

The AIChE Netherlands / Belgium Section is pleased to invite you
to attend the Lecture Dinner Meeting:

**Veolia Solutions for Green Hydrogen Projects and Carbon Capture:
Water Treatment, Gas Conditioning and Conditioning Chemicals
in the Periphery of Electrolyzers**

by Egbert de Jong and Joël van der Borghet - Veolia

Thursday December 14th, 2023 – Golden Tulip, Zoetermeer

Program

17.30 – 18.00	Registration
18.00 – 19.00	Lecture
19.00	Dinner

Summary

Green hydrogen projects require high purity water. Egbert de Jong covers the production of ultrapure water from every quality of water that is available. This can be sea water, well water, river or surface water or treated wastewater. Technologies that are used comprise flotation or clarification, ultrafiltration, reverse osmosis and multi effect distillation and EDI or IX. The produced hydrogen product gas needs conditioning, for this the Veolia Deoxygenation and Dehydration solutions are presented. Cooling systems can benefit from Veolia services for chemical conditioning of cooling water. Water treatment processes can benefit from Veolia services for membrane protection. The above standard engineered solutions following robust proven supplier standards bring down the cost of hydrogen production.

Joël van der Borghet will cover CCUS and start his presentation with a video as an intro of what Veolia WTS does within Carbon Capture. Carbon Capture is necessary, in addition to Green H₂, to limit the average temperature increase to a maximum of 1.5 °C in 2100, as agreed in the COP21 (Paris Agreement). The contribution of CCUS within all efforts to achieve this will be addressed. The ratio between CCS and CCU will be discussed with also the link to e-Methanol, e-Fuels and SAF within CCU, where the raw materials for the Fischer-Tropsch reaction are Green H₂ and CO₂. The operation of a classic Amine Unit to capture CO₂ with focus on the solvent chemistry will be outlined.

The different types of solvent with their advantages and disadvantages and how they 'degrade' over time will be addressed. Finally, the main topic will be presented. The reclaiming, and thus recovering / recycling, of the solvent via the ED reclaiming service, as offered by VWTS. This prevents the costly bleed and feed, which is not sustainable in comparison to the reduced CO₂ footprint when applying ED reclaiming.

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Professional Background of the Speakers

Egbert de Jong - EMEA Business Development Leader Heavy Industry and Hydrogen - Veolia

Egbert de Jong serves as EMEA Business Development Leader Heavy Industry and Hydrogen at VEOLIA Water Technologies and Solutions (VWTS).

He began his career in 1987 at the Degrémont group (SUEZ) where he held several posts. Between 1995 and 1998 he worked as Senior Proposal Manager and Team Lead of the Municipal Wastewater Treatment Department at Degremont UK Ltd. Between 1998 and 2002 he was the Managing Director of the Benelux affiliate (Ondeo-IS) in the industrial market.

Since 2003 Egbert has been working as one of the Senior Specialists for the Corporate Organization as Global Business Development Manager for the Oil and Gas market. This role continued after the takeover of SUEZ by VEOLIA. In his current responsibility he is leading the VWTS group in projects with new value creating solutions for the heavy industry and hydrogen market, especially linked to the Energy Transition. Egbert holds a Master of Science from the Agricultural University of Wageningen, the Netherlands. His hobbies are scuba diving and cycling.

Joël Van der Borcht - Sr Vertical Leader Power and Mining Europe/CIS - Veolia

Graduated as a Chemical Engineer in 1990 and immediately employed in the current company, which at the time still bore the name BETZ and offered chemical water treatment, specialty chemistry and service to the (heavy) industry.

Throughout his career he fulfilled various Sales (related) roles within Europe and after the acquisition by GE, within the GE Water Platform that they created, supporting not only Chemistry but also Physical Water Treatment (Membrane Technology and e-Separation).

After the GE Water acquisition by SUEZ five years ago, he was in a more Strategic role and within VEOLIA Water Technologies & Solutions (the latest acquisition in 2022) he became Energy Transition Leader Europe/CIS, with a focus on Green/Blue H₂, CCUS and Battery Grade Lithium.

He is married, has one daughter and is living in Herselt, Belgium. He has one great passion, racing his bike!

Registration Form

Yes, I would like to attend the Lecture Dinner Meeting with the subject: 'Veolia Solutions for Green Hydrogen Projects - Water Treatment, Gas Conditioning and Conditioning Chemicals in the Periphery of Electrolyzers' on Thursday, December 14th, 2023.

Company:

Name:

Job Title:

Email:

Diet:

Please send the invoice to:

Company:

Attn.:

Address:

City:

Reference:

Fees

Participant: 95 Euro

Sponsor: 60 Euro

Registration by mail: aiche@kborganisatietalent.nl

A week before the start of the Lecture Dinner Meeting you will receive a confirmation with practical information and your invoice. Free cancellation is possible, when in writing, 48 hours prior to the event.

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