

**Kemira Water - At your service**

**kemira**



**Kemira Water**

---

*Our vision is to be the best solution provider  
for water treatment and selected industrial  
processes on a global basis.*

# Facts on water

---

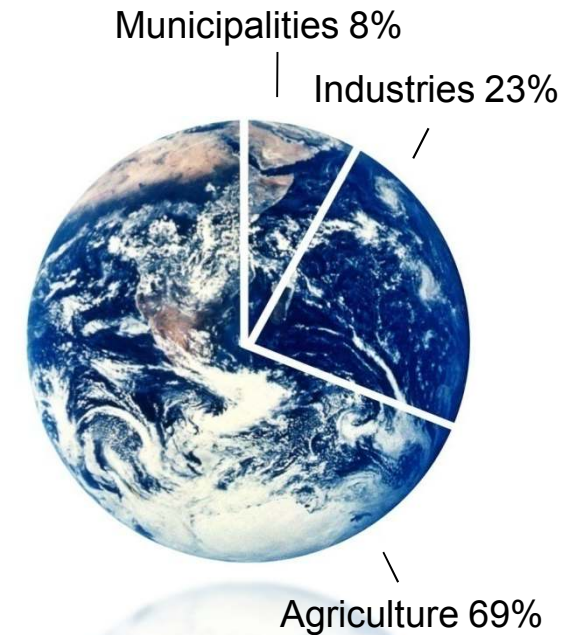
- Is the Essence of Life
- Covers 70% of the surface
- Only 0.8% is fresh and accessible
- Requires sustainable treatment technologies



# Facts on water

---

- Growing water shortage issues
- Since 1950's
  - World population has doubled
  - Water use has tripled
  - Increased need for water treatment in densely populated areas
- No technology innovation can replace water (unlike petroleum)



# The big picture

---

“Innovative technologies, including the improvement of indigenous technologies, are needed to fully utilize limited water resources and to safeguard against pollution”



UN Division for Sustainable Development, Agenda 21: Chapter 18

# Water treatment technologies

---

- We need sustainable and reliable technology to minimize influence on the global eco system
- Major treatment technologies:
  - Biological
    - Require large areas
    - Long process times
    - High energy consumption
  - Chemical
    - Small compact area
    - Short process times
    - Low energy consumption

