



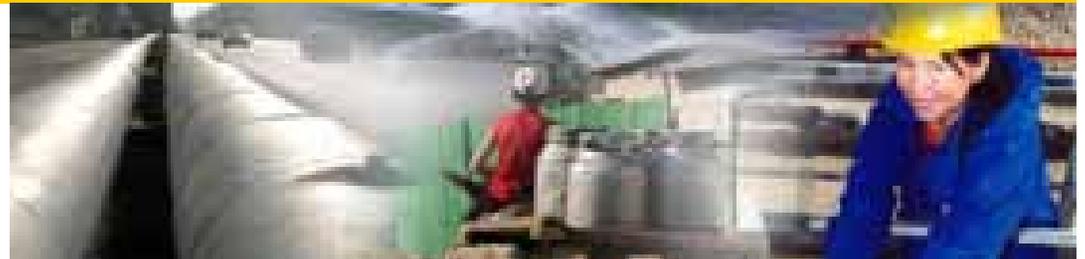
# Performance assessment and benchmarking

## IBNET as tool

### for utility management and policy decisionmakers

The International  
Benchmarking Network  
for Water and Sanitation  
Utilities

 **IBNET**



Caroline van den Berg

October 16, 2007

# Access to performance data is key



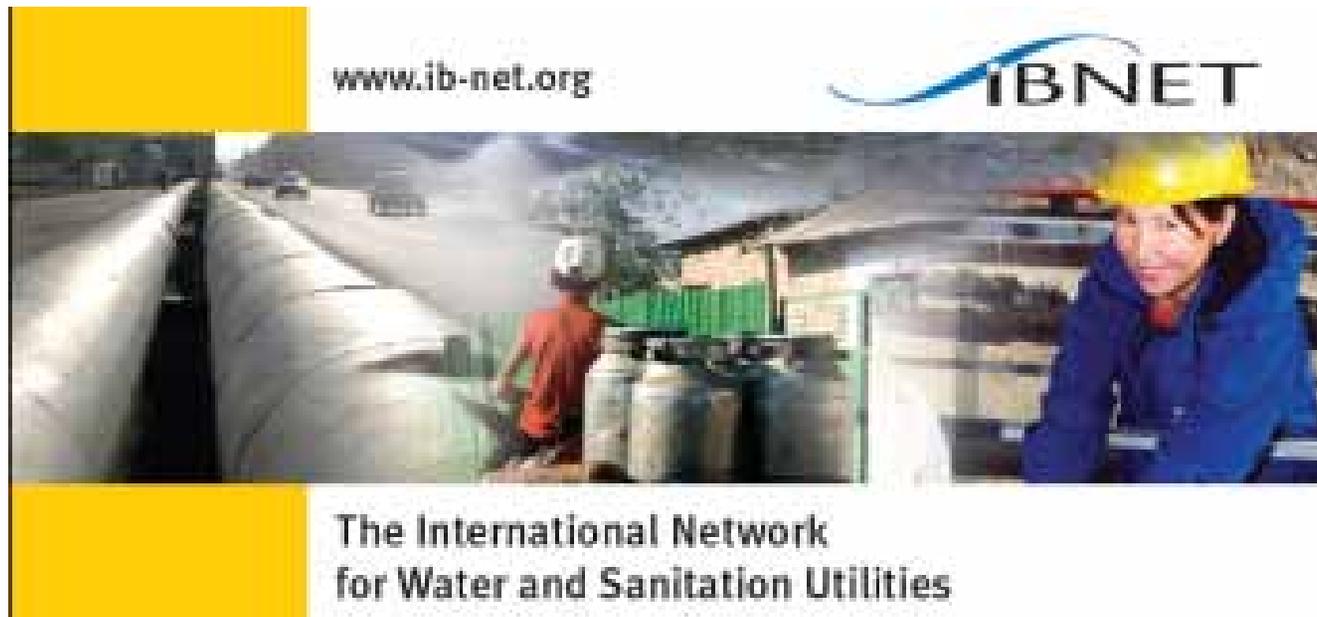
✦ One of the critical factors of successful utilities is **ACCOUNTABILITY**



✦ No accountability without performance measurement

# What is IBNET?

- ✚ IBNET started as an initiative to collect data on performance of WSS utilities to improve policy dialogue in the mid-1990s
- ✚ Since then, it has developed in three separate products that can be found at [www.ib-net.org](http://www.ib-net.org)

