

### **Company Presentation**

### **Cautionary Statement**

#### **Forward-Looking Statements**

This presentation contains "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended. Although the forward-looking statements in this presentation reflect the good faith judgment of management, forward-looking statements are inherently subject to known and unknown risks and uncertainties that may cause actual results to be materially different from those discussed in these forward-looking statements. Readers are urged to carefully review and consider the various disclosures made by us in our reports filed with the Securities and Exchange Commission, including the risk factors that attempt to advise interested parties of the risks that may affect our business, financial condition, results of operation and cash flows.

If one or more of these risks or uncertainties materialize, or if the underlying assumptions prove incorrect, our actual results may vary materially from those expected or projected. Readers are urged not to place undue reliance on these forward-looking statements, which speak only as of the date of this release. We assume no obligation to update any forward-looking statements in order to reflect any event or circumstance that may arise after the date of this presentation.



### **Experienced Senior Management**



Sune Mathiesen CEO

- Most recently CEO and majority owner of Provital Solutions A/S
- ▶ Broad experience in management and held several senior executive positions in listed companies
- ▶ Broad experience in sales and business development in global markets



Claus Toftegaard
CFO

- Most recently CFO of Gabriel Holding A/S, a publicly listed fabric company
- Previously served as CFO of RTX A/S, a publicly listed wireless company
- ► Financial Manager of Glenco A/S, a Danish mechanical services company

### **Company Overview**



#### ► <u>DPF</u>

► Retrofitted nearly 2 million large vehicles with DPF since our founding in 2000

#### **► WATER TREATMENT**

➤ Since 2014 we have been successful in getting large scale references in: Mining, oil & gas, pool & spa, drinking water, power plants and marine scrubbers

### **Company Overview**

LiqTech has placed orders for additional furnaces and plans to triple its production capacity by July 2020



Hobro, Denmark

- ► Corporate headquarters
- Systems manufacturing
- ► R&D Systems



Ballerup, Denmark

- ► Membranes manufacturing
- ▶ DPF manufacturing
- ► R&D Membranes and Emission Control



Minneapolis, USA

▶ DPF manufacturing



### 2019-20 Highlights

## COMMERCIAL BREAKTHROUGH IN 2019 FOR MARINE SCRUBBERS

- The Company achieved meaningful market traction in 2019 for its proprietary ceramic silicon carbide water filtration systems in the marine scrubber market.
- FY 2019 revenue of \$32.6 million, an increase of approximately 167% (or 182% at constant currency) compared to fiscal year 2018 revenue of \$12.3 million

