

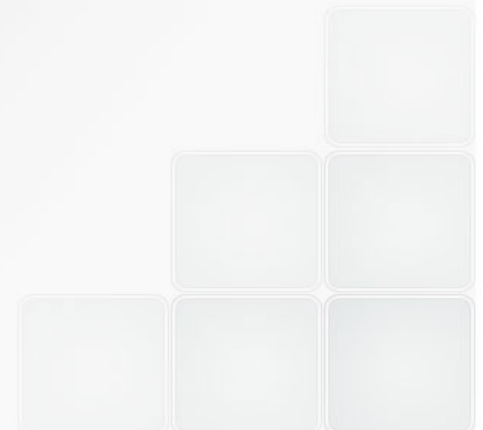


WATER – SOURCE OF LIFE, SOURCE OF DANGER

Improvement of Water Management within and between Industries

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Water and Industry in Europe



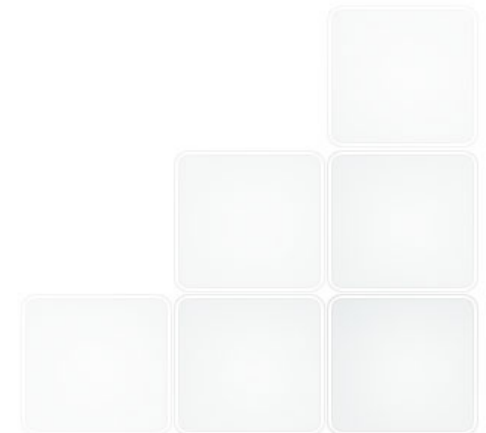
- Average water consumption of water for the industrial sector in Europe: 25% of overall water consumption
- Current legislation (e.g. WFD, IPPC) call for a continuous environmental impact reduction
- Continuous improvement of water efficiency within industries (also pushed by the increasing of water management costs)



Water and Industry in Europe



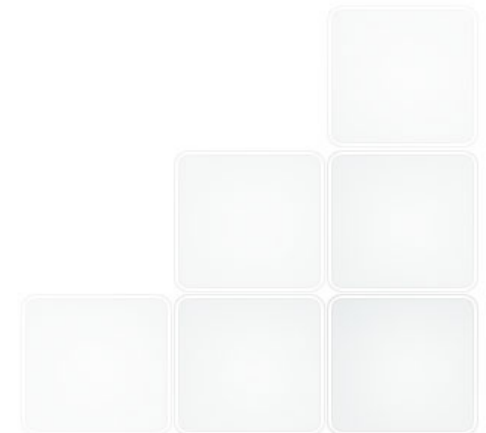
- Different needs from different industrial sub sectors in terms of quantity and quality requirements
- Pollutants management issues
- Lack of awareness of the economics advantages derived from a proper water management



Research needs



- Reducing the fresh water use for industrial production
 - Improving the water (re)use of inside and between industries (use of new water sources)
 - Establishing clear and suitable limits for safe water reuse (workers and products safety)
 - Innovating production processes (involvement of machinery manufacturers)



Research needs



- Wastewater valorisation
 - energy recovery (biogas, hydrogen, electricity, heat)
 - material recovery (and not removal): nitrogen, phosphorus, metals, organic mater
- Treatment costs reduction (plant footprint, implementation of automatic control systems)
- Fate, behaviour, removal of emerging pollutants

