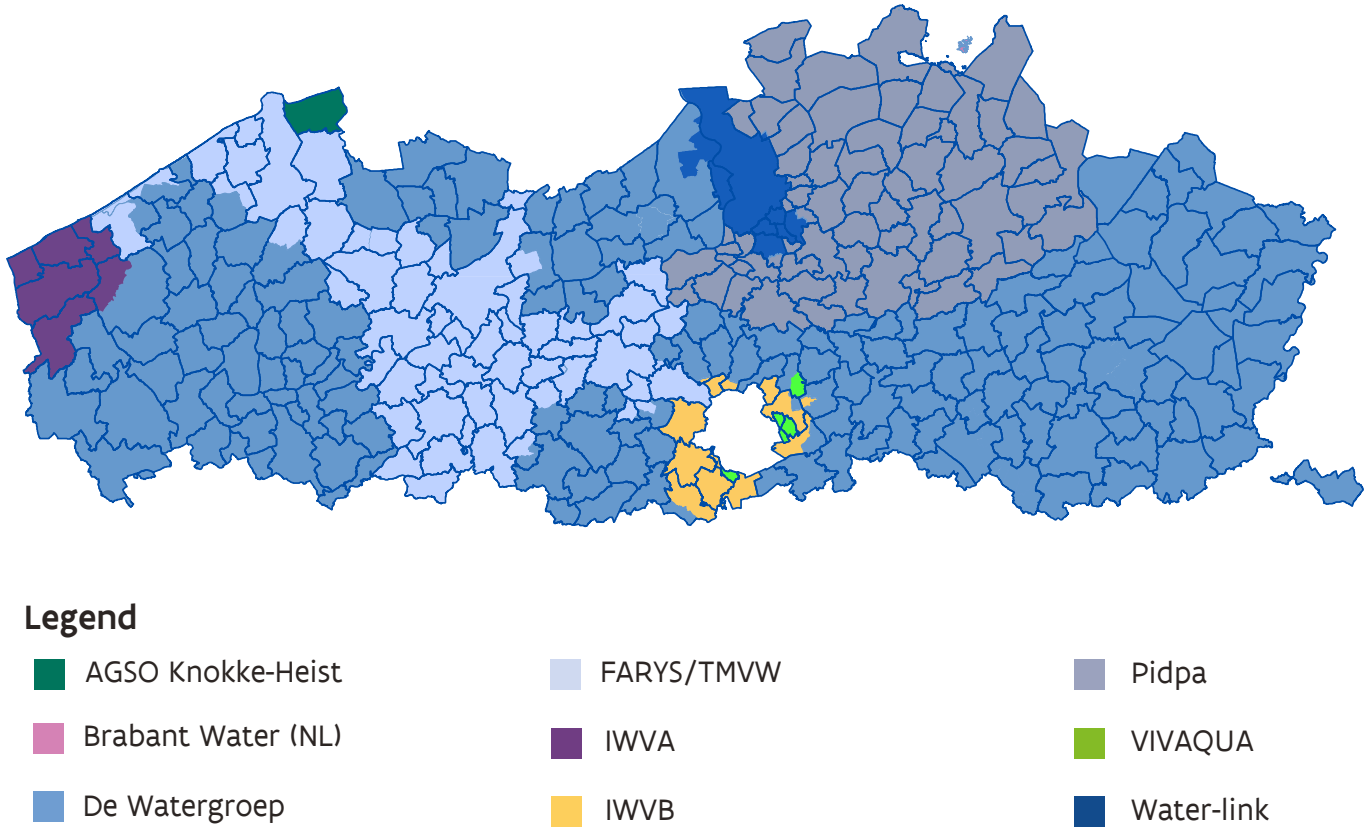
CHARACTERISTICS OF THE DRINKING WATER SUPPLY IN FLANDERS

ORGANISATION OF THE DRINKING WATER SUPPLY IN FLANDERS

The drinking water supply in Flanders is a municipal responsibility. In order to provide a better service, many municipalities have formed alliances for the production and the distribution of mains water. Since every municipality (and therefore every alliance) has different options for organising its drinking water supply, a vast diversity has come about in the management of the public water distribution network, investment planning and service provision. The level of input of the participating municipalities in the alliances also varies strongly.

On 1 January 2016, the public water distribution network in the 308 Flemish municipalities was managed by 9 operators (hereinafter also referred to as water companies). In 22 of these municipalities, two water companies are active. Appendix 3 of this report contains a list of contact details of all operators. An overview of the municipalities distributed per water company is given in Appendix 4.

Figure 1: Distribution areas of water companies – Situation in 2016



Source: AquaFlanders, VMM Water Bank

LEGAL FORM OF WATER COMPANIES

Almost all mains water in Flanders is supplied by intermunicipal alliances, intermunicipal companies and one autonomous Flemish public utility company. In addition, one municipal water company and one foreign water company are active in Flanders. The sector is entirely in public hands in 2016.

Table 1: Legal form of water companies (2016)

Intermunicipal alliance	Intermunicipal water company	Autonomous Flemish public utility company	Municipal water company	Public limited company under Dutch law
			AGSO Knokke-Heist	
				Brabant Water (NL)
		De Watergroep VMW		
	FARYS/TMVW End 22/12/2041			
IWVA End 05/2019				
IWVB End 24/02/2018				
Pidpa End 09/11/2019				
	VIVAQUA End 01/01/2041			
Water-link End 31/12/2025				

Source: VMM Water Bank

Intermunicipal alliances

The legal foundations of the intermunicipal alliances were laid in accordance with the Decree of 6 July 2001 on Intermunicipal Cooperation (DIS). To enable the joint pursuit of municipal interest objectives, two or more municipalities can, under the provisions laid down in the Decree, set up alliances with or without legal personality, with or without conferral of management. In alliances with legal personality, only municipalities can be active, together with provinces (until 2018), autonomous municipal companies, public social welfare centres and their associations, other intermunicipal alliances, police districts and emergency response districts, provided they consist exclusively of legal persons in public law. Participation of a private partner in an intermunicipal alliance is possible, but subject to strict conditions. Thus, for example, private partners can only participate in intermunicipal alliances that are active solely in the energy distribution or waste sectors. Mandated and service associations (both alliances with legal personality) are submitted to approbation supervision of the incorporation decision and the amendment of the articles of incorporation. They are also under administrative supervision and have the obligation to forward a concise overview of the resolutions reached to the supervisory authority (the Flemish Government).

Intermunicipal companies

The legal foundations of the intermunicipal companies were laid in accordance with the Law of 22 December 1986 on intermunicipal companies. Until 2016 the aforementioned decree applied only to intermunicipal alliances whose jurisdiction falls within the Flemish Region. This is not the case for TMVW and VIVAQUA. From 2016 the decree applies also to TMVW. VIVAQUA, with registered office in Brussels, is submitted to Brussels administrative supervision and Brussels regulations.

Autonomous Flemish public utility company

The legal foundations of De Watergroep – the largest active water company in Flanders – were laid in accordance with its Establishment Decree: the Decree of 28 June 1983 establishing the Vlaamse Maatschappij voor Watervoorziening (VMW) (Flemish water distribution company). VMW's commercial name was changed to De Watergroep on 1 January 2013.

Municipal water companies (GW)

On 1 January 2016, there is only one municipal water company that is still active: the water company of Knokke-Heist. Note that it has been part of the Autonomous Municipal Company for City Development of Knokke-Heist (AGSO) since 2012.

Public Limited Company under Dutch law

In the municipality of Baarle-Hertog the Dutch company Brabant Water supplies mains water to some of the population. Brabant Water is a public limited company, operating under Dutch law.

ALLIANCES BETWEEN WATER COMPANIES

SYNDUCTIS

Established in 2012, Synductis is an alliance between the TMVW, IWVB, IWVA, de Watergroep and Pidpa water companies and EANDIS, INFRAX and PROXIMUS. The main goal of Synductis is to better plan utility work and to coordinate the execution of the work.

COORDINATING STRUCTURES

BELGAQUA

Belgaqua is the Belgian Federation of the Water sector. This professional association groups together the regional associations of the water sector in Belgium: AQUABRU for the Brussels Capital Region, AQUAWAL for the Walloon Region, and AquaFlanders for the Flemish Region.

Belgaqua defends the common interests of its members at federal, European and international level. The federation stimulates the realisation of studies and provides information to professionals and consumers about the use of mains water and the protection of water quality. Belgaqua also inspects the apparatus connected to the public water distribution network and the materials that come into contact with the drinking water.

AQUAFLANDERS

AquaFlanders is the umbrella organisation that unites all the Flemish water companies. By employing a more goal-oriented cooperation approach, AquaFlanders aims to improve transparency, increase efficiency and achieve greater uniformity in both the customer approach and the working methods employed. Furthermore, AquaFlanders wants to contribute to a more effective implementation of the water policy by acting as a representative of its members at various forums.

OTHER ACTIVITIES

Besides the service provision related to drinking water production and distribution via the public water distribution network, the water companies also provide other services. For example, a number of water companies offer specific services for industrial companies (e.g. supply of 'customised' water, water audits, optimisation of internal water flows, reuse of waste water within the production process, etc.).
Since 2005, all water companies have been required to treat the water they distribute. Consequently, they do not only produce and distribute drinking water, they must also ensure that the waste water of their customers is purified so that the quality of the drinking water remains guaranteed (waste water treatment activity).

In addition, a number of companies also conduct activities that are non-water related (other activities). For instance, the water company of Knokke-Heist is part of AGSO Knokke-Heist, which also conducts real estate transactions, executes concrete urban development projects and implements the waste management policy within the municipality of Knokke-Heist. FARYS/TMVW presents itself as a partner of its municipal associates, by, among other things, managing swimming and sports facilities and offering framework agreements for the purchase, maintenance, operation and management of services (e.g. repair service etc.) and goods (e.g. stationery, road salt, telecoms, etc.).

REGULATORY FRAMEWORK FOR THE DRINKING WATER SUPPLY

LOCAL AUTHORITIES

The drinking water supply in Flanders is a municipal responsibility. In practice, this responsibility is generally carried out by intermunicipal alliances. The municipal associates run these alliances through their representatives in the dedicated governing bodies (Management Board, General Meeting, specific committees, etc.).

PROVINCIAL AUTHORITIES

Provinces do not have any competences concerning drinking water. However, some do participate in intermunicipal alliances responsible for the mains water production and distribution (e.g. Provincial Authority of Antwerp is an associate of Pidpa aka the Provincial and Intermunicipal Drinking Water Company of the Province of Antwerp). The admission[1] for participation will be revoked at the end of 2018.

1 Pursuant to Art. 80, paragraph 1, of the Decree on Intermunicipal Cooperation (DIS), the provincial authority is allowed to participate until the end of 2018.

REGIONAL GOVERNMENT (FLEMISH REGION)

Guaranteeing quantity and quality of drinking water

In application of the Groundwater Decree, protection zones have been indicated around groundwater collection sites for the benefit of drinking water production. Within these protection zones, activities that could pollute the groundwater are banned or restricted.
The Supervisory Official (organised within VMM) develops and supervises the Drinking Water Decree and the ensuing Acts and public service obligations. This supervision mainly concerns the quality of the water supplied, as well as the application of the General Water Sale Regulations.

Guaranteeing transparency and efficiency of water companies

The Flemish water regulation authority, known as the WaterRegulator (organised within VMM) focuses on increasing transparency regarding drinking water production and distribution in Flanders. The WaterRegulator compares the performance and efficiency of the Flemish water companies in order to ensure that drinking water is supplied at a fair price. In addition, the WaterRegulator conducts studies. Based on the results, the regulator advises the Flemish government through the Flemish minister for environment.

In 2015, oversight of drinking water tariffs, which until then had been a federal competence, was also entrusted to the WaterRegulator. Since 2016 the tariffs have been laid down via the tariff regulation method (see also p. 56).

Administrative supervision

Administrative supervision of intermunicipal alliances takes place under direction of the Flemish minister for internal affairs.

FEDERAL GOVERNMENT (BELGIUM)

As part of the sixth state reform, the competence for tariff regulation of drinking water was transferred from federal level (Belgium) to regional level (Flanders The federal government remains competent for the pricing and revenue policy and may continue to use pricing policy instruments such as price freezes, to control inflation or protect competition. The measures it takes towards this effect may also relate to the prices of services that fall within the competence of the region. In addition, the federal government is competent for all matters pertaining to nuclear quality assurance and safety of the drinking water supply chain and for metrology (including the implementation of the MID Directive[2]). The MID applies to installations with water meters.

EUROPEAN GOVERNMENT

The Drinking Water Directive imposes standards on the quality of drinking water. The Water Framework Directive, among other things, establishes the principles relating to the cost allocation for water services, including production and distribution. These have already been transposed into Flemish regulation.

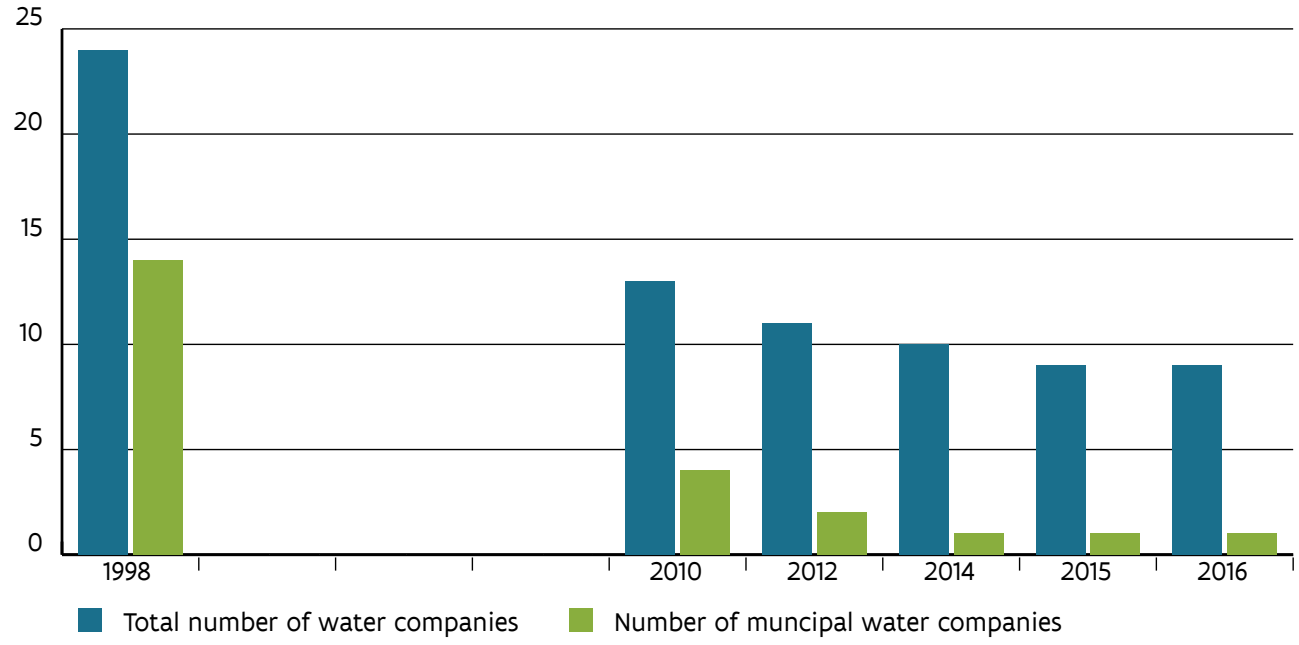
2 The Measuring Instruments Directive (MID) is a directive on legal metrology.

DISTRIBUTION AREAS AND INFRASTRUCTURE OF WATER COMPANIES

EVOLUTION OF THE NUMBER OF WATER COMPANIES

The number of water companies is on the downgrade while the larger companies keep on growing. In real terms, this means that both the municipal and city water companies are disappearing and their activities are being taken over by the larger companies. In 1998 there were still 14 municipal or city water companies. By 2010 their number had fallen to 4. On 1 January 2015 only one municipal water company is still active (in Knokke-Heist). The number of operators has thus been reduced to 9.

Figure 2: Evolution of the number of water companies (1998-2016)



Source: VMM Water Bank

SPECIFICATIONS OF DISTRIBUTION AREAS

The distribution areas of the water companies are related to the water network. In most cases, the distribution areas coincide with the municipal boundaries, but for historical and/or practical reasons, a municipality may rely on several water companies for its water distribution.
Some characteristic statistical data on the specifications of the distribution areas are shown in Table 2.

Table 2: Statistics on distribution areas - absolute values[3] (2016)

Water company	Area (km²)	Number of inhabitants (x 1000) (2016)	Population density (inhabitants/km²)	Number of companies NOT in agriculture, forestry and fisheries (2016)	Number of companies in agriculture, forestry or fisheries (2016)
AGSO Knokke-Heist	56	33	590	3,829	406
Brabant Water (NL)	3	2	833	170	37
De Watergroep	7,756	3,005	387	227,539	17,730
FARYS/TMVW	2,271	1,271	560	99,777	6,287
IWVA	313	63	201	5,521	534
IWVB	259	249	960	17,022	441
Pidpa	2,586	1,203	465	91,633	4,803
VIVAQUA	27	39	1,461	2,306	95
Water-link	278	621	2,232	46,240	246
Total	**13,549**	**6,486**	**479**	**494,036**	**30,579**

Source: FPS Economy, CORVE, VMM Water Bank, inquiry with municipalities

In Table 3, the specifications of the distribution areas are compared with each other. The distribution area of the three largest companies (De Watergroep, Pidpa and TMVW) together extends over an area that covers more than 90% of the Flemish territory. Together, these three water companies are responsible for the drinking water supply for more than 85% of the Flemish population.

Table 3: Statistics on distribution areas - relative values (2016)

Water company	Share of Area (km²)		Share of Number of inhabitants (x 1.000) (2016)		Share of Rank Population density (inhabitants/km²)	Share of Number of companies NOT in agriculture, forestry and fisheries (2016)		Share of Number of companies in agriculture, forestry or fisheries (2016)	
AGSO Knokke-Heist	0.4%	7	0.5%	8	5	0.8%	7	1.3%	6
Brabant Water (NL)	0.02%	9	0.03%	9	4	0.0%	9	0.1%	9
De Watergroep	57.4%	1	46.3%	1	8	46.1%	1	56.7%	1
FARYS/TMVW	16.8%	3	19.6%	2	6	20.2%	2	20.1%	2
IWVA	2.3%	4	1.0%	6	9	1.1%	6	1.7%	4
IWVB	1.9%	6	3.8%	5	3	3.4%	5	1.4%	5
Pidpa	19.1%	2	18.6%	3	7	18.5%	3	15.4%	3
VIVAQUA	0.2%	8	0.6%	7	2	0.5%	8	0.3%	8
Water-link	2.1%	5	9.6%	4	1	9.4%	4	0.8%	7
Total	**100%**		**100%**			**100%**		**100%**	

Source: FPS Economy, CORVE, VMM Water Bank, inquiry with municipalities

3 The share of companies is the sum of the number of natural persons liable to VAT and the number of legal persons liable to VAT in terms of a commercial enterprise (e.g. private limited company, public limited company, etc.)

INFRASTRUCTURE OF DRINKING WATER SUPPLY

Table 4 provides an overview of the infrastructure for the production and distribution of mains water per water company.

Evidently, due to the different nature of the distribution areas, also the infrastructure of the water companies differs. For example, whilst their distribution areas are similar in size, there is a big difference between the infrastructure of Pidpa and the infrastructure of FARYS/TMVW. Pidpa has sufficient groundwater sources at its disposal within its own distribution area. The company is therefore able to produce drinking water in a decentralised way by means of 11 water production centres. By contrast, FARYS/TMVW mainly purchases its water from external suppliers in order to meet the demand of its area. The company merely has 3 water production centres at its disposal. Water-link and De Watergroep are the only water companies that use surface water sources for the production of drinking water. IWVB is the sole water company that does not have any sources at its disposal in its distribution area. All the water delivered by IWVB to subscribers is purchased from other water companies.

The available water storage capacity of water storage facilities and water towers in Flanders is approximately 1 million m³.

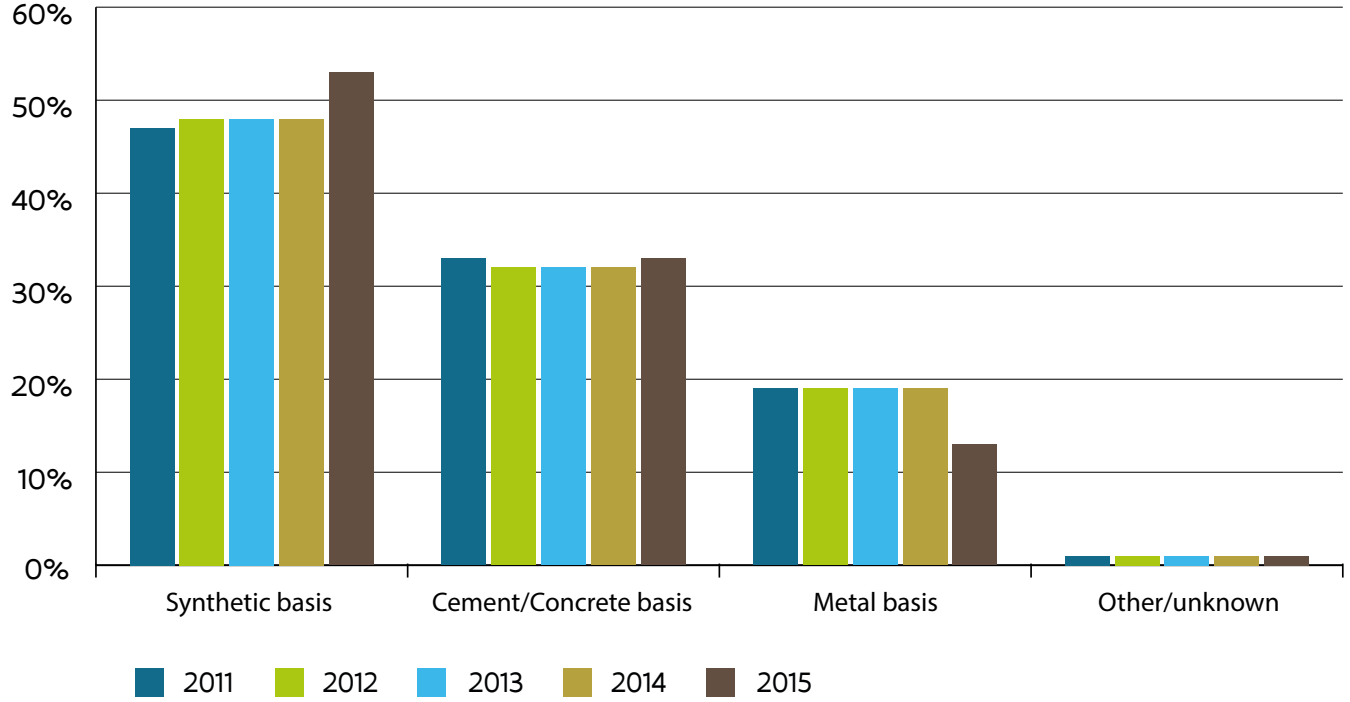
Table 4: Infrastructure for the production and distribution of mains water (2015)

Water company	Number of groundwater sources	Number of surface water sources	Number of water production centres	Number of clear water storage facilities	Number of water towers	Number of pressure boosting stations	Network length (km)	Available drinking water storage capacity (x 1,000 m³)
Agso Knokke-Heist	1	0	1	4	1	0	365	9
De Watergroep	85	5	61	74	82	63	32,431	389
FARYS/TMVW	18	0	3	22	27	36	11,387	169
IWVA	3	0	3	7	2	4	1,004	19
IWVB	0	0	0	0	0	0	1,682	0
Pidpa	24	0	11	91	59	24	12,725	150
VIVAQUA	1	0	1	4	0	7	260	75
Water-link	0	1	2	6	0	7	2,487	147
Total	**132**	**6**	**82**	**195**	**171**	**141**	**62,341**	**959**

Source: VMM Water Bank

Figure 3 shows the composition of the pipe network in Flanders, and contains information on almost 97% of the total pipe network in Flanders. Only IWVB is unable to provide information in this context. The composition of the network in Flanders is summarised for the categories 'plastic basis', 'metal basis' and 'concrete basis' and 'other/unknown'. In 2015, in terms of length, about 53% of the pipe network is made of plastic, about 33% of concrete and 13% of metal.

Figure 3: Composition of the pipe network in Flanders (2011-2015)*



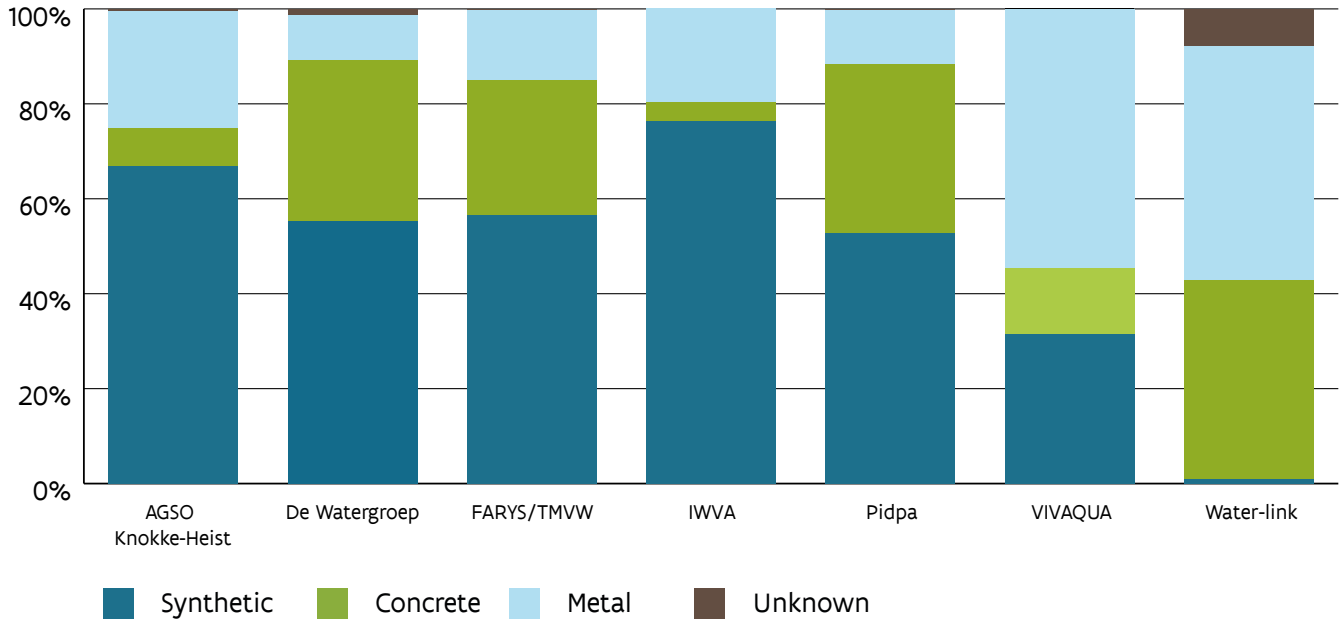
*Overview of material used on pipe network for IWVB not known.

Source: VMM Water Bank

Figure 4 shows the composition of the pipe network per water company in 2015. Only IWVB is unable to provide information in this context.

For AGSO Knokke-Heist and IWVA, over 70% of their pipe network consists of plastic. For De Watergroep, FARYS/TMVW and Pidpa, more than 50% is also made of plastic. For Water-link this is only 1%.

Figure 4: Composition of the pipe network per company (2015)



Source: VMM Water Bank

PROCESS BENCHMARK

Benchmarking is the method used to compare business processes and performance data with those of similar organisations. AquaFlanders coordinates the process comparisons for the water companies under the supervision of the WaterRegulator.

These process benchmarks serve multiple purposes. Conducting a process benchmark first of all creates a knowledge sharing platform that contributes to improving the process efficiency. The platform in fact allows the sharing of good practices among the water companies. Secondly, it increases the transparency of the water companies for the wider public. Stakeholders gain more insight into the process under study. Thirdly, the process benchmark provides the water company with tools to bring about efficiency improvements in the process under study.

All Flemish water companies have committed themselves to comparing each year at least one aspect of their operations by means of a process benchmark. The water companies are themselves responsible for conducting the process benchmarks as they are the most knowledgeable in this area. Moreover, it makes them more aware of their responsibilities. AquaFlanders ensures the coordination and financing. The WaterRegulator monitors the process benchmarks, evaluates the results, and can ask the water companies to be notified of the elaborated action plans. AquaFlanders and the WaterRegulator communicate about the results of the process benchmarks.

An overview of completed and ongoing process benchmarks over the period 2014-2018 is given below.
The (planned) year of publication is indicated between brackets.

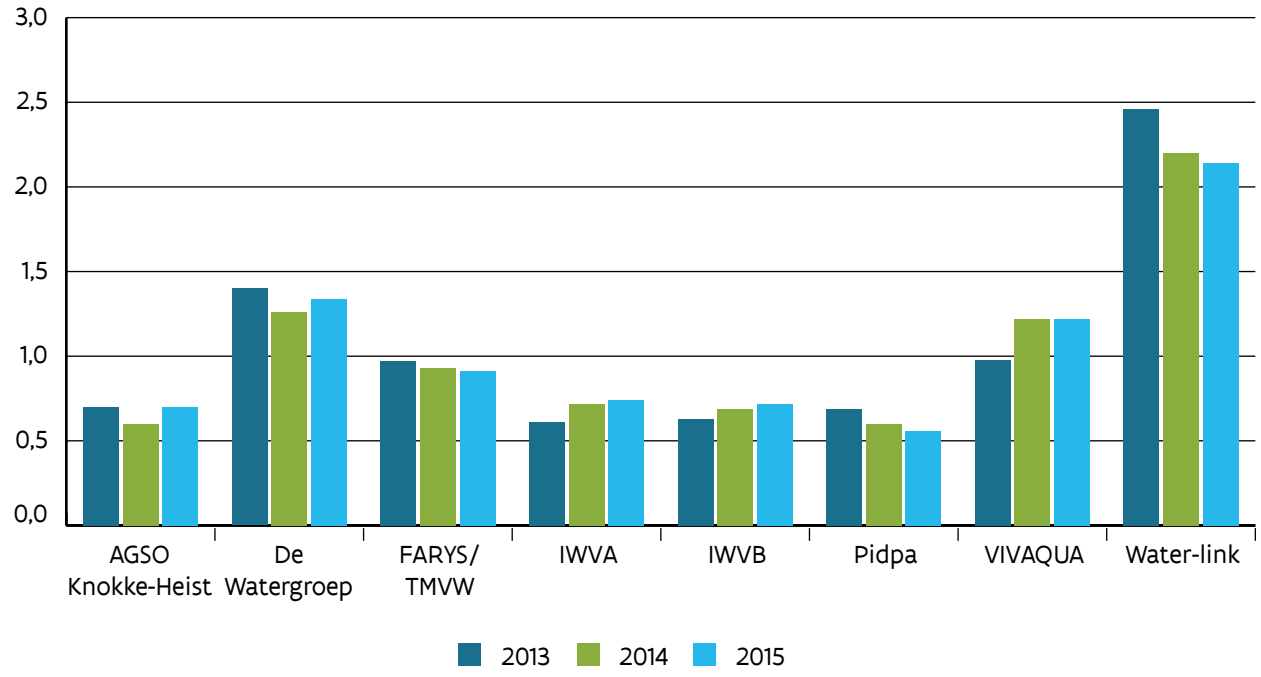
- Accounts receivable management (2015)
- Non-invoiced water (NIW) (2016)
- Complaints handling (2016)
- New branches (planned for 2017)
- Asset management (planned for 2018)

The process benchmarks break down into two parts.

The first part is the quantitative analysis where performance indicators (KPIs) are selected and defined for the process under study. These are used to compare and assess the performances of the different water companies and to identify focal points for improvement of the process at the Flemish drinking water sector level.

Indicators developed as part of the NRW process benchmark included the Infrastructure Leakage Index (ILI), developed by the International Water Association (IWA), and selected as a relevant KPI. This indicator allows benchmarking among operators for the NRW process.

Figure 5: Evolution of the ILI at Flemish water companies (2013-2015)



Source: VMM Water Bank

The second part is the qualitative analysis. This analysis maps the maturity of the water sector for the process under study by means of a maturity model developed by the water sector. The drinking water sector determines the minimal level and the ambitious level for the sector, for all dimensions of the maturity model. This analysis allows not only bottlenecks to be identified, but also a path for improvement to be provided.

After completion of a process benchmark, the water companies must translate the recommendations from the process benchmark into concrete actions for improvement of their own operations. This takes the form of an action plan that consists of an improvement project and a progress report. A separate action plan is drawn up for each business process under study.

In the improvement project, each water company formulates a number of quantitative and/or qualitative objectives and actions for the process under study. The improvement project must be signed for approval and dated by the management of the water company.

The progress report monitors the implementation of the improvement project into the daily operations of the water company.

The results of the process benchmarks and action plans can be used to justify the objectives, (mandatory) actions for improvement, and the strategy in the tariff plan of the water company.

More information can be found in the report 'Proces benchmark NRW' published on the website of AquaFlanders[4].

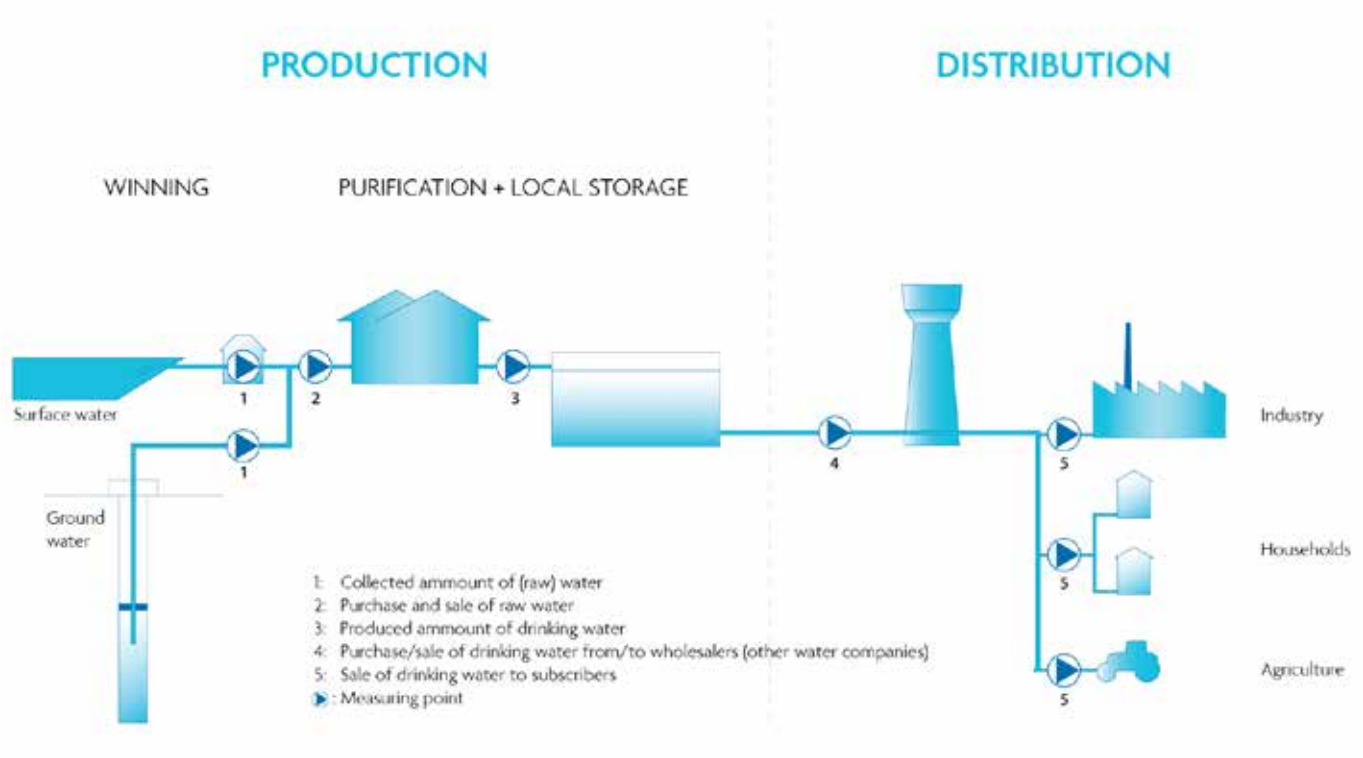
4 http://www.aquaflanders.be/benchmarkrapport.aspx

DRINKING WATER BALANCE: FROM SOURCE TO TAP

DRINKING WATER CHAIN FROM SOURCE TO TAP

The drinking water chain consists of two consecutive main processes: the production and the distribution/ supply of drinking water. An abridged schematic representation is shown in Figure 6.

Figure 6: Drinking water chain from source to tap



Source: VMM

WATER PRODUCTION

In 2015, the water companies in Flanders produced more than 420 million m³ of drinking water. Almost 80% of the drinking water produced for Flanders is also being produced in Flanders. The remaining 20% is being produced outside Flemish territory and is nearly all (18%) being purchased by Flemish water companies. FARYS/ TMVW is the only Flemish company that collects and produces water outside of Flanders. More specifically, they collect and produce 9 million m³ or 2% of the drinking water produced for Flanders, in Wallonia.

VIVAQUA, based in Brussels, produces nearly 12% of the drinking water produced for Flanders. It sells most of this to other Flemish water companies, and distributes a smaller portion itself in Flanders. This company collects and produces almost all its water in Wallonia. In Flanders, more specifically in Zaventem, VIVAQUA has one small water extraction site and one water production facility, where they produce over 200,0000 m water a year.
Less than 1% of the Flemish drinking water originates from the Netherlands and France.

The Flemish water companies in their turn also sell drinking water to water companies in Wallonia and the Netherlands (about 7 million m per year).

In Flanders, slightly more drinking water is produced from surface water than from groundwater, but the drinking water purchased outside of Flanders is mainly produced from groundwater. More information about water quantities can be found in the report 'Leidingwaterbalans voor Vlaanderen 2015'[5].

