HOCHSCHULE RUHR WEST
UNIVERSITY OF APPLIED SCIENCES
WIRTSCHAFTSINSTITUT

“The Regulation of Water Utilities – A helpful instrument for MENA-Countries?”

SusWaTec Workshop Cairo

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1. Instead of an introduction – What we have heard yesterday

„Therefore, allocation of more funds to improving the efficiency of water systems is unnecessary, expensive“ (Prof. Elias Salameh)

Water Demand Management is needed.

Fair sharing of trans-boundary groundwater and surface water acquifers

Private Sector Participation needed (Prof. Tarek Ismail)

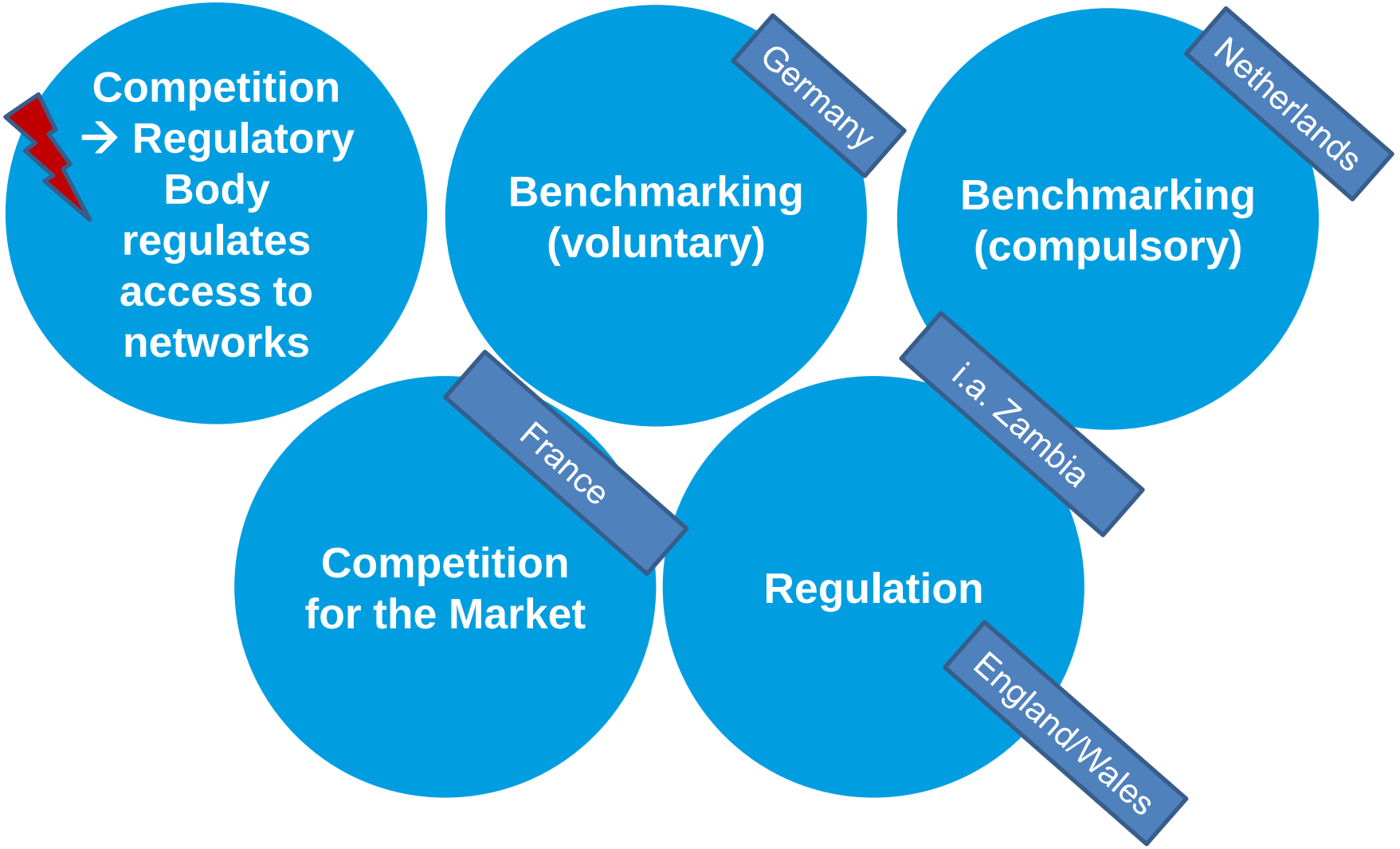
Discussion: Not good to mix water issues with money

Quite a lot of issues seem to be economical!

