

## Reach the vision!

### Workshop on Materials, processes and technologies for a water sustainable process industry in 2050 Program

9:30	Registration
10:00	Welcome and goals of the workshop <i>Albert Jansen (TNO)</i>
10:05	Introduction to the vision and methods developed in previous workshops <i>Jitka Macadam (Cranfield University), Nienke Koeman (TNO)</i>
10:30	<b>Presentation Veolia and Suez</b> "Water Industry in 2050: Water companies vision on challenges and technological needs" <i>Catherine Daines-Martinez (Veolia), Sylvie Baig (Suez Degremont)</i>
11:15	<b>Planar discussion on 1 challenge</b> For the defined challenges and the vision the following questions can be answered <ol style="list-style-type: none"> <li>1. What is the benefit? <i>Eg: Less stress on water resources, lower energy use, etc</i></li> <li>2. Who (what) benefits? <i>Eg: Companies, environment, civilians, etc</i></li> </ol> <p>During the discussion we will answer the following questions</p> <ol style="list-style-type: none"> <li>3. How can this work? (<i>concepts, tools</i>)</li> <li>4. What is needed to make this work? (<i>processes, materials, and technologies</i>)</li> </ol>
12:00	Lunch break
13:00	<b>Discussion</b> on processes, materials, and technologies needed to reach the vision <i>Break up in small groups for discussion (answer questions above)</i>
14:00	<b>Present results from group discussions</b>
14:30	<b>Presentations</b> <ul style="list-style-type: none"> <li>• "Membrane technologies in the perspective of ChemWater: unique and essential tools for a sustainable development based on life model" <i>Gilbert Rios (European Membrane House)</i></li> <li>• "Improved process sustainability by using solid heterogeneous catalysts in water treatment technologies" <i>Gabriele Centi, Siglinda Perathoner, Stefano Vannuzzi (European Research Institute of Catalysis (ERIC))</i></li> <li>• "Identification and development of nano-materials for water treatment" <i>Michael Störker (ENMIX)</i></li> </ul>
15:30	Coffee Break
16:00	<b>Discussions</b> (in groups) <ul style="list-style-type: none"> <li>• Definition of intermediate goals (2020, 2030) and ways to reach them</li> <li>• Allocation of skills, competencies, coordination and funding needed to reach the vision within the following topics: <ul style="list-style-type: none"> <li>○ Chemical process engineering, reaction and process design</li> <li>○ Emerging water treatment technologies</li> <li>○ Identification and development of (nano) materials</li> </ul> </li> </ul>
16:45	<b>Present results from discussions</b>
17:00-17:10	Closure <i>Thomas Track (Dechema)</i>