Legend to Figure 7

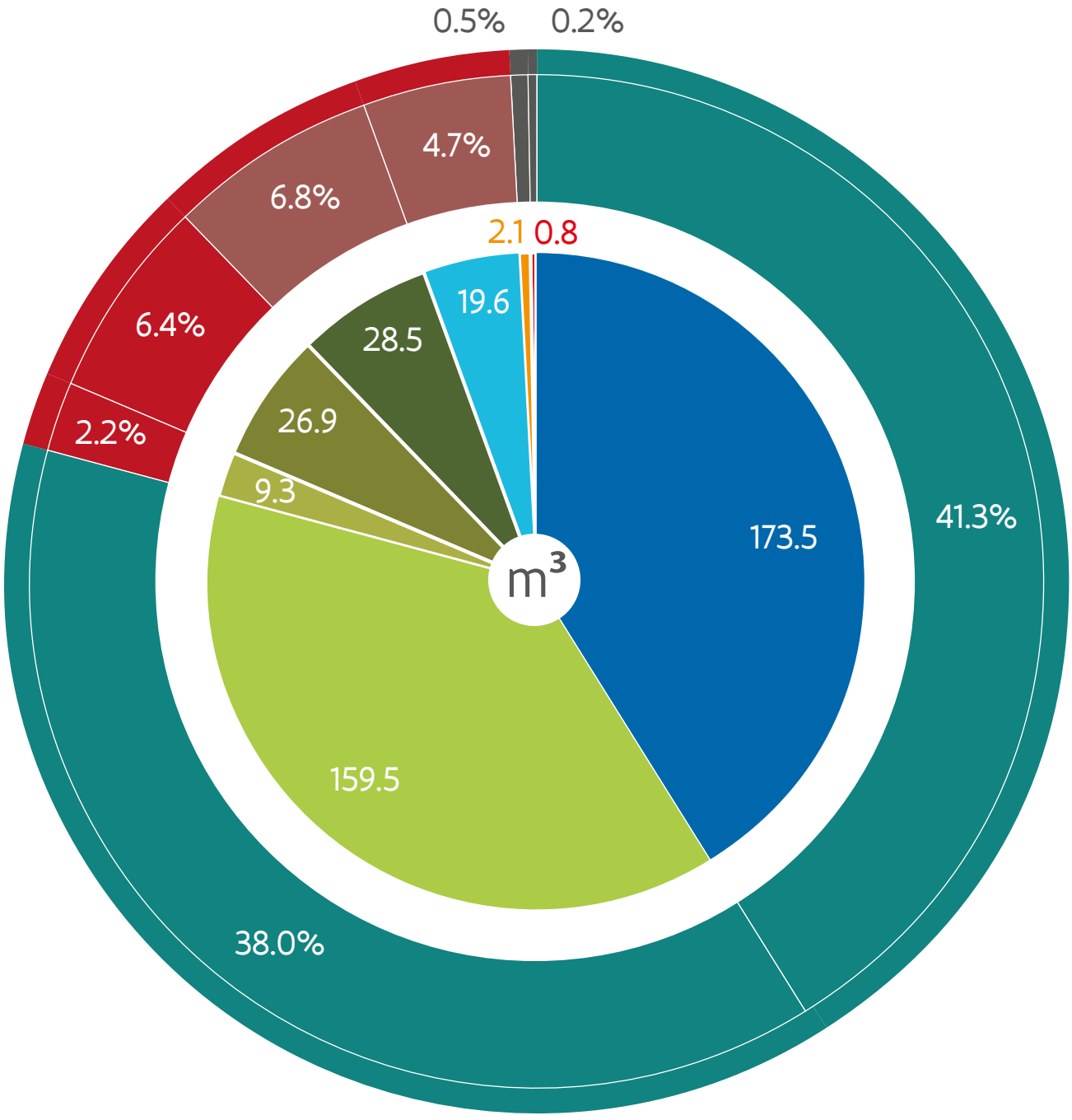
- Flemish region (79%)
- Walloon region (20%) - (12% via Brussel)
  - Brussels Region (VIVAQUA - offspring/production water = Walloon Region)
- Foreign countries (1%)

Aantal miljoen m³ drinkwater

- produced in Flanders from surface water (173 mio m³)
- produced in Flanders from ground water (160 mio m³)
- produced outside Flanders from ground water (9 mio m³)
- purchased in the Walloon Region - ground water (27 mio m³)
- purchased in the Brussels Region (VIVAQUA) - ground water (29 mio m³)
- purchased in the Brussels Region (VIVAQUA) - surface water (20 mio m³)
- puchased in The Netherlands (2 mio m³)
- purchased in France (1 mio m³)

5 www.vmm.be/publicaties

Figure 7: Water production for Flanders in million m^3 (2015)



Source: VMM Water Bank

Water-link is the largest producer of drinking water for Flanders, followed by De Watergroep, Pidpa and VIVAQUA. VIVAQUA plays a double part in the water supply for Flanders: on the one hand it is the operator of a public distribution network for subscribers in four municipalities (Kraainem, Linkebeek, Steenokkerzeel, Wezembeek-Oppem) and on the other hand it is the supplier of water to other water companies (mainly FARYS/TMVW and IWVB). Table 5 shows that VIVAQUA produces 12% of the water produced for Flanders while it only supplies 1% of it directly to subscribers.

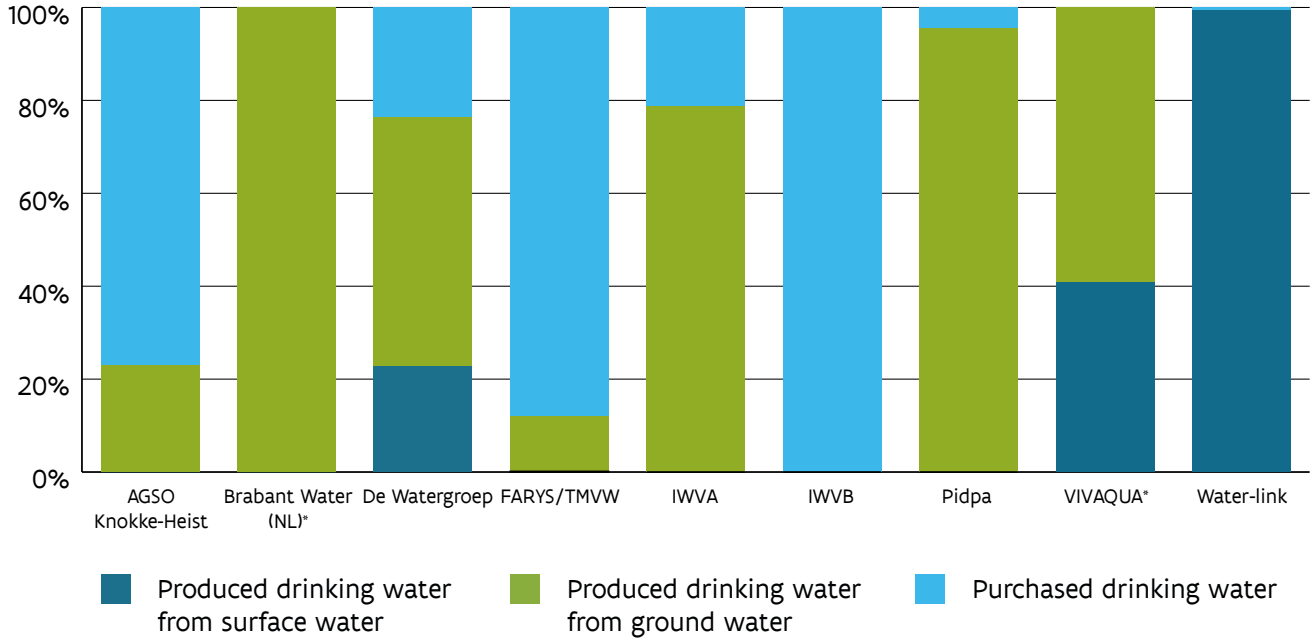
Table 5: Overview of the production share for Flanders vs the supply to subscribers in Flanders per water company (2015)

Water company	Produces (water supplier)	Rank	Supplies to subscribers (operator)	Rank
AGSO Knokke-Heist	0.1%	7	1%	7
Brabant Water (NL)				
De Watergroep	32%	2	36%	1
FARYS/TMVW	3%	5	17%	4
IWVA	1%	6	1%	6
IWVB	0%	8	3%	5
Pidpa	16%	3	17%	3
VIVAQUA	12%	4	1%	8
Water-link	36%	1	25%	2
Flanders	**100%**		**100%**	

Source: VMM Water Bank

Figure 8 paints a picture of the share of local production from ground and surface water and the share of purchased water in 2015, per water company. The figure clearly shows that Water-link produces nearly all its water from surface water. Brabant Water and Pidpa produce nearly all their water from groundwater. IWVB entirely depends on the purchase of water. FARYS/TMVW and AGSO Knokke-Heist largely depend on purchased water.

Figure 8: Water sources per water company (2015)

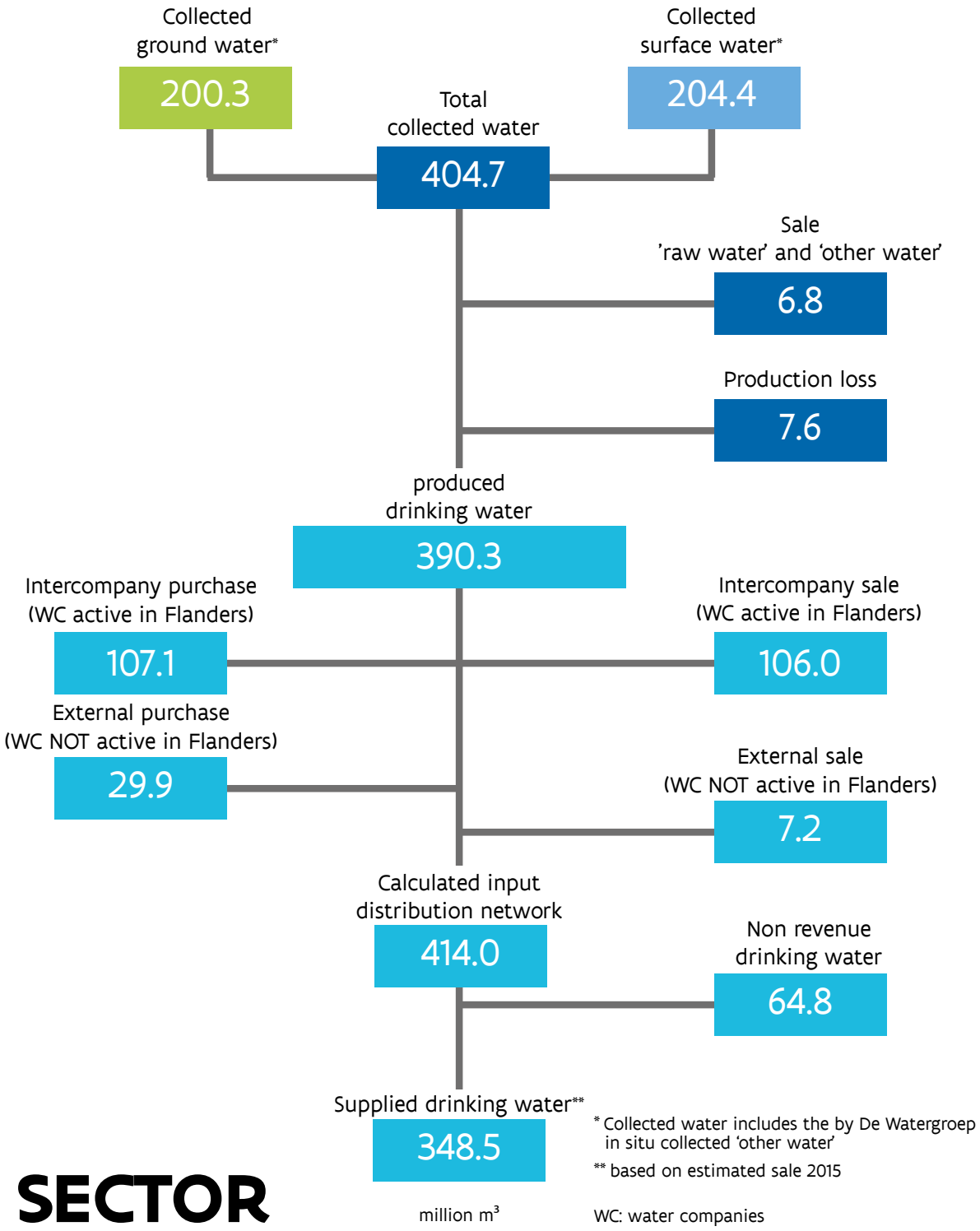


For Brabant Water and VIVAQUA, the origin of the water meant for distribution in Flanders is presented.
Source: VMM Water Bank

WATER BALANCE SHEET

In Figure 9, an overall water balance sheet including all the operators active in Flanders is drawn up for the year 2015. For VIVAQUA only figures about the amount of water collected and produced for Flanders are included in the balance sheet. Figures of Brabant Water are omitted. This balance sheet includes figures of the water collection per type of raw water source, the amount of water collected and the amounts of drinking water produced and distributed, for the entire Flemish water sector.

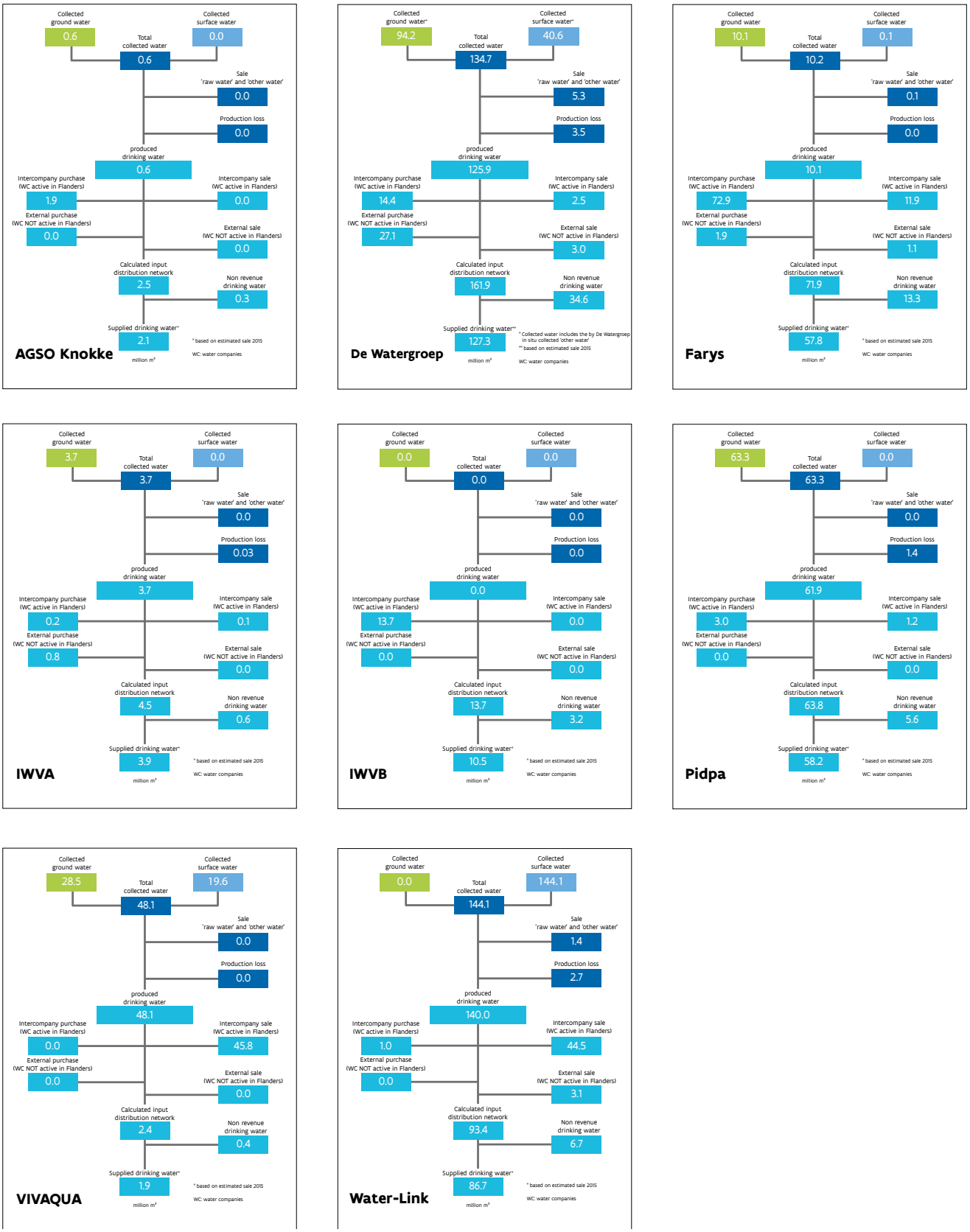
Figure 9: Water balance sheet for the sector in million m³ (2015)



Source: VMM Water Bank

In Figure 10, an individual water balance for each water company is drawn up for the year 2015. The balance sheet of VIVAQUA shows the amount of water collected and produced for Flanders only.

Figure 10: Water balance sheet per water company in million m³ (2015)



Source: VMM Water Bank

WATER DISTRIBUTION AND WATER SALE

Density of the network

Table 6 presents a number of key figures about the water supply per water company. The connection density of a public water distribution network is closely linked to the urban or more rural character of a distribution area. A higher population density and a higher degree of urbanisation leads to a higher connection density.

In 2015, an average of 5,800 litres of water is invoiced per metre of pipeline in Flanders. Water-link bills more than 38,000 litres of water per metre of pipeline. That is almost ten times more than IWVA and De Watergroep: on average, they invoice 4,000 litres of water per metre of pipeline. Water-link has the most concentrated network with 62 subscribers (active water meters) per km of pipeline. With 41 subscribers per km of pipeline, De Watergroep has the lowest connection density.

The difference between the density per connection and the density per subscriber indicates a significant presence of apartment blocks in the distribution area. A single connection in an apartment building can in fact serve multiple subscribers. This difference is particularly striking in the AGSO Knokke-Heist and IWVA areas (coastal areas).

Table 6: Key figures of water distribution and sale (2015)

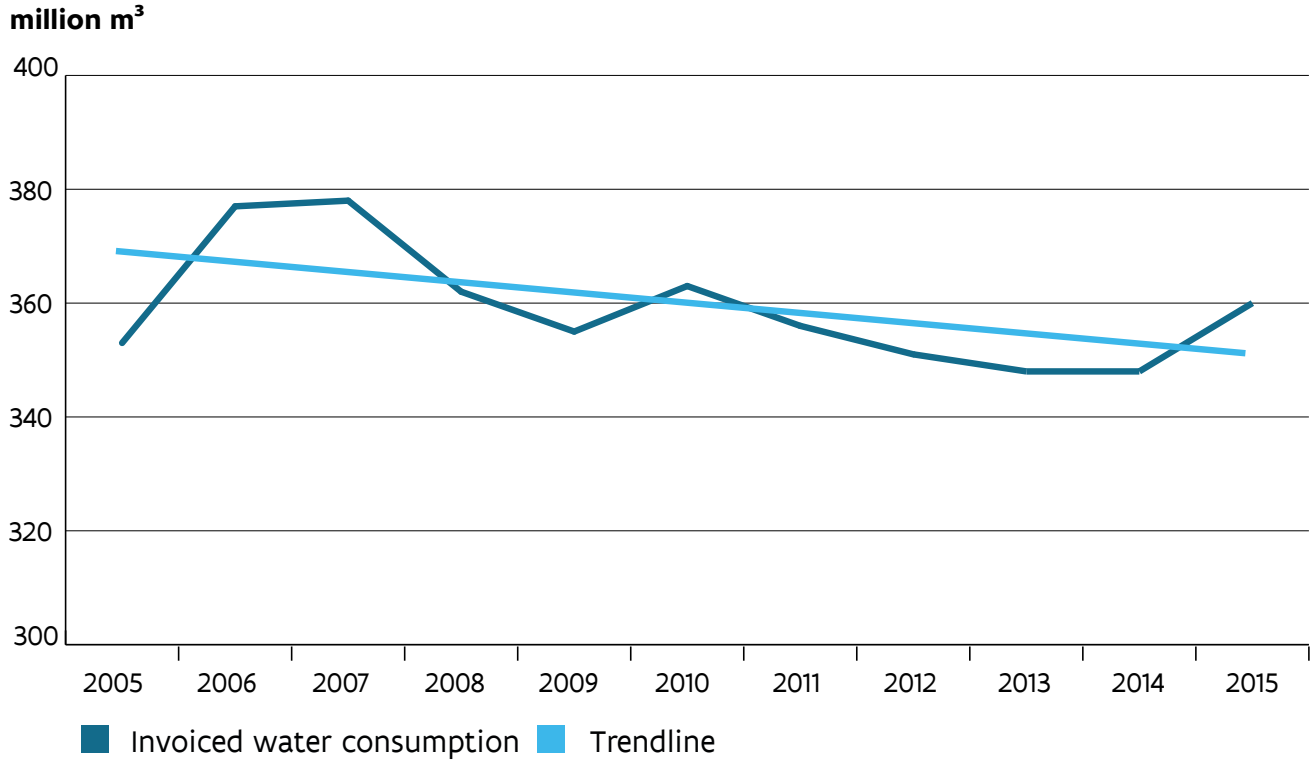
Water company	Number of subscribers (x 1000)		Network length (km)		Connections (number/km)		Subscribers (active meters) (number/km)		Invoiced consumption 2015 (million m³)		Invoiced consumption 2015 (m³ / km)	
AGSO Knokke-Heist	27	7	365	7	38	5	67	2	2	8	5,124	4
Brabant Water (NL)	1	9	-		-		-		0.1	9	-	
De Watergroep	1,403	1	32,431	1	36	6	41	8	135	1	4,150	7
FARYS/TMVW	667	2	11,387	3	52	2	57	4	55	4	4,814	5
IWVA	57	6	1,004	6	29	8	53	6	4	6	3,822	8
IWVB	103	5	1,682	5	50	4	58	3	10	5	6,176	3
Pidpa	553	3	12,725	2	35	7	42	7	58	3	4,529	6
VIVAQUA	16	8	260	8	51	3	57	5	2	7	7,499	2
Water-link	196	4	2,487	4	62	1	76	1	95	2	38,002	1
Flanders	**3,021**		**62,341**		**40**		**46**		**360**		**5,770**	

Source: VMM Water Bank, VMM Water Book

Evolution of invoiced mains water consumption

Figure 11 shows the evolution of the water consumption invoiced by water companies in Flanders between 2005 and 2015. The trend is falling. Over 10 years' time, the invoiced mains water consumption decreased by 2%. Over the period 2012-2015 the invoiced consumption decreased by 1%. In 2015, for the first time in 5 years, the invoiced consumption increased by 3.4% with respect to 2014.

Figure 11: Evolution of invoiced water consumption (2005-2015)



Source: VMM Water Book

Customer profiles

For the distribution of mains water to the three target groups defined in the WFD or European Water Framework Directive (households, industry, and agriculture), there are hardly any separate networks. Therefore the quality of the water distributed through the public water distribution network is usually irrespective of the target group to which the user belongs.

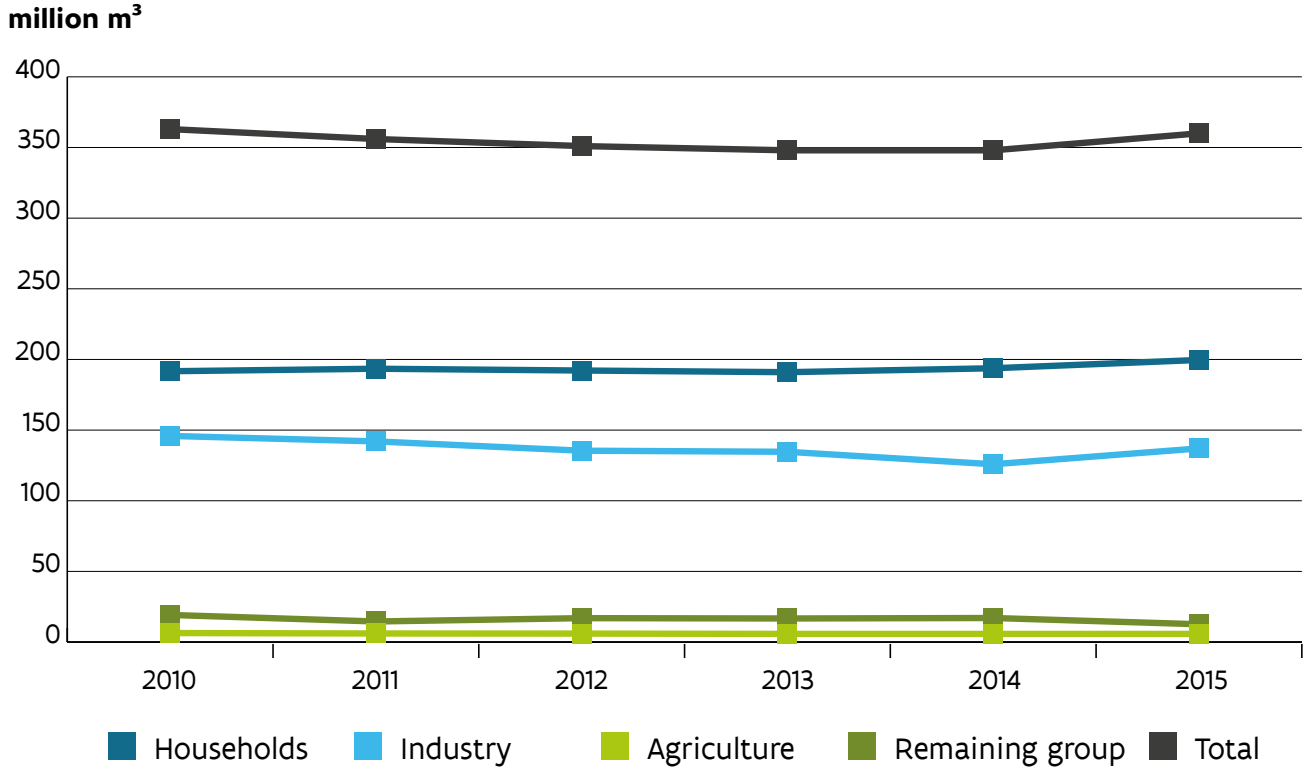
Based on the final use of the supplied mains water,[6] the subscribers can be broken down into households, industry, and agriculture[7].

By crossing parameters from different databases, the majority of subscribers (88%) can be assigned to one of these target groups with a relatively high degree of certainty. Subscribers that cannot be assigned are referred to as 'remaining group' in Figure 12.

The total amount of invoiced mains water consumption of families has been relatively stable for years. In 2014 and 2015, there was a slight increase in consumption (1.5% and 3% respectively). This is due, among other things, to the increase in the number of households. Furthermore, a better assignment of the subscribers has resulted in a reduction of the 'remaining group' (in favour of the households group).

Consumption invoiced to the industry is just above 137 million m³ in 2015. Consumption by the industry decreased by almost 7% in 2014, but increased by 9% in 2015.

Figure 12: Evolution of water consumption invoiced to the different target groups (2010-2015)



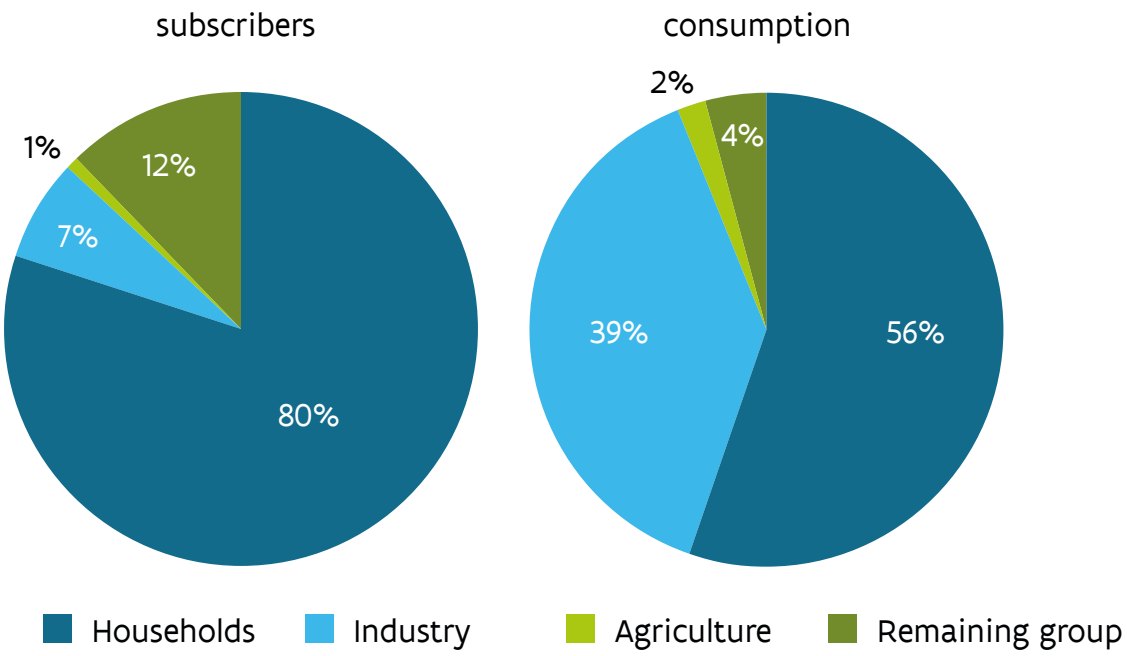
Source: VMM Levy Database, VMM Water Bank, VMM Water Book

6 Based on whether mains water is used for
(1) household activities (families),
(2) industrial activities (as part of the exercise of a professional activity, excluding agriculture),
(3) agricultural activities.

7 The definitions of the target groups can be found in the glossary at the end of this report.

Over 80% of the subscribers are households. They account for over half (56%) of the invoiced mains water in 2015. The industry represents only 7% of the number of subscribers, but accounts for 39% of the water consumption. With 1% of the subscribers, agriculture represents a very small group and accounts for just above 2% of the water consumption.

Figure 13: Distribution of subscribers and invoiced water consumption over target groups (2015)



Source: VMM Levy Database, VMM Water Bank, VMM Water Book

Consumption profiles

In Table 7, the invoiced water consumption of subscribers that could be assigned to one of the three target groups (households, industry and agriculture) is more thoroughly analysed. First, based on the invoice period and the invoiced water consumption in 2015, the annual mains water consumption is calculated for each subscriber. Then, all subscribers and their respective invoiced water consumption are assigned to the corresponding annual consumption blocks.

Households are undisputedly the largest target group. More than half of the households (55%) have an invoiced water consumption that is less than 100 m^3. Together, they account for 25% of the total mains water consumption. 14% use less than 30 m^3 mains water per year and slightly more than 6% of the households have 'no or a negative consumption'[8].

For the industry target group, 4% of the subscribers consume less than 500 m^3, 2% have no or a negative consumption. Their consumption represents less than 3% of the water consumption invoiced to this target group. 12% of the supplied water is consumed in the blocks from 500 m^3 to 100,000 m^3. The actual high industrial consumption is mainly to be found in the blocks above 100,000 m3. Moreover, this involves a very limited number of subscribers (0.004% of the total number of subscribers). They consume more than 23% of the total invoiced mains water consumption.

8 Negative consumption can be caused by an overestimation of the consumption in previous periods. Consequently, as soon as payment is effected after an actual water meter reading this will lead to credit notes and thus negative consumption.

Table 7: Conversion of invoiced mains water consumption into annual consumption blocks (2015)

Consumption blocks (from - to m³)	TOTAL		HOUSEHOLDS		INDUSTRY		AGRICULTURE	
	% of number of subscribers	% of number of m³ Consumption	% of TOTAL number of subscribers	% of TOTAL number of m³ Consumption	% of TOTAL number of subscribers	% of TOTAL number of m³ Consumption	% of TOTAL number of subscribers	% of TOTAL number of m³ Consumption
No or negative consumption	12.96%	-0.56%	6.26%	-0.31%	2.36%	-0.15%	0.25%	0.00%
from 0 m³ to 5 m³	3.21%	0.07%	1.33%	0.03%	0.58%	0.01%	0.01%	0.00%
from 6 m³ to 10 m³	2.93%	0.18%	1.66%	0.11%	0.39%	0.02%	0.01%	0.00%
from 11 m³ to 20 m³	6.45%	0.84%	4.70%	0.64%	0.55%	0.06%	0.02%	0.00%
from 21 m³ to 30 m³	7.31%	1.60%	6.15%	1.37%	0.36%	0.07%	0.02%	0.00%
from 31 m³ to 40 m³	7.52%	2.30%	6.63%	2.06%	0.26%	0.08%	0.01%	0.00%
from 41 m³ to 50 m³	7.57%	2.97%	6.80%	2.70%	0.22%	0.08%	0.02%	0.01%
from 51 m³ to 60 m³	7.14%	3.45%	6.53%	3.19%	0.18%	0.08%	0.01%	0.01%
from 61 m³ to 70 m³	6.60%	3.78%	6.11%	3.53%	0.14%	0.08%	0.01%	0.01%
from 71 m³ to 80 m³	5.90%	3.91%	5.48%	3.66%	0.12%	0.08%	0.01%	0.01%
from 81 m³ to 90 m³	5.21%	3.90%	4.86%	3.66%	0.10%	0.08%	0.01%	0.01%
from 91 m³ to 100 m³	4.42%	3.72%	4.11%	3.48%	0.09%	0.08%	0.01%	0.01%
from 101 m³ to 120 m³	6.75%	6.57%	6.26%	6.14%	0.16%	0.15%	0.02%	0.02%
from 121 m³ to 140 m³	4.63%	5.31%	4.26%	4.93%	0.13%	0.14%	0.02%	0.02%
from 141 m³ to 160 m³	3.05%	4.06%	2.79%	3.75%	0.10%	0.13%	0.02%	0.02%
from 161 m³ to 180 m³	2.01%	3.03%	1.81%	2.75%	0.09%	0.13%	0.01%	0.02%
from 181 m³ to 200 m³	1.38%	2.32%	1.21%	2.06%	0.08%	0.13%	0.01%	0.02%
from 201 m³ to 250 m³	1.82%	3.59%	1.53%	3.04%	0.15%	0.29%	0.02%	0.05%
from 251 m³ to 300 m³	0.83%	2.00%	0.63%	1.55%	0.11%	0.27%	0.02%	0.04%
from 301 m³ to 350 m³	0.48%	1.37%	0.34%	0.98%	0.09%	0.25%	0.01%	0.04%
from 351 m³ to 400 m³	0.31%	1.01%	0.20%	0.67%	0.07%	0.22%	0.01%	0.03%
from 401 m³ to 450 m³	0.22%	0.82%	0.14%	0.52%	0.05%	0.20%	0.01%	0.03%
from 451 m³ to 500 m³	0.17%	0.70%	0.10%	0.42%	0.05%	0.20%	0.01%	0.03%
from 501 m³ to 1,000 m³	0.65%	3.96%	0.32%	1.96%	0.25%	1.52%	0.04%	0.24%
from 1,001 m³ to 1,500 m³	0.18%	1.91%	0.06%	0.67%	0.09%	0.97%	0.02%	0.18%
from 1,501 m³ to 2,000 m³	0.08%	1.23%	0.03%	0.39%	0.04%	0.66%	0.01%	0.15%
from 2,001 m³ to 3,000 m³	0.08%	1.63%	0.02%	0.45%	0.04%	0.92%	0.01%	0.21%
from 3,001 m³ to 6,000 m³	0.07%	2.60%	0.02%	0.73%	0.05%	1.60%	0.01%	0.22%
from 6,001 m³ to 10,000 m³	0.03%	1.94%	0.01%	0.46%	0.02%	1.39%	0.00%	0.07%
from 10,001 m³ to 20,000 m³	0.02%	2.19%	0.00%	0.43%	0.01%	1.65%	0.00%	0.08%
from 20,001 m³ to 30,000 m³	0.01%	1.08%	0.00%	0.08%	0.00%	0.96%	0.00%	0.03%
from 30,001 m³ to 50,000 m³	0.00%	1.34%	0.00%	0.04%	0.00%	1.24%	0.00%	0.04%
from 50,001 m³ to 60,000 m³	0.00%	0.35%	0.00%	0.00%	0.00%	0.32%	0.00%	0.01%
from 60,001 m³ to 100,000 m³	0.002%	1.34%	-	-	0.002%	1.34%	-	-
from 100,001 m³ to 1,000,000 m³	0.003%	6.99%	-	-	0.003%	6.87%	-	-
> 1,000,001 m³	0.001%	16.48%	-	-	0.001%	16.48%	-	-
Total	**100%**	**100%**	**80%**	**56%**	**7%**	**39%**	**1%**	**2%**

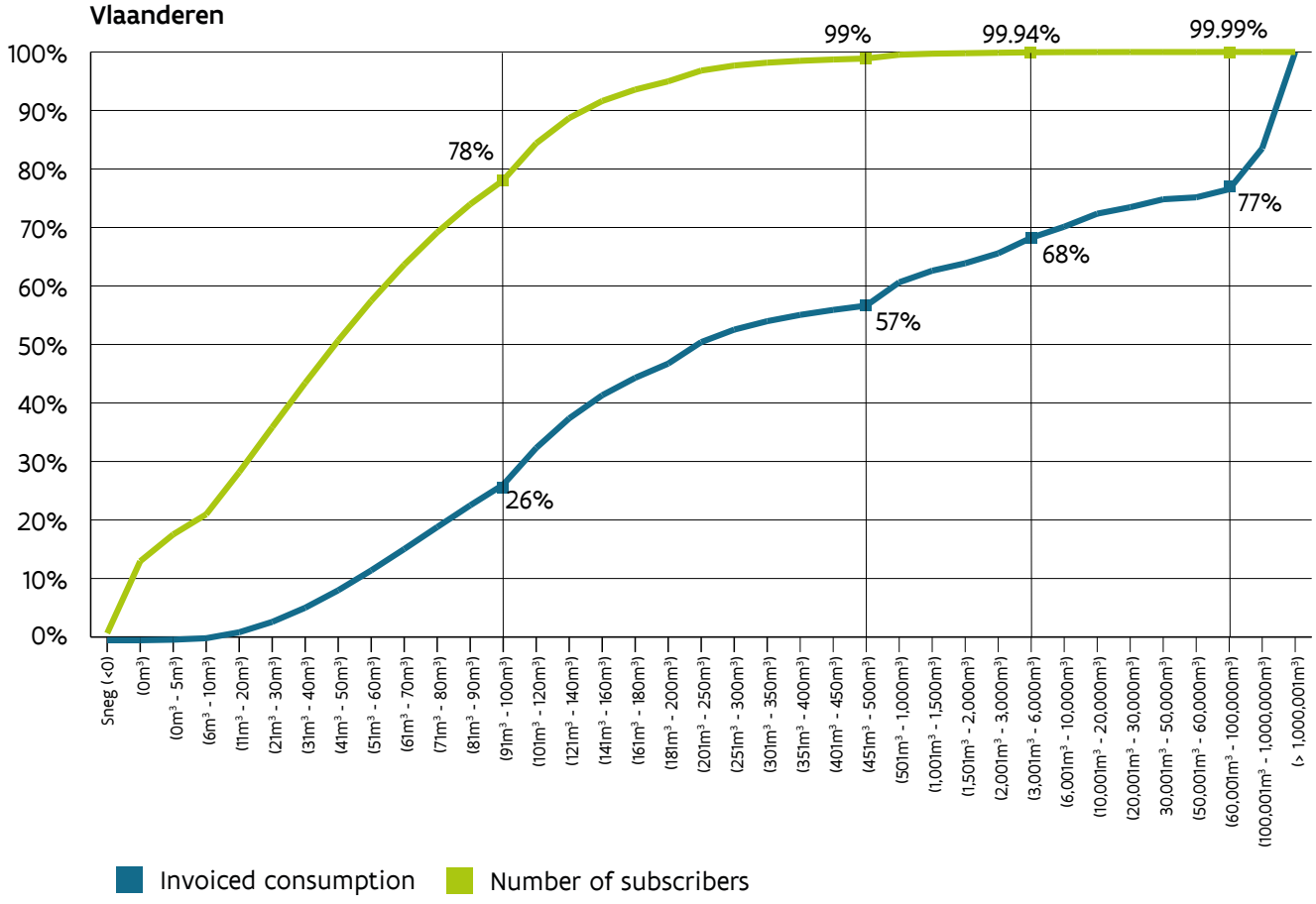
Source: VMM Levy Database, VMM Water Bank, VMM Water Book

Figure 14 shows the relationship between the total number of subscribers and the total invoiced water consumption in Flanders. Figure 15 shows the results per water company.
Remarkably, nearly 78% of all subscribers use less than 100 m³ of water per year, yet this group represents only 26% of the total invoiced water consumption. By contrast, a very small group (0.06%) is responsible for 32% of the total invoiced water consumption.

At AGSO Knokke-Heist, FARYS/TMVW, De Watergroep and IWVA the share of 'less than 100 m³' users is even higher than 80%, and at IWVA this goes up to 89% of the subscribers. The large number of secondary residences in the coastal area undeniably plays a part in this.

