Key topics:

- Waste to Energy Gasification Outlook
- Biomass Gasification for Heat & Power
- The Integration of Gasification with Hydrogen from Renewable Electricity
- Feedstock Performance Analysis
- Combining Fermentation with Gasification
- Creating Aviation Biofuels through Biomass
- Reuse of Capital by Repowering Coal Fired Plants by Gasifiers
- Analysis of Existing Demonstration Projects - Lessons Learnt for Future Developments
- Gasification Research & Development Focus
- Gasification for Chemical & Fuel Production
- Blending in of Bio-Fuels & Co-Feeding of Biomass

Site visit:

Exclusive Karlsruhe Institute of Technology (KIT) bioliq® pilot plant site visit Tuesday 27th of March 2018.

During the afternoon of the 27th of March up to 30 conference attendees will receive a unique opportunity to visit Karlsruhe Institute of Technology (KIT) bioliq® pilot plant. In addition to pilot plant operation for technology demonstration, a research and development network has been established providing the scientific basis for optimization and further development of the bioliq process as well as to explore new applications of the technologies and products involved.

Event Sponsors:

For more information on available commercial opportunities, please contact Tim Rowley-Evans on +44 (0) 203 141 0614 or email trowleyevans@acieu.net
ACI’s 7th annual Gasification summit will once again bring together senior executives from industry and research to discuss the latest commercial and technical developments, challenges and research breakthroughs throughout the entire gasification market.

The conference will have a focus on the latest technologies in operation in the global gasification industry and also includes an overview of the up to date and prospecting activity, discuss the technical challenges faced while chasing carbon reduction and the challenges faced during the commercialisation process, including the views from different end markets.

**Speakers Include:**
- Geraint Evans - Energy Technologies Institute
- Esa Kurkela - VIT
- Reinhard Rauch - Karlsruhe Institute of Technology
- Robert Schouwenaar - Shell
- Michael Hecquet - TOTAL RC on Behalf of Bionext
- Juhani Isoksson - Metso Power
- Alessandra Barba - Engie
- Tage Meltofte - Skive District Heating Company
- Berend Vreugdenhil - ECN
- Joakim Lundgren - Swedish Centre for Biomass Gasification (SFC)
- Juhani Isoksson - Valmet
- Joachim Kreysa - European Commission DG Joint Research Centre

**Confirmed Topics for Discussion:**
- The Integration of Gasification with Hydrogen from Renewable Electricity
- Developments with Syngas Fermentation
- Creating Aviation Fuels Through Biomass Gasification
- Gasification Research & Development Focus
- Gasification for Chemical & Fuel Production
- Blending in of Bio-Fuels & Co-Feeding of Biomass
- Analysis of Existing Demonstration Projects - Lessons Learnt for Future Developments

**Site Visit Details:**

The Karlsruhe bioliq® Process - Integrated Processes to Produce Synthetic Fuels and Bulk Chemical Products from Dry Residual Biomass - Tuesday 27th March 2018.

There is no extra charge to join the site visit, although places are limited and allocated on a first come first served basis. Please confirm your attendance when booking for the conference to avoid disappointment.

**Who Should Attend:**

Leading power generation companies, oil refining and petrochemical industry including: managers, directors & engineers of gasification, biomass or clean coal technology, power generation, processing technologies, R&D and new technologies, renewable strategy, sustainable technologies, environment and CO2 managers, CTOs, COOs as well as business development executives from technical service providers, consultants and regulators.

