



## Progress in Biogas IV – Workshops 1-4

University of Hohenheim, Stuttgart, Germany  
March 10, 2017

### Workshop 1

#### Sanitation – human faeces digestion and sewage gas

Venue: Lecture hall Ö1 (Ökologiezentrum)

Chairman: Heinz-Peter MANG, University of Science & Technology Beijing

09:00 – 10:30	<p><b>Human faeces and sewage gas digestion – Lessons learned from large and small scale digestion in DC, Haiti and Costa Rica</b></p> <ul style="list-style-type: none"> <li>• Pre- and post treatment and sterilization</li> <li>• Status quo and biogas potential</li> <li>• Recent case studies from developing countries</li> </ul> <p><i>Dr. Stephanie LANSING, University of Maryland, USA</i></p>
10:30 – 11:00	<b>Coffee break</b>
11:00 – 12:30	<p><b>Faecal sludge management in China</b></p> <p><i>Dr. Shikun CHENG, University of Science and Technology Beijing, China</i></p>
12:30 – 13:30	<b>Lunch in the cafeteria of the University of Hohenheim</b>

### Workshop 2

#### Digestion of N-rich substrates and digestate treatment

Venue: Lecture hall Ö2 (Ökologiezentrum)

Chairman: Michael KOETTNER, IBBK Fachgruppe Biogas GmbH

09:00 – 10:30	<p><b>How to digest fibrous and N-rich feedstocks</b></p> <ul style="list-style-type: none"> <li>• Characteristics of the substrates</li> <li>• Causes of an NH<sub>3</sub>-inhibition (feedstocks, NH<sub>3</sub>-formation, pH, temperature) and counter measures</li> <li>• Case studies and practical examples</li> </ul> <p><i>Emiliano BRUNI, Schaumann Bioenergy GmbH, Germany</i></p>
10:30 – 11:00	<b>Coffee break</b>
11:00 – 12:30	<p><b>Digestate treatment</b></p> <ul style="list-style-type: none"> <li>• Application and mangement of digestate</li> <li>• Treatment costs – profitability</li> </ul> <p><i>Ioana PETROVA., University of Hohenheim, Germany</i></p>
12:30 – 13:30	<b>Lunch in the cafeteria of the University of Hohenheim</b>



### Workshop 3

#### Process biology – stability of the biogas process and detection possibilities

Venue: Lecture hall Ö1 (Ökologiezentrum)

Chairman: Dr. Andreas LEMMER, University of Hohenheim

14:00 – 15:00	<p><b>Digester biology</b></p> <ul style="list-style-type: none"> <li>• Planning parameters for the biogas process depending on the substrate</li> <li>• Process control and troubleshooting</li> </ul> <p><i>Dr. Andreas LEMMER, University of Hohenheim, Germany</i></p>
15:30 – 16:00	<p><b>Coffee break during Birgit Pfeifers presentation</b></p>
15:00 – 16:30	<p><b>Measuring methods for process stability</b></p> <p><i>Birgit PFEIFER, Bioreact GmbH, Germany</i></p>
16:30 – 17:30	<p><b>Effect of trace elements on biogas process stability,</b></p> <ul style="list-style-type: none"> <li>• Function of elements in biogas processes</li> <li>• Effects of lack of trace elements</li> <li>• Bio-availability</li> </ul> <p><i>Dr. Emiliano BRUNI, Schaumann Bioenergy GmbH, Germany</i></p>

### Workshop 4

#### Methane yield of substrates, BMP-tests and pretreatment

Venue: Lecture hall Ö2 (Ökologiezentrum)

Chairman: Dr. Hans OECHSNER, University of Hohenheim

14:00 – 15:00	<p><b>Methane yield and potential</b></p> <ul style="list-style-type: none"> <li>• Quality of substrates and their influence on the methane yield</li> <li>• Methods for the analysis of bio methane yield of organic materials</li> </ul> <p><i>Dr. Hans OECHSNER, University of Hohenheim, Germany</i></p>
15:30 – 16:00	<p><b>Coffee break during Björn Schwarz' presentation</b></p>
15:00 – 16:30	<p><b>Substrate pretreatment</b></p> <ul style="list-style-type: none"> <li>• Mechanical and enzymatic pretreatment</li> <li>• Influence of pretreatment on methane yield and digestibility</li> </ul> <p><i>Björn SCHWARZ, Fraunhofer IKTS, Germany</i></p>
16:30 – 17:30	<p><b>Practical examples for pretreatment and its effects</b></p> <p><i>Dr. Hans-Joachim NÄGELE, University of Hohenheim, Germany</i></p>

Program is subject to change.