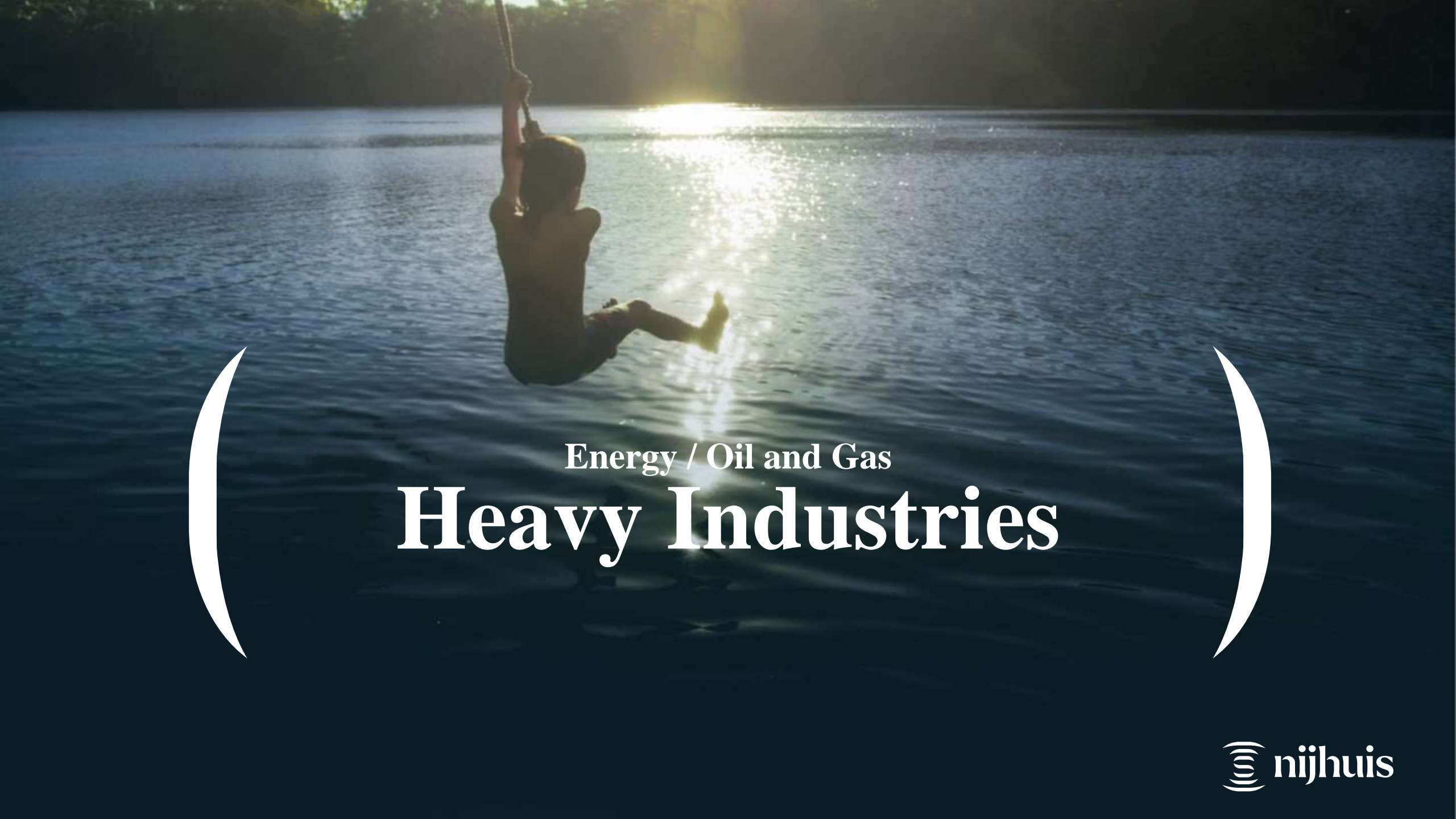


# Our References

Dmitry Molokanov – Regional Director - Central Asia & CIS



Energy / Oil and Gas

# Heavy Industries

# Bu Attifel / Man Ferrostaal | Libya



## Unidro Solution:

Complete produced water treatment train including phase separator, IGF, nutshell filters

