New products and services in water sector.

Strategies

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Strategy building

- Global prospective
- Russian national prospective & Scenarios
- Russian Business prospective & the most probable scenario
1. Crisis scenario
2. Business-as-usual
3. Liberal reforms
4. National priority

Ad hoc adaptation
New complex approach
- Economic crisis
- Technological embargoes
- Politization of tariff policy
- High role of industry/energy sector on water demand and on water utilities costs
- Water demand decreases. Tariffs remain low. Operating costs jumps.

Current formula = inefficiency of water sector

Vs

Sustainable and business correct formula: Lower water demand * smart tariff policy
National programs in water sector – inefficient political projects

- Federal program Clean Water 2011-2017
- Water strategy of Russian federation to 2020

Federal: regional: private budget indicators - fail

Subsidies form Federal budget decrease– replacement of obsolete equipment - postponed (Moscowkay oblast` 2013)

Predictable tariffs turned to be low frozen tariffs

Quality indicators - fail
Institutional challenge

- **State** does not create objective stimulus for modernization and innovations in water utilities sector
- Capital investments do not lead to rise of revenue
- **Progress for progress** does not work in private sector
- **Consumers** are not ready to pay more for water *per se*

One Strategy – profit maximization

- Revenue maximization
- Cost cutting
- Minimization of «expensive risks»
Strategy – Revenue maximization

**Tariffs – frozen**
*Russian Paradox 1*: no stimulus to decrease water withdrawal without smart tariff policy

**Price of water – political issue**
*Russian paradox 2*: Water price – a price in a bill only

**Investment in health**
Personal filters/condominium water treatment facilities – lower scale with higher margins

**Investment in business**
Recycle systems

**Extra revenue** – from extra services – out of «sacred price of water» paradigm

**Smarts meters** – focus on **quality** instead of quantity

**Regional segmentation** related to regional problems of water quality. Higher segmentations – higher margins
Strategy – Cost cutting

3-5 years challenge
More over-due debt
More accidents

Objective costs
- Energy efficiency
- Leak monitoring
  ✓ Sensors
  ✓ IT-systems for industry

Financial management for overdue debt
- state initiatives & potential of elections

Replacement of the most obsolete equipment
Strategy – Minimization of «expensive risks»

Major challenge for Insurance instruments
Equipment is too obsolete to be guaranteed against losses

State Initiative for Water insurance – less politicized issue than tariffs

Investments in monitoring systems for company
- minimization of «big» accidents
- Minimization of energy costs for monitoring – new systems

Insurance for final customer and water utilities company
- obsolete equipment
- more frequent and devastating natural disasters
- Insurance for water quality
Global agenda – areas of innovation – ideal strategies

- forward osmosis
- stormwater management
- wave energy
- nitrogen removal
- WWT for urban slums
- ozone sanitizer
- infrastructure simulation
- ballasted clarification
- underwater sensor communications
- aquatic ballast treatment
- nanoporous membranes
- non-fouling membranes
- underwater power management
- underwater video inspection
- real-time detection of toxins
- tunable surfactants
- biogas from wastewater
- smart sequestration
- UV water treatment
- infrastructure management systems
- chemical disinfection
- microbial fuel cell treatment
- nutrient recovery
- acoustic contaminant trapping
- MEMS sensors
- bottle-top filtration
- reservoir evaporation reduction
- engineered membranes
- viral removal of bacteria
- drought-tolerant lawn seed

Symposium on Water Innovation in Massachusetts

Source: http://www.slideshare.net/dgoodtree/massachusetts-water-industry
Free niches

1. Recycle technologies- CleanTech, NEWater
2. Smart data and smart energy – for monitoring and optimization of water supply - big cities only
3. Quality technologies but with old water pipes: real-time micro organism detection, quality monitoring sensors
4. Pipe and basic equipment replacement
5. Quality technologies: from chlorine to bio-tech, UV
6. Smart tariff policy, diversified quality standards (the more and better water you use the more you pay) – sensors and meters
7. Local Water cluster / import from MA, Israel, Singapore etc
Thank you for your attention!

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