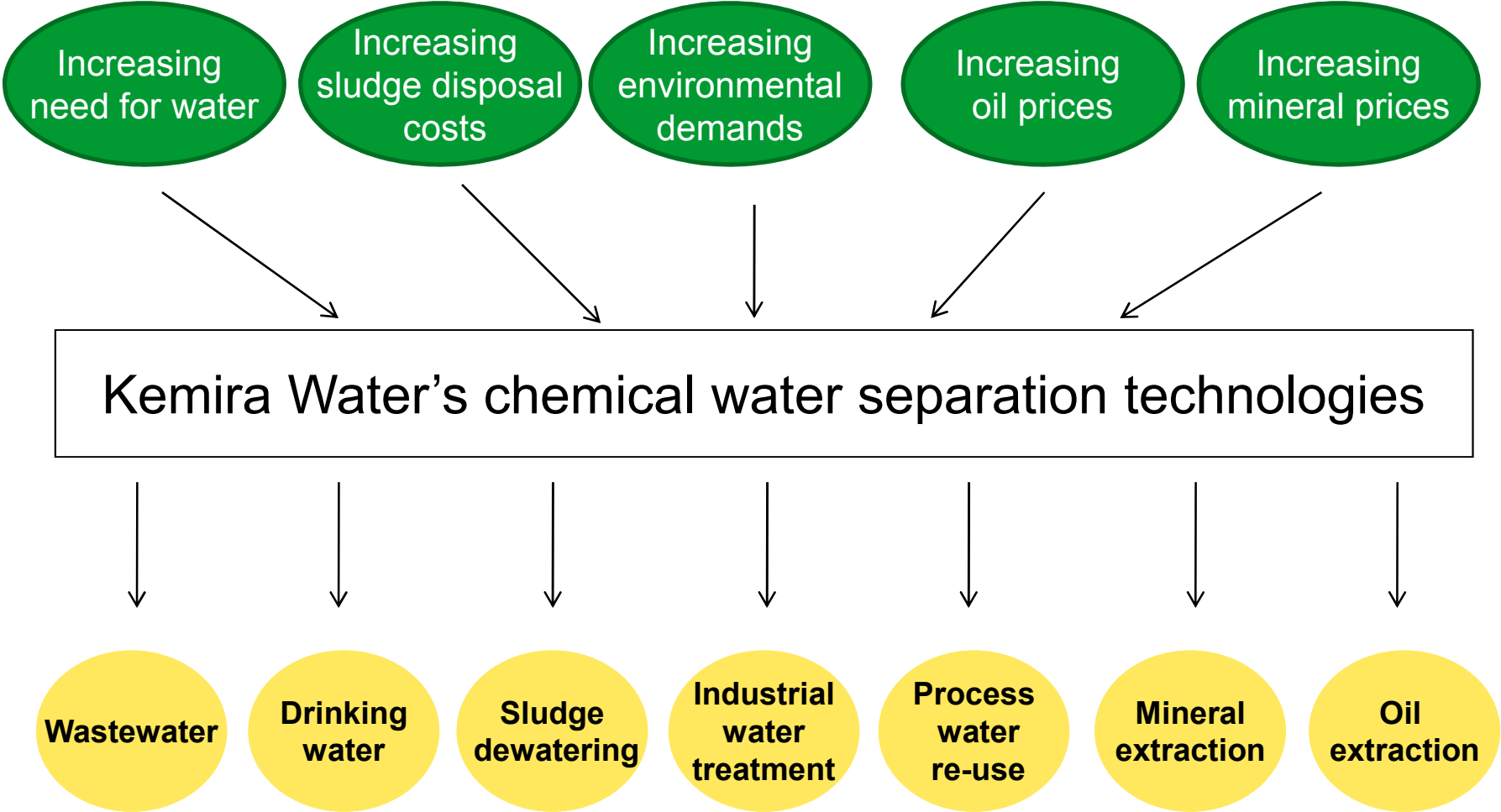


# Why chemical water treatment?

- Low investment and operational costs
- Standard for drinking water treatment of surface water
- Alternative/complement to biological water treatment
- Preventing eutrophication
  - Optimal for reduction of nutrients
- Low energy consumption
- Minimize CO<sub>2</sub> discharge
- Laws, regulations and directives