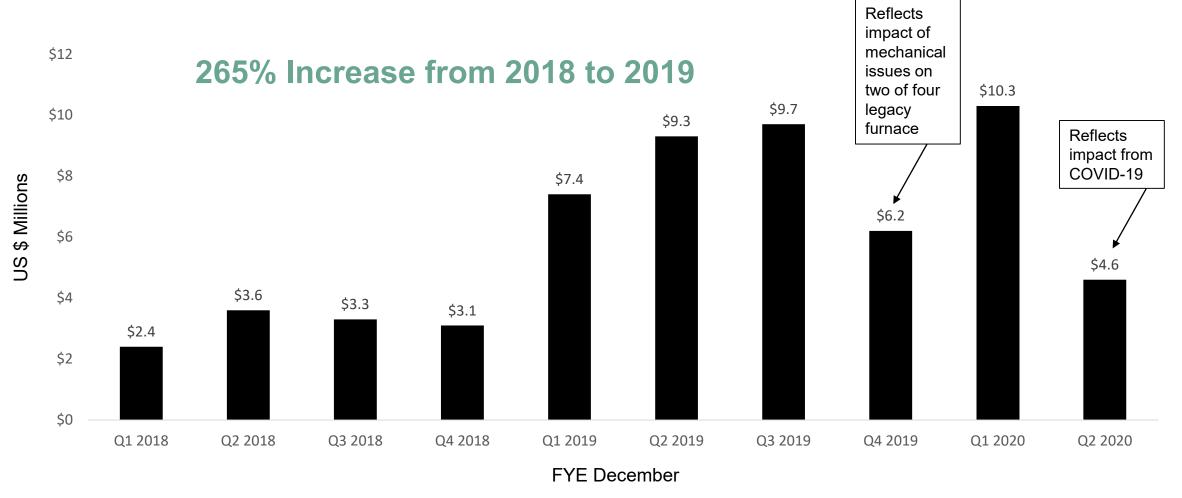
# EXPANSION INTO ADJACENT MARKETS AND MANUFACTURING IMPROVEMENTS

- Formed joint venture to supply water treatment systems for Middle East oil and gas industry.
- Launched standalone filter press for a wide range of industrial applications.
- Continued investment in new furnaces to increase total manufacturing capacity.
- Launched lower cost MK 6.1 marine scrubber filtration system
- Successful completion of the BS Plastics acquisition

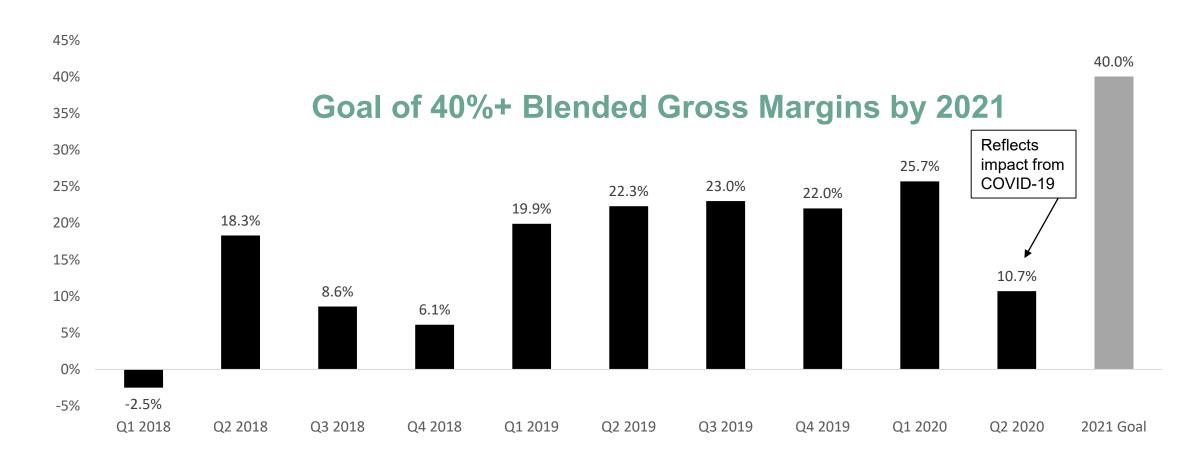
#### STRONG BALANCE SHEET

- Raised \$7.3 million in private placement in May 2020
- Ending cash balance as of June 30, 2020 of \$16.2 million