**Speaking Opportunities:**

If you would like to be considered as a speaker for the event with a 30 minute presentation, please submit an abstract to Daniel Laverty:
Tel: +44 (0)203 141 0612 or Email: Dlavery@acieu.net

**Registration is Simple:**

If you would like to register for this event or wish to find out more information, you can contact Mohammad Ahsan:
Tel: +44 (0)203 141 0606 or Email: Mahsan@acieu.net

**Sponsorship Opportunities:**

A wide variety of commercial and sponsorship opportunities available - for more information please contact:
Tim Rowley-Evans:
Tel: +44 (0)203 141 0614 or Email: Trowleyevans@acieu.net
**Gasification 2018**

**Frankfurt, Germany**

**DAY 1**

**Wednesday 28th March 2018**

**8:00** REGISTRATION & COFFEE

**9:00** CHAIRMAN’S OPENING REMARKS

Dr Geraint Evans  
Programme Manager – Bioenergy  
Energy Technologies Institute - ETI

**9:15** CONFERENCE PRESENTATION

Waste to Energy Gasification Outlook  
ETI’s Waste Gasification Demonstration Project: Progress & Lessons Learnt to Date

- ETI is investing £millions in a 1.5 MWe waste gasification project in the UK to deliver clean syngas for use in an engine
- Progress made to date
- Key lessons learned, in particular around the “valley of death”
- Future outlook for this technology & challenges

Dr Geraint Evans  
Programme Manager – Bioenergy  
Energy Technologies Institute - ETI

**10:00** CONFERENCE SESSION ONE

Biomass Gasification for Heat & Power  
New Success Stories & Future Outlook on Changing Energy Markets

- Growing commercialization of gasification technologies
- Latest advancements in thermochemical biomass gasification

Esa Kurkela  
Senior Principal Scientist  
VTT

Operations Experience with more than 40,000 Hours of CHP on Biomass Gasification

- Biomass fluidized bed gasification at Skive District heating company
- Operations experience with more than 40,000 hours of combined heat and power production
- Future possibilities for using the syngas

Tage Meitøfe  
CEO  
Skive District Heating Company

**11:30** MORNING REFRESHMENTS

**12:00** CONFERENCE PRESENTATION

The Integration of Gasification with Hydrogen from Renewable Electricity

- Availability of excess renewable electricity / hydrogen in the future
- Possible integration schemes with gasification
- Comparison of alternative routes us ng excess renewable electricity
- Promising Biofuels from syngas and hydrogen

Christiaan van der Meijden  
Director  
Biomass Energy Engineering

**12:45** LUNCH

**13:00** CONFERENCE SESSION TWO

Combining Fermentation with Gasification

- Overview of historical efforts that have achieved so far
- Overview & analysis of currently ongoing projects
- Breakdown of how this is different compared to conventional chemical routes

Berend J. Vreugdenhil  
Innovation Manager - Gasification  
ECN

Syngas Fermentation to Produce Biofuels & Bio Products: Sy2ol (Ethanol & Acetic Acid) & AMBITION (1.4 BDO & Butyric Acid) Projects

- Syngas fermentation to produce biofuels and bio products; Sy2ol (ethanol and acetic acid)and AMBITION (1.4 BDO and butyric acid) projects
- Optimization of feeding system to improve reliability and feeding rate control accuracy in fluidized bed gasifiers: ALIGAS project

Javier Gil  
Director of the Biomass Energy Department  
CENER

**15:30** AFTERNOON REFRESHMENTS
16:00  CONFERENCE PRESENTATION
Creating Aviation Biofuels through Biomass Gasification
• Rationale, opportunity of developing SAF supply chains
• What is the role of SkyNRG in this field
• What are the current challenges in the market?

Oskar Meijerink
Business Development Manager
SkyNRG

16:45  CONFERENCE PRESENTATION
Reuse of Capital by Repowering Coal Fired Plants by Gasifiers
• World and EU is phasing out from coal / lot of existing infrastructure still in good condition
• CHB gasifier can be used to convert multiple sorts of biofuels and waste fuels to gas suitable to be used in old PC boiler
• Conversion can be 100% or partial
• Re-use of existing infrastructure will reduce the need for investment and may also simplify the permitting process

Juhani Isokkson
Director - Gasification
Valmet

09:50  BioTfuel Project: Developing Second Generation Biofuels
• BioTfuel overview
• Focus on technical issues
• Focus on demo plants
• Next steps