# Market trends





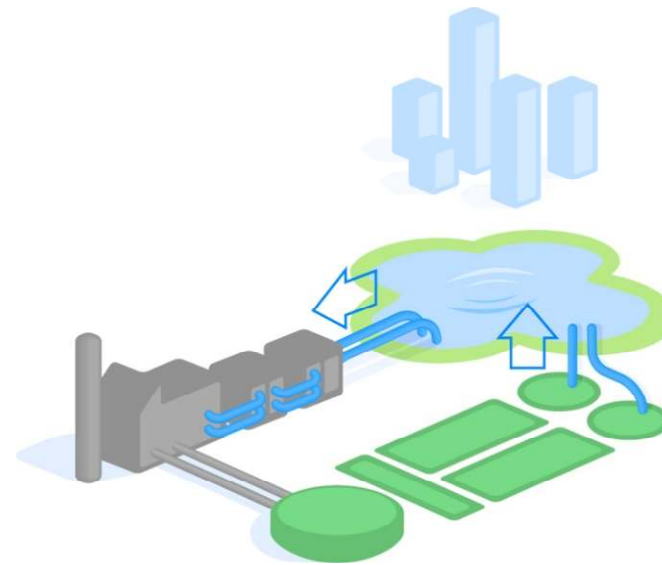
# Our customers

---

- Municipalities

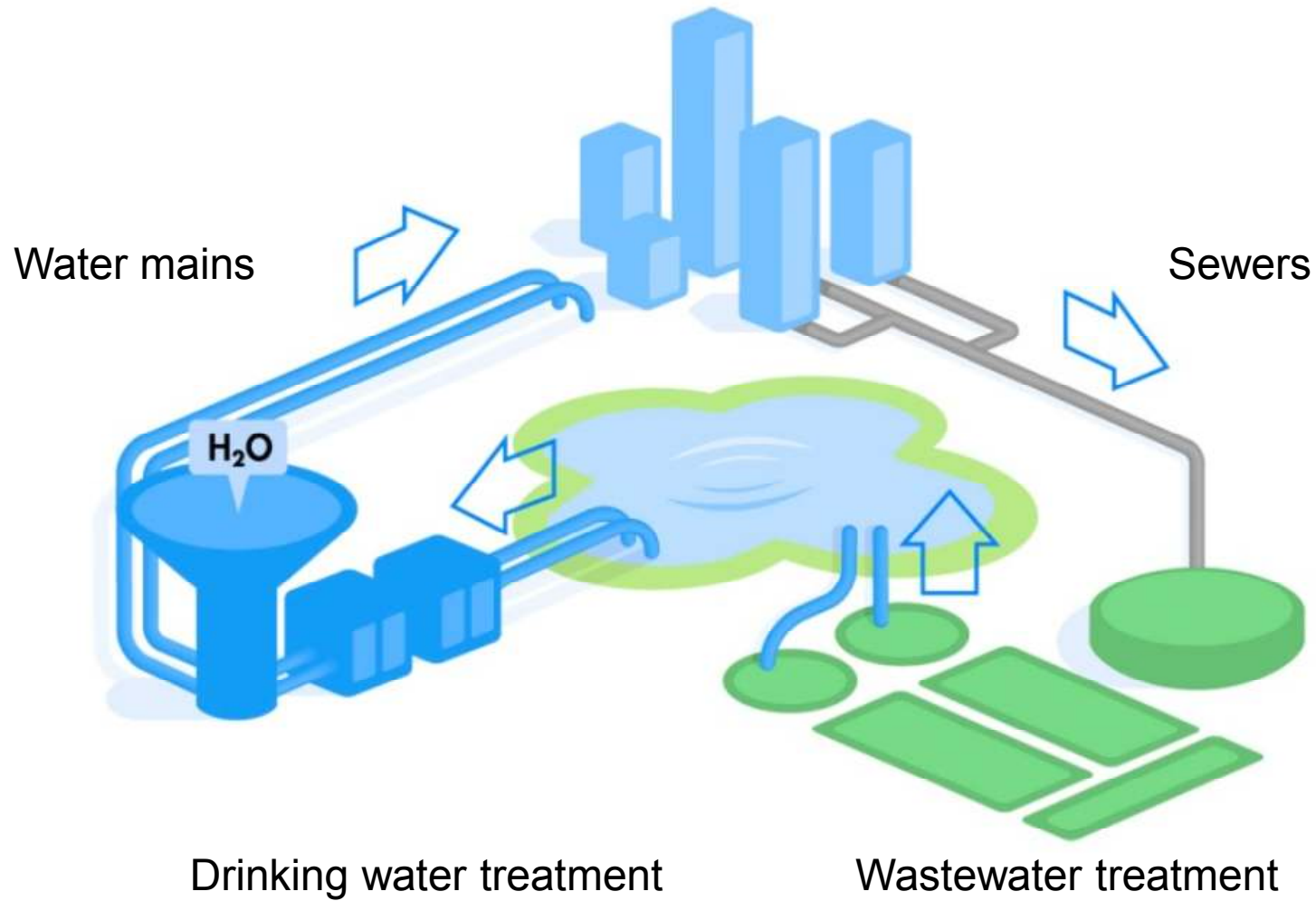


- Industries

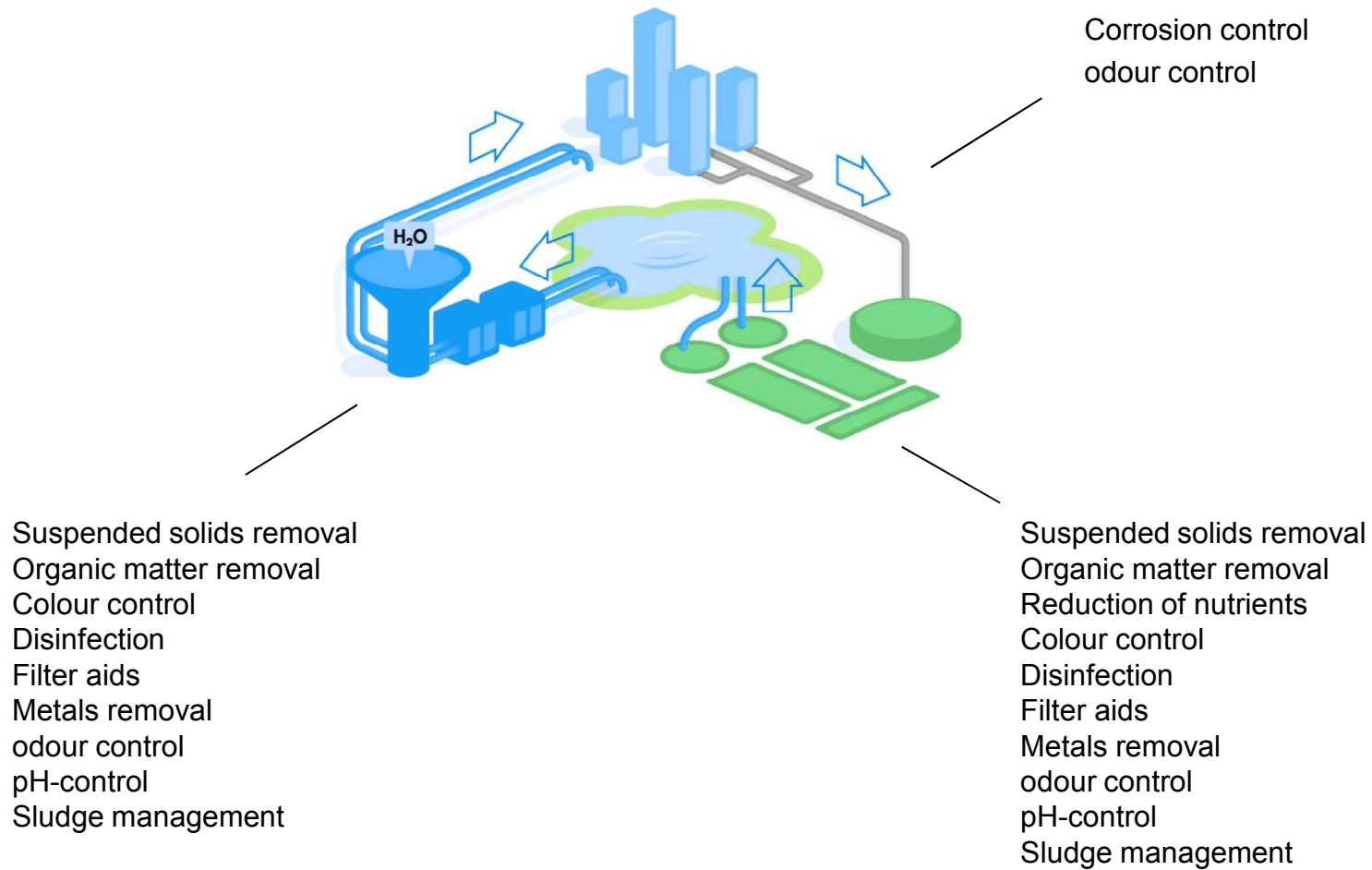


# Where we are within municipalities

---



# What we do for the municipalities



# Benefits for the municipalities

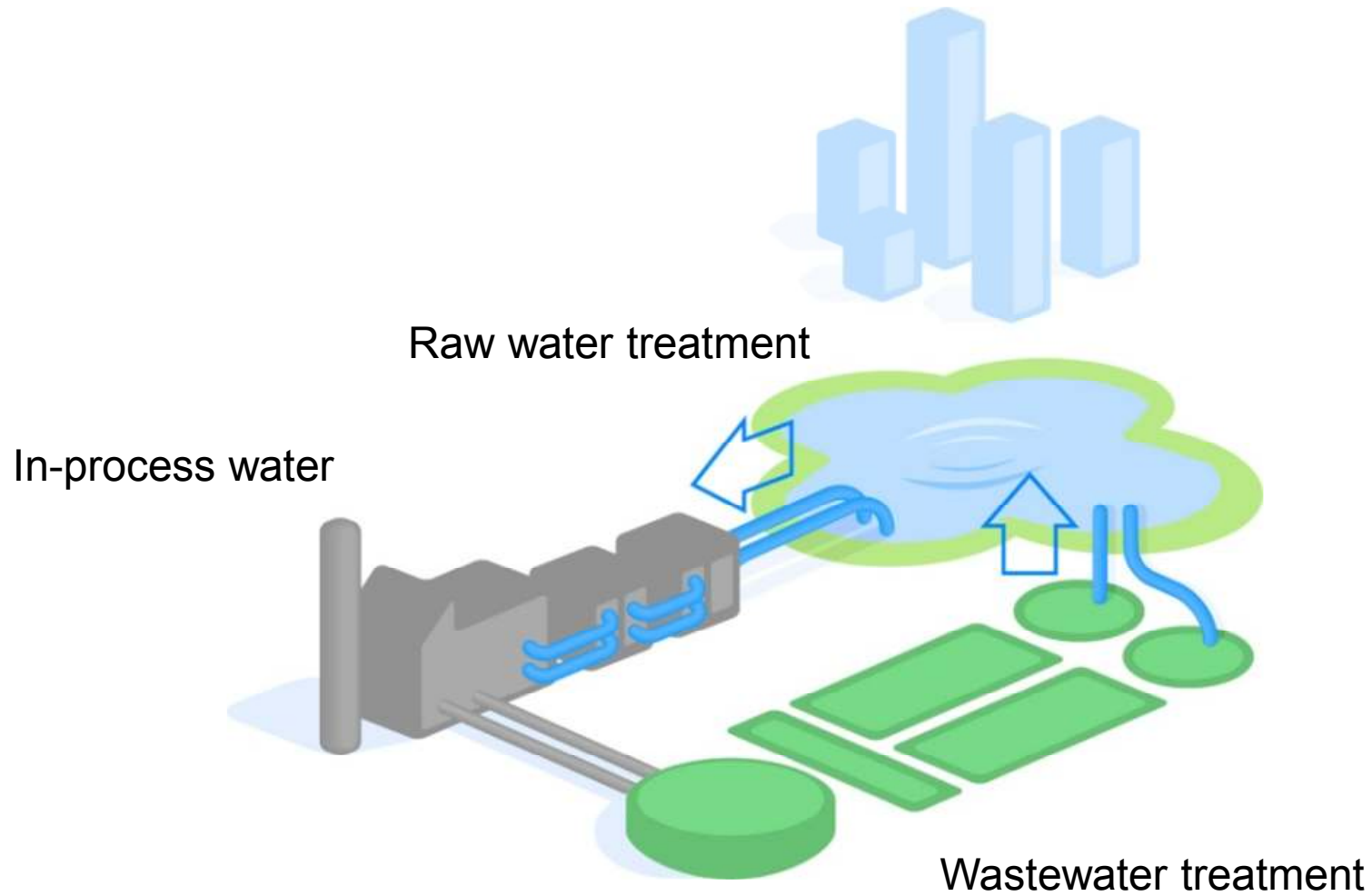
---

- Manage water supply for a growing population
- Lower energy consumption
