



# WORLD WASTE TO ENERGY AND RESOURCES SUMMIT

London, May 21-22, 2019

New Markets, Advanced Technologies and Project  
Finance for Waste Conversion in the Circular Economy

## SUMMIT PROGRAMME



GOLD PARTNERS

HOSTED BY



# WELCOME TO THE WORLD WASTE TO ENERGY AND RESOURCES SUMMIT IN LONDON

We're delighted to be hosting our eighth annual summit and continuing our mission to promote innovation, investment and collaboration across the waste to energy and resources industry.

This year's agenda will explore waste policy, upcoming projects in international markets, game-changing business models, the future of thermal ACT, innovation in anaerobic digestion and high-value fuels and chemicals from waste.

With presentations on current projects underway in Australia, Malaysia, India, the Middle East, Africa and around the world, we're looking forward to two days of international business networking and deal-making. Please take advantage of our 1:1 meeting system to make sure you meet face-to-face with your most important contacts during the event.

We're also delighted to be partnering with Foresight Group to host a breakfast briefing on

the second morning of the summit, which will offer in-depth insight into making projects fundable by securing long-term waste supply.

Thank you to all of our sponsors for their support: do connect with them during the networking breaks. I also hope that everyone will join us for our annual drinks reception at the end of the first day of the summit.

As we look ahead to next year's event, please take the time to share your feedback and suggestions with us, so that we can continue to build the summit year on year as the meeting place for international waste to energy and resources industry leaders.



Jennie Moss



## MEET THE RETHINK TEAM

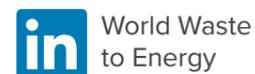
 <b>Jennie Moss</b> Founder & Managing Director	 <b>Stephan Groves</b> Director	 <b>Peter Barden</b> Conference Producer	 <b>Rachel Myall</b> Business Development Manager	 <b>Sophie Brady</b> Business Development Manager
 <b>Callum Alexander-Lindsay</b> Delegate Manager	 <b>Elliot Wood</b> Delegate Manager	 <b>Agnieszka Kuzma</b> Events Executive	 <b>Laura Hodgkiss</b> Marketing Executive	 <b>Sophie Ruffett</b> Marketing & Events Assistant

## Join us on social media

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## 1:1 MEETINGS

Maximise your networking potential at the summit.

The essential tool to manage meetings with your most important contacts and form new business partnerships at the summit.

Log in to view profiles of other delegates, send messages and arrange to meet at the designated meeting tables.

[meetings.worldwastetoenergy.com](http://meetings.worldwastetoenergy.com)

If you require assistance arranging 1:1 meetings, please visit the registration desk.

## GOLD PARTNERS



**ACCIONA Industrial** is an EPC company that operates in the energy sector including conventional generation, thermal solar, biomass, waste to energy, photovoltaic, wind, hydroelectric, oil and gas, and transmission and distribution. ACCIONA Industrial is building the Kwinana waste to energy plant in Perth, Australia. It will become the largest in the country, processing 400,000 tons of waste each year. ACCIONA actively participates in this sector in Europe, Latin America, Middle East, Southeast Asia and Australia.



**CMS** is the sixth largest international law firm by headcount, with 74 offices in 42 countries. No matter where your project – CMS has the expertise to help. It has world-class bench strength with over 2,100 lawyers in the UK and a global team of over 4,500 lawyers. CMS has a dedicated multi-disciplinary waste team, which has extensive expertise across the waste sector and has advised on some of the largest and most complex waste projects across the globe.



**Kobelco Eco-Solutions** was established in 1946 as a member of the Kobe Steel Group. Its gasification and melting technology generates renewable energy from waste while minimising the environmental impact. This technology can handle a diverse range of waste feedstock with robust operation and high energy conversion efficiency. Kobelco has 19 proven commercial-scale reference plants, which have been operating for up to 18 years, and its Technical Research Centre has more than 100 professional engineers and scientists carrying out R&D to support its customers and develop next generation technologies.