## Design Flow:

1000 m<sup>3</sup>/h produced water

**Start date: 2007**



# Bir Seba / JGC / Sonatrach | Algeria



## Unidro Solution:

Produced water treatment and open drain package including CPI, IGF, MM filters, cartridge filters, chemical dosing units, backwashing facilities

## Design Flow:

- 72m<sup>3</sup>/h produced water
- 15m<sup>3</sup>/h open drains package

**Start date:** 2012



# SAGD | Canada

## Nijhuis Solution:

Produced water treatment from SAGD including Electrocoagulation, Flotation, Advanced Oxidation

**Design Flow:** 110m<sup>3</sup>/h

**Performance:** 94% Silica removal, 98% TSS removal, 99% O&G removal and 99,9% H<sub>2</sub>S removal

**Start date:** 2019



# Cerro Verde | Peru



## Installation Facts:

**Industry:** Mining

**Design flow:** 10 m<sup>3</sup>/hr

**Technology:** Flocculation-flotation-compressed air sandfilter

**Performance:** TSS < 5 mg/l

**Start date:** 2017



# Halliburton | Global

## Installation Facts:

**Projects:** Approx. 25 units globally in operation

**Design flow:** Up to 15 m<sup>3</sup>/hr – 1 GPM – 2000 BBL/day

**Process:** Flocculation, Flotation system

MODULUTIONS-CONTAINER or SKID

**Achieved quality:** < 10 mg/l TSS, < 20 mg/l O&G, (world maritime standards)



# PetroChina | China

## Installation Facts:

**Industry:** Steam assisted gravity drainage

**Design flow:** 900 m<sup>3</sup>/hr - 65 GPM -  
125.000 BBL/day

**Technology:** CPI-Flocculation-Flotation-  
Filters

**Achieved effluent quality:** < 2 mg/l Oil,  
< 2 mg/l TSS, suitable for re-injection





# Jurong Rock | Singapore

## **Nijhuis Solution:**

Collection basins, coagulation /flocculation, DAF, UV disinfection

**Application:** Treatment of oil storage water to sea water discharge and water reuse in the oil storage Jurong Rock caverns