- Less nutrients to effluent
- Less heavy metals to effluent
- Reduced leakages in water mains
- Reduced odour from sewers
- Minimized sludge volumes



# Where we are within the industries

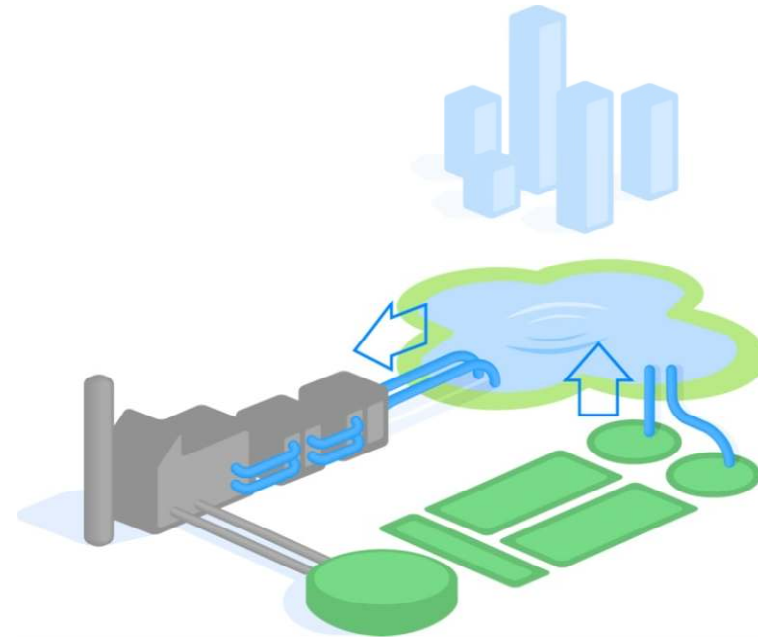
---



# Where we are within the industries

---

- **Agriculture**  
Cattle, Poultry, Crops
- **Food & Beverage**  
Sugar, Alcohol, Beverage, Vegetable, Slaughter houses
- **Chemical**  
Paper, Textile, Tannery, Paints & Coatings