2. What‘s so different between water and say … …… the shoe industry

If we don‘t like the shoes, we buy them somewhere else.
If we don‘t like the water…. our problem!
→ Bad experiences to give water to a private supplier,
but: How do we know that the public one is engaged???

3. How countries organise their water and wastewater sectors - Overview



4. What do we mean by water utility regulation?

Regulation first of all is about increasing transparency

Starting Point

Water and Wastewater Service Providers are natural monopolies → No pressure to improve

Main Objectives for the Regulators

Regulation wants to assure that companies act for the good of the customers!

Regulation wants to make sure that companies do neither make too much profit nor that they are not self-sustainable

Key Idea

Giving incentives to the companies by analyzing performance
→ Benchmarking ALWAYS at the center
→ NEVER micro-management!!

Options for com-panies to improve

Learning from other best-practice-examples in country

(Micro) PSPs

……

4. Importance of taylor-made regulatory designs

Elements and sequencing

Facilitation of cooperation between regulator and ministry (1)	Preparation of performance reports (2)	Development of licenses/ service provision agreements (2)	Implementation of management tools (4)
Regulatory system design (1)	Analysis of provider performance (3)	Consumer involvement (3)	Facilitation of exchange between regulators (C)
Development of standards and guidelines (2)	Establishment & strengthening of regulatory authorities (1/C)	Development and implementation of Information Systems (1/C)	Development of regulatory laws (1)
Training for water service providers (4)	Support to regional regulator associations (C)	Review of tariff applications (2)	Organisational development (1/C)

C → Continuously

5. The Example of Zambia
Yearly Benchmarking Report

Benchmarking of the Zambian Water Utility Regulator NWASCO:

	UFW [%]	Trend	# Water Quality [% compliance]	Trend	Metering Ratio [%]	Trend	Water Service Coverage [%]	Trend	Sanitation Coverage* [%]	Trend	Hours of supply	Trend	Staff per 1,000 connections	Trend	Collection efficiency [%]	Trend	O+M Cost coverage collection* [%]	Trend			
NWSC	35	↑	70	↑	43	↑	85	↑	69	↑	20	↑	8	↑	80	↑	103	↑	4	5	0
LWSC	51	↑	80	↑	45	↑	64	↑	9	↑	15	↑	13	↑	83	↑	102	↑	1	4	4
KWSC	58	↑	93	↑	11	↑	92	↑	67	↑	15	↑	8	↑	85	↑	114	↑	4	3	2
SWSC	43	↑	94	↑	76	↑	83	↑	23	↑	14	↑	10	↑	102	↑	93	↑	4	3	2
LGWSC	61	***	71	***	1	***	40	***	17	***	15	***	18	***	64	***	62	***	1	1	7
MWSC	56	↑	8	↑	22	↑	91	↑	86	↑	17	↑	8	↑	64	↑	94	↑	4	0	5
WWSC	47	↑	13	↑	15	↑	47	↑	24	↑	8	↑	13	↑	108	↑	86	↑	2	1	6
NWWSC	36	↑	69	↑	100	↑	60	↑	4	↑	20	↑	12	↑	85	↑	90	↑	4	2	3
CHWSC	54	↑	10	↑	3	↑	47	↑	10	↑	9	↑	19	↑	65	↑	69	↑	0	0	9
CWSC	31	↑	58	↑	97	↑	59	↑	33	↑	24	↑	12	↑	121	↑	114	↑	4	3	2
Av.	47 (w)	↑	57 (s)	↑	39 (w)	↑	70 (w)	↑	34 (w)	↑	15 (s)	↑	**		84 (w)	↑	102 (w)	↑			

