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# Regulation of wastewater sanitation in Flanders (Belgium)

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# Legal framework

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# Water Framework Directive (WFD)

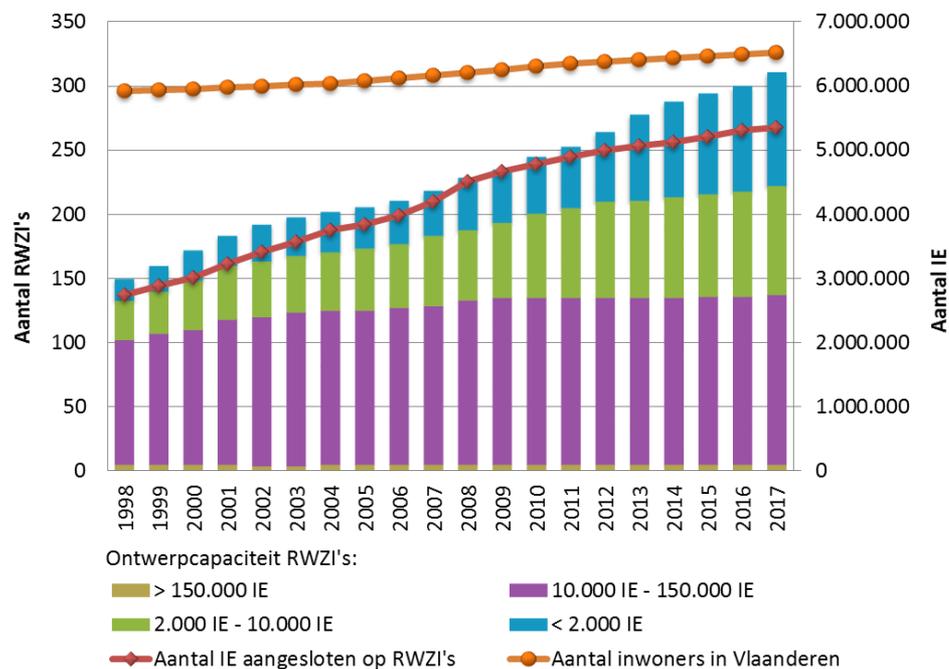
- ▶ **A single system of water management:**
  - river basin management
- ▶ **Co-ordination of objectives**
  - good status for all waters by a set deadline
  - ecological status, quantitative status, chemical status and protected area objectives
- ▶ **Co-ordination of measures:**
  - technology-driven source-based controls
  - quality objectives: a list of priority substances, prioritised on the basis of risk
  - most cost-effective set of measures
- ▶ **The river basin management plan**
- ▶ **Getting the prices right**
  - polluter pays principle
  - adequate cost recovery of water services

# Previous water legislation

- ▶ **Urban Waste Water Treatment Directive:**
  - providing for secondary (biological) wastewater treatment, and even more stringent treatment where necessary
- ▶ **Nitrates Directive:**
  - addressing water pollution by nitrates from agriculture
- ▶ **Drinking Water Directive:**
  - reviewing the quality standards
- ▶ **Directive for Integrated Pollution and Prevention Control (IPPC)**
  - addressing pollution from large industrial installations, later transformed into the Industrial Emissions Directive

# Flanders

## ► Historic focus on collective sanitation systems



## ► 2027: deadline WFD

VLAAMSE MILIEUMAATSCHAPPIJ → (cost)effective measures for good status of water

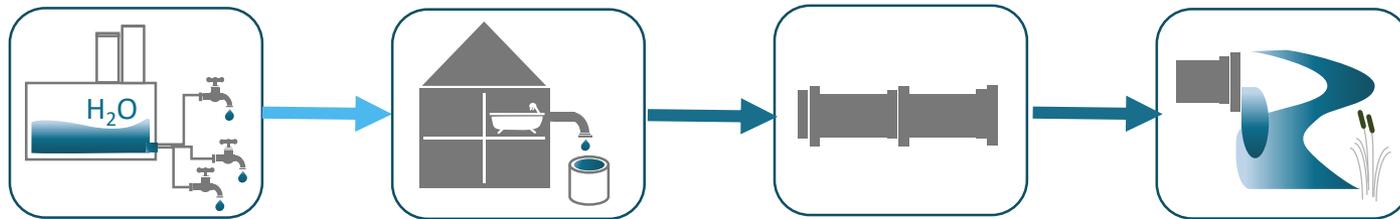


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# Organisation of sanitation in Flanders

