Specialist Group Statistics and Economics

International Water Association

WORKSHOP

Current Status & Financial Strategies of Water Utilities in the World

THE NETHERLANDS

JWWA JAPAN WATER WORKS ASSOCIATION

International Water Association

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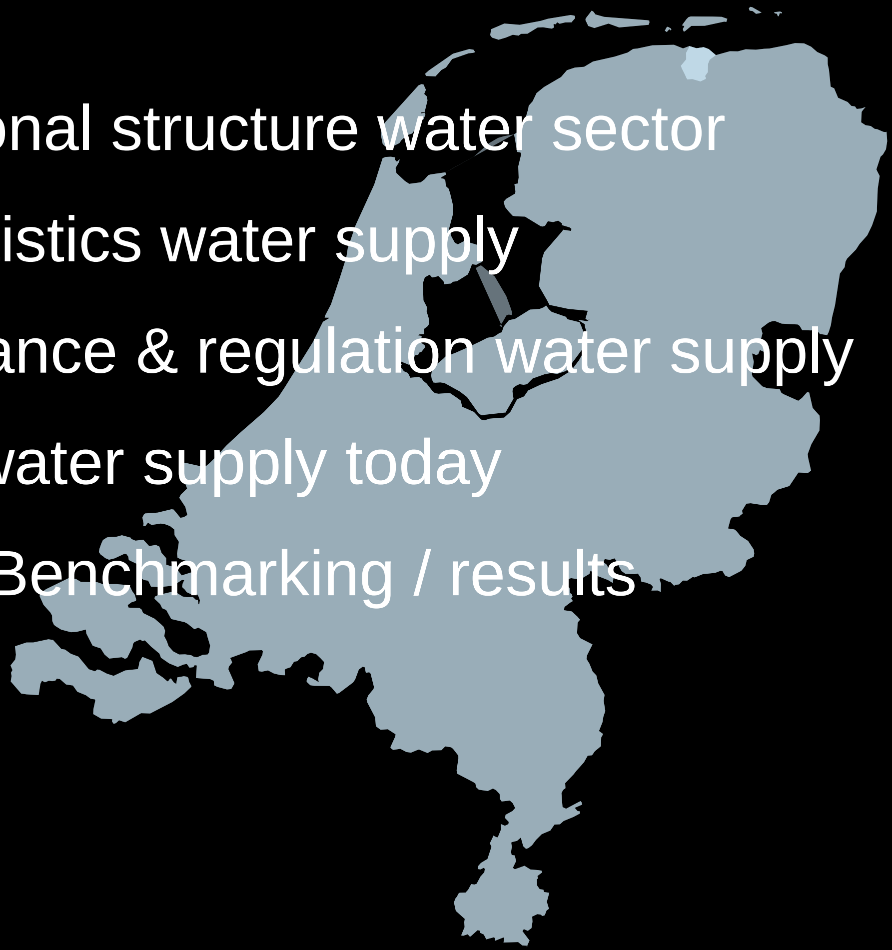
Content



- Institutional structure water sector
- Key statistics water supply
- Governance & regulation water supply
- Status water supply today
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Institutional structure water sector

- 41.000 km^2, 16.8 million inhabitants
- bordering to the North Sea
- half of the country below sea level
- delta of international rivers Rhine, Meuse, Scheldt, Eems
- managing water in Dutch genes for centuries

Institutional structure water sector

Many actors because of history:

- National level
  - government – national water policy
  - Rijkswaterstaat – national water agency responsible for national water infrastructure (coastal defence)

Institutional structure water sector

- Regional level
  - 12 provinces – ground water policy
  - 26 water boards – regional flood protection, surface water quality, wastewater treatment
  - 10 water companies – water supply
- Local level
  - 421 municipalities – sewer system, municipal water systems

Key statistics water supply

10 water supply

companies

operating

at regional scale

Key statistics water supply

Number of employees: 5000

Annual water production: 1126 million m3

Sources: 60% groundwater

40% surface water

Number of connections: 8.0 million

Distribution system: 119.000 km

Average household consumption: 119 litres/person/day

% of total household expenditure: 0.6 %

Turnover: 1351 million €

Investments: ca 430 million €/year

Key statistics water supply

<u>Average drinking water rate households (2014, €)</u>

Standing charge per year	: 57,77	(40,- / 87,-)
Rate per m3	: 0,81	(0,46 / 1,24)
Taxes per m3	: 0,24	
Average rate per m3 all in	: 1,65	(1,35 / 2,06)