Worse than the relevant average and benchmark not achieved

Better than the relevant average but benchmark not achieved

At least "acceptable" benchmark achieved

(w) weighted average
(s) simple average

5. The Example of Zambia (2)
Ranking of Companies

PIs – Weighting Indicators:

	Indicator	Weighting
1	Water Quality	20 points
2	Collection efficiency	20 points
3	Metering ratio	15 points
4	Hours of supply	15 points
5	O+M cost coverage by collection	15 points
6	UFW	10 points
7	Staff per 1000 connections	10 points
8	Regulators perception	05 points
9	Sanitation coverage	05 points
10	Water coverage	05 points

Ranking of Comapnies:

Commercial Utility	Ranking 2008/9	Ranking 2007/8	Ranking 2006/7	Ranking 2005/6
NWWSC	1	1	2	1
SWSC	2	2	4	3
MWSC	3	5	7	5
CWSC	4	7	3	2
NWSC	5	3	1	4
LWSC	6	6	6	7
LGWSC	7	8	9	N/A
WWSC	8	8	8	6
KWSC	9	4	5	7
ChWSC	10	10	10	9

Woooow!! North-Western WSC has done it again!!! Retaining the best performing CU position for the third time in five years.

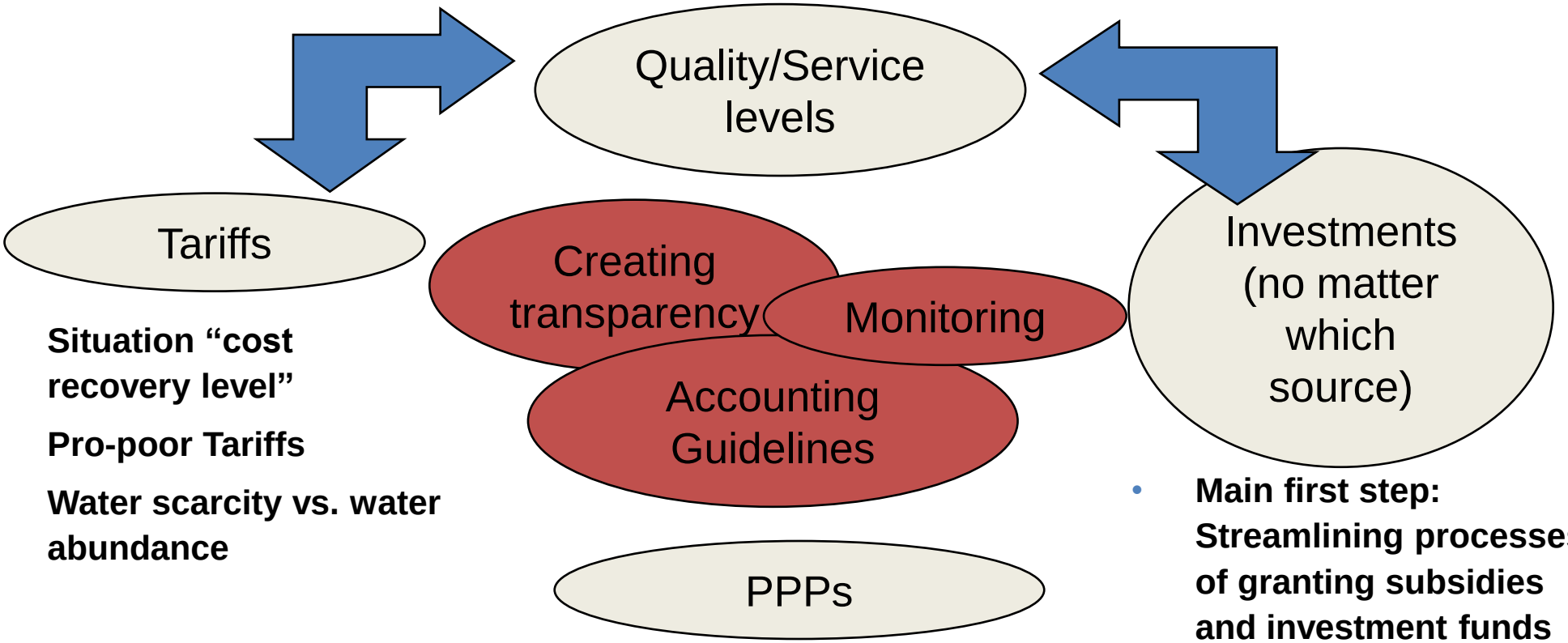
Source: NWASCO (2009, p. 6)

Results are also used to set targets for companies

→ The worse a company is the more it has to improve!