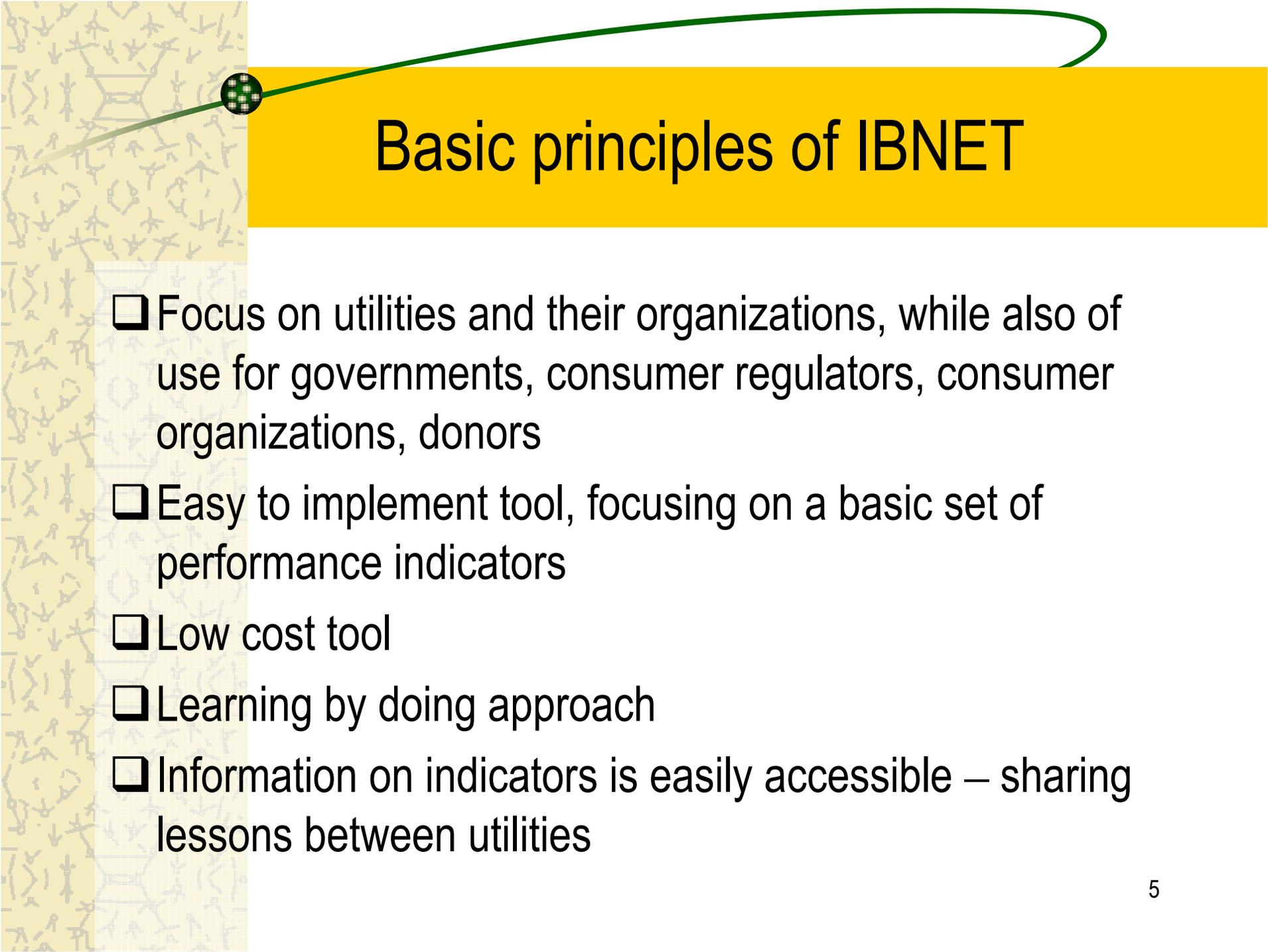


The International Network  
for Water and Sanitation Utilities



# What is IBNET?

- 1. IBNET Toolkit** is a suite of software and guidance documents to help utilities compile, analyze and share performance information
- 2. IBNET website** includes a searchable database with indicators from more than 2500 utilities from more than 80 countries:
  - Toolkit can be downloaded in different languages
  - Database – with indicator search mechanism and reporting formats
  - A section with links and resources to assist measurement and benchmarking
- 3. IBNET helpdesk**



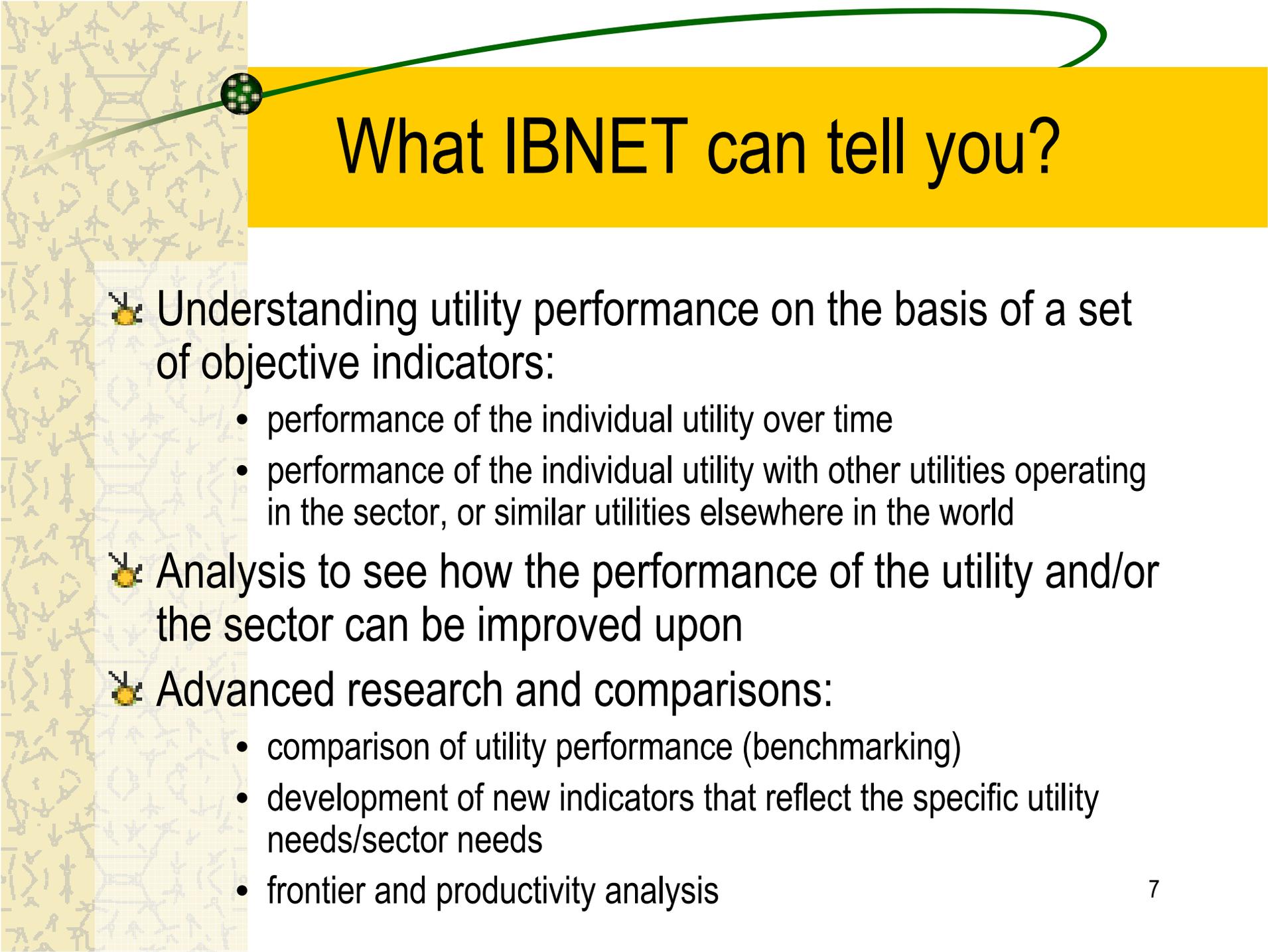
# Basic principles of IBNET

- Focus on utilities and their organizations, while also of use for governments, consumer regulators, consumer organizations, donors
- Easy to implement tool, focusing on a basic set of performance indicators
- Low cost tool
- Learning by doing approach
- Information on indicators is easily accessible – sharing lessons between utilities



# Where does IBNET get its data?

- ✚ Brazil: Federal ministry of cities
- ✚ UK, Chile and Bulgaria: national regulator
- ✚ Moldova and Romania, and Africa: national/regional water utility associations
- ✚ Hungary and Czech Republic: research institutes of the water utility associations
- ✚ Russia: independent research institute
- ✚ International regional associations: OECD, SEAWUN and in Latin America ADERASA:
- ✚ Mexico, Philippines, Vietnam, parts of Africa, and Eastern Europe and Central Asia: Bank projects
- ✚ Publicly accessible websites



# What IBNET can tell you?

- ✚ Understanding utility performance on the basis of a set of objective indicators:
  - performance of the individual utility over time
  - performance of the individual utility with other utilities operating in the sector, or similar utilities elsewhere in the world
- ✚ Analysis to see how the performance of the utility and/or the sector can be improved upon
- ✚ Advanced research and comparisons:
  - comparison of utility performance (benchmarking)
  - development of new indicators that reflect the specific utility needs/sector needs
  - frontier and productivity analysis