**Mitsubishi Electric** has a proven track record of supplying turnkey electrical, instrumentation and control (E&I) projects for energy producers including full engineering and commissioning. This includes systems for energy from waste, biomass and related industries, such as biogas-based generation for waste water clients – covering both electricity generation from steam turbines and district heating. Whatever the application, Mitsubishi Electric is likely to offer a solution, which is why this market leading company is participating at the summit, sharing its expertise and exhibiting its technologies.



**Valmet Corporation** is the leading global developer and supplier of process technologies, automation and services for the pulp, paper and energy industries. For the energy industry, Valmet's strong technology offering includes power plants for bioenergy production. It offers sustainable solutions for optimum energy production from waste-derived fuels for eco-efficient energy production. Its advanced services and automation solutions improve the reliability and performance of its customers' processes and enhance the effective utilisation of raw materials and energy. Valmet aims to become the global champion in serving its customers.

## SILVER PARTNER



**Green Conversion Systems (GCS)** develops and operates plants that manufacture a clean, customisable replacement for coal from MRF residual material. The patented MSW to ReEF® fuel technology is the next technological advancement beyond RDF, provides 90% landfill diversion and economically addresses the negative climate and environmental impacts of burning coal and depositing over 60% of the world's municipal and commercial waste in landfills.

## BREAKFAST BRIEFING HOST



**Foresight Group** is creating a sustainable legacy for future generations through a relentless pursuit of innovative opportunities that offer attractive returns for investors. It thinks hard about how it invests on behalf of its clients, and its environmental and social impact. As the leading global investor in renewable energy infrastructure, Foresight Group supports small businesses around the UK with growth and venture capital to stimulate enterprise, growth and jobs. Investing for a smarter future, as it has been doing for over 30 years.

## INNOVATION PARTNER



**Sierra Energy** has developed the FastOx® gasification system, which uses heat, steam and oxygen to break down waste at the molecular level. Organic materials turn into an energy-dense syngas. Inorganics melt into a non-leaching stone. Waste undergoes complete conversion into high-value products without burning. There are no toxic by-products and no process emissions.



# SUMMIT AGENDA

DAY ONE TUESDAY MAY 21, 2019

## 08:55 Welcome Remarks

Jennie Moss, Founder & Managing Director, RETHINK EVENTS

## 09:00 Leveraging Policy to Open Up New Market Opportunities and Boost Profitability

The right government policy at the right time can have a huge impact on opportunity and profitability in the sector. Of course, the opposite can be true too, where either bad policy – or no policy at all – has the power to kill off projects or stifle essential progress. Our panel of global industry leaders explores:

- In which markets are developments in policy driving the industry forwards?
- What needs to be in place from a regulatory standpoint to incentivise waste conversion to energy and resources, especially as we move away from subsidies?
- Where can the biggest improvements be made? Who needs to lead the way?

### SESSION CHAIR



**James Court**  
Policy & External Affairs Director  
RENEWABLE ENERGY ASSOCIATION, UK



**Thomas Obermeier**  
President  
GERMAN ASSOCIATION FOR WASTE MANAGEMENT, GERMANY

### SPEAKERS



**Adam Read**  
External Affairs Director  
SUEZ RECYCLING AND RECOVERY, UK



**Hazel Schofield**  
Head of Low Carbon Fuels Regulation, Low Carbon Fuel  
DEPARTMENT FOR TRANSPORT, UK



**Jaromír Manhart**  
Director of Waste Management  
MINISTRY OF THE ENVIRONMENT, CZECH REPUBLIC



**Carlos Afonso**  
Director, Head of Corporate Development & Concessions  
FCC ENVIRONMENT, SPAIN

## 09:45 New Project Opportunities (and Challenges) in International Markets

### SPEAKERS

#### AUSTRALIA



**Alfons Juan Tomás**  
Director of Business Development  
ACCIONA INDUSTRIAL

#### MALAYSIA



**Ho De Leong**  
Chairman  
WASTE MANAGEMENT ASSOCIATION OF MALAYSIA (WMAM)

#### POLAND AND EASTERN EUROPE



**Roland Ramusch**  
Principal Specialist  
Solid Waste Sustainable Infrastructure Group  
EUROPEAN BANK OF RECONSTRUCTION AND DEVELOPMENT

