



“Water the Oil of the
21st Century”

Marinaden

Bergen

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3 ENVIRONOR IS COLLABORATION WITH;



Professor, Dr. Ing. Hallvard Ødegaard

Paul Reiter – Reiter IWS- Singapore

Mark Lane – Consultant at Pinsent Masons



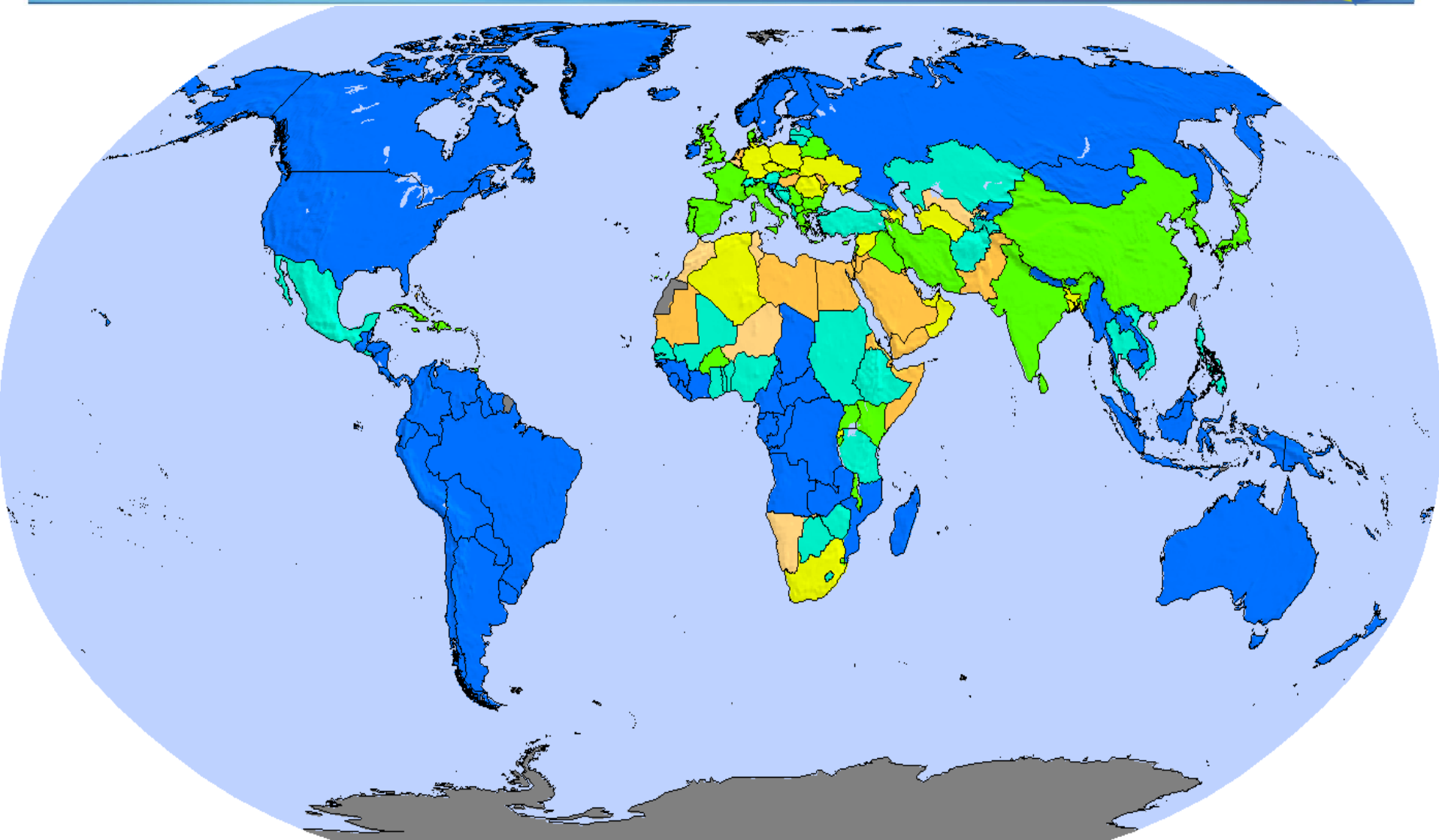
EnviroNor shall offer a high standard Floating Aqua Recovery Solution to communities, industry and to people in need.

