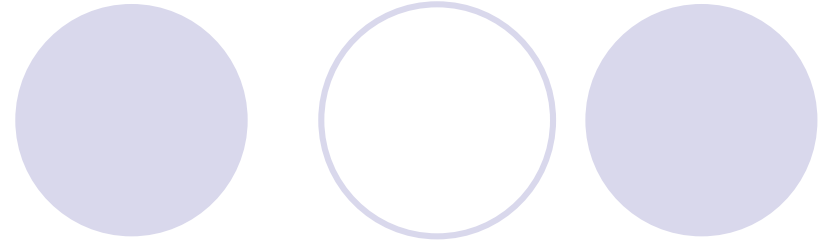




WATER Operations in
EASTERN EUROPE



Athens European Week

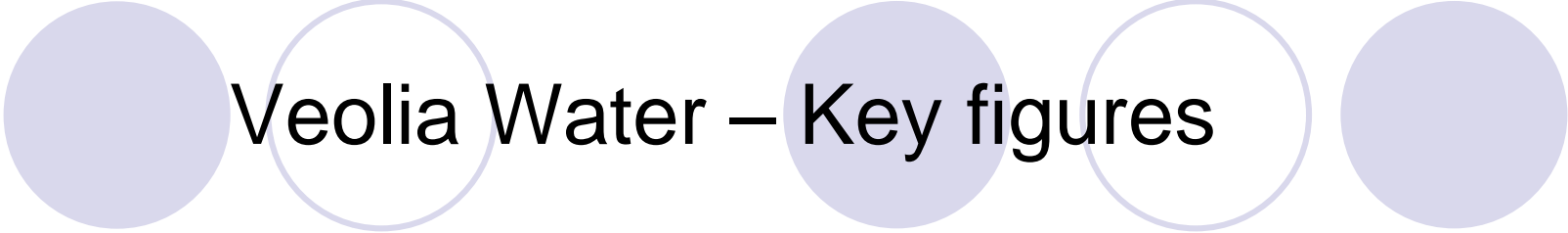
Jean-Patrice POIRIER

November 22, 2013



Plan of Presentation

- Main drivers for the water market in Eastern Europe
- Case studies: Bucharest (& Prague)
- European Union Funds
- Questions & answers



Veolia Water – Key figures

- **12 billion euros** in 2012 revenue
- **80 000** employees
- Operations in **40 countries**
- **78 million** people provided with drinking water and **53 million** with wastewater services
- **4,650 water production plants** managed
- **3,150 wastewater treatment plants** managed
- **6.9 billion cubic meters** of water distributed
- **5.6 billion cubic meters** of municipal waste water collected

Veolia Water expertise and business: management of water cycle

2 segments of one unique business:

- Potable water and Wastewater services management for Municipalities and industrial clients
- Implementation of technological solutions and construction of related facilities

Municipalities

68%



Technological solutions and construction

26%

Industrial management

6%

Veolia Water R&D

More than 50 water treatment technologies have been developed over the past 20 years, among which:

Settling with ballasted flocs :
ACTIFLO (more than 300 sites)



Sludge oxidation in aqueous and pressurised atmosphere : **ATHOS**



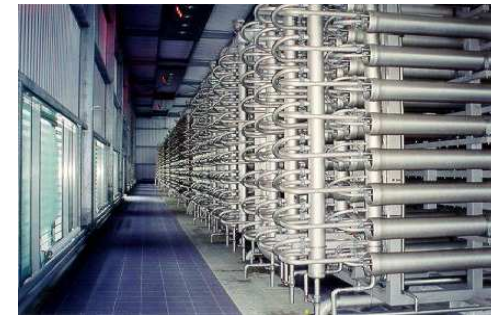
Treatment with fixed biological beds : **BIOSTYR**
(more than 80 sites)



« intelligent » field vehicles
for network technicians



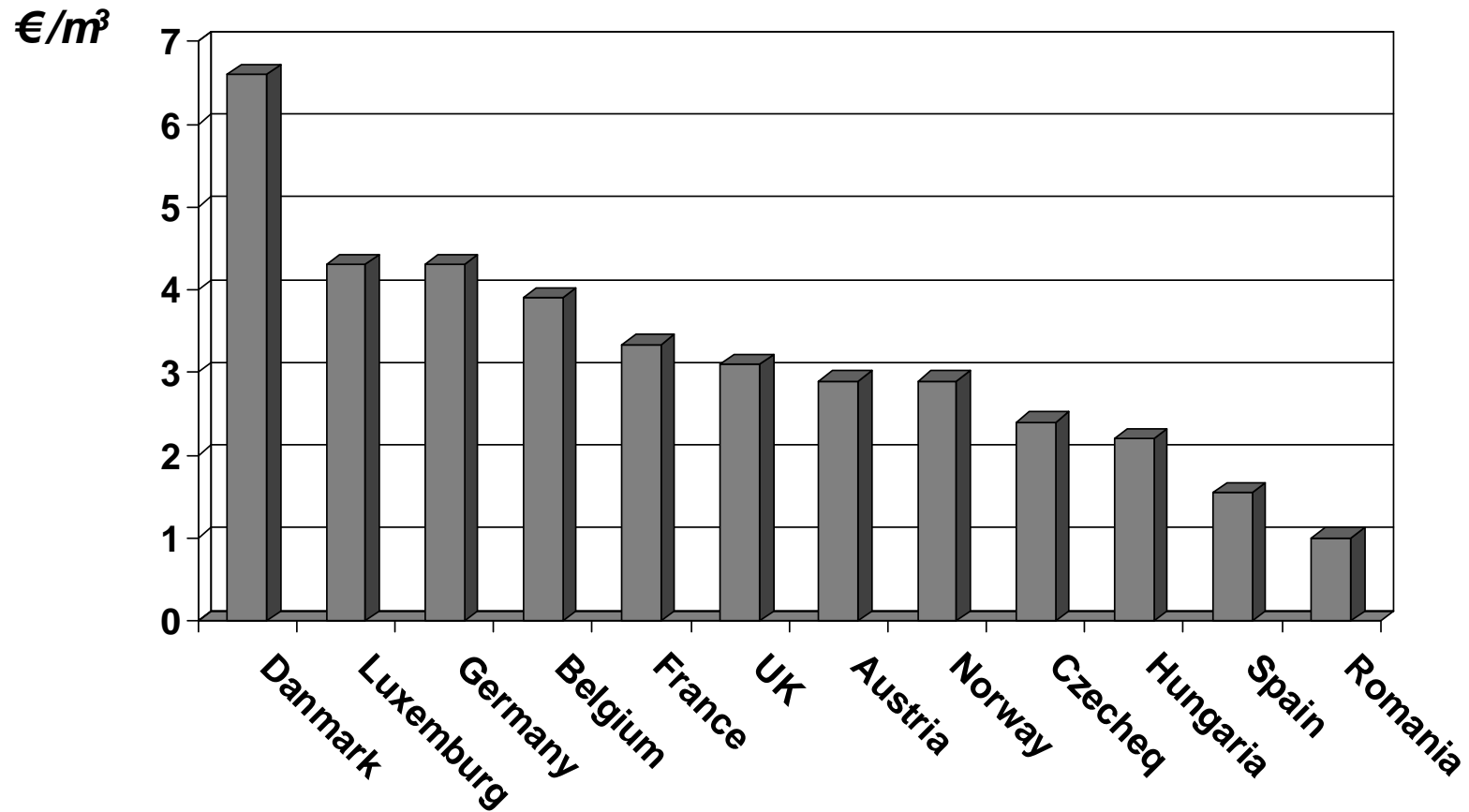
Refined treatment with membrane filtration: from **microfiltration** to reverse osmosis



Research and innovation
are essential to our profession.