## 10:45 Networking Coffee Break



## 11:15 Banks, Private Equity and Sovereign Wealth – Where Are the Funds Flowing From?

- What kinds of waste to energy and resources projects are bankable in today's market? Which projects are attracting finance, and who is backing them?
- Private equity funds are becoming more averse to risk – what is happening here? Is blended finance the answer to get the more innovative projects off the ground?
- How should risk be distributed and what does the future of financing waste to energy and resources look like?
- Are banks softening their risk criteria? What impact could this have on the industry?
- With subsidy programs running their course, what are the implications for the next five to ten years of financial modelling?

### SESSION CHAIR



**Bryony Collins**  
Editor  
BLOOMBERG NEW ENERGY FINANCE, UK



**Ben Wright**  
CFO  
BIOENERGY INFRASTRUCTURE GROUP, UK

### SPEAKERS



**Beth Watkins**  
Director  
FORESIGHT GROUP, UK



**Simone Aroni**  
Director – Energy & Infrastructure Group  
CREDIT AGRICOLE, UK



**Matthew Edgar**  
Senior Vice President  
GREEN INVESTMENT GROUP, UK



**Charlotte Eddington**  
Investments Director  
ABUNDANCE INVESTMENT, UK

## 12:00 Innovation in Action: Demonstrating the Success of Advanced Conversion Technologies

We hear high-profile case studies of ventures that have forged new horizons, broken the mould and driven industry-defining innovation through advanced conversion technologies.

### SPEAKERS

#### CASE STUDY 1



**Carl Wolf**  
VP Europe  
LANZATECH, USA

#### CASE STUDY 2



**Mike Hart**  
President & CEO  
SIERRA ENERGY, USA

## 12:30 Lightning Talk: 187 Billion Problems a Year - Solving the Nappies to Landfill Dilemma

A total of 187 billion nappies are thrown away each year globally, but unlike bottles, cans or cardboard, nappies are hard to recycle. Now engineers have devised ways of recovering the plastic and other materials inside them. A pilot plant has opened in Treviso, Italy, backed by the world's largest producer of nappies: Procter & Gamble.



**Giovanni Fabbri**  
Fater SMART BU  
General Manager  
PROCTER & GAMBLE, ITALY

## 12:45 Synergies of Tomorrow: TUAS NEXUS – The Frontier of The Circular Resource Park Concept

Singapore's National Water Agency (PUB) and Singapore's National Environment Agency (NEA) have appointed an international team of consultants to establish an Integrated Waste Management Facility (IWWMF) alongside the world's largest water reclamation plant (Tuas WRP) designed to treat the nation's solid waste and used water, respectively. This will be the world's largest energy recovery facility.



**Bettina Kamuk**  
Global Market Director – Waste to Energy  
RAMBOLL, DENMARK

## 13:00 Networking Lunch Break



## 14:00 Cyber Security in Waste to Energy Plants: Industry Fad or Genuine Threat?

Protocols for cybersecurity in the energy industry are often limited to the prevention of data breaches. However, by infiltrating energy generation sites, do hackers have the potential to cause much more damage than simply accessing confidential data? Here we examine the potential disruption of attacks on energy from waste facilities and ask the question: *should adherence to complex security standards be essential?*



**Morteza Hadpour Seraj**  
Director Energy Automation – Europe, Middle East & Africa  
MITSUBISHI ELECTRIC, EUROPE



## 14:15 ROUNDTABLE DISCUSSIONS

Join one of the most interactive sessions of the programme! Choose your preferred topic, then join the numbered table in the main conference room. Hosted by an industry leader, this is a valuable opportunity to share ideas, ask questions and network with peers focused on the same issue.