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# Actors in Flanders



Water company  
(6 companies)

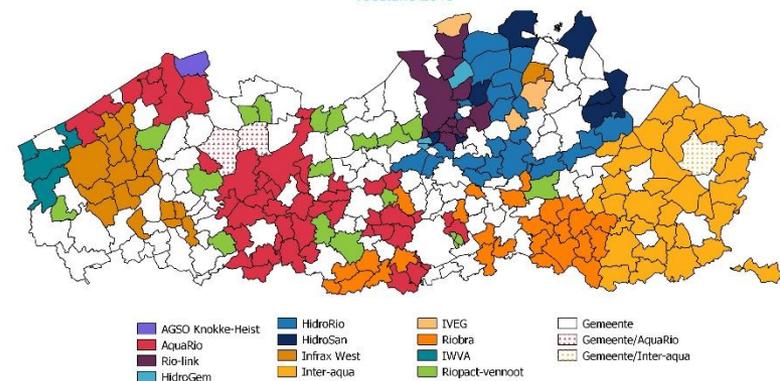
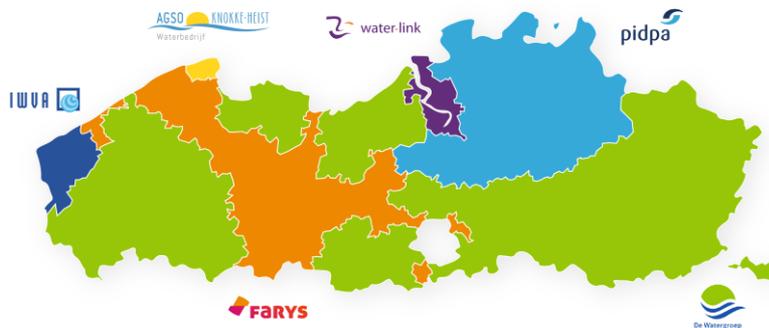
Households  
& Industry

Sewer managers  
(11 intercommunales  
+ 105 municipalities)

Nv Aquafin  
(1 company)