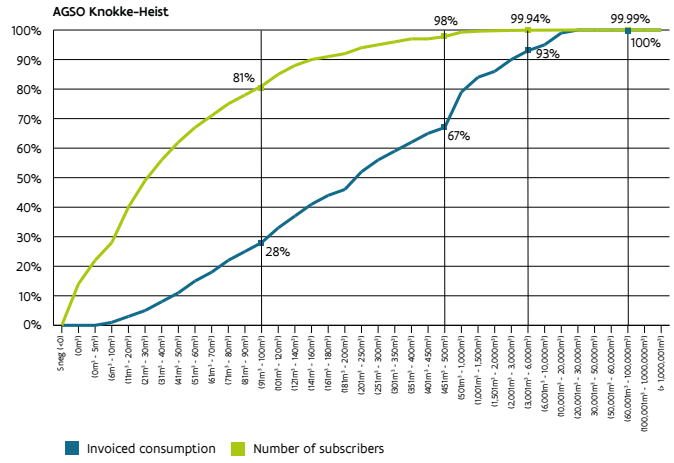
Water-link is clearly an outlier compared to the other water companies. The 'over 6,000 m³' consumption is clearly concentrated at Water-link, which invoices 70% of the mains water consumption in its distribution area to 0.2% of its subscribers. This clearly illustrates that Water-link supplies water to a number of very large (industrial) consumers.
De Watergroep also has a number of very large consumers among its subscribers and invoices 21% of the water consumption in its distribution area to 0.04% of its subscribers.

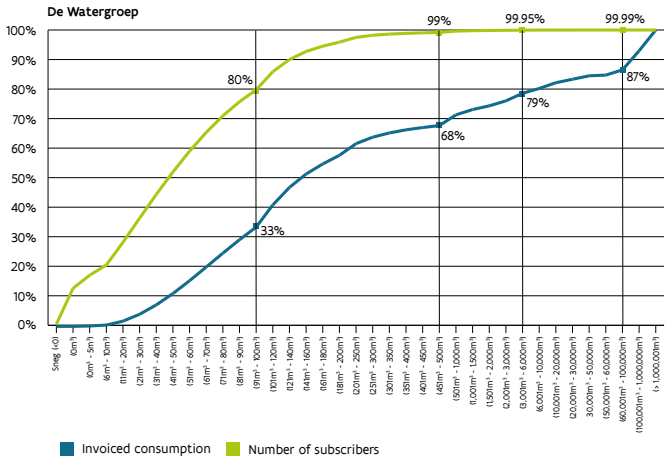
Figure 14: Relation of customer profiles vs consumption profiles (2015)

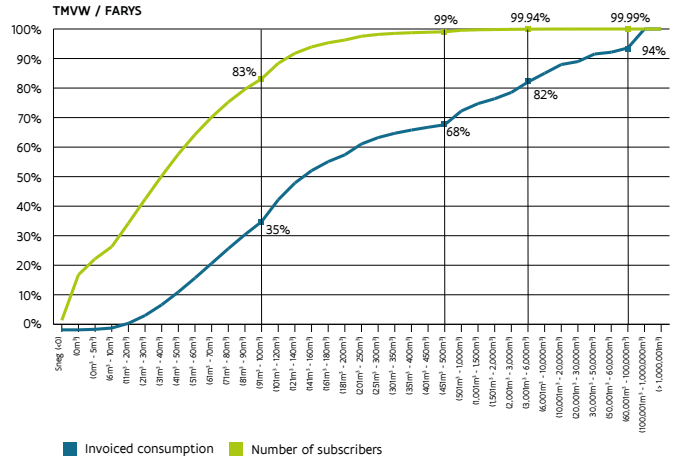


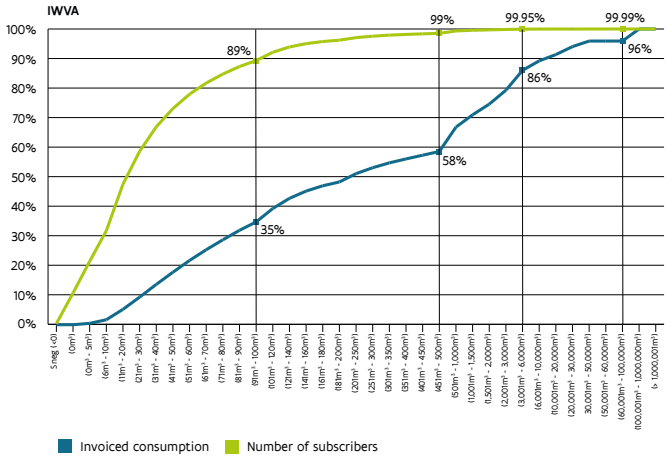
Source: VMM Water Bank

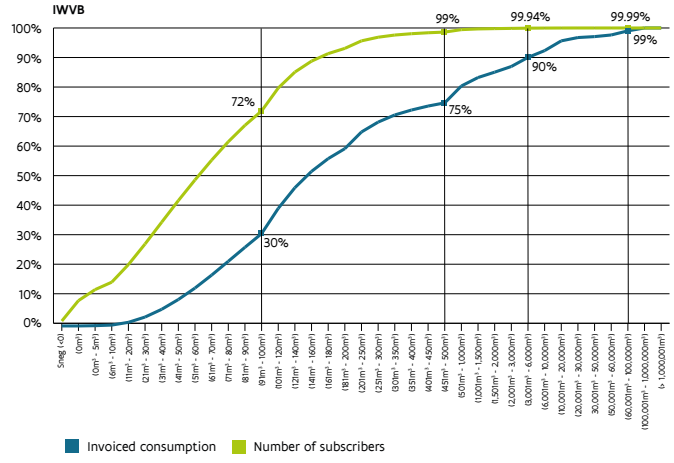
Figure 15: Relation of customer profiles vs consumption profiles per water company (2015)

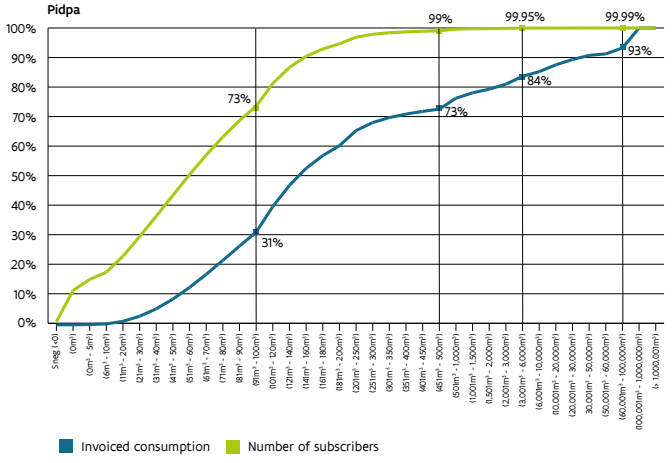


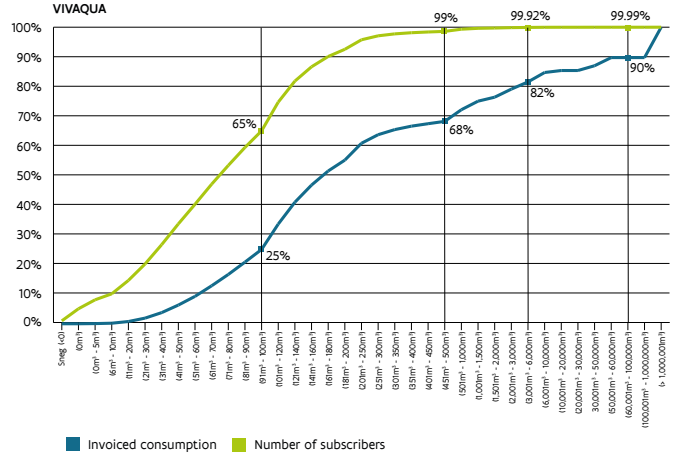


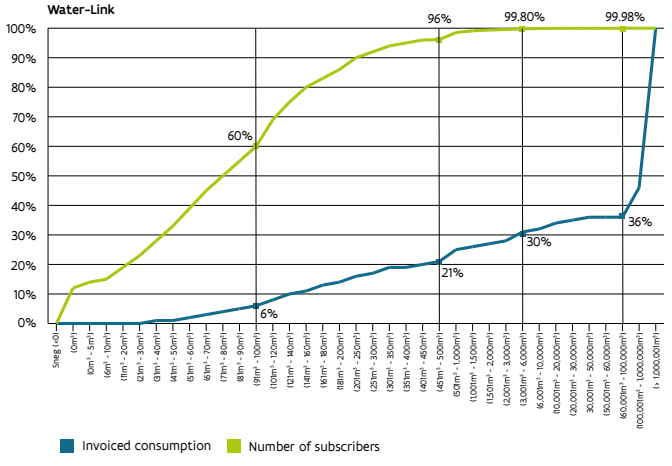












Calculated average consumption of different family types

The calculation of the typical annual mains water consumption of families is based on the 2015 final invoices of water companies to subscribers with domiciled residents with an invoice period of 10 to 14 months.

A calculated average family in Flanders consists of 2.3 persons in 2016. This average family has a calculated mains water consumption of 84 m³ per year or 100 litres per person per day. This theoretical average family is the average family type used for the price calculations in this report. Appendix 5 contains a more detailed overview with the calculated average consumption per family situation in the different provinces and per water company.

Table 8: Average annual mains water consumption per family situation (2015)

Number of residents	Average annual mains water consumption per family type (m³)	Average annual mains water consumption per domiciled resident (m³)	Average daily mains water consumption per domiciled resident (in litres)
1	48	48	132
2	75	38	103
3	104	35	95
4	127	32	87
5	154	31	84
Average family			
2.3	84	36	100

Source: VMM Water Bank, VMM Water Book

In Flanders, reduction in family size has been going on for years. The number of persons in an average family has decreased from 2.4 to 2.3 persons per family over 10 years' time. However, the number of families has increased by 9% over the same period.

In 2016, one- and two-person families account for 65% (31% + 34% respectively) of the total number of families in Flanders. Three- and four-person families make up 15% and 13% respectively. Families consisting of five persons and more represent only 5% and 2% respectively[9]. Appendix 6 includes an overview of the distribution of the different family types over the different water companies.

These trends are reflected in the evolution of the number of subscribers of the water companies. One- and two-person families represent almost half of all subscribers (21% + 29% respectively). Three-, four- and five-person families combined make up nearly 30% (13% + 12% + 4%). Large families with six or more domiciled residents represent less than 3% of the number of subscribers. Subscribers without domiciled residents (including companies) have a share of 17%.

Small families also have the sharpest rise in the number of subscribers. Over the last two years, their total number has increased by 9% (one-person families) and 6% (two-person families) respectively. The share of one-person families in the invoiced consumption has increased by 5%. Note that the 9% growth rate in one-person families has not been accompanied by an equally high increase in consumption.

Table 9: Evolution of the number of subscribers (2013-2015)

Number of domiciled residents	Share in total number of subscribers 2015	Evolution number of subscribers 2013 2015	Share in total invoiced consumption 2015	Evolution invoiced consumption (m^3) 2013 2015
1	21.3%	9.1%	7.2%	4.9%
2	28.7%	6.0%	15.9%	5.1%
3	13.2%	5.3%	10.6%	4.4%
4	12.3%	5.9%	11.9%	6.0%
5	4.4%	6.5%	5.2%	6.0%
5+	2.7%	21.6%	9.3%	-0.4%
None	17.4%	-9.8%	39.9%	2.6%
	100%	**3.4%**	**100%**	**3.7%**

Source: VMM Water Bank, VMM Water Book

9 FPS Economy - ADSEI- DAR (data processed by the WaterRegulator)

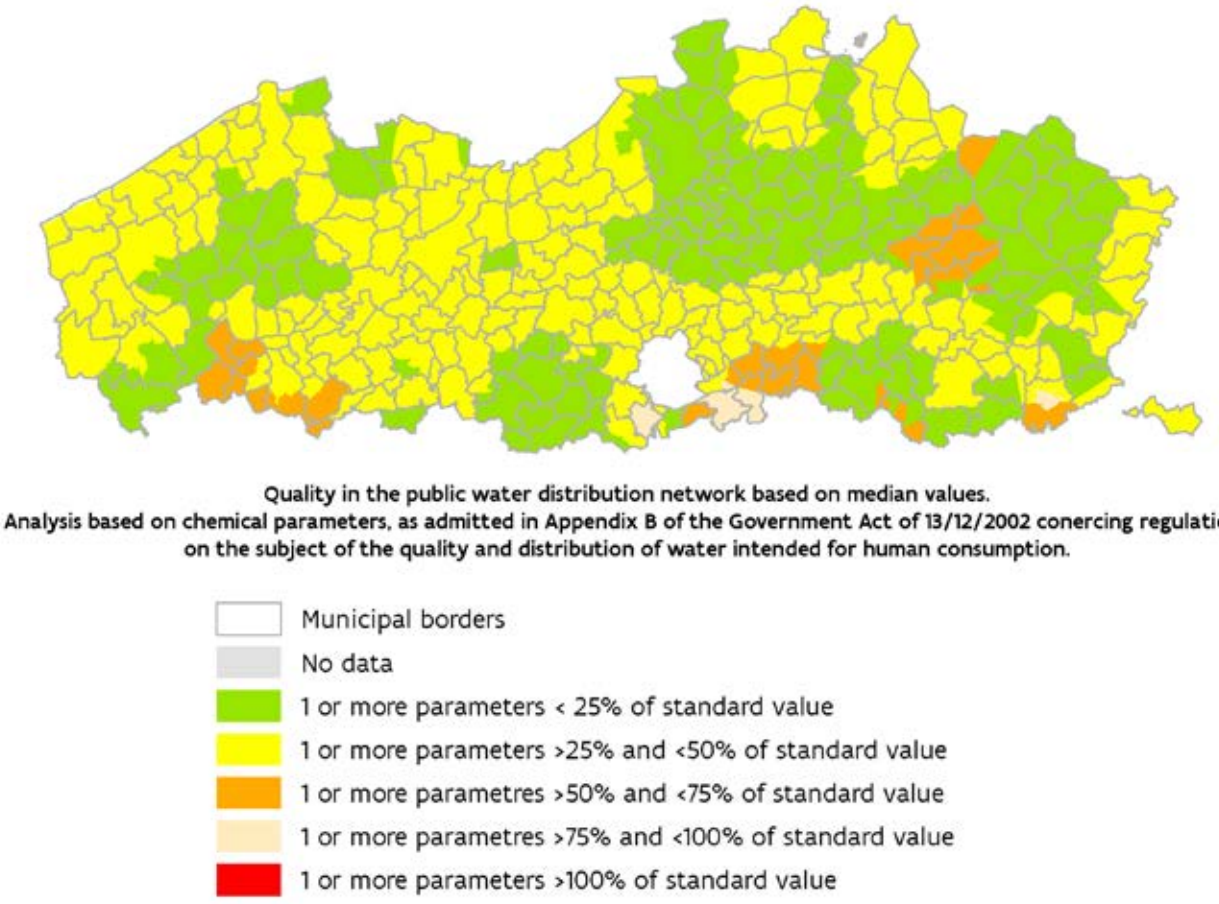
DRINKING WATER QUALITY

Drinking water is water intended for human consumption and is therefore safe and healthy to drink. The Decree of the Flemish Government of 13 December 2002 establishes the legal framework for guaranteeing the quality of drinking water. This Decree lays down the minimum quality requirements for drinking water and governs the organisation of minimum checks on the production and distribution of drinking water. The water companies are responsible for conducting these legally required checks. Every year they need to draw up a monitoring schedule that has to be approved by VMM.

The monitoring of the drinking water quality is organised by delivery area. A delivery area is a geographically defined area in which the supplied water is of more or less uniform quality and originates from one or a few sources. In Flanders, approximately 90 different delivery areas have been demarcated.

In Flanders, the mains water must meet the quality requirements at the point in the distribution network where it is made available to the customer. Samples are taken at the kitchen tap in homes or public buildings. The drinking water company is responsible for the water that flows through the distribution network up to the water meter. The proper functioning of the indoor water system is the responsibility of the owner of the building or the house.

Figure 16: Quality of the drinking water in the public water distribution network in Flanders (2015)



Source: VMM

Figure 16 shows the quality of the supplied water per delivery area. For the chemical parameters, the annual median value of each parameter was determined. This median value was compared with the drinking water standards. In most of the delivery areas that were assessed, more specifically in 86%, the median for all chemical parameters was below 50% of the standard value. For the chemical parameters of arsenic, bromate, fluoride, nitrate and nitrite, the signal value of 50% of the standard value was exceeded in a limited number of delivery areas.

QUALITY IN THE DISTRIBUTION NETWORK

Besides legally required checks at the customer's tap, water companies also carry out additional checks at the water production centre or at important storage facilities. Unlike those at the tap, the results of these operational checks provide a more representative picture of the drinking water quality in a specific delivery area. After all, the customer's indoor water system might influence the result of an analysis considerably.
An analysis of the results of the operational check shows that the drinking water distributed in Flanders almost always meets the imposed standards. For the four health-relevant parameters, E. coli, enterococci, nitrate and nitrite, standard exceedances were observed in a limited number of delivery areas. This was always immediately followed up by the water company, thereby avoiding any risks for public health.

QUALITY AT THE TAP

The checks carried out by the water companies meet or even exceed the minimum requirements. In 2015 a total of 11,376 monitoring checks and 880 audit checks were carried out. The quality of drinking water at the tap was good in 2015. An analysis of the standard exceedances recorded for the public health relevant parameters shows that most exceedances were recorded for lead, nickel, enterococci, nickel and nitrite. The highest standard exceedance rate (1.9%) was recorded for lead. A large number of the exceedances for E. coli, enterococci, nickel and nitrite were not confirmed on re-sampling. This probably indicates temporary changes in the water quality.
Today, the cause for the high score lies almost always with the subscriber, as the drinking water companies have almost completed their lead connection replacement programme and tightened their requirements for the composition of brass used in water meters. More information about lead in drinking water is to be found in the 'Actieplan Loodpreventie in drinkwater' (Action Plan Lead Prevention in Drinking Water)[10].

CONCLUSION

In summary, it can be said, based both on the results of the annual mandatory minimum check at the tap and on the results of the operational check carried out by the water companies, that the quality of the drinking water in Flanders to a very great extent meets the relevant quality requirements. More information about the quality of drinking water is to be found at the VMM website[11].

10 https://www.vmm.be/wetgeving/actieplan_loodpreventie_drinkwater_2015_tw.pdf
11 www.vmm.be/water/drinkwater/kwaliteit

THE PRICE OF MAINS WATER

INTEGRAL WATER INVOICE

All subscribers pay their water company via the integral water invoice. They pay for both the production and the distribution of mains water, as well as for the collection, drain-off and purification of waste water (used mains water)[12]. An integral water invoice therefore consists of a drinking water component and two waste water components.

- The drinking water component is the payment for the production and distribution of mains water.
- The waste water components:
  - the municipal waste water component is used to finance the municipal waste water treatment obligation (drain-off and collection of used water via the sewage system);
  - the regional waste water component is used to finance the regional waste water treatment obligation (purification of waste water at a water treatment plant).

UNIFORM PRICING STRUCTURE

As of 1 January 2016, the calculation of the integral water invoice changed for all subscribers. The Flemish Government decided to introduce a new pricing structure, uniform for Flanders, and for families uniform for all three components of the integral water invoice.

FAMILIES[13]

Each component of the integral water invoice consists of a fixed fee (annual fixed amount) and a variable price (depending on the quantity of water used).

The fixed fee is not related to the actual water consumption and is charged per housing unit. The price of the fixed fee is uniform across Flanders and was set at €100 per housing unit (€50 drinking water component + €50 waste water components). A reduction of €20 per year is applied per resident (up to 5 residents). This reduction applies for everyone who is domiciled at the consumption address on the 1st of November of the previous calendar year.

The variable price, by contrast, depends on the actual water consumption, expressed in number of cubic metres (m^3). For families there is a progressive pricing structure with two tariff blocks. For basic consumption (30 m^3 per housing unit + 30 m^3 per resident) the basic tariff is charged per component. For higher consumption (comfort consumption) the tariffs are doubled (comfort tariff).

If the branch or water meter has a non-standard diameter, the water company may charge an annual capacity fee. This fee is paid to finance the guaranteed delivery of a specified flow rate, depending on the diameter of the water meter.
The tariffs of the drinking water component differ from one water company to another, those of the municipal waste water component may differ from one municipality to another, those of the regional waste water component are uniform across Flanders. An up-to-date overview of the tariffs per municipality for all components is to be found at the VMM website.

12 The collection/drain-off and purification of waste water originating from a private water collection facility (water well) can also be charged by the water company. For more information see www.vmm.be:water/drinkwaterfactuur

13 In this context, families are small-user subscribers with household activities and with at least one housing unit.

BUSINESSES[14]

Drinking water component

The drinking water component of the integral water invoice of a business consists of a fixed fee (annual fixed amount) and a variable price (depending on the quantity of water used).

The fixed fee is not related to the actual water consumption and is charged per housing unit. If the water meter measures water that is not supplied for use by a housing unit, the fixed fee can also be charged per water meter. The price of the fixed fee is uniform across Flanders and was set at €50 per housing unit (or per water meter). A reduction of €10 per year is applied per resident (up to 5 residents). This reduction applies for everyone who is domiciled at the consumption address on the 1st of November of the previous calendar year.

The variable price, by contrast, depends on the actual water consumption, expressed in number of cubic metres (m^3). For businesses whose property does not include housing units, a flat tariff (the same tariff for every m^3) is applied to determine the variable price. For subscribers with a housing unit, a progressive structure as used for families can be applied[15].
For major consumers, the water company can apply non-standard tariffs to determine the variable price (>500 m^3).

If the branch or water meter has a non-standard diameter, the water company may charge an annual capacity fee. This fee is paid to finance the guaranteed delivery of a specified flow rate, depending on the diameter of the water meter.

The tariffs of the drinking water component differ from one water company to another. An up-to-date overview of the tariffs is to be found at the VMM website.

Waste water components

Major consumers do not pay a fixed fee for the waste water components. The municipal waste water component is calculated based on the recorded or discharged water consumption. The municipality may choose to apply a uniform tariff per cubic metre or an individual tariff based on the levy data. The regional waste water component is calculated with an individual tariff based on the levy data.

For small-user businesses, the pricing structure of the waste water components is identical to that of the drinking water component. Each year the water companies set the tariffs of the municipal contributions in consultation with each municipality. The tariff may not exceed 1.4 times the regional unit tariff for major consumers. The tariff for the regional contribution is uniform across Flanders. An up-to-date overview of the tariffs per municipality for all components is to be found at the VMM website.

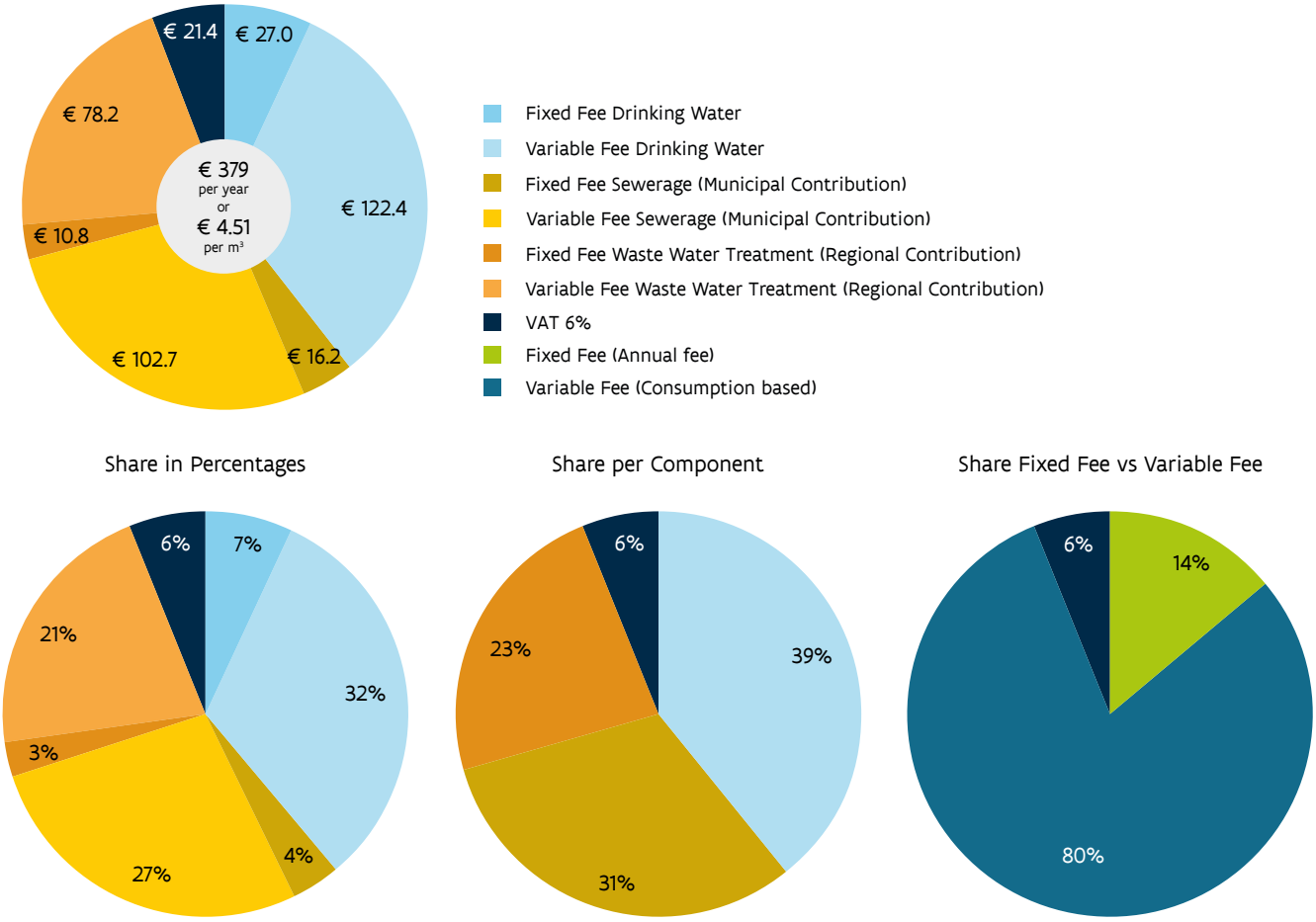
14 In this context, businesses are subscribers with non-household activities who are not a family.
15 This classification may be deviated from depending on whether or not household or business activities are involved.

THE INTEGRAL WATER INVOICE OF AN AVERAGE FAMILY WITH AN AVERAGE CONSUMPTION

Figure 17 gives an overview of a calculated integral water invoice for a calculated average family[16] and the share of the different components in the invoice. The amounts included are those calculated for an average family with the tariffs in force on 1 January 2016, weighted on the basis of the distribution of the population across the water companies.

An average family with an average consumption (84 m³) pays a water invoice of €379. In 2016, the share of the price for production and distribution of drinking water in the integral water invoice (including VAT) is, on average, 39%. The municipal waste water component (sewage) accounts for 31% and the regional waste water component (purification) for 24%. The VAT is 6%. The fixed fee for a theoretical average family is €54 or 14%. Figure 18 provides an overview of the paid price per m³ per water company.

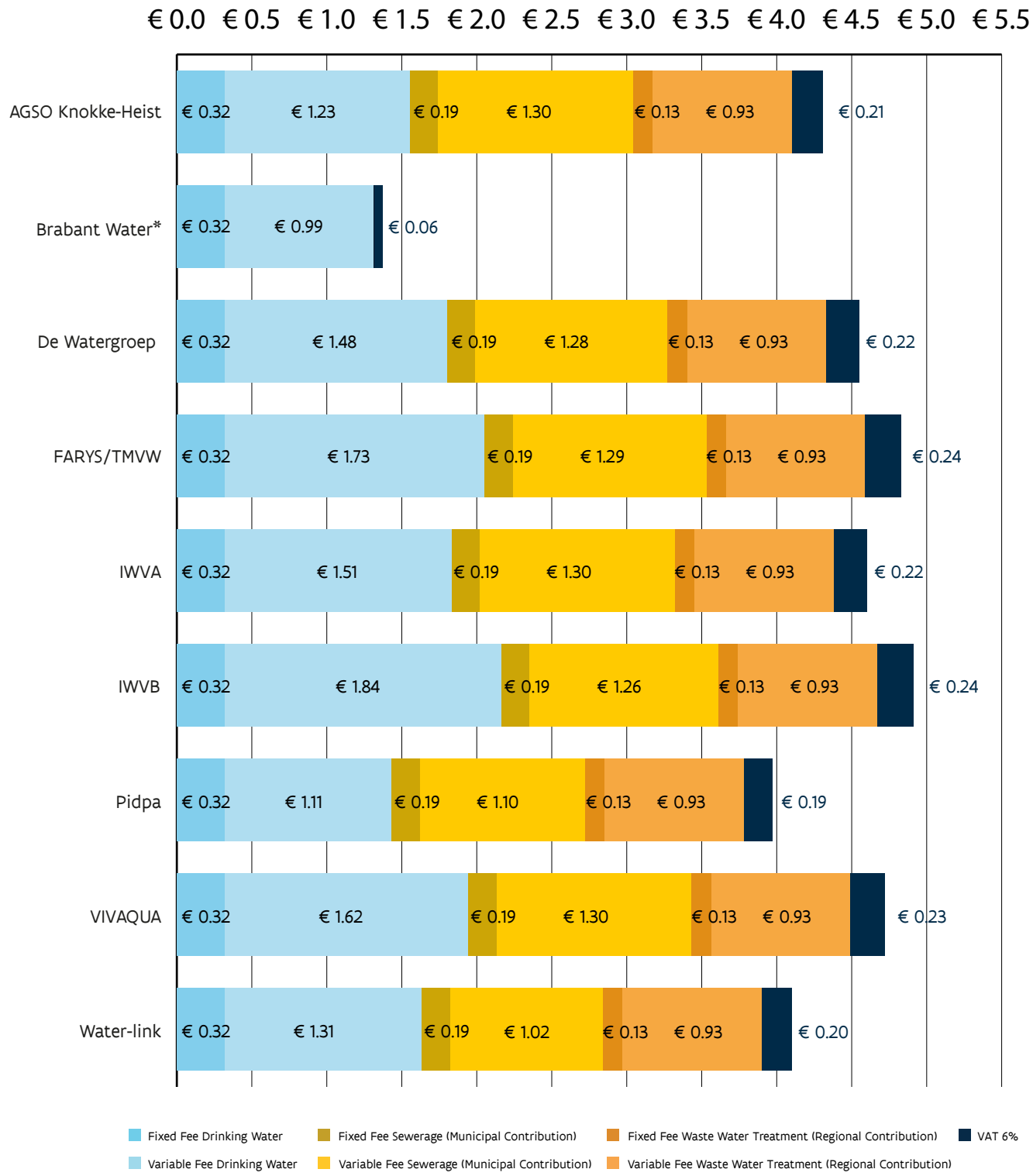
Figure 17: Overview of a calculated integral water invoice for a calculated average family (2016)



Source: VMM Water Bank

16 An average family counts 2.3 persons, has an average annual water consumption of 84 m³ and no private water source

Figure 18: Calculated integral price per m³ for an average family (2016)

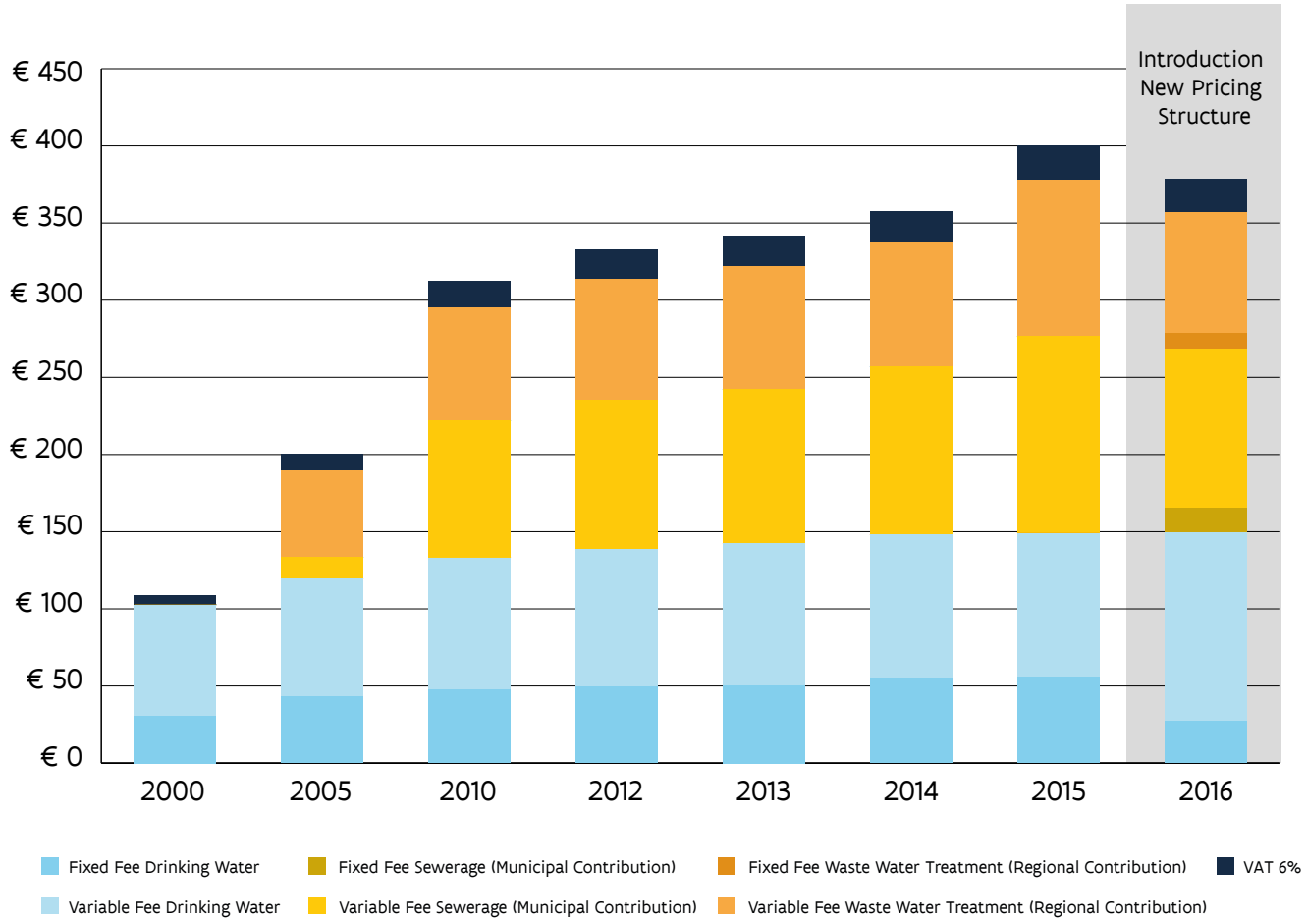


Calculated prices valid on 01/01/2016 per m³ for an average family (2.3 persons - 84 m³ consumption per year)
The price for the municipal contribution is a calculated price per distribution area, weighted by the population.
* For Brabant Water the waste water contributions are collected not through the integral water invoice, but through a levy.
Source: VMM Water Bank, VMM Database - Waste Water Treatment

EVOLUTION OF THE INTEGRAL WATER INVOICE OF AN AVERAGE FAMILY

Over the past five years (2012-2016), the integral water invoice increased by 14% for an average family in Flanders. Between 2014 and 2015 it increased by 12%, and between 2015 and 2016 it decreased by 5% for an average family. To explain these evolutions, the individual components need to be analysed as they do not evolve in an identical manner. The evolution of the drinking water component is discussed in the following chapter about the tariffs and the price of the drinking water component. More information about the quality of drinking water is to be found at the VMM website.

Figure 19: Evolution of the integral water invoice and its components for an average family (2000-2016)



Source: VMM Water Bank, VMM Database - Waste Water Treatment

Table 10: Overview and evolution of the integral water invoice and its components for an average family (2000-2016)

Average figures weighted by population - Calculated with tariffs in force on 01/01									
Average family 2.3 domiciled residents 84 m³ consumption per year	2000	2005	2010	2014	2015	2016	Evolution 2014 2015	Evolution 2015 2016	Evolution 2015 2016
Weighted average integral invoice including 6% VAT	**€ 108.71**	**€ 200.54**	**€ 312.62**	**€ 357.97**	**€ 400.47**	**€ 378.63**	**12%**	**-5%**	**-€ 22**
VAT	€ 6.15	€ 11.35	€ 17.70	€ 20.26	€ 22.67	€ 21.43	12%	-5%	-€ 1
Weighted average integral invoice excluding 6% VAT	**€ 102.56**	**€ 189.18**	**€ 294.93**	**€ 337.71**	**€ 377.81**	**€ 357.20**	**12%**	**-5%**	**-€ 21**
Drinking water fixed fee	€ 30.72	€ 43.16	€ 47.67	€ 55.14	€ 55.87	€ 27.00	1%	-52%	-€ 29
Drinking water variable price (consumption)	€ 71.84	€ 76.24	€ 85.56	€ 92.92	€ 93.16	€ 122.38	0%	31%	€ 29
Total drinking water	€ 102.56	€ 119.40	€ 133.23	€ 148.07	€ 149.03	€ 149.38	1%	0%	€ 0
Municipal contribution fixed fee						€ 16.20			€ 16
Municipal contribution variable price (consumption)	€ 0.00	€ 14.32	€ 88.47	€ 109.03	€ 127.27	€ 102.66	17%	-19%	-€ 25
Regional contribution fixed fee						€ 10.80			€ 11
Regional contribution variable price (consumption)	€ 0.00	€ 55.46	€ 73.22	€ 80.61	€ 101.50	€ 78.17	26%	-23%	-€ 23
Total Waste Water Treatment	€ 0.00	€ 69.78	€ 161.70	€ 189.64	€ 228.78	€ 207.83	21%	-9%	-€ 21
Weighted average integral invoice including 6% VAT € per m³	**€ 1.29**	**€ 2.39**	**€ 3.72**	**€ 4.26**	**€ 4.77**	**€ 4.51**			
VAT € per m³	€ 0.07	€ 0.14	€ 0.21	€ 0.24	€ 0.27	€ 0.26			
Weighted average integral invoice Excluding 6% VAT € per m³	**€ 1.22**	**€ 2.25**	**€ 3.51**	**€ 4.02**	**€ 4.50**	**€ 4.25**			
Drinking water fixed fee in € per m³	€ 0.37	€ 0.51	€ 0.57	€ 0.66	€ 0.67	€ 0.32			
Drinking water variable price (consumption) in € per m³	€ 0.86	€ 0.91	€ 1.02	€ 1.11	€ 1.11	€ 1.46			
Total drinking water in € per m³	€ 1.22	€ 1.42	€ 1.59	€ 1.76	€ 1.77	€ 1.78			
Municipal contribution fixed fee in € per m³	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.19			
Municipal contribution variable price in € per m³	€ 0.00	€ 0.17	€ 1.05	€ 1.30	€ 1.52	€ 1.22			
Regional contribution fixed fee in € per m³	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.13			
Regional contribution variable price in € per m³	€ 0.00	€ 0.66	€ 0.87	€ 0.96	€ 1.21	€ 0.93			
Total Waste Water Treatment in € per m³	€ 0.00	€ 0.83	€ 1.92	€ 2.26	€ 2.72	€ 2.47			

Source: VMM Water Bank, VMM Database - Waste Water Treatment

Figure 20 (p. 46) provides an overview of the evolution of the calculated integral water invoice and the share that the different components represent in this bill for different family types[17] with a different consumption behaviour (low, average, high[18]). The calculated average integral water invoices per family type are weighted averages on the basis of the distribution of the different household sizes across Flanders. An overview of the distribution of the different family types across Flanders and across the water companies is included in Appendix 7.

