

# Veolia Water Systems

The best source of water and wastewater  
treatment technologies

# Company

From Veolia Environment to Veolia Water  
Systems



# Veolia Environment – Turnover Partition



+ Waste, civil work & water (FCC, Spain)

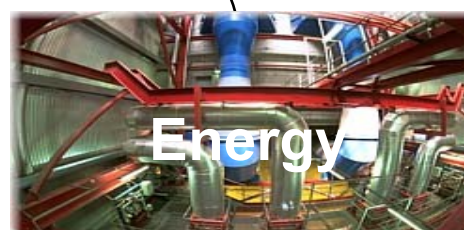
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45%



20%



15%



11%

Revenues : 28.6 billion € - 302,000 employees - Market cap.: 13.5 billion €

One Group ⇒



# Veolia Environment – 4 divisions

## > Veolia Water

- > No. 1 world-wide in water services
- > Revenue 2002 : 13,3 billion euro

## > Onyx

- > No. 2 world-wide in waste management
- > Revenue 2002: 6,1 billion euro

## > Dalkia

- > No. 1 in Europe in energy services
- > Revenue 2002: 4,6 billion euro

## > Connex

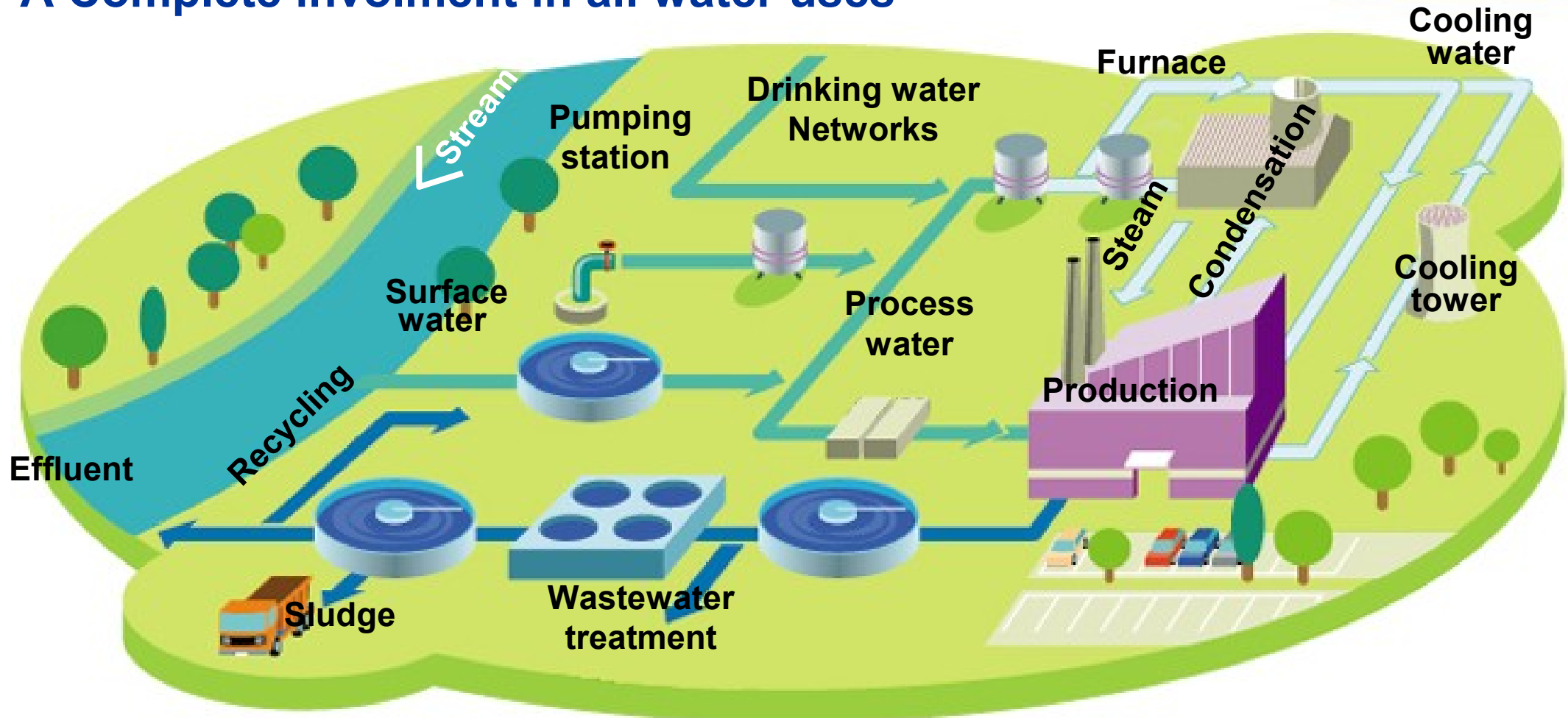
- > Leading private operator for public transportation in Europe
- > Revenue 2002: 3,4 billion euro