**Design Flow:** 1800 m<sup>3</sup>/hr (3 streets)

**Start date:** 2013



# ATT Tanjung | Malaysia

## Installation Facts:

**Industry:** Petro tank farm wastewater

**Design Flow:** 150 m<sup>3</sup>/hr

**Technology:** DAF (ATEX Zone 1)

**Start date:** 2015



# Tank Terminal | Amsterdam, the Netherlands

## Installation Facts:

**Industry:** Tank terminal wastewater

**Design Flow:** 100 m<sup>3</sup>/hr max.

**Technology:** Flocculation system, concrete Flotation system

**Application:** Treatment of wastewater

**Start date:** 2011



# BPGIC Fujairah Terminal | United Arab Emirates

## Installation Facts:

**Industry:** Petrotank farms wastewater

**Design Flow:** 40 m<sup>3</sup>/hr

**Technology:** Flocculation, Flotation

Start date: 2017



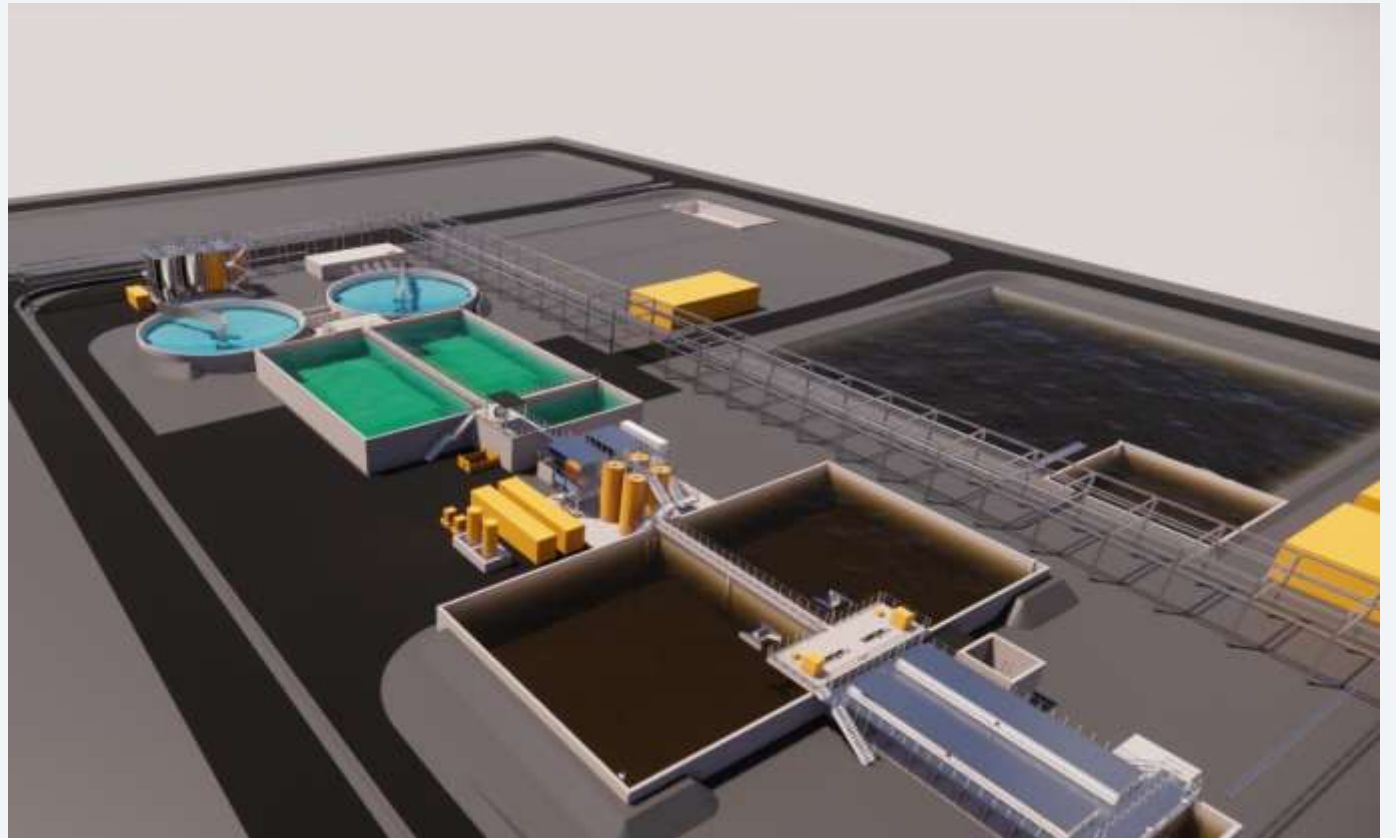
# ANOPC/PETROJET | Egypt

**Industry:** Refinery wastewater

**Nijhuis Solution:** Spent Caustic / API (NOF) / Coagulation Flocculation-Flotation / Biological / Clarifier / Sandfilter / Carbopure

**Design Flow:** up to 500m<sup>3</sup>/h

**Start date:** 2020



# Biomass Powerplant | Denmark



## Condensate Water Treatment

**Application:** Purify the flue gas condensate from the condensers and/ or humidifier containing toxic compounds

**Technology:** Ultrafiltration, stripping, two-pass reverse osmosis desalination, final metal removal on selective ion exchange resins, membrane degasser, electro deionization