100 M€/Y

Some European tariffs in €/m³



Some Eastern Europe common characteristics



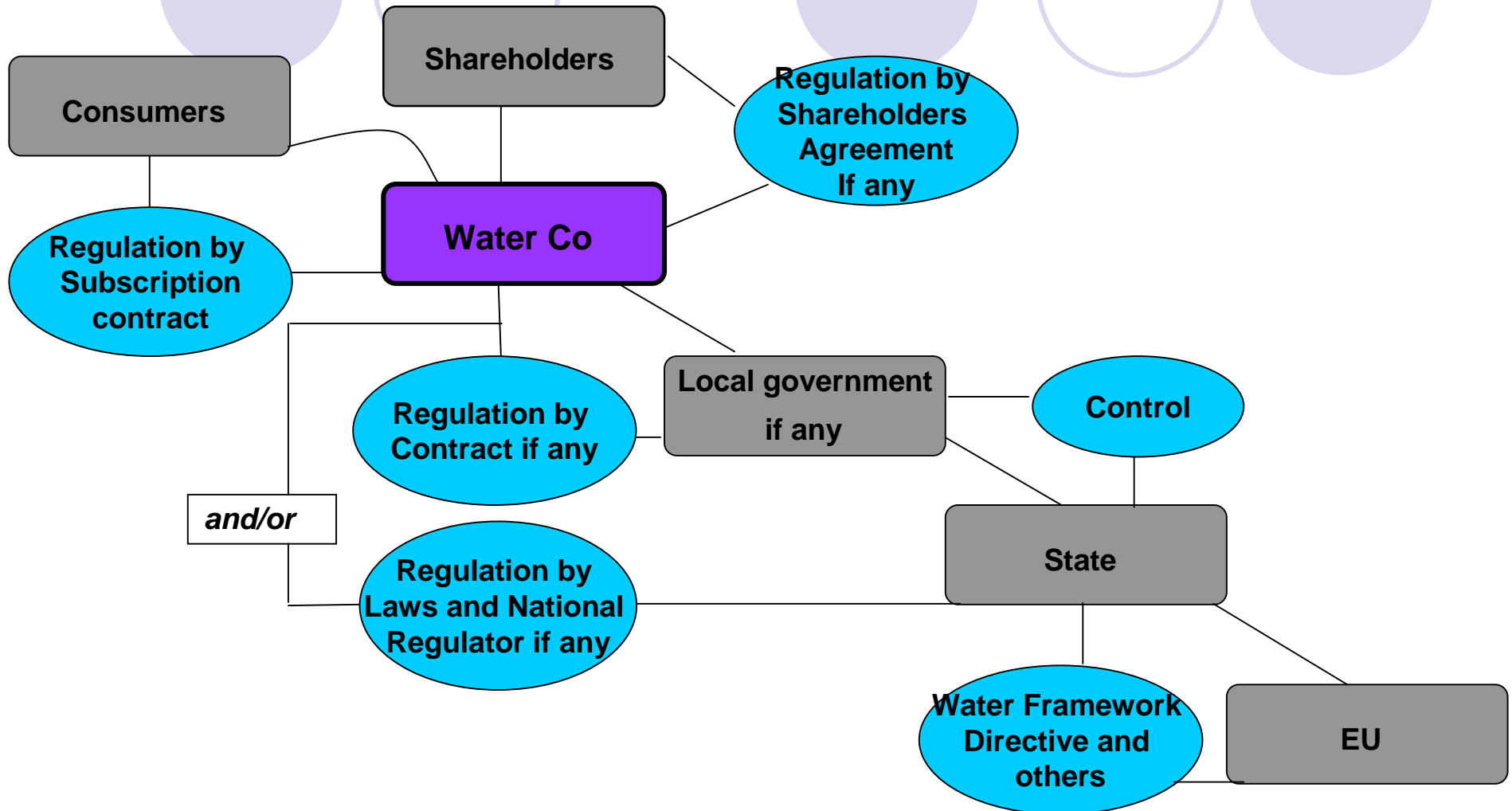
- Before the fall of Berlin Wall (9/11/1989), Soviet Union economy:
- Low tariffs (means high consumption, 800l/inh/d in Bucharest, 1000l/inh/d in Tbilisi);
- Low maintenance (means high leakages);
- Low tariff + high leakages (means additional investments in capacity);
- Regulation: previously cost plus fee system (no favourable for investments financed on tariffs)= investments with subsidies;
- No care of environment (means no efficient WWTP).
- Conclusion: no capacity problem (over investments financed by the states) BUT urgent need of investments on quality, on systems upgrading and in WWTP.



Basic elements favourable to PPP

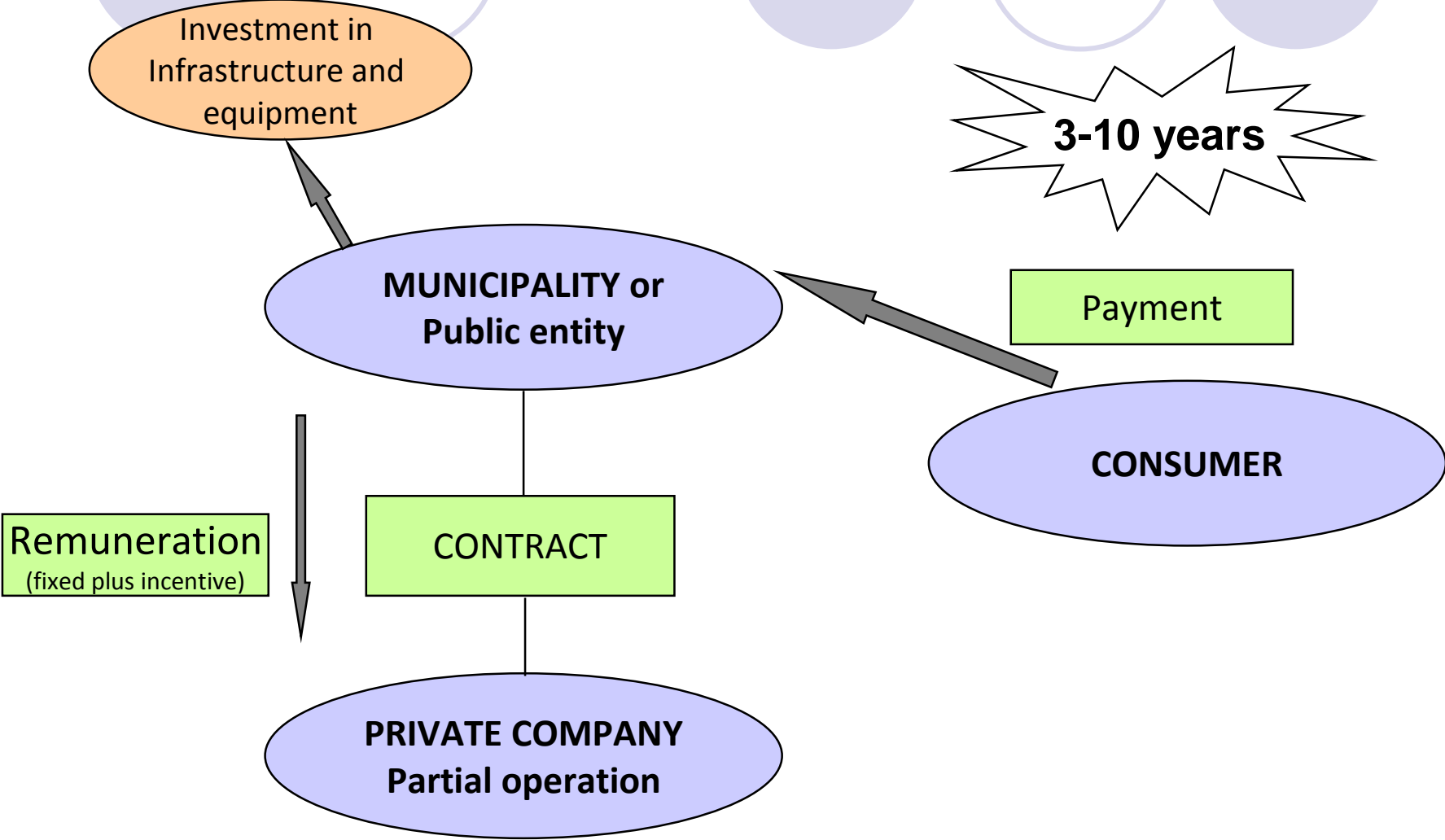
- ❑ After the fall of Berlin wall:
- ❑ Political will and objectives favourable to the general scheme of Public Private Partnership (PPP), depending of local context, on national laws and on EU Directives,
- ❑ The form of the PPP depends on each case (genuine case). Stakeholders interests must be taken into account (municipality, customers, employees, private partners, NGOs),
- ❑ In any case regulation has to be clear and predictable.

