

EUROPEAN SUPPLIERS OF WASTE-TO-ENERGY TECHNOLOGY



ACTIVITY REPORT 2018

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All pictures are copyright of ESWET or its member companies. ESWET wishes to thank Mr Christian Germis, as well as the president of ESWET, Dr Edmund Fleck, and all ESWET members for their time and efforts in making this publication possible. Cover picture: Shenzhen East

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ESWET

## ESWET – PROFILE AND SCOPE OF THE ASSOCIATION

**FSW/FT** A EUROPEAN ASSOCIATION REPRESENTING THE IS EUROPEAN SUPPLIERS OF WASTE-TO-ENERGY TECHNOLOGIES, COMMITTED TO FOSTER THE DEVELOPMENT AND DISSEMINATION OF WASTE-TO-ENERGY AT THE EUROPEAN LEVEL.

ESWET firmly believes that Waste-to-Energy For instance, it shows how Waste-to-Energy has an increasingly important role to play in the contributes to the reduction of greenhouse gas European waste management.

First of all, Waste-to-Energy is a sound and environmental friendly way to treat residual waste contrary to landfills and dump sites. Secondly, the energy recovered from waste provides multiple services to citizens and municipalities such as district heating and cooling and the production of renewable fuels.

Therefore, the association promotes the role of technology often set Waste-to-Energy towards European decisionmakers and seeks to raise awareness of the world. This is why the dissemination of accurate positive implications of the technology in terms of better waste management, energy recovery and Energy at the European level is so important. solutions for the environment.

emissions, thereby helping to reach the targets of the Paris Agreement.

Most of the national environmental legislation in Europe derives from EU policies. Waste-to-Energy is part of a sustainable waste management chain, most commonly referred to as the waste hierarchy, introduced in the EU Waste Framework Directive.

Moreover, European legislation and European examples for the implementation of waste management around the information about the applications of Waste-to-

### WASTE-TO-ENERGY – MANAGING RESIDUAL WASTE WHILE RECOVERING ENERGY

### 6 GOOD REASONS TO SUPPORT WASTE-TO-ENERGY:

![](_page_4_Picture_2.jpeg)

#### Zero landfill

Waste-to-Energy treats waste that is not suitable for recycling and would otherwise be landfilled, making Waste-to-Energy complementary to recycling and an essential part of a sustainable waste management strategy.

![](_page_4_Picture_5.jpeg)

#### **High-quality recycling**

Waste-to-Energy plants contribute to a high quality of recycling through taking out and destroying toxic materials that cannot be recycled, such as flame retardants used in plastic products.

### Following the definition of the World Energy Council:

"Waste-to-Energy technologies consist of any waste treatment process that creates energy in the form of electricity, heat or transport fuels from a waste source. These technologies can be applied to several types of waste: from the semi-solid to liquid and gaseous waste. However, the most common application by far is processing the Municipal Solid Waste ".

![](_page_4_Figure_11.jpeg)

#### Low emissions

EU pollution control legislation for Wasteto-Energy is the strictest of all combustion industries, making this industry one of the cleanest in Europe.

![](_page_4_Picture_14.jpeg)

#### Energy recovery

Waste-to-Energy plants deliver energy from waste in various forms, in particular: heat and cold for district heating and cooling, process steam for industry and electricity for everyone.

![](_page_4_Picture_17.jpeg)

#### **Secondary raw materials**

Incinerator bottom ashes (IBA) and flue gas cleaning (FGC) residues resulting from the combustion process are more and more channelled into recycling processes, thereby becoming a valuable "urban mine".

![](_page_4_Figure_20.jpeg)

#### **Fighting climate change**

Waste-to-Energy supports the fight against climate change by avoiding methane emissions from landfilling, recovering energy from any form of carbon-neutral biomass and offsetting the use of fossil fuels for energy generation.

## HOW WASTE-TO-ENERGY **CONTRIBUTES TO** SUSTAINABLE EUROPEAN WASTE MANAGEMENT!

FUTURE GENERATIONS DESERVE TO LIVE AND STRIVE IN A CLEAN AND SAFE ENVIRONMENT. TO ENSURE THIS, THE IMPLEMENTATION OF A SUSTAINABLE WASTE MANAGEMENT FRAMEWORK ESSENTIAL. THANKS TO NEW TECHNOLOGIES AND WITH THE FIRM COMMITMENT OF ALL STAKEHOLDERS INVOLVED, WE WILL BE ABLE TO DEVELOP THE CIRCULAR ECONOMY.

and there is not a single second to lose. They are right, and their demands need to be listened to carefully.

Waste management stands at the crossroads of worldwide challenges: climate change, pollution, health, scarcity of resources, economic development and more. The continuous implementation and upgrading of sound and sustainable waste management systems are key to uphold the right to a healthy environment, which should be considered a basic human right.

This is particularly important if we look at the larger picture. Recent reports show that the global warming of 1.5°C or higher above preindustrial levels would create long-lasting or even irreversible changes with serious impacts for the Earth and its population.

In the last months of 2018, hundreds of thousands Europe's waste management policies need to of young students took to the streets in all capitals involve all stakeholders in the value chain for of Europe with a clear message for politicians and a circular economy process. Starting from the policy makers: we have to take care of our planet, design phase of products to a sustainable waste

### 

Waste management stands at the crossroads of worldwide challenges: climate change, pollution, health, scarcity of resources, economic development and more.

and resource management. In order to reach the best results, it is important to equally focus on prevention, recycling, reuse and recovery.