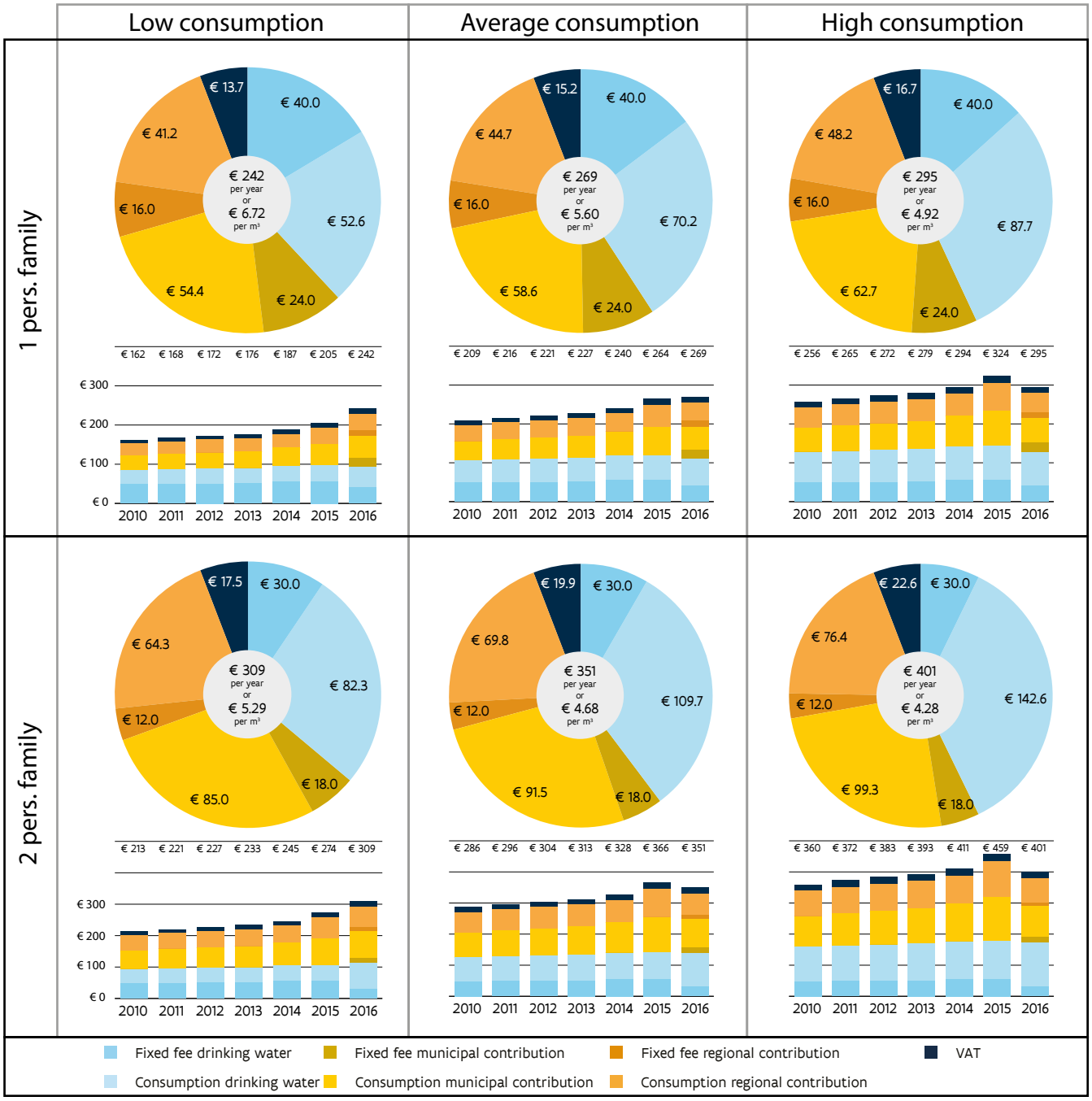
17 Families without private water source.

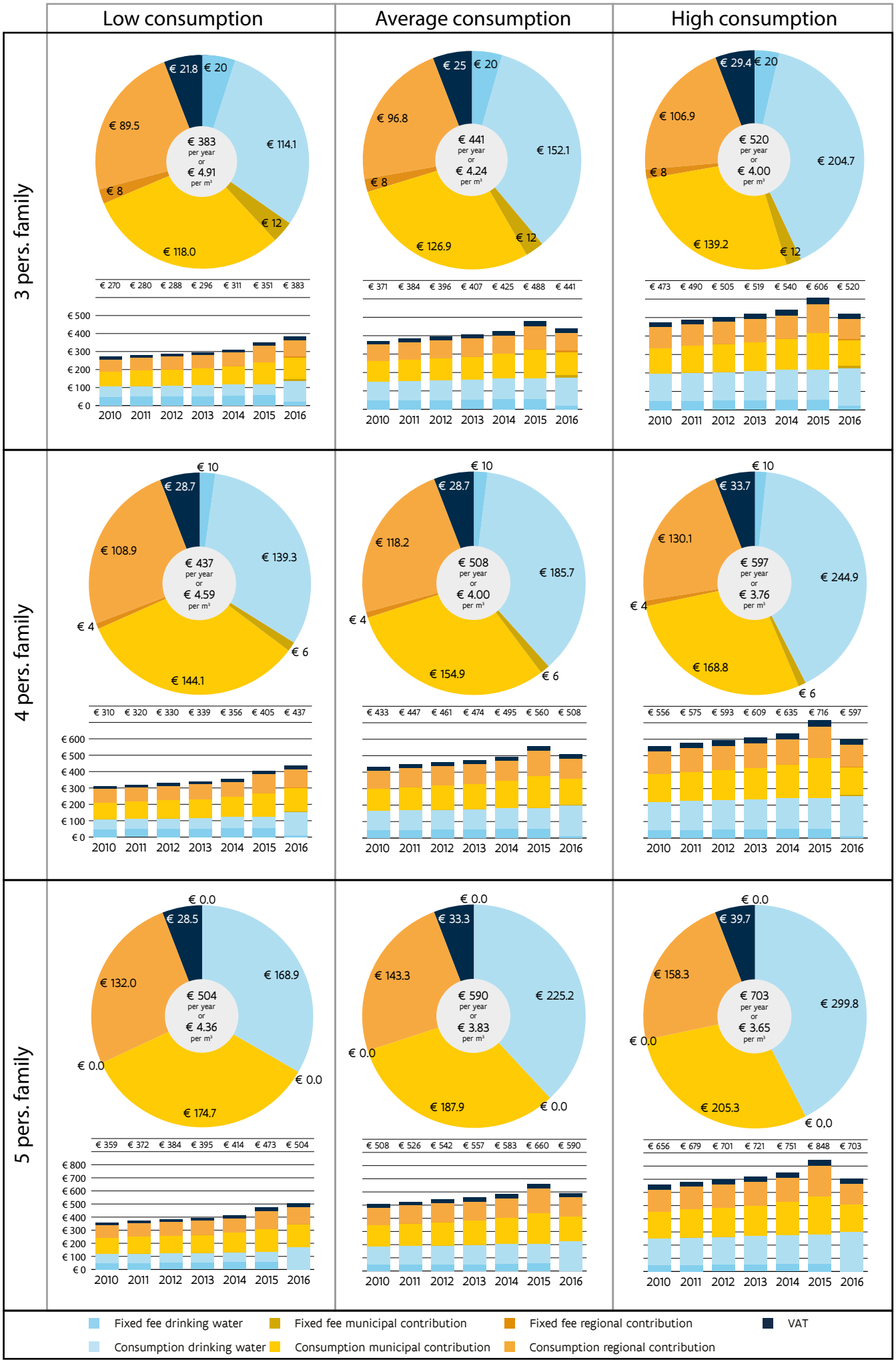
18 A 'low' consumption is 25% below the average consumption, a 'high' consumption is 25% above the average consumption.

A consumed m³ of water costs, on average, €6.72 for a one-person family with a low consumption. For a five-person family with a low consumption, this is €5.49 per used m³. This is mainly due to the fixed fee. Together with the adjustment of the pricing structure in 2016, a uniform fixed fee was introduced for the waste water components. Until 2016 no fixed fee was charged for these components. In addition, a mandatory reduction of €20 per domiciled resident is applied. As a result, the share varies widely over the different family types. Over the period 2010-2016 the invoice increased by 29% for a one-person family with an average consumption. For small consumers, it increased by 49%, and for large consumers by 41%. For large families (5 persons), the increase is 16% (average), 40% (low) and 7% (high) respectively.

Figure 20 shows that economical use of water is advantageous for all family types. A one-person family with a low consumption pays, on average, €53 (€242 vs €295) less than a family with a high consumption. For a family with 5 domiciled residents, the difference between high and low consumption amounts to almost €200 (€504 vs €703).

Figure 20: Calculated integral price per m³ for an average family (2016)



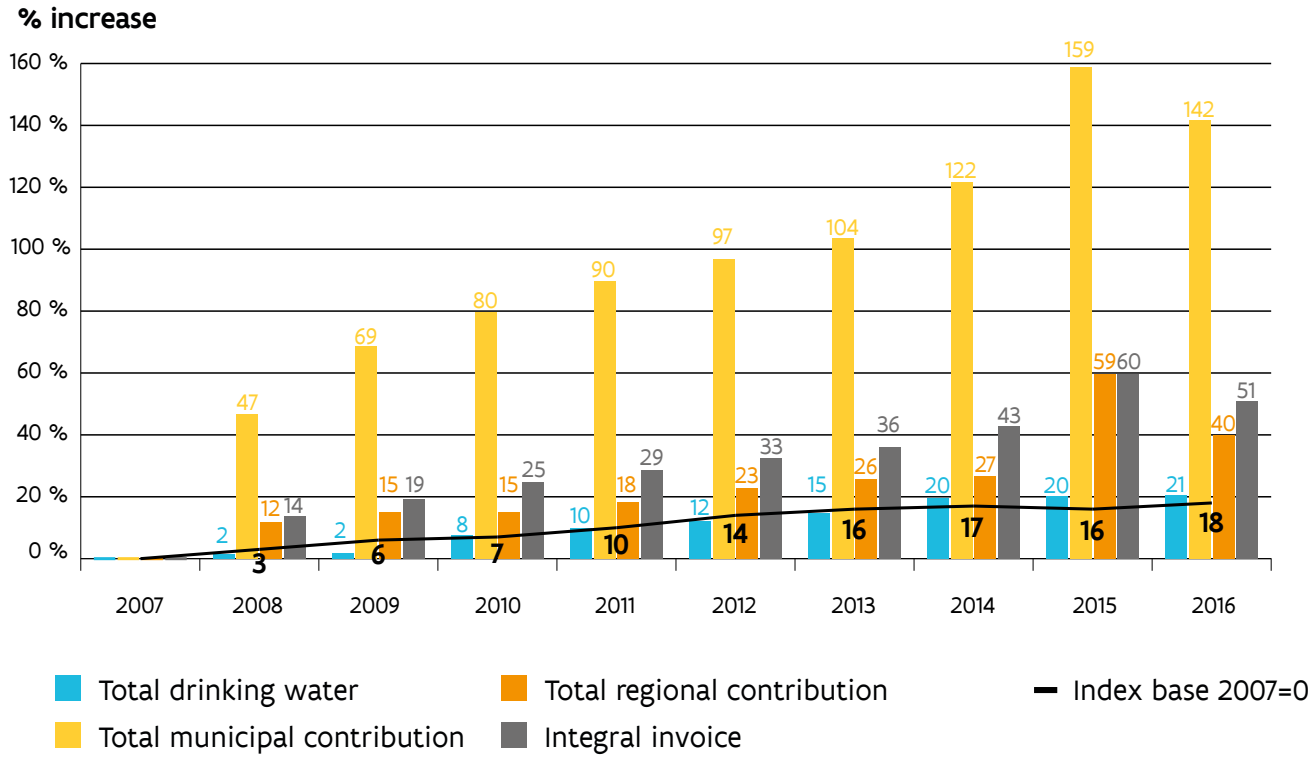

Low consumption
Average consumption
High consumption
3 pers. family
4 pers. family
5 pers. family
€ 21.8
€ 20
€ 89.5
€ 114.1
€ 383
per year
or
€ 4.91
per m³
€ 8
€ 12
€ 118.0
€ 270 € 280 € 288 € 296 € 311 € 351 € 383
€ 25
€ 20
€ 96.8
€ 152.1
€ 441
per year
or
€ 4.24
per m³
€ 8
€ 12
€ 126.9
€ 371 € 384 € 396 € 407 € 425 € 488 € 441
€ 29.4
€ 20
€ 106.9
€ 204.7
€ 520
per year
or
€ 4.00
per m³
€ 8
€ 139.2
€ 12
€ 473 € 490 € 505 € 519 € 540 € 606 € 520
€ 10
€ 28.7
€ 108.9
€ 139.3
€ 437
per year
or
€ 4.59
per m³
€ 4
€ 6
€ 144.1
€ 310 € 320 € 330 € 339 € 356 € 405 € 437
€ 10
€ 28.7
€ 118.2
€ 185.7
€ 508
per year
or
€ 4.00
per m³
€ 4
€ 154.9
€ 6
€ 433 € 447 € 461 € 474 € 495 € 560 € 508
€ 10
€ 33.7
€ 130.1
€ 244.9
€ 597
per year
or
€ 3.76
per m³
€ 4
€ 168.8
€ 6
€ 556 € 575 € 593 € 609 € 635 € 716 € 597
€ 0.0
€ 28.5
€ 132.0
€ 168.9
€ 504
per year
or
€ 4.36
per m³
€ 0.0
€ 0.0
€ 174.7
€ 359 € 372 € 384 € 395 € 414 € 473 € 504
€ 0.0
€ 33.3
€ 143.3
€ 225.2
€ 590
per year
or
€ 3.83
per m³
€ 0.0
€ 187.9
€ 0.0
€ 508 € 526 € 542 € 557 € 583 € 660 € 590
€ 0.0
€ 39.7
€ 158.3
€ 299.8
€ 703
per year
or
€ 3.65
per m³
€ 0.0
€ 205.3
€ 0.0
€ 656 € 679 € 701 € 721 € 751 € 848 € 703
2010 2011 2012 2013 2014 2015 2016
Fixed fee drinking water
Consumption drinking water
Fixed fee municipal contribution
Consumption municipal contribution
Fixed fee regional contribution
Consumption regional contribution
VAT

RELATIVITY OF THE EVOLUTION OF THE INTEGRAL WATER INVOICE

Figure 21 shows the evolution of the integral water invoice of an average family in relation to the consumer price index over the last 10 years. The consumer price index increased by 18% between January 2007 and January 2016. The integral water invoice increased by 51% over the same period.

The drinking water component and regional waste water component followed more or less the evolution of the consumer price index. The municipal waste water component recorded the sharpest increase. This is due, among other factors, to the fact that in 2007 (2 years after the introduction of the integral water invoice) 67 municipalities did not yet charge a municipal waste water contribution, and that the maximum tariff was charged in only 32 of the 308 municipalities. In 2016, 240 of the 308 municipalities charge the maximum tariff.

Figure 21: Evolution of the integral water invoice vs the consumer price index (2007-2016 – Base 2007=0)



Source: VMM Water Bank, VMM Database - Waste Water Treatment

Social correction

As part of the introduction of the new pricing structure in 2016, the social correction was adjusted. For the previously identified group of subscribers entitled to exemption or compensation[19] (a subgroup of the protected customers) an 80% reduction is applied to all components of the integral water invoice as of 2016. In the case of a common invoice for different families, as in apartment buildings with a common water meter, no social tariff can be applied. These families receive a compensation from their water company, if they belong to the identified group. The amount of the compensation is calculated as a lump sum, taking into account the number of family members, and paid directly to the head of the family.

Table 11: Overview of the applied social corrections for the drinking water component (2015)

Water company	Calculated number of Households (01/01/2015)	Number of housing units (2015)	Total number of exemptions + compensations (2015)	Share social beneficiaries vs calculated number of households	Share social beneficiaries vs number of housing units
AGSO Knokke-Heist	16,833	41,302	1,217	7 %	3%
De Watergroep	1,251,240	1,390,108	108,605	9%	8%
FARYS	557,869	741,847	50,045	9%	7%
IWVA	30,377	72,109	2,982	10%	4%
IWVB	99,726	115,430	4,602	5%	4%
Pidpa	497,562	563,370	33,753	7 %	6 %
VIVAQUA	15,182	16,136	559	4 %	3 %
Water-link	278,319	321,544	20,120	7 %	6%
Total Flanders	**2,747,108**	**3,261,846**	**221,883**	**8 %**	**7 %**

Source: FPS Economy, VMM Water Bank, VMM Water Book

In addition, the water regulation provides several other measures in order to protect vulnerable target groups. Protected customers are, free of charge, entitled to:

- information about possible causes and steps to be taken following a sharp rise in consumption;
- a monthly payment;
- a personalised payment plan;
- a meter reading at their home;
- a water scan (this means a specialist examines which measures can be taken to optimise the water consumption of a subscriber).

Protected customers are also exempt from paying the cost associated with the sending of a formal notice and/or a notice of default. To protect (all) water users from disconnection of the water supply, this government act also lays down a clear procedure that must be followed by the water companies before they are allowed to cut off the water supply. For instance, there must be at least six weeks between the notification of the imminent disconnection and the point at which the tap is actually closed. During that period, other arrangements can still be made. The local advisory committee (LAC) of the OCMW [Public Social Welfare Centre] plays a key role in this procedure: they are in charge of the preliminary social investigation.

19 The definitions of the beneficiaries can be found in the glossary at the end of this report.

Social indicators

The General Regulations on the Sale of Water establish the rights and obligations of the water companies and the sewer operators on the one hand, and of their customers on the other hand. They form a general framework for the daily relationship between both parties. Since mid-2011 the water companies have been required to implement and annually report on the relevant provisions.
In 2013 the Flemish Government also introduced a number of 'social service obligations' for the water companies. Table 12 provides an overview of a number of social indicators on which each water company reports.

Thus, for example, it is striking that IWVB and VIVAQUA receive a (significantly) higher number of payment plan applications (15% and 11% respectively) than the other water companies in Flanders. At Pidpa and Water-link, 2.6% of the customers without an enterprise number (KZO) apply for a payment plan. AGSO Knokke-Heist has the smallest number of applications (1%).

Water-link forwards remarkably more files to the local advisory committees (LAC), and also has the highest number of actual disconnections. More than half of the Water-link LAC files are initiated because access to the water meter was 'denied/impossible'.

De Watergroep has comparatively the smallest number of reconnections. Only one-third of disconnected subscribers are reconnected (181 vs 567). At present it is not completely clear what happens in the other cases. While no exact figures are available, enquiry with the operators shows that these are generally customers who have moved or died.

FARYS/TMVW has the highest and IWVA the lowest amount of outstanding bills at the time of disconnection, with €2,585 and €384 respectively.

More detailed information is to be found in the report 'Statistieken toepassing Algemeen Waterverkoopreglement 2015' (Statistics on the application of the General Regulations on the Sale of Water, 2015').

Table 12: Overview of social indicators for the drinking water component (2015)

Water company	Total number of repayment plan applications from customers	% vs number of KZO	Total number of files forwarded to LAC	% vs number of KZO	Total number of disconnections from public water distribution network	% vs number of KZO	Total number of reconnections	Average outstanding debt at time of disconnection from public water distribution network (based on LAC recommendation)
AGSO Knokke-Heist	208	1.0%	171	0.8%	118	0.6%	95	€ 420
De Watergroep	17,158	1.4%	12,049	1.0%	567	0.05%	181	€ 1,145
FARYS/TMVM	6,897	1.2%	1,887	0.3%	443	0.1%	299	€ 2,585
IWVA	779	1.6%	544	1.1%	185	0.4%	127	€ 384
IWVB	11,970	16.5%	1,021	1.8%	289	1.8%	226	€ 4,741
Pidpa	12,794	2.6%	4,264	0.9%	355	0.1%	231	€ 933
VIVAQUA	1,549	11.0%	178	1.3%	55	0.4%	45	€ 711
Water-link	4,132	2.6%	10,658	6.8%	1,912	1.2%	1,084	€ 834
Flanders	**55,487**		**30,772**		**3,924**		**2,288**	**€ 1,306**

KZO: customers without enterprise number

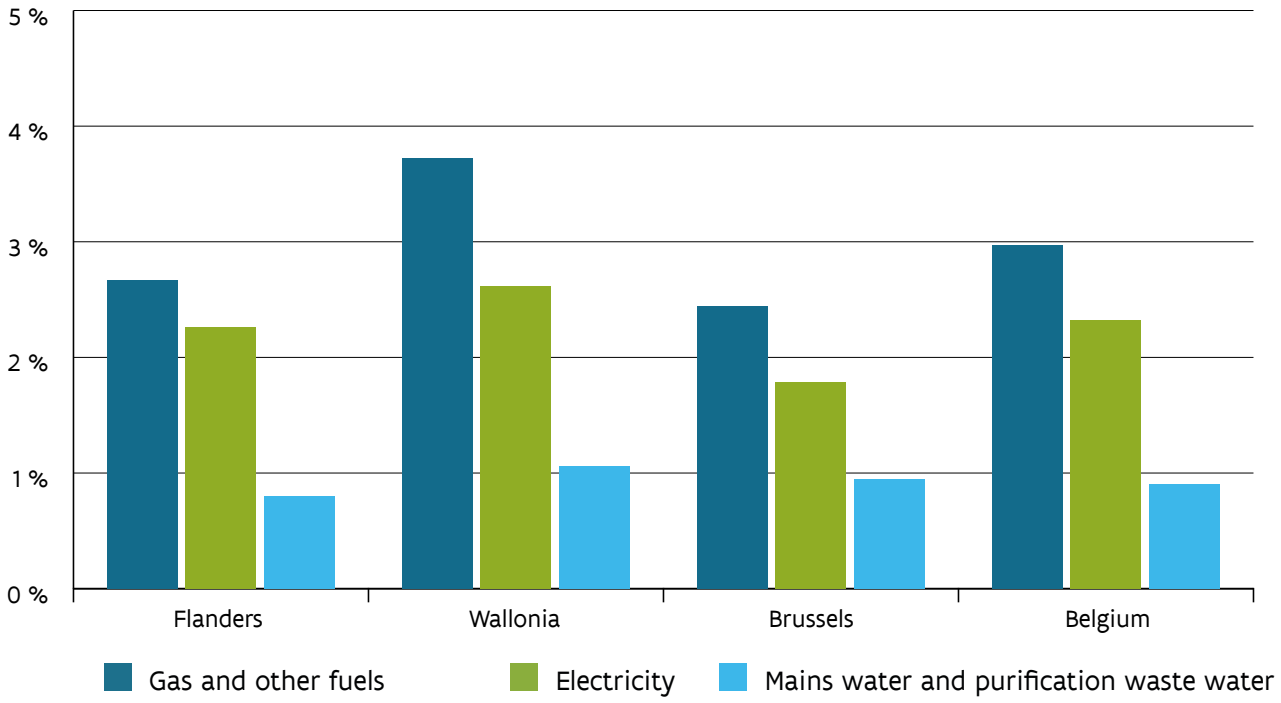
Source: VMM

SHARE IN TOTAL CONSUMPTION OF A FAMILY

The Household Budget Survey (HBS), a biennial survey conducted by the FPS Economy, estimates the expenditures of the Belgian households based on a representative sample on the level of the Kingdom and the three regions (Brussels Capital Region, Flanders and Wallonia).

According to the latest available figures (2014), the share of the cost for 'mains water and treatment of waste water' accounts for 0.80% of the average total consumption of a Flemish household. In the Walloon Region this is 1.06%, in Brussels 0.95% and in the whole of Belgium 0.90%. In comparison, the cost for electricity in Flanders for the same period represents 2.26% of the average household budget. Gas and other fuels represent 2.67% of the household budget.
Given the increase in the integral water price over the last years, the significance of the share 'cost for water' in consumption is increasing in the total consumption of a Flemish household. The share doubled from 0.4% to 0.8% in the period 2005-2014.

Figure 22: Share of the 'cost for water' in the total consumption (HBS 2014)

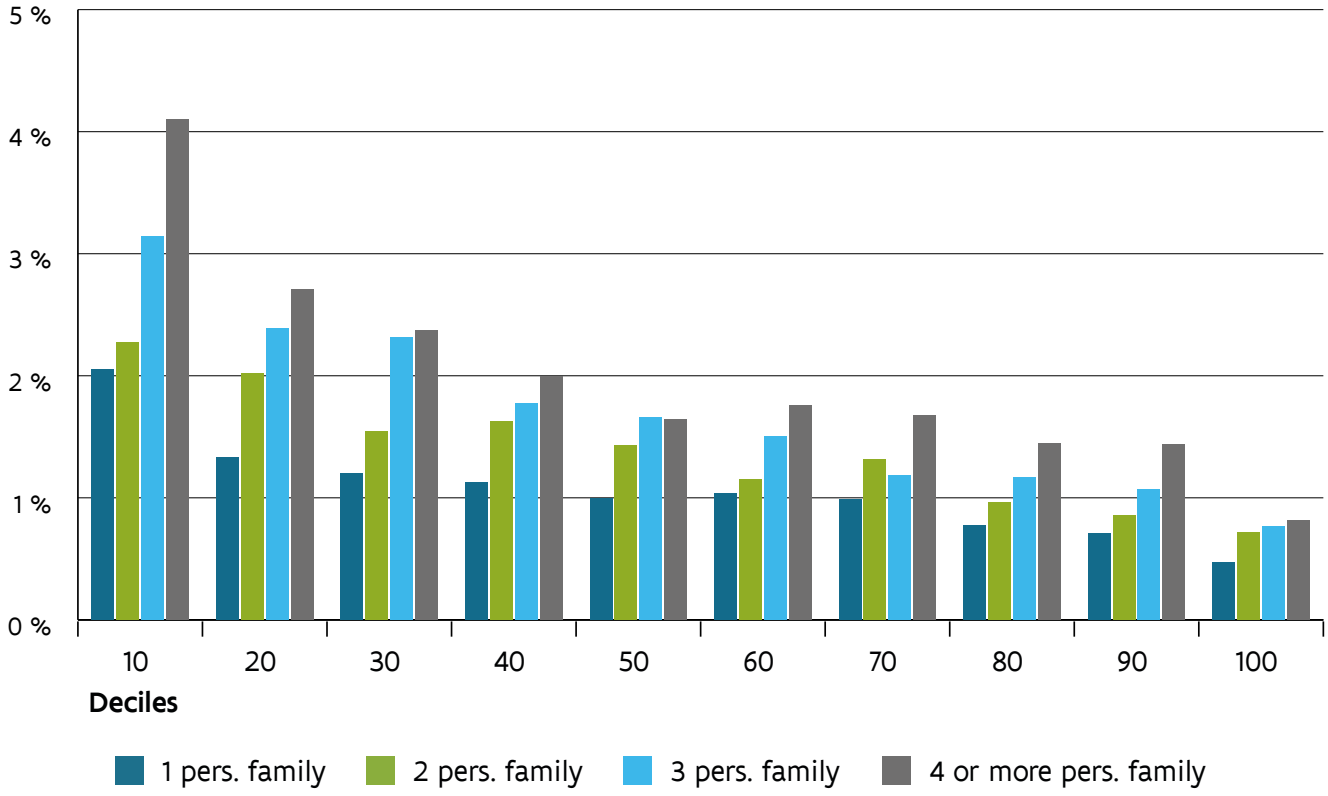


Source: FPS Economy (HBO)

SHARE IN THE DISPOSABLE INCOME OF DIFFERENT INCOME GROUPS

Figure 23 and Table 13 show, per decile, the share of the cost for 'mains water and treatment of waste water' in the equivalent annual disposable income[20] as indicated by the respondents of the HBS.
The figure and table clearly show that for many participating families the share in the equivalent annual disposable income is significantly higher than the share in the total consumption in 2014.

Figure 23: Share of the 'cost for water' in the equivalent annual income per decile (HBS 2014)



Source: FPS Economy (HBO)

For families in the lowest income groups, the share of the 'cost for water' in the equivalent annual disposable income varies from 2.1% to 4.1%, depending on the family type.
The HBS does not inquire whether or not the family is eligible for a social correction. Therefore, it is unknown whether or not social corrections have been taken into account in the reported cost. Considering the fact that on average the reported amounts for 'treatment of waste water' in the survey are lower than the cost for mains water, it could (tentatively) be assumed that the invoice for part of the respondents has effectively been socially corrected[21]. This assumption inevitably leads also to the consideration that the share for some families might be even higher.

20 The disposable income at the individual level ('equivalent income') is derived from the available family income adjusted to the size of the family. The disposable income on an individual level is not just the household disposable income divided by the number of family members. The fact that in general not all adult family members and especially children contribute proportionally to the family income is taken into account. A weight of 1 is assigned to the reference person in the household, a weight of 0.5 to any other person over the age of 14 and a weight of 0.3 to every child.

21 In 2014, the share of waste water treatment (drain-off + purification of waste water) in an integral invoice was, on average, 56% compared to 44% for drinking water (mains water), and in that year a social correction was applied only to the waste water component.

Table 13: Share of the 'cost for water' in the 'Equivalent disposable income' (HBS 2014)

	Average equivalent annual disposable income	Number of domiciled residents in inquired family			
Decile	2014	1	2	3	4 or more
10	€ 10,993	2.1%	2.3%	3.1%	4.1%
20	€ 14,481	1.3%	2.0%	2.4%	2.7%
30	€ 16,774	1.2%	1.5%	2.3%	2.4%
40	€ 18,872	1.1%	1.6%	1.8%	2.0%
50	€ 20,920	1.0%	1.4%	1.7%	1.6%
60	€ 23,340	1.0%	1.1%	1.5%	1.8%
70	€ 25,830	1.0%	1.3%	1.2%	1.7%
80	€ 28,771	0.8%	1.0%	1.2%	1.4%
90	€ 33,499	0.7%	0.9%	1.1%	1.4%
100	€ 50,486	0.5%	0.7%	0.8%	0.8%

Source: FPS Economy (HBO)

In Table 14 the same exercise is made as in Table 13, but with the price of an average calculated integral water invoice (2014 tariffs) – without any kind of social correction. This shows that, depending on the situation, the share can rise up to 4.5%.

Table 14: Share of the calculated integral water invoice in 'Equivalent disposable income' (HBS 2014)

	Average equivalent annual disposable income	1-pers. family 48 m^3 consumption	2-pers. family 75 m^3 consumption	3-pers. family 104 m^3 consumption	4-pers. family 127 m^3 consumption
Decile	2014	€ 240	€ 328	€ 425	€ 495
10	€ 10,993	2.2%	3.0%	3.9%	4.5%
20	€ 14,481	1.7%	2.3%	2.9%	3.4%
30	€ 16,774	1.4%	2.0%	2.5%	3.0%
40	€ 18,872	1.3%	1.7%	2.3%	2.6%
50	€ 20,920	1.1%	1.6%	2.0%	2.4%
60	€ 23,340	1.0%	1.4%	1.8%	2.1%
70	€ 25,830	0.9%	1.3%	1.6%	1.9%
80	€ 28,771	0.8%	1.1%	1.5%	1.7%
90	€ 33,499	0.7%	1.0%	1.3%	1.5%
100	€ 50,486	0.5%	0.6%	0.8%	1.0%

Source: FPS Economy (HBS), VMM Water Bank

The above figures and tables clearly illustrate that the currently available data require a cautious and nuanced analysis.

The information from the 2014 HBS shows that the average cost for 'mains water and purification of waste water' has a share of 0.8% in the average total consumption of the participating households in Flanders (macro level). The same information also shows that for low income profiles the share rises to more than 4% of the 'equivalent disposable income' (micro level).

TARIFF PLANS AND TARIFFS FOR PRODUCTION AND DISTRIBUTION OF MAINS WATER (DRINKING WATER COMPONENT)

REGIONALISATION OF THE PRICE CONTROL FOR DRINKING WATER

As part of the sixth state reform, the Flemish Region was made competent, as of July 2014, for the regulation of the prices in matters that belong to the competence of the regions and the communities. As a result, also the price control on the water policy, which until then had been the competence of the federal government, was transferred to the Flemish Region. It was decided to assign the tariff regulations in Flanders to the respective competent policy areas. This has the great advantage that homogeneous competence packages can be put together within the competent policy areas, thereby enabling an integrated sectoral policy.

By analogy with the setting of the tariffs for the waste water contribution, it was decided to make the water companies primarily responsible for setting the drinking water tariffs from 2016 onwards. The WaterRegulator was tasked with the supervision of this tariff setting. The tariffs for the variable drinking water component can only be increased on the basis of a tariff plan approved by the regulator. The tariffs for one-time fees and services (such as e.g. the installation of a water meter) can only be introduced or increased after approval by the WaterRegulator.

Also the basic principles and outlines of a new tariff regulation method were decided on in 2015. This tariff regulation method will be used to forecast the evolution of the maximum tariffs of the drinking water component per water company for the longer term (6 years). It was not possible for the company(ies) to prepare a thorough foundation for such a tariff path before the end of 2015. Therefore, the period for drafting the tariff plan and tariff path was extended to mid-2016 and 2017 was chosen as the starting year of the first tariff period (2017-2022).

TRANSITIONAL MEASURE FOR 2016

Because Flanders was competent for the drinking water tariffs already from 1 January 2016, a transitional measure was applied to the 2016 tariffs of the drinking water component. The Flemish Government decided that in 2016 each water company was to apply tariffs that would lead to budget neutrality with respect to the revenues from the drinking water component in the 2015 calendar year.

To this end, at the end of 2015, the WaterRegulator, in consultation with the water companies, defined a number of modalities that would enable the 2016 tariffs of the drinking water component of the integral water invoice to be set in a 'budget neutral' manner.

The extent to which the 2016 tariffs effectively resulted in budget neutrality with respect to the 2015 income can only be evaluated after the closing of the 2016 fiscal year, i.e. in the autumn of 2017. If it appears that the budget neutrality as stipulated in the regulation is not achieved, the modalities can be adjusted by offsetting surpluses and/or deficits.

TARIFF REGULATION METHOD FROM 2017

Each water company estimates its costs for the production and distribution of drinking water to subscribers, as well as the consumption of the drinking water, for the next tariff period of 6 years (2017-2022). The expected costs for a given year are divided over the expected consumption, resulting in a cost recovery tariff '**T**' (€ per m^3) for that year. The costs and the consumption fluctuate from year to year, so T will also fluctuate over the years. Without intervention, such fluctuations would cause frequent tariff changes.

The tariff regulation is used to absorb these fluctuations of T. Based on the trend in all their tariffs T for the 6-year tariff period, the water company sets a tariff path that covers the costs over the tariff period. The tariff path yields the drinking water tariff '**Td**' (€ per m^3) per year. This is the tariff from which the maximum tariffs for drinking water are determined, which will be used for the drinking water component of the integral water invoice.

Setting the tariffs for the coming six years requires a great deal of preparation. This preparation is bundled by the water company into a tariff plan.

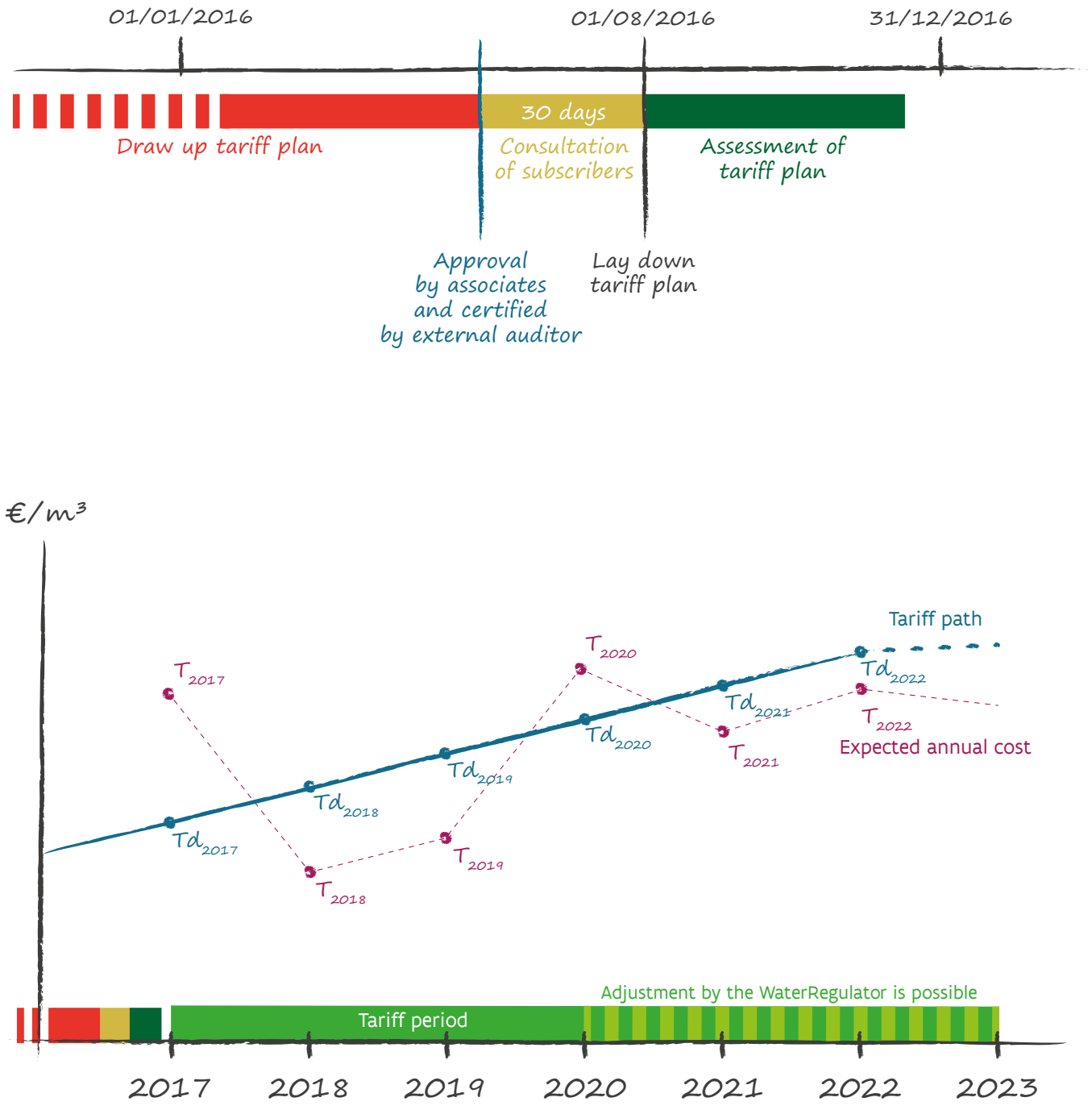
– The first step is the collection of the data and the calculation of the new tariffs in the form of a provisional tariff plan.
– The water company has the provisional tariff plan inspected by an auditor and submits it to the associates for approval.
– Subsequently, the plan is made available for consultation by the subscribers. They have 30 days to inspect the tariff plan and formulate comments.
– After the consultation, the comments are incorporated into the final tariff plan.
– The final tariff plan is submitted to the WaterRegulator by 1 August at the latest.
– The WaterRegulator assesses whether the tariff plans comply with the applicable rules and approves or rejects the tariff plan.

The first tariffs that were set using this new method will be applied from 1 January 2017.