European simplified regulation scheme



Public Private Partnership 1

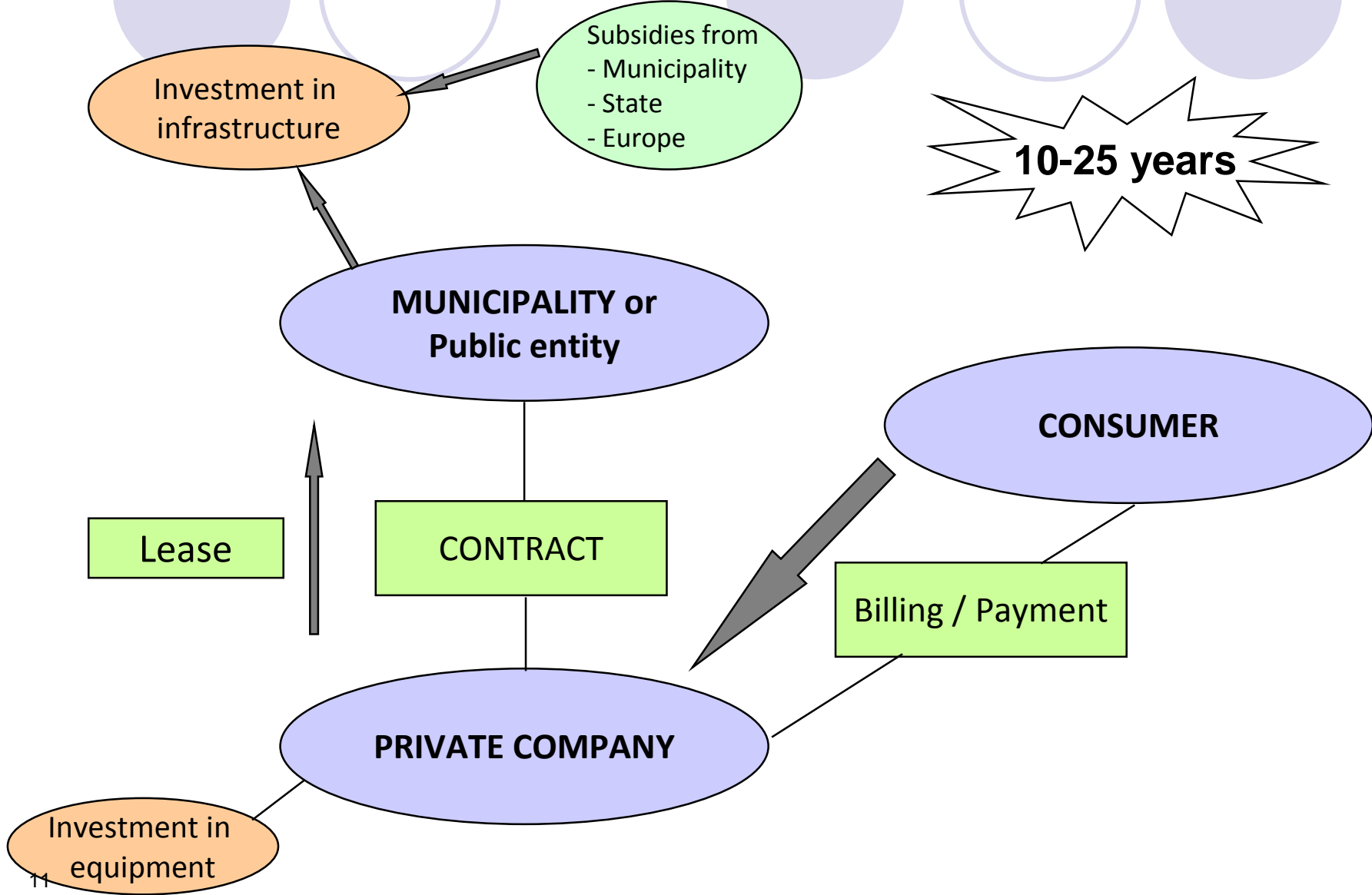
Management Contract



Public Private Partnership

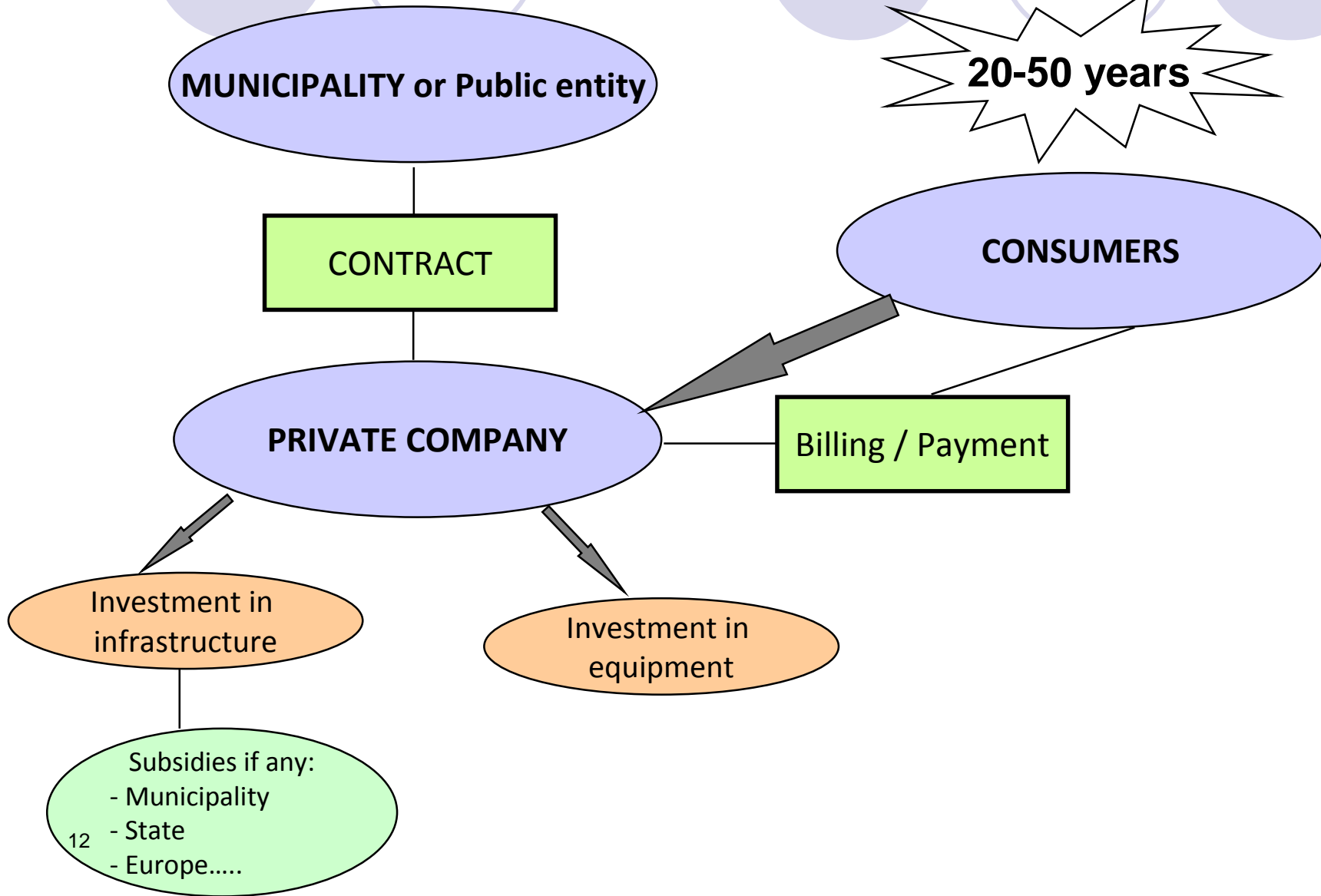
2

LEASE CONTRACT



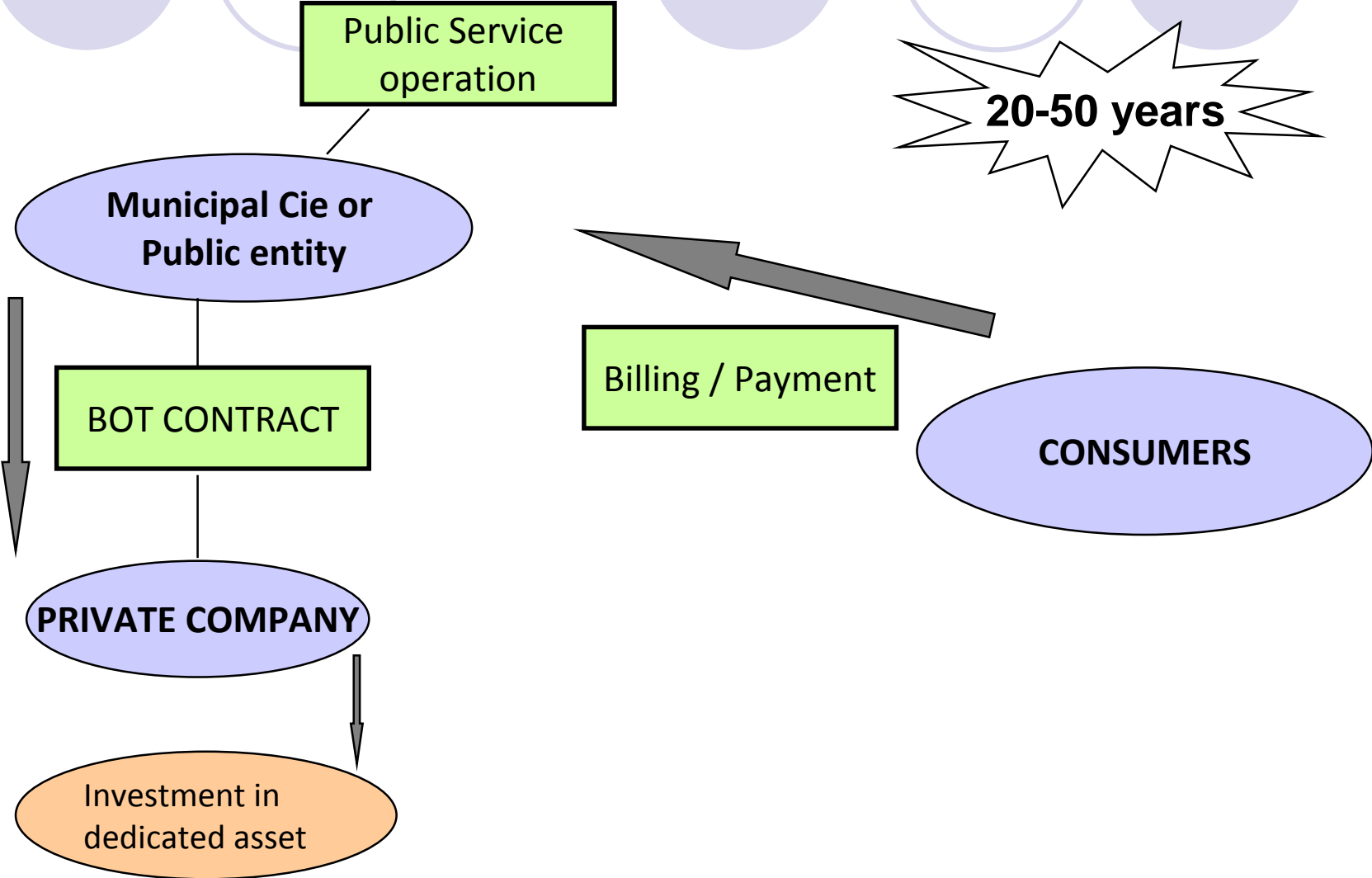
Public Private Partnership 3

CONCESSION CONTRACT



Public Private Partnership 4

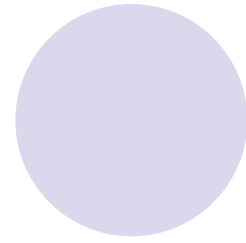