# IBNET Website: [www.ib-net.org](http://www.ib-net.org)





# Utility managers and IBNET data

- ✚ Common language for technical and financial staff
- ✚ Performance assessment:
  - Set-up baseline: where are we now?: detecting weaknesses
  - Set-up performance objectives: where we want to go?: setting priorities and targets
  - Performance monitoring: are we getting there?
- ✚ Advocacy – detect what impedes progress and what has to be done to overcome the impediments
- ✚ Comparisons between utilities, best practices, tool for analysis

# Utility Scorecard

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Utilities



## Utility Report

Costa Rica, Costa Rica National Utility, AyA (Utility Code: 999071)

Indicator	2002	2003	2004
1.1 Water Coverage (%)	94	97	97
2.1 Sewerage Coverage (%)	38	35	32
4.1 Total Water Consumption (l/person/day)	233	180	208
4.7 Residential Consumption (l/person/day)	N/A	144	165
6.1 Non Revenue Water (%)	N/A	50	50
6.2 Non Revenue Water (m3/km/day)	N/A	39.0	68.0
8.1 % Sold that is Metered (%)	N/A	90	15
11.1 Operational Cost W&WW (US\$/m3 water sold)	1.29	0.43	0.16
12.3 Staff W/1000 W pop served (W/1000 W pop served)	N/A	N/A	N/A
18.1 Average Revenue W&WW (US\$/m3 water sold)	1.32	1.58	0.58
23.1 Collection Period (Days)	9	22	30
23.2 Collection Ratio (%)	N/A	N/A	N/A
24.1 Operating Cost Coverage (ratio)	1.02	3.63	3.55

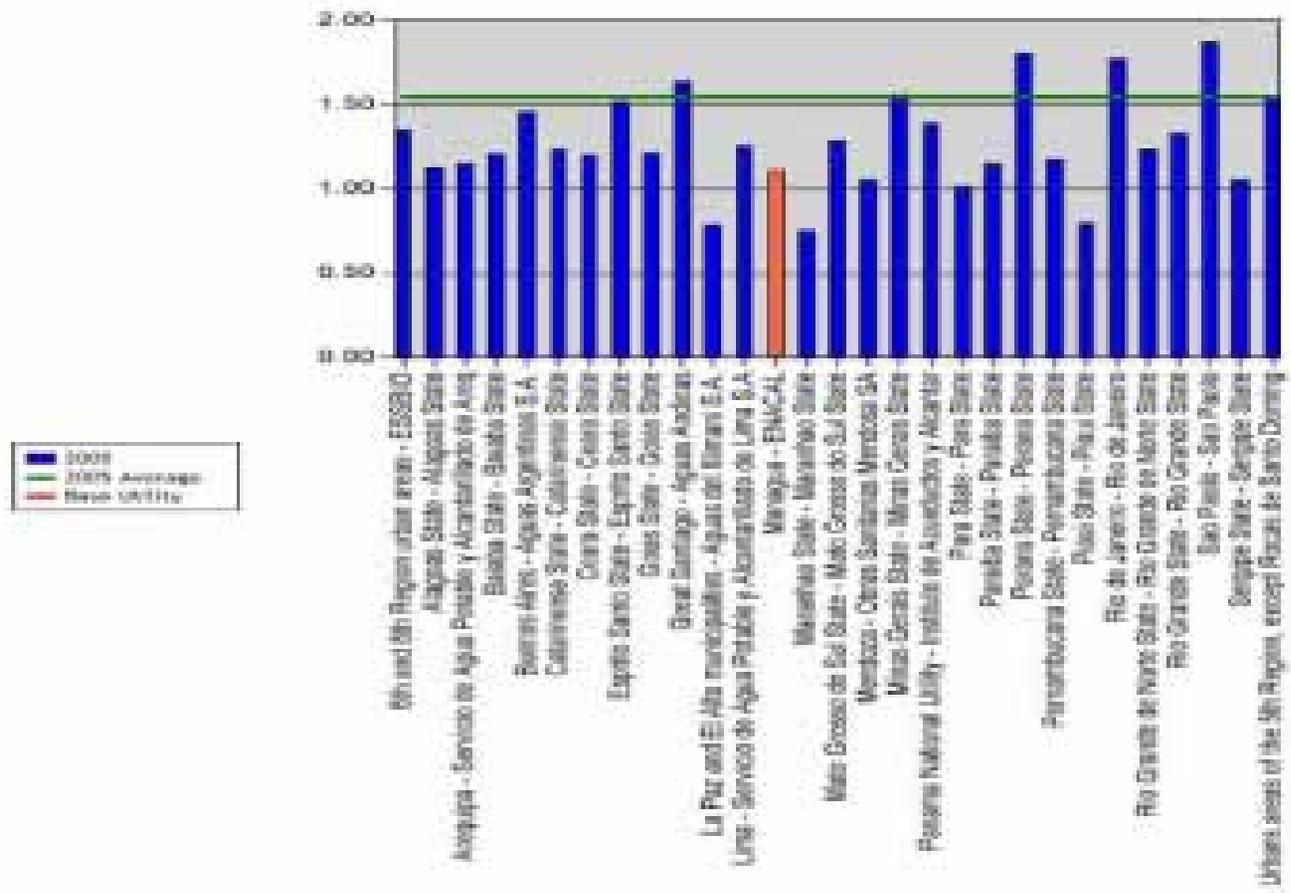
# Benchmarking utilities:

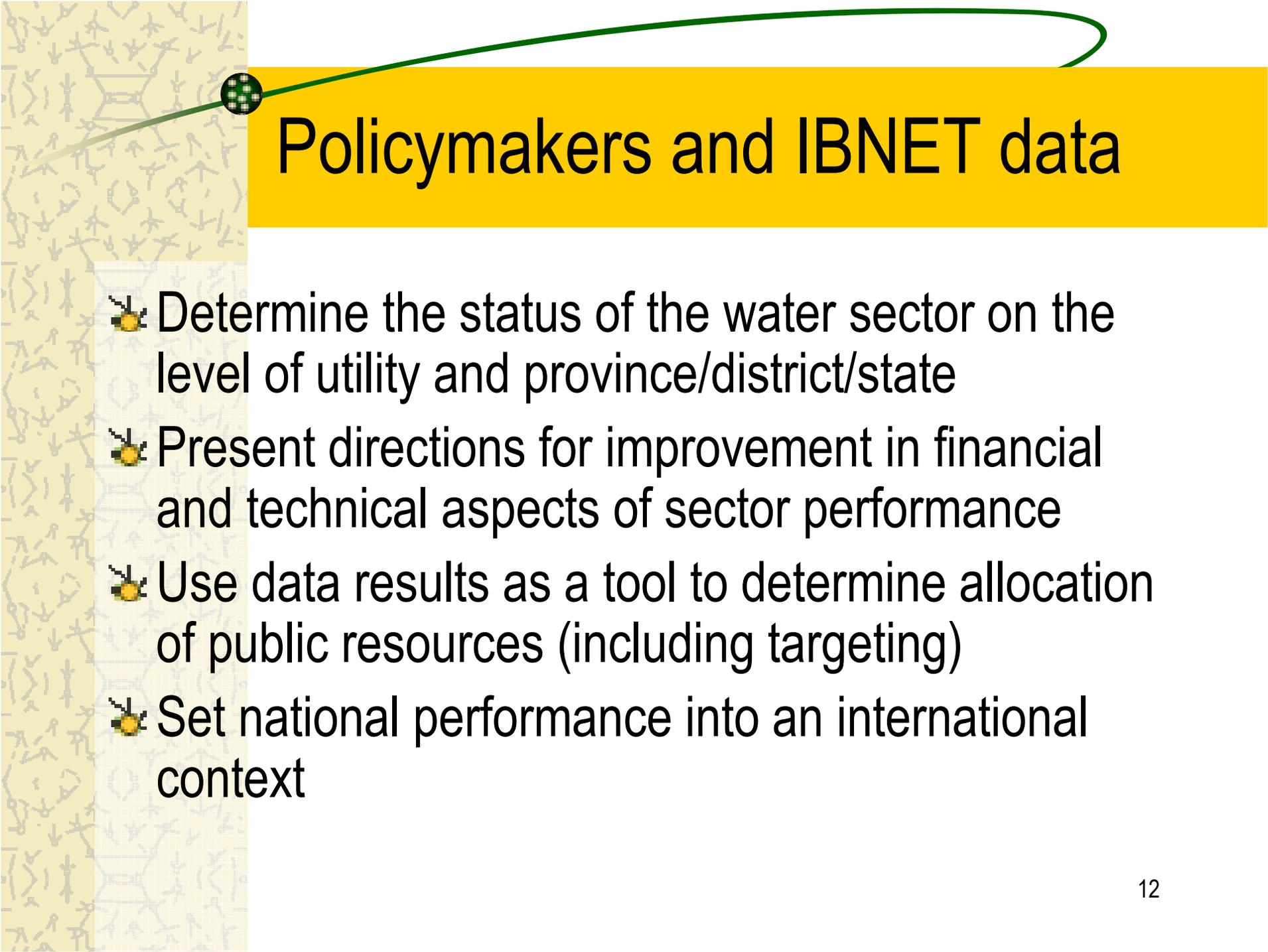
Operational Cost Coverage Ratio – multi-city, large utilities

The International Benchmarking Network for Water and Wastewater Utilities



## Benchmarking





# Polycymakers and IBNET data

- ✦ Determine the status of the water sector on the level of utility and province/district/state
- ✦ Present directions for improvement in financial and technical aspects of sector performance
- ✦ Use data results as a tool to determine allocation of public resources (including targeting)
- ✦ Set national performance into an international context

# Country scorecard

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## Country Report

### Colombia

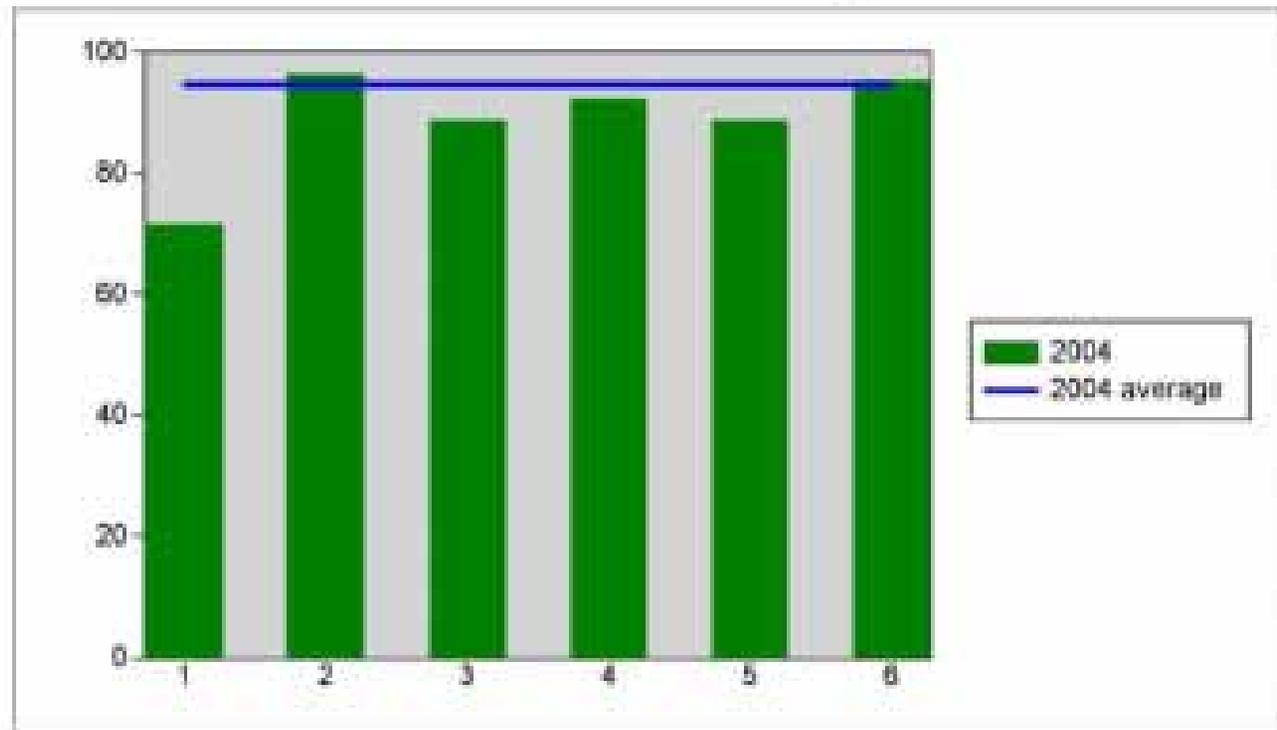
Indicator	2003	2004
1.1 Water Coverage (%)	88	89
2.1 Sewerage Coverage (%)	82	83
4.1 Total Water Consumption (l/person/day)	146	142
4.7 Residential Consumption (l/person/day)	116	112
6.1 Non Revenue Water (%)	45	44
6.2 Non Revenue Water (m <sup>3</sup> /km/day)	91.1	87.6
8.1 % Sold that is Metered (%)	86	92
11.1 Operational Cost W&WW (US\$/m <sup>3</sup> water sold)	0.48	0.53
12.3 Staff W/1000 W pop served (W/1000 W pop served)	0.4	0.4
18.1 Average Revenue W&WW (US\$/m <sup>3</sup> water sold)	0.70	0.81
23.1 Collection Period (Days)	241	220
23.2 Collection Ratio (%)	95	95
24.1 Operating Cost Coverage (ratio)	1.43	1.51