The tariffs are, in principle, fixed for the entire tariff period. The WaterRegulator will annually monitor the costs and revenues as estimated in the plan. To this end, the water companies will annually update the data in the tariff plan template. If deemed necessary, an approved tariff path can still be adjusted within these 6 years. A tariff change can only be introduced on 1 January. When, due to unforeseen circumstances, there is too great a variance between actual and budget in the tariff plan (= materiality assessment), the water company can submit an adjusted tariff plan with associated tariff path for that year. After three years, the WaterRegulator can also adjust the plan based on the materiality assessment or if the tariff is to increase by more than 10% in the next tariff period or if the efficiency specified by the water company is not achieved.

The tariff regulation thus encourages water companies to adopt transparency, substantiated and predictable tariffs, with legal certainty for the water companies in the event of unforeseen exogenous circumstances.

Figure 24: Schematic representation of the tariff regulation method

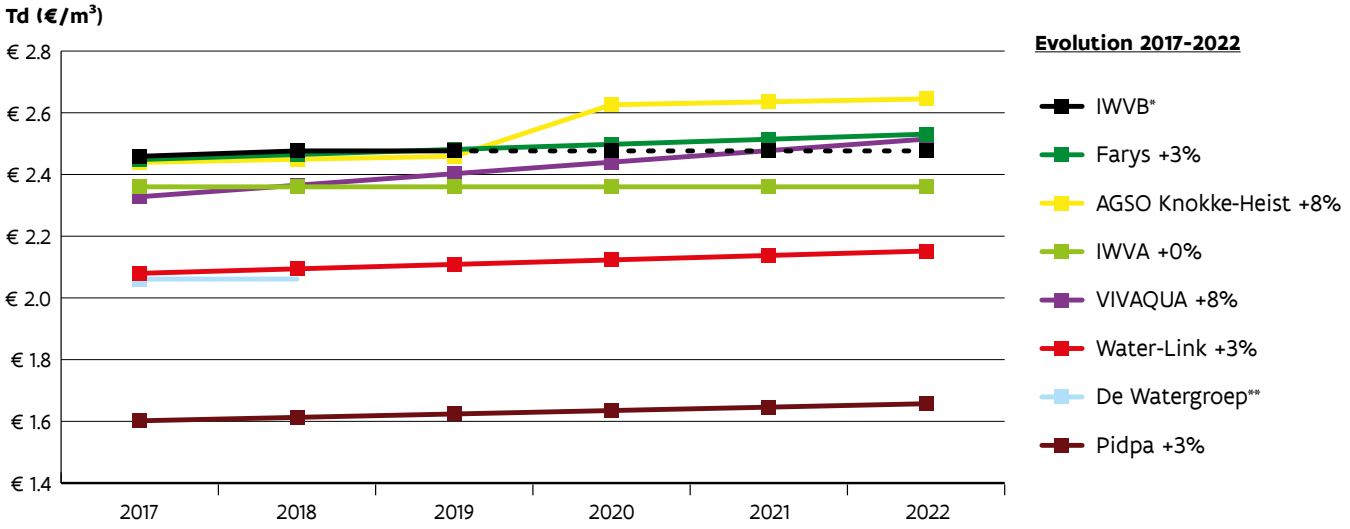


TARIFF PATH (FOR THE PERIOD 2017-2022)

The tariff plan combines the water company's needs and resources for drinking water. From this plan the tariffs necessary to cover the costs are derived. Since only the costs and revenues included in the tariff plans can be taken into account in the drinking water tariffs, the water companies must thoroughly substantiate their future plans in financial terms. The multiplicity and the implementation of these plans cause fluctuations in the expected cost per m^3 of sold drinking water for a given year, called T. To improve the stability and predictability of the drinking water price, a trend is applied, the so-called tariff path. For each year of the tariff path, this yields a more stable expected cost per m^3 for a given year, the Td. This Td is the foundation for the different maximum tariffs and for the annual indexation.

Figure 25 provides an overview of the tariff path that has been calculated and substantiated by each water company with the tariff plans for the period 2017-2022. In addition, this Td will be subjected to an annual indexation. The indexation is based on the indices of the month of November. The maximum tariffs from the indexed Td apply as of 1 January of the following year.

Figure 25: Tariff path with annual Td (€ /m^3) approved by the WaterRegulator



* The Td for IWVB municipalities will be frozen at the 2018 level upon the statutory dissolution

** For De Watergroep only the Td for 2017 has been approved

Source: VMM

The (indexed) Td results in maximum tariffs for the variable price in the drinking water component. The conversion of Td into maximum tariffs is done automatically, taking into account the pricing structure determining characteristics such as housing units, number of domiciled persons, consumption per tariff block, social corrections and capacity fees (see Appendix 8 for the calculation with 2017 indexation).

The progressive tariffs (basic and comfort) are applied for customers with household activities (families).

The flat tariffs are applied for customers with business activities (non-household / companies). The calculation method is equivalent to that for the household customers. For consumption above 500 m^3, non-standard tariffs can be applied.

More information about the pricing structure, basic/comfort/flat tariffs is included earlier in this report (p. 40)

Figures 26 to 33 and Tables 15 to 22 show the tariff path per water company.

Figure 26: Tariff path AGSO Knokke-Heist

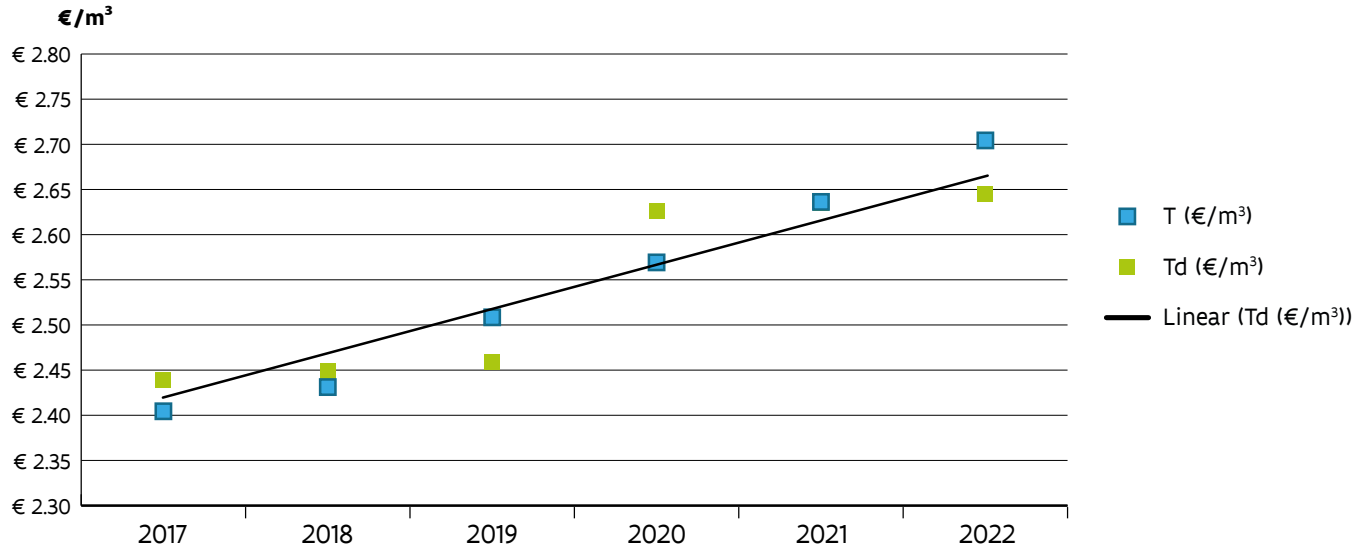


Table 15: Maximum tariffs, non-indexed, AGSO Knokke-Heist

Maximum tariffs tariff plan 2017-2022 non-indexed	2017	2018	2019	2020	2021	2022
Basic tariff	1.8392	1.8601	1.8757	2.0448	2.0613	2.0774
Comfort tariff	1.3290	1.3290	1.3290	1.4727	1.4727	1.4727
Flat tariff	2.6580	2.6580	2.6581	2.9455	2.9455	2.9455

Figure 27: Tariff path De Watergroep

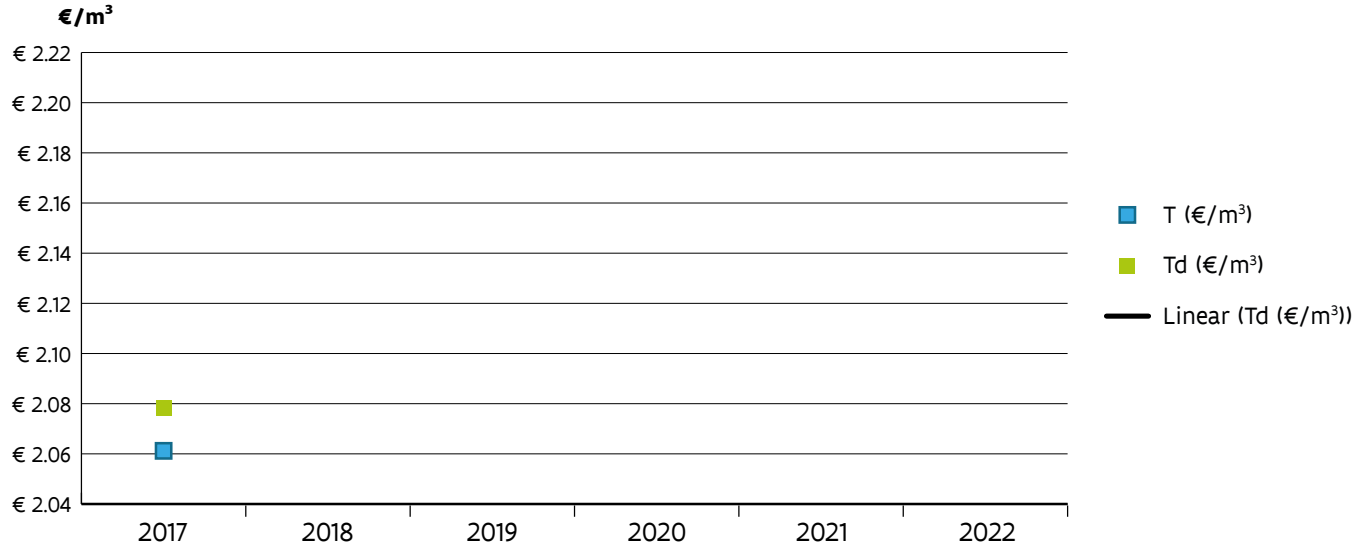


Table 16: Maximum tariffs, non-indexed, De Watergroep

Maximum tariffs tariff plan 2017-2022 non-indexed	2017	2018	2019	2020	2021	2022
Basic tariff	1.9560					
Comfort tariff	1.6904					
Flat tariff	3.3808					

Figure 28: Tariff path IWVA

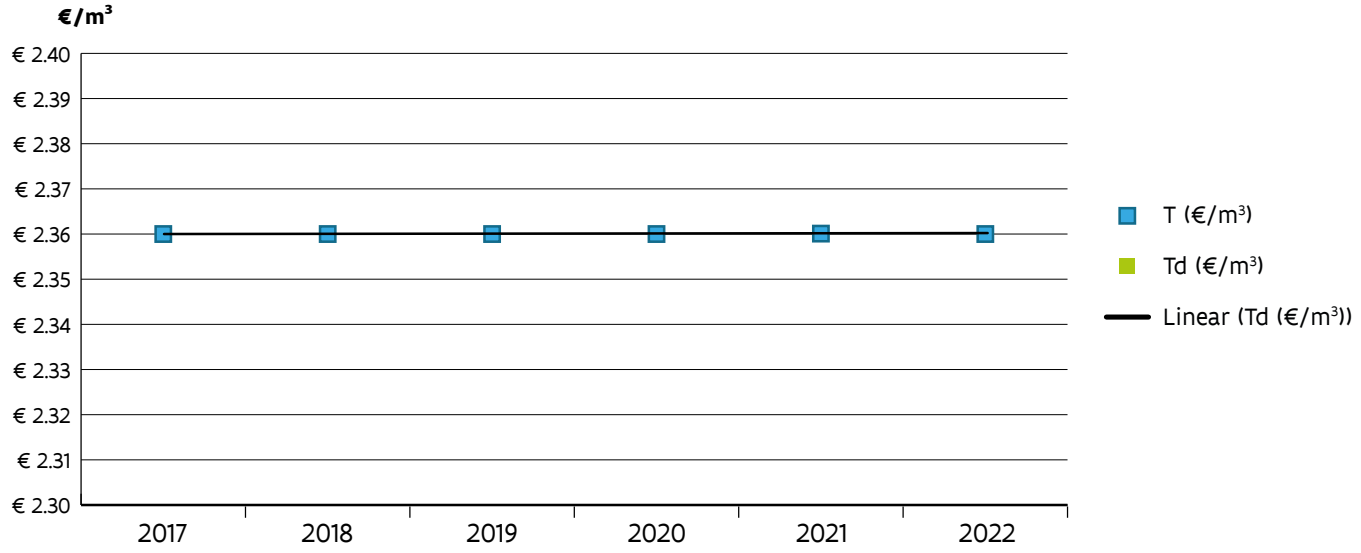


Table 17: Maximum tariffs, non-indexed, IWVA

Maximum tariffs tariff plan 2017-2022 non-indexed	2017	2018	2019	2020	2021	2022
Basic tariff	1.7500	1.7500	1.7500	1.7500	1.7500	1.7500
Comfort tariff	1.5127	1.5127	1.5127	1.5127	1.5127	1.5127
Flat tariff	3.0254	3.0254	3.0254	3.0254	3.0254	3.0254

Figure 29: Tariff path IWVB

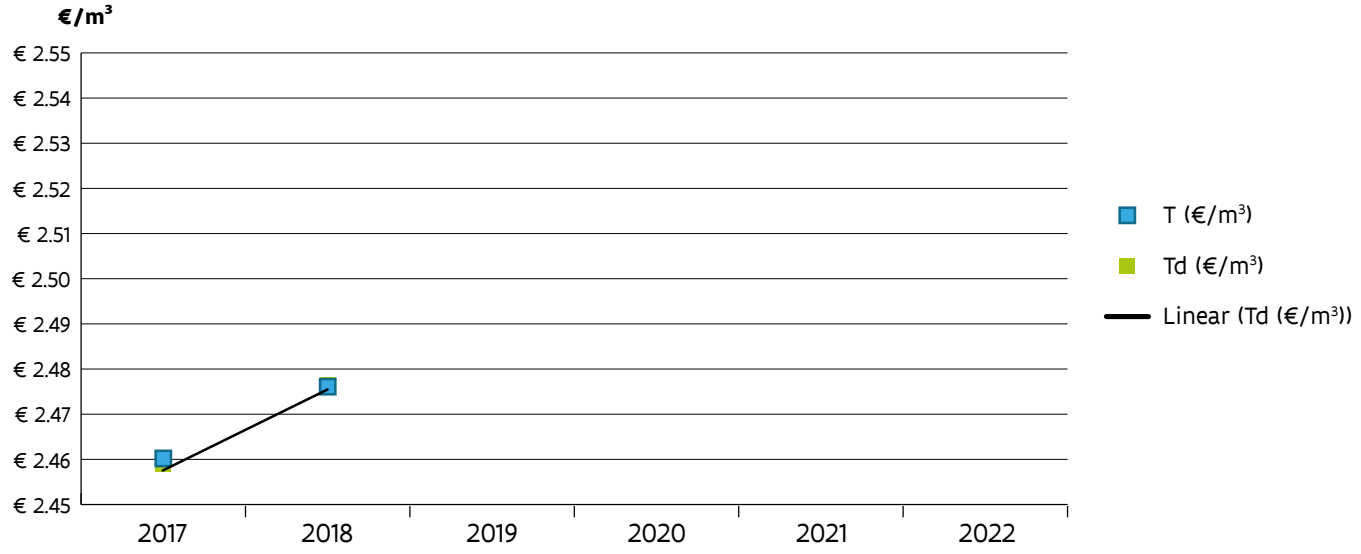


Table 18: Maximum tariffs, non-indexed, IWVB

Maximum tariffs tariff plan 2017-2022 non-indexed	2017	2018	2019	2020	2021	2022
Basic tariff	2.9240	2.9351				
Comfort tariff	1.8381	1.8493				
Flat tariff	3.6763	3.6987				

Figure 30: Tariff path Pidpa

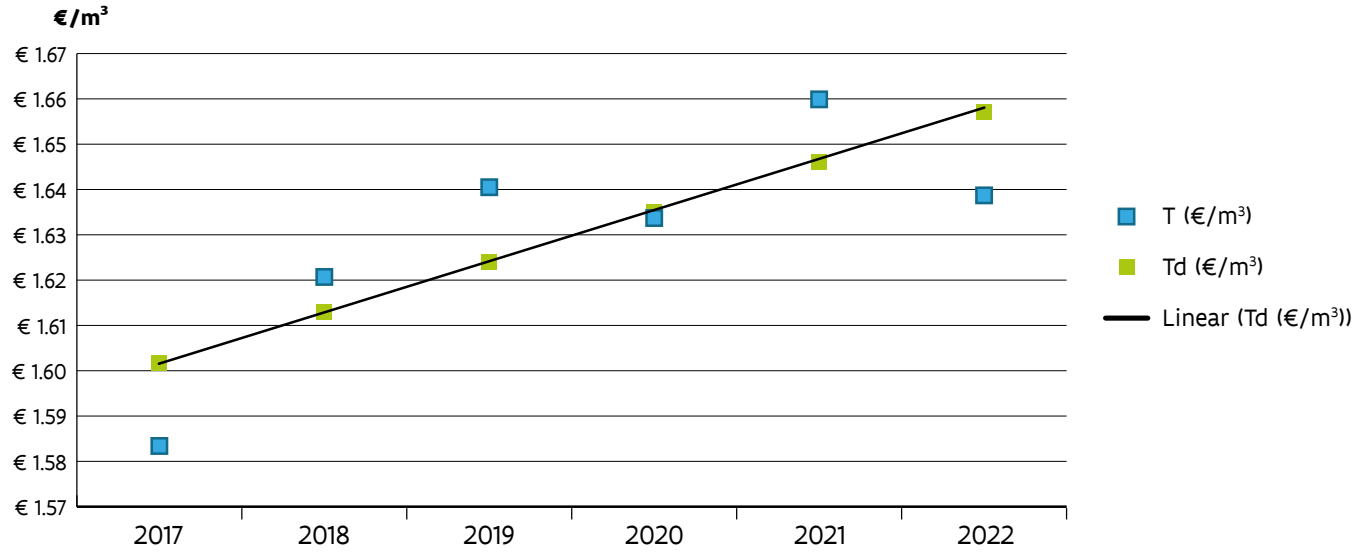


Table 19: Maximum tariffs, non-indexed, Pidpa

Maximum tariffs tariff plan 2017-2022 non-indexed	2017	2018	2019	2020	2021	2022
Basic tariff	1.3709	1.3840	1.3931	1.3985	1.4075	1.4075
Comfort tariff	1.2276	1.2328	1.2389	1.2472	1.2522	1.2606
Flat tariff	2.4553	2.4656	2.4777	2.4944	2.5044	2.5212

Figure 31: Tariff path TMVW

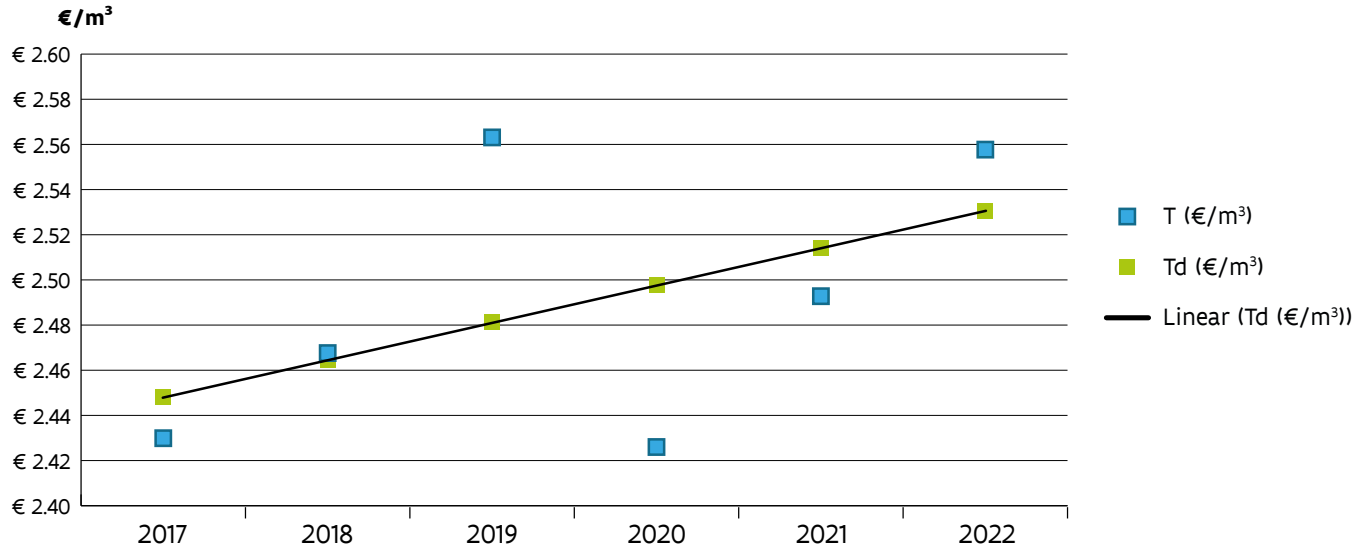


Table 20: Maximum tariffs, non-indexed, TMVW

Maximum tariffs tariff plan 2017-2022 non-indexed	2017	2018	2019	2020	2021	2022
Basic tariff	3.7229	3.7543	3.7856	3.8168	3.8479	3.8790
Comfort tariff	1.9222	1.9327	1.9432	1.9537	1.9646	1.9755
Flat tariff	3.8444	3.8653	3.8863	3.9075	3.9291	3.9509

Figure 32: Tariff path VIVAQUA

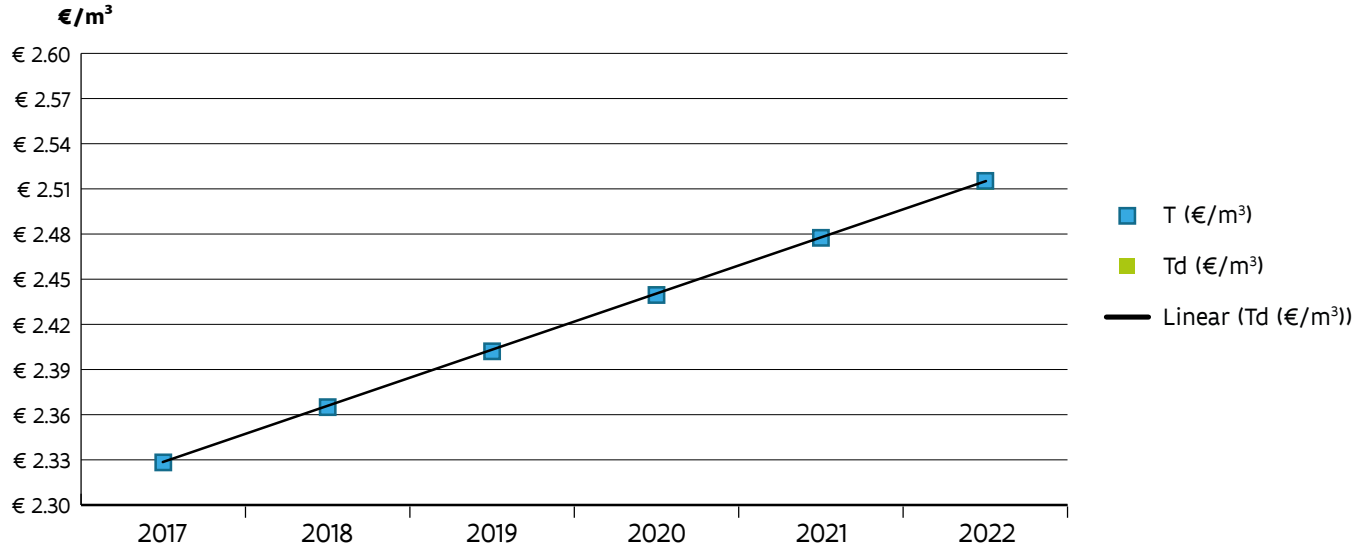


Table 21: Maximum tariffs, non-indexed, VIVAQUA

Maximum tariffs tariff plan 2017-2022 non-indexed	2017	2018	2019	2020	2021	2022
Basic tariff	3.1725	3.2259	3.2793	3.3327	3.3861	3.4394
Comfort tariff	1.6004	1.6274	1.6545	1.6814	1.7084	1.7353
Flat tariff	3.2008	3.2549	3.3089	3.3629	3.4168	3.4706

Figure 33: Tariff path Water-Link

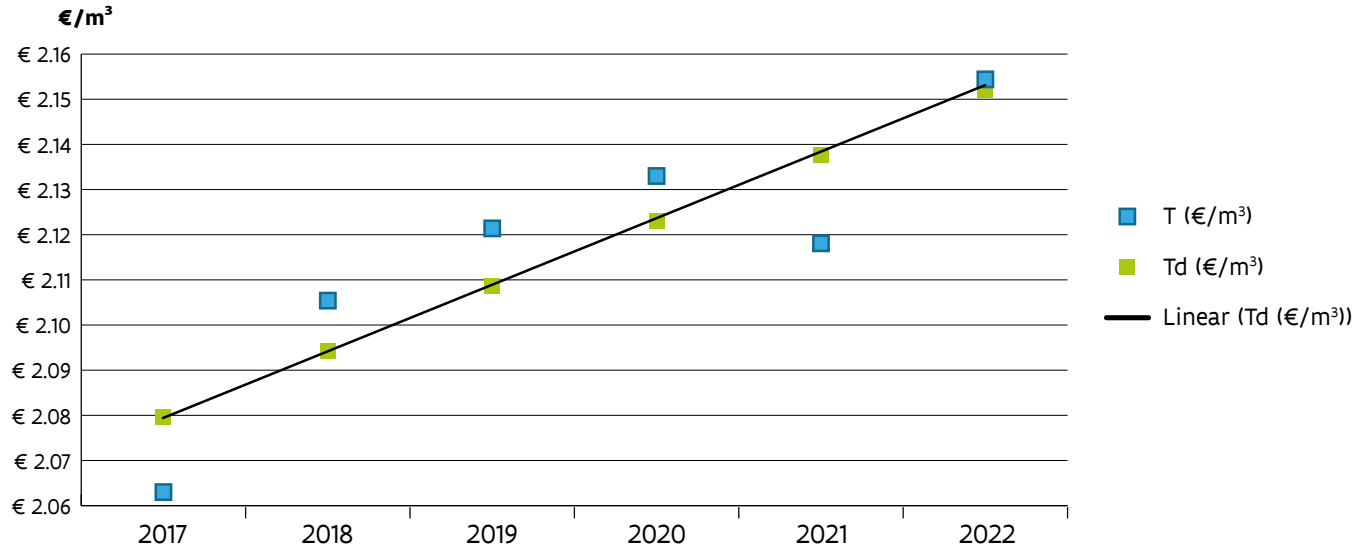


Table 22: Maximum tariffs, non-indexed, Water-Link

Maximum tariffs tariff plan 2017-2022 non-indexed	2017	2018	2019	2020	2021	2022
Basic tariff	1.6810	1.6929	1.7065	1.7229	1.7389	1.7491
Comfort tariff	1.4926	1.5009	1.5099	1.5201	1.5303	1.5378
Flat tariff	2.9852	3.0018	3.0198	3.0403	3.0606	3.0756

PROGRESSIVE PRICING STRUCTURE FOR FAMILIES

The maximum tariff, which is determined based on the tariff plan, is not necessarily the tariff to be paid by the subscriber. The water company will, on the one hand, apply the social tariff for the eligible subscribers (see also p. 49) and may, on the other hand, grant a reduction to certain user groups, for example as compensation for kidney patients with home dialysis. Pidpa and Water-link decided to apply other (non-standard) tariffs for all subscribers in 2017.

Table 23 provides an overview of the tariffs for the drinking water component applied by the different water companies on 1 January 2017.

Table 23: Overview of the applied tariffs for the drinking water component (2017)

	Fixed fee	**Variable price (consumption)**	
	per housing unit without reduction pp **€ / year**	**Basic** Volume (m^3) Upper limit **€ / m^3**	**Comfort** Volume (m^3) Upper limit **€ / m^3**
AGSO Knokke-Heist	per housing unit **€ 50.00**	30 m^3 + 30 m^3 pp **€ 1.3664**	infinite **€ 2.7328**
De Watergroep	per housing unit **€ 50.00**	30 m^3 + 30 m^3 pp **€ 1.7254**	infinite **€ 3.4508**
FARYS/TMWV	per housing unit **€ 50.00**	30 m^3 + 30 m^3 pp **€ 1.9615**	infinite **€ 3.9230**
IWVA	per housing unit **€ 50.00**	30 m^3 + 30 m^3 pp **€ 1.5571**	infinite **€ 3.1142**
IWVB	per housing unit **€ 50.00**	30 m^3 + 30 m^3 pp **€ 1.8752**	infinite **€ 3.7504**
Pidpa	per housing unit **€ 50.00**	30 m^3 + 30 m^3 pp **€ 1.2276**	infinite **€ 2.4552**
VIVAQUA	per housing unit **€ 50.00**	30 m^3 + 30 m^3 pp **€ 1.6321**	infinite **€ 3.2642**
Water-link	per housing unit **€ 50.00**	30 m^3 + 30 m^3 pp **€ 1.3437**	infinite **€ 2.6874**

pp = per person, domiciled on 01/11 of previous calendar year

Reduction pp: For the fixed fee per housing unit for drinking water, a reduction of €10 'per person domiciled' is applied.

Volume pp: For the tariff blocks that are applied 'per person domiciled', the volume (upper limit) is increased pro rata the number of domiciled residents ➔ 30 m^3 + 1 * 30 m^3 for a family with one domiciled resident, 30 m^3 + 2 * 30 m^3 for a family with two domiciled residents, etc.

Source: VMM Water Bank

PRICE FOR THE DRINKING WATER COMPONENT FOR FAMILIES

Table 24 and Figure 34 provide, per water company, an overview of the calculated price, the total price and the price per m³ of the drinking water component (excluding VAT) for a theoretical average family with an average consumption[22] based on the tariffs in force on 1 January 2017.

The price per m³ for the drinking water component for an average family with an average consumption amounts to €1.97 (weighted across Flanders) and varies from €1.55 (Pidpa) to €2.28 (FARYS/TMVW).

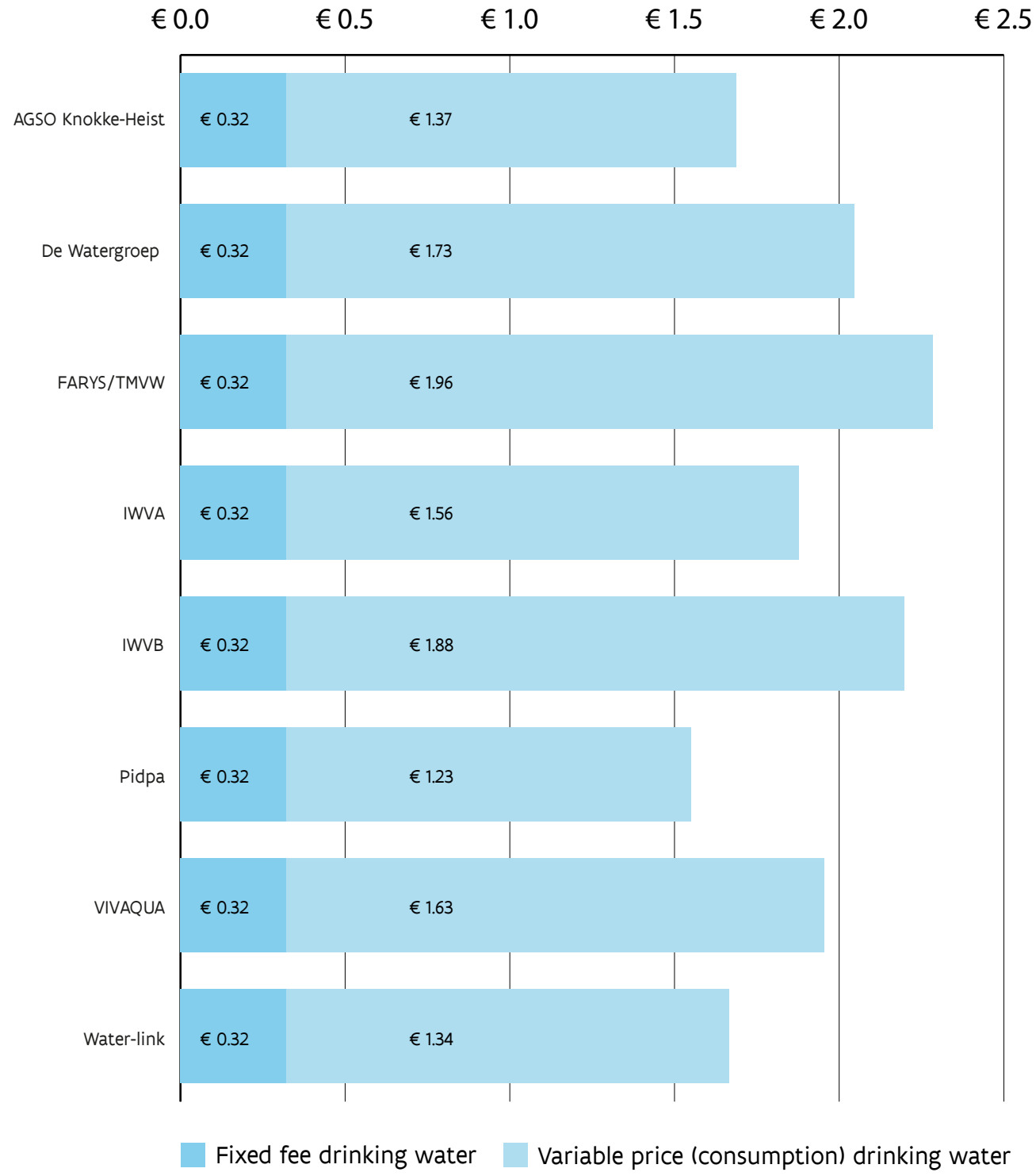
Table 24: Overview and evolution of the calculated drinking water component in price per year for an average family (2017)

Average family (2.3 persons)	Prices excl. VAT in force on 01/01/2017			Rank	Share in total drinking water price		Evolution 2016-2017	
				1 = most expensive	% share	% share	€ Evolution	% Evolution
Price per year excl. VAT for 84 m³ consumption per year	Fixed fee	(Consumption) Variable price	Total drinking water price Fixed + Variable	Total drinking water price Fixed + Variable	Fixed fee	(Consumption) Variable price	Total drinking water price Fixed + Variable	Total drinking water price Fixed + Variable
AGSO Knokke-Heist	€ 27	€ 114.78	€ 141.78	6	19%	81%	€ 11	€ 0
De Watergroep	€ 27	€ 144.93	€ 171.93	3	16%	84%	€ 21	€ 0
FARYS/TMVW	€ 27	€ 164.77	€ 191.77	1	14%	86%	€ 20	€ 0
IWVA	€ 27	€ 130.80	€ 157.80	5	17%	83%	€ 4	€ 0
IWVB	€ 27	€ 157.52	€ 184.52	2	15%	85%	€ 3	€ 0
Pidpa	€ 27	€ 103.12	€ 130.12	8	21%	79%	€ 10	€ 0
VIVAQUA	€ 27	€ 137.10	€ 164.10	4	16%	84%	€ 1	€ 0
Water-link	€ 27	€ 112.87	€ 139.87	7	19%	81%	€ 3	€ 0
Calculated average	€ 27.00	€ 133.23	€ 160.23	5	17.1%	82.9%	€ 9.03	6.1%
Median	€ 27.00	€ 133.95	€ 160.95	5	16.8%	83.2%	€ 6.77	5.3%
Minimum	€ 27.00	€ 103.12	€ 130.12	1	14.1%	79.2%	€ 0.70	0.4%
Maximum	€ 27.00	€ 164.77	€ 191.77	8	20.8%	85.9%	€ 20.61	13.6%
Weighted average on basis of population	€ 27.00	€ 138.11	€ 165.11		16.4%	83.6%	€ 0.05	14.7%
Calculated average per m³	€ 0.32	€ 1.59	€ 1.91		17.1%	82.9%	€ 0.11	6.1%
Median per m³	€ 0.32	€ 1.59	€ 1.92		16.8%	83.2%	€ 0.08	5.3%
Minimum per m³	€ 0.32	€ 1.23	€ 1.55		14.1%	79.2%	€ 0.01	0.4%
Maximum per m³	€ 0.32	€ 1.96	€ 2.28		20.8%	85.9%	€ 0.25	13.6%
Calculated average per m³ on basis of population	€ 0.32	€ 1.64	€ 1.97		16.4%	83.6%	€ 0.00	14.7%

Source: VMM Water Bank

22 A theoretical average family with an average consumption counts 2.3 persons and consumes 84 m³ per year in 2016. The calculation also takes into account a fixed fee reduction for the theoretical 2.3 persons (€50 – (2.3*€10) = €27)

Figure 34: Overview of the drinking water price per m³ for an average family (2017)

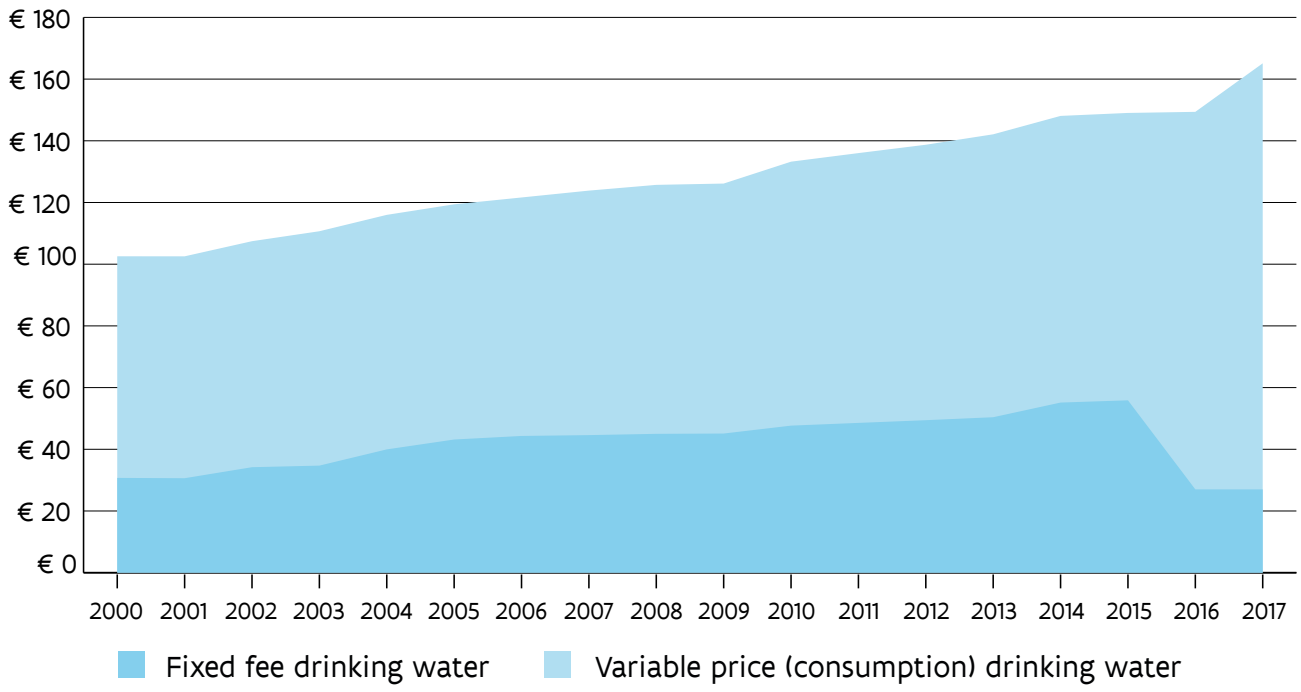


Source: VMM Water Bank

Evolution of the drinking water component for families

In Table 35 the evolution of the calculated average drinking water component and its component parts is included for different family types. The calculated prices shown are weighted averages over the water companies.
Between 2000 and 2015 there was a relatively progressive increase in the price of the drinking water component. In fact, the increase over that period more or less followed the evolution of the consumer price index.
From 2016 a clear change becomes noticeable. This is the moment that the new pricing structure with the legally established fixed fee is introduced. At the same time, the legally required reduction per domiciled resident is also made contingent upon the family size.
In practice, this means that the fixed fee of the drinking water component for a (theoretical) average family decreases from, on average, €55 in 2015 to €27 in 2016[23]. The decrease is smallest for small families, and highest for large families (from 5 persons the fixed fee does not apply at all). This measure increases the share of the variable price for the drinking water component in the invoice for all family types.