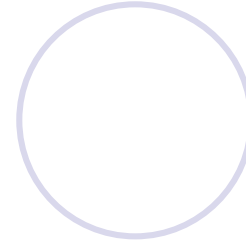
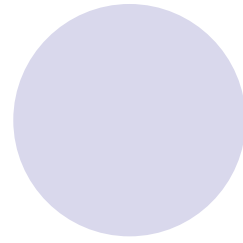
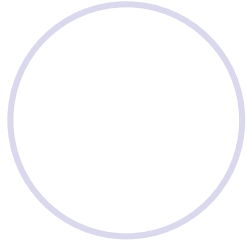
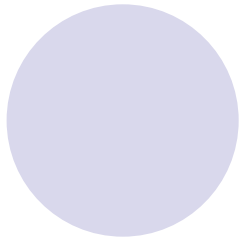
BOT (one single asset)





Plan of Presentation

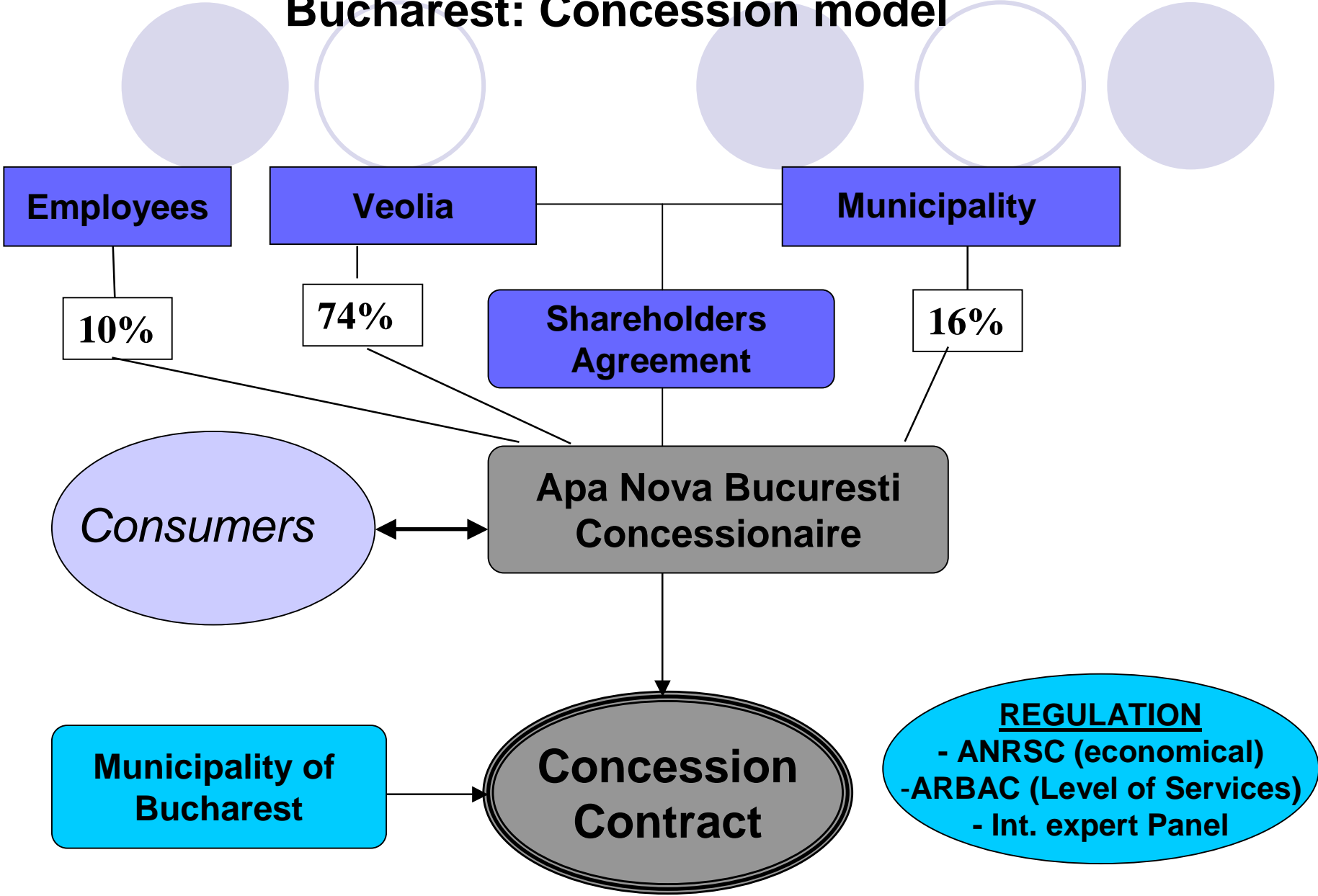
- Main drivers for the water market in Eastern Europe
- **Case studies: Bucharest (& Prague)**
- European Union Funds
- Questions & answers



