

THE WORLD BIOGAS EXPO 2022

THE METHANE IMPERATIVE



THE WORLD BIOGAS SUMMIT 2022

AD AND BIOGAS INDUSTRY AWARDS 2022

WITH THANKS TO OUR SPONSORS

 Air Liquide

 **anessa**
BIOGAS SOFTWARE

 **CROWN**
GAS & POWER

 **HEXAGON**
AGILITY

 MARATHON CAPITAL

 **OMEX**

 **TEXACO**

 **TotalEnergies**

 **UHURU**
ENERGY

Events organised by

 **ADBA** | Anaerobic Digestion and
Bioreources Association

 **WORLD BIOGAS**
ASSOCIATION

VISITOR INFORMATION

HALL 6 OPENING TIMES

Wednesday 15th June 09:30-17:30

Thursday 16th June 09:30-16:00

BADGES

Please ensure that you wear your badge at all times. Badges can be collected at the main entrance of Hall 6 on arrival. Failure to present a badge will mean that you are unable to enter the show.

CANVASSING

Canvassing for orders by unauthorised persons is strictly prohibited. In any such instance, the right of expulsion will be exercised. Distribution of circulars and promotional materials by exhibitors must take place within their purchased stand area. Any marketing material found outside of a designated area will be removed and destroyed immediately.

CLOAKROOMS

Cloakroom facilities are available. They are located opposite the Hall 6 main entrance. A £1 per item charge applies. Card only.

FIRST AID

In a medical emergency, call the Site Operations Centre on 0121 767 2222 (internal ext. 2222) giving the exact location of the casualty and details of any injuries sustained. Our team will arrange for all necessary assistance. You can also alert the nearest member of NEC staff.

INDEMNITY

The organisers accept no responsibility for statements made in the Event Guide, nor for any errors or omissions that may have occurred.

LOST PROPERTY

Located at the NEC Site Operations Centre on the Piazza, between Halls 1 and 2.

ORGANISERS' OFFICE

Should you have queries in relation to the show, please contact the Enriched Events team in the Organisers' Suite, located next to the main entrance.

REFRESHMENTS

The Coffee Stop is situated towards the centre of the show and offers a selection of hot and cold snacks, drinks and pastries. Alternatively, there are restaurants offering a further selection of food, situated at the back of the hall. All areas have seating. Further refreshments can be found outside the hall in the Piazza area. These include Starbucks, Subway, etc. NB – Please alert the vendors to any special dietary requirements prior to purchase.

SECURITY

In the interests of security, please keep personal belongings with you at all times. Please do not leave luggage or bags unattended. If you come across anything suspicious, please report it by dialing 6666 on the nearest security telephone. Alternatively, please inform the nearest member of NEC staff.

SMOKING POLICY

In accordance with the Health Act 2006, smoking (including the use of electronic cigarettes) is prohibited inside the NEC venue. The nearest designated smoking area to the show is located outside Atrium 1.

TAXIS

There is a taxi rank outside the Piazza main entrance. TOA Taxis: 0121 427 8888.

TOILETS

Toilet facilities are located at the very back of Hall 6, on the far right hand side, next to the World Biogas Summit conference theatre. There are also facilities outside the hall.

PHOTOGRAPHY

The organisers will assume unless otherwise instructed that all of those in attendance are comfortable with either having their picture taken or indeed being filmed at the World Biogas Expo, the World Biogas Summit and AD & Biogas Industry Awards unless instructed not to do so. Should you have any concerns then please contact a member of staff.



A very warm welcome to the World Biogas Summit and Expo 2022.

After two years of pandemic and online events, we are delighted to be able to host you once again at the NEC in Birmingham for this year's World Biogas Expo and Summit. We look forward to catching up with both old and new faces at this exciting time for biogas.

The Expo is one of the largest annual tradeshows dedicated solely to anaerobic digestion (AD) and biogas and returns as a solely physical event. We are very excited to announce that this year's World Biogas Expo has sold out and we therefore had to expand the floorplan to accommodate additional stands. Certainly, we all look forward to catching up with the industry in person, with both old and new faces at this exciting time for biogas.

Co-located alongside the Expo, the World Biogas Summit 2022 is the global thought leadership forum on AD and biogas, which this year for the first time, given its international calibre, will also be available to online participants across a dedicated, interactive platform.

Executive Vice President of the European Commission, Frans Timmermans, Second Lady of Ghana, H.E. Hadjia Samira Bawumia, White House Liaison for the Special Presidential Envoy for Climate John Kerry, Rick Duke, and the Global Methane Hub Circular Economy Program Director Carolina Umeneta. alongside the IEA, IRENA, UN FAO and CPUC.

And industry leaders including, Vice President Biogas Business Unit at TotalEnergies, Olivier Guerrini, Managing Director Asia & Pacific at Anaergia, Kunal Shah, CEO & Founder of HomeBiogas, Oshik Efrati alongside many

cont. >

more, including Nortegas from Spain, Delorean Corporation from Australia, AMSA S.p.A and Entsorga from Italy, and the KIS Corporation from India.

The Global Methane Pledge has given renewed purpose to the global biogas industry, while the current energy, fertiliser and CO₂ crises have both fueled demand for biogas/biomethane, digestate and bio-CO₂ from AD, and made the case for AD common sense.

The Expo and Summit are free to attend events aimed at facilitating the adoption of biogas globally. So what do they have to offer to you?

- Insights from a range of expert speakers with sessions dedicated to the key themes for our sector.
- Huge opportunities to network, build relationships and understand what new technologies are coming to the market.
- A place to meet and engage with international delegates, share expertise, and hear different perspectives from across the globe.
- Engagement with a wide range of exhibitors to find solutions and partnerships for your business.
- Side events such as the Farmers' Breakfast and Local Authorities Lunch as bespoke networking opportunities.

We wish you a great show!

Charlotte Morton OBE,
Chief Executive, WBA

Chris Huhne,
Chairman, ADBA

CONTENTS

Visitor Information	2
Welcome	3-4
Our Sponsors	5-8
Media Sponsors	8
Global Market Overview – A New Era for Waste Management.....	9-10
UK Market Overview – AD, The Key to Energy and Food Security.....	11-13
World Biogas Summit 2022 Theatre Programme.....	14-16
World Biogas Expo 2022 Engine Room Programme.....	17-19
Expo Floorplan	20-21
A-Z Exhibitor List	22-23
Exhibitor Profiles	24-37
About the Organisers	38

Disclaimer: Every effort has been made to ensure the accuracy of the entries in this Event Guide. The content and classification of entries is based on the latest information available to ADBA and WBA, at the time of going to print. As a consequence, any information that has changed since that time will not result in any amendments or reissue or reprinting of this publication. In no circumstances can ADBA or WBA accept any responsibility for any error, omissions or claims made in the event guide. Copyright: © ADBA and WBA. No reproduction, copying, image scanning, storing or recording by any means in any form, nor broadcasting or transmission through any medium, of any part of this directory is permitted without the express permission and consent of ADBA and WBA. All intellectual property rights reserved.

MARATHON CAPITAL

Founded in 1999, Marathon Capital is a world-class investment bank committed to facilitating a more sustainable energy future. Our mission is to achieve our clients' strategic and financial objectives by delivering inspired, knowledge-based solutions to the clean power, sustainable technologies and infrastructure markets.

Marathon Capital has been involved in many pivotal energy transactions and company expansions in the areas of M&A (mergers and acquisitions), capital raising, project finance, tax equity advisory, and offtake advisory. The firm's unique, integrated suite of advisory services empowers our ability to maximize results for clients across every transaction.

Marathon Capital leads with its people and intellectual capital. Our prominent investment bankers possess distinctive finance and industry experience and provide the most innovative

solutions to our clients through a combination of deep knowledge and expertise across the renewable power, sustainable technology, renewable fuel, energy storage, and energy service industries.

TOTAL ENERGIES



TotalEnergies

TotalEnergies is a global multi-energy company that produces and markets energies: oil and biofuels, natural gas and green gases, renewables and electricity. Our 105,000 employees are committed to energy that is ever more affordable, cleaner, more reliable and accessible to as many people as possible.

MARATHON CAPITAL

**Investment Bankers *for* Clean Energy,
Sustainable Technologies & Infrastructure Markets**



Established 1999
Over 20 years of renewable energy and clean technology experience



Execution
Leader in transformational deals across the clean energy landscape



Peer Recognition
Consistently recognized for contributions to the global energy transition

MARATHON CAPITAL

Chicago • New York • San Francisco • Houston • Canada • London • Brazil

www.marathoncapital.com



**Learn more about
carbon negative fuel solutions**
for gas transportation and
various commercial applications.



HEXAGON AGILITY



On behalf of Hexagon Agility, we welcome you all to the 2022 World Biogas Expo and World Biogas

Summit in Birmingham, UK. We look forward to connecting with you in person and virtually.

Hexagon Agility®, a business of Hexagon Composites, is a leading global provider of clean fuel solutions for commercial vehicles and gas transportation. Our product portfolio includes vehicle fuel systems and Mobile Pipeline® gas transportation modules, which both use composite cylinders to provide a high volume, lightweight, safe solution.

Our solutions are deployed on more than 70,000 vehicles worldwide and supported by leading OEMs. Equipped with Type 4 composite technology, our fuel systems offer the lightest and longest-range alternative fuel option for various medium- and heavy-duty vehicle applications.

No Pipeline, No Problem. Mobile Pipeline® allows the safe transport of biomethane, hydrogen, and other industrial gases by truck, marine vessel, or rail. It is the clean energy solution for today, tomorrow, and decades to come.

Mobile Pipeline® is a key enabler for the adoption of biomethane as a vehicle and industrial fuel. Agriculturally derived biomethane, can have a negative carbon footprint, making it one of the most effective solutions to fighting climate change. While it is available globally, production sites are often found in rural communities lacking access to pipeline infrastructure.