# Where we are within the industries

---

- **Construction**

Brick & Tile, Board, Plaster spray, Cement, Sand & Gravel, Dredging

- **Metals & Mining**

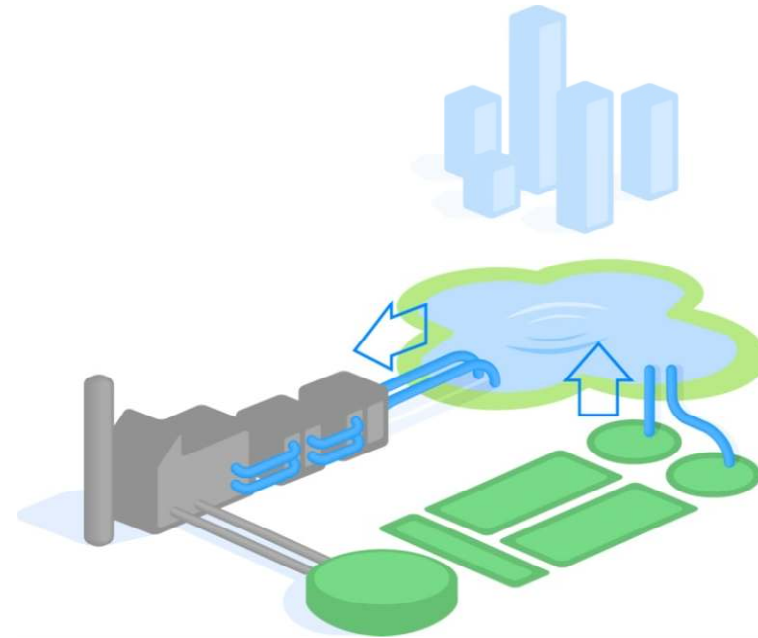
Mining, Steel, aluminium, Minerals, Precious metals

- **Oil**

Enhanced Oil Recovery (EOR), Oil production, Refinement

- **Other**

Automotive, Personal care, Biotech



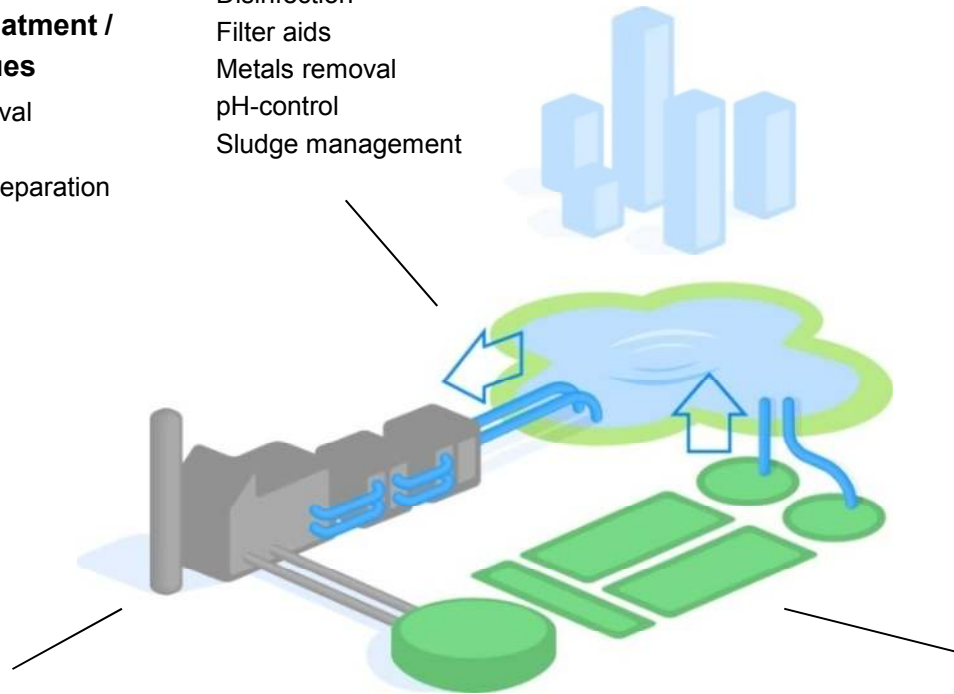
# What we do for the industries

## In-Process water treatment / Separation techniques

- Suspended solids removal
- Organic matter removal
- Liquids/oils and solids separation
- Filter aids
- Dredging
- Tunneling
- Iron ore pelletization
- Soil remediation
- Soil erosion
- Paper sizing
- Retention
- Disinfection
- Washing
- Red Mud Flocculation
- Kaolin
- Clay treatment
- Cementing & Stimulation
- Demulsification
- Manure management