BUCHAREST

CONCESSION CONTRACT

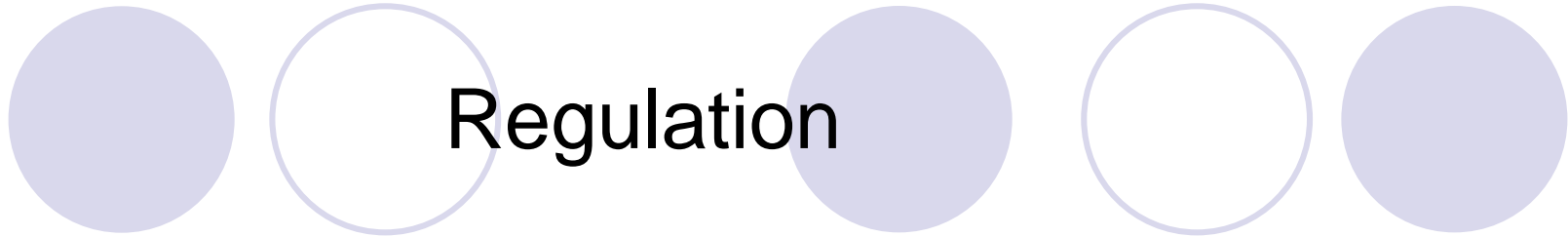
Bucharest: Concession model





Main Contractual Points

- Concession including all activities (production, distribution, financing, consumer care etc);
- Duration: 25 years
- Partnership: 74% Veolia, 16% Municipality and 10 % Employees;
- Contract with levels of services to be reached on specific dates (investments levels to be decided by the Concessionaire);
- Equity by Strategic Investor: 35 M€ in cash;
- Regulation by the Contract (Governmental decree);
- Investment required (Water Treatment Plant 3 m³/s);
- Take over by Concessionaire of a public debt (17 M €) to World Bank;
- Concession does not include WWTP financing (out of tariff).

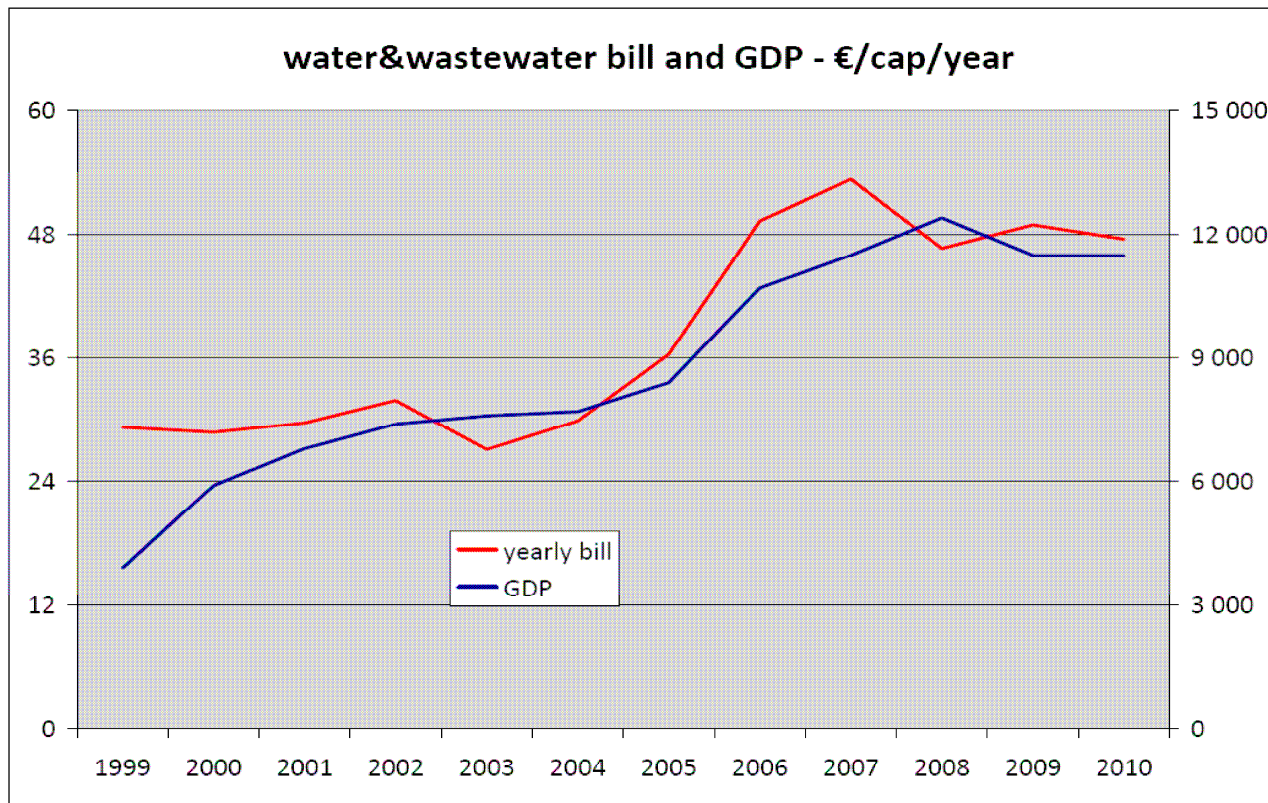


Regulation

- Regulator
 - Technical Regulator (municipal organisation - Arbac -)
 - Economic Regulator (Government)
 - International Expert Panel (finance, technical, regulator specialists; 3 persons, IT,DE,NL).
- Level of Services
 - Controlled by Technical Regulator.
- Tariffs adjustments
 - Contractual Base Tariffs
 - Ordinary Tariff adjustments (inflation): Economical Regulator
 - Extraordinary Tariff adjustment: Expert Panel and Economic Regulator

Some Bucharest achievements

Evolution of the tariff



The average bill doubled in 8 years - The evolution was in line with the GDP/cap and did not affected negatively the purchasing power of the population



Some Bucharest achievements (2)

Investments first 6 years

- Around 140 M €
 - Around 20 M € a year (quality, networks renovation & extensions, pumping stations & water treatment plants renovations, etc)
 - 50 M € for a new WTP (Crivina) operation started in June 2006
- Financed out of:

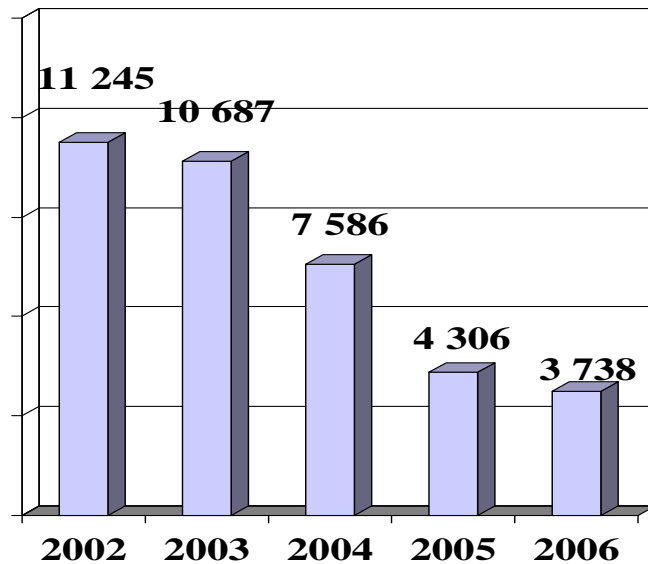
○ Veolia Equity	35 M €
○ Project Finance EBRD + DEG	68 M €
○ Cash flows	37 M €

Some Bucharest achievements (3)