#### **Revenue Growth**

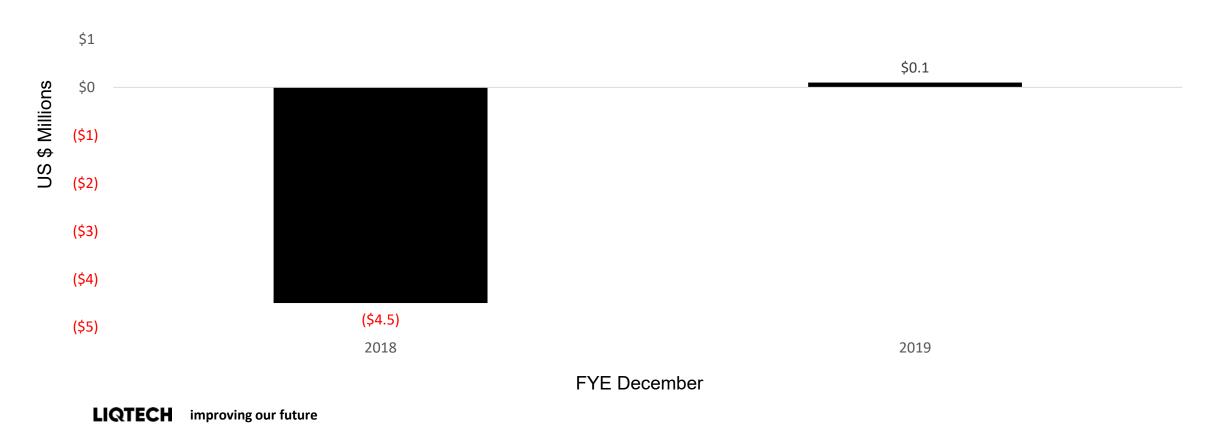


### **Gross Margin Improvement**



### **Operating Profitability**

### **Turned the Company profitable in 2019**



### Marine Scrubber Market **Update**



+100 Global Ports Banning Open Loop Discharge



### **Scrubber Market Opportunity**

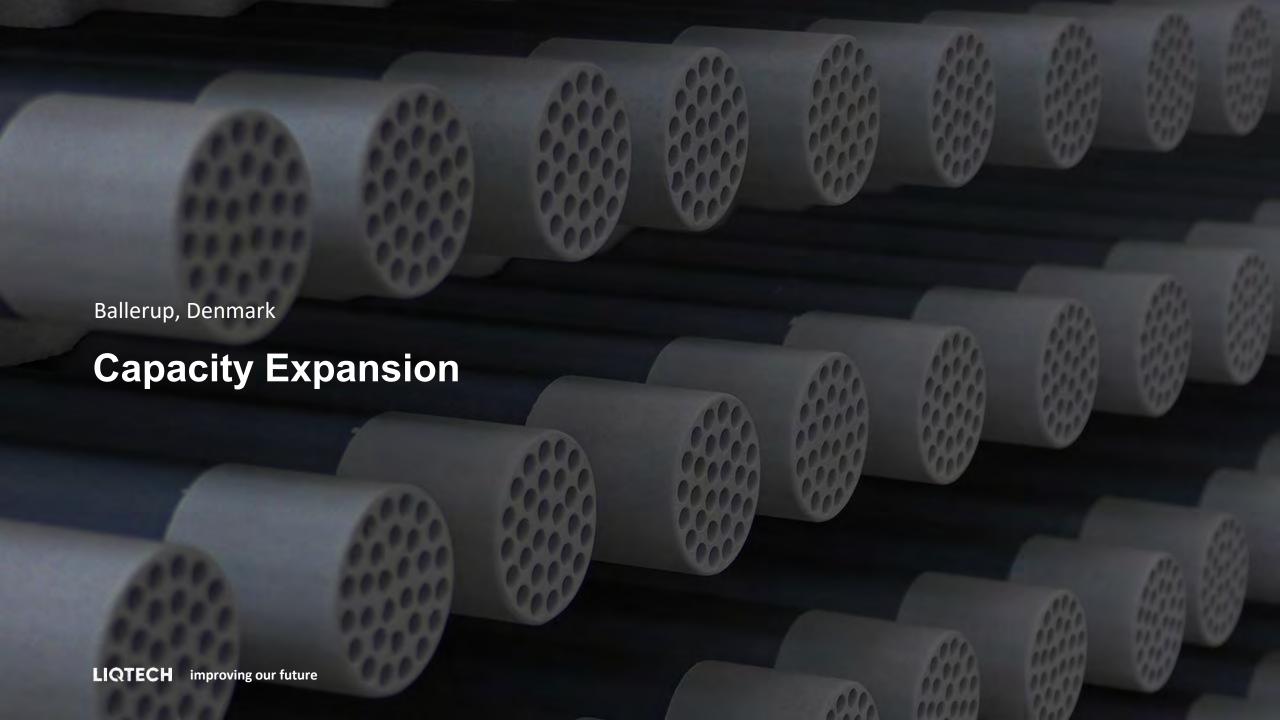
- The marine scrubber market is moving from open loop systems to closed loop systems
  - 10% closed loop in 2019, expected to be 25-50% closed loop for new retrofits between 2020 and 2025
- Key drivers for vessels moving from open loop to close loop
  - +90 ports around world banning open loop discharge
  - Anticipation of a global open loop discharge ban
  - End user desire for most environmentally favorable products



