

Welcome address of the host organization

Dr. Jan-Dirk Verwey
Managing Director
Entsorgungsbetriebe Lübeck

The PURE Project

- | Project on urban reduction eutrophication
- | Eutrophication in the Baltic Sea leads to massive algae growing
- | Investments in Phosphorus elimination on Waste water treatment plants
- | Sustainable Sludge handling



Hanseatic City of Lübeck

- | Founded in 1143
- | „Queen of the Hanseatic Period“
- | 210.232 inhabitants
- | Service area 215 km²
- | Media Docks harbour
from 1898 – 1942



Entsorgungsbetriebe Lübeck

- | Founded 1998
- | Company owned by the City of Lübeck
- | Responsible for
 - wastewater management
 - waste management
 - street cleaning and winter services
- | 510 employees
- | Turnover: 80 million EUR
- | Investment: 20 – 25 million EUR/a



MBA Lübeck

- | Waste treatment in a mechanical-biological waste treatment plant
 - In operation since 2006
 - Treatment of residual waste and biowaste
 - Fermentation gas, biogas
 - CHP plant

- | Landfill



Sludge handling

- | After investments in the aerated part like building new clarifiers, new aeration tanks and a filtration we now focus on topics like sludge treatment **in combination with energy production**
- | Our aims are:
 - Minimal pollution to protect the environment (CO₂, renewable energy)
 - Fee for the inhabitants as low as possible
 - Safe and good conditions for our employees

Welcome in Lübeck

and

Welcome to the workshop

on sustainable sludge handling

Morning program

- 09:30** Welcome words of the host organization
Dr. Jan-Dirk Verwey, Entsorgungsbetriebe Lübeck, Germany
- 09:45** Overview on PURE projects findings in sludge handling in the Baltic Sea Region
Juhani Anhava, Pöyry Plc, Finland
- 10:15** Characterisation of sludges – discussion on trends and developments affecting sludge strategies
Dr. Tim Evans, Convenor, European Committee for Standardization, Technical Committee 308 (CEN/TC 308) WG3, England
- 11:00** Comment: Experiences and challenges on sustainable sludge handling in Germany
Siegrid Mayer, hanseWasser Bremen, Rainer Könemann, Chairman DWA technical committee “EU-issues and strategy sewage sludge”, Germany
- 11:15** Introduction to technical solutions: Sludge handling in Lübeck
Enno Thyen, Entsorgungsbetriebe Lübeck, Germany
- 11:45** Discussion

Lunch break

12:00 – 13:00 Lunch break / Mittagspause
перерыв на обед / 午休

Afternoon program

- 13:00** Case example: Sludge handling in Bremen
Siegfried Mayer, hanseWasser Bremen, Germany
- 13:30** Case example: Sludge handling in Bottrop
Dr. Karl-Georg Schmelz, Emschergenossenschaft, Germany
- 14:00** Case example: Sludge handling (small and mid-size treatment plants)
Dr. Jörn Einfeldt, Privatinstitut für Klärtechnik, Bad Schwartau, Germany
- 14:30** Coffee Break

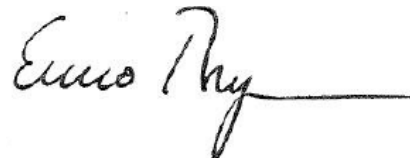
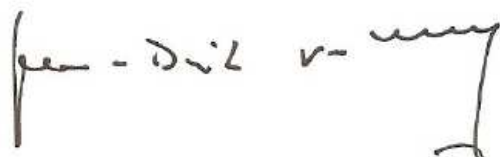
Afternoon program

- 15:00** Sludge disintegration: Improving anaerobic and aerobic degradation of biomass on waste water treatment plants
Dr. Klaus Nickel, Ultrawaves GmbH, Hamburg, Germany
- 15:30** Recovery of Phosphorus from Wastewater
Sebastian Petzet, Technical University of Darmstadt, Germany
- 16:00** Possibility for the future sludge treatment: High thermal carbonisation (HTC) Biochar
Kimmo Palmu, Technical University of Hamburg-Harburg, Germany
- 16:30** Wrap up and discussion
- 17:00** Workshop ending

We want to thank you for participation

We wish all participants a good coming home
Wir wünschen allen Teilnehmern eine gute Heimfahrt

Entsorgungsbetriebe Lübeck



More Information: www.purebalticsea.eu or send an email to jan-eric.luft@ebhl.de

Meeting PURE Partners 18:15 Lobby of the Hotel