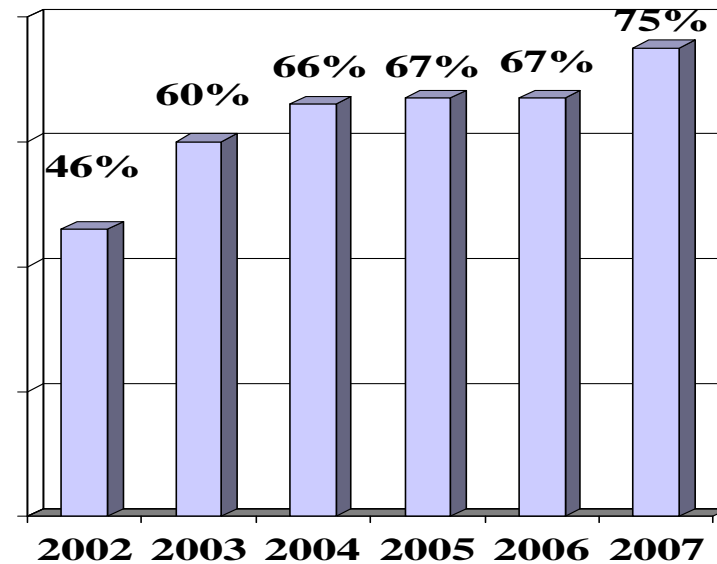
Consumer Satisfaction

Customer oriented company: creation of 5 operational centres, call centre, leaflets and water magazine; clarification of bills etc

Number of **written complaints** received

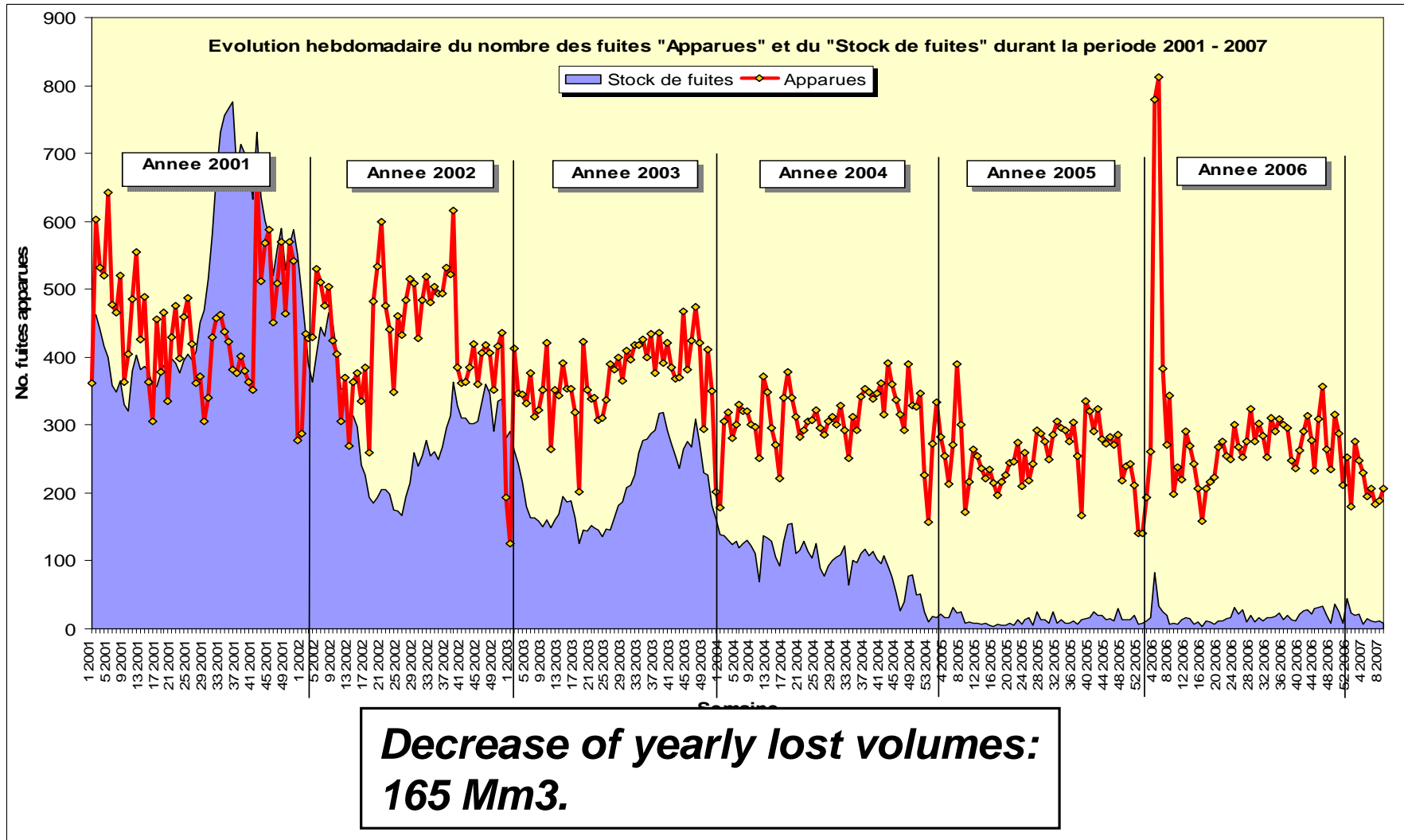


Satisfaction surveys done every November of each year by an independent organisation



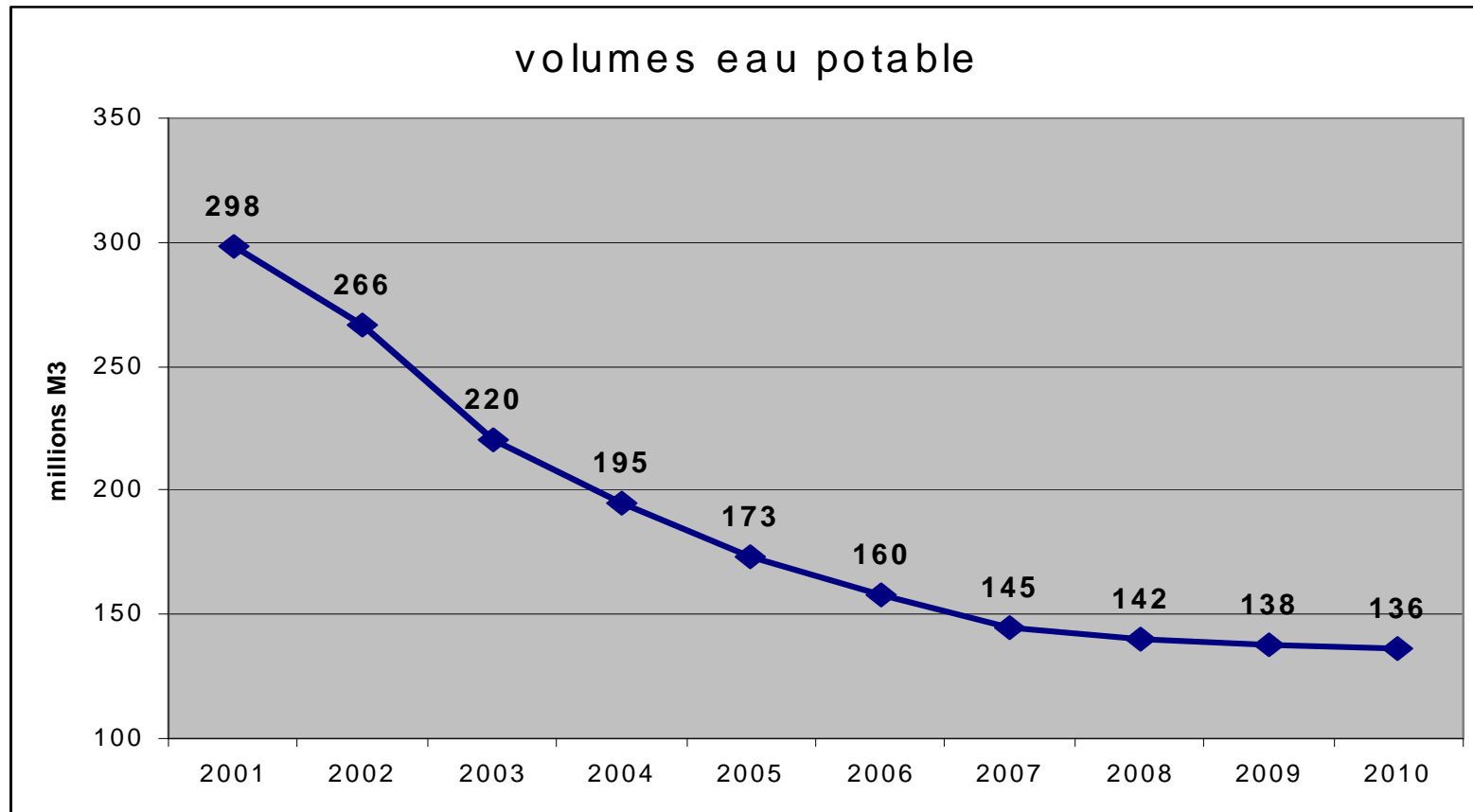
Some Bucharest achievements (4)