With more than 1800 transport modules deployed in 20 countries around the world, our Mobile Pipeline® products offer state of the art performance capable of transporting twice the gas of traditional steel products.

We are proud to support our customers seeking to lead the decarbonisation effort through use of carbon negative energy solutions and help drive energy transformation for Clean Air Everywhere!

ANESSA



Founded by a group of passionate green energy engineers and entrepreneurs, anessa brings reliable and smart analytics into the workflow of anaerobic digestion project developers, biogas consultants and facility operators.

CROWN GAS AND POWER



Crown Gas & Power is a natural gas and biogas supplier to businesses across the UK. As one of the leading suppliers offering 100% biogas (biomethane), we believe one of the biggest things a business can do to help the fight against climate change is to switch to biogas. Created in 2001, shortly after the deregulation of the gas and power markets, we established our position quickly as a first-class business energy supplier with unrivalled customer service and innovative products such as 25% or 50% biogas blends and 100% biogas. Our inhouse utility connections team provides gas, electricity and water connections, service alterations, metering upgrades and disconnections.

OMEX ENVIRONMENTAL



OMEX Environmental Ltd is at the cutting edge of anaerobic digestion, developing bio-available micronutrient supplements to maximise the efficiency of AD plants. OMEX Environmental also develops and markets a range of nutrients and neutralisers for all types of wastewater treatment. The company also supplies de-icing agents for runways, roads, bridges and car parks.

TEXACO LUBRICANTS



TEXACO

Texaco Lubricants, a Chevron company brand, has a strong heritage with over 120 years' experience in Europe. Texaco products drive performance through a comprehensive range of lubricants serving businesses in various sectors globally, under the HDAX®, VARTECH®, Havoline®, Delo®, and Techron® brands.

UHURU ENERGY



Uhuru, with a focus on Southern and Sub-Saharan Africa, specialises in the development of medium to large-scale integrated energy solutions, replacing fossil energies with renewable alternatives, covering a full energy supply spectrum including BioCoal, Renewable Power, and BioFuels such as BioGas, BioMethane, BioSynGas, and BioCrude. This contributes to the alleviation of climate change and emission reductions, and in the process laying the platform for sustainable economic development in marginalized rural communities. Importantly the solutions provided by Uhuru are based on proven technology and economic viability, deploying globally established mainstream offerings in the fastest developing energy sector in both developed and developing economies.

MEDIA SPONSORS



A NEW ERA FOR WASTE MANAGEMENT

Jon Hughes, WBA Communications Manager



Tackling methane emissions caused by human activity is the most ‘immediate and cost-effective’ way to deliver the Paris Agreement target to keep global warming below 2C, ideally 1.5C. That is the conclusion of an in-depth report from the United Nations Environment Programme and Climate and Clean Air Coalition (To Reduce Short-Lived Climate Pollutants), released in May 2021.

The Global Methane Assessment report says with readily available technologies – including anaerobic digestion and biogas – immediate results can be delivered; “the majority of these major abatement potentials can be achieved at low cost, especially in the waste sector”.

Subsequently, at COP26 the EU and US jointly launched the Global Methane Pledge (GMP). To date 112 countries have signed the pledge – committing to reduce global methane emissions by at least 30% from 2020 levels by 2030, which could eliminate over 0.2C warming by 2050. 0.2C might seem a small number but in the context of climate change it is enormous

– the equivalent of taking all trucks, cars and shipping Net Zero says John Kerry, former US VP and now the US Special Presidential Envoy for Climate.

The principal sources of anthropogenic methane are agriculture (40%), waste management (landfill and wastewater treatment) (20%) and fossil fuels (processing and distribution) (23%) (UNEP). The case for reducing methane through the recycling of organic wastes through AD is evident, and yet today just 2% of the 105 billion tonnes of organic wastes produced by human activity every year globally are treated and recycled – which means that 98% are still emitting methane.

Ushering in a new era of waste management presents a huge opportunity for our industry and global efforts to stabilise the climate. The CCAC – secretariat for the GMP – has called for a dramatic scale-up of investment in methane abatement strategies in the waste and agricultural sectors.

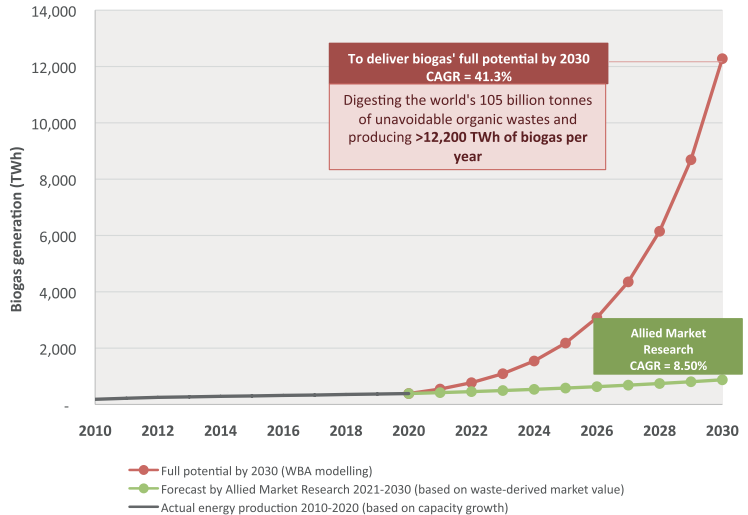
[cont. >](#)

WBA analysis shows that AD can deliver around 50% of the global methane pledge. To achieve this by the end of the decade would require exponential growth, sending the global AD and biogas growth curve off the chart, dwarfing previous forecasts. In 2019 the global biogas market size was \$25.50 billion and then projected to reach \$31.69 billion by 2027, exhibiting a CAGR of 5.30%

during the forecast period (Fortune Business Insights). Investment in the industry could grow from the present \$4billion p.a. to a staggering \$30 billion p.a. over the next two decades with the right levels of policy ambition, say the IEA.

Adding to the demand for AD and biogas are the increasingly alarming warnings of a food crisis, arising out of the current energy crisis and desire for Europe to wean itself of Russian natural gas. The volatility in the energy markets that emerged because of high demand post-Covid have been compounded by Russia's invasion of Ukraine. Rocketing energy prices and a trade embargo on Russia have resulted in their being a shortage of mineral fertiliser, by as much as 20% below demand, with the worst yet to come. This has served to spark renewed interest in AD and biogas as a means to secure both energy and food security.

Not only does AD prevent methane emissions, it recovers the valuable energy – enough to replace over a quarter of today's global coal consumption – and nutrients and minerals from all the organic wastes it treats, enough to meet global fertiliser demand and ensure yields are maintained. In response to the ongoing crises



the EU Commission has doubled its ambition for home-grown biomethane.

The direction of travel is clear, waste management systems must change, and WBA and its members have a clear role to play in catalysing this change. Political will to enable the industry to fulfil its potential is emerging, with the AD and biogas sector explicitly referenced in methane action plans from both the EU and US Environment Protection Agency. And indeed, so is the finance, as evidenced by Marathon Capital's participation in the World Biogas Expo and Summit.

Now is the time for action and as an organisation WBA has a crucial role to play as a driver of change, pressing the industry's case with national governments and global institutions – currently most pressingly as a member of the Review Group of the World Resources Institute's review of the GHG Protocol.

By supporting organisations and institutions around the globe, by sharing best practise and providing unique insight, WBA aims to ensure that the full potential of the industry is rapidly realised on a global scale.

AD – THE KEY TO ENERGY AND FOOD SECURITY

Leanne Williams, ADBA Lead Analyst



The UK has been plunged into economic upheaval over the past year, with rising energy prices resulting in unprecedented levels of fuel poverty and business costs, eye watering hikes in fertiliser costs and unstable supplies of the strategically important gas CO₂.

In response, the government launched the British Energy Security Strategy. As a blueprint to future-proof the UK's energy market through the increased production of affordable, low-carbon, locally generated energy, the strategy fails on all counts.

A central plank of the strategy is a shocking commitment to scale up oil and gas drilling in opposition to the urgent need for concerted action to reign in global warming. And it is not necessary. ADBA was quick to alert government to the fact that with the right support, the industry could deliver at least double the amount of gas currently imported from Russia in as little as four years' time. Yet when the British Energy Security Strategy was released in March it backed North Sea Gas over green gas from AD.

[cont. >](#)

12 UK MARKET OVERVIEW

The case for energy independence is crystal clear; the skewed focus on short-term and, quite frankly, environmentally damaging measures, completely fails to secure long-term resolutions to such a critical issue. While it is disappointing the Energy Security Strategy failed to recognise the readily available potential of AD, we have begun to see the ripple effects of our messaging during conversations with government ministers and officials, including Jo Churchill MP, Parliamentary Under Secretary of State at the Department for Environment, Food & Rural Affairs, and Lord Callanan, Parliamentary Under Secretary of State at BEIS.

Across the discussions ADBA has highlighted the multiple roles AD can play, particularly regarding food production, as spiralling energy costs have destabilised CO₂ and fertiliser supplies, leading to warnings of food shortages. Facilities upgrading biogas to biomethane

produce bio-CO₂, more than enough to replace the fossil equivalent and required across the food supply chain, in the chemicals industry and even as a coolant in nuclear power stations.

All AD facilities produce natural fertiliser (digestate), a ready replacement for the energy-intensive mineral fertiliser. AD must play an increasing role in the energy mix, to deliver both energy and food security, alongside rural resilience, and the levelling up agenda.

The first-ever sector focused support package, the Green Gas Support Scheme, went live at the turn of the year with the aim of increasing the amount of biomethane in the national grid by nearly 50% over the next four years. Though the GGSS provides some much-welcomed support to biomethane producers, we continue to be frustrated by the lack of clarity on separate food waste collections.