Our aim is to recycle elements, where possible, and to reduce emission to close to zero.

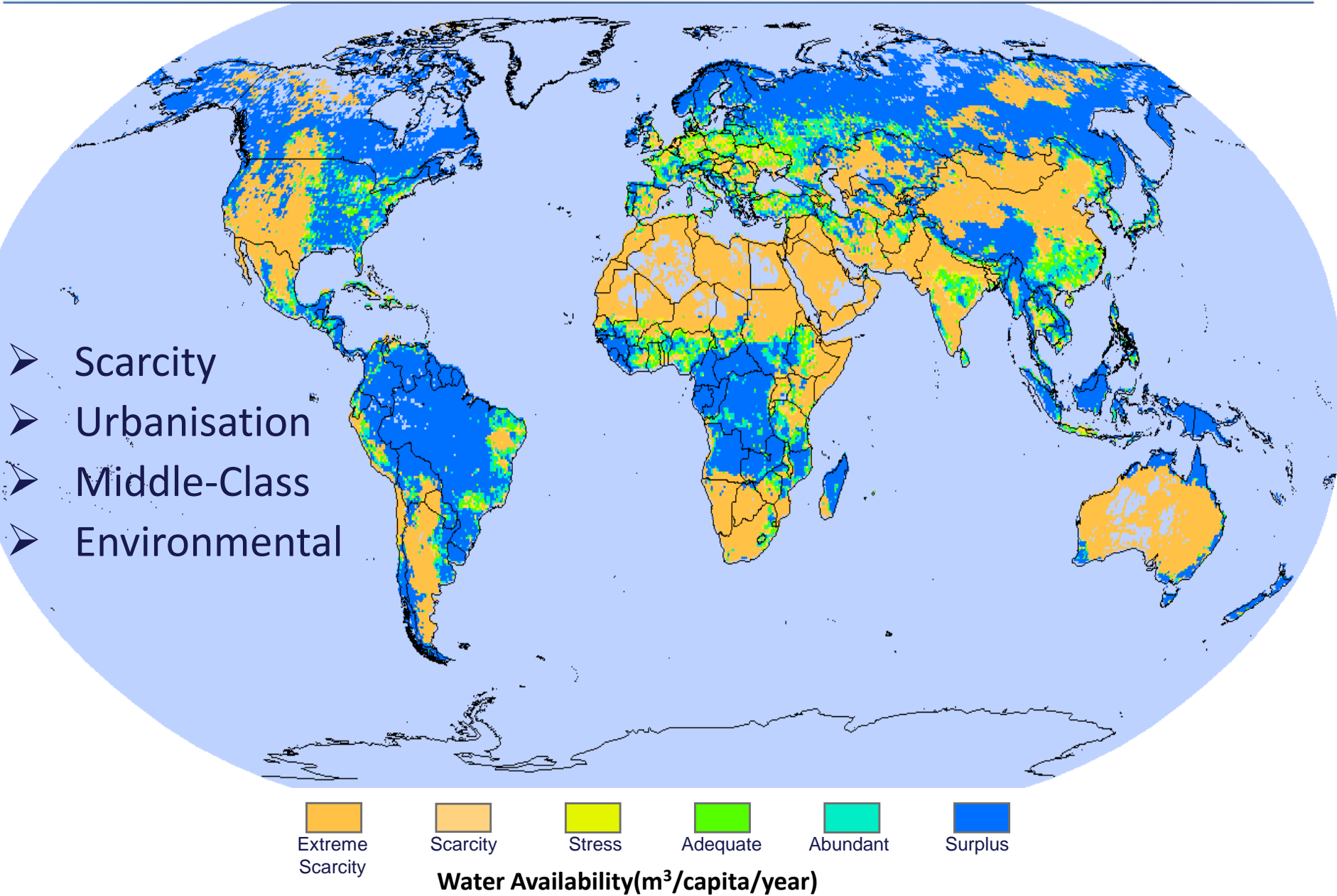
Our business shall be based on:

- A Commercial mind set
- An Environmental Responsibility
- A Social Responsibility

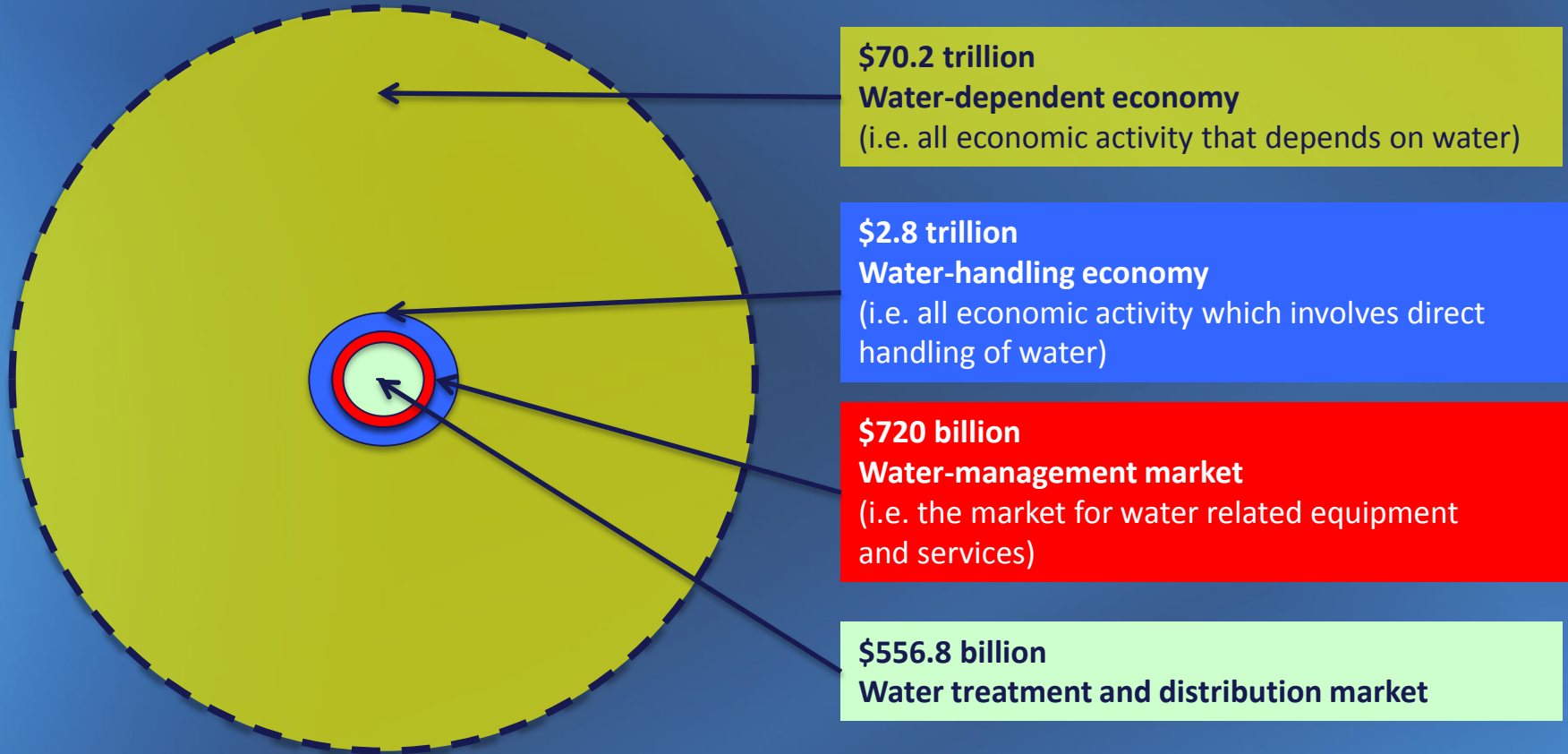
ANNUAL RENEWABLE WATER SUPPLY PER PERSON - 1975



Water Availability(m³/capita/year)



WHAT IS THE GLOBAL WATER MARKET?