Of additional revenue opportunity for LiqTech between 2020 and 2025 from marine scrubbers

Through 2019		2020 Through 2025	
Total Scrubbers Installed	4,000	Total Additional Scrubbers Expected to be Installed	4,000 – 8,000
Closed Loop Installations	10%, or ~400	Closed Loop Installations	25-50%, or ~1,000–4,000
Current Addressable Market @ \$400,000/system	\$160 Million	Potential Addressable Market @ \$400,000/system	\$400 Million - \$1.6 Billion

TOTAL OPEN LOOP BAN WOULD CREATE \$3 - \$5 BILLION OPPORTUNITY



### Ramp Up / Investments

The Company recently ramped-up its capacity and now has a revenue capacity of \$150-200 million/year.

Investments

Furnaces #1-4: \$4 M

Power Central (3600 AMP): \$0.8 M

Cooling Plant (5400 kW): \$0.8 M



**Power Central** 



**High Temp Furnace** 

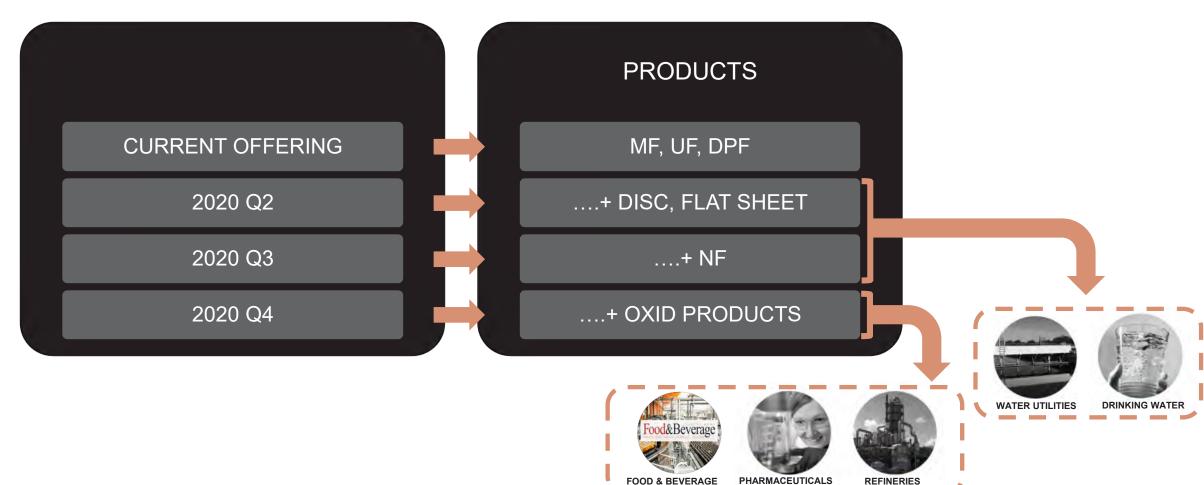