6. Is it really so simple as it looks like?
Tariff, Quality and Investments form a unity

- **Decision on quality levels → agreements on national or local level**
- **Integration of customers (e.g. Water Action Groups)**

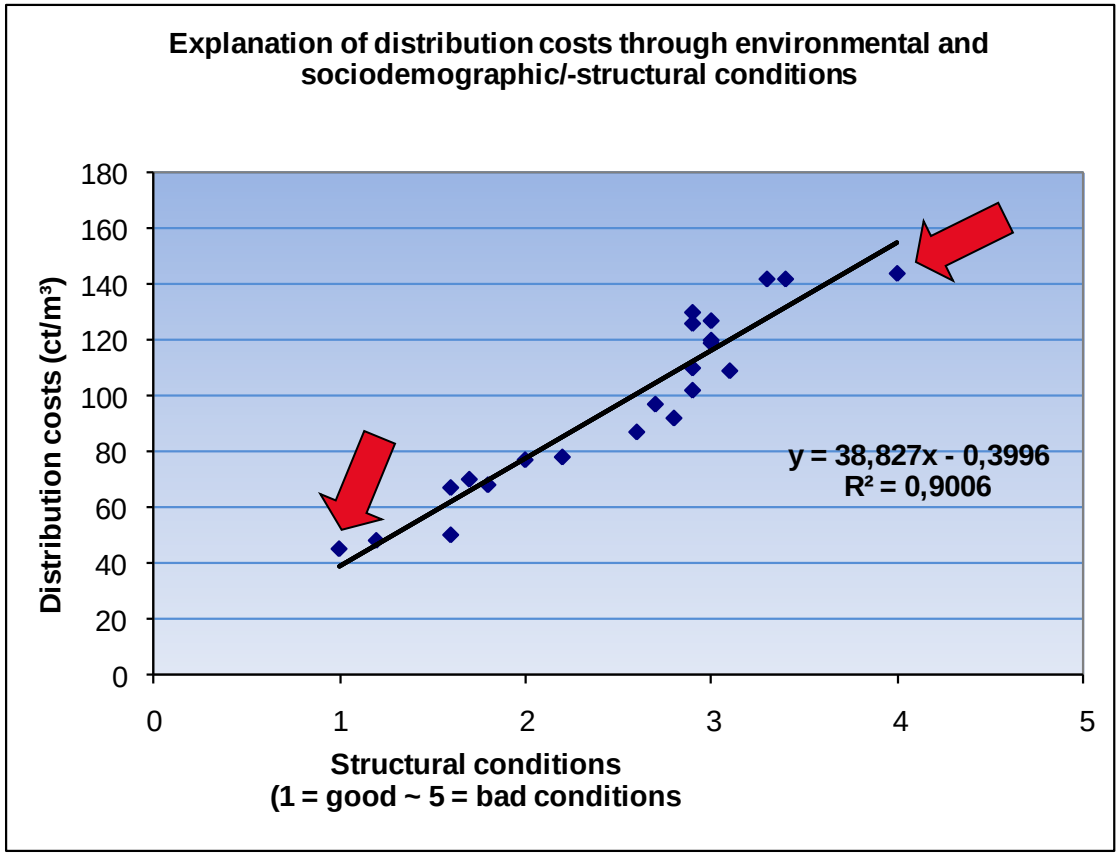


- **Situation "cost recovery level"**
- **Pro-poor Tariffs**
- **Water scarcity vs. water abundance**

- **Main first step: Streamlining processes of granting subsidies and investment funds where needed**

- **Very often PPP sets important benchmark for others**
- **Need to identify role of regulator**

5. Is it really so simple as it looks like?
The importance of structural differences



- Structural differences need to be taken into consideration (e.g. density, topography, age of assets, distribution client groups)
- Company with distribution costs of 143 ct/m³ is **better (!)** than the one with distribution costs of 45 ct/m³
- **OLS Analysis**; always validated by DEA or **DEA and SFA Analyses**

As soon as certain quality standards are reached, a country can start using statistical techniques.