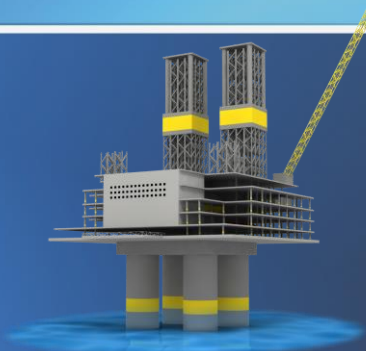
- Large scale traditional water treatment solutions in highly populated areas are slow to implement and has a high CAPEX
- Onshore plants have a long timeframe from decision to operationalization (8-10 years) (Floating solution 1-4 years)
- Onshore plants can't keep pace with urbanisation
- Large cities run short of land areas for this kind of process plants or “out of sight”
- Every day, 9 mill m³ of untreated wastewater is discharged into the Mediterranean ocean
- Tourism avoid areas where wastewater is discharged untreated into the sea
- Water scarcity reduces economic development



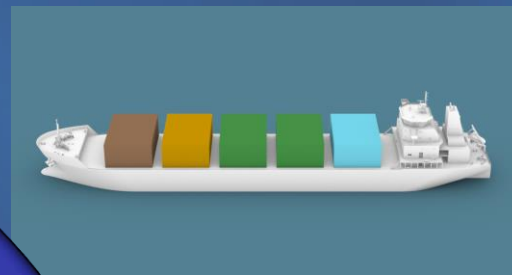
- Access to safe drinking-water is essential to human health and survival.
- 2,2 mill people die each year from diarrheal disease. (mostly children)
- 80% of all wastewater in development countries are discharged untreated into the environment.
- Untreated wastewater leads to eutrophication of the sea.
- Methane from sewage are a considerable contributor to green house gases. Methane \geq 20 times more potent as a greenhouse gas than CO₂
- Untapped energy source in the sewage fermenting process