Leakage reduction



Some Bucharest achievements (5)

Drinking Water sold annual volumes



Sold volumes estimations around 136 Mm3 correspond to 180 l/d/inh



Plan of Presentation

- Brief presentation of Veolia Eau
- Main drivers for the water market in Eastern Europe
- Case studies: Bucharest, Prague, Yerevan
- European Union Funds (Public vs. private)
- Questions & answers



PPP and European subsidies Complementarities (1)

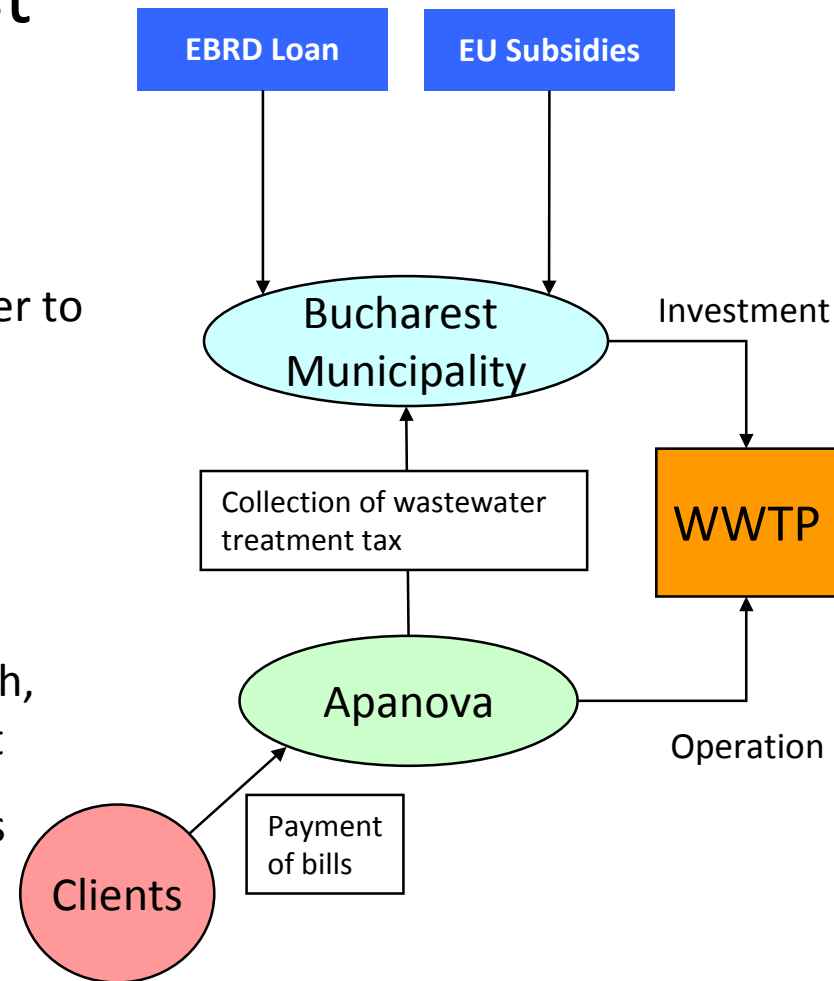
European Funds in water sector

- EU Funds: ISPA or IPA (Instrument for Pré Adhesion), Cohesion Funds (for EU member countries), etc
- Funds = donations which partially finance the projects,
- Loans are necessary to complete the financing
- Municipalities often request EBRD and /or EIB
- Calculation of % of Funds is done taking into account capacity of the population to pay (affordability)
- Public financing and private financing must be clearly separated, and properly allocated
- How does it work within a PPP ?

PPP and European subsidies Complementarities (2)

How it applies in Bucharest

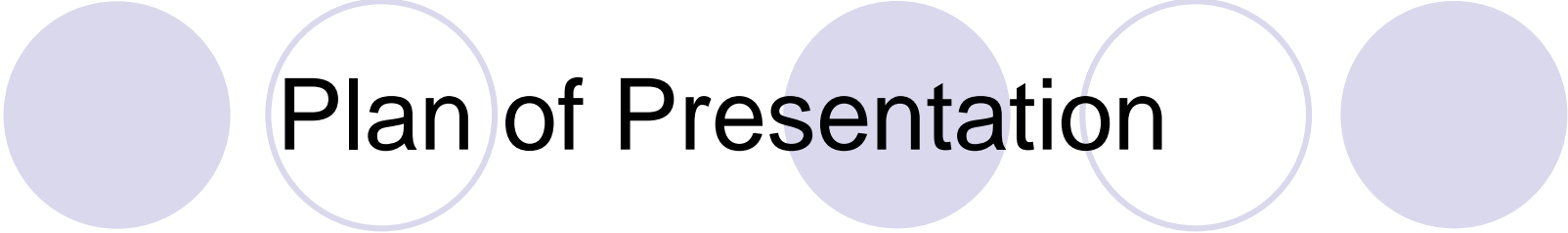
- Wastewater treatment plant (120M€ for phase1) is financed by European subsidies (65%) and loans to the Municipality (35%)
- The municipality organised in 2008 a tender to build the facility
- Apanova will operate the new facility
- Apanova will collect on behalf of the Municipality a wastewater treatment tax
- The facility is a municipal asset and, as such, does not appear in Apanova balance sheet
- The tariff includes only the operating costs but not the depreciation of the WWTP



Conclusion for PPP's in East Europe

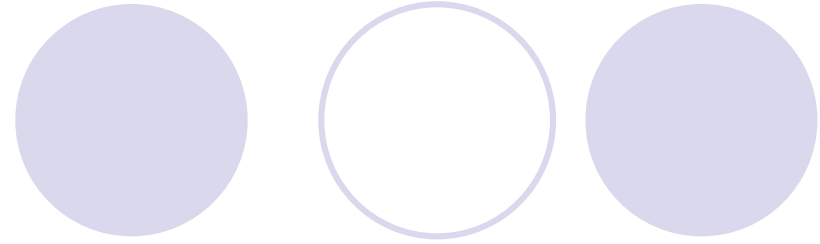
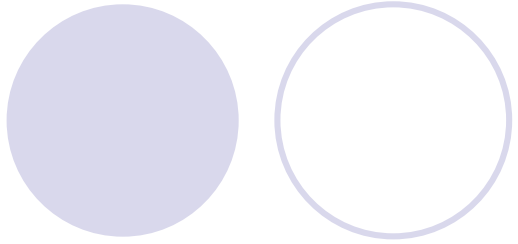
PPP is a tool to help public authorities to implement their water and wastewater policy

- All Public Private Partnerships are tailor-made to fit the expectations, the priorities, the history and the physical situation of each municipality. The PPP system is not rigid: it is always adapted to new expectations on the part of elected officials and public authorities;
- Forcing a healthy clarification of the roles, a precise definition of the expected results, and focusing on service performance are the main advantages of these partnerships;
- Through PPP, cities access to advanced expertise and to the international research network of Veolia Water to improve the efficiency and quality of their water services;
- PPP and EU funds are complementary and they can coexist on the same project.



Plan of Presentation

- Brief presentation of Veolia Eau
- Main drivers for the water market in Eastern Europe
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- European Union Funds
- **Questions & answers**



PRAGUE

LEASE CONTRACT

Prague - Main Czech water contract

Contract: Lease and O&M
Started: 2001
Ends: 2028

Company's name: Pražské vodovody a kanalizace, a.s.