7. Conclusion (1)

- In every national water sector companies ought to deliver best possible services for their customers. As as „natural monopoly“ this is quite often not the case.
- A Water Utility Regulator can help by introducing incentives to the companies.
- Such incentives do not have to be problem for the companies. On the contrary: A Regulator helps to increase transparency and by this can „fame“ the good performing companies. It provides the floor for the companies to exchange good ideas how to reach output-targets.

7. Conclusion (2)

- In addition an independent Regulator can assist the companies in dealing with the government. It will also strive that companies achieve **full-cost-coverage** – even in countries with a whole lot of challenges. Pro-poor tariffs help taking account of social aspects.

- Every Regulator faces severe problems with data quality at the beginning. Thus, increasing data quality and monitoring is of utmost importance. **Without a sufficient data quality in the sector, don‘t even think about PPP!**

- A regulatory set-up always needs to be a taylor-made-approach. It has to take into account both the legal separation of duties but as well the separation in practice.

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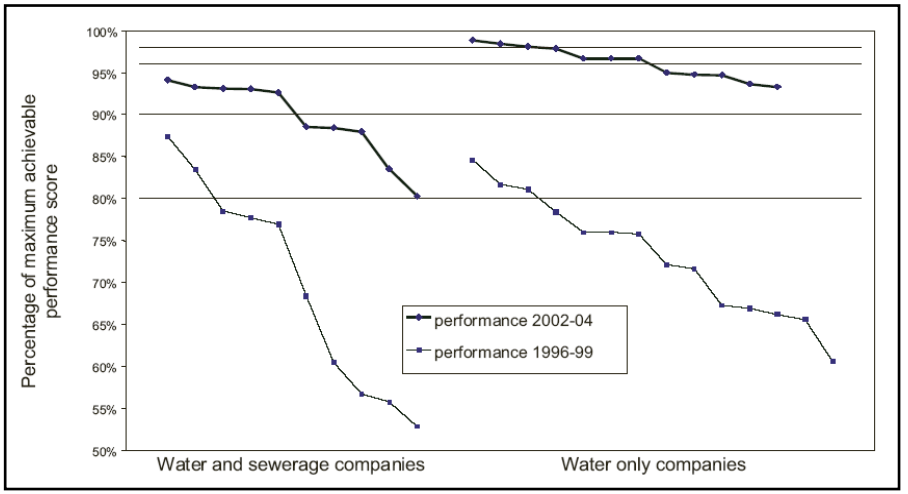
Annex: The experiences in England and Wales

PIs - Weighting indicators:

Overall Performance Assessment (WaSC)			
Output	Weight	Max unweighted	Max weighted
Water, Supply, Levels of Service	3	200	150
DG2 – risk of low pressure score	0.75	50	37.5
DG3 – unplanned interruption score	0.75	50	37.5
Hosepipe bans	0.5	50	25
Water quality	1	50	50
Sewerage Service, Levels of Service (WaSCs only)	1.5	150	75
Sewer flooding incidents (capacity) score	0.5	50	25
Sewer flooding incidents (other causes) score	0.75	50	37.5
Company assessed risk of flooding more than once in 10 years (score)	0.25	50	12.5
Customer Service	1.5	100	75
Company contact score	0.75	50	37.5
Other customer service	0.75	50	37.5
Environmental Performance (WaSCs only)	2.75	300	137.5
Categories 1, 2 pollution incidents per million equivalent resident population (score)	0.5	50	12.5
Category 3 pollution incidents per million equivalent resident population (score)	0.25	50	12.5
Categories 1 & 2 pollution incidents – WATER	0.25	50	12.5
% equivalent population served by STWs in breach of their consent (score)	1	50	50
Sludge	0.25	50	12.5
Leakage	0.5	50	25
Totals	8.75	750	437.5

Ranking of Companies over time:



Source: OFWAT (2004, p. 160)

Assigning weights to indicators and observation over time helps to display the success of regulatory interference!