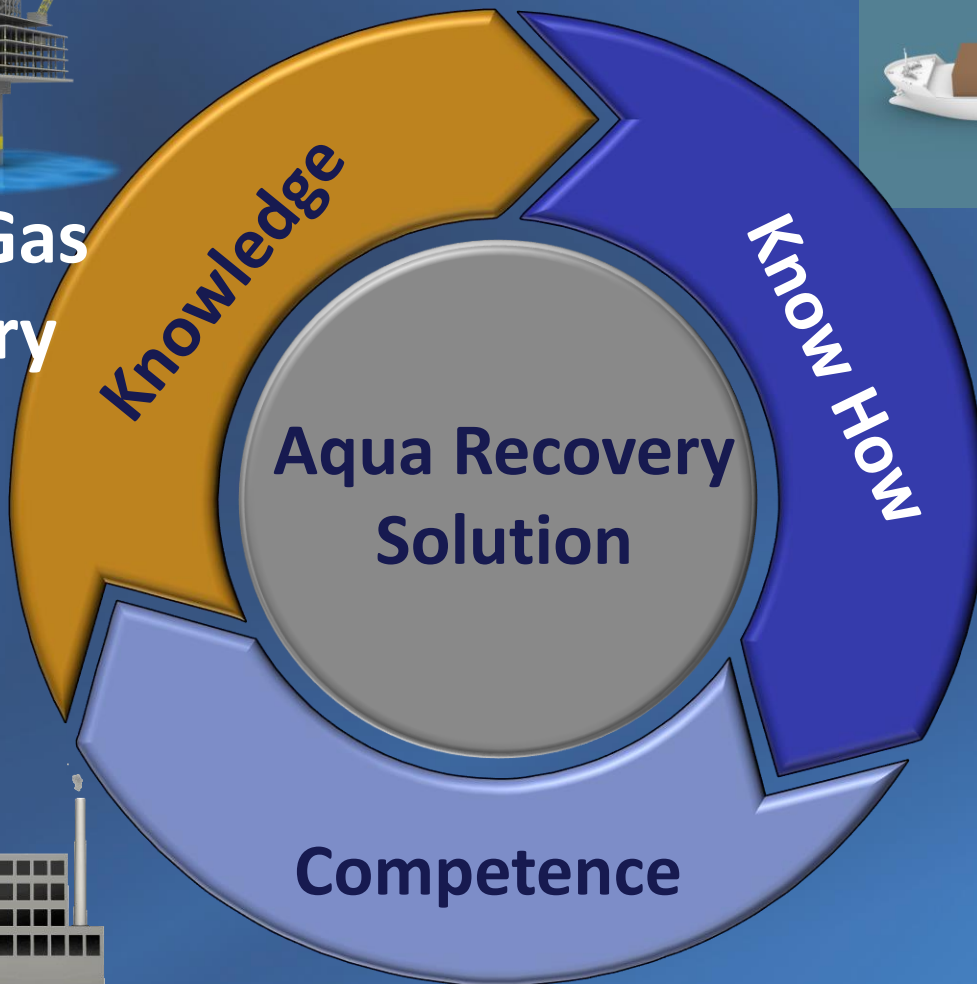
- The Aqua Recovery by EnviroNor is a unique solution compare to traditional wastewater or desalination plant. Our solution is based on re-use of an ocean going vessel (tanker) where we convert the vessel to a Floating Wastewater Treatment Unit or to a Floating Desalination Unit.
- The Aqua Recovery by EnviroNor offers considerable advantages in terms of; lower investment, reduced time from decision to operationalization, environmental benefits and flexibility in terms of locations.
- The Aqua Recovery by EnviroNor can be anchored as a fixed installation or can be moved and service a multiple of location.



Oil & Gas Industry





Maritime Industry



Process Industry



- ✓ Process equipment is already in use on onshore wastewater treatment facilities (Singapore)
- ✓ Floating terminals are already in use in Oil & Gas industry
 -  FSRU Floating Storage & Regasification (LNG)
 -  FPSO Floating Production Storage & Offloading (Oil)
- ✓ Convert phased out tankers to Floating Aqua Recovery Plant or Floating Water Supply Units
- ✓ Tailor made solutions to meet customers particular needs and short lead-time. (Time from decision to deployment/operation)
- ✓ Offers flexible time charter period. I.e. Permanent 20+20 years or while maintenance or upgrade projects. > 2 years



