



Circular economy and industrial wastewater:

wastewater:

The ZERO BRINE & WATER-MINING projects

Dr. Dimitris Xevgenos

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Exec. Project Coordinator, WATER-MINING*

“Reducing pollution from industrial wastewater”
ZERO BRINE 26 May 2021, EU Green Week



ZERO BRINE project (www.zerobrine.eu) has received funding from the European Union's H2020 research and innovation programme under Grant Agreement No 730390.

JYRKI KATAINEN

EUROPEAN VICE PRESIDENT FOR
JOBS, GROWTH, INVESTMENT &
COMPETITIVENESS

€1B

WP2018-2020
(H2020)

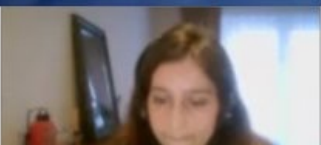
*“The **circular economy** needs more than traditional R&D or a piecemeal approach to technologies*

*it needs changes in entire systems and **joint efforts** by researchers, technology centres, industry and SMEs, the primary sector, entrepreneurs, users, governments and civil society. It needs enabling regulatory frameworks, and additional public and private investments”*



84 PROJECTS

€554M 2014 2020



Marco RA... (Host)

Arnoldas Milukas...

Giorgio Mannina

Joep

Stefania ROCCA

Admin



“Re-designing the value and supply chain
of *water and minerals*:
a **circular economy** approach
for the recovery of resources
from saline impaired effluent (*brine*)
generated by process industries”

€10M

BUDGET



10 June @15:15: Bringing Individual Water Innovators into Joint Exploitation Pathways to Enable Circular Economy Implementation. The Case of The ZERO BRINE Task Force

Authors: *Xevgenos, Dimitris; Korevaar, Gijsbert; Hartmann, Dap; O'Callaghan, Paul; van Loosdrecht, Mark

11 June @12:30: Value Co-Creation Through Actors Engagement for The Implementation of Circular Economy Solutions in The Chemical Sector