<p><b>1</b></p> <p><b>Digitalisation in the Energy from Waste Industry</b></p>  <p><b>Morteza Hadpour Seraj</b> MITSUBISHI ELECTRIC</p>	<p><b>2</b></p> <p><b>Future of Waste to Energy in Africa</b></p>  <p><b>Samuel Alemayehu</b> CAMBRIDGE INDUSTRIES</p>	<p><b>3</b></p> <p><b>Growing Asia Pacific Markets – How Best to Capture Them</b></p>  <p><b>Chindarat Taylor</b> RESOURCE EFFICIENCY PATHWAY</p>
<p><b>4</b></p> <p><b>What are the Risks in Waste to Energy Developments and How Should they be Dealt With?</b></p>  <p><b>Peter MacLaren</b> LEVENSEAT</p>	<p><b>5</b></p> <p><b>Why Does Waste to Energy Have An Important Role to Play in a Circular Economy?</b></p>  <p><b>Bettina Kamuk</b> RAMBOLL</p>	<p><b>6</b></p> <p><b>Developing New Waste Management Solutions in Countries with Little Infrastructure</b></p>  <p><b>Carlos Monreal</b> PLASTIC ENERGY</p>
<p><b>7</b></p> <p><b>How Can the Waste to Energy Industry Make its Case Against the Pro-Landfill Lobby?</b></p>  <p><b>Jaromir Manhart</b> MINISTRY OF THE ENVIRONMENT (CZECH REPUBLIC)</p>	<p><b>8</b></p> <p><b>Is Waste to Energy the Ultimate Solution to Moving Away from Landfills?</b></p>  <p><b>Mohammed Quraishi</b> BEE'AH</p>	<p><b>9</b></p> <p><b>What Key Policy and Revenue Models Do We Need to Make Emerging Market Projects Bankable?</b></p>  <p><b>Murat Karaege</b> INTERNATIONAL FINANCE CORPORATION (IFC)</p>
<p><b>10</b></p> <p><b>Assessing and Optimising the Longevity and Terminal Value of Energy from Waste Facilities</b></p>  <p><b>Charles Sheldon</b> FORESIGHT GROUP</p>	<p><b>11</b></p> <p><b>How Changes in Feedstocks, End Products and Technology Might Drive Future Business Models</b></p>  <p><b>Philip Duffield</b> CMS</p>	<p><b>12</b></p> <p><b>Waste to Energy – Do Fuels and Chemicals Eclipse Electricity?</b></p>  <p><b>Stuart Hayward-Higham</b> SUEZ RECYCLING &amp; RECOVERY UK</p>

15:15 Networking Coffee Break



## 15:45 Getting Across the Line: Which Business Models are Working (and Which Aren't) to Drive Projects to Financial Completion?

Looking at the numbers and the need, there's almost never been a better time to get into waste. The industry is booming alongside rapid population growth and projects are greenlighting in abundance all over the world. While many of these projects reach financial close, some of them don't.

- What are the critical success factors the industry needs to meet, both in preparation and execution, to get these projects over the line?
- Which business models work better than others? Who is leading the way?

SESSION CHAIR	SPEAKERS	
 <p><b>James Snape</b> Head of Projects CMS, UK</p>	 <p><b>James Michelsen</b> Senior Industry Specialist – Waste INTERNATIONAL FINANCE CORPORATION (IFC), USA</p>	 <p><b>Rob Marshall</b> Sector Lead – Energy SPENCER GROUP, UK</p>
	 <p><b>Isabel Boira-Segarra</b> CEO FUTURE EARTH ENERGY, UK</p>	 <p><b>Stefan Rattensperger</b> Director – Power &amp; Infrastructure Finance INVESTEC, UK</p>

## 16:30 What Next for ACT?

Following several high-profile, costly setbacks for advanced conversion technology plants, some major waste to energy players are asking searching questions as to whether gasification and pyrolysis can ever work sustainably at sufficient scale to turn a workable profit. On the other hand, there is still interest from investors and developers – especially in Asia. All the while, conversion to other resources continues to look promising. So, what next?