**Start date:** 2019



# BP Lingen | Germany

## Installation Facts:

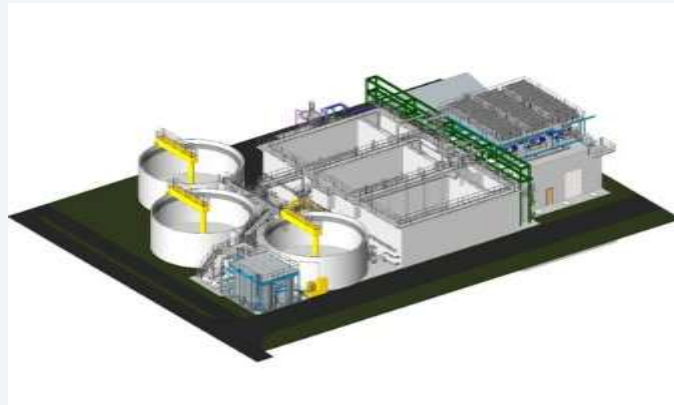
**Industry:** Refinery wastewater

**Design Flow:** 325 m<sup>3</sup>/hr

**Technology:** 3x Dissolved Nitrogen Flotation, biological treatment and sand filters

**Application:** Oil/water separation after sedimentation (ATEX Zone 1)

**Start date:** 2017 (phase 1), 2020 (phase 2)



# Neste Refinery | Finland

## Installation Facts:

**Industry:** Refinery wastewater

**Design Flow:** 1,000 m<sup>3</sup>/hr

**Technology:** DAF, biological treatment  
Application: Treatment of wastewater into surface water standards (ATEX Zone 1)

**Start date:** 2020





# Marafiq | Saudi-Arabia

## Installation Facts:

**Industry:** Utilities wastewater

**Design Flow:** 20,000 m<sup>3</sup>/d

**Delivery:** Flocculation-flotation-sludge (DBFMO)

**Start date:** 2016



# Orlen Biorefinery | Poland

## **Nijhuis Solution:**

CPI / Flocculation-Flotation / Biological MBBR / Anaerobic digestion from sludge / dewatering

**Design Flow:** up to 4000m<sup>3</sup>/h

**Application:** Treatment of rain water & biodiesel & energy into surface water standards

**Start date:** 2020



# Azomures | Tirgu Mures, Romania

## Installation Facts:

**Industry:** Mineral fertilizer

**Design Flow:** 22,000 m<sup>3</sup>/d

**Delivery:** Biological treatment for removal of Melamine (nitrogen).

**Start date:** 2016



# Refinery | Kazakhstan

## Installation Facts:

**Industry:** Refinery wastewater

**Design flow:** 1,200 m<sup>3</sup>/hr

**Technology:** Flocculation-flotation

(ATEX Zone 1)

**Application:** Oil / water separation

**Delivery date:** 2016 (confidential client)



# Sibur Chemprom | Russia

## Installation Facts:

**Industry:** Petrochemical wastewater

**Design flow:** 350 m<sup>3</sup>/hr

**Technology:** Flocculation-flotation-sludge dewatering

**Application:** Oil / water separation

**Start date:** 2015



# Lukoil Burgas | Bulgaria

## Installation Facts:

**Industry:** Refinery wastewater

**Design Flow:** 288 m<sup>3</sup>/hr

**Technology:** Aquarake, CCS, Flocculator, Flotation, Continuous Biological Treatment

**Start-up date:** 2008



# Lube Park Facility | Singapore

## Installation Facts:

**Industry:** Petrochemical wastewater

**Design Flow:** 400 m<sup>3</sup>/hr

**Technology:** Corrugated plate interceptor (CPI)

**Start date:** 2015



# Sibur | Russia – Grand Opening, May 2021





# Food and Dairy

# Umalat | Russia

## Installation Facts:

**Industry:** Mozzarella cheese

**Flow:** 700 m<sup>3</sup>/d

24hrs/d

**Technology:** Filter Floc.Flot.  
Sludge

Dewatering

Dewatering screw

**MODULATIONS:** Box frame

**Installation:** 2017



# Friesland Campina | Borculo, the Netherlands

## Installation Facts:

**Industry:** Dairy

**Design Flow:** 100 grams ozone installation

**Solution:** Ozone unit

**Application:** Cooling water disinfection

**Start date:** 2017



# Pepsico, Frito-Lay-Azov | Russia

## Installation Facts:

**Industry:** Potato Processing

**Flow:** 80 m<sup>3</sup>/hr (0,50 MGD)

**Solution:** Filter, flocculation, flotation

**Application:** treatment of wastewater for a potato processing plant

**Installation date:** 2008



# SintiAS | Turkey

## Installation Facts:

**Industry:** Potato Processing

**Design Flow:** 2,500 m<sup>3</sup>/d

**Technology:** Curved screen, Boil out storage system, Gravity separation, AECOMIX™ Anaerobic EGSB, BIOCTOR Aerobic MBBR