## Raw water treatment

- Suspended solids removal
- Organic matter removal
- Colour control
- Disinfection
- Filter aids
- Metals removal
- pH-control
- Sludge management



## Wastewater treatment

- Suspended solids removal
- Organic matter removal
- Reduction of nutrients
- Colour control
- Disinfection
- Filter aids
- Metals removal
- odor control
- pH-control
- Sludge management



# Benefits for the industries

---

- Improved efficiency in main operations
- Increased quality of
  - In-process water
  - Customer products
- More efficient use of chemicals
- Minimized waste
  - Acids, metals, organic matter, sludge and nutrients



# Product positions

- Coagulants # 1 in the world
  - Iron- and aluminium salts for drinking water and wastewater
  - Customized for maximum efficiency
- Polymers # 3 in the world
  - Polyelectrolytes for water treatment, sludge management and industrial applications
  - Customized for maximum efficiency



# Strategic position

---

## ■ Marketing & Sales

- The only player with full range of coagulants and flocculants for water treatment
- Strong presence in all major markets with a sales and service organization
- World leader in coagulants

## ■ Sourcing

- World leading in handling waste streams as raw material for coagulants
- Kemira's purchasing power



# Corporate Citizenship

---

- UNICEF
- The International Gothenburg Symposium
- Responsible Care
- SIWI (Stockholm International Water Institute)



**Responsible Care<sup>®</sup>**  
*Good Chemistry at Work*

---

*We're proudly committed to  
the chemical industry's  
environmental, health  
and safety initiative.*



# Customer focus

---

- Listen to customer needs
- Optimal use of R&D, innovation and knowledge
- Focus on
  - Customer performance
  - Customer profitability
  - Global sustainability
- Lean process
- Benefits right back to market

# Global presence

---

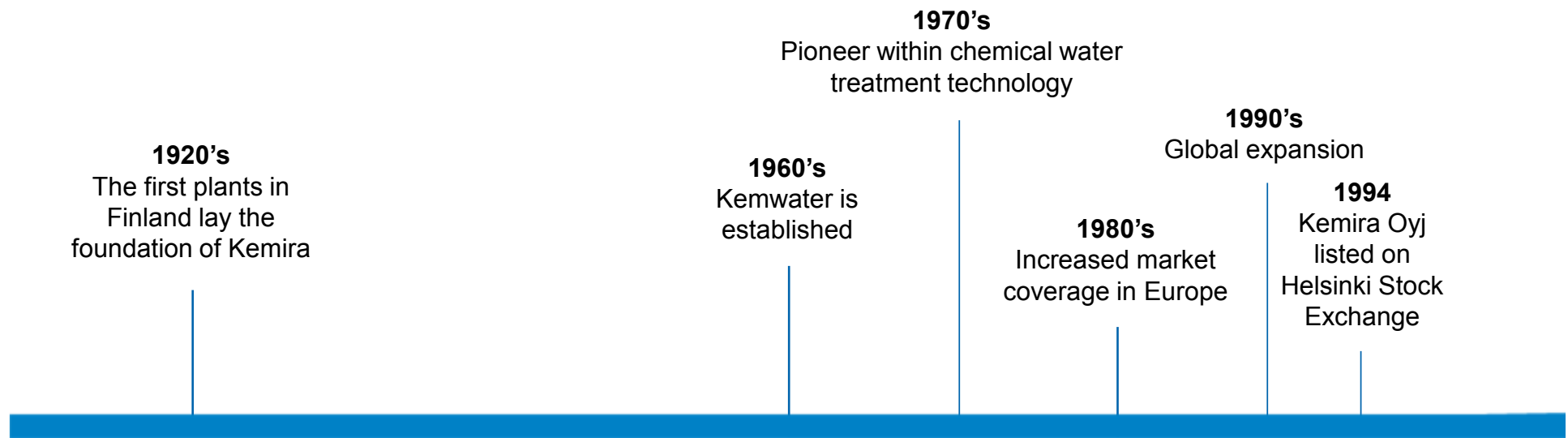
- Solution provider on a global scale
- Global contracts and agreements
- Wide portfolio matching global demand
- Global supply chain