TotalEnergies,
the company
for all energies.



TotalEnergies

Discover the elements of our transformation on totalenergies.com/energy-is-reinventing-itself



This month marks exactly one year since Defra closed its consultation on the Consistency in Household and Business Recycling, and they are yet to provide any formal updates on when we can expect to see a roll out of weekly food waste collections.

The shift in language in strategic updates such as the Net Zero Strategy seem to suggest that ambition is slipping and that we are more likely to see separate food waste collections being

rolled out in 2025. ADBA has raised the alarm on the impacts that such delays will have on industry, and on wider energy security and climate concerns. As the UN has clearly stated action to reduce methane emissions from waste and wastewater (alongside oil and gas) is the quickest and cheapest way to keep the hopes of 1.5C alive.

Despite the glaring omission of AD in the Energy Security Strategy and indeed omissions in other developing government policies, such as ELMS, we continue to see demand for, and production of, AD and its co-products growing fast. With gas and fertiliser prices at an all-time high and surging demand for bio-CO₂, as well as higher prices for RTFCs and biomethane certifications, now is an opportune moment for the industry. ADBA will continue to do its utmost to foster a regulatory environment that can enable the industry to flourish.

Engine Room of the World Biogas Expo
National Exhibition Centre, North Ave, Marston Green, Birmingham, UK
June 15th, 10:30 – 11:15 BST

**Biogas:
How to Build Out Fast and Successfully**



Presented by:
◀ **Robert DiDiodato**
anessa | Vice President of Business Development

How Can you Visualize Uncertainty in Biogas Projects?

- Use Scalable, Customizable and Adaptable Models
- Interconnected Data Visualization
- Operational Decision Making
- Robust Sensitivity Analysis

Proud Engine Room Sponsor



Grow your biogas business

www.anessa.com

WORLD BIOGAS SUMMIT PROGRAMME DAY 1 JUNE 15

All timings BST Doors open – 09:30

⌚ 10:00 – 10:15

Welcome and Overview of the Global Anaerobic Digestion and Biogas Industry

- **Charlotte Morton**, Chief Executive, **World Biogas Association**
- **Chris Huhne**, Chairman, **Anaerobic Digestion & Bioresources Association**

⌚ 10:15 – 10:45

Keynote: Rick Duke, Senior Director and White House Liaison for the Special Presidential Envoy for Climate John Kerry and co-chairman of the **Climate & Clean Air Coalition**

Rick Duke was a key player in the delivery of the Kigali Agreement to outlaw hydrofluorocarbons (HFCs), highly potent greenhouse gases that have a global warming potential 1000's of times that of carbon dioxide (CO₂). Now he is turning his attention to tackling global methane emissions, which the CCAC said in its Global Methane Assessment is the "most immediate and cost-efficient" way to deliver on the Paris Agreement, with AD and biogas identified as one of the principal, low-cost technologies, that can deliver this.

⌚ 10:45 – 11:00

Keynote: H.E. Hadjia Samira Bawumia, Second Lady, Ghana, Ambassador of Global Alliance for Clean Cookstoves and UN Ambassador for SDG 7

Four million people die prematurely from illnesses related to short-live climate pollutants and household air pollution, with rural communities in Africa being particularly affected. Aligning with agendas on the green revolution, access to energy and education of the girl child, AD has a key role to play in emerging economies. (HE Bawumia will join the following panel).

⌚ 11:00 – 11:45

Methane Action Plans

Tackling methane emissions caused by human activity is the most 'immediate and cost-effective' way to deliver the Paris Agreement target to keep global warming below 2°C, ideally 1.5°C. This expert panel will consider the mechanisms being developed to deliver the global methane pledge across waste management and farming systems.

- **Clifford Rechtschaffen**, Commissioner, **California Public Utilities Commission**
- **Pamela Franklin**, Chief of Non CO2 Programs Branch, **US Environmental Protection Agency (EPA)**
- **Martina Otto**, Head of the CCAC Secretariat, **Climate and Clean Air Coalition (CCAC)**
- **H.E. Hadjia Samira Bawumia**, Second Lady, Ghana, Ambassador of Global Alliance for Clean Cookstoves and UN Ambassador for SDG 7

⌚ 12:00 – 13:00

Biogas, Energy and Food Security

Skyrocketing energy prices have led to warnings of a global fertiliser shortage, resulting in a food and farming crisis. Famine, warns the CEO of Yara, the world's largest fertiliser producer. Agro-economics and agro-ecology favour a transition to anaerobic digestion and biogas, as its outputs address both energy and food security needs. This expert panel will consider what the changing economic outlook means for the costs and climate benefits of deployment.

- (Chair) **Amaya Arias-Garcia**, Innovation and Renewable Gas, **Nortegas**
- **Prof Mark Sutton UK Centre for Ecology & Hydrology** and Honorary Professor, **University of Edinburgh, School of Geosciences**
- **Irini Maltsoyglou**, Natural Resource Officer, Deputy Energy Team Leader, **UN FAO** The Bioenergy and Food Security (BEFS) Approach
- **Henry du Val de Beaulieu**, Director, **Yelspa Ltd / Apsley Farms**
- **Joseph Oliver**, Managing Director and Co-Founder, **Delorean Corporation**

⌚ 13:00 – 14:30 Lunch Break

⌚ 14:30 – 15:00

Keynote: Frans Timmermans, VP European Commission – the EU methane strategy and alignment with the Green Deal, Fit for 55 and European Trading Scheme.

🕒 15:10 – 16:10

Biomethane: Driving the Transport & Industrial Revolution

Hexagon Agility: Shippers and logistics fleets like UPS and FedEx, refuse companies and public transport systems are increasingly converting their fleets to biomethane / renewable natural gas to take advantage of this low-cost fuel, while reducing Scope 1-3 emissions and air pollution. Virtual mobile pipelines also make it a viable alternative for diesel and gasoline for off-grid industrial clusters and communities. Tech-agnostic Hexagon Agility present a roadmap to net zero in the heavy good vehicles transport and industrial sectors.

- **Filippo Munna**, Director of Sales Mobile Pipeline®, **Hexagon Agility**
- **David Kailbourne**, CEO, **REV LNG**
- **Johan Wideman**, VD / CEO, **Processkontroll Green Technology**
- **John Baldwin**, Managing Director, **CNG Services**

🕒 16:15 – 17:30

Biogas and the Food Waste Management Revolution

Food waste is one of the largest emitters of methane – a more ferocious greenhouse gas than CO₂ by a factor of 86. But how do you maximise the capture of such wastes. Recovering resources from waste streams will have an increasingly significant role to play in the energy transition. As the UK and EU introduce compulsory separate food waste collections in 2023 and the US at Federal and State level develops food waste recycling systems, this expert panel considers best practice, how to go from zero interest to zero waste (after all avenues of redistribution have been exhausted) and innovative technologies that offer game changing economies of delivery.

- (Chair) **Leanne Williams**, Lead Analyst, **World Biogas Association**
- **Dr Dominic Hogg**, Director, **Equanimator**
- **Patrick Serfass**, Executive Director, **American Biogas Council**
- **Kunal Shah**, MD Sales, **Anaergia**
- **Simone Orsi**, Marketing, **AMSA S.p.A**
- **Pawel Kisielewski**, CEO & Founder, **CCm Technologies**
- **Oshik Efrati**, CEO & Founder, **HomeBiogas**

Scan the QR code to view speaker profiles:



🕒 17:30 Day 1 close

WORLD BIOGAS SUMMIT PROGRAMME DAY 2 JUNE 16

All timings BST Doors open – 09:30

🕒 10:00 – 10:10

Welcome and Overview of Day 1 and Preview of Day 2

- **Charlotte Morton**, Chief Executive, **World Biogas Association** & **Chris Huhne**, Chairman, **ADBA**

🕒 10:10 – 10:40

Keynote: Biomethane and the Gas Crunch

Why it's time to factor in the externalities to reveal the true cost of biomethane and consider the competition and synergies with hydrogen and syngas.

- **Dolf Gielen**, Director, **IRENA Innovation and Technology Centre**

🕒 10:45 – 11:15

Keynote: Carolina Urmeneta, Circular Economy Program Director, and Americas Regional Lead, **The Global Methane Hub**

Catalysing investments for action on methane emissions in the energy, agriculture and waste sectors.

cont. >

⌚ 11:15 – 12:15

Biogas: Bridging the Climate-Energy Finance Gap

As we enter a pivotal decade for delivery of climate action and the UN SDGs against a background of Covid recovery, how do we mobilise finance toward biomethane and integrated clean energy transitions. This expert panel will assess how big a role these gases can play in the transformation of the global energy system, where the opportunities and potential pitfalls lie, and what policy makers and industry can do to support sustainable growth in this sector.

- (Chair) **Chris Huhne**, Chairman, **ADBA**
- **Dr Peter Zeniewski**, Lead Gas Analyst for the World Energy Outlook, **International Energy Agency (IEA)**
- **Gary Greenblatt**, Senior Managing Director and Co-Head of **Marathon Capital's** New York City office
- **Wim J. van Nes**, Global Technical Advisor Energy, **SNV Netherlands Development Organisation**
- **K R Raghunath**, MD, **KIS Group**
- **Chris Maloney**, CEO / President, **Entsorga / Integrated Biogas Alliance**

⌚ 12:30 – 13:00

Keynote: Massive and Sustainable BioMass to BioEnergy Opportunities in Africa

The Advantages and opportunities for developing large scale BioGas Industries in Africa, aligned to the continent's development goals.