## Rioolbeheerders in Vlaanderen

Toestand 2019



# Organisation of collective sanitation

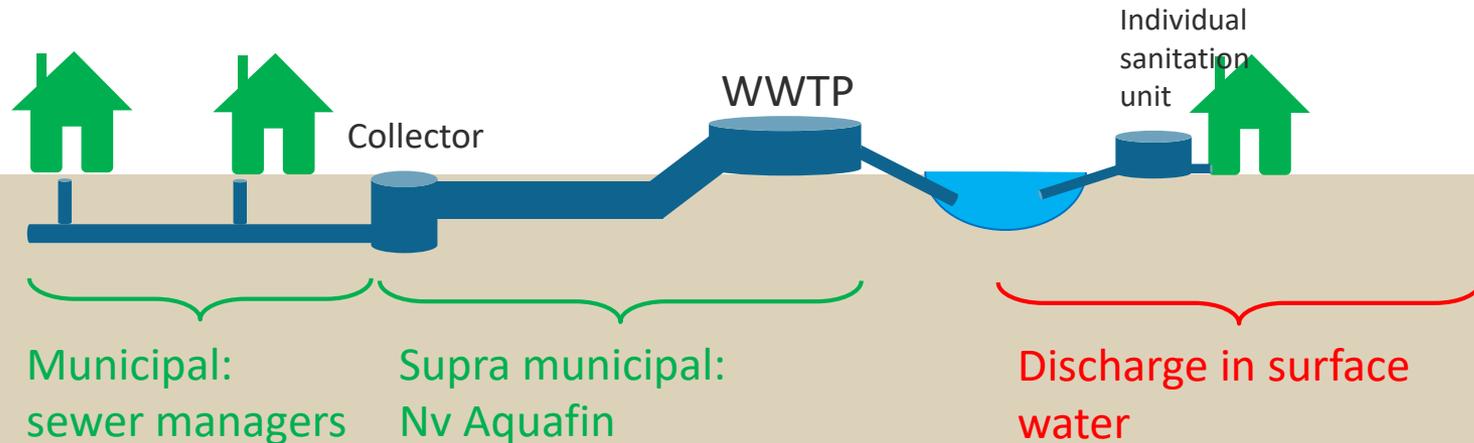


Water companies:  
responsible for the  
sanitation of  
drinking water

Financing:  
Integral water bill:  
- Cost drinking water  
- Cost transport  
- Cost treatment  
Flanders: subsidy

Regulation:  
- Economic and  
ecologic supervisor  
- Water regulator