- Does ACT just need a bottom-line breakthrough and is it around the corner? Does it need more investment, or subsidies? More patience?
- Why are some countries more viable market places than others?
- Would ACT tech benefit from focussing principally on resource creation rather than energy generation?
- Can synergies be developed by incorporating ACT into established, functioning older moving grate tech?
- Is there a game-changer on the horizon?

SESSION CHAIR	SPEAKERS	
 <p><b>Deborah Sacks</b> Waste &amp; Resources Specialist DEPARTMENT FOR INTERNATIONAL TRADE, UK</p>	 <p><b>Ari Kokko</b> Director of Technology &amp; R&amp;D VALMET, FINLAND</p>	 <p><b>Marcus Du Pree Thomas</b> Technology &amp; Innovation Lead VIRIDOR, UK</p>
	 <p><b>Ian Brooking</b> CEO COGEN, UK</p>	 <p><b>Paco Hevia</b> Managing Director AMEY WASTE TREATMENT, UK</p>

## 17:15 Networking Drinks





# SUMMIT AGENDA

DAY TWO WEDNESDAY MAY 22, 2019

## 07:45 Breakfast Briefing: Making Projects Fundable by Securing Long-Term Waste Supply

Hosted by:

**Foresight**  
group

This in-depth briefing will discuss new strategies to capture long-term waste supplies, exploring case studies from recent transactions including the CoGen Hooton Park project. Panellists will also share the key trends and innovations they expect to see during 2019.

RSVP at the Registration Desk

### SESSION CHAIR



### SPEAKERS



## 09:00 Welcome Remarks

Peter Barden, Conference Producer, RETHINK EVENTS

## 09:05 Keynote Interview: Reflections on the Future of Waste Management in the Middle East

### HOST



### SPEAKER



## 09:30 Fuelling Tomorrow's Fires: Feedstock Innovation and Evolution

- What is the future of RDF and SRF? What impact may the advent of innovations like subcoal have on these industries?
- UK RDF exports slumped in 2018 – what's to blame? Is it this being felt everywhere?
- As rates of recycling rapidly increase, consumer behaviour continues in a 'consume less' trend and import/export policy becomes ever more mindful of its carbon footprint, should the industry be concerned about how it is going to fuel its bottom line?
- From e-waste to tyres, wood to textiles, fuel diversification is on the rise – which feedstocks show the greatest potential and why?

### SESSION CHAIR



### SPEAKERS



## 10:15 Innovation in Action: Demonstrating the Success of Advanced Conversion Technologies

A high-profile case study of a venture that has forged new horizons, broken the mould and driven industry-defining innovation through advanced conversion technology.

### SPEAKERS



## 10:30 Networking Coffee Break



## 11:00 New Waste to Energy Horizons in Africa: Addis Ababa and Beyond...

Africa is the world's fastest-urbanising continent. While city life has helped lift millions out of poverty, the rapid transformation has created a new problem: vast seas of urban waste. Now an Ethiopian entrepreneur is tackling the crisis with Africa's first waste to energy plant that has been specially calibrated to process Addis Ababa's challenging waste composition, and has ambitions to replicate this success across the continent.



## 11:20 New Project Opportunities (and Challenges) in International Markets

### INDIA



## 11:40 Fireside Chat: Anaerobic Digestion – Emerging Trends and Technologies

- What is the balance between innovation and fundability for new technologies in the Anaerobic Digestion world?
- Which countries represent the greatest market potential today and why?
- How should the waste to energy and resources industry respond to meet the projected windfall in feedstock?
- What are the key technology trends in the Anaerobic Digestion market?
- How far has Anaerobic Digestion come in cleaning up gas for the grid?