- **David Sonnenberg**, Co-Founder, **Uhuru Energy**

⌚ 13:00 – 14:00 Lunch Break

⌚ 14:00 – 15:15

Biogas 2030: Snapshots of Tomorrow

Carbon capture, green hydrogen, P2G, shipping and aviation fuel, biomethane's potential to align with Net Zero Policy goals across a raft of hard to decarbonise sectors is massive. This session will consider the future role of AD and biogas in the energy transition.

- (Chair) **Dr Keith Simons**, Principal Scientist, **SHV Energy** & Chairman of the Policy, Innovation and Technical Committee, **WBA**
- **Dr Adrian Higson**, Managing Director and Biobased Products Expert, **NNFC**
- **Olivier Guerrini**, VP Biogas BU, **TotalEnergies**
- **Alex Marshall**, Group Business Development and Marketing Director – US, **Clarke Energy**
- **Daniele Molognoni**, PhD, Senior Researcher Energy & Engineering Department, **LEITAT Technology Centre** & **Donnie MacMillian**, COO, **Robinsons** (co presenting)
- **Jesper Naimi Funch Poulsen**, Licensing Manager, **Topsoe**
- **Joshua Riddett**, Founder & MD, **Easy Crypto Hunter**

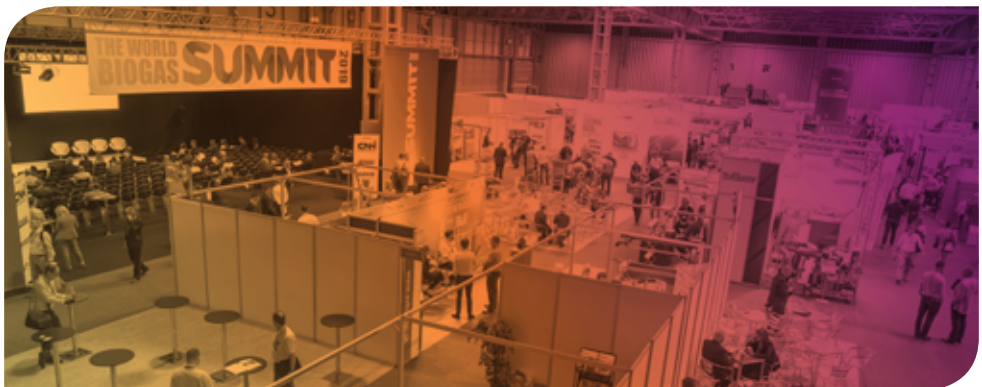
Scan the QR code to view speaker profiles:



⌚ 15:15 – 15:30

Closing remarks from WBA Chief Executive Charlotte Morton

⌚ 15:30 Day 2 close



ENGINE ROOM PROGRAMME DAY 1 15 JUNE

All timings BST

⌚ 10:30

Welcome

- **Giulia Ceccarelli**, External Affairs Lead, **ADBA**

ENGINE ROOM SPONSOR
anessa
BIOGAS SOFTWARE

⌚ 10:30 – 11:15

Biogas: How to build out fast and build out successfully

A perfect storm of crises is making the case for biogas stronger by the day. Key drivers are energy and food security, the Global Methane Pledge and latest IPCC climate change assessment. AD has a key role to play in meeting these challenges, identified by the UN as one of the fastest and most economic ways to deliver the Paris Agreement. Giulia Ceccarelli will introduce a panel to consider how to build out fast and build out successfully.

- (Chair) **Giulia Ceccarelli**
- **Robert DiDiodato**, VP Business Development, **Anessa** – planning for success with data modelling.
- **Carl Gurney**, Renewable Energy Director, **Marsh Commercial** – what the insurance industry want to see in a project.
- **Lucy Hopwood**, Director & Lead Consultant for Bioenergy and Anaerobic Digestion, **NNFCC** – blueprint for getting community buy in for project delivery.

⌚ 11:30 – 11:45

Keynote: **Tom Bradshaw**, VP, **National Farmers Union** – Farms of the Future.

⌚ 11:45 – 12:30

Gas Upgrading for Transport Fuel

On-site compression and upgrade plants can help to decarbonise freight and farm transport, supplement gas network fuelling stations and build a long-term future for biogas operators who cannot access the gas grid. This panel will consider the potential of on-site compression – what is it, how does it work, what are the opportunities?

- (Chair) **Thomas Minter**, Director, **Malaby Biogas**
- **Dr Chris Mann**, Co-Founder, Chairman and Chief Technology Officer, **Bennamann** – Innovative technology and business models for the commercially viable production, distribution and use of net zero-carbon biomethane from organic waste streams, including farm manure slurry and cut grass.
- **Will Llewellyn**, Director, **Red Kite Management** – On-site compression and upgrade plants; process and viability.
- **Mark Howell**, Global Product Manager Alternative Fuels, **New Holland Agriculture** – to address the gamechanging biomethane tractor (spec, capability etc and perhaps allude to long term expansion into off-road plant (diggers etc)).
- **Yannick Rouaud**, Industrial Cryogenics Market & Sales Manager, **Air Liquide** – Bio-LNG for heavy mobility.

⌚ 12:45 – 13:30

R&I Hub – Biogas Futures

The value of the bioeconomy across Europe alone is reportedly around €2 trillion and the sector is set for dramatic expansion over the next decade. Bioenergy is a key component of that. This expert panel will consider the next frontiers for optimising biogas production.

- (Chair) **Keith Simons**, Principal Scientist – Sustainable Fuels, **SHV Energy**
- **Anna Alessi**, Project & Communications Manager, **Biorenewables Development Centre** – De-risking R&D in the bioeconomy.
- **Prof. James Chong** – Dept of Biology, **York University** – Advances in our ability to harness the power of methanogens.
- **Tony Wimpenny**, Director, **BohrEnergy** – Optimising outputs with IOT (the internet of things).
- **Somayeh Taheri**, CEO, **Urban Chain** – how blockchain can help optimise biogas income.

18 PROGRAMMES

⌚ 13:45 – 14:30

Fugitive Methane Emissions

Poorly performing AD plants could be identified following the launch of methane satellites and drones that can measure down to 100kg emissions. How do you ensure your plant isn't throwing money away and damaging the sector's green credentials?

- (Chair) **Josh Henthorne**, Technical Manager, **ADBA**
- **Anders Fredenslund**, Senior Researcher, Department of Environmental Engineering, Climate & Monitoring, **DTU Orbit (Technical University, Denmark)** – Results of a solutions-driven study into methane leakages from biogas plant.
- **Tim Elsome**, General Manager, **FM BioEnergy**
- **Ewart Cox**, Managing Director, **Assentech** – the critical importance of pressure release valves.
- **Steve Benyon**, Senior Sales Manager EMEA, **Teledyne FLIR** – thermal imaging to visualise fugitive emissions.

⌚ 14:45 – 15:45

Digestate Options

Innovations in process and technology to enhance digestate.

- (Chair) **Leanne Williams**, Lead Analyst, Agriculture and Environment, **ADBA**
- **Mark Clayton**, CTO, **Qube Renewables** – digestate storage options to mitigate environmental impacts.
- **Sion Williams**, UK Agriculture Sales Manager, **Vogelsang** – converting 70% of harmful ammonia emissions into nutrient rich ammonium while spreading.
- **Fiona Donaldson**, Senior Policy Officer, **Scottish Environmental Protection Agency** – lessons from Scotland, which has set the benchmark for action on plastics contamination.
- **Dr. Erwin Lepoudre**, Sustainability Manager, Green Planet Project (Europe), **Kaneka** – unveiling a plastic substitute made from fermented vegetable oil, which trials have found to be AD compatible.

⌚ 16:00 – 16:45

Biogas: Process Optimisation

A low methane yield is a sign that something is out of balance within the digester – and the consequences can be costly. This expert panel will consider how to avoid common challenges that might be out of sight but shouldn't be out of mind.

- (Chair) **Josh Henthorne**, Technical Manager, **ADBA**
- **Fokion Kaldis**, Account Manager, **FM Bioenergy** – biological parameters and how to run an efficient digester.
- **Dean Kavanagh** CDir FloD, Chartered Director & Managing Director, **QED Environmental Systems** – monitoring and measuring for improved performance.
- **Maxence Rollin**, Export Developer, **Prodeval** – optimising biogas upgrading.

⌚ 16:45 Close

Scan the QR code to view speaker profiles:



ENGINE ROOM PROGRAMME DAY 2 16 JUNE

All timings BST

⌚ 10:15 – 11:30

Biogas – Market Development Opportunities

Welcome to Day 2 and to this overview of global opportunities for the biogas sector.

- **Giulia Ceccarelli**, External Affairs Lead, **ADBA**
- **Deborah Sacks**, Waste and Resources Specialist, **Department for International Trade (DIT)** – developing global biogas markets.
- **Jean-Philippe Burtin**, President, **Biogaz Vallée** – developments and potential of the biogas sector in France.
- **Jorge Hilbert**, International Consultant, **Rural Engineering Institute**, Energy & Environmental Consultant Dibicoo Biogas Project, **EEC**, Biogas Co-chair, **Global Methane Initiative** – developments and potential of the biogas sector in Argentina and the Dibicoo project biogas matchmaking tool.
- **Felipe S. Marques**, Director of Technological Development, **CIBiogás** – developments and potential of the biogas sector in Brazil.

⌚ 11:30 – 12:15

Grid entry – increasing flexibility

For biomethane producers grid entry can be problematic – either by virtue of location, seasonal demand, cost and compliance. This expert panel considers options for greater grid flexibility to optimise grid entry for biomethane.

- (Chair) **Josh Henthorne**, Technical Manager, **ADBA**
- **Alan Midwinter**, Head of Renewable Development, **SGN Commercial Services** – centralised grid injection.
- **Tina Hawke**, Connections Manager, Future Energy, Hydrogen Development and Operations, **Cadent** – developments in in-grid compression.
- **Tony Wimpenny**, Director, **BohrEnergy** – advances in gas measurement technology for greater renewable gas injection to grid.