**Transformer Supply** 



**Cooling Plant** 

### Membrane Products & Development



### **New Products** - Marine

New MK7 Standardized Water Treatment System

Water Maker – Desalination

Bilge Water Treatment System

NOx Reduction System

Black Carbon Reduction System

Pool System for Cruise Ships & Yachts

**Lower Cost** More Efficient

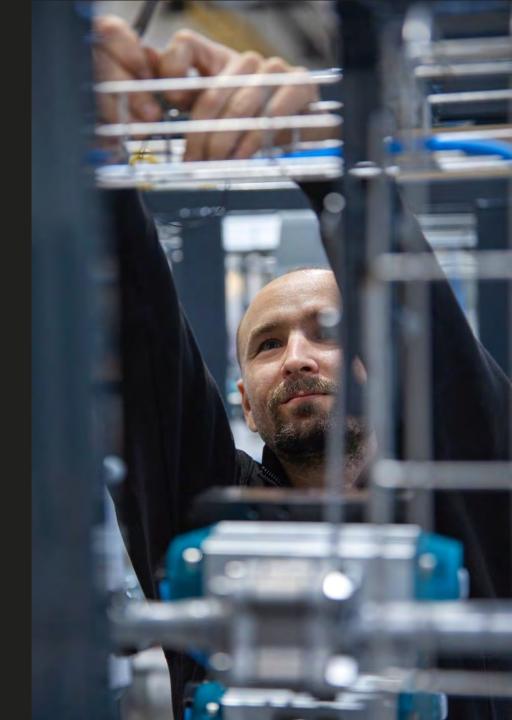
Ceramic / RO

**Tightening** legislation

**Tightening** legislation

**Tightening** legislation

Water Quality Smaller Footprint



### **New Products**

**OEM Membranes** 

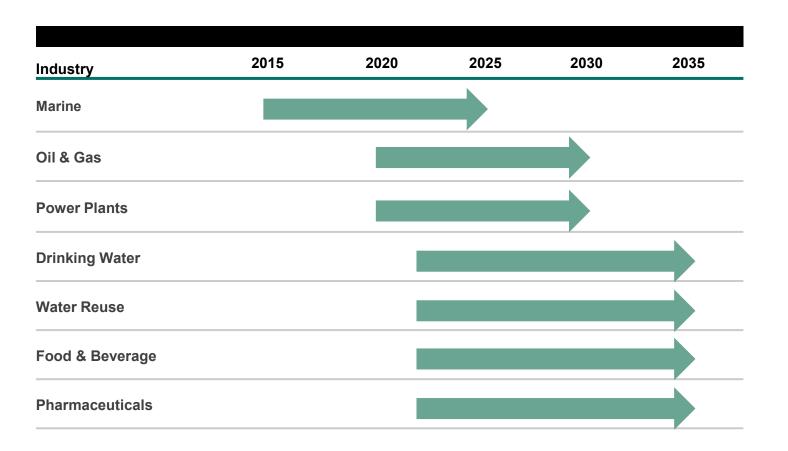
Filter Press – Stand Alone Systems

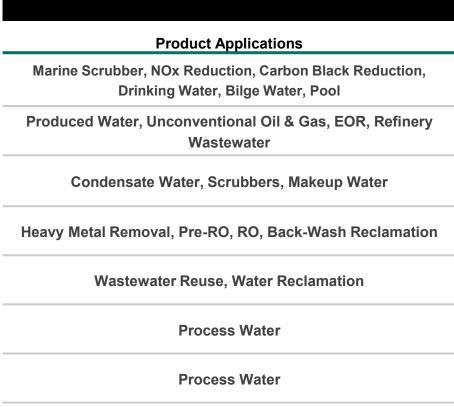
**Estimated Market Size** \$8 BN

Estimated Market Size \$3 BN



### **Future Addressable Market Opportunities**

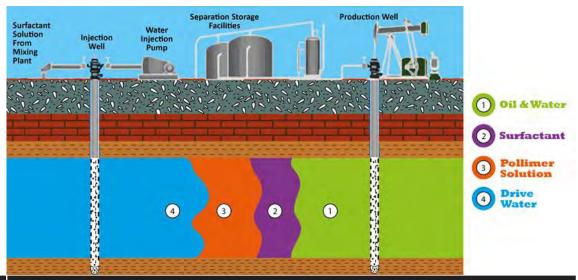






### **What Is Produced Water?**

- Natural formation water and/or injection water
- Up to 10 barrels water per 1 barrel of oil!



