

Indonesian Business Mission to Germany – Waste management and recycling technologies

Monday, September 19, 2022 – Hamburg		
Individual arrival in Hamburg		
17.30	Meeting at hotel lobby	
17.45 – 18.00	Walk to restaurant	
18.00 – 20.00	Welcome dinner and briefing with all delegation members and econAN team	Restaurant Thämers Großneumarkt 10, 20459 Hamburg
	Overnight Stay in Hamburg	Motel One Hotel am Michel Ludwig Erhard-Str. 26, 20459 Hamburg
Tuesday, September 20, 2022 – Hamburg		
08.30 – 09.00	Transfer to venue	
09.00 – 13.00	Business Forum: Leading German companies' innovative waste management and recycling solutions Gracing the occasion: Consul General of the Republic of Indonesia in Hamburg, Mr Ardian Wicaksono	econAN international GmbH Ludwig Erhard Str. 18, 20459 Hamburg
13.00 – 14.00	Networking Lunch	Indonesian Catering at same venue
14.00 – 15.00	Transfer to venue	
15.00 – 17.00	Site visit: Waste incineration plant	Rugenbarger Damm 1, Hamburg https://www.stadtreinigung.hamburg/ueber-uns/muellerverwertung-anlagen/rugenberger-damm/
17.00 – 18.00	Transfer	
19:00	Dinner	Restaurant Krameramtsstuben 10 min. walk from hotel
Wednesday, September 21, 2022 – Hamburg		
08.00 – 8.30	Hotel Check-out	
08.30 – 09.30	Transfer to venue	
09.30 – 11.30	Site Visit: Paper recycling facility Gracing the occasion: Mayor of the city of Pinneberg: Ms Urte Steinberg	Ludwig Melosch Vertriebs-GmbH & Co. KG Am Hafen 76, 25421 Pinneberg https://melosch.de/en/startseite/services/services/recyclable-paper-processing/
11.30 – 12.30	Transfer	
12.30 – 13.30	Lunch	
13.30 – 14.30	Transfer	
14.30 – 16.30	Site Visit: Sewage Treatment Plant	Kläranlage Seehausen Seehauser Landstraße 99, 28197 Bremen https://www.hansewasser.de/wir-fuer-bremen/daseinsvorsorge-fuer-die-stadt/klaeranlagen/
16.30 – 17.00	Transfer	
19.00	Dinner	Novum Hotel Bremer Haus Lönningstraße 16 – 20, 28195 Bremen

Durchführer:

Thursday, September 22, 2022 – Osterholz Scharmbeck, Bremen

10.00 – 10.30	Transfer	
10.30 – 12.00	Company visit: Manufacturer of zero-emission municipal waste collection vehicles and sweepers	FAUN Umwelttechnik GmbH Feldhorst 4, 27711 Osterholz-Scharmbeck https://www.faun.com/en/products/
12.00 – 13.00	Lunch at FAUN factory cafeteria	
13.15 – 14.00	Transfer to venue	
14.00 – 16.00	Site visit: Waste to Energy plant	swb Entsorgung GmbH & Co. KG Müllheizkraftwerk MHKW, Oken 2, 28219 Bremen www.swb.de/
16.00 – 16.45	Transfer	

Friday, September 23, 2022

08.00 – 8.30	Hotel Check-out	
08.30 – 9.30	Transfer	
9.30 – 11.30	Site visit: Biogas plant	Energiepark Heinfelde Heinfelder Straße 18, 26169 Friesoythe www.energiepark-heinfelde.de Using technology of Tietjen Verfahrenstechnik GmbH www.tietjen-original.com/en/
	Transfer	
	Debriefing	
	Departure	

Cooperation Partners:



Deutsch-Indonesische
Industrie- und Handelskammer



German RETech Partnership
Recycling & Waste Management
Made in Germany

Mit der Durchführung dieses Projekts im Rahmen
des Bundesförderprogramms Mittelstand Global/
Markterschließungsprogramm beauftragt:



Das Markterschließungsprogramm für
kleine und mittlere Unternehmen ist ein
Förderprogramm des:



Bundesministerium
für Wirtschaft
und Klimaschutz



MITTELSTAND
GLOBAL
MARKTERSCHLIESSUNGS-
PROGRAMM FÜR KMU

Site Visits:

Waste incineration plant: MVB Rugenbarger Damm

The plant is owned by `Stadtreinigung Hamburg` which is owned by the city of Hamburg. It has been in operation since 1999. Around 150 deliveries of residual waste per day are mixed by the crane drivers into a mass that is as homogeneous as possible and then fed into the boiler for incineration.