# Sector Scorecard

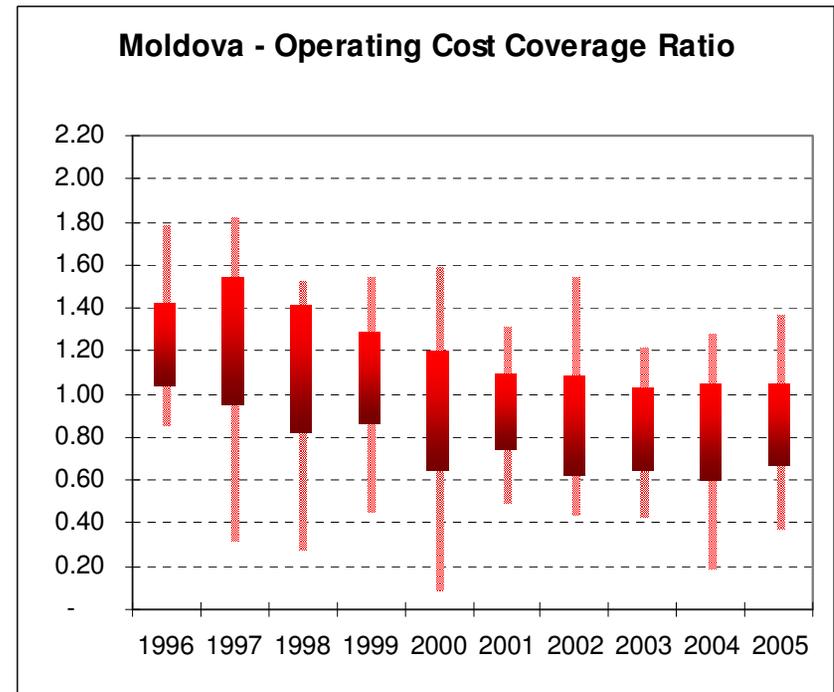
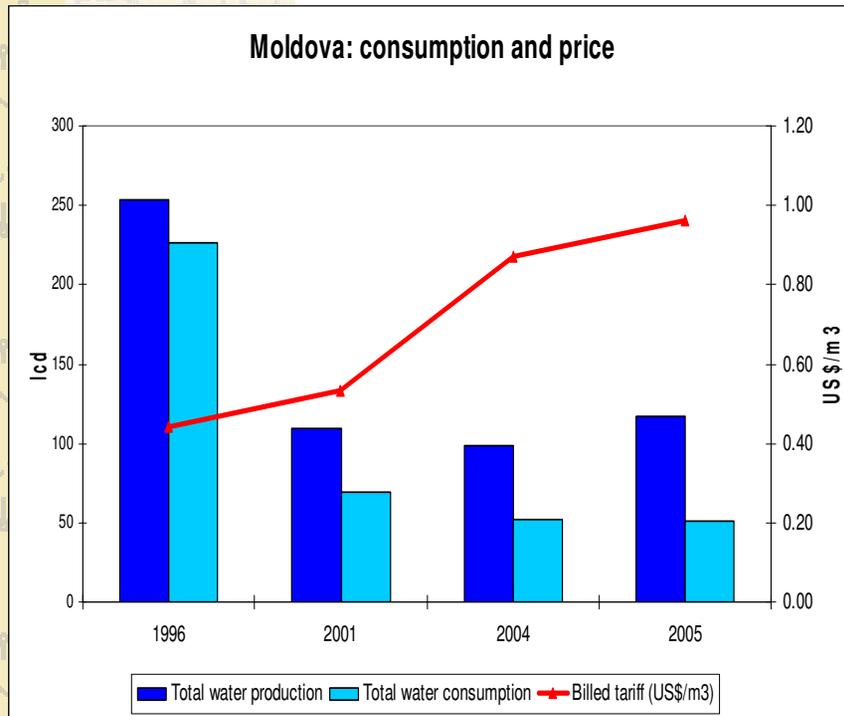
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IBNET

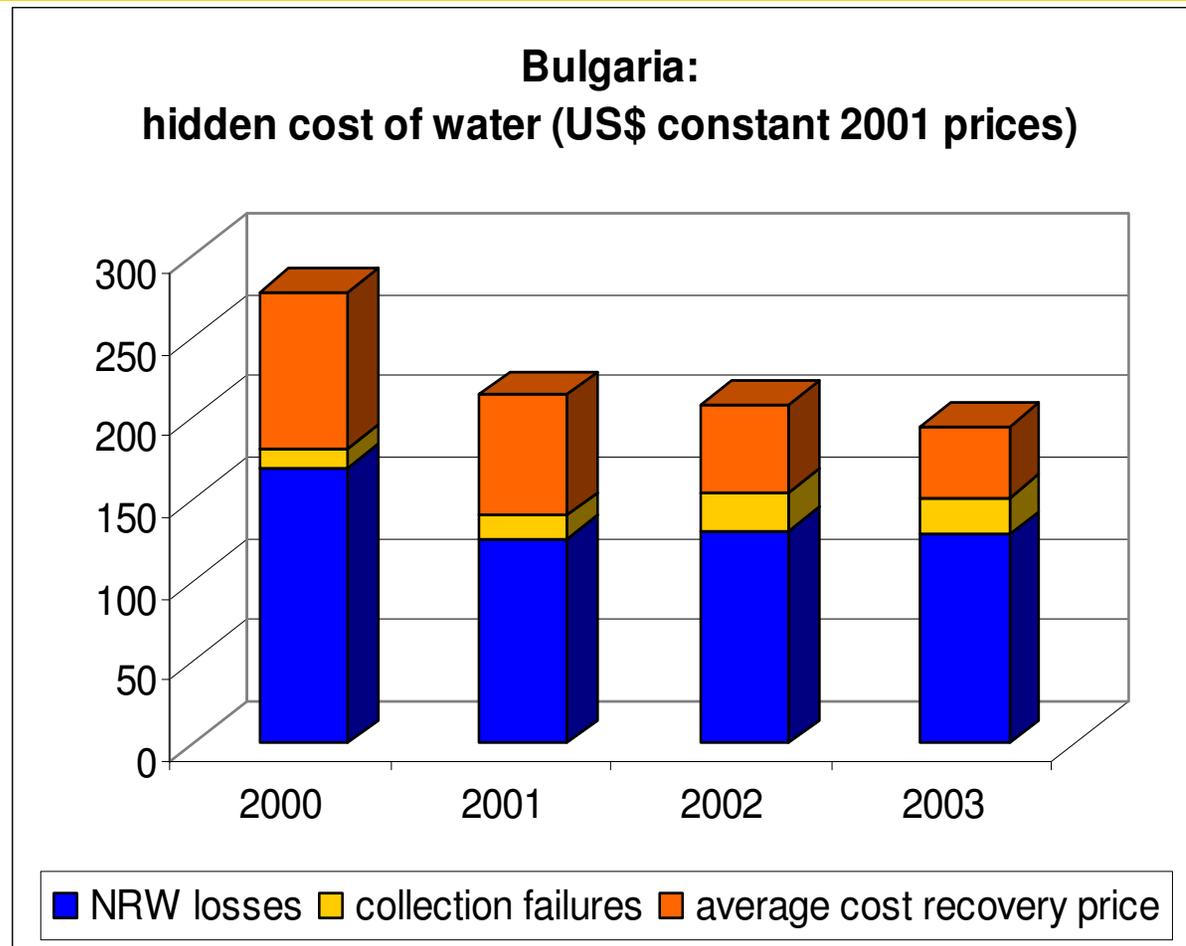
**Sector Report**  
Colombia (COL) for 2004  
23.2 Collection Ratio (%)