Figure 35: Evolution of the calculated drinking water component for an average family with an average consumption (2000-2017)

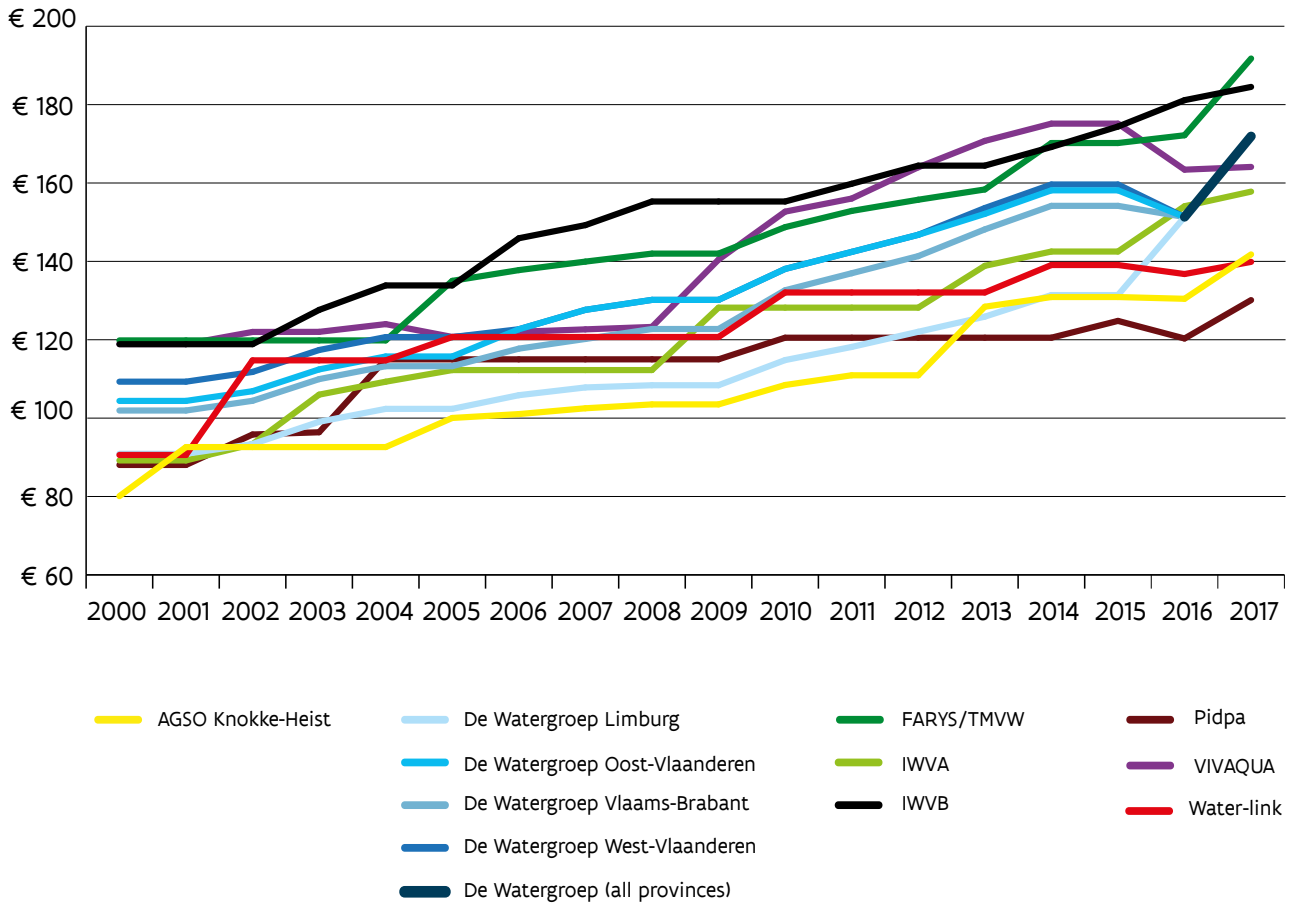


Source: VMM Water Bank

23 The decrease in the existing fixed fee for the drinking water component (from on average €55 to €50) coincides with the introduction of the fixed fee for the waste water components (from €0 in 2015 to €50 in 2016). As a result, the 'integral' fixed fee in the integral water invoice for an average family in 2016 is almost equal to the average 'drinking water' fixed fee in 2015 (€55 vs €27 + €16 + €11 = integral €54).

Figure 36 illustrates the evolution of the drinking water component for an average household for the various water companies. In 2000 the minimum was €79 and the maximum €133. In 2017 this has increased to €130 and €192 respectively. It is striking that quite a number of companies have applied sudden and steep tariff jumps in the period 2000-2017.
VIVAQUA, which is based in Brussels, has, in percentage terms, the smallest increase between 2000 and 2017 (38%), but does exhibit a remarkable pattern. In 2000 this company was the second-most expensive company, then it had a more or less flat tariff curve, only to be followed by a number of rather steep tariff jumps. In 2016 its tariffs decreased and in 2017 it is positioned in the middle of the pack. With 89%, De Watergroep Limburg has the highest increase, followed by IWVA and AGSO Knokke-Heist with 77%.

Figure 36: Overview and evolution of the calculated drinking water component for an average family at the different water companies (2000-2017)



Source: VMM Water Bank

Tariffs for one-off services

In addition to the costs of drinking water production and supply, which are charged via the integral bill, the water companies also charge numerous other rates for one-off services. Table 25 gives an overview of the tariffs in force on 1 January 2011 for a house connection, the replacement of a faulty meter and the first mandatory inspection (for new residences, amongst others) applied by the different water companies. Here, too, significant differences can be observed.

Table 25: Overview of tariffs for one-off services per water company (2016-2017)

	Tariff for residential connection incl. 1 water meter (dia. < 30)			Tariff for replacement of faulty meter (negligent customer)			Tariff for first (mandatory) inspection residential system		
Water company	2016	2017	Evolution 2016 2017	2016	2017	Evolution 2016 2017	2016	2017	Evolution 2016 2017
AGSO Knokke-Heist	€ 1,080	€ 1,080	0%	€ 270	€ 270	0%	€ 130	€ 130	0%
De Watergroep	€ 969	€ 998	3%	€ 196	€ 200	2%	€ 120	€ 120	0%
FARYS/TMVW	€ 958	€ 974	2%	€ 165	€ 167	1%	€ 120	€ 122	2%
IWVA	€ 817	€ 833	2%	€ 110	€ 112	1%	€ 114	€ 117	2%
IWVB	€ 607	€ 607	0%	€ 86	€ 86	0%	€ 110	€ 110	0%
Pidpa	€ 901	€ 978	9%	€ 133	€ 144	8%	€ 119	€ 128	8%
VIVAQUA	€ 828	€ 842	2%	€ 116	€ 118	2%	€ 110	€ 110	0%
Water-link	€ 960	€ 960	0%	€ 205	€ 205	0%	€ 120	€ 120	0%

Source: VMM Water Bank

PRICE COMPARISON OF THE DRINKING WATER COMPONENT FOR FAMILIES IN SURROUNDING REGIONS

In Table 26 and Figure 37 the Flemish drinking water price (water treatment cost excluded) for families is compared with the price in Wallonia and Brussels. As in Flanders, the drinking water component consists of a fixed fee (subscription fee) and a variable fee (based on consumption). Both in the Brussels Capital Region and the Walloon Region, one uniform pricing structure is used for the entire region.

In the Brussels Capital Region, a solidary and progressive pricing structure has been introduced. In this structure, the price per cubic metre differs depending on the used amount of mains water and the family composition. There are four progressive consumption blocks that are employed for both the drinking water component and the waste water components.

Brussels Capital Region	
Fixed fee (subscription fee)	**Per house or housing unit**
Variable fee	
Block 1: vital block	From 0 m^3 to 15 m^3 per domiciled resident per year
Block 2: social block	From 15 m^3 to 30 m^3 per domiciled resident per year
Block 3: normal block	From 30 m^3 to 60 m^3 per domiciled resident per year
Block 4: comfort block	From 60 m^3 per domiciled resident per year

In Wallonia, a uniform pricing structure is applicable since 2005. This pricing structure is based on the principle of the so-called 'actual cost of mains water' (CVD – the actual cost of the distribution, and CVA - the actual cost of the water treatment). CVD is an indicator in euros per m^3 that is set per water company. The pricing structure consists of a fixed and a variable part. The variable part has a pricing structure based on three consumption blocks. The size (volume) of the consumption blocks is laid down in legislation, as are the proportion of the tariffs per block and the contribution to the Social Fund. The pricing structure is a combination of two progressive price brackets (up to 5,000 m3) and digressive tariffs for the consumption over 5,000 m^3.

Walloon Region:	
Fixed fee - Drinking water	**20 x CVD***
Fixed fee - Waste water	**30 x CVA**
Variable fee	
Block 1: From 0 to 30 m per year	1/2 CVD + social fund for water + 6% VAT
Block 2: From 31 m^3 to 5,000 m^3 per year	CVD + CVA + social fund for water + 6% VAT
Block 3: From 5,000 m^3 to 25,000 m^3 per year	0.9 CVD + CVA + social fund for water + 6% VAT
Block 4: Over 25,000 m^3 per year	a x CVD + CVA + social fund for water + 6% VAT (a =< 0.9)

* from 2016 a supplementary meter rent (capacity fee) can be charged for water meters with DN >= 25mm.

In comparison to the other Belgian regions, the price of drinking water (water treatment excluded) in the Flemish Region is lower than in the Brussels Capital Region and the Walloon Region for every single family type. Striking is that the differentiation increases as the families grow in size. This can be attributed to the granting of 15 m^3 of free water per domiciled resident in Flanders until the end of 2015 and to the fixed fee reduction that has been applied from 2016. These measures do not exist in the other regions. Between 2012 and 2016, the price in the Brussels Capital Region increased the least in terms of percentage.

Table 26: Average cost of drinking water in surrounding regions (2012-2016)

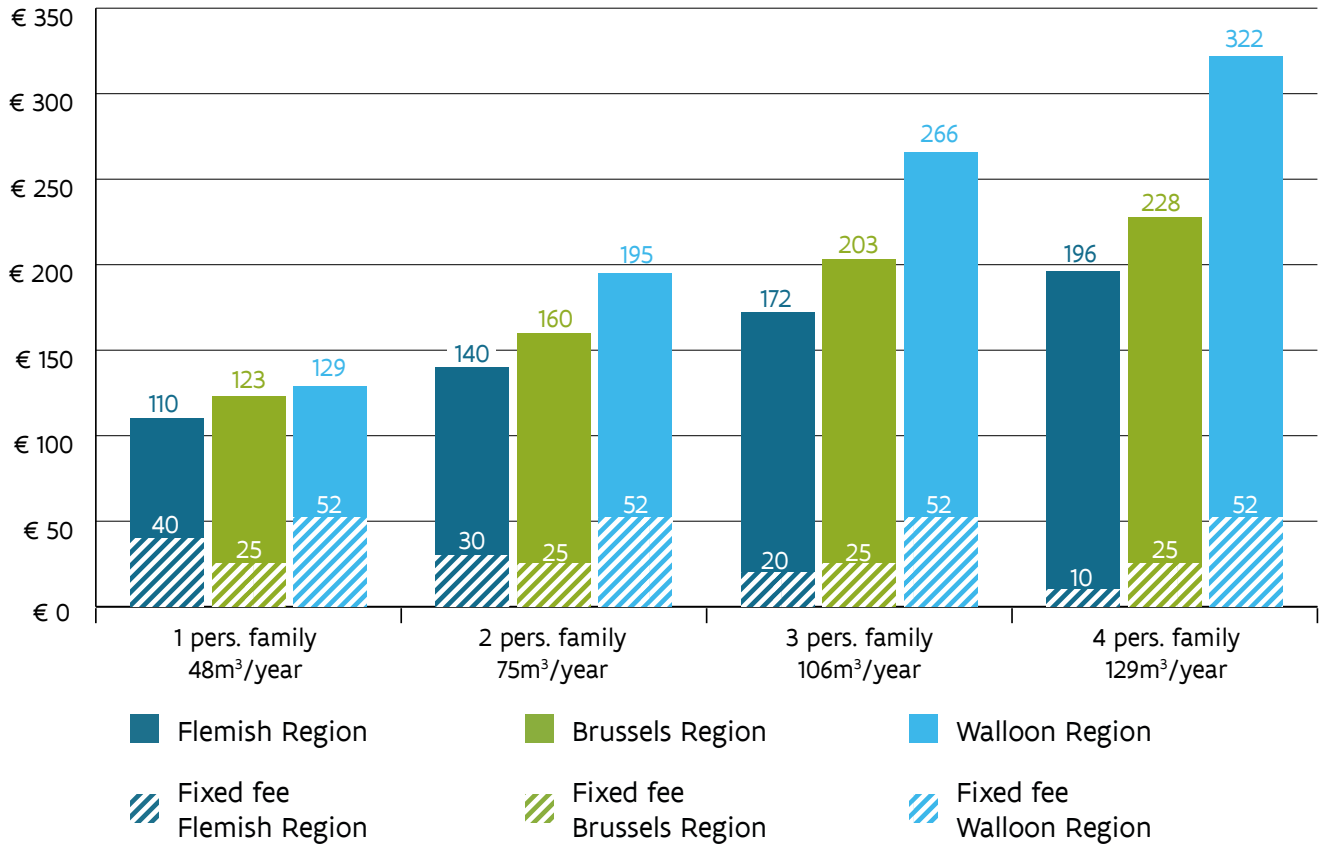
1/01/2012	1-pers. 48 m³/year	2-pers. 75 m³/year	3-pers. 104 m³/year	4-pers. 127 m³/year
Flemish Region	€ 110	€ 130	€ 156	€ 170
Brussels Capital Region	€ 119	€ 155	€ 196	€ 220
Walloon Region	€ 117	€ 177	€ 241	€ 292
1/01/2014	**1-pers. 48 m³/year**	**2-pers. 75 m³/year**	**3-pers. 104 m³/year**	**4-pers. 127 m³/year**
Flemish Region	€ 118	€ 140	€ 166	€ 181
Brussels Capital Region	€ 122	€ 159	€ 202	€ 227
Walloon Region	€ 129	€ 195	€ 266	€ 322
1/01/2016	**1-pers. 48 m³/year**	**2-pers. 75 m³/year**	**3-pers. 104 m³/year**	**4-pers. 127 m³/year**
Flemish Region	€ 110	€ 140	€ 172	€ 196
Brussels Capital Region	€ 123	€ 160	€ 203	€ 228
Walloon Region	€ 137	€ 207	€ 283	€ 342
	Evolution 2012 2016	**Evolution 2012 2016**	**Evolution 2012 2016**	**Evolution 2012 2016**
Flemish Region	0.2%	7.7%	6.4%	6.5%
Brussels Capital Region	3.4%	2.6%	3.1%	3.2%
Walloon Region	17.3%	10.2%	10.2%	10.2%

Flemish Region: Weighted based on the distribution of the households across the water companies.

Walloon Region: Weighted based on the distribution of the water meters across the water companies (calculation includes contribution to the social fund (€ 0.0125/m³ until 2014 and € 0.0250/m³ from 2015)); Brussels Capital Region: Calculation includes funding of the social fund (€ 0.03/m³).

Source: VMM Water Bank

Figure 37: Average cost of drinking water in surrounding regions for four family types (2016)



Source: VMM Water Bank

(FLAT) PRICING STRUCTURE FOR BUSINESSES

Table 27 provides an overview of the tariffs employed by the different water companies for the drinking water component in the flat pricing structure on 1 January 2017. The flat tariffs can only be applied for customers with business activities (non-household). For consumption over 500 m^3, different tariffs can be applied for the distribution of drinking water[24], depending on the water company. Most water companies conclude individual contracts with very large water consumers with individual pricing structures and associated individually negotiated tariffs. These tariffs are not known and therefore not included in this overview.

Remarkably, the different companies adopt a (very) different approach to the tariffs charged to businesses. As a result, there is a great variety in the way in which the 'large' (industrial) consumers are charged. Especially the upper limits of the volumes in the non-standard brackets differ widely. Admittedly, the composition of the customer base of the different companies also varies considerably. In the distribution area of some companies, certain consumer types (e.g. very large industrial consumers) are virtually absent.

Water-link and VIVAQUA publish (only) the flat pricing structure with a single flat tariff for non-household customers. Water-link has a number of very large consumers among its customers. For these large industrial customers, individually negotiated (non-standard) tariffs and structures are applied. VIVAQUA does this also for large customers.
The other water companies employ/publish (transparently) a degressive structure for the larger (industrial) consumers. This does not exclude that individual contracts are also concluded with specific (individual) customers.

AGSO Knokke-Heist applies the same (set) flat tariff for the first 1,000 m^3, from 1,000 m^3 it also charges a non-standard (lower) tariff. De Watergroep, IWVA, IWVB, Pidpa and FARYS/TMVW clearly differentiate between small and large industrial customers, and use several non-standard tariff brackets for this. De Watergroep sets the limit for the lowest tariff for consumption over 6,000 m^3, at IWVA this is 60,000 m^3. At Pidpa and FARYS/TMVW this limit is set at 100,000 m^3. FARYS/TMVW has the most extensive structure with three brackets, and makes a greater distinction for its large industrial customers.

24 For the waste water components, non-standard tariffs are not permitted by law. The non-standard tariffs for drinking water are referred to as Indu 1, Indu 2 and Indu 3 in Table 27.

Table 27: Overview of tariffs and structures of the drinking water component for businesses (subscribers with Non-Household activities) (2017)

	Fixed fee	Variable price (consumption)			
	per water meter without reduction pp **€ / year**	**Flat** Volume (m^3) Upper limit **€ / m^3**	**Indu 1** Volume (m^3) Upper limit **€ / m^3**	**Indu 2** Volume (m^3) Upper limit **€ / m^3**	**Indu 3** Volume (m^3) Upper limit **€ / m^3**
AGSO Knokke-Heist	per water meter **€ 50.00**	500 m^3 **€ 1.8755**	1,000 m^3 **€ 1.8755**	infinite **€ 1.5004**	
De Watergroep	per water meter **€ 50.00**	500 m^3 **€ 1.9958**	6,000 m^3 **€ 1.6612**	infinite **€ 1.3959**	
FARYS/TMVW	per water meter **€ 50.00**	500 m^3 **€ 3.7920**	50,000 m^3 **€ 1.4660**	100,000 m^3 **€ 1.4041**	infinite **€ 1.2698**
IWVA	per water meter **€ 50.00**	500 m^3 **€ 1.7831**	60,000 m^3 **€ 1.6576**	infinite **€ 1.0880**	
IWVB	per water meter **€ 50.00**	500 m^3 **€ 2.9771**	1,000 m^3 **€ 2.9240**	infinite **€ 2.0134**	
Pidpa	per water meter **€ 50.00**	500 m^3 **€ 1.3709**	100,000 m^3 **€ 1.0917**	infinite **€ 1.0153**	
VIVAQUA	per water meter **€ 50.00**	500 m^3 **€ 3.2321**	infinite **€ 3.2321**		
Water-link	per water meter **€ 50.00**	500 m^3 **€ 1.4940**	infinite **€ 1.4940**		

pp = per person, domiciled on 01/11 of previous calendar year

Reduction pp: For the fixed fee per housing unit for drinking water, a reduction of €10 'per person domiciled' is applied.

Source: VMM Water Bank

TARIFFS AND PRICE FOR THE DRINKING WATER COMPONENT FOR BUSINESSES

Table 28 provides, per water company, an overview of the calculated price per m^3 and the total price for a business with an annual consumption of 500 m^3 and a water meter with a diameter smaller than 30 mm. The calculation is made based on the tariffs in force on 1 January 2017.
For businesses, too, there is a great difference in pricing among the different companies for the variable fee, ranging from €1.47 per m^3 (Pidpa) to €3.89 per m^3 (FARYS/TMVW).

Table 28: Overview and evolution of the calculated drinking water component in price per year for one business type (2017)

Business type 500 / < 30	**Prices excl. VAT**			**Rank**	**Share in total drinking water price**		**Evolution 2016-2017**	
	in force on 01/01/2017			1 = most expensive	% share	% share	€ Evolution	% Evolution
Price for 500 m^3 consumption per year	Fixed fee	(Consumption) Variable price	Total drinking water price Fixed + Variable	Total drinking water price Fixed + Variable	Fixed fee	(Consumption) Variable price	Total drinking water price Fixed + Variable	Total drinking water price Fixed + Variable
AGSO Knokke-Heist	€ 50.00	€ 937.75	€ 987.75	5	5.1%	94.9%	€ 109.82	12.5%
De Watergroep	€ 50.00	€ 997.90	€ 1,047.90	4	4.8%	95.2%	€ 132.90	14.5%
FARYS/TMVW	€ 50.00	€ 1,896.00	€ 1,946.00	1	2.6%	97.4%	€ 373.10	23.7%
IWVA	€ 50.00	€ 891.55	€ 941.55	6	5.3%	94.7%	€ 16.55	1.8%
IWVB	€ 50.00	€ 1,488.55	€ 1,538.55	3	3.2%	96.8%	€ 48.55	3.3%
Pidpa	€ 50.00	€ 685.45	€ 735.45	8	6.8%	93.2%	€ 62.80	9.3%
VIVAQUA	€ 50.00	€ 1,616.05	€ 1,666.05	2	3.0%	97.0%	€ 11.05	0.7%
Water-link	€ 50.00	€ 747.00	€ 797.00	7	6.3%	93.7%	€ 20.51	2.6%
Calculated average	€ 50.00	€ 1,157.53	€ 1,207.53		4.6%	95.4%	€ 96.91	8.6%
Median	€ 50.00	€ 967.83	€ 1,017.83		4.9%	95.1%	€ 55.68	6.3%
Minimum	€ 50.00	€ 685.45	€ 735.45		2.6%	93.2%	€ 11.05	0.7%
Maximum	€ 50.00	€ 1,896.00	€ 1,946.00		6.8%	97.4%	€ 373.10	23.7%
Calculated average per m^3	€ 0.10	€ 2.32	€ 2.42		0.0%	0.2%	€ 0.19	8.6%
Median per m^3	€ 0.10	€ 1.94	€ 2.04		0.0%	0.2%	€ 0.11	6.3%
Minimum per m^3	€ 0.10	€ 1.37	€ 1.47		0.0%	0.2%	€ 0.02	0.7%
Maximum per m^3	€ 0.10	€ 3.79	€ 3.89		0.0%	0.2%	€ 0.75	23.7%

Source: VMM Water Bank

Capacity fees for large water meters

Companies often need additional extraction capacity. This can have very different reasons: going from safety reasons (e.g. fire extinguishing capacity), to a very specific extraction behaviour (e.g. a large amount of water in very short time) to just major water use.
A larger capacity requires a larger water meter. Table 22 provides an overview of the annual fee charged for water meters with a diameter up to 100 mm.
Here, too, there is a great variety among the different water companies. The table shows above all that the tariffs of most companies increase according to the capacity of the water meter. FARYS/TMVW does not charge a capacity fee for larger water meters.

Sometimes more advanced water meters are used in combination with data loggers. Those tariffs are not included in the overview.

Table 29: Overview of tariffs for water meters with larger capacities (2016-2017)

	Water meter Diameter 40mm			Water meter Diameter 50mm			Water meter Diameter 80mm			Water meter Diameter 100mm		
Water company	2016	2017	Evolution 2015 2016	2016	2017	Evolution 2015 2016	2016	2017	Evolution 2015 2016	2016	2017	Evolution 2015 2016
AGSO Knokke-Heist	€ 300	€ 305	2%	€ 450	€ 457	2%	€ 1,200	€ 1,220	2%	€ 1,950	€ 1,982	2%
De Watergroep*	€ 325	€ 325	0%	€ 550	€ 550	0%	€ 1,250	€ 1,250	0%	€ 1,900	€ 1,900	0%
FARYS/TMVW	-	-		-	-		-	-		-	-	
IWVA	€ 48	€ 49	2%	€ 140	€ 142	2%	€ 269	€ 274	2%	-	-	
IWVB - TMVW	-	-		-	-		-	-		-	-	
IWVB - Vivaqua	€ 150	€ 150	0%	€ 250	€ 250	0%	€ 350	€ 350	0%	€ 500	€ 500	0%
Pidpa	€ 266	€ 290	9%	€ 377	€ 420	11%	€ 979	€ 990	1%	€ 1,468	€ 1,485	1%
VIVAQUA	€ 123	€ 123		€ 205	€ 205		€ 287	€ 287		€ 410	€ 410	
Water-link	-	-		€ 425	€ 425	0%	€ 860	€ 860	0%	€ 1,275	€ 1,275	0%

* Tariffs as known on 31 December 2016

Source: VMM Water Bank

Evolution of tariffs for the drinking water component for one business type (2000-2017)

Table 30 shows the evolution of the calculated average drinking water component and its component parts, for one business type with an annual consumption of 500 m³ and a water meter without capacity fee (diameter < 30mm). The prices shown have been calculated per water company based on the tariffs valid on 1 January.

Table 30: Overview and evolution of the calculated drinking water component for one business type with an annual consumption of 500 m³ and a water meter without capacity fee (2000-2017)

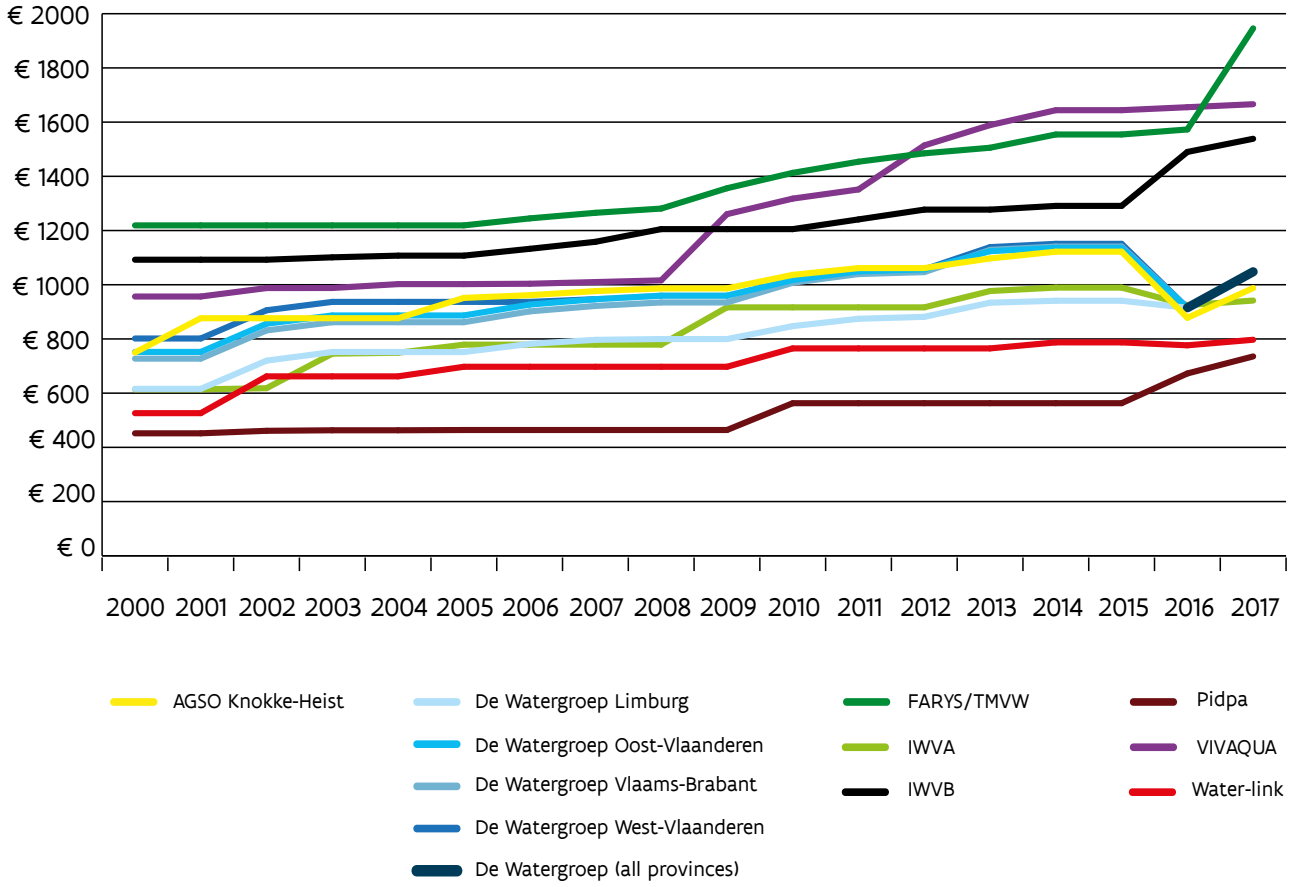
Business type m³ Consumption / Diameter 500 / <30	Water component	2000	2005	2010	2015	2016	2017	Evolution 2016 2017 %	Evolution 2016 2017 €
AGSO Knokke-Heist	Fixed fee €	6	6	6	22	50	50	0%	€ 0
	Variable price €	744	945	1030	1100	828	938	13%	€ 110
	Variable + Fixed €	750	951	1036	1122	878	988	13%	€ 110
	Variable + Fixed € / m³	€ 1.50	€ 1.90	€ 2.07	€ 2.24	€ 1.76	€ 1.98	13%	€ 0.2
De Watergroep Limburg	Fixed fee €	33	212	227	251	50	50	0%	€ 0
	Variable price €	583	540	620	690	865	998	15%	€ 133
	Variable + Fixed €	616	752	847	941	915	1048	15%	€ 133
	Variable + Fixed € / m³	€ 1.23	€ 1.50	€ 1.69	€ 1.88	€ 1.83	€ 2.10	15%	€ 0.3
De Watergroep E-Fl.	Fixed fee €	33	212	227	251	50	50	0%	€ 0
	Variable price €	719	675	790	885	865	998	15%	€ 133
	Variable + Fixed €	752	887	1017	1136	915	1048	15%	€ 133
	Variable + Fixed € / m³	€ 1.50	€ 1.77	€ 2.03	€ 2.27	€ 1.83	€ 2.10	15%	€ 0.3
De Watergroep Fl-Br.	Fixed fee €	33	212	227	251	50	50	0%	€ 0
	Variable price €	694	650	780	890	865	998	15%	€ 133
	Variable + Fixed €	727	862	1007	1141	915	1048	15%	€ 133
	Variable + Fixed € / m³	€ 1.45	€ 1.72	€ 2.01	€ 2.28	€ 1.83	€ 2.10	15%	€ 0.3
De Watergroep W-Fl.	Fixed fee €	33	212	227	251	50	50	0%	€ 0
	Variable price €	768	725	790	900	865	998	15%	€ 133
	Variable + Fixed €	802	937	1017	1151	915	1048	15%	€ 133
	Variable + Fixed € / m³	€ 1.60	€ 1.87	€ 2.03	€ 2.30	€ 1.83	€ 2.10	15%	€ 0.3
FARYS/TMVW	Fixed fee €	39	39	43	54	50	50	0%	€ 0
	Variable price €	1180	1180	1370	1500	1523	1896	24%	€ 373
	Variable + Fixed €	1219	1219	1413	1554	1573	1946	24%	€ 373
	Variable + Fixed € / m³	€ 2.44	€ 2.44	€ 2.83	€ 3.11	€ 3.15	€ 3.89	24%	€ 0.7
IWVA	Fixed fee €	32	39	42	49	50	50	0%	€ 0
	Variable price €	583	740	875	940	875	892	2%	€ 17
	Variable + Fixed €	614	779	917	989	925	942	2%	€ 17
	Variable + Fixed € / m³	€ 1.23	€ 1.56	€ 1.83	€ 1.98	€ 1.85	€ 1.88	2%	€ 0.0

Business type m³ Consumption / Diameter								Evolution 2016 2017	Evolution 2016 2017
500 / <30	Water component	2000	2005	2010	2015	2016	2017	%	€
IWVB	Fixed fee €	21	36	40	46	50	50	0%	€ 0
	Variable price €	1072	1072	1165	1245	1440	1489	3%	€ 49
	Variable + Fixed €	1092	1107	1205	1291	1490	1539	3%	€ 49
	Variable + Fixed € / m³	€ 2.18	€ 2.21	€ 2.41	€ 2.58	€ 2.98	€ 3.08	3%	€ 0.1
Pidpa	Fixed fee €	52	54	63	63	50	50	0%	€ 0
	Variable price €	400	410	500	500	623	685	10%	€ 63
	Variable + Fixed €	452	464	563	563	673	735	9%	€ 63
	Variable + Fixed € / m³	€ 0.90	€ 0.93	€ 1.13	€ 1.13	€ 1.35	€ 1.47	9%	€ 0.1
VIVAQUA - Kraainem	Fixed fee €	35	35	38	38	50	50	0%	€ 0
	Variable price €	855	855	1375	1605	1605	1616	1%	€ 11
	Variable + Fixed €	890	890	1413	1643	1655	1666	1%	€ 11
	Variable + Fixed € / m³	€ 1.78	€ 1.78	€ 2.83	€ 3.29	€ 3.31	€ 3.33	1%	€ 0.0
VIVAQUA - Linkebeek	Fixed fee €	17	17	38	38	50	50	0%	€ 0
	Variable price €	1301	1301	1375	1605	1605	1616	1%	€ 11
	Variable + Fixed €	1319	1319	1413	1643	1655	1666	1%	€ 11
	Variable + Fixed € / m³	€ 2.64	€ 2.64	€ 2.83	€ 3.29	€ 3.31	€ 3.33	1%	€ 0.0
VIVAQUA - Steenokkerzeel	Fixed fee €	33	36	41	41	50	50	0%	€ 0
	Variable price €	694	750	990	1605	1605	1616	1%	€ 11
	Variable + Fixed €	727	786	1031	1646	1655	1666	1%	€ 11
	Variable + Fixed € / m³	€ 1.45	€ 1.57	€ 2.06	€ 3.29	€ 3.31	€ 3.33	1%	€ 0.0
VIVAQUA - Wezebeek-Oppem	Fixed fee €	35	35	38	38	50	50	0%	€ 0
	Variable price €	855	980	1375	1605	1605	1616	1%	€ 11
	Variable + Fixed €	890	1015	1413	1643	1655	1666	1%	€ 11
	Variable + Fixed € / m³	€ 1.78	€ 2.03	€ 2.83	€ 3.29	€ 3.31	€ 3.33	1%	€ 0.0
Water-link	Fixed fee €	43	57	63	68	50	50	0%	€ 0
	Variable price €	483	640	703	719	726	747	3%	€ 21
	Variable + Fixed €	526	697	765	787	776	797	3%	€ 21
	Variable + Fixed € / m³	€ 1.05	€ 1.39	€ 1.53	€ 1.57	€ 1.55	€ 1.59	3%	€ 0.0

Source: VMM Water Bank

Figure 38 illustrates the evolution of the drinking water component for one business type with an annual consumption of 500 m and a water meter with a diameter smaller than 30 mm. Again, what is striking is the great diversity of evolution and the massive spread between the highest and lowest rates. The field of spread has also widened over the years.

Figure 38: Overview and evolution of the calculated drinking water component for one business type at the different water companies (2000-2017)



Source: VMM Water Bank

FINANCIAL STATEMENTS OF THE WATER SECTOR

GLOBAL DATA ABOUT THE WATER SECTOR

This chapter discusses the sectoral balance sheet, the sectoral profit-and-loss account and the evolution of a limited amount of sectoral ratios. The tables and graphs in this chapter are based on the figures that the water companies publish in their filed annual accounts. The figures refer to all activities carried out by the water companies, not merely water-related activities. Water companies are responsible for the production and distribution of drinking water (drinking water activity), treatment of the water supplied (waste water treatment activity) and, in addition, also carry out other activities (for instance, FARYS/TMVW manages sports infrastructure and AGSO Knokke-Heist manages city development).

SECTORAL BALANCE SHEET[25]

The sectoral balance sheet total is obtained by adding up the individual data of the different water companies. The total sum of the fixed assets of the sector is almost 83% of the balance sheet total. This indicates the investment-intensive character of the sector.

Table 31: Sectoral balance sheet (2015)

Assets		**Codes**	**(x €1,000)**
Fixed assets		**20/28**	**4,356,393**
I	Preliminary flotation	20	3,359
II	Intangible fixed assets	21	43,138
III	Tangible fixed assets	22/27	4,281,109
IV	Financial fixed assets	28	28,787
Current assets		**29/58**	**918,200**
V	Long-term receivables	29	48,109
VI	Inventories and work-in-progress	3	53,694
VII	Short-term receivables	40/41	440,072
VIII	Capital investments	50/53	93,787
IX	Liquid assets	54/58	110,372
X	Other assets	490/1	172,166
TOTAL ASSETS		**20/58**	**5,274,593**

Liabilities		**Codes**	**(x €1,000)**
Equity		**10/15**	**3,091,432**
I	Capital	10	1,462,124
II	Share premiums	11	28,177
III	Revaluation reserves	12	796,222
IV	Reserves	13	525,437
V	Profit (loss) brought forward	14	37,462
VI	Grants	15	248,309
VII Provisions and deferred taxation		**16**	**77,116**
VIIA	Provisions for liabilities and charges	160/5	76,961
Debt payable		**17/49**	**2,106,045**
VIII	Long-term liabilities	17	1,339,232
IX	Short-term liabilities	42/48	660,688
X	Other assets	492/3	106,126
TOTAL LIABILITIES		**10/49**	**5,274,593**

Source: National Bank of Belgium - Balance Centre, VMM Water Bank

25 This is the sum of the figures from the balance sheets of all operators with the exception of Brabant Water. For VIVAQUA, only the Flanders part is included.

SECTORAL PROFIT AND LOSS ACCOUNT[26]

The sectoral profit-and-loss account paints a general picture of the exploitation during 2015. Note that the sectoral profit-and-loss-account is merely the sum of the figures from the profit-and-loss account of every water company individually. For instance, the turnover achieved through inter-company selling was not corrected.