Shareholder: Veolia VODA SA (100%)

Activities: Water treatment and distribution, sewage collection and treatment

Key indicators (2010 year):

Population served	1 205 000
Water volumes billed (million m ³)	104,2
Sewage volumes charged (million m ³)	94,5
Personnel	1 235
Revenues (M€)	200

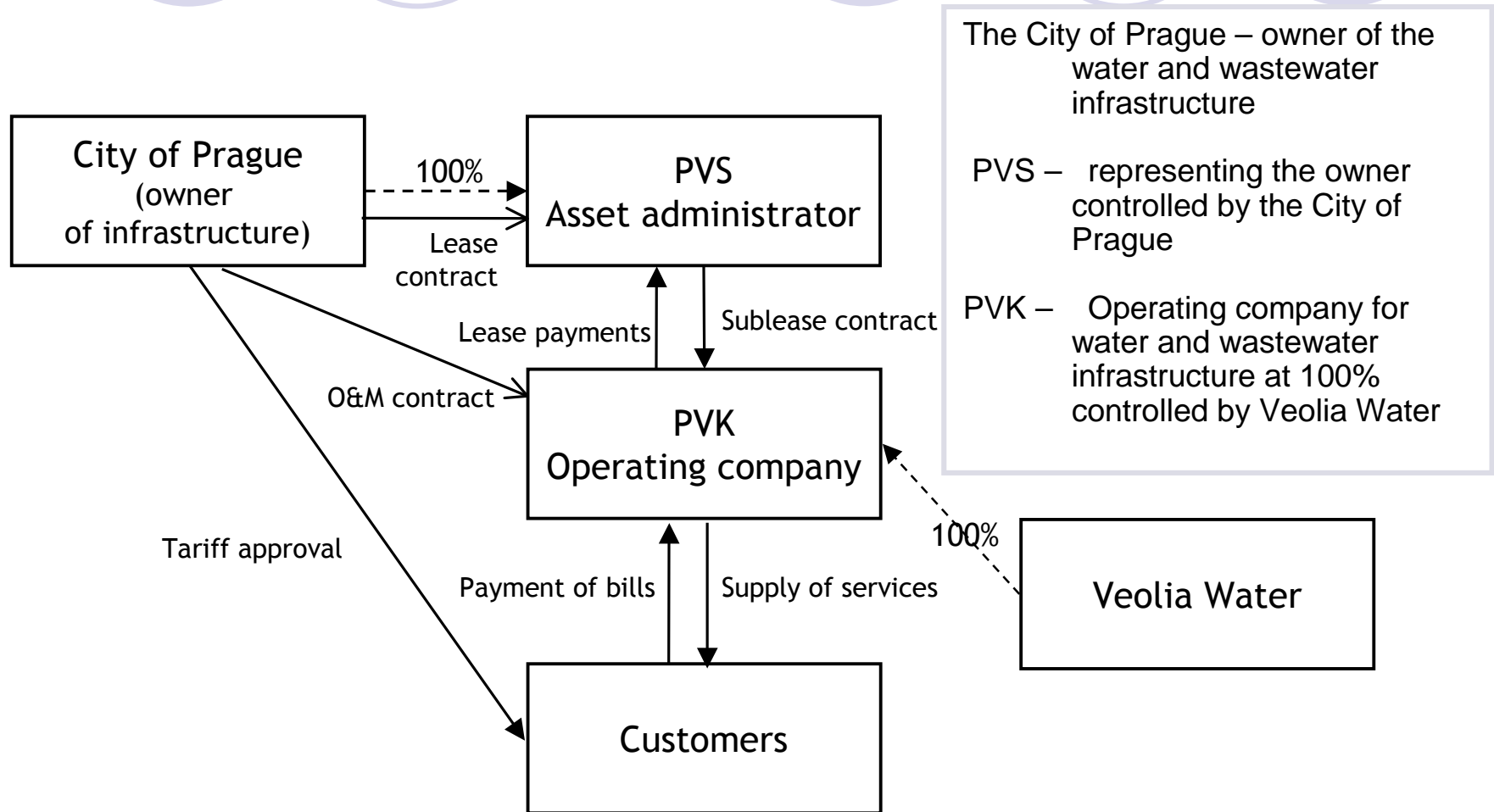




Prague Lease Contract

- 1998 – signature of the lease contract for the infrastructure between the City of Prague and PVS
- 1999 – signature of the sub-lease contract between PVS and PVK
- 2001 – acquisition of 66% of PVK by Veolia Voda after the success in an international bid offer
- 2002 – signature of the main operator contract of the infrastructure between the City of Prague and PVK – direct relationship between the owner and the operator– consequence of the new legislation on the water and wastewater networks
- 2002 – acquisition of 34% of PVK
- 2006 – signature of the new sub-lease contract between PVS and PVK

Prague: Lease model



CONTRACTUAL FRAMEWORK

1. Indirect support to investments

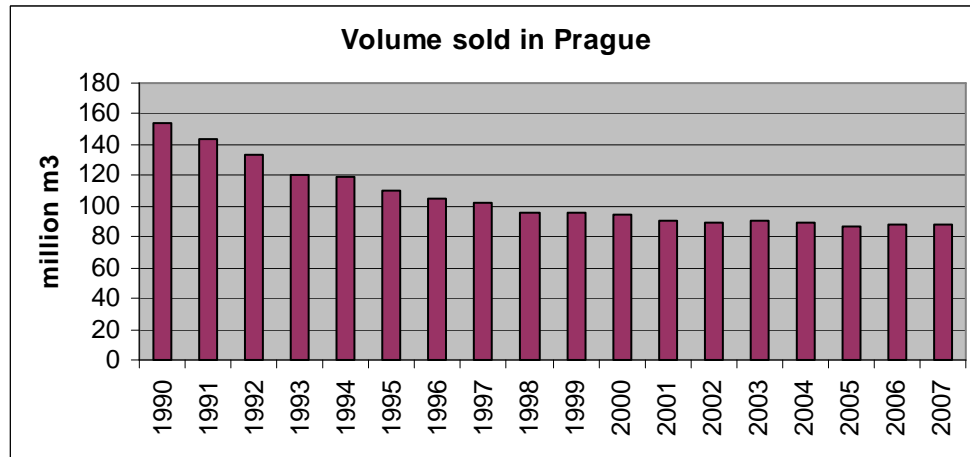
- The city defines the amount of the rent – the rent is utilised to invest into infrastructure
- The operational company optimizes the investment program – it reduces investment needs
- The operational company is engaged on a long term business plan – it increases the confidence of financing institutions
- The operational company optimizes the operations costs – it generates savings for investments with limited impact on tariffs
- The city defines the tariff – it controls social impacts

2. Direct investments from the operational company

- The operational company commits on an investment program – it directly improves part of the infrastructure

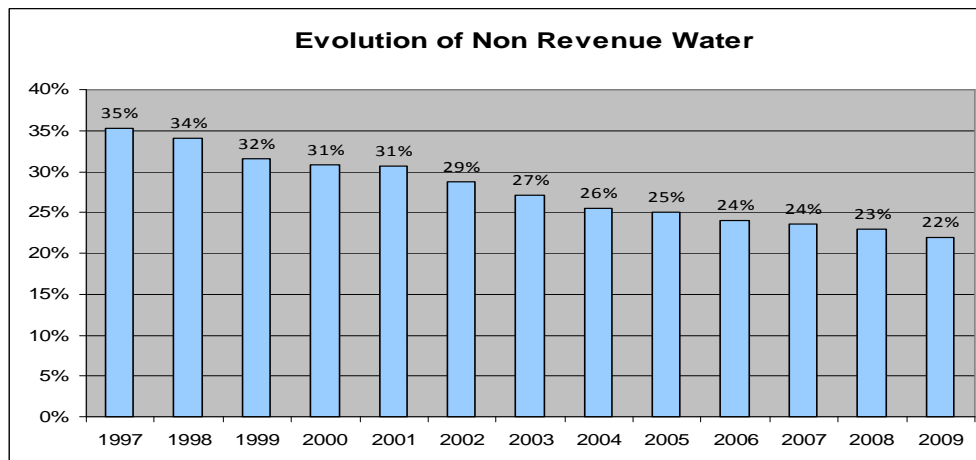
Prague contract, Some achievements (1)

Reduction of consumption



➔ Volume sold divided by 2 in 15 years

Reduction of water losses



➔ Volume of losses divided by 2 in 10 years

Prague, Some achievements (2)

Terms of cooperation - professionalism

- Professionalism in crisis situations (flood in 2002)
- High production efficiency

<i>Performance indicators</i>	2001	2005
% of satisfactory analysis results at water treatment plants	98,7	99
% of satisfactory analyses on the main wastewater plant	50%	89,9%
Inspection of wastewater network (km)	107	132

Prague, Some achievements (3)



- **New Customer Services**

- Information system (call center)
- Sms information
- Communication clients



Espace client - identification