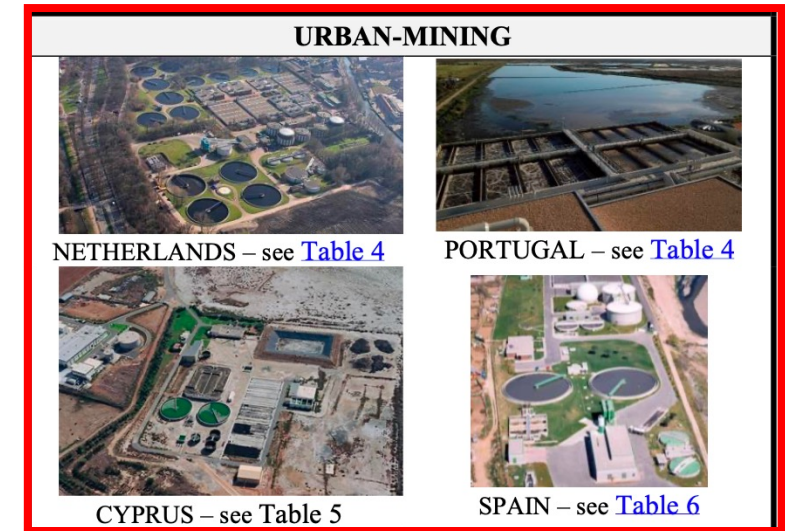
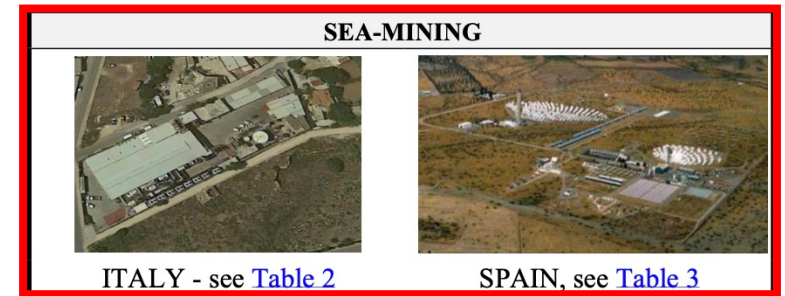
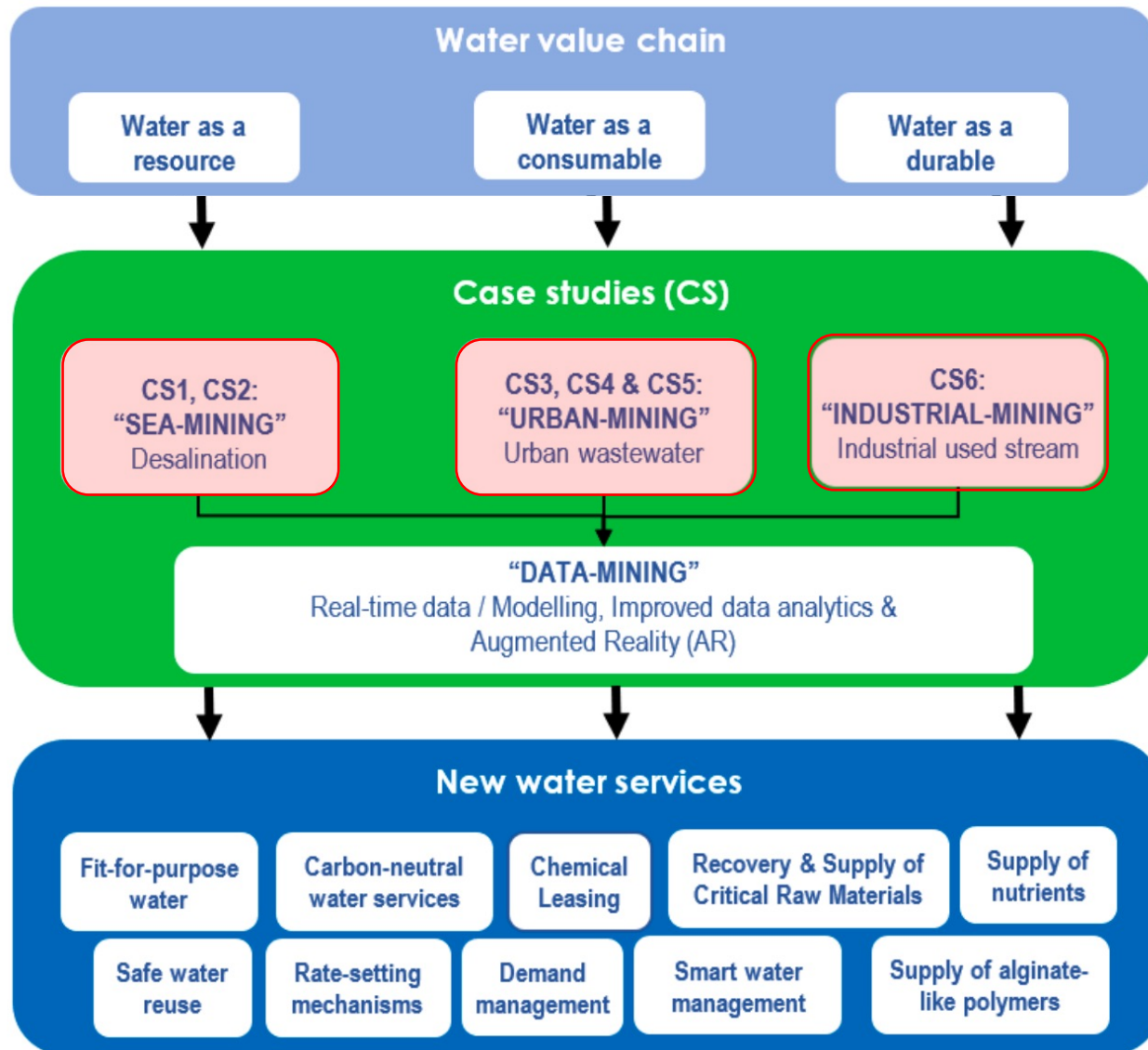
Authors: *Xevgenos, Dimitris; Meca, Sandra; Panteleaki Tourkodimitri, Kallirroji; van der Gaast, Wytze; Cano, Miguel