# Understanding the Linkages in Performance



# Hidden costs in the water sector





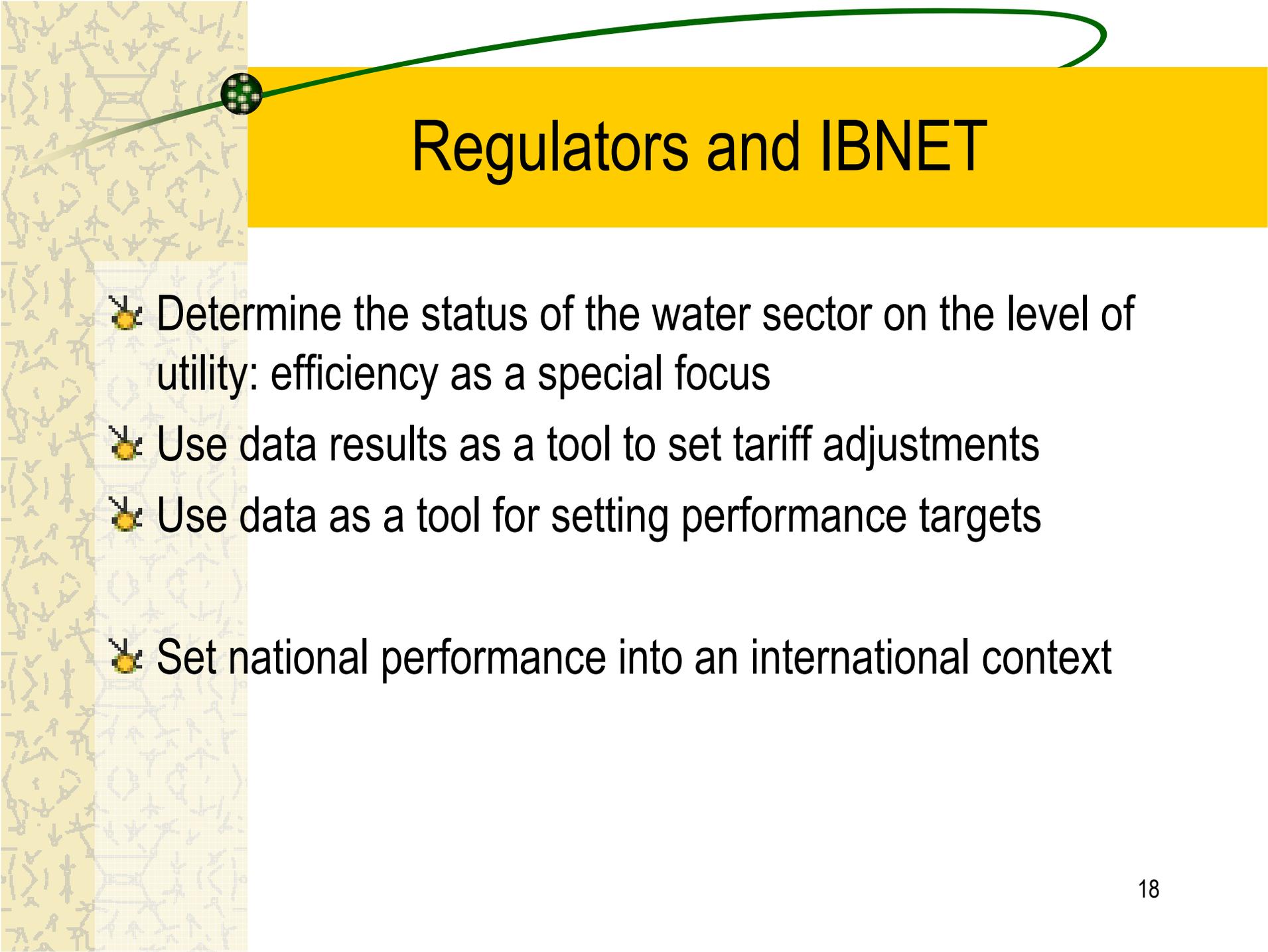
# Using data in policymaking: the case of Brazil

## Brazil:

- ✦ SNIS set up in 1994 and developing since then
- ✦ The role of SNIS in the new Water Law 2007:  
information as a pre-requisite for access to public  
resources

## Netherlands:

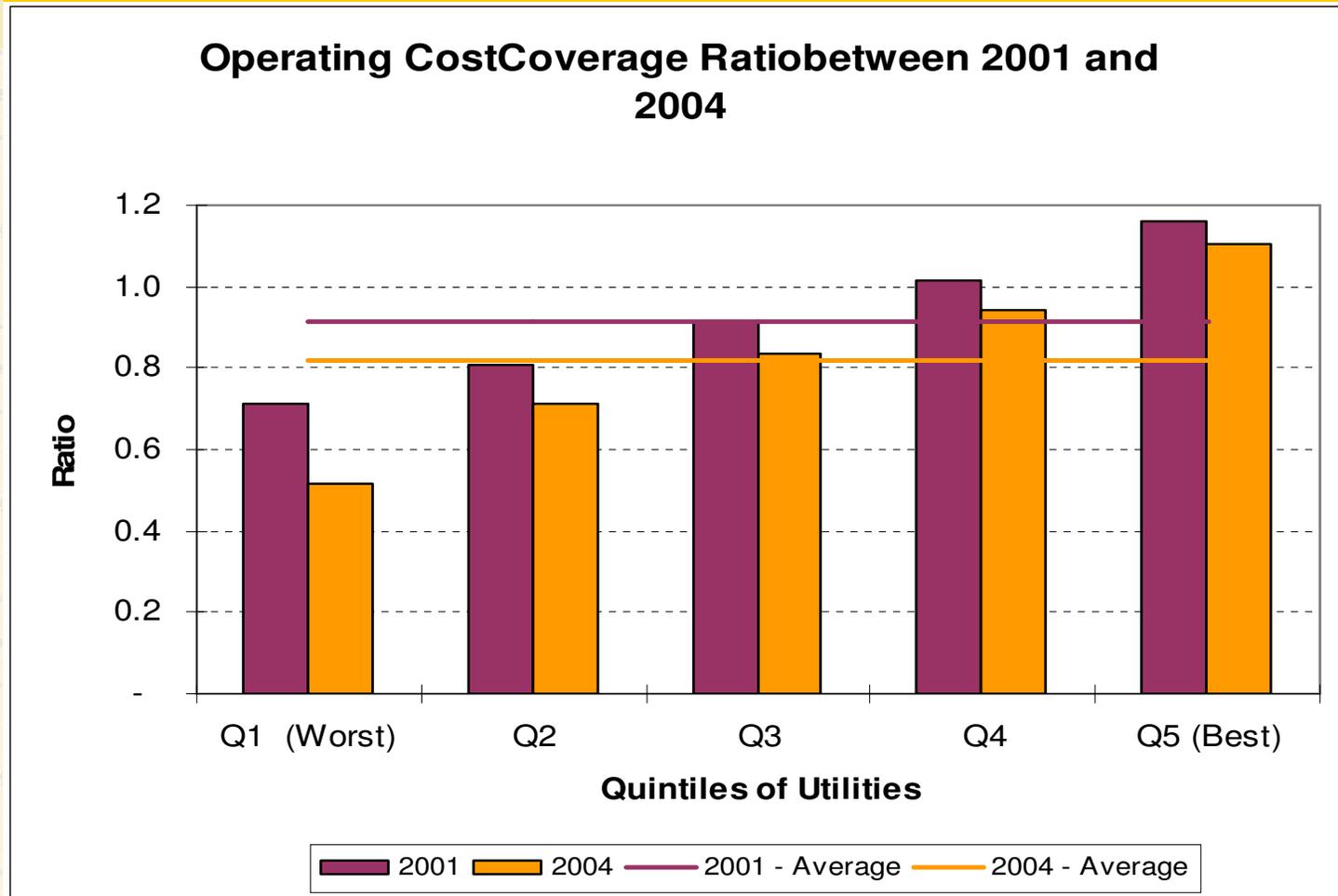
- ✦ Role of the national water association
- ✦ Use of benchmarking as an alternative to regulation