⌚ 12:30 – 13:15

Carbon Capture for Use or Storage

Most CO₂ for industrial use is sourced from fertiliser production, which has been impacted by rising gas prices and the war in Ukraine. Indeed, the government has put CO₂ users on notice to find alternative supplies. Bio-CO₂ can more than meet the needs of industry. This panel of experts considers how to capture CO₂ and tap into this new market.

- (Chair) **Josh Henthorne**, Technical Manager, **ADBA**
- **David Hynes**, Sales Manager, **Pentair** – installing and retrofitting CO₂ capture units.
- **Reida Benbelkacem**, Managing Director, **Air Liquide** – CO₂ recovery from AD into industrial & food grade applications.
- **Ellen Daniels**, CEO, **British Compressed Gases Association** – standards and permitting and associated codes for CO₂ recovery & storage
- **Nick Primmer**, **Future Biogas** – carbon capture and the need for carbon negative technologies.

Scan the QR code to view speaker profiles:



FLOORPLAN



THE WORLD BIOGAS EXPO 2022

THE WORLD BIOGAS SUMMIT 2022

15-16 June 2022, NEC Birmingham, UK

Organised by  ADBA  WORLD BIOGAS ASSOCIATION



A-Z EXHIBITOR LIST

Company	Stand	Company	Stand
• 2G Energy	B803	• Bright Renewables B.V.	B503
• A-Consult	B110	• C-Zero Markets	B701
• AB Energy UK Ltd	D309	• Celignis Biomass Laboratory	A501
• Adicomp	A601	• Celtic Chemicals	B109
• Agrico / Wangen Pumps	A105	• Ceres Energy / Barrow Shipping	D307
• agriKomp	C805	• Chemviron Carbon	C301
• Agrivert	C703	• Clarke Energy	D601
• Air Liquide	A509	• ClimeTrek	D701
• Air Products	C705	• Colloide Engineering Systems	A107
• Airco Process Technology	D107	• CPL Activated Carbons	D901
• Allison Engineering	B304	• Crown Gas & Power	D305
• Alltech / Keenan	D201	• DMT	A207
• Allvalves	D103	• Easy Crypto Hunter	A901
• Alps Ecoscience	B101	• Ecomondo	B905
• Ammongas	B703	• ECONWARD TECH	B307
• Anaergia	B107	• ELAFLEX LTD	D303
• Anessa	D205	• EMS INDUSTRIES	C105
• ARB Process Engineering	D315	• EnKing International	D705
• ARK Agriculture	B603	• ESMIL Group	A203
• BGasTech	D101	• Eurotron Instruments (UK) Ltd	D605
• Bauer	C501	• Exeon Ltd	D105
• Bio-Dynamics Tanks Ltd	C109	• FLUID RENEWABLES	C401
• BioConstruct	B301	• Fluidpower Group Services	A801
• BioG	B705	• FM BioEnergy	D805
• Biogas Sales UK	A205	• Fogmaker UK & Ireland	C303
• BiogasJG	C601	• FPT	D503
• BIOGEST	C809	• Gas Data	C507
• BIOTEC	C707	• GEN-C	C603
• Birch Solutions	B903	• Genesis	B501
• bmp greengas GmbH	C701	• Greencrop	D311
• Bohr Limited	R&I 1	• Greenlane Biogas	B505
• Börger UK Limited	C901	• Heat and Power Services Ltd	A603
• BPC Instruments	A409	• Hopes Generation Ltd	D801

A-Z EXHIBITOR LIST

Company	Stand	Company	Stand
• HoSt Bio-Energy UK Ltd.	D603	• SAVECO	B601
• HRS Heat Exchangers Ltd	C107	• SG TECH	R&I7
• Huesker UK	A405	• SGN	A407
• Jones McGirr & Co	C505	• SGS	C103
• Karbonsan Pressure Vessels & Trading Co.	B302	• STEVERDING	D803
• Kelvatek	A209	• SUMA Rührtechnik	C101
• KIS Group	D703	• THE UTILE ENGINEERING CO LTD	B805
• Konrad Pumpe GmbH	D301	• Thoeni Industriebetriebe GmbH	B103
• LANDIA	A103	• Unisensor	A401
• LAT WATER	R&I 5	• UrbanChain	R&I6
• Lef's Recycle	D109	• UZ Kimya Ltd / Envitec	A503
• LIVELAB	A805	• Verdant Biotech Ltd	R&I 2
• Malmberg	C807	• VOGELSANG	D403
• Marsh Commercial	B305	• Wärsilä Biogas Solutions	A403
• Mavitec Green Energy	A101	• Wolf Systems Construction Ltd	C307
• MBC - FerroBio Group	A201	• WRM Ltd	R&I4
• Morris Lubricants	C903	• ZEBRA B LTD	A701
• NFU Energy	D115		
• Nijhuis Saur / Econvert / Byosis	B901		
• NNFCC	R&I 3		
• NOVA Q	C905		
• OMEX Environmental Ltd	B401		
• Online Lubricants	D307		
• Panametrics	D501		
• PEMO Pumps	C803		
• Pentair	B201		
• PETERS MIXER / COBEFA	C503		
• PM POWER	A505		
• Privilege Finance / Eco Verde Energy (EVE)	B303		
• PRO GASES UK	B801		
• Prodeval	B203		
• QED	C811		
• ROTO PUMPS	D401		



EXHIBITORS • ADBA member • WBA member

2G ENERGY

B803

www.2-g.com

2G Energy is a global leader in the CHP industry. Specialists in the supply of high-efficiency CHP systems for natural gas, biogas and hydrogen, we have a power range between 20 and 2,000 kilowatts.



**AGRICO /
WANGEN PUMPS**

A105 • •

[www.edie.net/partner/
agrico-engineering-sales-ltd](http://www.edie.net/partner/agrico-engineering-sales-ltd)
www.wangen.com

Agrico, established in 1978, is a specialist in heavy duty pumping and mixing equipment. The main agents for EISELE & WANGEN UK. Our equipment is proven worldwide for its high quality, robust design using the latest technologies and giving long working-life with reliable continuous operation.



A-CONSULT

B110 •

www.aconsult.co.uk

2G Energy is a global leader in the CHP industry. Specialists in the supply of high-efficiency CHP systems for natural gas, biogas and hydrogen, we have a power range between 20 and 2,000 kilowatts.



AgriKomp

C805 •

www.agrikomp.com

agriKomp is a leading international technology provider building biogas and biomethane plants, with an established UK service, maintenance, and repowering division supporting our customers. Over 1000 plants constructed.



AB ENERGY UK

D309 • •

www.gruppoab.com

The leader in cogeneration and the energy exploitation of renewable sources to produce biomethane, AB is an innovative technology provider to the AD WWT and OFMSW sectors and has recently launched a fast-working and compact, modular compressor.



AGRIVERT

C703 • •

www.agrivert.co.uk

With over 25 years of success in the Industry, Agrivert is widely recognised as a leader in design, build, operation, and maintenance of award-winning bio-waste treatment and renewable energy infrastructures and technical services that offer high efficiency, operability, and robustness.



adicomP

A601

www.adicomP.com

AdicomP is an Italian company also based in USA, specialized in the compression and treatment of different types of gas. With almost 25 years of experience and more than 8500 skids in operation all over the world, AdicomP is today one of the world's leading players in designing and manufacturing natural gas, hydrogen, biogas, biomethane and landfill gas compressor packages.



AIR LIQUIDE

A509 • •

www.energies.airliquide.com

Our expertise covers the entire biomethane value chain: from the production of biogas, its purification into biomethane, and distribution to our customers. Air Liquide operates more than 20 biomethane production sites and 23 assets for gas supply and refuelling stations.



EXHIBITORS • ADBA member • WBA member

AIR PRODUCTS
C705



www.airproducts.com

Specialists in hollow fibre membrane separators for biogas upgrading since the 1970s, we engineer, manufacture, and market a full portfolio of PRISM® Membrane Separators and offer technical support to customers who incorporate our separators in their systems for resale.

AIRCO PROCESS TECHNOLOGY

D107

www.aircoprocess.com



We design technologies that contribute to future carbon capture projects and deliver high-efficient biogas upgrading plants with maximum resource utilisation and plant availability.

ALLISON ENGINEERING

B304 •

www.allison.co.uk



Allison Engineering specialise in innovative solutions for process challenges, to improve your profitability and efficiency, supplying instrumentation & safety related products/services for over 30 years.

ALLTECH / KEENAN

D201 •

www.alltech.com/keenan



At Alltech, we help farmers feed the world, raise healthy plants and animals, and protect the environment through nutrition and scientific innovation by driving on-farm productivity and results through maximising feed efficiency.

ALLVALVES

D103 •

www.allvalves.co.uk



Allvalves offer a complete range of actuated valves, manual valves, pipe fittings, pumps, and controls and can confidently supply products that meet all your requirements and conform to even the most stringent specifications.

ALPS ECOSCIENCE

B101 •

www.alpsecoscience.co.uk



Alps Ecoscience is an environmental consultancy helping AD, biogas and waste management facilities optimise performance to maximise energy release and resource recovery. Our team of biologists, engineers and environmental scientists support clients to maximise the conversion efficiency of feedstock for greater yield and a lower carbon footprint.

AMMONGAS

B703 •

www.ammongas.com



With more than 40 plants in Northern Europe, we engineer, design and build plant with a focus on sustainability, economy, efficiency, and operational reliability in biogas upgrading, air- and gas cleaning, odour removal and ammonia separation and concentration.

ANAERGIA

B107 •

www.anaergia.com/UK



Anaergia offers complete solutions for the generation of biogas, from agricultural products and manures through to OFMSW, with multiple installations and a service business, offering UK customers access to the full potential of the worldwide Anaergia Group.