The plant is designed for an annual throughput of around 320,000 tons of waste. This amount is recycled in two process lines: each with a grate furnace and a steam generator with an hourly throughput of 21.5 tons of waste each.

In the steam generator, the thermal energy from the combustion converts the boiler feed water into steam, which is used to generate electricity. However, the steam is also used for decoupling into Hamburg's district heating network.

Just like in the MVB, the delivered waste, properly mixed, usually has the calorific value of lignite. The boiler fire turns the waste into slag and combustion gas at temperatures between 900°C and 1000°C. In this heat, the dangerous dioxins and furans are thermally cracked. The incineration of the waste causes only a very small environmental impact. The pollutant values are often not even a tenth of the permissible limit values of the operating license, and these are usually well below the legally prescribed values from the Federal Immission Control Act.

Paper recycling facility: Ludwig Melosch Vertriebs-GmbH & Co. KG

Ludwig Melosch Group is an owner-operated family company active in many fields, such as the disposal of plastic, wood, scrap, industrial waste, hazardous waste or data carrier destruction. The efficient processing of waste paper is part of the day-to-day business. The paper company was founded in 1907.

The locations are equipped with modern technologies such as high-performance channel baling presses, optical sorting systems, efficient shredders and other technical systems. Trained specialist staff is responsible for sorting or finishing different paper fractions. Melosch presses, sorts or handles all types of paper.

All companies in the corporate group are certified in accordance with DIN EN ISO 9001:2008 and – depending on their focal area – as specialist disposal companies.

Sewage Treatment Plant: Kläranlage Seehausen

The plant is designed for a peak load of 1 million population equivalents. The wastewater fed in goes through a multi-stage cleaning process lasting around 45 hours before it is fed back into the river *Weser* and thus into the natural water cycle.

Around 130,000 cubic meters of wastewater are cleaned in this way every day. In rainy weather, more than twice this value is treated.

This includes most of the wastewater from the Bremen area, as well as from the neighboring municipalities of Lilienthal, Ritterhude, Stuhr/Weyhe and, to some extent, Oyten and Achim.

95% of the phosphorus (P total), 84% of the nitrogen compounds (N total) and 99% of the carbon compounds (BOD5) are removed from the wastewater.

Waste collection vehicles and sweepers: FAUN Umwelttechnik GmbH

FAUN Umwelttechnik GmbH provides waste disposal and street cleaning companies with vehicles that meet the latest technical standards and run reliably. Over 1,800 employees we work to deliver the FAUN brand promise of 'Reliable Progress' worldwide. Their ECOPOWER options mean you can determine how comprehensively you want to optimise your refuse collection vehicle fleet in terms of reducing fuel consumption, particulate matter and nitrogen oxide, along with noise and CO2 emissions.

The waste collection vehicles are built at this facility. They include the world's first hydrogen-powered waste collection vehicles.

Waste to Energy plant: Müllheizkraftwerk Bremen

swb AG supplies the cities of Bremen and Bremerhaven with natural gas, district heating, drinking water, electricity and waste disposal services. The predecessor company (Stadtwerke Bremen) was one of the oldest municipal utilities in Germany. It was privatized in 1999.

At the waste-to-energy plant household waste, commercial waste and sewage sludge is used to generate energy. Due to the conversion of boilers 1 and 4 to higher steam parameters and the energy optimization, the waste-to-energy plant in Bremen is now one of the most efficient plants in Germany and, at full capacity, can supply 270,000 megawatt hours of electricity and 200,000 megawatt hours of district heating in the combined heat and power (CHP) process.

Biogas plant: Energiepark Heinfelde

Energiepark Heinfelde is a certified waste management company specializing in animal by-products and organic waste. It operates waste fermentation plants, drying plants for industrial sludge, transport logistics, an industrial service and offers advice and management for biogas plants. In addition, it offers further disposal services with its sister companies BSN BioService Nord (food retail, canteen kitchens and food trade) and PHL Entsorgung (container service).

The plant uses technology of Tietjen Verfahrenstechnik GmbH:

Tietjen ensures that organic waste that is free of impurities for the use in composting and fermentation plants. The reliable separation of organic matter and foreign matter (packaging and impurities) is of decisive importance for the optimal recycling of organic waste. With the DRM system, Tietjen offers an innovative, complete system design from a single source that simultaneously shreds and ejects foreign matter. With this, organic waste can be optimally processed and recycled - as biogas or compost. The separated packaging can be thermally recycled.