### SPEAKERS



## 12:15 Networking Lunch



## 13:15 Plastics to High-Value Fuels, Compounds and Chemicals

- What's next for the plastic conversion market?
- Which direct conversion to chemical technologies are generating the most interest? Where is the money going?

### SESSION CHAIR



**Fredrick Royan**  
Global Leader for Environment & Water  
FROST & SULLIVAN, UK

### SPEAKERS



**Carlos Monreal**  
Founder & CEO  
PLASTIC ENERGY, SPAIN



**Maurizio Crippa**  
CEO  
GR3N, SWITZERLAND



**Kjetil Bøhn**  
CEO  
QUANTAFUEL, NORWAY



**David Ryan**  
CEO  
POWERHOUSE ENERGY GROUP, UK

## 14:00 Analysing Investment Opportunities in the UK Waste Conversion Market

As it stands, with a large capacity gap and new policy making all the right sounds, the UK arguably represents one of the hottest waste to energy and resources markets on the planet in 2019. New plans mean that 100 more waste to energy plants have been proposed. We'll close the summit by exploring what this opportunity means and how international players can get involved.

- Where are the hottest opportunities?
- What does this progress mean for international developers and EPCs?
- How can investors and technology providers get into the game?
- Who are the local stakeholders that matter the most and how best to engage them?
- Brexit: disaster or opportunity?

### SESSION CHAIR



**Peter MacLaren**  
Director  
LEVENSEAT, UK

### SPEAKERS



**Julia Safiullina**  
Investment Manager  
IONA CAPITAL, UK



**Tom Koltis**  
Executive Director – Corporate Development  
COVANTA, USA



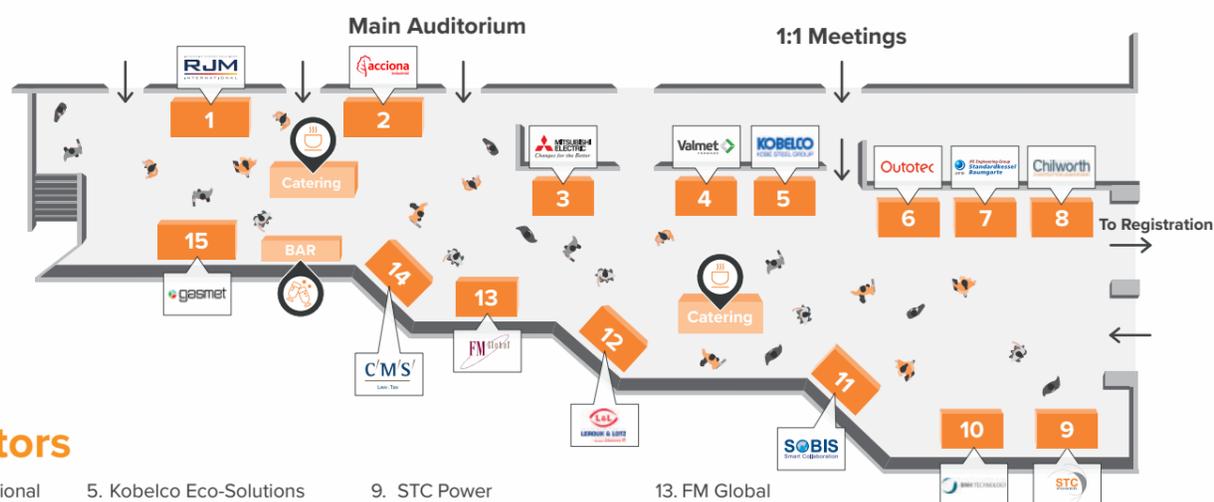
**Stuart Hayward-Higham**  
Technical Development Director  
SUEZ RECYCLING AND RECOVERY, UK