# VEOLIA WATER

## Scope of applications

A Complete involvement in all water uses





# VEOLIA WATER SYSTEMS

Our core business lines

# Audit and technical assistance

- > Veolia Water experts are available to evaluate:
  - > Plants and equipment
  - > Abstraction wells, water supply systems and networks
  - > Operation and maintenance conditions
  - > The sustainable management of the water cycle

# Design & Build (Engineering & Construction)

## Turn-Key Contracts on every scale



Municipal



Industrial



Tailor-made Projects including proprietary Technologies



# VEOLIA WATER SYSTEMS

Our customers

# VWS: the partner of industrials

**Ultra Pure Water**

**Process Water**

**Utility Feed Water**

**Waste water**

**Recycling / Re-  
use**

**Sludge  
Management**



A appropriate  
solution to each  
type of requested  
water

# VWS: the partner of industrials

## > HPI/CPI

- > Agip, BP, Amoco, Total, Petrobras, Aramco, Rhodia, Millenium, GE Plastics, PKN Orlen...

## > Food & Beverage industry

- > Carlsberg, Coca Cola, Danone, Nestlé, Heineken, SAB-Miller, Cadbury Schweppes, Unilever, Kraft, Cargill...

## > Pharmaceuticals, Cosmetics and Biotechnology

- > Aventis, Bayer, MSD, Novartis, Roche, GSK, Sanofi, Pharmacia, Pfizer...

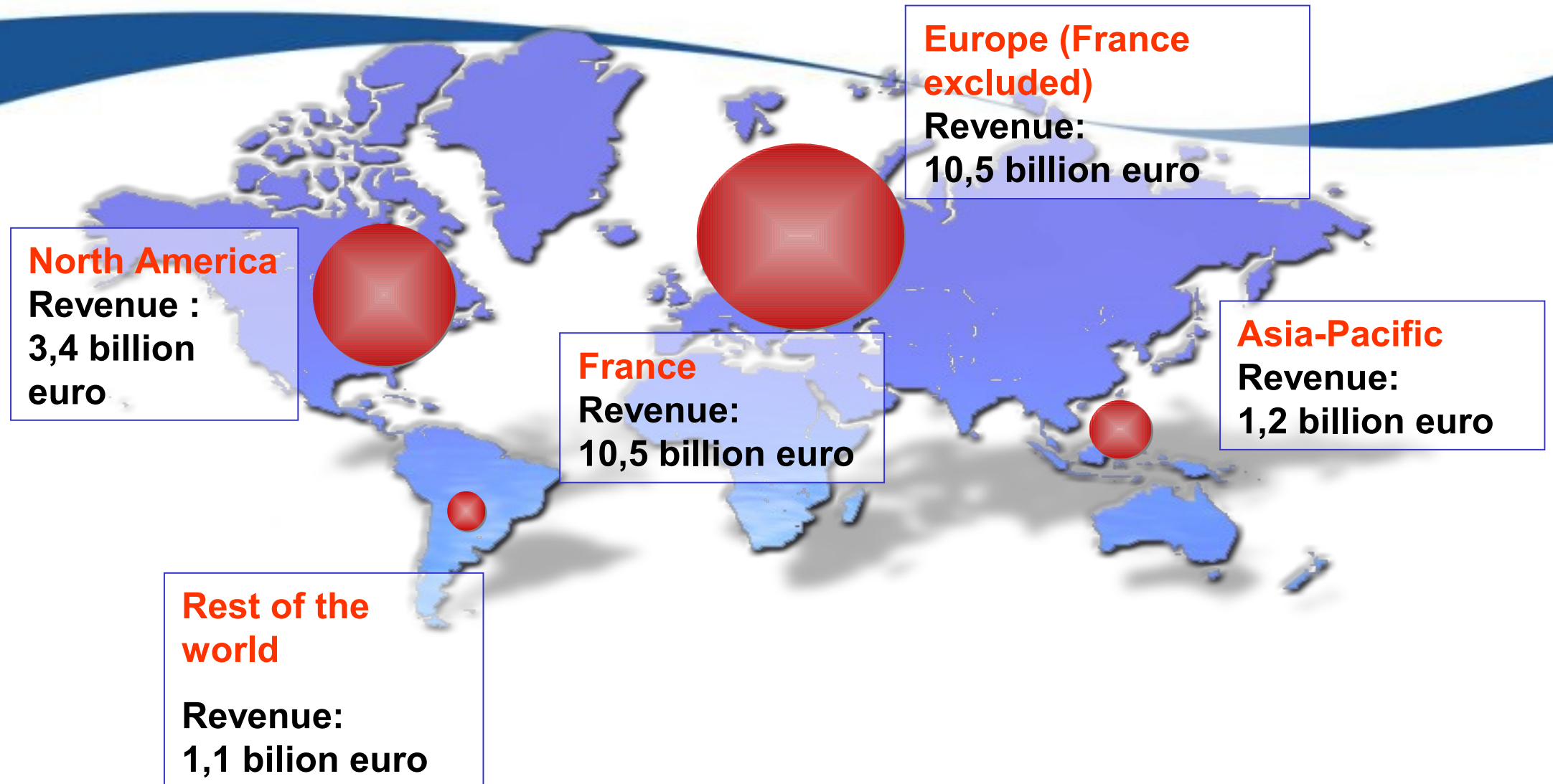


# Veolia Water – serving 110 million people throughout the world

- > World leader in water management and water services
- > Distribution and water treatment, design and supply of water and waste water treatment systems
- > Presence in 54 countries around the world
- > 77 600 employees
- > Over 150 years experience in water sector