**Application:** Treatment of potato wastewater into clean water discharge

**Biogas production:** 1,770 m<sup>3</sup>/day

**Installation:** 2017



# Mondelēz, Opavia | Czech Republic

## Installation Facts:

**Industry:** biscuit production

### Flow:

- stage 1: max. 672 m<sup>3</sup>/day, average 370 m<sup>3</sup>/day

- stage 2: max. 1130 m<sup>3</sup>/day, average 635 m<sup>3</sup>/day

**Solution:** MODOLUTION-CONTAINER:  
filter, coagulation/flocculation, flotation,  
screw press

**Application:** treating biscuit production  
wastewater to COD<sub>Cr</sub> < 1300 mg/l

**Installation date:** 2017



# Dew Valley | Thules, Ireland

## Installation Facts:

**Industry:** Bacon processing

**Design Flow:** 1,000 m<sup>3</sup>/d

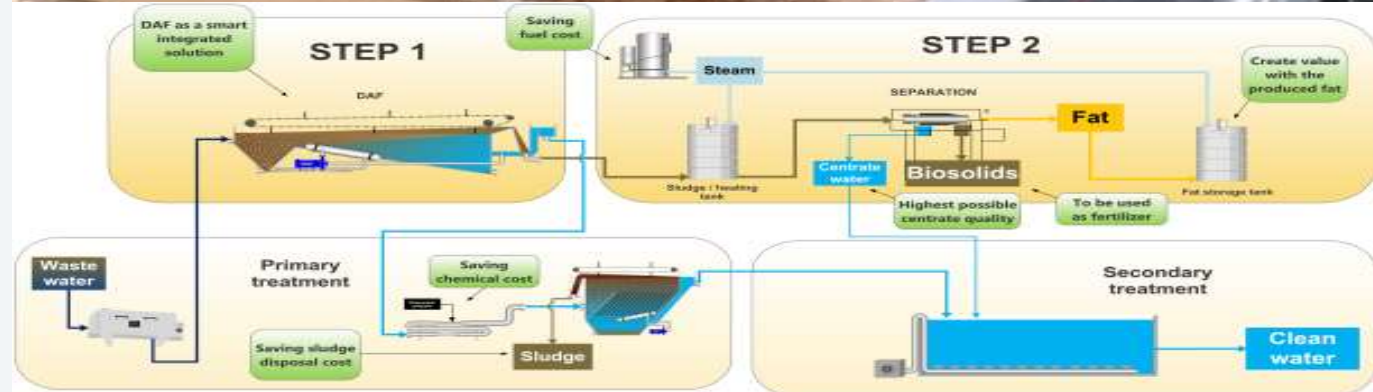
**Fat recovery:** 10 m<sup>3</sup>/d

**Use:** Supplies factory with thermal energy

**ROI:** < 1.5 year

**Delivery:** AECO-FAT solution

**Start date:** 2009



# Chocolate factory | Dubai, U.A.E.

## Installation Facts:

**Industry:** Confectionary wastewater

**Design Flow:** 125 m<sup>3</sup>/d

**Biogas:** approx. 1,400 m<sup>3</sup>/d

**Delivery:** Filter-anaerobic-aerobic-polishing

**Start date:** 2013





# Nestle Perm | Russia

## Installation Facts:

**Industry:** Cereals and confectionary production wastewater

### Design Flow:

220 m<sup>3</sup>/day - average (waste water) 315

m<sup>3</sup>/day - maximum (waste water)