Produced Water Treatment Scenario	Purpose	
Discharge	<ul> <li>To meet discharge levels for Oil in water concentrations (OiW)</li> <li>Conventional technology challenged (Walnut shell filters and flotation units</li> <li>Recover more oil</li> </ul>	
Re-injection	<ul> <li>Protect formation – maintain reservoir permeability</li> <li>Recover more oil</li> <li>Extend well lifetime</li> <li>Protect high pressure pumps</li> <li>Bacteria removal (for H2S reduction)</li> </ul>	
Other purposes	<ul><li>Pre-RO</li><li>Irrigation</li><li>Cooling systems</li></ul>	

### BackgroundOil & Gas Produced Water

New regulations combined with geological restrictions and local water scarcity, the drive to have a greater fraction of the PW more extensively treated and ultimately **reused** is increasing. Moreover, the growth in the application of water intensive processes to extract **unconventional oil & gas resources**, in particular shale plays and oil sands, has increased the need for cost-effective treatment and reuse of PW to reduce freshwater uptakes.

By technology, the tertiary produced water treatment systems segment is expected to hold prominent value shares of the global produced water treatment systems market. This has majorly resulted from the increasing technical advances over the years to eliminate more than 95% contaminants from produced water.

Source: Future Markets Insights

**Market Value in 2019** 

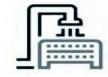
~ US\$ 3,659 Mn

CAGR for 2019-2029 ~ 5.7%

**M** 

**Lucrative Segment** 

**Tertiary Systems** 





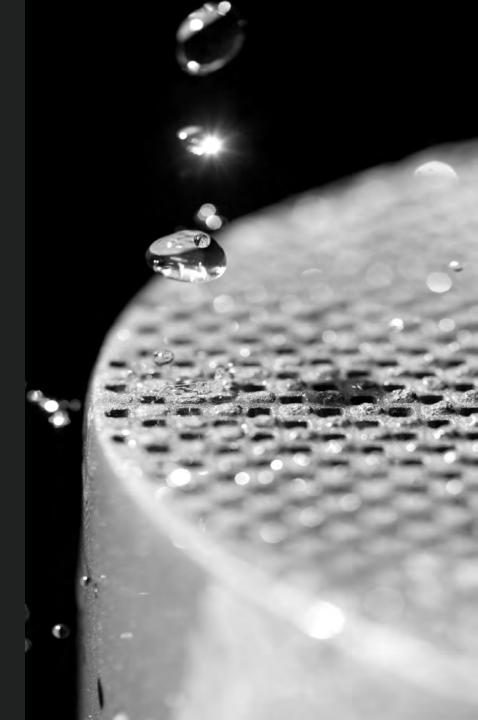
### **Application Opportunities** - Oil & Gas

Application	Objective	LiqTech Potential
Produced water	Surface discharge Re-injection Re-use for other purpose	Meet tightening environmental legislation Facilitate re-injection in low permeable reservoirs – increase well lifetime Water scarcity – reuse for injection or irrigation
Unconventional/EOR	Flowback from fracking SAGD Polymer flooded produced water	Water scarcity – reuse for injection or irrigation Water scarcity – reuse for injection or irrigation Facilitate re-injection
Refinery wastewater	Ceramic MBR Removal of heavy metals Wet gas scrubbing	Limited insight Limited insight Limited insight

### Why Use Membranes For **Produced Water Treatment?**

SiC strengths towards conventional technologies for tertiary treatment of produced water:

- Solution to oil emulsions
- Solution to heavy oil where hydro cyclones are challenged
- Solution to polymer flooded produced water
- SiC membranes can handle fluctuations in TSS, oil concentration and temperature in the feed and deliver consistent permeate quality (OiW typically less than 2 ppm OiW and TSS less than 1 ppm)
- SiC membranes potentially offers both secondary and tertiary treatment in one step (lower flow rates)