# Veolia Water – presence in 54 countries



# Veolia Water Systems, presence in Poland

- > Project office in Krakow established by Kruger Consult - 1991
- > Local company established as Kruger Sp. z o.o. - 1997
- > „New company”
  - > From 2001 – affiliation to Vivendi Water Systems Group
  - > 2003 – Change of the name to Veolia Water Systems
- > Company is associated in PZiTS, IGWP and other



# Locations



Bydgoszcz

Łomża

**Warszawa**

Knurów

**Kraków**

**Our offices**

Representatives and

Cooperation Partners

# Products and services

Environment protection is our mission

# Products and services

## > Wastewater and sludge

- > Municipal wastewater treatment
- > Industrial wastewater treatment
- > Difficult wastewater treatment
- > Sludge drying and incineration

## > Services

- > „Turnkey” projects
- > Engineered systems
- > Spare parts and services
- > Consulting

## > Water

- > Drinking water treatment
- > Rainy water treatment
- > Preparing of ultra pure water for industry: pharmaceutical, food and beverage etc.
- > Preparing of process water for industry: energy, HPI, CPI etc.

# Water treatment

# Offer for water treatment

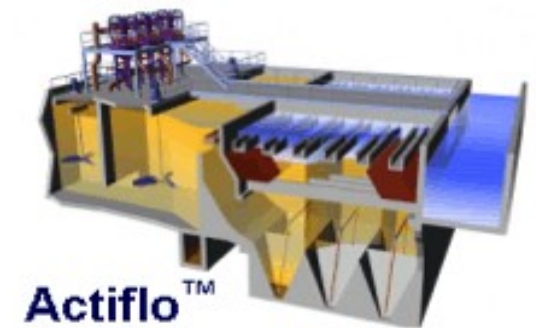
- > Softening
- > Membrane technologies
  - > Reverse osmosis
  - > Nano-, ultra-, microfiltration
- > Multimedia filtration
- > Deionization
- > Continuous deionization CDI
- > Package systems: PurBev™, Sirion™
- > Physical and chemical separation  
ACTIFLO™



# Wastewater treatment

# Equipment for wastewater treatment

- > Physical and chemical treatment
  - > Clarifiers
  - > Filters
  - > Separation: ACTIFLO™
  - > Flotation
  - > HYDROTECH screens
- > Evaporation and concentration
  - LED ITALIA evaporators



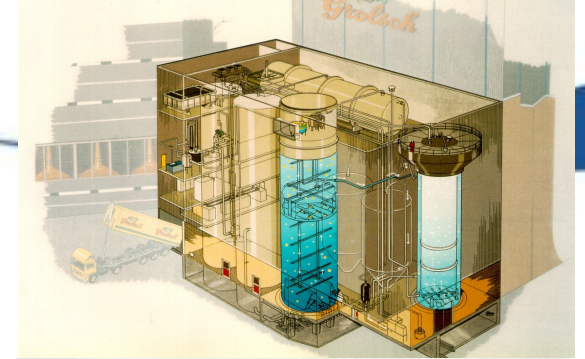
# Aerobic treatment processes

- > Activated sludge
  - > Nitrogen and phosphorus removal  
BIODENITRO®, BIODENIPHO®, A2O™
  - > Sequencing Batch Reactor SBR
- > Membrane processes
  - > Membrane Batch reactor:  
BIOSEPTM
- > Immersed membranes
  - > BIOSTYRTM
- > Specific fat and oil removal
  - > BiolixTM



# Anaerobic wastewater treatment processes

- > Technologies offered in cooperation with PAQUES BV
  - > BIOPAQ® UASB reactors
  - > High-loaded BIOPAQ® IC reactors with internal recirculation



# Sludge treatment

# Sludge treatment technologies

- > Anaerobic digestion with biogas production
- > Aerobic stabilization
- > Thickening, dewatering
- > Drying:
  - > BIOCON belt dryer
  - > ROTADISCTM disc dryer
- > Incineration:
  - > PYROFLUIDTM fluidized bed
  - > BIOCON stoker-fired boiler



# Our advantages

High quality guarantee

# Why choose Veolia Water?

- > More than 3 000 patents covering all the technologies
- > The best technologies achievements integration
- > Professional services and experience
- > Water and waste water serving for more than 110 million inhabitant
- > 40 thousand satisfied industrial Clients