2 m<sup>3</sup>/day (waste products)

**Biogas:** approx. 1400 Nm<sup>3</sup>/day

**Delivery:** Filter (NTF) -anaerobic treatment (AECOMIX™-DGF) aerobic treatment (BIOCTOR)-sludge screw press (NSP)

**Start date:** 2019



# Unilever - Minburi | Thailand

## Installation Facts:

**Industry:** Ice cream production wastewater

**Design:** 50 m<sup>3</sup>/h, TSS: 1,000 - 2,000 mg/l

Oil and grease: 1,000 - 1,500 mg/l

**Solution:** Flotation

**Application:** Treatment of ice cream wastewater: 90% TSS and 95% O&G removal

**Start date:** 2018



# Unilever - Tzfat | Israel

## Installation Facts:

**Industry:** Chocolates, cereals, cooking & baking ingredients

**Design:** 60 m<sup>3</sup>/day sweet stream, 7 days/wk, 25 m<sup>3</sup>/day salty stream, 1 day/wk

**Solution:** Flocculation, Flotation

**Application:** Treatment of wastewater to TSS >100 mg/l and O&G >100 mg/l

**Start date:** 2013



# Unilever - Indonsa | South Africa

## Installation Facts:

**Industry:** Process water + meal prep effluent stream dry savoury products

### **Design:**

DAF Plant: max. 45 m<sup>3</sup>/d

Rainwater: max. 50 m<sup>3</sup>/d

**Application:** Wastewater treatment (DAF Plant) and rainwater filtration plant (Sand Filter and CarboPure)

**Start date:** 2012



# Mars Newmarket | United States

## Installation Facts:

**Industry:** Chocolate

**Design Flow:** 0, 26 MGD

**Technology:** Screen, balance tank, Flocculation, Flotation and Electrical panel

**Solution:** chemical physical DAF

**Start date:** 2019-2020



# Meat References

# Gobarto (PKM Duda) | Poland

## Installation Facts:

**Design Flow:** 1.000 m<sup>3</sup>/d

**Delivery:** filter – floc. – flot. –  
MBR – SBR – sludge dewatering

**Application:** WWTP

**Project start-date:** 2010



# Animex | Poland

## Installation Facts:

**Design Flow:** 5.500 m<sup>3</sup>/d

**Delivery:** filtration – flocculation – flotation  
– biology – activated sludge flotation –  
sludge dewatering – AECO-FAT (future)