(€1,65 = 212 Japanese yen)

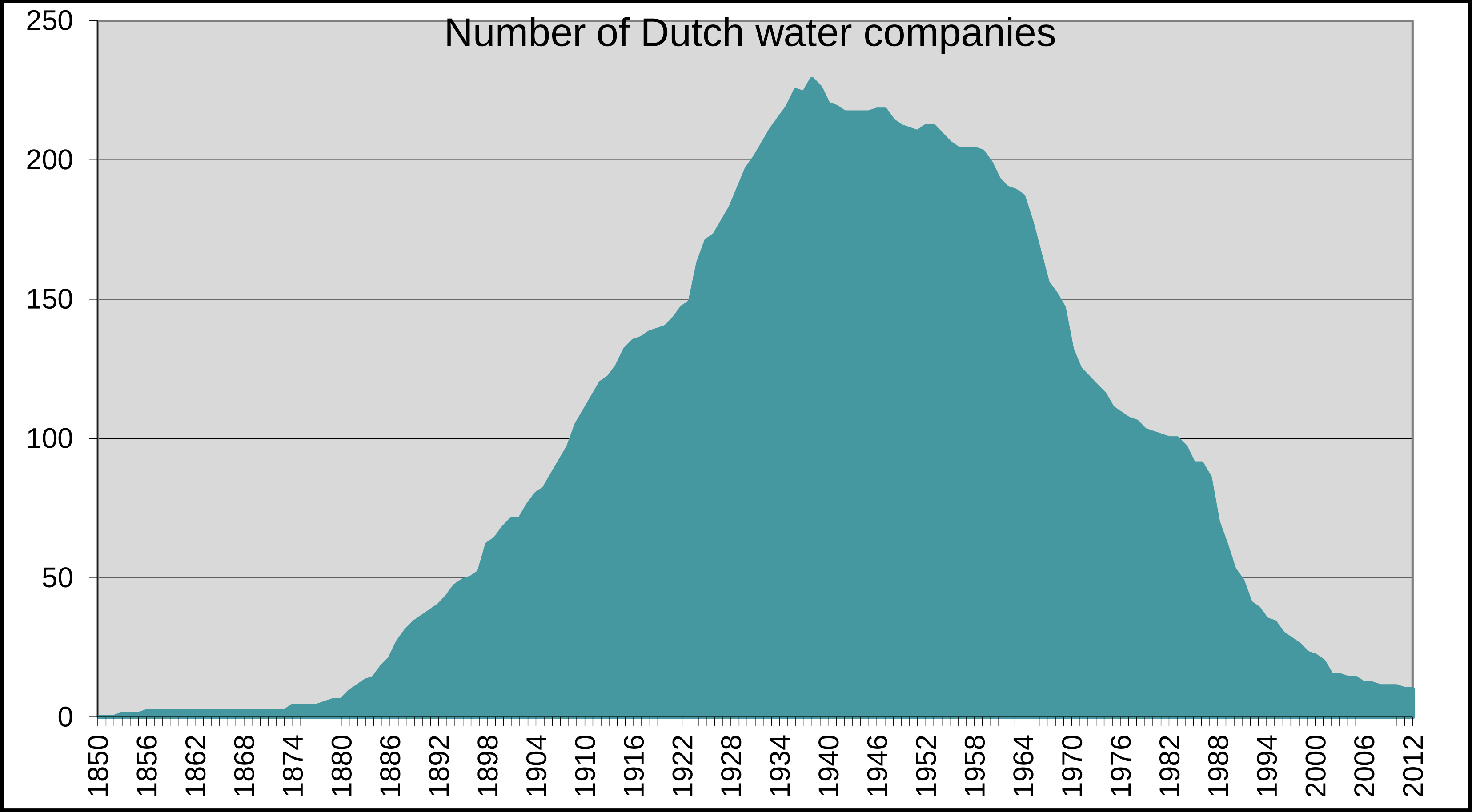
Governance & regulation water supply

- 1850's – 1940's: establishing water companies, increasing coverage
- after WO II: new challenges

  (increase of population, industrialisation, river water pollution)
- need for stronger utilities → voluntary up scaling & forced restructuring via provinces:

  Water Supply Act 1975

Governance & regulation water supply



Governance & regulation water supply

Drinking Water Act (2011)

- legal mandate to 10 regional, public water utilities
- ‘private business, public owners’
  - limited liability companies under private law (except for Amsterdam water cycle utility “Waternet”)
  - decentralised, public ownership (municipalities, provinces)
- regulation at arm’s length
  - integrated focus on public health, continuity, efficiency

Governance & regulation water supply

- mixed supervision
  - national (focus on water quality, continuity, finance & efficiency)
  - decentralised utility governance by public owners (focus on management, performance, investment policy, tariff setting)
- vital infrastructure → risk-based supply plans to secure supply today ánd tomorrow
- reasonable, affordable tariffs
- full cost recovery
- limitation to equity and dividend payments
- mandatory benchmarking

Status water supply today

- Water quality
  - tap water perfectly safe to drink
  - no chlorine, to eliminate disinfection by-products and improve taste
  - conditioning and hardness control for improved network lifetime, reduction of scaling and detergent consumption
- Reliability
  - few interruptions (6,6 mains failures/100 km/year or 6 minutes/connection/year)
  - low distribution losses (1,6 m3/km/day); leakage rate (<5%)
  - infrastructure in good condition – prerequisite for improved water quality

Status water supply today

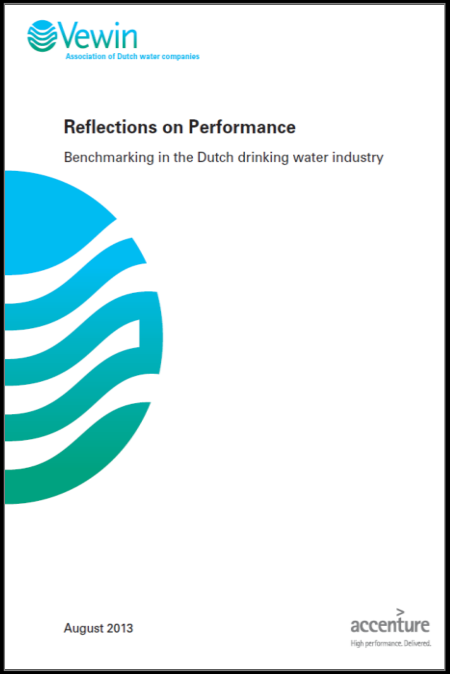
- Sustainability
  - 100% green energy
  - 98% recycling of treatment residues
- Costs & efficiency
  - full cost coverage (index 1,1)
  - affordable (water bill 0,6 % of disposable household income)
  - low personnel intensity (0,7 fte / 1000 properties)

→ Challenge: to keep it this way – despite low consumer interest

Annex: Benchmarking / results

Benchmarking

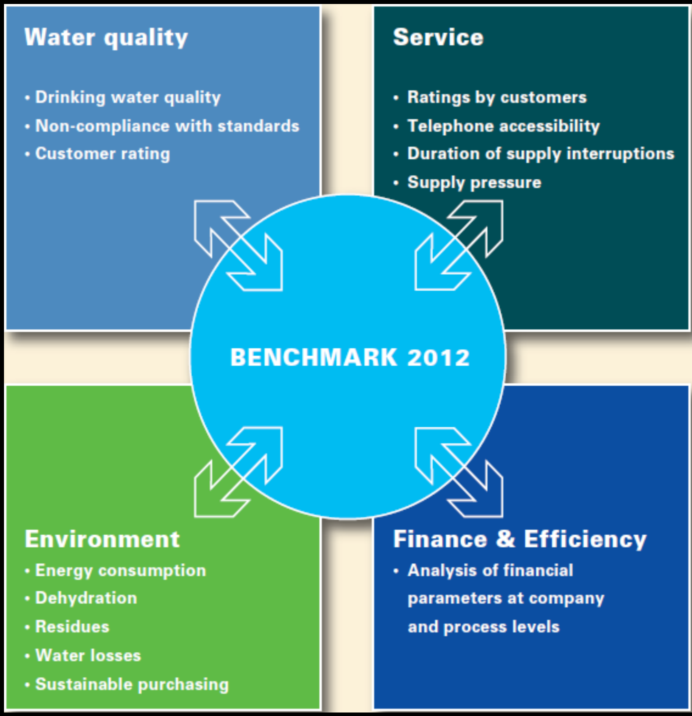
- late 1980's: first benchmarking efforts (regional)
- as of 1997: voluntary, national benchmarking programme by Vewin
- initiated by national discussions on privatisation/ liberalisation of public services
- as of 2011: mandatory