# Kemira Water in the 20th century

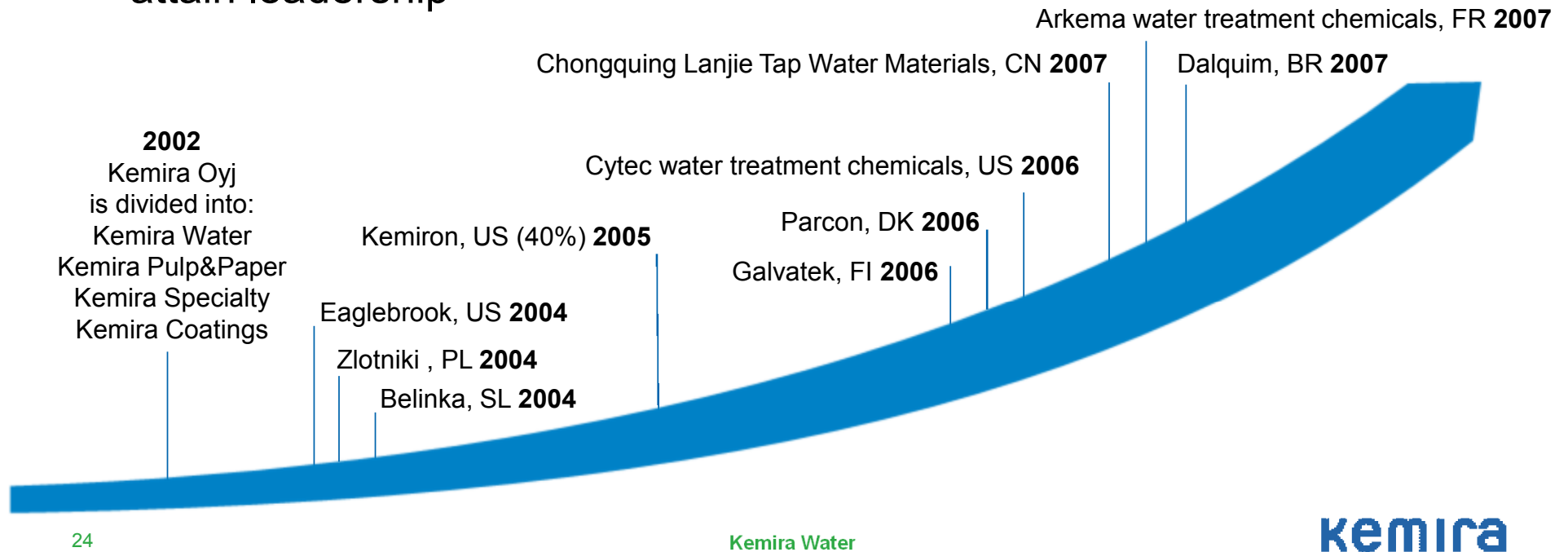
---

- Founded in Finland in the 1920's
- Following the establishment of Kemwater in the 60's the Kemira water treatment technologies are developed to become world leading
- Rapid internationalization during the 80's and global expansion in the 90's before the constitution of the Kemira Water organization in 2002



# Kemira Water in the 21st century

- Strong positions today in coagulants in Europe and North America
- Entered the flocculants business by the acquisition of Cytec Water Treatment
- Several smaller acquisitions followed by investments in capacity to attain leadership





# Kemira in figures

---

- Kemira Water

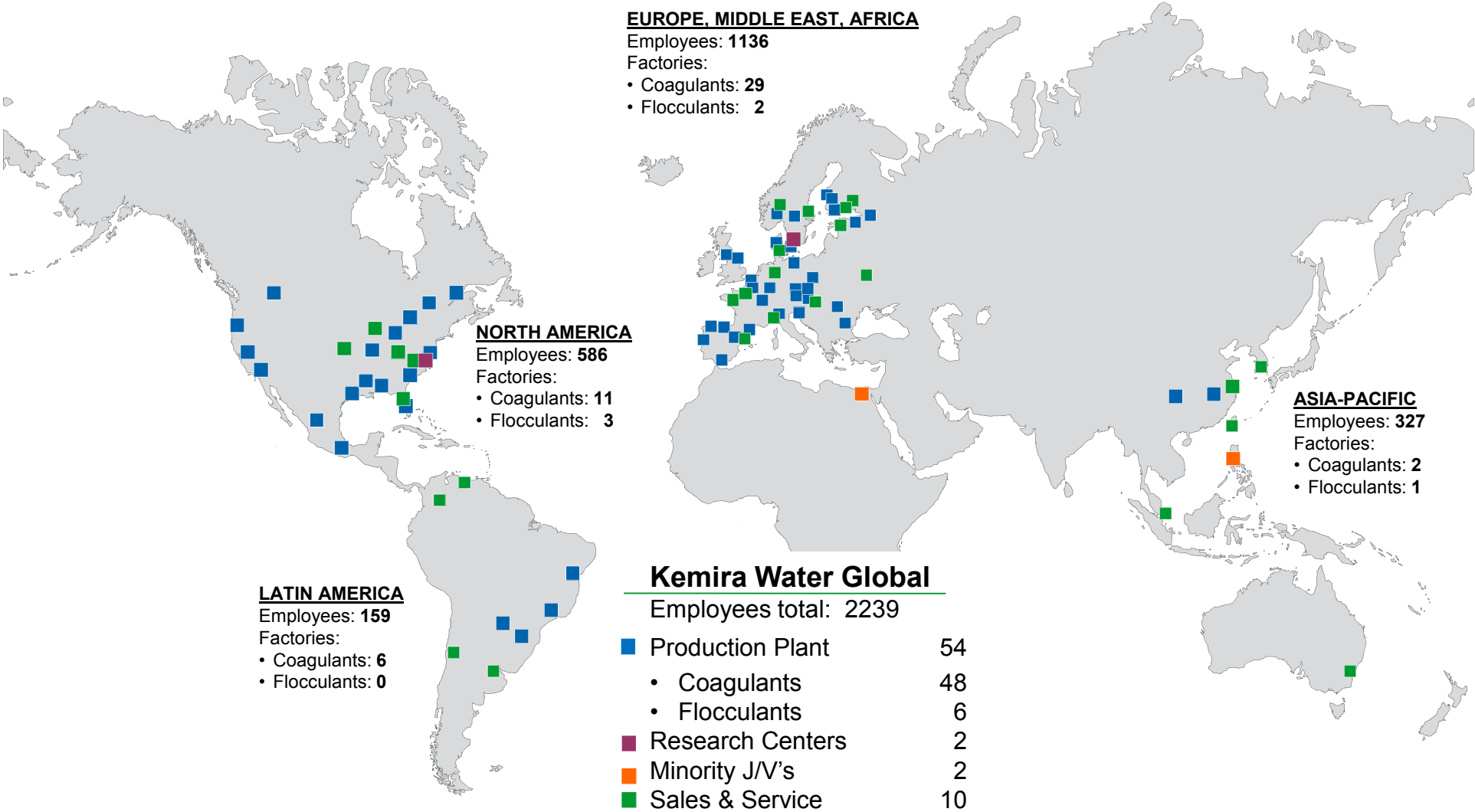
- Revenue > € 700 million  
> \$ 960 million
- Employees > 2 200