Anessa

D205 • •

www.anessa.com



Founded by a group of passionate green energy engineers and entrepreneurs, anessa brings reliable and smart analytics into the workflow of anaerobic digestion project developers, biogas consultants and facility operators.

EXHIBITORS • ADBA member • WBA member**ARB Process Engineering**
D315www.arbprocessengineering.co.uk

Established in 2016 and based in Northern Ireland, ARB Process Engineering Ltd has been involved in over 80 Anaerobic Digestion projects across Northern Ireland, Republic of Ireland and UK ranging from 150KWe to 5MWe both CHP and Gas to Grid.

ARK AGRICULTURE
B603www.arkagriculture.com

ARK Agriculture are the leaders in silage storage, supplying unique sloping and vertical walled silage clamps, OXY SEAL oxygen barrier silage sheets, Secure Cover netting and accessories for biogas and livestock production.

BAUER
C501 • •www.bauer-at.com

Bauer design and manufacture according to strict European standards, thus ensuring the highest quality down to the smallest detail, with expertise in irrigation, separation and slurry technology as well as wastewater management in the non-agricultural sector.

BGasTech
D101www.bgastech.com

Specialists in biogas cleaning and biomethane production, we supply equipment across the biogas line, including particle filters, foam removal and condensate pots, dryers, cleaning and H₂S removal.

BIO-DYNAMICS TANKS LTD

C109 • •

www.bio-dynamics.be

We specialise in building tanks of all size – 4.5m-50m diameter, up to 20m height - for wastewater treatment and biogas plants and industrial and agricultural applications, with 30 years of experience in wastewater and environmental engineering.

BIOCONSTRUCT NEW ENERGY

B301 •

www.bioconstruct.com

Over the last 20 years we have built and successfully commissioned over 300 AD plants, as well as several wind and solar projects, developing an extensive infrastructure to optimise their performance, covering all elements of AD servicing, operations and maintenance.

BioG UK
B705 •www.biog-uk.co.uk

Headquartered in Utzenaich in Austria, BioG develops, plans, manufactures and operates technical plants to generate energy from residual materials - catch crops, manure and food waste – to produce the world's most commonly used gas, methane (CH₄).

BIOGAS SALES UK
A205 •www.biogassalesuk.com

Established in 2021 after more than four years in the AD industry supplying bio-CO₂ from AD plants, we are here to advise AD owners on selling their bio-CO₂ to the market, with many contacts in industry looking for an alternative source of bio-CO₂.

EXHIBITORS • ADBA member • WBA member

BIOGASJG

C601 • •

www.biogasjg.nl

Specialists in supporting biogas producers manage their desulphurisation process, BiogasJG supplies additives, analysis services and advice to improve the biological process to increase the methane production.



BIRCH SOLUTIONS

B903

www.birchsolutions.co.uk

The leading provider of servicing, maintenance, consultancy, and expertise, we work with AD plants in multiple sectors to maximise your revenue and reduce input costs through wastewater technical services and maintenance, liquid digestate treatment services and expert biological support.



BIOGEST

C809 •

www.biogest.at

With 9 branch offices across Europe and North America, and over 170 biogas plant projects delivered, BIOGEST covers the whole lifecycle. From planning to the efficient operations of plants our highly qualified employees will accompany you throughout your project and beyond.



BMP GREENGAS GMBH

C701 • •

www.bmp-greengas.com

Germany's leading distributor of biomethane and the expert for green gases, we support companies in switching to a sustainable energy supply with biomethane, green hydrogen, bio-SNG and bio-LNG, taking care of every aspect, to deliver fail-safe supply.



BIORENEWABLES DEVELOPMENT CENTRE

R&I 2, 3, 4 •

www.biorenewables.org

The Biorenewables Development Centre (BDC) is an open-access R&D biorefinery centre, working at the interface between academia and industry to convert plants, microbes and biowastes into profitable biorenewable products, offering multi-disciplinary expertise coupled with pilot-scale processing capabilities in one coordinated centre.



BOHR LIMITED

R&I 1 •

www.bohreg.com

With over 100 years Clean Energy, Natural Gas, Hydrogen and Biomethane experience, Bohr has an established R&D legacy for developing technology to improve productivity, reliability and safety. Unveiling advanced systems for gas sampling and analysis in biomethane and hydrogen.



BIOTEC

C707 • •

www.biotec.de

A biopolymer compounding company, we are a leading company in the development and production of compostable solutions and understand the significant conversion processes for biodegradable thermoplastic compounds, enabling partners to produce or source biodegradable and compostable products.



BORGER UK LIMITED BÖRGER

C901 •

www.boerger.com

Leading pump manufacturer behind a range of solids separators, macerators, solids feed technology and its Maintenance-In-Place (MIP) rotary lobe pumps, with the spotlight on the Bioselect, designed for the easy and highly effective separation of slurry at farms and AD plants.



EXHIBITORS • ADBA member • WBA member**BPC INSTRUMENTS** **A409**www.bpcinstruments.com

BPC Instruments (formerly Bioprocess Control) is a Swedish-based technology company that develops and sells automated, analytical instruments that allow for more efficient, reliable and higher quality of research and analysis in a wide range of industries.

BRIGHT RENEWABLES B.V. **B503**www.bright-renewables.com

The largest and most experienced supplier of Biogas Upgrading Systems, CO₂ Liquefaction Systems, and Carbon Capture Technology, with 24/7 remote monitoring and customized service & maintenance contracts.

C-ZERO MARKETS **B701** • •www.c-zeromarkets.com

C-Zero supports companies and organisations realise their decarbonisation strategies and targets, with renewable energy and emission reduction solutions as they navigate the pathway to net-zero carbon by 2040.

CELIGNIS BIOMASS LABORATORY **A501** • •www.celignis.com

We are a dedicated laboratory with AD expertise whose team of experts provide you with the most precise data, allowing you to make the best use of your feedstocks and optimise your conversion processes.

CELTIC CHEMICALS **B109**www.celticchemicals.co.uk

Celtic Chemicals manufactures and distributes specialty mineral salts and other specialist chemical-based products for a wide range of industries including the biogas sector from its fully equipped inorganic analysis lab and a multipurpose production area.

CERES ENERGY / BARROW SHIPPING **D307** •www.ceresenergy.co.ukwww.barrowgreengas.co.uk

We deliver unique opportunities to our clients, combining Ceres' fossil gas expertise with Barrow's comprehensive knowledge of the green gas market.

CHEMVIRON CARBON **C301**www.chemviron.eu

Chemviron is the leading global manufacturer and supplier of activated carbons, filter aids, innovative treatment systems and services for optimising production processes and safely purifying the environment.

CLARKE ENERGY **D601** • •www.clarke-energy.com

The largest authorised distributor and service partner for Jenbacher gas engines, projects Clarke Energy, a KOHLER Company, delivers include those incorporating gas engines, biogas upgraders, battery energy storage systems, CO₂ capture and heat pumps.

CLIMETREK **D701** •www.climetrek.com

A boutique end to end carbon consultancy ClimeTrek is an international project developer and sustainability consultancy with vast experience in developing projects under voluntary carbon mechanisms such as the Clean Development Mechanism, trading 20+ million offsets to date.

EXHIBITORS • ADBA member • WBA member

**COLLOIDE
ENGINEERING
SYSTEMS**

A107

www.colloide.com

With over 20 years' experience in providing renewable energy solutions to the agricultural, industrial and municipal sectors, supplying innovative solutions and upgrading existing systems, Colloide is a highly skilled process engineering company, with specialist skills in water treatment, energy, environmental and facilities engineering solutions.



**EASY CRYPTO
HUNTER**

A901

www.easycrypthunter.co.uk

The UK's leading team for Cryptocurrency mining, we advise the UK Government and the EU Parliament on future Cryptocurrency and Blockchain policy. Bitcoin mining and biogas? Drop by to find out more.



**CPL ACTIVATED
CARBONS**

D901

www.activated-carbon.com

CPL Activated Carbons is a leading UK-based manufacturer and supplier of activated carbon filtration products and related services, including a wide range of Clean-Flo® mobile carbon filters, engineered in-house by our subsidiary CPL Icon.



ECOMONDO

B905

www.ecomondo.com

Ecomondo, the annual and leading circular economy exhibition, takes place in Rimini, Italy from 8-11 November 2022; 14,000m², 1,000 exhibitors and 70,000 visitors, providing opportunities for municipalities, commercial and industrial companies, and service businesses to meet, find new partners and suppliers, and strengthen existing relationships.



**CROWN GAS
& POWER**

D305

www.crowngas.co.uk

Crown Gas & Power is a leading natural gas and biogas supplier, offering 100% biogas (biomethane) supply to businesses. Our inhouse utility connections team provides gas, electricity and water connections, service alterations, metering upgrades and disconnections.



ECONWARD TECH

B307

www.econward.com

We are a global technology company specialised in developing innovative, efficient and sustainable solutions for treating, recycling and recovering organic waste, creating sustainable infrastructure that generates economic, environmental and social value.



DMT

A207

www.dmt-et.com

DMT is a leading total solutions provider offering gas to grid, bio-CNG, bio-LNG locally or central, or virtual pipeline options. Our technologies, products and services offer the best solutions in biogas conditioning and upgrading.



ELAFLEX LTD

D303

www.elaflex.co.uk

ELAFLEX Ltd is the UK & Eire supplier of ZVA nozzles, nozzle spare parts and accessories, rubber flexible hoses, TW couplings, ERV expansion joints and MannTek Dry Disconnect Coupling for the petroleum, LPG and petrochemical industries.



EXHIBITORS • ADBA member • WBA member**EMS INDUSTRIES****C105**www.emsindustriesltd.com

At EMS Industries Ltd we manufacture ram pumps for the wastewater and the biogas industries, specialising in performance, quality and durability; each pump is customised for the individual job to ensure maximum efficiency.