Michael Hecquet
R&D Program coordinator
TOTAL RC on behalf of Bionext

10:30  CONFERENCE PRESENTATION
Blending in of Bio-Fuels & Co-Feeding of Biomass
• Focusing on line-ups in which the product is not only biomass based
• Adding a biomass based product to an existing line-up (brownfield or greenfield)

Robert Schouwenaar
Team Lead E&D Gasification & Hydrogen Manufacturing
Shell

11:20  CLOSE OF DAY ONE

DAY 2
Thursday 29th March 2018

09:00  REGISTRATION & COFFEE

09:00  CHAIRMAN’S OPENING REMARKS
Dr Geraint Evans
Programme Manager – Bioenergy
Energy Technologies Institute - ETI

09:05  CONFERENCE SESSION FIVE
Analysis of Existing Demonstration Projects - Lessons Learnt for Future Developments
GAYA Project: Achievements & Next Steps Towards Industrialization of bioSNG Production
• Presentation of the GAYA project
• Lessons learnt so far
• Conversion can be 100% or partial
• Next steps

12:20  Gasifier Based Ultra-High Efficiency Power Production & Polygeneration Systems
• Ultra-high efficiency power production in gasifier based systems
• Gasifier-Fuel Cell integration
• New & innovative applications for gasifier based systems
• Gasifier-reversible fuel cell systems for energy storage

Reinhard Rauch
Professor For Chemical Conversion of Renewable Energy
Karlsruhe Institute of Technology - KIT

MORNING REFRESHMENTS
Integrated Two-Stage Gasification Process - Advantages Over Existing Commercial Gasifiers

- Combination of high & low temperature gasification based on feed properties viz. ash content & reactivity
- Operation within desired temperature regime
- Better syngas quality control / Ash & contaminants removed at low temperature during first stage / Melting ash in the form of slag also avoided
- Simplified new gasifier designs resulting in cost reduction & reliability improvement

13:20

Presentation Title to be Announced

Heon Jung
Principal Researcher
Korea Institute of Energy Research

13:50

Panel Q&A

14:10

LUNCH

15:10

CONFERENCE PRESENTATION
Gasification as integral part of a circular BioEconomy
- BioEconomy definition
- BioEconomy as significant part of a circular economy
- Use of biomaterials central for circularity of biocycle
- Gasification allows conversion of biological "waste" streams into a feedstock
- Challenges: Small scale of waste streams – collection cost / "Dirty" waste streams – sorting cost / Variability of waste streams – composition & quality over time / Economic
- Ideas for solutions: Science, technology, & engineering / Supply chain logistics / From value chains to value networks
- Gasification of primary, secondary and tertiary biomass, a central element in a circular, bio-based, low carbon economy.

Joachim Kreysa
Advisor for Bioeconomy
European Commission DG Joint Research Centre

Michael Kattner
Vice President
German Biogas And Bioenergy Society

Dr Gerraint Evans
Programme Manager – Bioenergy Energy Technologies Institute - ETI

Sample List of Previous Attendees

A wide variety of commercial & sponsorship opportunities available - For more information please contact:
Tim Rowley-Evans
Tel: +44 203 141 0614
or
Email: Trowleyevans@aci-eu.net

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www.wplgroup.com/aci
Gasification 2018
Frankfurt, Germany

Registration Is Simple

If you would like to register for this event or wish to find out more information, you can contact Mohammad Ahsan using any of the following methods:
+44 (0)203 141 0606
mahsan@aci.eu
http://www.acius.net
Postal Address: ACI Europe, 10 Gough Square, London, EC4A 3DE

Terms & Conditions

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The cost of accommodation is not included in the event fee. Preferential rates will be arranged with or near the event venue, and all confirmed delegates will be given details of how to book accommodation at this rate in due course.

About ACI
ACI, a UK owned company, has been running successful conferences in the USA since 1999. Headquartered in Chicago, ACI opened its European head office in London at the end of 2005 and has expanded rapidly, launching a series of events in key industries including maritime, energy, chemicals, cosmetics & pharma and opening offices in Poznan (Poland) & Pune (India).

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