The Changemaker



The Reliever



The Water Factory



The Desalination Vessel





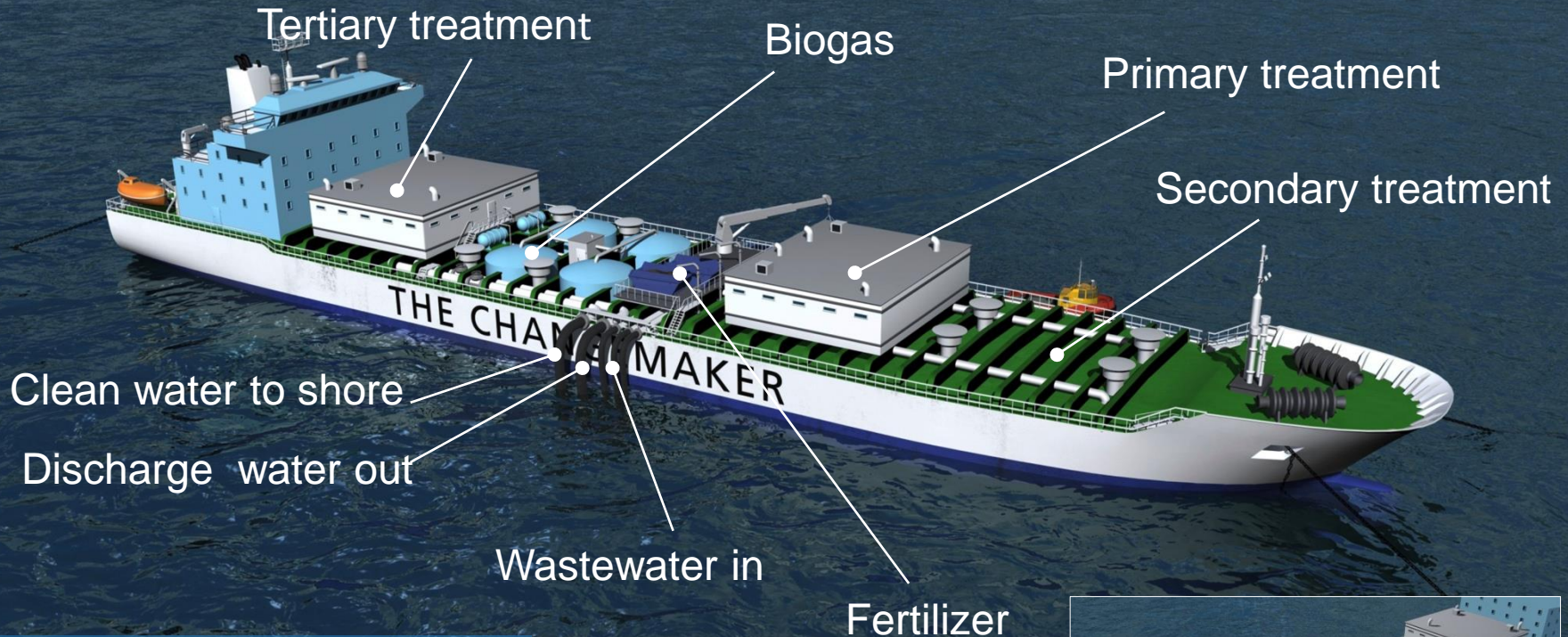
Work in progress to secure LOI/MOU

- Mozambique (Feasibility study start this month)
- UAE – Abu Dhabi (Floating Desalination Units)
- Turkey, Marmara Sea (Floating Desalination Units)
- Statoil (Business Case) (Floating Wastewater Treatment)

Countries shown interest in the concept

- Gaza (Floating Wastewater Treatment)
- Indonesia , Bali, Jakarta (Floating Wastewater Treatment)
- Cuba – Havana (Floating Wastewater Treatment)
- Pakistan (Floating Wastewater Treatment)
- China, Hong Kong (Floating Wastewater Treatment)
- India (Floating Wastewater Treatment)
- Thailand (Floating Wastewater Treatment)
- Panama (Floating Wastewater Treatment)
- Israel (Floating Desalination Units)

Offshore Recycling of Wastewater



Product Tanker – 40 000 dwt

Capacity: 2100 m³/hour

Serving: 250 000 people

Energy: 0.60 kW/m³ treated wastewater




Confidential



Export Credit Norway is positive to offer long-term loans to EnviroNor projects

- A state-owned limited liability company providing long-term debt financing on competitive terms to customers of Norwegian exporters
- Offers fixed interest rate for up to 18 years for water projects
- Financing for up to 85 % of the export contract value
- The loans are guaranteed by the Norwegian Guarantee Institute for Export Credits (GIEK) and/or commercial banks



- ✓ Large cities run short of land areas for this kind of process plants or “out of sight” 
- ✓ Investor has control over the asset
- ✓ Long-term loan with fixed interest rate
- ✓ Economic Return
- ✓ To recycle wastewater cost less than desalination of seawater
- ✓ Timeframe from decision to operationalization
- ✓ Easy to upgrade to new technology (technology cycle) and capacity
- ✓ In event of political instability, decommission the asset
- ✓ Minimal or no impact from Earthquake or Tsunami
- ✓ Plant operational in event of flooding
- ✓ No neighbours
- ✓ Flexible locations
- ✓ Minimal odour
- ✓ Reuse of vessels 20+20 Years
- ✓ A fully closed tank system for storage of water



Thank you for your time

For brochure and video kindly see our home page: www.vironor.com