Water treatment system

**Application:** Poultry WWTP





# CJS Poultry Farm Roskar | Russia

## Installation Facts:

**Industry:** poultry processing

**Flow:** 6000 m<sup>3</sup>/day

**Solution:** Pretreatment, biological treatment, intelligent dosing, sludge dewatering

**Application:** Treatment of poultry wastewater into river water discharge quality

**Start date:** 2017



# Prioskolye | Russia

## Installation Facts:

**Industry:** Poultry wastewater

**Design Flow:** 340 m<sup>3</sup>/h

**Solution:** Filter, flocculation, flotation, biological treatment, sand filters, dewatering

**Application:** Treatment of poultry wastewater to river water conditions

**Start date:** 2013



# Al-Watania | Saudi Arabia

## Installation Facts:

**Industry:** poultry processing

**Flow:** 6000 m<sup>3</sup>/day

**Technology:** filter, flotation, continuous biological, clarifier, sand filter, dewatering

**Installation date:** 24-12-2016



# Oril-Leader | Yelyzavetivka, Ukraine

## Installation Facts:

**Industry:** Poultry waste & wastewater

**Design Flow:** 800 ton/d

**Electricity:** 5,5 Mwh

**Delivery:** Digesters-H<sub>2</sub>s scrubbers-CHP

**Start date:** 2013



# Rzeczyca | Poland

## Installation Facts:

**Industry:** Agricultural waste

**Design Flow:** 105 ton/d

**Electricity:** 1 Mwh

**Delivery:** Digesters-screw press-dryer- CHP

**Start date:** 2016



# Agrosuper La Manga | Chile

## Installation Facts:

**Industry:** Pig manure

**Delivery:** FAN separators-  
flocculator-DAF-aerobic  
treatment-DAF-decanter

**Application:** Treatment of  
digestate into flush water and thin  
fraction



# Groot Zevert Vergisting | Beltrum, the Netherlands

## Installation Facts:

**Industry:** Manure treatment + cosubstrate

**Design Flow:** 100.000 ton per year

**Green minerals:** green meadow (Nitrogen-Potassium), phosphate, organic soil improver

**Blue minerals:** Clean water

**Delivery:** Decanter, Flotation unit, 2 stage Membrane filtration, Reverse Osmosis, ion-exchange

**Startdate:** Dec. 2018



# Municipal References



# MWWTP 15,000 PE | Canada

## Installation Facts:

**Industry:** Municipal Wastewater

**Design flow:** 220 m<sup>3</sup>/hr

**Technology:** i-NEC (electro coagulation)  
+ DAF + Media filter

## Performance:

**Total P** 99% removal

**TSS** 94% removal

**H<sub>2</sub>S** 99% removal

**Coliform** 97% removal

**E. coli** 99.8% removal

**BOD** 91% removal

**Start date:** 2019



# A.W.W. | Antwerpen, Belgium

## Installation Facts:

**Industry:** Potable water supply

**Design Flow:** 14,400 m<sup>3</sup>/d

(divided over 3 streets)