# Regulators and IBNET

- ✚ Determine the status of the water sector on the level of utility: efficiency as a special focus
- ✚ Use data results as a tool to set tariff adjustments
- ✚ Use data as a tool for setting performance targets
- ✚ Set national performance into an international context

# Setting performance targets



# Specific studies.....

## Economies of scale are not always occurring

Country	Economies of scale
Brazil	1.02
Romania	1.05*
Moldova	1.21*
Vietnam	1.16*

Source: Nauges and van den Berg,

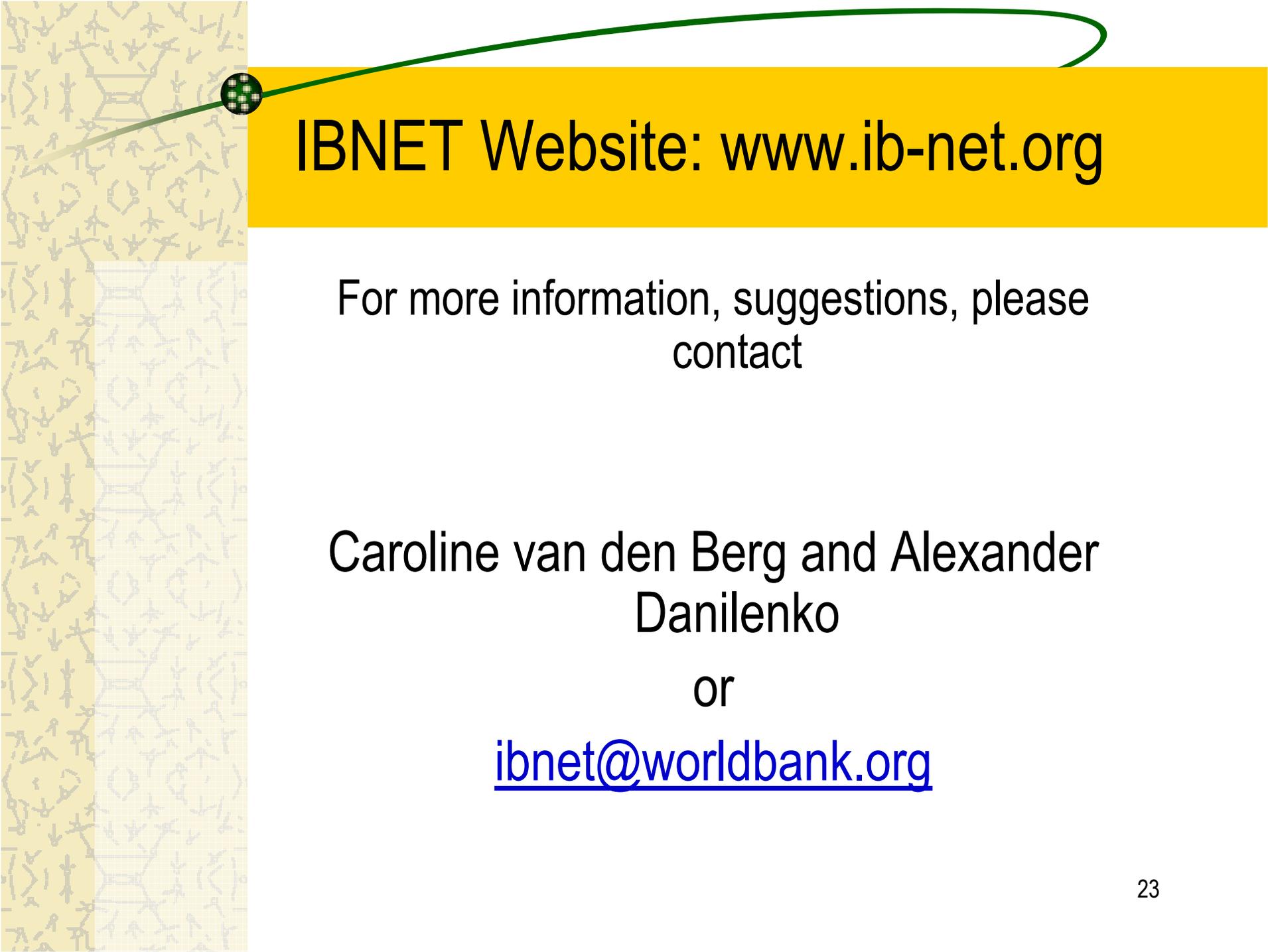
# Conclusions

- ✦ By providing access to comparative information key stakeholders will get the information to do their jobs better:
  - Utility managers and employees can identify areas for improvement, adopt realistic targets and—not least—convince authorities of the need for change;
  - Governments can monitor and adjust sector policies and programs;
  - Regulators can ensure that customers get value, and providers have incentives to perform;
  - Customer groups and NGOs can exercise “voice” in an informed way;

# Conclusions (2)

## ✦ IBNET:

- Use of IBNET as a tool with a tested methodology with adjustments and expansions
- Sharing data to ensure that learning and communication can take place
- We hope to ensure your participation in IBNET – directly or indirectly so that we can help to improve the sector to provide better and more universal access to its services



