

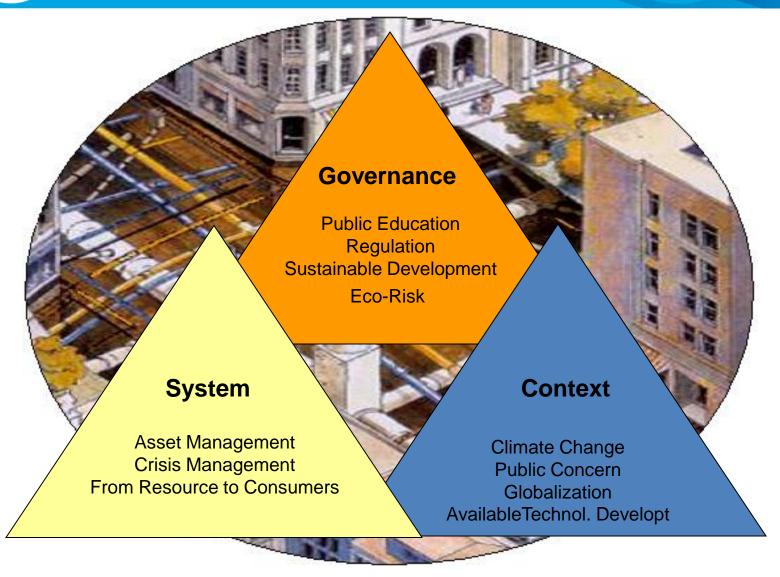
Strategic Assets Management for Integrated Security, Safety & Sustainability

May 13, 2011 Den Haag

Bruno Nguyen, Director of Operation, Eau de Paris









SYSTEM: NON POTABLE WATER NETWORK IN PARIS

THE CLEANSING DEPARTMENT OF PARIS





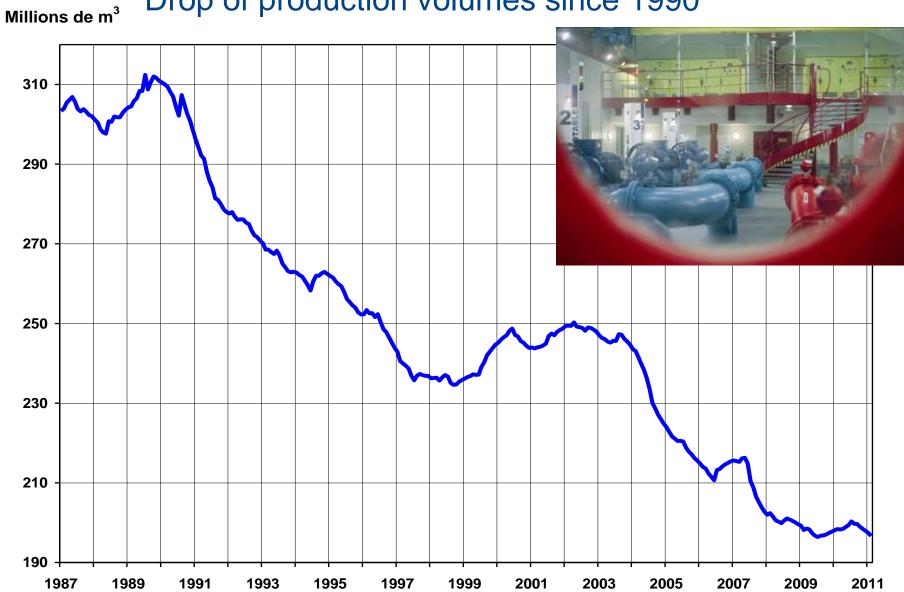
12,000 Washing Outlets





CONTEXT: WATER DEMAND DECREASE IN PARIS

Drop of production volumes since 1990





Urban Challenges & Climate Change Impacts

Growing public demand for reliable, affordable, safe, and environmentally sustainable metropolitan systems.

Rising concerns with regard to growing threats and uncertainties of climate change impacts.

Urban Challenges of economic globalization, growing environmental concerns, increasing financial constraints in public infrastructure investments.

Growing needs for promoting priority issues and concerns of local governments at the global and/or national level to effectively affect current trends in emerging environmental sustainability policy and regulations



Natural Disaster – Tsunami Indonesia



Smart Buildings for Sustainable Energy



What is the limitation of the current state practice and the business case for Smart Grids?

- → Optimization of Operational Management (operator's performance)
- → Redefinition of Asset Management best choice with uncertainties assessment (operator's performance)
- → Efficient Master Planning best investment in larger context prevision (system performance)

What are the challenges and priority needs for which Smart Grids is useful?

- → Water losses reduction in the distribution pipe network by active leakage detection and repair;
- → Pipe burst prevention and reduction of their social costs by efficient renewal of the conduits;
- → Reduction of water quality defaults identified by sampling analysis and customer's complaints;



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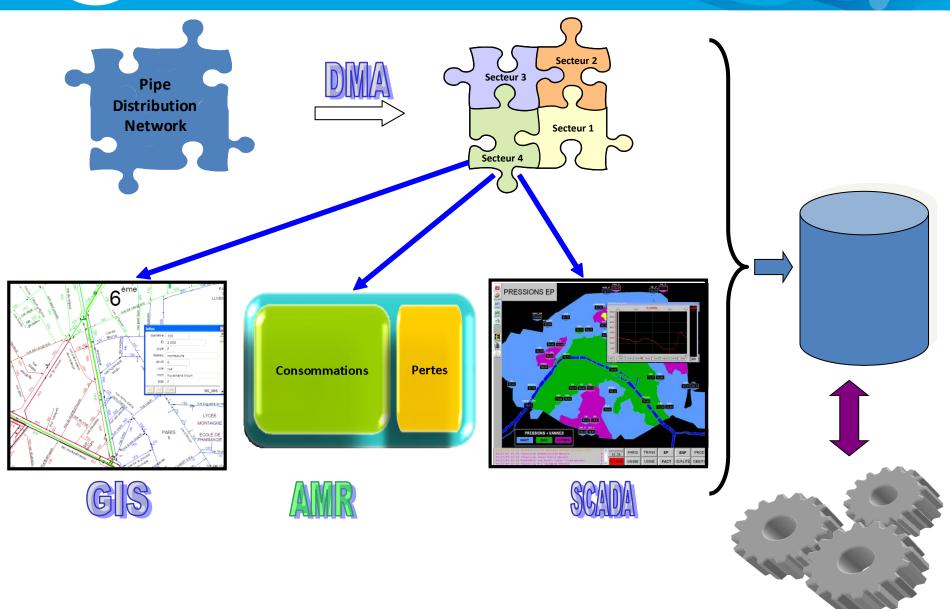
GOAL:

Development, Assessment & Demonstration of Intelligent City Network Models, Innovative Technology Solutions & Smart Infrastructure Management Systems for Upgrading the Reliability, Efficiency, Resiliency, Security, and Eco-Sustainability of Critical Urban Systems.



Facing Emerging Challenges of Eco-Sustainable Urban Development







Roadmap

- → Added values for short, medium & long term ?
- → How to benchmark? Which indicators? (economic, ecologic, sociologic...)
- → Development of integrated system modeling
- → Where to start?