Annex: Benchmarking / results

<u>Benchmarking</u>

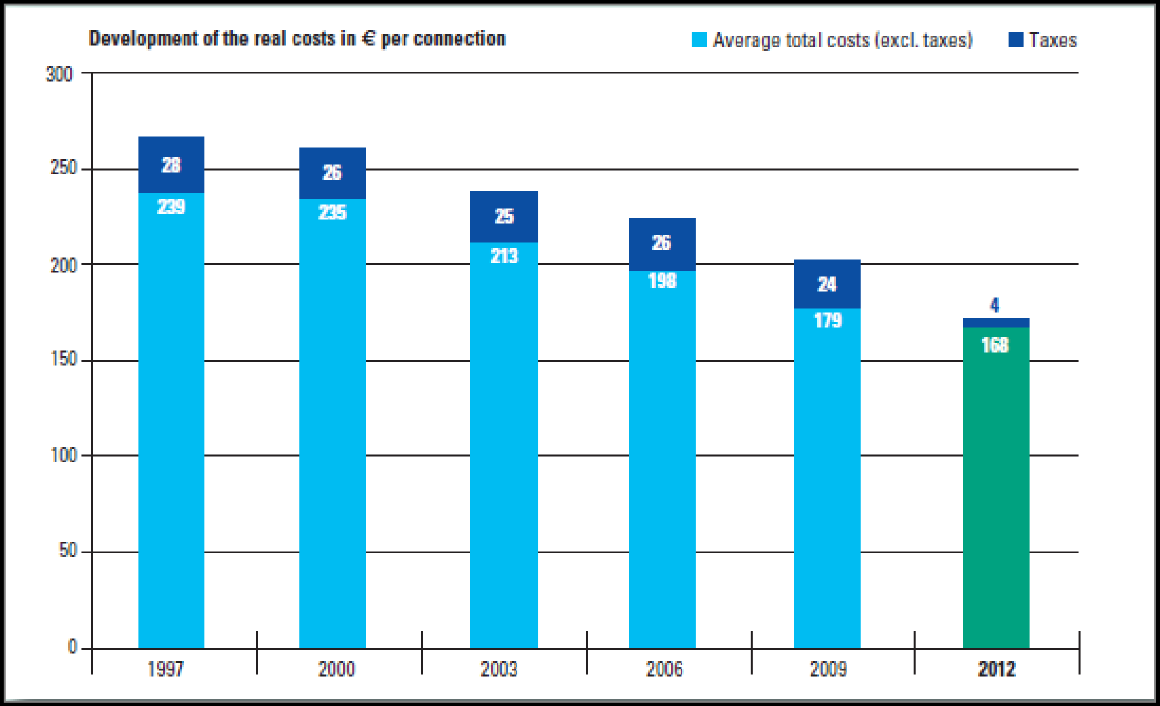
- objectives
  - raising transparency
  - improving performance
- wide view on performance
- key areas:
  - water quality
  - service quality
  - environment
  - finance & efficiency