### Why Use SiC Membranes For **Produced Water Treatment?**

SiC strengths towards other membrane materials:

- SiC membranes have shown less fouling tendency at field head to head comparisons and thus more stable operating conditions than oxide membranes (Al<sub>2</sub>O<sub>3</sub> and TiO<sub>2</sub>), e.g.
  - PW-reinjection in China
  - PW-discharge gas condensate in North Sea
  - PW-reinjection in Europe

Weight, footprint and energy reduction due to higher permeability of SiC membranes

**Chemical resistance** in order to ensure efficient cleaning of membranes for worst case scenarios (severe scaling)

**Process know-how** for Produced Water treatment

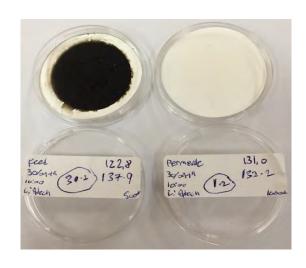


### PWT for Re-Injection (On-Shore)

Middle East (Q3 2019) - short term demand for large installations



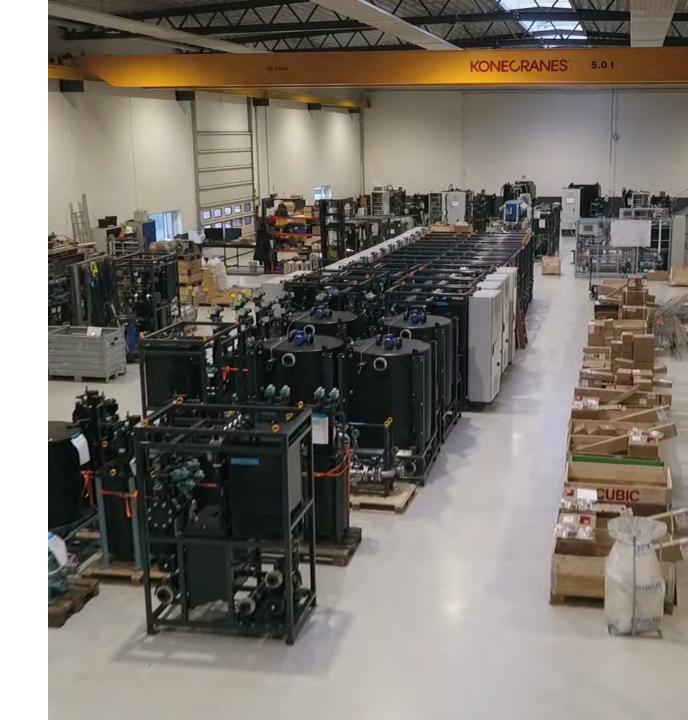




	Success criteria's	Performance	Unit
OiW	< 10.0	< 0.5	ppm
TSS	< 5.0	< 2.0	ppm
Recovery	> 90	> 90	%

### LiqTech Oil & Gas Application Summary

- Entered in 2009 too early for membrane technology?
- Exited the industry in 2014 following a large drop in oil prices
- We are currently repositioning ourselves in the industry
- Increasing environmental awareness and tightening legislation
- Launch of unconventional oil & gas exploitation
- Maturing/saturation of oil reservoirs call for higher water treatment capacity and efficiency
- Unique combination of membrane producer and system integrator
  - Products and process experts



### **LiqTech Brand**



#### **Brand Promise**

"As a pioneer, and the leader on development, manufacturing and supply of revolutionary silicon carbide ceramic technology for purification of liquids and gasses, we at LiqTech have committed ourselves to help solving the environmental challenges caused by the constantly improving global lifestyle.

We are here to clean water for oil, pathogens and heavy metals, and to take an active role in reducing world pollution. We care about the future, and at the same time about growth. We see it as our mission to enable companies to grow stronger while meeting the environmental demands of tomorrow. That means the world to us."

### **Sustainable Development Goals**

### - 17 Goals to Transform Our World









### LIQTECH