**EXEON****D105**www.exeon.co.uk

We are a family company providing clean air for our clients' workforces, production processes and external environments. Our expertise includes odour and emission or dust control systems, and mobile fume extractors – designed to meet client needs.

**ENKING INTERNATIONAL****D705** •www.enkingint.org

EKI Energy Services Limited is a Bombay Stock Exchange (BSE) listed company offering carbon asset management to businesses and organizations globally, including carbon credit generation, supply and offsetting.

**FLUID RENEWABLES****C401** • •www.fluidrenewables.com

Our innovative products include supportive probiotic additives that increase organic waste to energy conversion within anaerobic digestion to optimise biogas production, supporting our partners worldwide in the drive towards a carbon-neutral future.

**ESMIL GROUP****A203** •www.esmil.eu

ESMIL Group is a leading global manufacturer of equipment for wastewater treatment and a provider of advanced water treatment and "Zero Waste" solutions for various industries and more than 25 years' experience and expertise in the field of membrane filtration.

**FLUIDPOWER GROUP SERVICES****A801** • •www.fluidpowergroup.co.uk

Engineering solutions from concept to completion. Experienced hydraulic engineering, extensive application knowledge and a broad range of products from leading global brands.

**EUROTRON INSTRUMENTS (UK)****D605** •www.ei-uk.com

Eurotron Instruments are the market leaders and experts in Gas and Emissions Analysers and test equipment which include pressure and temperature calibrators, to optimise process operations, understand and reduce emissions and work in a safer environment.

**FM BIOENERGY****D805** •www.fmbioenergy.co.uk

FM BioEnergy provides a range of services to help AD operators gain more control of the process to increase methane yields and returns on investment, across both waste and agricultural plants and its client base generates 35% of the UK's AD/biogas output.

**FOGMAKER UK & IRELAND****C303**www.fogmaker.uk

Since 1995 Fogmaker International AB has been developing, manufacturing and marketing fire suppression systems for engine compartments with over 150 000 installations globally, including over 10,000 in the UK and Ireland and a dedicated support network.



EXHIBITORS • ADBA member • WBA member

FPT
D503

www.fptindustrial.com

FPT Industrial offers the most complete line-up of natural gas engines on the market for industrial applications, with power that goes from 50 to 460 hp. This extensive offering and a strong focus on R&D activities make FPT Industrial a world leader in industrial powertrains.



**GREENLANE
BIOGAS**

B505 • •

www.greenlanerenewables.com

Greenlane Renewables Inc. (TSX: GRN) is a leading global provider of biogas upgrading solutions from organic waste sources including landfills, wastewater treatment plants, dairy farms, and food waste, suitable for either injection into the natural gas grid or for direct use as vehicle fuel.



GAS DATA

C507 • •

www.gasdata.co.uk

Since 1991, Gas Data has been manufacturing constantly developing and improving innovative fixed and portable instruments that analyse gases for industrial applications and are recognised performance leaders in their fields.



**HEAT AND POWER
SERVICES**

A603 •

www.heatandpowerltd.co.uk

The leading maintenance provider in the biomethane and renewable vehicle fuelling sector.



GEN-C

C603 •

www.gen-c.co.uk

Gen-C is a gas engine spare parts and support company for leading brands MWM, MAN and Jenbacher, and the exclusive UK distributor for Motortech and RS Motor, supplying genuine parts, systems and upgrades for gas engines, specialising in the AD sector.



**HOPES
GENERATION LTD**

D801

www.hopesgeneration.co.uk

Electrical and mechanical support in the power generation industry, specialising in gas engines.



GENESIS

B501 • •

www.genesisdistribution.co.uk

Genesis Distribution was founded with the motto of 'New Beginnings', centred round the concept of a fresh approach to the sales, distribution and maintenance of quality products to the AD sector in Northern Ireland with a firm eye on the agricultural marketplace.



HOST BIO-ENERGY

D603 •

www.host.nl

HoSt stands out as an industry-leader in technological innovation in the field of transforming residual streams into bioenergy and other valuable end-products, striving to a zero-waste society.



GREENCROP

D311 •

www.greencrop.co.uk

Greencrop supply the unique Sepcom range of horizontal and vertical separators for digestate, slurry and sludge waste and Sepcom submersible and external pumps and mixers.



**HRS HEAT
EXCHANGERS**

C107 • •

www.hrs-heatexchangers.com

HRS operates at the forefront of heat transfer technology, focusing on managing energy efficiently, committed to providing innovations that help AD plant operators maximise energy consumption, waste and CO₂, whilst lowering fuel bills and improving final product quality.



EXHIBITORS • ADBA member • WBA member

HUESKER UK

A405 • •

www.huesker.co.uk

We offer manure and liquid storage solutions that comply with all legal requirements regarding odour and emission pollution, with options for the storage of water used for leachate, sewage sludge, firefighting, rain and process water.



KONRAD PUMPE GMBH

D301

www.pumpegmbh.de

Founded in 1830 as a smithy, today Konrad Pumpe GmbH is an innovative specialised company for plant engineering, producing customised equipment and machine systems for biogas plants, primarily processing steel and stainless steels.



JONES MCGIRR & CO

C505 •

www.jonesmcgirr.com

Jones McGirr provides a dedicated and professional service specialising in the supply and installation and retrofit of geomembrane and geotextile linings for the agricultural sector – largely slurry and waste storage.



LANDIA

A103 •

www.landia.co.uk

Landia is a worldwide supplier of Chopper Pumps and Mixer Solutions with its main businesses being wastewater, anaerobic digestion/biogas, agriculture and recycling of waste products.



KARBONSAN

B302

www.karbonsan.com.tr

A leading Pressure Vessel Manufacturer with exports of High Quality Engineered Cryogenic, PUR insulated and Single walled Pressure Vessels to more than 80 countries.



LAT WATER

R&I 5 •

www.latwater.co.uk

LAT Water is British wastewater treatment company. We have developed unique solutions to recycle clean water and energy that operate using waste heat as a free energy source.



KELVATEK

A209 •

www.camlingroup.com

We deliver data-driven insights for the holistic monitoring of plants and networks, to optimise performance and reduce risk, including our data visualisation tool BioSpec Insights and BioSpec VOC gas analyser.



LET'S RECYCLE

D109 • •

www.letsrecycle.com

letsrecycle.com is run by the Environment Media Group Ltd, part of Roar B2B, and is the UK's leading independent dedicated website for businesses, local authorities and community groups involved in recycling and waste management.



KIS GROUP

D703

www.kisgroup.net

Asia's leading and multiple award-winning company with 16+ years of providing sustainable clean technologies for Biogas, BioCNG®, wastewater and water treatment. We also provide consultation on biofuels and carbon foot-print reduction.



LIVELAB

A805

www.livellab.co.uk

A leading independent laboratory providing analysis to the AD and Biogas industries and wider environmental and agricultural industries.



EXHIBITORS • ADBA member • WBA member

MALMBERG

C807 •

www.malmberg.se

Malmberg is a 155-year-old Swedish cleantech company with complete solutions in the fields of water treatment, biogas, geothermal energy and drilling.



MORRIS LUBRICANTS

C903 •

www.morrislubricants.co.uk

For over 150 years, Morris Lubricants have been manufacturing, blending and distributing premium quality oils, lubricants and greases to the world's major gas engine OEMs.



MARSH COMMERCIAL

B305 •

www.marshcommercial.co.uk

A specialist renewable energy insurance broker, we know the AD and biogas market and understand the challenges and risks your business faces, so we're able to offer expert advice and arrange the right renewable energy insurance to protect your business.



NFU ENERGY

D115 •

www.nfuonline.com

The NFU represents more than 46,000 farming and growing businesses. Our purpose is to champion British agriculture and horticulture, to campaign for a stable and sustainable future for British farmers and to secure the best possible deal for our members.



MAVITEC GREEN ENERGY

A101 •

www.mavitecgreenenergy.com

Mavitec Green Energy specialises in designing and producing recycling systems for processing organic co-products from the food industry and agricultural sector, designed to handle, depack and resize organic by-products in the most effective way.



NIJHUIS SAUR / ECONVERT / BYOSIS

B901

www.nijhuisindustries.com

www.econvert.nl

www.byosis.com

Nijhuis Saur Industries alongside Econvert and Byosis offer end-to-end solutions for resilient water use, energy, and resource recovery globally; with wastewater treatment and biogas conditioning through to digestate enhancement and ammonia removal.



MBC - FerroBIO GROUP

A201

www.ferrobiogroup.com

The FerroBio Group, part of MBC Chemical Industries S.A., is a Spanish company which offers iron hydroxide as an effective method for desulphurisation in biogas plants. We extract dry, grind, pack and deliver our iron hydroxide all over the world.



NNFCC

R&I 3 •

www.nnfcc.co.uk

NNFCC is a strategic business consultancy covering all bioeconomy sectors, to provide clients with a strategic view of feedstock, technology, policy and market development across the bioeconomy, enabling them to develop sustainable business strategies.



EXHIBITORS • ADBA member • WBA member

NOVA Q
C905 •
www.nova-q.ie



Nova Q Ltd is an innovative distributor of biological products and specialist solutions for the wastewater, agriculture, industrial, and food markets in Ireland and across Europe.

PEMO PUMPS
C803
www.pemopumps.com



Founded in 1947, Perissinotto S.p.A. manufactures the widest range of heavy-duty slurry pumps for tough abrasive and acidic applications; hard metal and rubber lined pumps with customized design for single-stage, multi-stage, submersible, and vertical configurations.

OMEX
Environmental Ltd
B401 • •
www.omexenvironmental.com



OMEX Environmental Ltd is at the cutting edge of AD, developing bio-available micronutrient supplements to maximise the efficiency of AD plants. We also offer a range of nutrients and neutralisers for all types of wastewater treatment.