Next generation **water**-smart management
systems: large scale demonstrations for a circular
economy and **society**

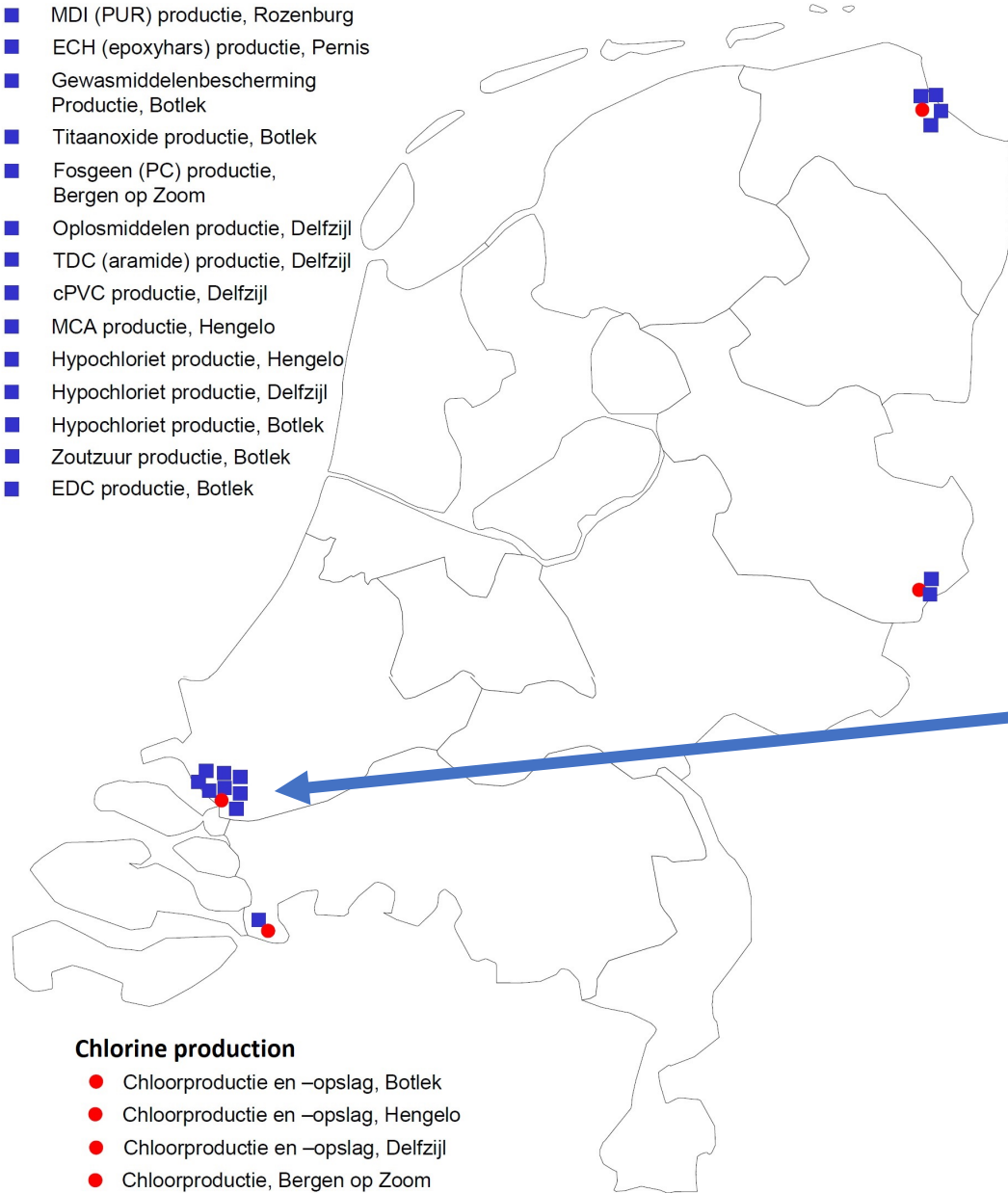
€19M
BUDGET

WATER-MINING: Concept & demonstrations



Chlorine consumption

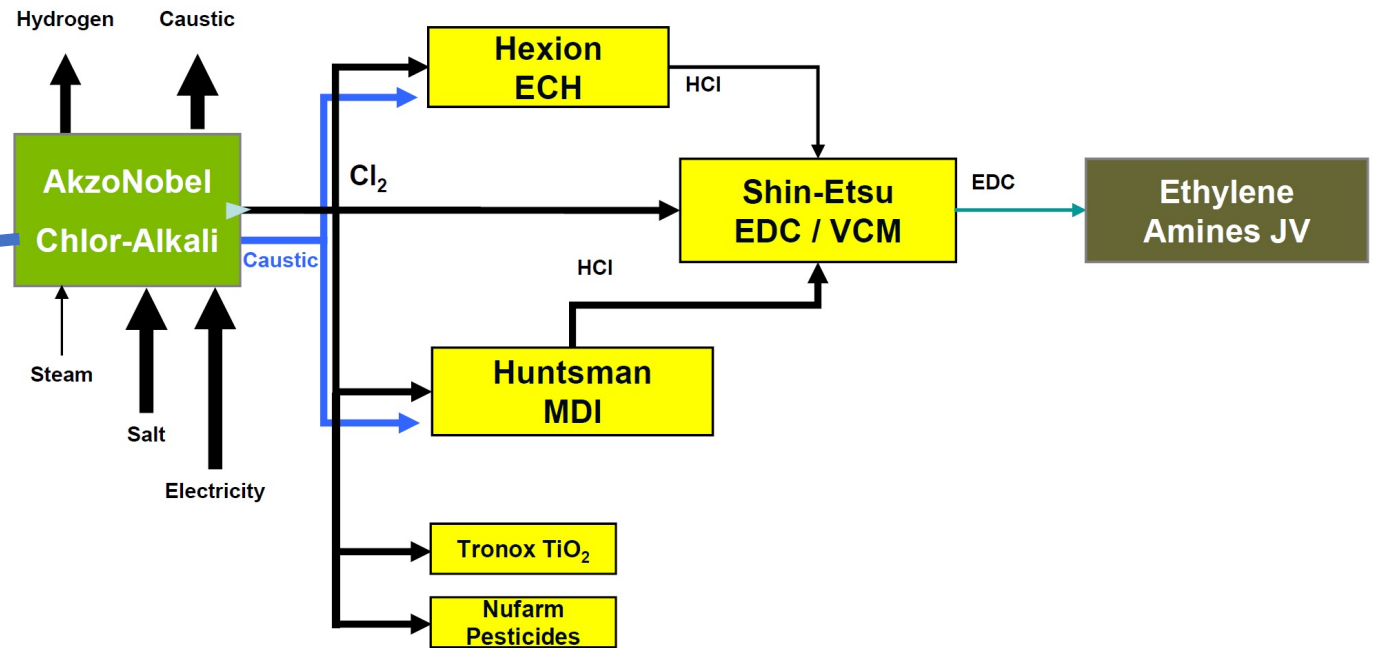
- VC-(PVC) productie, Botlek
- MDI (PUR) productie, Rozenburg
- ECH (epoxyhars) productie, Pernis
- Gewasmiddelenbescherming Productie, Botlek
- Titaanoxide productie, Botlek
- Fosgeen (PC) productie, Bergen op Zoom
- Oplosmiddelen productie, Delfzijl
- TDC (aramide) productie, Delfzijl
- cPVC productie, Delfzijl
- MCA productie, Hengelo
- Hypochloriet productie, Hengelo
- Hypochloriet productie, Delfzijl
- Hypochloriet productie, Botlek
- Zoutzuur productie, Botlek
- EDC productie, Botlek



Chlorine production

- Chloorproductie en -opslag, Botlek
- Chloorproductie en -opslag, Hengelo
- Chloorproductie en -opslag, Delfzijl
- Chloorproductie, Bergen op Zoom

Chlorine cluster in Rotterdam





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