Table 32: Sectoral profit and loss account (2015)

Profit-and-loss account		Codes	(x €1,000)	
I	**Operating income**	**70/74**	**1,627,709**	**100.0%**
A	Turnover	70	1,402,313	86.2%
B	Changes to the inventory of goods-in-progress and finished product and to the work-in-progress (increase +, decrease -)	71	-1,057	-0.1%
C	Produced fixed assets	72	48,911	3.0%
D	Other operating income	74	177,542	10.9%
II	**Operating expenses**	**60/64**	**1,539,234**	**94.6%**
A	Goods for resale, raw materials and consumables	60	465,257	28.6%
B	Other external charges	61	564,485	34.7%
C	Remunerations, national security contributions and pensions	62	273,126	16.8%
D	Depreciation and value reductions preliminary flotation, intangible and tangible fixed assets	630	192,193	11.8%
E	Value reductions on inventories, work-in-progress and trade receivables - Additions (subtractions)	631/4	3,294	0.2%
F	Provisions for liabilities and charges - additions (expenditures and write-backs)	635/7	298	0.0%
G	Other operating expenses	640/8	40,581	2.5%
H	Operating expenses activated as restructuring costs	649	0	0.0%
III	**COMPANY PROFIT (LOSS)**	**9901**	**88,475**	**5.4%**
IV	**Financial income**	**75**	**16,263**	**1.0%**
V	**Financial expenses**	**65**	**41,816**	**2.6%**
VI	**PROFIT (LOSS) FROM NORMAL ACTIVITIES BEFORE TAXATION**	**9902**	**62,922**	**3.9%**
VII	**Exceptional income**	**76**	**16,582**	**1.0%**
VIII	**Exceptional expenses**	**66**	**4,535**	**0.3%**
IX	**PROFIT (LOSS) FINANCIAL YEAR BEFORE TAXATION**	**9903**	**74,969**	**4.6%**
X	**Withdrawal from/transfer to deferred taxation**	**780/680**	**309**	**0.0%**
XI	**Taxation on result**	**67/77**	**7,389**	**0.5%**
XII	**PROFIT (LOSS) OF FINANCIAL YEAR**	**9904**	**67,889**	**4.2%**

Source: National Bank of Belgium - Balance Centre, VMM Water Bank

26 This is the sum of the figures from the balance sheets of all operators with the exception of Brabant Water and GW Hoeilaart. For VIVAQUA, only the Flanders part is included. For these calculations the figures from IMWV are also included. IMVW groups together 16 participants that are distribution associates of TMVW for the distribution of the drinking water on their territory.

SECTORAL RATIOS[27]

Sector averages

The ratios and conclusions on sector level in Table 33 are based on absolute figures and therefore take into account the size of every single water company.
The short-term liquidity is calculated based on the current ratio. This is the ratio between the current assets[28] and the short-term loan capital. A value higher (lower) than one indicates a positive (negative) net working capital. In that case, the total assets of the sector are basically (not) sufficient to fulfil its short-term financial responsibilities. Still, a ratio below one should not be problematic by definition. The higher the ratio, the healthier the company's liquidity position. In 2015, the ratio for the drinking water sector increased to 1.13. This means that the current ratio on sector level is above the tilt value of one.

The solvency of a company is the capacity of a company to fulfil its long-term financial responsibilities. It indicates to which extent the sector chooses to finance either with equity, or with loan capital. In 2015, the ratio decreases slightly (1.2%) compared to 2014, and is almost 59%. Thus, in 2015, almost two-thirds of the balance sheet total of the sector is financed with equity, and 31% with loan capital.
The net profitability of the total assets before taxation is the return of the total assets or the total equity. The net profitability of the used material resources amounts to 2.19% in 2015. The net profitability of the equity after taxation, the return of allocated capital, decreases slightly (by 0.14% compared to 2014) to 2.20% in 2015.

Table 33: Sectoral ratios (2010-2015)

Liquidity						
Short-term liquidity: Current ratio						
Current assets (net) / Short-term debt capital						
	2010	**2011**	**2012**	**2013**	**2014**	**2015**
Ratio	**0.97**	**0.89**	**0.95**	**0.83**	**1.03**	**1.13**
Solvency						
Degree of financial independence (in %)						
Equity / Total assets						
	2010	**2011**	**2012**	**2013**	**2014**	**2015**
Ratio	**52.23%**	**51.28%**	**45.35%**	**50.18%**	**59.36%**	**58.61%**
Profitability						
Net profitability of total assets before taxation (in %)						
Profit of financial year before financial costs en before taxation / Total assets						
	2010	**2011**	**2012**	**2013**	**2014**	**2015**
Ratio	**1.90%**	**1.85%**	**1.72%**	**1.52%**	**2.38%**	**2.19%**
Net profitability of equity after taxation (in %)						
Profit of financial year after taxation / Equity						
	2010	**2011**	**2012**	**2013**	**2014**	**2015**
Ratio	**2.57%**	**2.40%**	**2.44%**	**1.84%**	**2.34%**	**2.20%**

Source: National Bank of Belgium - Balance Centre, VMM Water Bank

27 The ratios on sector level are based on the sectoral balance sheet and the sectoral profit-and-loss account. Brabant Water is not included in the sectorial ratios. For VIVAQUA only the Flanders part is included.

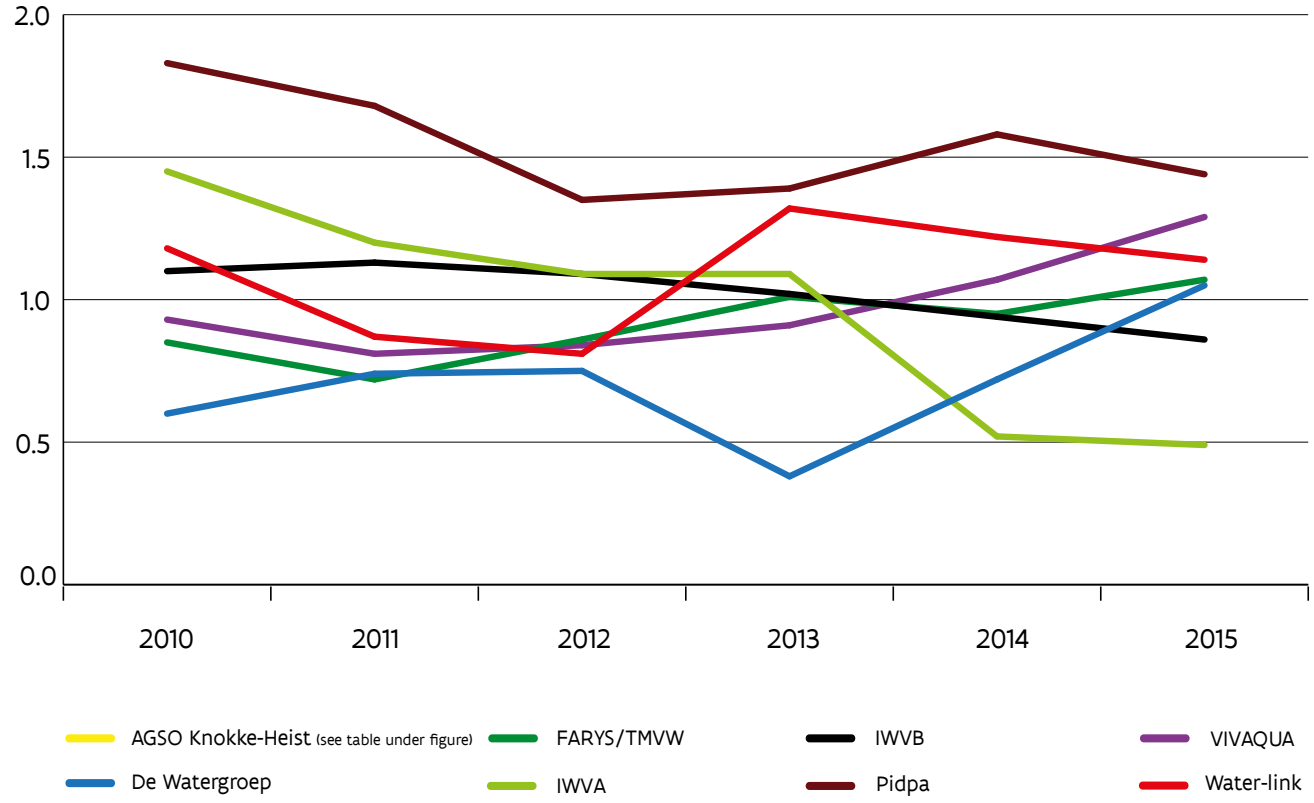
28 This is the sum of the inventories and work-in-progress, the short-term receivables, the financial investments, the liquid assets and other current assets (codes 3 through to 490/1).

EVOLUTION OF THE RATIOS PER WATER COMPANY[29]

The figures below illustrate the evolution of the liquidity, the solvency and the profitability of every water company between 2010 and 2015.

Figure 39 illustrates the evolution of the liquidity of the drinking water sector based on the evolution of the current ratio.
The liquidity position of Pidpa is the strongest in 2015. The current ratio of IWVA and IWVB is below the tilt value of one in 2015. IWVA, IWVB and Pidpa have been on a downward trend since 2010. Water-link, too, shows a decrease compared to 2010. An increase is recorded for De Watergroep, TMWV and VIVAQUA. For readability purposes, the figure for AGSO Knokke-Heist was not included in the figure. The data for AGSO Knokke-Heist are shown in the table below. The extremely high ratio for AGSO Knokke-Heist is to be attributed, among other factors, to its real estate activity.

Figure 39: Evolution liquidity water companies (2010-2015)



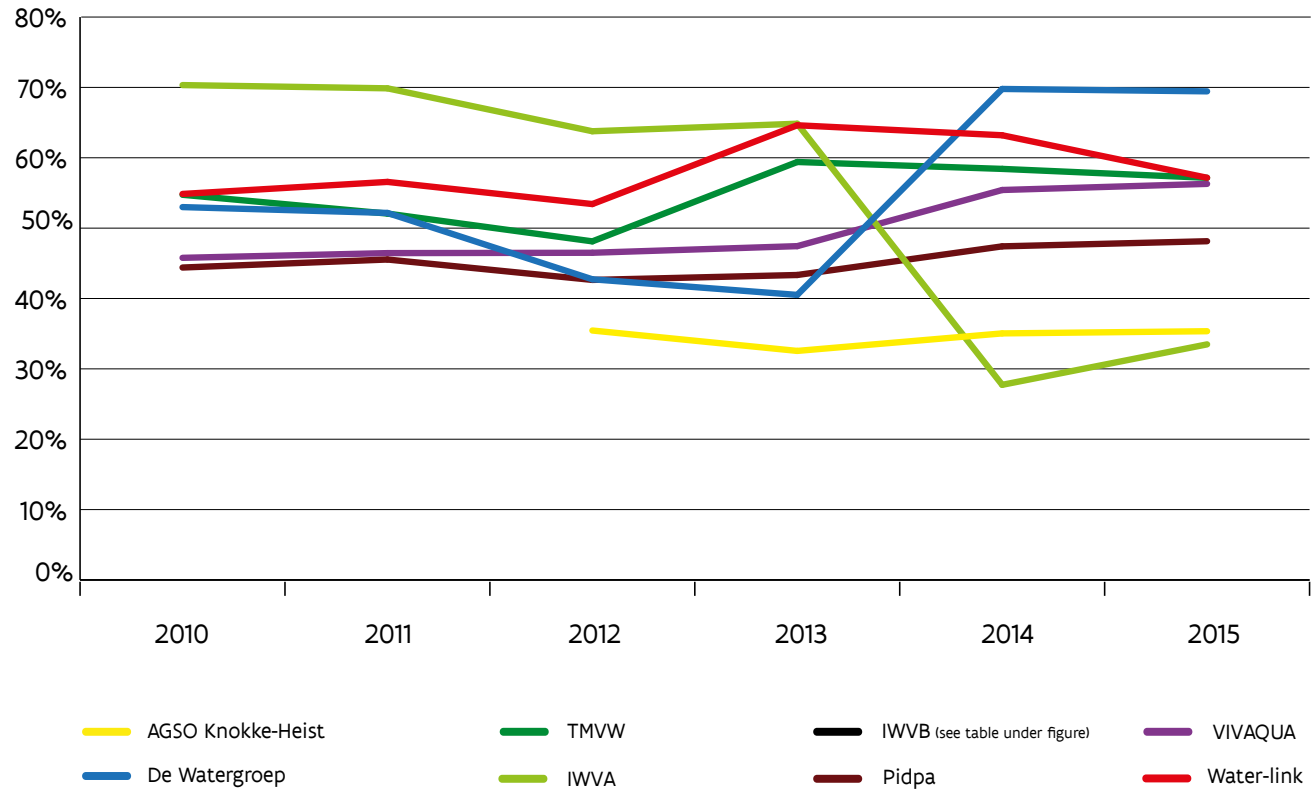
Liquidity						
Adjusted current assets / Short-term debt	2010	2011	2012	2013	2014	2015
AGSO Knokke-Heist			**4.41**	**2.43**	**2.26**	**3.33**

Source: National Bank of Belgium - Balance Centre, VMM Water Bank

29 With the exception of Brabant Water. For AGSO Knokke-Heist, only figures as of 2012 are included, the year when the water activity was taken over by the AGSO.

Figure 40 illustrates the evolution of the solvency of the water companies based on the evolution of the degree of financial independence. In 2015, the solvency of De Watergroep (69.48%) and Water-link (57.2%) is the highest. At AGSO Knokke –Heist and IWVA it is the lowest (35.3% and 33.5% respectively). The value of IWVB is still negative and decreasing sharply as a result of the negative equity.

Figure 40: Evolution solvency water companies (2010-2015)

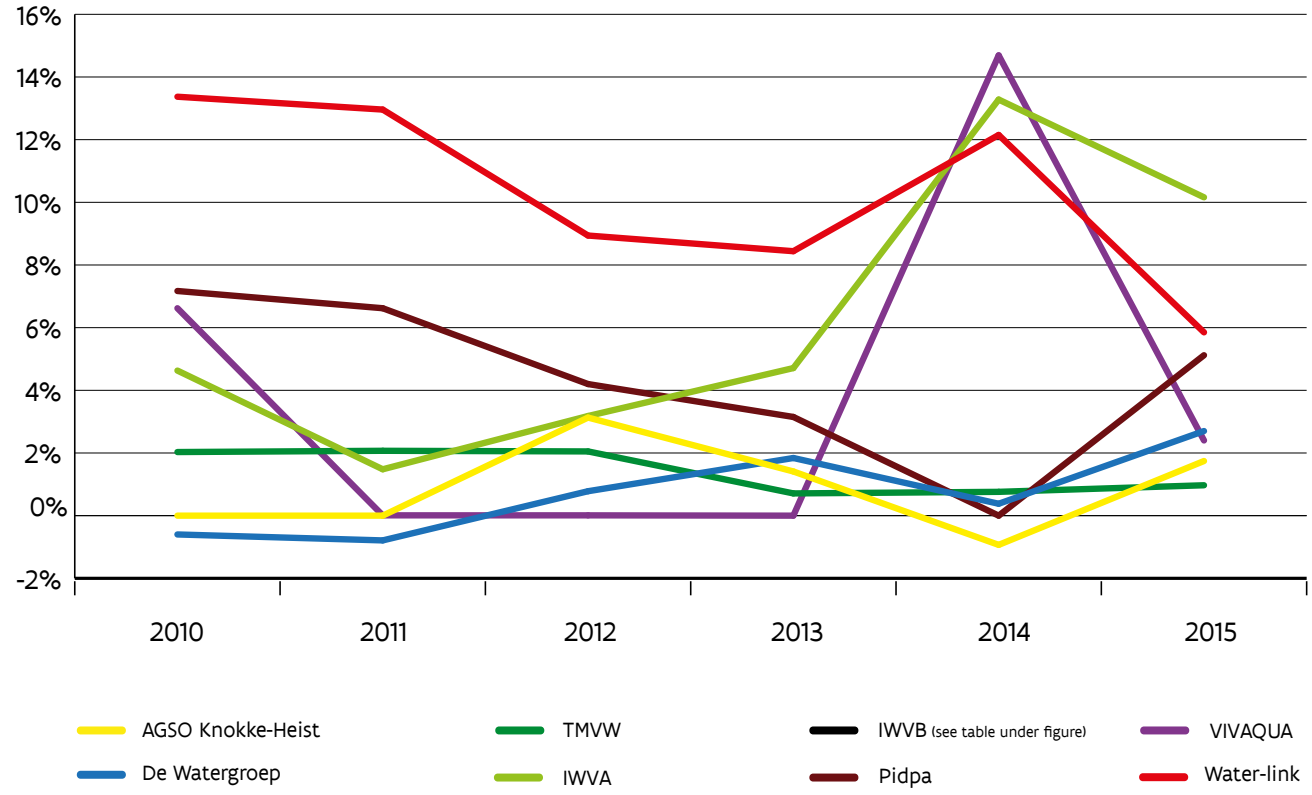


Solvency						
Equity / Total assets	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
IWVB	**-0.05%**	**0.21%**	**-4.06%**	**-12.33%**	**-24.39%**	**-34.40%**

Source: National Bank of Belgium - Balance Centre, VMM Water Bank

Figure 41 illustrates the evolution of the solvency of the water companies based on the evolution of the degree of profitability of equity after taxation. According to this ratio, the equity of IWVA pays the most profit in 2015. IWVB is the sole company with a negative return on equity in 2015. In order to keep the figure clear and readable, IWVB was not included, because it struggles with a negative equity and loss. The data for IWVB are shown in the table below.

Figure 41: Evolution profitability water companies (2010-2015)



Profitability						
Profit of financial year before financial costs en before taxation / Total assets	2010	2011	2012	2013	2014	2015
IWVB	**217.33%**	**124.25%**	**105.09%**	**67.90%**	**41.62%**	**33.75%**

Source: National Bank of Belgium - Balance Centre, VMM Water Bank

FINANCIAL DATA ABOUT DRINKING WATER ACTIVITY

TURNOVER FROM DRINKING WATER ACTIVITY

Table 34 illustrates the evolution of the turnover from the drinking water activity per water company and also provides the share of the turnover from the drinking water activity compared to both the total turnover and the total operating income (total = drinking water and non-drinking water activity).

Table 34: Turnover from water sale versus total turnover and operating income (2013)

Water company		2014 (*€1,000)	2015 (*€1,000)	Evolution 2014 2015	% Share Drinking water activity turnover vs Total Turnover 2014	2015	vs Total Operating Income 2014	2015
AGSO Knokke-Heist	Drinking water activity turnover (acct 70)	5,815	5,355	-8%	52%	47%	44%	40%
	Total turnover (acct 70)	11,113	11,511	-8%				
	Total operating income (acct. 70/74)	13,074	13,499	-6%				
De Watergroep	Drinking water activity turnover (acct 70)	230,981	234,630	2%	49%	43%	39%	36%
	Total turnover (acct 70)	471,665	542,678	2%				
	Total operating income (acct. 70/74)	592,642	648,876	4%				
TMVW	Drinking water activity turnover (acct 70)	155,867	155,458	0%	55%	53%	50%	47%
	Total turnover (acct 70)	284,913	291,888	0%				
	Total operating income (acct. 70/74)	312,299	329,866	-1%				
IWVA	Drinking water activity turnover (acct 70)	9,099	9,000	-1%	58%	55%	44%	43%
	Total turnover (acct 70)	15,702	16,453	-1%				
	Total operating income (acct. 70/74)	20,520	20,759	2%				
IWVB	Drinking water activity turnover (acct 70)	31,174	31,195	0%	100%	100%	94%	94%
	Total turnover (acct 70)	31,174	31,195	0%				
	Total operating income (acct. 70/74)	32,999	33,082	0%				
Pidpa	Drinking water activity turnover (acct 70)	91,080	94,382	4%	46%	42%	35%	35%
	Total turnover (acct 70)	199,043	224,595	4%				
	Total operating income (acct. 70/74)	257,294	271,596	4%				
VIVAQUA*	Drinking water activity turnover (acct 70)	3,897	3,743	-4%	1%	1%	1%	1%
	Total turnover (acct 70)	321,163	292,416	-9%				
	Total operating income (acct. 70/74)	335,062	309,954	-7%				
Water-link	Drinking water activity turnover (acct 70)	70,582	69,161	-2%	55%	55%	55%	55%
	Total turnover (acct 70)	127,556	126,154	-2%				
	Total operating income (acct. 70/74)	127,556	126,154	-2%				
Flanders	**Drinking water activity turnover (acct 70)**	**598,495**	**602,924**	**1%**	**100%**	**100%**	**87%**	**86%**
	Total turnover (acct 70)	**1,462,329**	**1,536,891**	**1%**				
	Total operating income (acct. 70/74)	**1,691,447**	**1,753,785**	**2%**				

* For VIVAQUA the drinking water activity turnover is the turnover from direct sales to subscribers in Flanders (tariff plans). The total turnover and total operating income concerns all turnover and operating income for VIVAQUA as a whole (both for the Flemish Region and for the other regions).

Source: National Bank of Belgium - Balance Centre, VMM Water Bank

Table 35 shows the market share per water company, which is calculated based on the turnover from the drinking water activity. The table shows that De Watergroep has the largest market share in 2015. More than 39% of the turnover achieved from the drinking water activity in Flanders was realised by De Watergroep. The four largest water companies (De Watergroep, TMVW, Pidpa and Water-link) achieved almost 92% of the turnover from water sale. This indicates a high concentration within the sector.

The same conclusion can be made after calculating the Herindahl-Hirschman Index (HHI). This index is calculated by summing up all the squared market shares. It is often used in competition issues as a criterion for the concentration in the sector. In 2015, the HHI is 0.26 and is therefore higher than benchmark 0.18. This indicates a high concentration within the sector.

Table 35: Market share of water companies based on turnover from sale of water (2015)

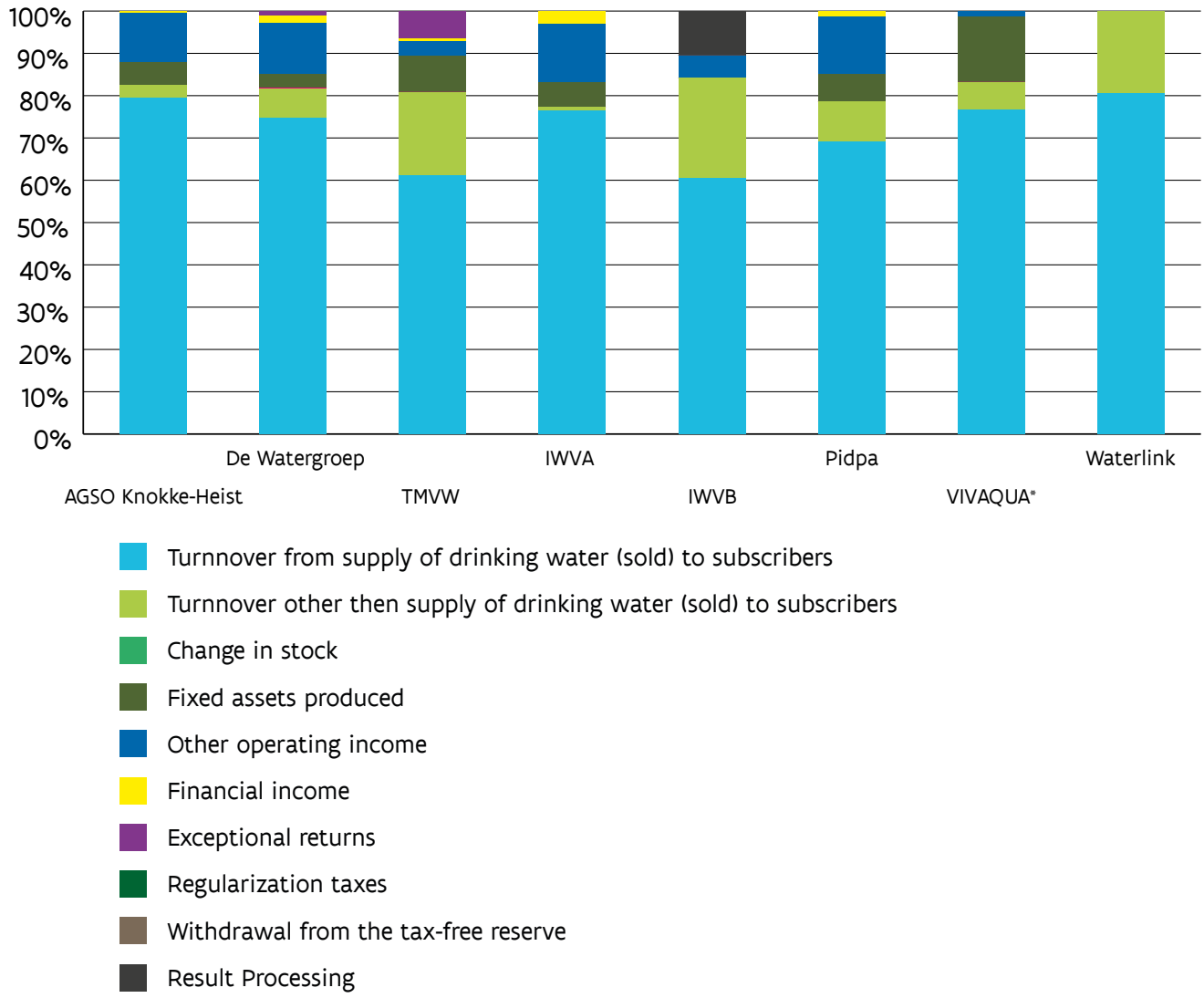
Water company	Turnover from sale of water 2015 (*€1,000)	Market share 2015	Rank	Market share in the quadrant
AGSO Knokke-Heist	5,355	1%	7	**0.00**
De Watergroep	234,630	39%	1	**0.15**
TMVW	155,458	26%	2	**0.07**
IWVA	9,000	1%	6	**0.00**
IWVB	31,195	5%	5	**0.00**
Pidpa	94,382	16%	3	**0.02**
VIVAQUA	3,743	1%	8	**0.00**
Water-link	69,161	11%	4	**0.01**
Sector	**602,924**	**100%**		**0.26**

Source: VMM Water Bank

RELATIVE INCOME STRUCTURE

Figure 42 shows the share of different income items from water activity in relation to the total of water-related revenue per water company.

Figure 42: Relative income structure (2015)

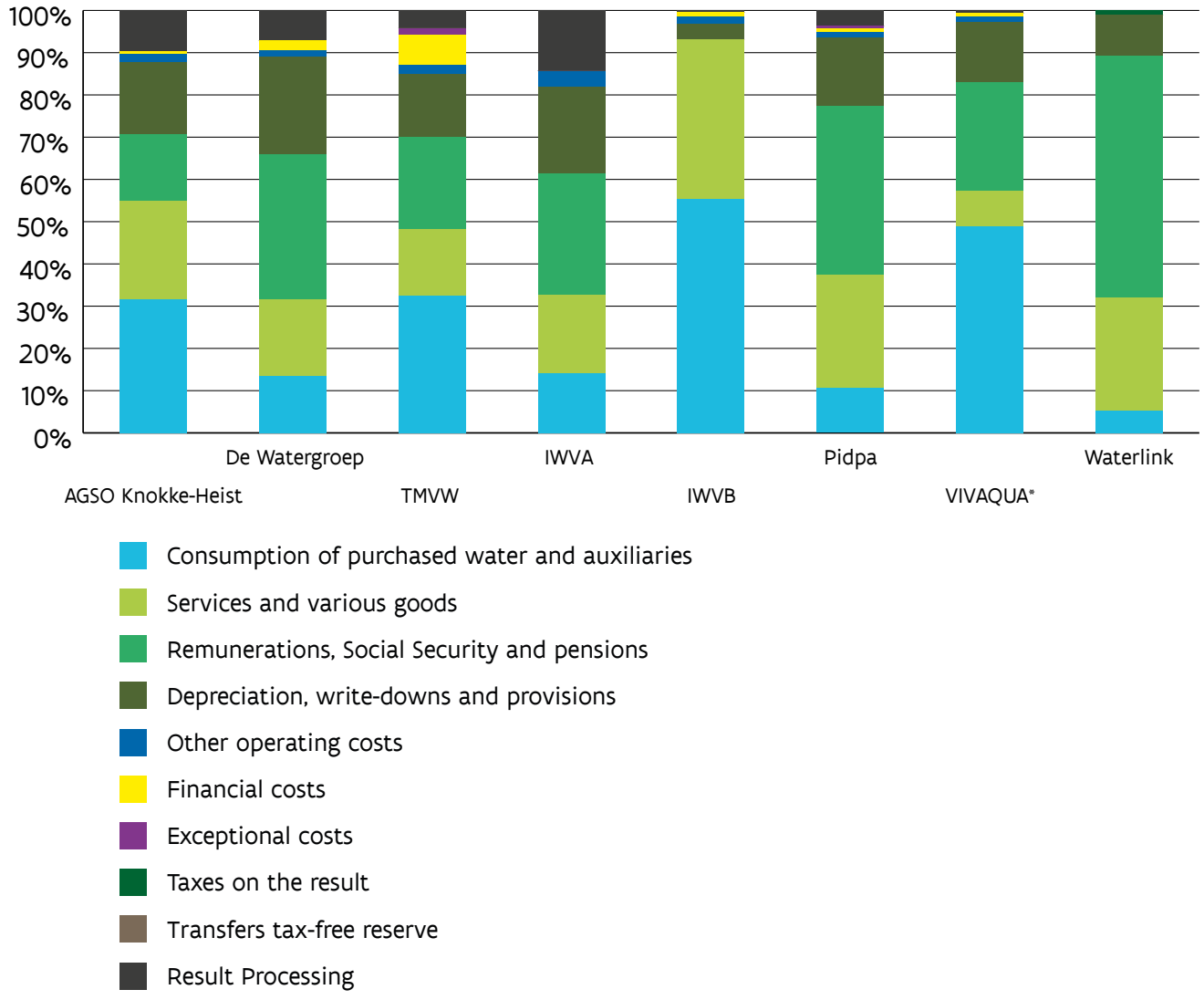


* For VIVAQUA the drinking water activity turnover is the turnover from direct sales to subscribers in Flanders.
Source: VMM Water Bank

RELATIVE COST STRUCTURE

Figure 43 shows the share of different cost items of water activity in relation to the total of water related expenses per water company.
The figure clearly shows the difference in importance of certain cost items at the water companies.

Figure 43: Relative cost structure (2015)



Source: VMM Water Bank

GLOSSARY

Subscriber: any natural or legal person entitled to a real estate, connected to a public water distribution network and to whom the operator of a public distribution network supplies drinking water via said public water distribution network.

Wholesaler: any customer that is not a subscriber and to whom the operator of a public water distribution network supplies water.

Distribution area: the area within which the operator of a public water distribution network supplies drinking water, via pipelines of the public water distribution network, to subscribers.

Drinking water: water that meets the requirements laid down for water for human consumption. This includes all the water that, in untreated or treated form, is destined for drinking, cooking, food preparation or other household purposes, regardless of the origin and regardless of whether the water is distributed via a public water distribution network or via a private water source, from a tanker or lorry or in bottles or cartons, with the exception of:

a) natural mineral water, which is recognised as such in accordance with the Royal Decree of 8 February 1999 concerning natural mineral water and source water;

b) water that is a medicine.

Drinking water activity: all activities of the drinking water company that relate to the production and distribution of water intended for human consumption.

Drinking water component: the fee for the production and distribution of the mains water (part of the integral water invoice). This component consists of an annual fixed fee (subscription fee) and a variable fee (depending on water consumption).

Equivalent annual disposable income: the disposable income at the individual level ('equivalent income') is derived from the available family income adjusted to the size of the family. The disposable income at individual level is not just the household disposable income divided by the number of family members. The fact that, in general, not all adult family members and especially children contribute proportionally to the family income is taken into account. A weight of 1 is assigned to the reference person in the household, a weight of 0.5 to any other person over the age of 14 and a weight of 0.3 to every child.

Collected water: all the collected ground- and surface water.

Average family: a family consisting of 2.3 domiciled persons with an annual mains water consumption of 84 m^3 and no private water collection site.

Groundwater: all the water that is situated under the ground surface in the saturated zone, and that comes into direct contact with the soil or subsoil.

Households, industry and agriculture:

1. Large consumers are assigned as follows to the industry and agriculture target groups.
   a. Large consumers with an agricultural activity cf. levy on water contamination are assigned to agriculture;
   b. Large consumers without an agricultural activity are assigned to industry.
2. Small consumers:
   a. With domiciled residents are assigned to households;
   b. Without domiciled residents and with enterprise number are assigned to industry;
   c. The rest, i.e. small consumers without domiciled residents or with an unknown number of domiciled residents and without enterprise number, are the remaining group. The remaining group includes secondary houses and companies that did not submit an enterprise number.

Large consumers: non-small consumers. The large consumers are mainly companies and farmers.

Integral water invoice: the invoice that water companies send to their subscribers. This invoice contains a drinking water component and waste water components.

Small consumers: cf. Article 35quater, § 1 of the law of 26 March 1971 on the protection of the surface waters against pollution. This refers mainly to families, but also to small businesses and services that only use a little water.

Mains water: water that is supplied via the public water distribution network.
Delivery area: a geographically demarcated area within which the water intended for human consumption originates from one or more sources of which the water is expected to be of nearly uniform quality.
Surface water: all the water that water companies collect that is not groundwater.
Clear water: drinking water supplied to wholesalers.
Raw water: water before production (which is converted into drinking water or other water further into the cycle).
Waste water components: the contributions for the drain-off, collection and purification of the waste water originating from the used mains water (part of the integral water invoice). They consist of a municipal contribution (GSB) and/or fee (GSV) used to finance the municipal purification obligations (drain-off and collection of used water) and a regional contribution (BGB) to finance the regional water treatment obligation (purification of waste water).
Variable fee: variable part of the drinking water component of the integral water invoice. The variable fee depends on the water consumption.
Fixed fee: fixed part of the drinking water component of the integral water invoice. The fixed part is also known as the subscription fee.
Subscriber entitled to exemption or compensation: a subscriber who is entitled to one of the following benefits or allowances:

a) integration allowance, income-replacement benefit, or allowance for assistance to elderly persons and persons with a disability;
b) a living wage or minimum wage granted by the Public Social Welfare Centre;
c) the guaranteed income or income guarantee for older and elderly persons.

Water activity: the whole of activities for the production and distribution of water to subscribers and wholesalers.
Water bank: database with billing data of consumption and/or final invoices of all water companies.
Water book: the collection of data at the disposal of the WaterRegulator.
Water company: operator of a public water distribution network.
WaterRegulator: regulatory body set up in 2009 as a sub-entity of the VMM to focus on:

a) increasing transparency about drinking water production,
b) comparing the performance and efficiency of the water companies,
c) conducting studies and using the results as inputs for advice to the Flemish Government.

Water consumption: water that is used in a measurable quantity.
Water Sale Regulations: the Government Act of 8 April 2011 containing provisions for the rights and obligations of the operators of a public water distribution network and their customers concerning the distribution of water intended for human consumption, the implementation of the waste water treatment obligation and the General Water Sale Regulations.
Housing unit: each unit in a housing that is designed or adapted to be used separately and that has at least the following residential provisions: a living room in combination with a lavatory, a shower or bath and a kitchen or kitchenette.