**Technology:** 3x Setler- 3x DAF

**Application:** Recovery of Sand  
Filter backwash water

**Start date:** 2016



# Vinci Construction | Ajaccio, France

## Installation Facts:

**Industry:** Municipal wastewater

**Design Flow:** 39,000 m<sup>3</sup>/d (2 street)

**Delivery:** Flocculation-flotation  
(2x *activated sludge flotation units*)

**Start date:** 2012



# City of Baltimore | USA

## Installation Facts:

**Industry:** Municipal wastewater

**Design Flow:** 1,000 m<sup>3</sup>/h

**Delivery:** Polishing DAFs

**Start date:** 2015



# PUB / Keppel | Singapore

## Installation Facts:

**Industry:** Desalination

**Design Flow:** 15,000 m<sup>3</sup>/hr

**Technology:** 8 concrete High Rate i-DAFs

**Application:** Pre-treatment of sea water and surface water

**Start date:** 2020



# 1-STEP<sup>®</sup> FILTER | the Netherlands

## Installation Facts:

**Industry:** Municipal wastewater  
(from pilot to full scale)

**Design Flow:** 1,550 m<sup>3</sup>/h

**Solution:** Comprehensive one step  
polishing technology

**Application:** treatment of municipal  
wastewater to remove TSS,  
Phosphorus, nitrate and  
micropollutants

**Start date:** 2013



# Furniture retailer | Krasnodar, Russia

## Installation Facts:

**Industry:** Wastewater from shopping mall

**Design Flow:** 1000 m<sup>3</sup>/d

**Technology:** Pre-treatment, biological treatment with Organica-FCR, polishing

**Application:** Sanitary wastewater treatment as Botanical Garden Solution

**Start date:** 2019



# Reference

STWP Dinther – The Netherlands



## Installation Facts:

**Industry:** Municipal wastewater

**Design Flow:** 2600 m<sup>3</sup>/h – PACAS, 300 m<sup>3</sup>/h Ozone

**Application:** 70% removal of pharmaceuticals

**Technology:** PACAS + MicroOxi (single technology and combination)

**Current status:** Engineering phase starts in April 2022

**Start build:** Dec 2022

**Realisation:** Dec 2023

**OE total project:** 5 mio EUR

**OE NSI:** 1.5 mio EUR





# Paper-Pulp Water Solutions

# Solidus Solutions | the Netherlands



## Installation Facts:

**Design Flow:** 70 m<sup>3</sup>/h

**Delivery:** Design, delivery, construction and start-up  
ECONVERT - IR® + biogas treatment

**COD:** max. 5100 per kg/d

**Biogas:** Max. 80m<sup>3</sup>/h



# Smurfit Kappa Parenco | NL



## Installation Facts:

**Design Flow:** 800 m<sup>3</sup>/h

**Delivery:** Design, delivery, construction and start-up ECONVERT

- IR® +

ECONVERT- DSULPH®

**COD:** 68 ton per day

**Biogas:** 800m<sup>3</sup>/h – 20.000 m<sup>3</sup>/day



# Sical Groupe Rossmann | France



## Installation Facts:

**Design Flow:** 1000 m<sup>3</sup>/h

**Delivery:** Design, delivery, construction and start-up  
ECONVERT EGSB® + biogas flare and condensate pit

**COD:** 8500 kg/d

**Biogas:** 3000 m<sup>3</sup>/d



# Caesar Pac | Kuwait

## Installation Facts:

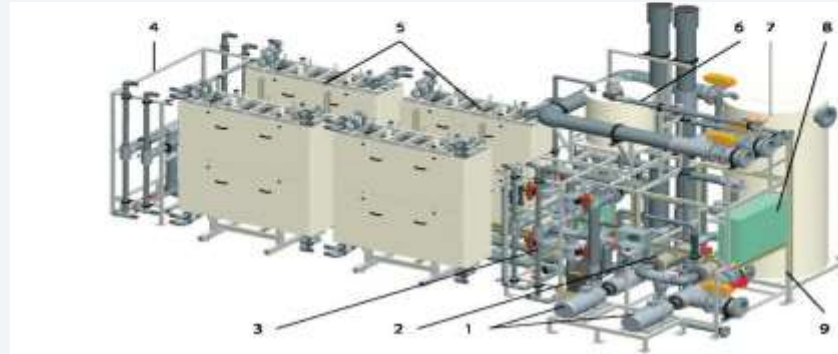
**Industry:** Paper mill

**Design Flow:** 4580 m<sup>3</sup>/d, 24 hrs

**Delivery:** Filter, flocculator, flotation, biological treatment (MBBR), ultra filtration, EDR, decanter (sludge dewatering)

**Application:** Water reuse for the process

**Project start date:** 2019



# Essity | the Netherlands

## Installation Facts:

**Industry:** Paper mill

**Design Flow:** 150 m<sup>3</sup>/h

**Delivery:** Flotation / Biological treatment – SO<sub>4</sub> removal

**Project start date:** 2019



# Pharma & Healthcare

# Boehringer - Germany

## **Nijhuis Solution:**

MicroOxi in MODULUTION.

(Ozone system)

## **Design Flow:**

10 m<sup>3</sup>/h

**Application:** Remove pharmaceutical residues as

pilot project

**Start date: 2016**





# Aflofarm - Poland

## Nijhuis Solution:

Filter, Biological Treatment, Activated Sludge

Design Flow:

75 m<sup>3</sup>/d max.

**Application:** Removal of pharmaceutical residues

**Start date:** 2016



# Biovet - Bulgaria

## **Nijhuis Solution:**

Pretreatment, Aerobic treatment and sludge management

## **Design Flow:**

4000 m<sup>3</sup>/d

**Application:** Treat wastewater from medicated and nutritional feed additives

**Start date:** 2020



# Pilot MediOxi | The Netherlands



## Installation Facts:

**Industry:** Hospital wastewater

**Design Flow:** 1-3 m<sup>3</sup>/h

**Technology:** MediOxi

**Application:** Removal of medicines, X-ray components and resistant antibiotics

**Start date:** Jan. 2019-Dec. 2020



# L'ORÉAL | Warsaw, Poland

WARSAW PLANT



Industrial  
Project of The  
Year 2021

## Installation Facts:

**Industry:** Reuse of cosmetic wastewater (shampoo, surfactants, nanoparticles, micropollutants)

**Design flow wastewater:** 400 m<sup>3</sup>/d

**Technology:** Filter-flocculation-flotation-biological treatment (MBR)-UF-RO- Chlorination

**Application:** 75% wastewater reuse as process water.

**Start date:** 2019 start-up





#missionwater