# Waste water sanitation: households

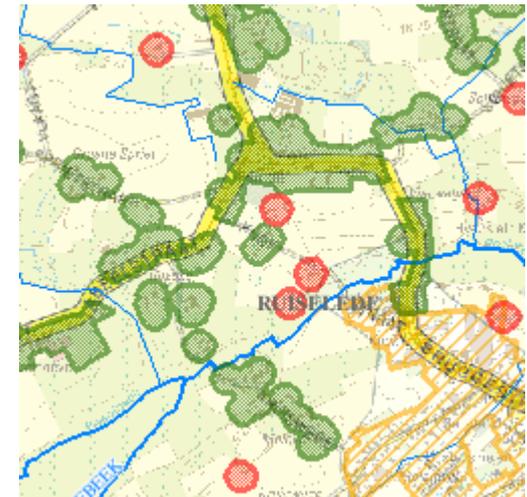


## ► Legal obligation:

- Vlarem: obligation to connect to sewer
- Zoning plan
  - × **Green zone:** collective sanitation
  - × **Red zone:** individual sanitation

## ► Cost recovery:

- Integral water bill (water company)



# Water bill

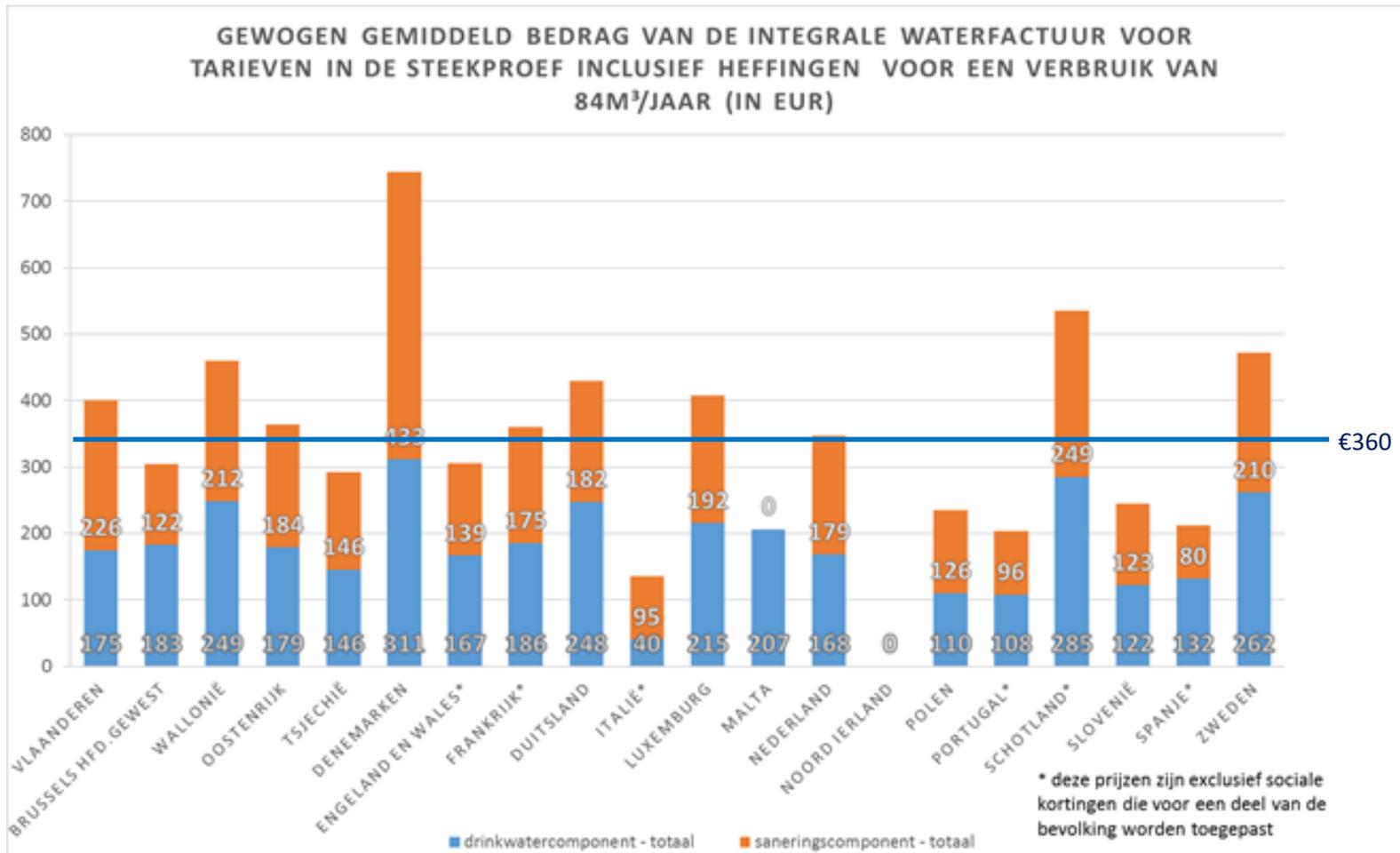
## ► Uniform tariff structure: households