Annex: Benchmarking / results

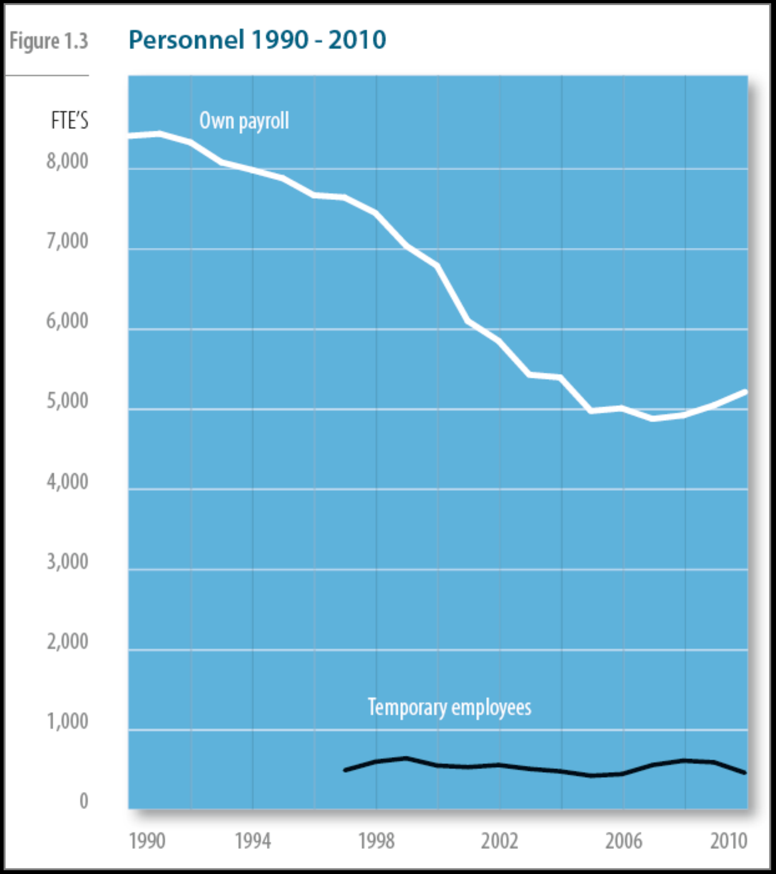
15 years of national benchmarking

- 35% cost reduction (adjusted for inflation)



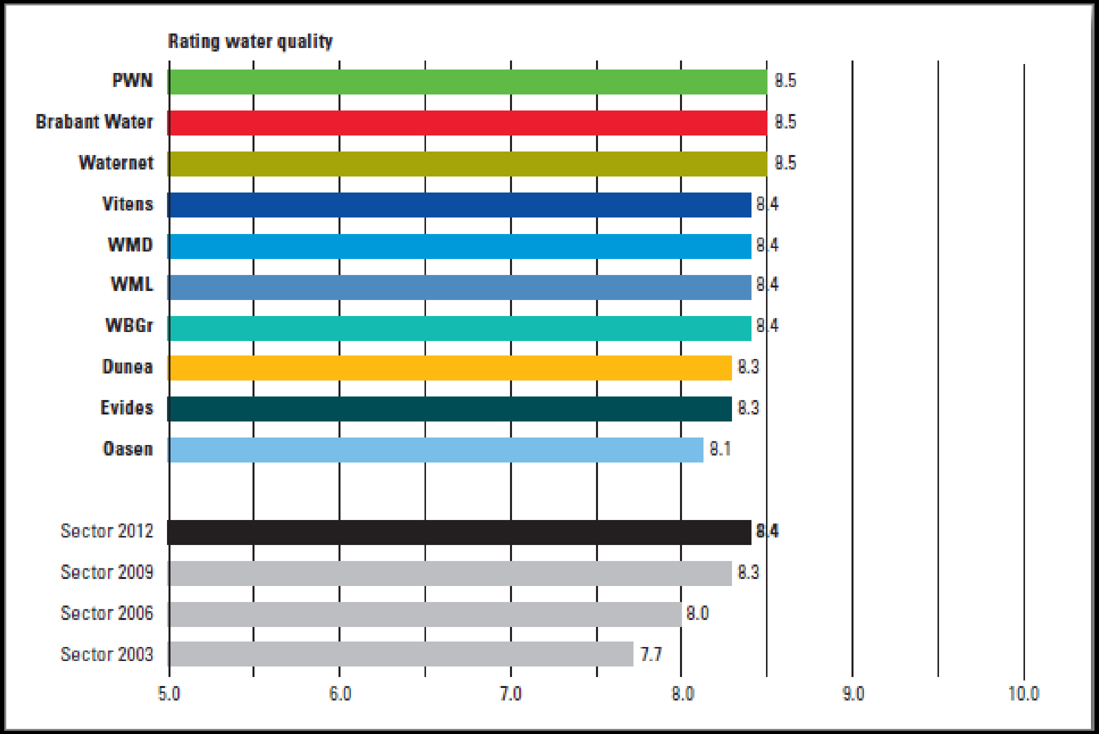
Annex: Benchmarking / results

- staff reduction because of mergers and efficiency improvements



Annex: Benchmarking / results

- … while maintaining/improving water quality (customer surveys)



Annex: Benchmarking / results

- … and maintaining investment levels