APPENDIX 1: OVERVIEW OF FIGURES

APPENDIX 2: OVERVIEW OF TABLES

APPENDIX 3: CONTACT DETAILS OF WATER COMPANIES

AGSO Knokke-Heist	Registered office	Contact / Info
Autonoom Gemeentebedrijf stadsontwikkeling Knokke-Heist	't Walletje 104 bus 101 8300 Knokke-Heist	Tel. 050 44 25 00 E-mail: agso@knokke-heist.be http://www.agsoknokke-heist.be

BRABANT WATER	Registered office	Contact / Info
Brabant Water N.V.	Magistratenlaan 200 5223 MA 's-Hertogenbosch (NL)	Tel. 0031 73 683 88 88 E-mail: klantenservice@brabantwater.nl http://www.brabantwater.nl

De Watergroep	Registered office Central directorate	Contact / Info
Vlaamse maatschappij voor watervoorziening	Vooruitgangstraat 189 1030 Brussel	Tel. 02 238 94 11 E-mail: info@dewatergroep.be http://www.dewatergroep.be

De Watergroep Limburg	Provincial customer service Limburg	Contact / Info
	Runkstersteenweg 208 3500 Hasselt	Tel. 011 28 06 11 E-mail: info.limburg@dewatergroep.be http://www.dewatergroep.be

De Watergroep Oost-Vlaanderen	Provincial customer service Oost-Vlaanderen	Contact / Info
	Koning Boudewijnstraat 46 9000 Gent	Tel. 09 240 91 11 E-mail: info.oost.vlaanderen@dewatergroep.be http://www.dewatergroep.be

De Watergroep Vlaams-Brabant	Provincial customer service Vlaams Brabant	Contact / Info
	Herbert Hooverplein 23 3000 Leuven	Tel. 016 24 09 11 E-mail: info.vlaams.brabant@dewatergroep.be http://www.dewatergroep.be

De Watergroep West-Vlaanderen	Provincial customer service West-Vlaanderen	Contact / Info
	Roggelaan 2 8500 Kortrijk	Tel. 056 23 17 11 E-mail: info.west.vlaanderen@dewatergroep.be http://www.dewatergroep.be

FARYS/TMVW	Registered office	Contact / Info
Tussengemeentelijke Maatschappij der Vlaanderen voor Watervoorziening (TMWV)	Stropstraat 1 9000 Gent	Tel. 078 35 35 99 Customer contact via www.farys.be http://www.farys.be

IWVA	Registered office	Contact / Info
Intercommunale Waterleidingsmaatschappij van Veurne-Ambacht	Doornpannestraat 1 8670 Koksijde	Tel. 058 53 38 33 E-mail: info@iwva.be http://www.iwva.be

IWVB	Registered office	Contact / Info
Intercommunale voor Waterbedeling in Vlaams-Brabant	Alsembergsesteenweg 1046 1652 Beersel	Tel. 02 359 17 17
	Registered office	**Contact / Info**
	Stropstraat 1 9000 Gent	Tel. 078 35 35 99 Customer contact via www.farys.be http://www.farys.be

Pidpa	Registered office	Contact / Info
Provinciale en Intercommunale Drinkwatermaatschappij der Provincie Antwerpen	Vierselsebaan 5 2280 Grobbendonk	
	Registered office	**Contact / Info**
	Desguinlei 246 2018 Antwerpen	Tel. 03 216 88 00 E-mail: info@pidpa.be http://www.pidpa.be

VIVAQUA	Registered office	Contact / Info
VIVAQUA	Keizerinlaan 17-19 1000 Brussel	Tel. 02 518 81 11 E-mail: info@vivaqua.be http://www.vivaqua.be

Water-link	Registered office	Contact / Info
Antwerpse Waterwerken	Mechelsesteenweg 66 2018 Antwerpen	Tel. 078 35 35 99 Customer contact via www.water-link.be http://www.water-link.be

APPENDIX 4: OVERVIEW OF SERVED MUNICIPALITIES PER WATER COMPANY WITH SHARE OF SERVED POPULATION

	AGSO Knokke-Heist	Served %
1	Knokke-Heist	100%

	BRABANT WATER	Served %
1	Baarle Hertog	87%

	De Watergroep Limburg	Served %			Served %
1	Alken	100%	23	Kinrooi	100%
2	As	100%	24	Kortessem	100%
3	Beringen	100%	25	Lanaken	100%
4	Bilzen	100%	26	Leopoldsburg	100%
5	Bocholt	100%	27	Lommel	100%
6	Borgloon	100%	28	Lummen	100%
7	Bree	100%	29	Maaseik	100%
8	Diepenbeek	100%	30	Maasmechelen	100%
9	Dilsen-Stokkem	100%	31	Meeuwen-Gruitrode	100%
10	Genk	100%	32	Neerpelt	100%
11	Gingelom	100%	33	Nieuwerkerken (Limb.)	100%
12	Halen	100%	34	Opglabbeek	100%
13	Ham	100%	35	Overpelt	100%
14	Hamont-Achel	100%	36	Peer	100%
15	Hasselt	100%	37	Riemst	100%
16	Hechtel-Eksel	100%	38	Sint-Truiden	100%
17	Heers	100%	39	Tessenderlo	100%
18	Herk-de-Stad	100%	40	Tongeren	100%
19	Herstappe	100%	41	Voeren	100%
20	Heusden-Zolder	100%	42	Wellen	100%
21	Hoeselt	100%	43	Zonhoven	100%
22	Houthalen-Helchteren	100%	44	Zutendaal	100%

	De Watergroep Oost-Vlaanderen	Served %			Served %
1	Assenede	100%	15	Lokeren	100%
2	Berlare	100%	16	Maldegem	100%
3	Beveren	100%	17	Moerbeke (Waas)	100%
4	Denderleeuw	100%	18	Ninove	100%
5	Eeklo	100%	19	Sint-Gillis-Waas	100%
6	Evergem	100%	20	Sint-Laureins	100%
7	Geraardsbergen	100%	21	Sint-Niklaas	100%
8	Haaltert	100%	22	Stekene	100%
9	Herzele	32%	23	Temse	100%
10	Kaprijke	100%	24	Waarschoot	100%
11	Kruibeke	100%	25	Waasmunster	100%
12	Laarne	100%	26	Wachtebeke	100%
13	Lierde	33%	27	Zele	100%
14	Lochristi	42%			

	De Watergroep Vlaams-Brabant	Served %			Served %
1	Aarschot	100%	28	Landen	100%
2	Begijnendijk	100%	29	Lennik	100%
3	Bekkevoort	100%	30	Leuven	100%
4	Bertem	100%	31	Liedekerke	10%
5	Bever	100%	32	Linter	100%
6	Bierbeek	100%	33	Londerzeel	100%
7	Boortmeerbeek	100%	34	Lubbeek	100%
8	Boutersem	100%	35	Meise	100%
9	Diest	100%	36	Merchtem	95%
10	Galmaarden	100%	37	Opwijk	90%
11	Geetbets	100%	38	Oud-Heverlee	100%
12	Glabbeek	100%	39	Overijse	100%
13	Gooik	100%	40	Pepingen	100%
14	Grimbergen	68%	41	Roosdaal	100%
15	Haacht	100%	42	Rotselaar	100%
16	Halle	20%	43	Scherpenheuvel-Zichem	100%
17	Herent	100%	44	Steenokkerzeel	46%
18	Herne	100%	45	Ternat	58%
19	Hoegaarden	100%	46	Tervuren	32%
20	Hoeilaart	100%	47	Tielt-Winge	100%
21	Holsbeek	100%	48	Tienen	100%
22	Huldenberg	100%	49	Tremelo	100%
23	Kampenhout	100%	50	Vilvoorde	100%
24	Kapelle-op-den-Bos	100%	51	Zaventem	9%
25	Keerbergen	100%	52	Zemst	100%
26	Kortenaken	100%	53	Zoutleeuw	100%
27	Kortenberg	66%			

	De Watergroep West-Vlaanderen	Served %			Served %
1	Anzegem	100%	27	Menen	100%
2	Ardooie	100%	28	Mesen	100%
3	Avelgem	100%	29	Meulebeke	100%
4	Bredene	100%	30	Middelkerke	13%
5	Deerlijk	100%	31	Moorslede	100%
6	Dentergem	100%	32	Oostende	21%
7	Diksmuide	91%	33	Oostkamp	41%
8	Gistel	100%	34	Oostrozebeke	100%
9	Harelbeke	100%	35	Oudenburg	100%
10	Heuvelland	100%	36	Pittem	100%
11	Hooglede	100%	37	Poperinge	100%
12	Houthulst	100%	38	Roeselare	100%
13	Ichtegem	100%	39	Spiere-Helkijn	100%
14	Ieper	100%	40	Staden	100%
15	Ingelmunster	100%	41	Tielt	100%
16	Izegem	100%	42	Torhout	100%
17	Jabbeke	58%	43	Vleteren	100%
18	Koekelare	100%	44	Waregem	100%
19	Kortemark	100%	45	Wervik	100%
20	Kortrijk	100%	46	Wevelgem	100%
21	Kuurne	100%	47	Wielsbeke	100%
22	Langemark-Poelkapelle	100%	48	Wingene	100%
23	Ledegem	100%	49	Zedelgem	100%
24	Lendelede	100%	50	Zonnebeke	100%
25	Lichtervelde	100%	51	Zwevegem	100%
26	Lo-Reninge	100%			

	FARYS/TMVW	Served %			Served %
1	Aalst	100%	30	Lochristi	58%
2	Aalter	100%	31	Lovendegem	100%
3	Affligem	100%	32	Maarkedal	100%
4	Asse	100%	33	Melle	100%
5	Beernem	100%	34	Merelbeke	100%
6	Blankenberge	100%	35	Middelkerke	87%
7	Brakel	100%	36	Nazareth	100%
8	Brugge	100%	37	Nevele	100%
9	Buggenhout	100%	38	Oostende	79%
10	Damme	100%	39	Oosterzele	100%
11	De Haan	100%	40	Oostkamp	59%
12	De Pinte	100%	41	Opwijk*	10%
13	Deinze	100%	42	Oudenaarde	100%
14	Dendermonde	100%	43	Ronse	100%
15	Destelbergen	100%	44	Ruiselede	100%
16	Erpe-Mere	100%	45	Sint-Lievens-Houtem	100%
17	Gavere	100%	46	Sint-Martens-Latem	100%
18	Gent	100%	47	Ternat	42%
19	Hamme (Fl.)	100%	48	Wetteren	100%
20	Herzele	68%	49	Wichelen	100%
21	Horebeke	100%	50	Wortegem-Petegem	100%
22	Jabbeke	42%	51	Zelzate	100%
23	Kluisbergen	100%	52	Zingem	100%
24	Knesselare	100%	53	Zomergem	100%
25	Kruishoutem	100%	54	Zottegem	100%
26	Lebbeke	100%	55	Zuienkerke	100%
27	Lede	100%	56	Zulte	100%
28	Liedekerke	90%	57	Zwalm	100%
29	Lierde	67%			

* Taken over by De Watergroep on 01/11/2016

	IWVA	Served %			Served %
1	Alveringem	100%	4	Koksijde	100%
2	De Panne	100%	5	Nieuwpoort	100%
3	Diksmuide	9%	6	Veurne	100%

	IWVB	Served %			Served %
1	Beersel	100%	8	Merchtem	5%
2	Dilbeek	100%	9	Sint-Genesius-Rode	100%
3	Drogenbos	100%	10	Sint-Pieters-Leeuw	100%
4	Grimbergen	32%	11	Tervuren	68%
5	Halle	80%	12	Wemmel	100%
6	Kortenberg	34%	13	Zaventem	91%
7	Machelen (Brab.)	100%			

	Pidpa	Served %			Served %
1	Aartselaar	100%	34	Malle	100%
2	Arendonk	100%	35	Mechelen	100%
3	Baarle Hertog	13%	36	Meerhout	100%
4	Balen	100%	37	Merksplas	100%
5	Beerse	100%	38	Mol	100%
6	Berlaar	100%	39	Niel	100%
7	Boechout	21%	40	Nijlen	100%
8	Bonheiden	100%	41	Olen	100%
9	Boom	100%	42	Oud-Turnhout	100%
10	Bornem	100%	43	Putte	100%
11	Borsbeek	100%	44	Puurs	100%
12	Brasschaat	100%	45	Ranst	100%
13	Brecht	100%	46	Ravels	100%
14	Dessel	100%	47	Retie	100%
15	Duffel	100%	48	Rijkevorsel	100%
16	Essen	100%	49	Rumst	100%
17	Geel	100%	50	Schelle	100%
18	Grobbendonk	100%	51	Schilde	100%
19	Heist-op-den-Berg	100%	52	Schoten	100%
20	Hemiksem	100%	53	Sint-Amands	100%
21	Herentals	100%	54	Sint-Katelijne-Waver	100%
22	Herenthout	100%	55	Stabroek	100%
23	Herselt	100%	56	Turnhout	100%
24	Hoogstraten	100%	57	Vorselaar	100%
25	Hulshout	100%	58	Vosselaar	100%
26	Kalmthout	100%	59	Westerlo	100%
27	Kapellen	97%	60	Wijnegem	100%
28	Kasterlee	100%	61	Willebroek	100%
29	Kontich	9%	62	Wommelgem	100%
30	Laakdal	100%	63	Wuustwezel	100%
31	Lier	100%	64	Zandhoven	100%
32	Lille	100%	65	Zoersel	100%
33	Lint	100%			

	VIVAQUA	Served %			Served %
1	Kraainem	100%	3	Steenokkerzeel	54%
2	Linkebeek	100%	4	Wezembeek-Oppem	100%

	Water-link	Served %			Served %
1	Antwerpen	100%	5	Kapellen	3%
2	Boechout	79%	6	Kontich	91%
3	Edegem	100%	7	Mortsel	100%
4	Hove	100%	8	Zwijndrecht	100%

APPENDIX 5a: OVERVIEW OF AVERAGE ANNUAL MAINS WATER CONSUMPTION PER FAMILY TYPE, PER PROVINCE

Province	Family type with number of domiciled residents	Average ANNUAL consumption in m³ per family type	Average ANNUAL consumption in m³ per domiciled resident	Average DAILY consumption in litres per domiciled resident
Antwerpen	1	52	52	142
Limburg	1	52	52	143
Oost-Vlaanderen	1	46	46	125
Vlaams-Brabant	1	49	49	135
West-Vlaanderen	1	43	43	119
Antwerpen	2	82	41	113
Limburg	2	76	38	104
Oost-Vlaanderen	2	71	36	98
Vlaams-Brabant	2	74	37	102
West-Vlaanderen	2	67	34	92
Antwerpen	3	115	38	105
Limburg	3	104	35	95
Oost-Vlaanderen	3	100	33	91
Vlaams-Brabant	3	101	34	92
West-Vlaanderen	3	94	31	86
Antwerpen	4	138	34	94
Limburg	4	127	32	87
Oost-Vlaanderen	4	122	30	83
Vlaams-Brabant	4	123	31	84
West-Vlaanderen	4	116	29	79
Antwerpen	5	167	33	92
Limburg	5	155	31	85
Oost-Vlaanderen	5	144	29	79
Vlaams-Brabant	5	146	29	80
West-Vlaanderen	5	142	28	78

APPENDIX 5b: OVERVIEW OF AVERAGE ANNUAL MAINS WATER CONSUMPTION PER FAMILY TYPE, PER WATER COMPANY

Water company	Family type with number of domiciled residents	Average ANNUAL consumption in m³ per family type	Average ANNUAL consumption in m³ per domiciled resident	Average DAILY consumption in litres per domiciled resident
AGSO Knokke-Heist	1	61	61	167
De Watergroep	1	47	47	128
FARYS/TMVW	1	46	46	127
IWVA	1	45	45	124
IWVB	1	51	51	140
Pidpa	1	50	50	136
VIVAQUA	1	58	58	158
Water-link	1	58	58	160
AGSO Knokke-Heist	2	90	45	124
De Watergroep	2	71	36	98
FARYS/TMVW	2	72	36	98
IWVA	2	72	36	98
IWVB	2	76	38	104
Pidpa	2	80	40	110
VIVAQUA	2	82	41	112
Water-link	2	89	45	123
AGSO Knokke-Heist	3	124	41	113
De Watergroep	3	98	33	90
FARYS/TMVW	3	101	34	92
IWVA	3	103	34	94
IWVB	3	104	35	95
Pidpa	3	112	37	103
VIVAQUA	3	110	37	101
Water-link	3	124	41	113
AGSO Knokke-Heist	4	154	39	106
De Watergroep	4	121	30	83
FARYS/TMVW	4	124	31	85
IWVA	4	129	32	89
IWVB	4	124	31	85
Pidpa	4	135	34	92
VIVAQUA	4	131	33	90
Water-link	4	147	37	100
AGSO Knokke-Heist	5	212	42	116
De Watergroep	5	146	29	80
FARYS/TMVW	5	146	29	80
IWVA	5	164	33	90
IWVB	5	149	30	82
Pidpa	5	160	32	88
VIVAQUA	5	157	31	86
Water-link	5	181	36	99

APPENDIX 6: DISTRIBUTION OF FAMILIES ACCORDING TO HOUSEHOLD SIZE ACROSS DISTRIBUTION AREAS

Distribution of the different Household Types across the water companies and their distribution area in 2016

Water company	Calculated Population 2016	Total number of House-holds 2016	Calculated number of HH-1	% population in HH-1	% HH-1 vs total HH-1	Calculated number of HH-2	% population in HH-2	% HH-2 vs total HH-2	Calculated number of HH-3	% population in HH-3	% HH-3 vs total HH-3
AGSO Knokke-Heist	33,467	16,833	6,761	20%	1%	6,457	19%	1%	1,833	5%	0%
Brabant Water	2,234	911	270	12%	0%	303	14%	0%	115	5%	0%
De Watergroep	2,991,999	1,251,240	361,304	12%	42%	438,425	14%	47%	192,608	7%	48%
IWVA	62,489	30,377	11,613	19%	1%	11,608	19%	1%	3,267	5%	1%
IWVB	246,680	99,726	28,807	12%	3%	31,499	13%	3%	15,703	6%	4%
FARYS/TMVW	1,264,182	557,869	189,253	15%	22%	189,361	15%	20%	78,063	6%	19%
Pidpa	1,196,031	497,562	139,039	12%	16%	179,255	15%	19%	74,775	6%	19%
VIVAQUA	38,990	15,182	4,193	11%	0%	4,556	12%	0%	2,369	6%	1%
Water-link	618,837	278,319	116,695	19%	14%	79,263	13%	8%	32,206	5%	8%
Total Flanders	**6,454,908**	**2,748,019**	**857,935**			**940,726**			**400,940**		
% of total number of HH in Flanders			31%			34%			15%		

HH x: x = number of domiciled residents (Household size)

Calculated number of HH-4	% population in HH-4	% HH-4 vs total HH-4	Calculated number of HH-5	% population in HH-5	% HH-5 vs total HH-5	Calculated number of HH-5+	% population in HH-5+	% HH-6+ vs total HH-5+	Water company
1,299	4%	0%	379	1%	0%	104	0%	0%	**AGSO Knokke-Heist**
149	7%	0%	54	2%	0%	20	1%	0%	**Brabant Water**
178,158	6%	48%	58,279	2%	46%	22,467	1%	42%	**De Watergroep**
2,738	4%	1%	856	1%	1%	295	0%	1%	**IWVA**
15,044	6%	4%	5,897	2%	5%	2,777	1%	5%	**IWVB**
69,233	5%	19%	22,899	2%	18%	9,059	1%	17%	**FARYS/TMVW**
71,651	6%	19%	23,588	2%	19%	9,254	1%	17%	**Pidpa**
2,591	7%	1%	1,072	3%	1%	401	1%	1%	**VIVAQUA**
27,774	4%	8%	12,957	2%	10%	9,424	2%	18%	**Water-link**
368,636			**125,981**			**53,801**			**Total Flanders**
13%			5%			2%			% of total number of HH in Flanders

APPENDIX 7: OVERVIEW AND EVOLUTION OF THE INTEGRAL WATER INVOICE AND ITS COMPONENTS (2000-2016)

Average figures weighted by households - Calculated with rates valid on 01/01

1-person family Average consumption 48 m³ per year	2000	2005	2010	2014	2015	2016	Evolution 2014 2015	Evolution 2015 2016	Evolution 2015 2016
Weighted average integral invoice including 6% VAT	**€ 83.56**	**€ 143.52**	**€ 208.53**	**€ 240.06**	**€ 263.81**	**€ 268.61**	**10%**	**2%**	**€ 5**
VAT	€ 4.73	€ 8.12	€ 11.80	€ 13.59	€ 14.93	€ 15.20	10%	2%	€ 0
Weighted average integral invoice excluding 6% VAT	**€ 78.83**	**€ 135.40**	**€ 196.73**	**€ 226.47**	**€ 248.87**	**€ 253.40**	**10%**	**2%**	**€ 5**
Drinking water fixed fee	€ 31.31	€ 43.80	€ 48.27	€ 55.72	€ 56.28	€ 40.00	1%	-29%	-€ 16
Drinking water variable price (consumption)	€ 47.52	€ 51.12	€ 57.22	€ 62.13	€ 62.29	€ 70.19	0%	13%	€ 8
Total drinking water	€ 78.83	€ 94.92	€ 105.49	€ 117.85	€ 118.57	€ 110.19	1%	-7%	-€ 8
Municipal contribution fixed fee						€ 24.00			€ 24
Municipal contribution variable price (consumption)	€ 0.00	€ 8.78	€ 49.40	€ 62.56	€ 72.30	€ 58.55	16%	-19%	-€ 14
Regional contribution fixed fee						€ 16.00			€ 16
Regional contribution variable price (consumption)	€ 0.00	€ 31.69	€ 41.84	€ 46.07	€ 58.01	€ 44.67	26%	-23%	-€ 13
Total Waste Water Treatment	€ 0.00	€ 40.47	€ 91.24	€ 108.62	€ 130.31	€ 143.22	20%	10%	€ 13
Weighted average integral invoice including 6% VAT € per m³	**€ 1.74**	**€ 2.99**	**€ 4.34**	**€ 5.00**	**€ 5.50**	**€ 5.60**			
VAT € per m³	€ 0.10	€ 0.17	€ 0.25	€ 0.28	€ 0.31	€ 0.32			
Weighted average integral invoice excluding 6% VAT € per m³	**€ 1.64**	**€ 2.82**	**€ 4.10**	**€ 4.72**	**€ 5.18**	**€ 5.28**			
Drinking water fixed fee in € per m³	€ 0.65	€ 0.91	€ 1.01	€ 1.16	€ 1.17	€ 0.83			
Drinking water variable price (consumption) in € per m³	€ 0.99	€ 1.06	€ 1.19	€ 1.29	€ 1.30	€ 1.46			
Total drinking water in € per m³	€ 1.64	€ 1.98	€ 2.20	€ 2.46	€ 2.47	€ 2.30			
Municipal contribution fixed fee in € per m³	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.50			
Municipal contribution variable price in € per m³	€ 0.00	€ 0.18	€ 1.03	€ 1.30	€ 1.51	€ 1.22			
Regional contribution fixed fee in € per m³	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.33			
Regional contribution variable price in € per m³	€ 0.00	€ 0.66	€ 0.87	€ 0.96	€ 1.21	€ 0.93			
Total Waste Water Treatment in € per m³	€ 0.00	€ 0.84	€ 1.90	€ 2.26	€ 2.71	€ 2.98			
Fixed fee share	40%	32%	25%	25%	23%	32%			
Variable price (consumption) share	60%	68%	75%	75%	77%	68%			

Average figures weighted by households - Calculated with rates valid on 01/01

2-person family Average consumption 75 m³ per year	2000	2005	2010	2014	2015	2016	Evolution 2014 2015	Evolution 2015 2016	Evolution 2015 2016
Weighted average integral invoice including 6% VAT	**€ 102.02**	**€ 185.29**	**€ 286.10**	**€ 327.53**	**€ 365.66**	**€ 350.70**	**12%**	**-4%**	**-€ 15**
VAT	€ 5.77	€ 10.49	€ 16.19	€ 18.54	€ 20.70	€ 19.85	12%	-4%	-€ 1
Weighted average integral invoice excluding 6% VAT	**€ 96.25**	**€ 174.80**	**€ 269.90**	**€ 308.99**	**€ 344.97**	**€ 330.85**	**12%**	**-4%**	**-€ 14**
Drinking water fixed fee	€ 30.64	€ 43.13	€ 47.67	€ 55.01	€ 55.74	€ 30.00	1%	-46%	-€ 26
Drinking water variable price (consumption)	€ 65.61	€ 69.58	€ 77.72	€ 84.67	€ 84.81	€ 109.68	0%	29%	€ 25
Total drinking water	€ 96.25	€ 112.71	€ 125.39	€ 139.69	€ 140.54	€ 139.68	1%	-1%	-€ 1
Municipal contribution fixed fee						€ 18.00			€ 18
Municipal contribution variable price (consumption)	€ 0.00	€ 12.57	€ 79.13	€ 97.33	€ 113.79	€ 91.49	17%	-20%	-€ 22
Regional contribution fixed fee						€ 12.00			€ 12
Regional contribution variable price (consumption)	€ 0.00	€ 49.52	€ 65.38	€ 71.98	€ 90.63	€ 69.80	26%	-23%	-€ 21
Total Waste Water Treatment	€ 0.00	€ 62.09	€ 144.51	€ 169.31	€ 204.42	€ 191.28	21%	-6%	-€ 13
Weighted average integral invoice including 6% VAT € per m³	**€ 1.36**	**€ 2.47**	**€ 3.81**	**€ 4.37**	**€ 4.88**	**€ 4.68**			
VAT € per m³	€ 0.08	€ 0.14	€ 0.22	€ 0.25	€ 0.28	€ 0.26			
Weighted average integral invoice excluding 6% VAT € per m³	**€ 1.28**	**€ 2.33**	**€ 3.60**	**€ 4.12**	**€ 4.60**	**€ 4.41**			
Drinking water fixed fee in € per m³	€ 0.41	€ 0.58	€ 0.64	€ 0.73	€ 0.74	€ 0.40			
Drinking water variable price (consumption) in € per m³	€ 0.87	€ 0.93	€ 1.04	€ 1.13	€ 1.13	€ 1.46			
Total drinking water in € per m³	€ 1.28	€ 1.50	€ 1.67	€ 1.86	€ 1.87	€ 1.86			
Municipal contribution fixed fee in € per m³	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.24			
Municipal contribution variable price in € per m³	€ 0.00	€ 0.17	€ 1.06	€ 1.30	€ 1.52	€ 1.22			
Regional contribution fixed fee in € per m³	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.16			
Regional contribution variable price in € per m³	€ 0.00	€ 0.66	€ 0.87	€ 0.96	€ 1.21	€ 0.93			
Total Waste Water Treatment in € per m³	€ 0.00	€ 0.83	€ 1.93	€ 2.26	€ 2.73	€ 2.55			
Fixed fee share	32%	25%	18%	18%	16%	18%			
Variable price (consumption) share	68%	75%	82%	82%	84%	82%			

Average figures weighted by households - Calculated with rates valid on 01/01

3-person family Average consumption 104 m³ per year	2000	2005	2010	2014	2015	2016	Evolution 2014 2015	Evolution 2015 2016	Evolution 2015 2016
Weighted average integral invoice including 6% VAT	**€ 123.65**	**€ 233.59**	**€ 371.19**	**€ 424.85**	**€ 477.81**	**€ 440.98**	**12%**	**-8%**	**-€ 37**
VAT	€ 7.00	€ 13.22	€ 21.01	€ 24.05	€ 27.05	€ 24.96	12%	-8%	-€ 2
Weighted average integral invoice excluding 6% VAT	**€ 116.65**	**€ 220.37**	**€ 350.18**	**€ 400.81**	**€ 450.76**	**€ 416.02**	**12%**	**-8%**	**-€ 35**
Drinking water fixed fee	€ 30.52	€ 42.87	€ 47.54	€ 54.93	€ 55.67	€ 20.00	1%	-64%	-€ 36
Drinking water variable price (consumption)	€ 86.13	€ 91.04	€ 101.76	€ 111.02	€ 111.25	€ 152.08	0%	37%	€ 41
Total drinking water	€ 116.65	€ 133.91	€ 149.29	€ 165.96	€ 166.92	€ 172.08	1%	3%	€ 5
Municipal contribution fixed fee						€ 12.00			€ 12
Municipal contribution variable price (consumption)	€ 0.00	€ 17.78	€ 110.23	€ 135.03	€ 158.16	€ 126.86	17%	-20%	-€ 31
Regional contribution fixed fee						€ 8.00			€ 8
Regional contribution variable price (consumption)	€ 0.00	€ 68.67	€ 90.66	€ 99.81	€ 125.68	€ 96.78	26%	-23%	-€ 29
Total Waste Water Treatment	€ 0.00	€ 86.46	€ 200.89	€ 234.85	€ 283.84	€ 243.64	21%	-14%	-€ 40
Weighted average integral invoice including 6% VAT € per m³	**€ 1.19**	**€ 2.25**	**€ 3.57**	**€ 4.09**	**€ 4.59**	**€ 4.24**			
VAT € per m³	€ 0.07	€ 0.13	€ 0.20	€ 0.23	€ 0.26	€ 0.24			
Weighted average integral invoice excluding 6% VAT € per m³	**€ 1.12**	**€ 2.12**	**€ 3.37**	**€ 3.85**	**€ 4.33**	**€ 4.00**			
Drinking water fixed fee in € per m³	€ 0.29	€ 0.41	€ 0.46	€ 0.53	€ 0.54	€ 0.19			
Drinking water variable price (consumption) in € per m³	€ 0.83	€ 0.88	€ 0.98	€ 1.07	€ 1.07	€ 1.46			
Total drinking water in € per m³	€ 1.12	€ 1.29	€ 1.44	€ 1.60	€ 1.60	€ 1.65			
Municipal contribution fixed fee in € per m³	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.12			
Municipal contribution variable price in € per m³	€ 0.00	€ 0.17	€ 1.06	€ 1.30	€ 1.52	€ 1.22			
Regional contribution fixed fee in € per m³	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.08			
Regional contribution variable price in € per m³	€ 0.00	€ 0.66	€ 0.87	€ 0.96	€ 1.21	€ 0.93			
Total Waste Water Treatment in € per m³	€ 0.00	€ 0.83	€ 1.93	€ 2.26	€ 2.73	€ 2.34			
Fixed fee share	26%	19%	14%	14%	12%	10%			
Variable price (consumption) share	74%	81%	86%	86%	88%	90%			

Average figures weighted by households - Calculated with rates valid on 01/01

4-person family Average consumption 127 m³ per year	2000	2005	2010	2014	2015	2016	Evolution 2014 2015	Evolution 2015 2016	Evolution 2015 2016
Weighted average integral invoice including 6% VAT	**€ 135.55**	**€ 265.98**	**€ 432.66**	**€ 494.95**	**€ 559.85**	**€ 507.27**	**13%**	**-9%**	**-€ 53**
VAT	€ 7.67	€ 15.06	€ 24.49	€ 28.02	€ 31.69	€ 28.71	13%	-9%	-€ 3
Weighted average integral invoice excluding 6% VAT	**€ 127.88**	**€ 250.93**	**€ 408.17**	**€ 466.94**	**€ 528.16**	**€ 478.55**	**13%**	**-9%**	**-€ 50**
Drinking water fixed fee	€ 30.53	€ 42.88	€ 47.52	€ 54.86	€ 55.66	€ 10.00	1%	-82%	-€ 46
Drinking water variable price (consumption)	€ 97.35	€ 102.88	€ 115.28	€ 125.68	€ 126.15	€ 185.72	0%	47%	€ 60
Total drinking water	€ 127.88	€ 145.77	€ 162.80	€ 180.54	€ 181.81	€ 195.72	1%	8%	€ 14
Municipal contribution fixed fee						€ 6.00			€ 6
Municipal contribution variable price (consumption)	€ 0.00	€ 21.30	€ 134.67	€ 164.52	€ 192.89	€ 154.92	17%	-20%	-€ 38
Regional contribution fixed fee						€ 4.00			€ 4
Regional contribution variable price (consumption)	€ 0.00	€ 83.85	€ 110.70	€ 121.88	€ 153.46	€ 118.19	26%	-23%	-€ 35
Total Waste Water Treatment	€ 0.00	€ 105.16	€ 245.37	€ 286.40	€ 346.35	€ 283.11	21%	-18%	-€ 63
Weighted average integral invoice including 6% VAT € per m³	**€ 1.07**	**€ 2.09**	**€ 3.41**	**€ 3.90**	**€ 4.41**	**€ 3.99**			
VAT € per m³	€ 0.06	€ 0.12	€ 0.19	€ 0.22	€ 0.25	€ 0.23			
Weighted average integral invoice excluding 6% VAT € per m³	**€ 1.01**	**€ 1.98**	**€ 3.21**	**€ 3.68**	**€ 4.16**	**€ 3.77**			
Drinking water fixed fee in € per m³	€ 0.24	€ 0.34	€ 0.37	€ 0.43	€ 0.44	€ 0.08			
Drinking water variable price (consumption) in € per m³	€ 0.77	€ 0.81	€ 0.91	€ 0.99	€ 0.99	€ 1.46			
Total drinking water in € per m³	€ 1.01	€ 1.15	€ 1.28	€ 1.42	€ 1.43	€ 1.54			
Municipal contribution fixed fee in € per m³	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.05			
Municipal contribution variable price in € per m³	€ 0.00	€ 0.17	€ 1.06	€ 1.30	€ 1.52	€ 1.22			
Regional contribution fixed fee in € per m³	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.03			
Regional contribution variable price in € per m³	€ 0.00	€ 0.66	€ 0.87	€ 0.96	€ 1.21	€ 0.93			
Total Waste Water Treatment in € per m³	€ 0.00	€ 0.83	€ 1.93	€ 2.26	€ 2.73	€ 2.23			
Fixed fee share	24%	17%	12%	12%	11%	4%			
Variable price (consumption) share	76%	83%	88%	88%	89%	96%			

Average figures weighted by households - Calculated with rates valid on 01/01

5-person family Average consumption 154 m³ per year	2000	2005	2010	2014	2015	2016	Evolution 2014 2015	Evolution 2015 2016	Evolution 2015 2016
Weighted average integral invoice including 6% VAT	**€ 153.44**	**€ 308.57**	**€ 507.53**	**€ 582.65**	**€ 660.31**	**€ 588.34**	**13%**	**-11%**	**-€ 72**
VAT	€ 8.69	€ 17.47	€ 28.73	€ 32.98	€ 37.38	€ 33.30	13%	-11%	-€ 4
Weighted average integral invoice excluding 6% VAT	**€ 144.76**	**€ 291.10**	**€ 478.80**	**€ 549.67**	**€ 622.93**	**€ 555.04**	**13%**	**-11%**	**-€ 68**
Drinking water fixed fee	€ 30.77	€ 43.13	€ 47.84	€ 55.07	€ 55.94	€ 0.00	2%	-100%	-€ 56
Drinking water variable price (consumption)	€ 113.99	€ 120.98	€ 135.45	€ 147.55	€ 148.27	€ 225.20	0%	52%	€ 77
Total drinking water	€ 144.76	€ 164.12	€ 183.28	€ 202.63	€ 204.21	€ 225.20	1%	10%	€ 21
Municipal contribution fixed fee						€ 0.00			€ 0
Municipal contribution variable price (consumption)	€ 0.00	€ 25.32	€ 161.29	€ 199.27	€ 232.65	€ 187.86	17%	-19%	-€ 45
Regional contribution fixed fee						€ 0.00			€ 0
Regional contribution variable price (consumption)	€ 0.00	€ 101.67	€ 134.23	€ 147.77	€ 186.07	€ 143.31	26%	-23%	-€ 43
Total Waste Water Treatment	€ 0.00	€ 126.99	€ 295.51	€ 347.05	€ 418.72	€ 331.17	21%	-21%	-€ 88
Weighted average integral invoice including 6% VAT € per m³	**€ 1.00**	**€ 2.00**	**€ 3.30**	**€ 3.78**	**€ 4.29**	**€ 3.82**			
VAT € per m³	€ 0.06	€ 0.11	€ 0.19	€ 0.21	€ 0.24	€ 0.22			
Weighted average integral invoice excluding 6% VAT € per m³	**€ 0.94**	**€ 1.89**	**€ 3.11**	**€ 3.57**	**€ 4.05**	**€ 3.60**			
Drinking water fixed fee in € per m³	€ 0.20	€ 0.28	€ 0.31	€ 0.36	€ 0.36	€ 0.00			
Drinking water variable price (consumption) in € per m³	€ 0.74	€ 0.79	€ 0.88	€ 0.96	€ 0.96	€ 1.46			
Total drinking water in € per m³	€ 0.94	€ 1.07	€ 1.19	€ 1.32	€ 1.33	€ 1.46			
Municipal contribution fixed fee in € per m³	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.00			
Municipal contribution variable price in € per m³	€ 0.00	€ 0.16	€ 1.05	€ 1.29	€ 1.51	€ 1.22			
Regional contribution fixed fee in € per m³	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.00			
Regional contribution variable price in € per m³	€ 0.00	€ 0.66	€ 0.87	€ 0.96	€ 1.21	€ 0.93			
Total Waste Water Treatment in € per m³	€ 0.00	€ 0.82	€ 1.92	€ 2.25	€ 2.72	€ 2.15			
Fixed fee share	21%	15%	10%	10%	9%	0%			
Variable price (consumption) share	79%	85%	90%	90%	91%	100%			

APPENDIX 8: CONVERSION OF Td INTO MAXIMUM TARIFFS AND INDEXATION

Each year on the 1st of January, the Td for the relevant year (= year X) is adjusted to the evolution of a weighted index on the basis of the following formula:

*Tdi = Td (year X) * (0.2 + 0.2 * (index cpi Nov. X-1 / Nov. Year r) + 0.5 * (reference wage index Nov. X-1 / Nov. Year r) + 0.1 * material index Nov. X-1 / Nov. Year r)*

Weighted index 2017 according to the Flemish Government Tariff Regulation Act, Art. 9		1.013235145
CPI November	Year of application of index - 1 = 2016	103.41
	Starting year for period 2017 to 2022 - 2 = 2015	101.61
Reference wage index Agoria companies > 10 empl., after 11/07/1981	Year of application of index - 1 = 2016	20.6142
	Starting year for period 2017 to 2022 - 2 = 2015	20.4558
Material index Agoria index I for public works	Year of application of index - 1 = 2016	7036
	Starting year for period 2017 to 2022 - 2 = 2015	6649

Description/Formula					
Estimate of necessary income IWF drinking water component		**Indexed**	**Values Tariff plan**	**Index**	**Difference**
necessary income IWF drinking water component	= (Td (T400, row 12) x supplied income-generating drinking water to subscribers (T200064)	-			-
	Td (€/m³)	-		**1.0132**	-
	Total all subscribers	-			-
necessary income HH	= (necessary income (higher cell) x (share turnover HH (T330006)/'turnover from consumption and final invoices to subscribers' (T330039)))	-			-
	necessary income IWF drinking water component	-			-
	Turnover HH subscribers	-			-
	Turnover from consumption and final invoices to subscribers	-			-
necessary income NHH	= (necessary income (higher cell) - necessary income HH)	-			-
	necessary income IWF drinking water component	-			-
	necessary income HH	-			-

Specified in regulation		**N+1**			
standard fixed fee	= €50	50			50
standard reduction fixed fee per person	= €10	10			10
social fixed fee	= 20% x standard fixed fee	10			10
	fixed fee social tariff 1/5	0.2			0.2
	standard fixed fee	50			50
social fixed fee reduction per person	= 20% x standard reduction per person	2			2
	social tariff reduction per person 1/5	0.2			0.2
	standard fixed fee reduction per person	10			10
ratio comfort tariff / basic tariff HH subscribers	= 2	2			2

Calculation tariffs progressive variable price HH		N+1			
Turnover from capacity fee	= T331025	-		1.0132	-
income from fixed fee	= sum of underlying	-			-
fixed fee from housing units without domiciled residents	= €50 x T210010	-			-
	standard fixed fee	50			50
	Connected housing units with no residents	-			-
fixed fee from housing units without social tariff	= (€50 x T210008) - (€10 x T210014)	-			-
	standard fixed fee	50			50
	Connected housing units with residents without social tariff	-			-
	standard fixed fee reduction per person	10			10
	Connected residents in distribution area for which a fixed fee reduction is granted, without social tariff	-			-
fixed fee from housing units with social tariff	= (€10 x T210009) - (€2 x T210015)	-			-
	social fixed fee	10			10
	Connected housing units with residents with social tariff	-			0
	social fixed fee reduction per person	2			2
	Connected residents in distribution area for which a fixed fee reduction is granted, with social tariff	-			0
fixed fee from charge per water meter	= €50 x T210011	-			-
	standard fixed fee	50			50
	Number of water meters fixed fee	-			0
income from non-standard tariff	= T331030 + T331034	-			-
	Basic consumption with non-standard tariff	-		1.0132	-
	Comfort consumption with non-standard tariff	-		1.0132	-
income calculated from variable price	= calculated from higher cells = necessary income HH - income HH from capacity fee - income HH from fixed fee - income from non-standard tariff HH	-			-
	necessary income HH	-			-
	Turnover from capacity fee	-			-
	income from fixed fee	-			-
	income from non-standard tariff	0			0

basic tariff	= income from variable price / (T200067 + (T200068 / 5) + (2 x T200071) + (2 / 5 x T200072))	-			-
	income calculated from variable price	0			0
	Basic consumption Subscriber without social tariff	-			-
	Basic consumption Subscriber with social tariff	-			-
	social tariff 1/5	0.2			0.2
	ratio comfort tariff / basic tariff HH subscribers	2			2
	Comfort consumption Subscriber without social tariff	-			-
	social tariff comfort consumption 2/5	0.4			0.4
	Comfort consumption Subscriber with social tariff	-			-
Comfort tariff	= calculated from higher cell = 2 x basic tariff	-			-
	ratio comfort tariff / basic tariff HH subscribers	2			2
	basic tariff	0			0
social basic tariff	= calculated from higher cell = 20% x basic tariff	-			-
	social tariff 1/5	0.2			0.2
	basic tariff	0			0
social comfort tariff	= calculated from higher cell = 2 x social basic tariff	-			-
	ratio comfort tariff / basic tariff HH subscribers	2			2
	social basic tariff	0			0

Calculation tariff variable price NHH		N+1			
Turnover from capacity fee	= T331040	-		1.0132	-
income from fixed fee	= sum of underlying	-			-
fixed fee from housing units without domiciled residents	= €50 x T210024	-			-
	standard fixed fee	50			50
	Connected housing units with no residents	-			0
fixed fee from housing units without social tariff	= (€50 xT210022) - (€10 x T210028)	-			-
	standard fixed fee	50			50
	Connected housing units with residents without social tariff	-			0
	standard fixed fee reduction per person	10			10
	Connected residents in distribution area for which a fixed fee reduction is granted, without social tariff	-			0
fixed fee from housing units with social tariff	= (€10 x T210023) - (€2 x T210029)	-			-
	social fixed fee	10			10
	Connected housing units with domiciled residents with social tariff	-			0
	social fixed fee reduction per person	2			2
	Connected residents in distribution area for which a fixed fee reduction is granted, with social tariff	-			0
fixed fee from charge per water meter	= €50 x T210025	-			-
	standard fixed fee	50			50
	Number of water meters fixed fee	-			0
Turnover from non-standard tariff	= T331045	-		1.0132	-
income from (standard) variable price	= calculated from higher cells = necessary income NHH - income NHH from capacity fee - income NHH from fixed fee income from non-standard tariff	-			-
	necessary income NHH	-			-
	Turnover from capacity fee	-			-
	income from fixed fee	0			0
	Turnover from non-standard tariff	-			-
flat tariff	= income from (standard) variable price / (T200076 + (T200077 / 5))	-			-
	income from (standard) variable price	0			0
	Consumption flat tariff Subscriber without social tariff	-			-
	social tariff 1/5	0.2			0.2
	Consumption flat tariff Subscriber with social tariff	-			-
social flat tariff	= 20% x flat tariff	-			-
	social tariff 1/5	0.2			0.2
	flat tariff	0			0

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