PENTAIR
B201 •
www.pentair.com



Pentair has more than 35 years of experience in project based modular systems engineering in Venlo, the Netherlands and Fredericia, Denmark, making us your leading partner of choice for advanced biogas upgrading systems.

Online Lubricants
D307
www.online-lubricants.co.uk



Online Lubricants is recognised as a World Class Distributor for Petro-Canada Lubricants. We offer express deliveries across the UK and pride ourselves on providing outstanding customer service. Petro-Canada's market leading Sentron range is specifically designed for stationary gas engines and is proven to significantly increase performance and extend drain intervals.

PETERS MIXER / COBEFA
C503
www.peters-mixer.com
www.cobefa.be



Peters Mixers have been producing agricultural slurry agitators for decades, and just over 20 years ago we added the biogas sector, developing agitators with a very high efficiency in their performance. Cobefa offer concrete solutions to meet biogas infrastructure needs.

PANAMETRICS
D501
www.bakerhughes.com/panametrics



Panametrics, a Baker Hughes business, develops solutions for measuring and analysing moisture, oxygen, liquid, steam, and gas flow with proven technologies that are well-known and widely deployed across many industries, including oil and gas.

PM POWER
A505 •
www.pmpower.com



Serving the UK and Ireland with Industry leading power generation solutions.

EXHIBITORS • ADBA member • WBA member

**PRIVILEGE
FINANCE & ECO
VERDE ENERGY**

B303 •
www.privilege.finance
www.ecoverde.energy

With over 20 years' experience in the renewable energy sector, Privilege specialises in financial and technical AD and EFW expertise and launched Eco Verde Energy (EVE) in 2020 to supply O&M services for AD plants in the UK looking to outsource operations to an experienced team of specialists.



**Roto Pumps
D401**

www.rotopumps.co.uk

Roto Pumps, with its rich legacy of 50+ years in fluid engineering solutions, is globally trusted for its highly efficient customised pumping solutions. Since its Inception, Research & Innovation are the core strengths of Roto Pumps which is deep-rooted in our DNA.



Pro Gases UK

B801 •
www.progasesuk.com

Pro Gases UK is the UK's largest independent supplier of industrial and beverage gases, with over 40 years' experience - we partner with AD plants, using an experienced team and our own fleet of ISO tanks, to offtake CO₂ and efficiently distribute it to customers.



Saveco

B601
www.saveco-water.co.uk

SAVECO Environmental, part of WAMGROUP, provides state-of-the-art solutions to customers in the UK and Republic of Ireland through a comprehensive product range for effluent pre-treatment and sludge treatment in livestock farming and biogas plants, municipal and industrial wastewater treatment plants.



PRODEVAL

B203
www.prodeval.com

PRODEVAL is a leading French company in the treatment and valorisation of biogas from organic waste, with over 30 years' experience of providing our customers with customized solutions for the production and distribution of biomethane.



**SG Tech
R&I**

A407 • • •
www.sgtech.co.il

SGTech specialises in zero-carbon sustainable farming, with a focus on providing a complete and sustainable solution for the livestock industry. The company has developed an innovative biological process that combines enhanced biogas production with the simultaneous removal of nutrients from livestock manure and slurry.



QED

C811 •
www.qedenv.com

As industry leaders, QED is the premier manufacturer of monitoring and remediation equipment, precision engineered pumping solutions and gas instrumentation. Serving a wide range of environmental markets worldwide.



**SGN Commercial
Services**

A407 •
www.sgncommercialservices.co.uk

SGN Commercial Services - part of the SGN Group, who own and operate the gas distribution networks in the south of England, Scotland and west of Northern Ireland - offers a wide-range of specialist and gas-related professional services countrywide.



EXHIBITORS • ADBA member • WBA member

SGS
C103 • •www.sgs.com

SGS is the world's leading testing, inspection and certification company, recognised as the global benchmark for quality and integrity.

**THOENI**
INDUSTRIEBETRIEBE
GMBH

B103 •

www.thoeni.com

We are a far-sighted family-run company that attaches great importance to sustainable development, offering precision tooled biogas systems, such as the TTV Thoeni Continuous High Solids Anaerobic Digestion (cHSAD), and a range of TTV components (pumps and agitators).

**Steverding**
Rührwerkstechnik
D803www.ruehrwerkstechnik-steverding.de

Steverding Agitator Technology is a manufacturer of paddle agitators for biogas plants. We rely on the quality and durability of our agitators to satisfy our customers in the long term.

**UNISENSOR**
A401www.unisensor.de

UNISENSOR Sensorsysteme GmbH is a family-run, innovative high-tech company in the field of process analytics and control, with internationally patented systems for the recycling, beverage, gas, and energy sectors.

**SUMA Rührtechnik**
C101www.suma.de

SUMA is a German provider of agitators, mixers and pumps specifically designed for biogas plants and liquid manure tanks or lagoons. We've been delivering agitation and pumping solutions for over 60 years in the biogas, manure and wastewater industry.

**UrbanChain**
R&I6 •www.urbanchain.co.uk

Using blockchain, AI and IoT to create Local Energy Markets and Virtual Power Plants, UrbanChain can deliver significant savings on energy bills, bring renewables of all sizes to the mainstream market, and enable consumers to meet their net zero targets.

**THE UTILE**
ENGINEERING CO LTD
B805www.utileengineering.co.uk

We are a leading supplier/packager of Gas Compressors, gas boosters, and continuous gas/air mixing systems and the UK Agent for Sattler double membrane gas holders, and also provide on-site stainless-steel pipe work installations.

**UZ Kimya Ltd /**
EnviTec Biogas
Service UK
A503www.uzkimya.comwww.envitec-biogas.co.uk

As a leading biogas all-rounder, EnviTec offers a broad portfolio for all aspects of energy production from biomass. We offer customised plant concepts, an all-round service, green concepts for biomethane and electricity marketing as well as heating concepts.



EXHIBITORS • ADBA member • WBA member

VERDANT BIOTECH LTD

R&I2 •

www.verdantbiotech.com



Verdant Biotech exclusively supply next generation enzymes to UK and Irish AD plants for our partner Biopract ABT GmbH, allowing smoother operation, higher yields and improved substrate utilisation.

WOLF SYSTEMS CONSTRUCTION LTD

C307 •

www.wolfssystem.at



Wolf System specialise in building reinforced concrete tanks for the biogas industry - digesters, buffer tanks, reception tanks as well as storage tanks for a variety of liquids.

Vogelsang

D403 •

www.vogelsang.info



Vogelsang UK is a subsidiary of Vogelsang Germany and is responsible for the Vogelsang Group's commercial activity, on the full product range that the group offers in England, Wales and Scotland.

WRM Ltd

R&I4 •

www.wrm-ltd.co.uk



WRM is the UK's leading organic waste management consultancy with a team of technical consultants who provide assurance in strategic, development, and operational projects, delivering practical advice that makes commercial sense.

WÄRTSILÄ BIOGAS SOLUTIONS

A403 •

www.wartsila.com



With more than 20 years' experience in the design and delivery of biogas upgrading solutions using the unique PUREGAS process to produce biomethane for direct grid injection, compressed or liquefied to produce low-carbon fuels.

Zebra B Ltd

A701

www.zebra-em.com



A cloud-based solutions provider specialising in data and plant management software for AD facilities and others worldwide, tailor made or off the shelf products, enabling you to optimise performance and calculate your companies profit and loss in real time.



Scan the QR code to view exhibitor profiles:





FOUNDED

September 2009

VISION

To see the full potential of the UK AD industry realised so it can help the UK to achieve its emissions targets and other policy goals, creating a truly circular economy.

MISSION

To act as the voice for the UK AD industry and companies and organisations working on novel technologies and processes that complement the AD process and products. With our members we promote the economic and environmental benefits of AD in the UK.

MEMBERSHIP BENEFITS

- Access regulatory and policy advice
- Network and do business
- Keep up to date with industry news
- Contribute to shaping UK AD policy
- Share ideas
- Learn best practice
- Find out about technical developments and innovation

Join the AD community – we are the energy behind the AD revolution. For more information, visit the ADBA stand.



FOUNDED

November 2016

VISION

A world in which biogas is recognised as a key industry in addressing the global environmental and social challenges of our times, and in providing a sustainable, green future for all.

MISSION

To act as the voice for the biogas industry worldwide: raising awareness and providing evidence of its potential; facilitating business growth; supporting high standards of operation.

MEMBERSHIP BENEFITS

- Global advocacy
- Global market intelligence and knowledge-sharing
- International business opportunities
- Best practice and policy guidance
- Events and site visits
- International networking
- Global marketing opportunities

Join us in realising the potential of the global biogas industry. For more information, visit the WBA stand.

Stand D209

Smarter Energy for a Cleaner Future

Capstone Power Solutions works with you to build a smarter energy infrastructure with a range of renewable Capstone microturbine, gas compressors and IOT solutions. Our microturbines cleanly and effectively run on methane gas from landfills, wastewater treatment facilities, food processing facilities and agricultural waste. Rather than simply venting or flaring the methane gas, the microturbines can convert this free fuel to clean and reliable electricity for use at the site or surrounding areas.



www.capstonepowersolutions.com



ANAEROBIC DIGESTION CERTIFICATION SCHEME

The only certification scheme in the UK that assesses the all-round safety, environmental and operational performance of anaerobic digestion plants.

- Get feedback from specialist auditors in AD
- Understand your plant's risks and how to manage them
- Improve your commercial success
- Stay ahead of the regulators with your commitment to best practice

Discounts available for multiple site applications

Contact enquiries@adbioresources.org and +44 (0) 20 3176 0503



www.adcertificationscheme.co.uk