**Martin Capstick**  
Managing Director  
NORTH LONDON WASTE AUTHORITY, UK

## 14:45 Close of Summit

# SUMMIT FLOORPLAN



## Exhibitors

- |                        |                                      |                                |                         |
|------------------------|--------------------------------------|--------------------------------|-------------------------|
| 1. RJM International   | 5. Kobelco Eco-Solutions             | 9. STC Power                   | 13. FM Global           |
| 2. ACCIONA Industrial  | 6. Outotec                           | 10. BMH Technology             | 14. CMS                 |
| 3. Mitsubishi Electric | 7. Standardkessel Baumgarte          | 11. SOBIS Software             | 15. Gasmel Technologies |
| 4. Valmet Corporation  | 8. Chilworth Construction Management | 12. Leroux & Lotz Technologies |                         |

## EXHIBITORS



**BMH Technology** is a Finnish cleantech company established in 1929, specialising in handling and preparation of sustainable fuels. It designs and manufactures industrial scale TYRANNOSAURUS® waste refining systems that produce environmentally friendly RDF fuel. Low in CO<sup>2</sup> emissions, it can replace coal and other fossil fuels in energy production.



**Chilworth Construction Management** provides a transparent and hassle-free approach to the management and completion of major construction projects in the UK and Europe. Its unique hands-on approach means it gets its feet dirty. Chilworth Construction Management works on-site, as its clients' civils technical team and helps save costs and resources, safely.



**FM Global** is one of the world's largest commercial property insurers. For nearly 200 years, leading businesses have worked with FM Global to develop robust property insurance and engineering solutions that build resilience into every corner of their operations. It provides risk management and property insurance solutions in 149 countries. Resilience is a choice.



**Gasmel Technologies** is a manufacturer specialising in Continuous Emission Monitoring Systems (CEMS) based on FTIR, the technology of choice used throughout the waste incineration industry. Gasmel Emission Monitoring systems ensure its customers successfully demonstrate compliance with legislation and the requirements associated with waste incineration sites around the world.



**Leroux & Lotz Technologies** is a foremost provider of water tube boilers and boiler islands (chute-to-stack) for the energy from waste and biomass sectors with a solid range of references to back this up. Solutions are available to deliver engine-ready syngas plants fired on SRF and based on circulating fluid bed technology.



**Outotec** develops leading technologies and services for the sustainable use of earth's natural resources. Its 4,000 top experts are driven by each customer's unique challenges across the world. Outotec's comprehensive offering creates the best value for its customers in the mining, metal, energy and chemical industries. Outotec shares are listed on NASDAQ Helsinki.



**RJM International** is an award-winning provider of innovative combustion improvement and emissions reduction technologies for every type of combustion plant. RJM is also a leader in the development of new, low-carbon fuels such as waste-derived energy pellets as well as their associated firing systems, and has a strong track record in delivering biomass conversion feasibility studies for global generators.



**SOBIS Software** is a German company focused on project collaboration software for the EPC business. Over 50 billion dollars in customer-executed projects in 21 years shows the strength of its products in the areas of email / correspondence management and in the collaboration and design – review – approval process of technical documents between the owner, owner's engineer, EPC and subcontractors, as well as modules for change / claim management and sourcing.



**Standardkessel Baumgarte** provides complete turnkey EPC solutions for energy from waste (EfW). It owns the core technology components of the grate and boiler and has the experience and engineering know-how for the integration of the complete EfW plant. Standardkessel Baumgarte has a long history of completing efficient and reliable EfW plants.



**STC Power** is an EPC company delivering traditional, renewable and waste to energy power plants. Founded in 1981 under the name STC S.p.a., it has now become the most referenced firm in Europe. STC Power has built more than 180 power plants in the range between 5 and 200 MW.

## MEDIA AND MARKETING PARTNERS



For more information on how to get involved in the **World Waste to Energy and Resources Summit 2020**, please contact:

**Rachel Myall**

*Business Development Manager*

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[worldwastetoenergy.com](http://worldwastetoenergy.com)

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