IBNET Website: [www.ib-net.org](http://www.ib-net.org)

For more information, suggestions, please  
contact

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or

[ibnet@worldbank.org](mailto:ibnet@worldbank.org)

# Issues in IBNET

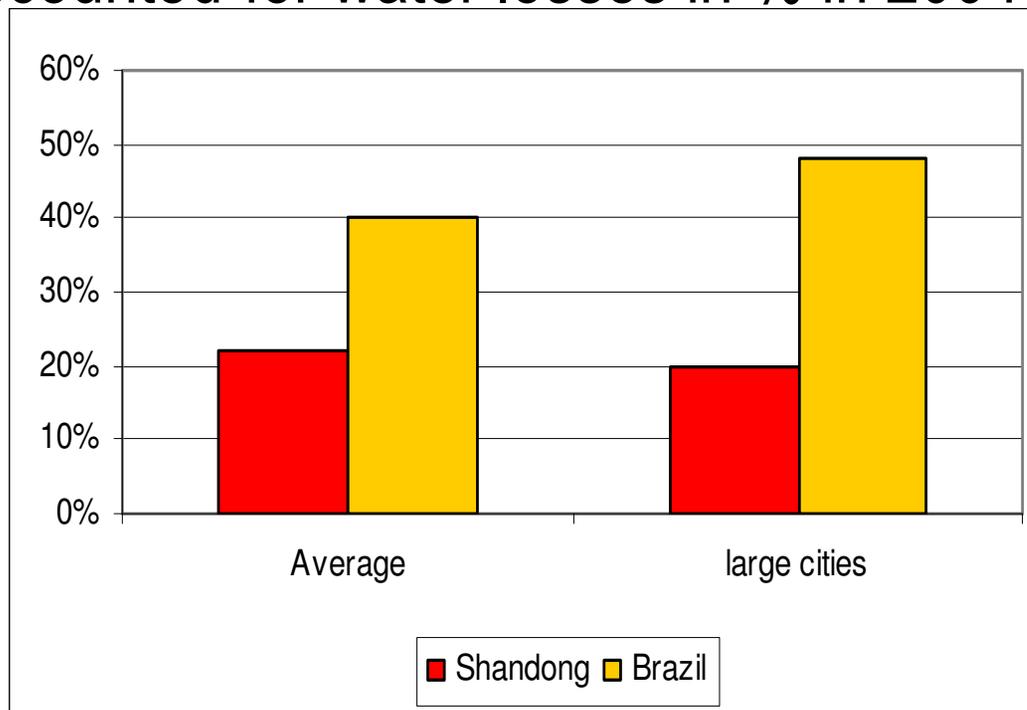
## 🔦 Data collection issues:

- Use of standardized data definitions and data tools to ensure comparability of data within and between countries
- Find partners that can collect data and ensure future data collection efforts
- Data quality requires a lot of attention:
  - Capacity building with data collecting agencies: process takes time
  - Control mechanisms to check on inconsistencies in the collected data

## 🔦 Need for follow-up on data collection with analysis of collected data

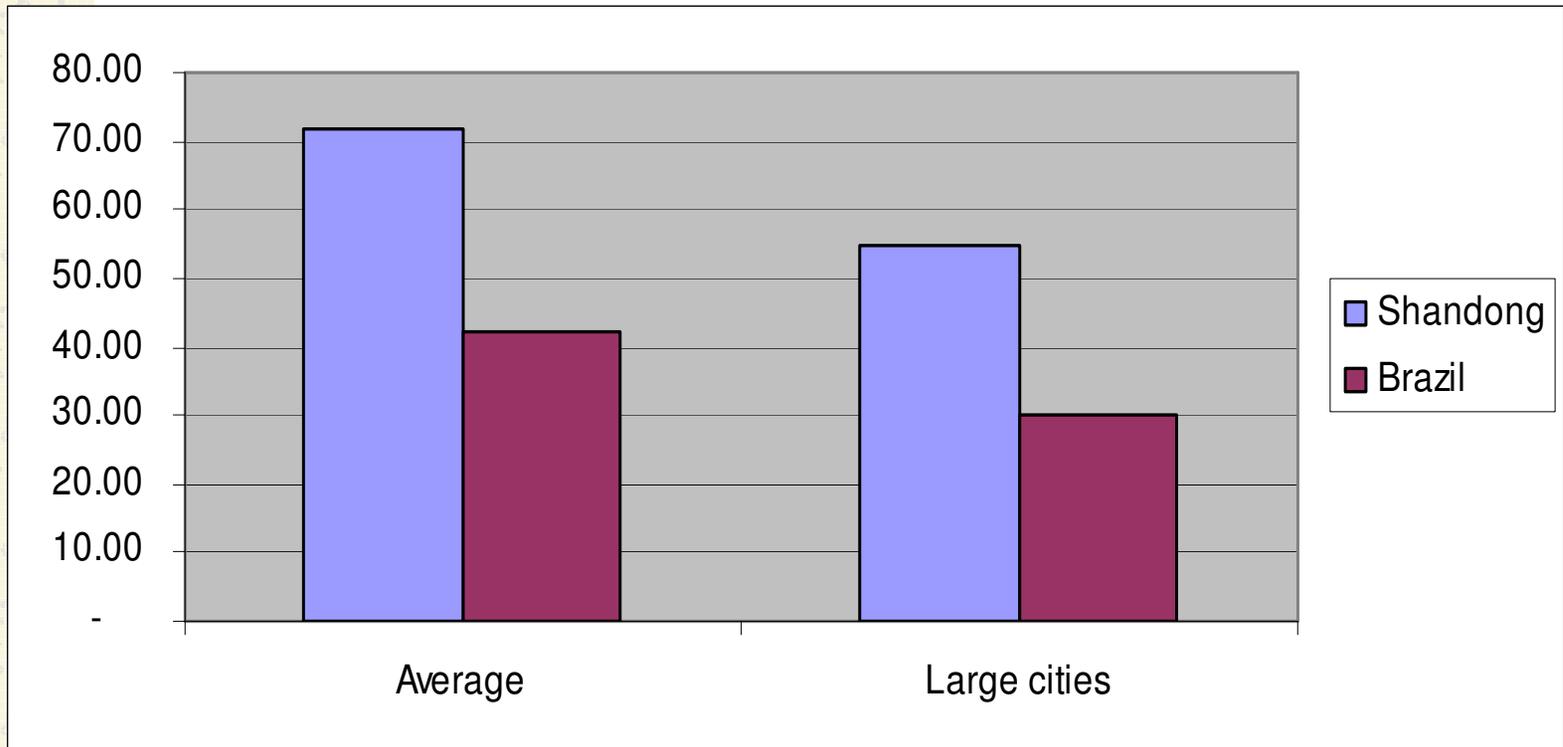
# Shandong vs. Brazil

Unaccounted-for water losses in % in 2004



# Shandong vs. Brazil

Unaccounted losses in m<sup>3</sup> per km of network



# NRW.. Money down the drain!