DRINKWATER PRIJS levering drinkwater	vast	€ 50 per woning - € 10 per bewoner
	variabel	basisverbruik: 30 m <sup>3</sup> + 30 m <sup>3</sup> per bewoner comfortverbruik: dubbel tarief op meerverbruik
GEMEENTELIJKE BIJDRAGE afvoer afvalwater	vast	€ 30 per woning - € 6 per bewoner
	variabel	basisverbruik: 30 m <sup>3</sup> + 30 m <sup>3</sup> per bewoner comfortverbruik: dubbel tarief op meerverbruik
BOVENGEMEENTELIJKE BIJDRAGE zuivering afvalwater	vast	€ 20 per woning - € 4 per bewoner
	variabel	basisverbruik: 30 m <sup>3</sup> + 30 m <sup>3</sup> per bewoner comfortverbruik: dubbel tarief op meerverbruik
TOTAAL	vast	€ 100 - € 20 per bewoner
	variabel	som basisverbruik + comfortverbruik

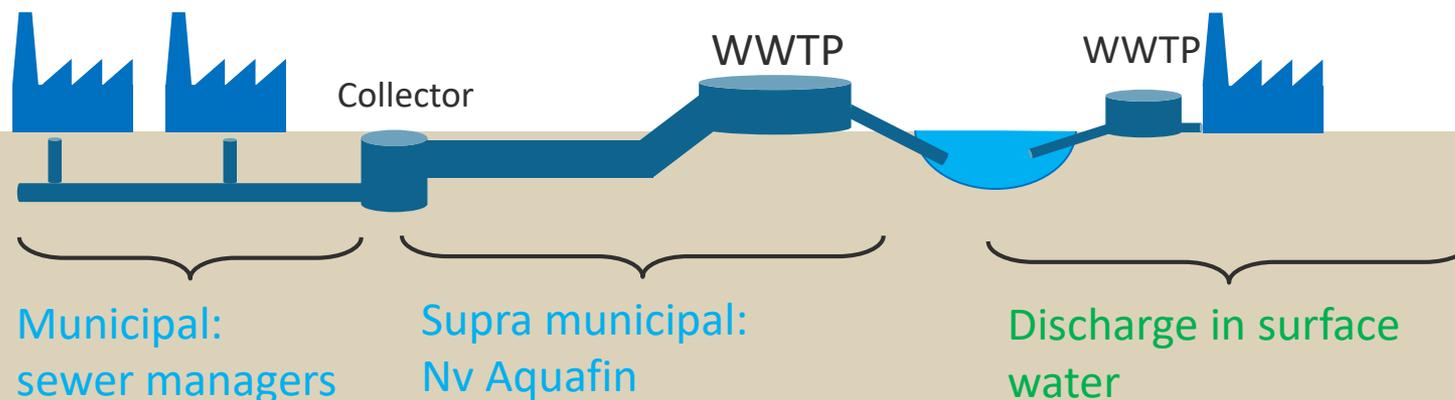
## ► Social tariff = 80% reduction

## ► Ecological exemption = private individual sanitation unit

# Price comparison



# Waste water sanitation: industry



## ► Legal obligation:

- Vlarem: sectoral environmental conditions
- Environmental permit

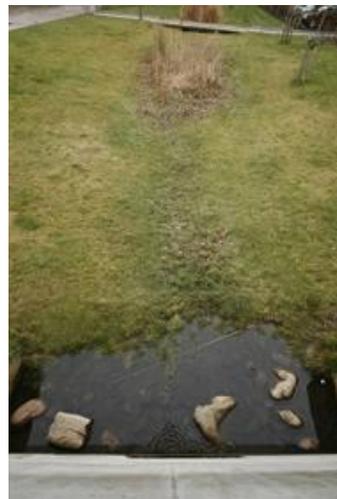
## ► Cost recovery & polluter pays:

- Integral water bill (water company) = Financing
- Levy on water pollution (VMM) = Regulating

# Rainwater management

## ► Principles:

- Prevent runoff
- (Re)use rainwater
- Infiltrate
- Buffer
- Discharge



## ► New houses:

- Separated discharge of rainwater
- Rainwater reservoir
- Reuse (toilet, tap, ...)



## ► Cost recovery:

- House holds: no levy for discharge of (used) rainwater
- Industry: levy on polluted rainwater

# Developments: Riothermy

- ▶ Heat recovery: Guidelines for municipalities  
→ [www.vmm.be/riothermie](http://www.vmm.be/riothermie)



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Water | Lucht | Klimaat | Meetresultaten | Publicaties | Over VMM

je bent hier: home / water / riolering en waterzuivering / riothermie

## Riothermie: wist je dat er energie in je riool zit?

Afvalwater in onze riolering is gemiddeld 12 tot 18 graden. Een energiebron onder onze voeten die we momenteel niet benutten. Maar via **6 stappen** kan je die warmte (riothermie) recupereren en je gebouwen een duurzame energiebron geven.

1. Potentieelkaart
2. Kansenscreening
3. Haalbaarheidsonderzoek
4. Businesscase
5. Aanbesteding en uitvoering
6. Oplevering en gebruiksfase

Wat is riothermie juist en waarom zou je er in investeren?

Ontdek hieronder hoe je een eigen riothermieproject opzet en laat je inspireren door praktijkvoorbeelden in binnen- en buitenland.

**Je riothermieproject: stap voor stap**

- » Stap 1: opmaak potentieelkaart riothermie
- » Stap 2: eerste kansenscreening
- » Stap 3: opzetten haalbaarheidsonderzoek
- » Stap 4: uitwerken businesscase
- » Stap 5: aanbesteding en uitvoering
- » Stap 6: oplevering en gebruiksfase

**Laat je inspireren: riothermie in de praktijk**

- » Riothermiekansen op kaart - Antwerpen
- » Schoolverwarming en koeling - IJmuiden
- » Sneeuwrijke parking en straten - Rotterdam
- » Verwarming scholen - Keulen
- » Verwarming en koeling gemeentegebouw - Ukkel
- » Riothermie verwarmt 60 appartementen - Goes



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# Regulatory challenges

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# Regulatory challenges

- ▶ **Quality standards and follow up**
- ▶ **Interaction: individual vs collective sanitation**
  - New allotments & industrial areas
  - Area specific
- ▶ **Long term policy**
- ▶ **Cost recovery**
  - Fair price and consumer protection
- ▶ **Organisation of the water sector**

# Regulatory challenges

▶ **Role government:**

- Policy and guidelines: quality, quantity, cost recovery & effectiveness ...
- Open dialogue with stakeholders