- Kemira Oyj

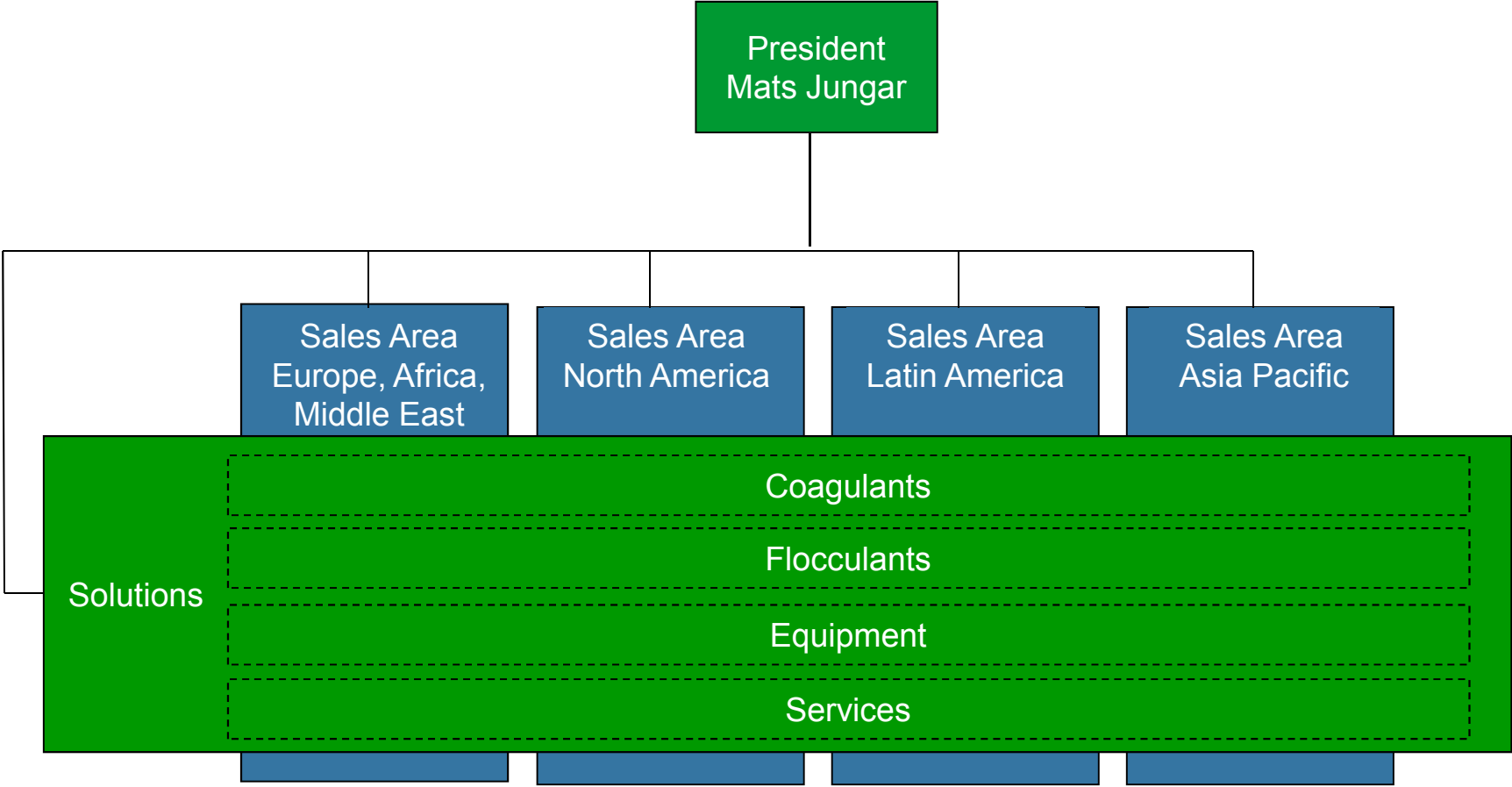
- Revenue > € 2.5 billion (2006)  
> \$ 3.5 billion (2006)
- Employees > 9 300



# Kemira Water in the World



# Kemira Water's organization



---

*Our vision is to be the best solution provider  
for water treatment and selected industrial  
processes on a global basis.*

Thank you

**kemira**



Kemira Water