Over the years, Waste-to-Energy plants have managed to adapt to changing waste streams, e.g. as a result of improved separate collection. They are a key contributor in fostering the circular economy and achieving a significant reduction of greenhouse gas (GHG) emissions and are therefore a major component of Europe's most successful waste management systems. In this regard, European companies confirm their role of global leaders by exporting innovation and technological know-how worldwide.

A wide range of characteristics can be applied to Waste-to-Energy technologies.

Waste-to-Energy plants:

- Are nearly pollution-free: due to strict pollution control legislation, the Waste-to-Energy sector has significantly reduced its pollutant emissions, to air and water, making this industry one of the cleanest in Europe.
- Produce energy: almost all incineration plants recover the energy potential of waste through electricity, heat and/or cold, with efficiencies of up to 95%.
- Produce secondary raw materials: ashes and flue gas cleaning (FGC) residues resulting from the combustion process are more and more channelled into recycling processes.
- Contribute to a high guality of recycling through taking out and destroying toxic materials. If these would enter the recycling circle they can pollute it and make it unable to meet proper quality standards.
- Contribute to reduction of GHG emissions by diverting waste from landfills and thus preventing methane emissions. In addition, the resulting by-products of Waste-to-Energy (i.e. energy, ashes and FGC residues) prevent the extraction of further fossil fuels and primary raw materials.

Landfilling corresponds to the prehistory of waste management, and we are finally reaching the end of that era. This is why ambitious and innovative choices need to be applied at both European and global level to ensure a cleaner and safer environment for future generations.

In this regard, Waste-to-Energy suppliers are firmly committed to bring their contribution towards a more resource efficient and decarbonised economy.

![](_page_6_Picture_11.jpeg)

Högbytorb

![](_page_6_Picture_13.jpeg)

Edmund Fleck ESWET President

lat bill

Interview with: Christian Germis, Retail Property Technical Director of JLL at DOCKS BRUXSEL.

## DOCKS BRUXSEL – A SHOPPING MALL POWERED BY WASTE-TO-ENERGY IN BRUSSELS

OPENED IN OCTOBER 2016, DOCKS BRUXSEL IS ONE OF THE BIGGEST SHOPPING MALLS OF THE CAPITAL OF BELGIUM, WITH ONE PECULIARITY: IT USES ENERGY RECOVERED BY THE NEIGHBOURING WASTE-TO-ENERGY PLANT, WITH SEVERAL ADVANTAGES IN TERMS OF PRICE AND ENVIRONMENTAL IMPACT. FOR INSTANCE, NO PRODUCTION OF CO2 EMISSIONS.

### Let's start from the basics. What is Docks How do Bruxsel? use this

Docks Bruxsel is a new generation shopping mall which includes more than 100 shops as well as 15 restaurants, an event hall, an indoor adventure park and a cinema. The aim is to provide to our clients an experience that goes beyond a simple shopping session and which is able to involve all the members of the family. The mall is located along the canal of Brussels, at the Van Praet Bridge where over 60.000 cars cross each day. It is very close to the Waste-to-Energy plant that treat all the residual waste of Brussels.

### Is this the reason why you established a furniture contact with the Waste-to-Energy plant?

Exactly, Bruxelles Energie (the operator of the plant) contacted the promoter with the promise to deliver clean and cheap energy, therefore avoiding a whole number of investments (no onsite boilers or cooling units, no gas distribution, simpler overall maintenance). The 10-year contract signed with Bruxelles Energie has a guaranteed consumption of 6.000MWh/year, which is largely sufficient to guarantee our demand during the whole year.

### How does this work in practice? How do you use this energy?

Energy is delivered by the Brussels Waste-to-Energy plant in form of water at 100°C. It is then cooled to attain a temperature between 28°C and 32°C to feed the heat pumps. The energy is used to heat and cool all the private spaces of Docks, such as the shops, the warehouses and the administrative offices. The rest of the mall is heated or cooled by the residual heat or cold of the private spaces. No heat is wasted: the promoter demanded the tenants to use triple glazing for the storefronts, which corresponds to a glazing normally used in street stores, and also to close the stores' doors at all times.

![](_page_7_Picture_9.jpeg)

The 10-year contract signed with Bruxelles Energie has a guaranteed consumption of 6.000MWh/year

![](_page_8_Picture_0.jpeg)

### Which are the main advantages of receiving energy from waste?

The advantages are multiple. The first one is that the mall does not produce any CO2 emission. In terms of cost, the energy that we receive is extremely competitive. Other advantages are the great reliability and stability of the system, with temperature, pressure and flow rates which are very stable. We have never experienced any problem and very few maintenance is needed.

### Are there alternatives to have clean energy?

Alternatives that are as sustainable as the energy received from the Waste-to-Energy plant could be additional PV, solar thermal panels, wind turbines or current power from the canal, but - excepting our photovoltaic panels that produce more than 500 MWh / year (in 2018) - neither of these alternatives could realistically be implemented on the site.

### Is the sustainable aspect particularly important for Docks Bruxsel?

It is, indeed! Docks Bruxsel has been built following the requirements set out by BREEAM, the world's leading sustainability assessment method for master planning projects, infrastructure and buildings, aiming the excellence certificate. This means satisfying criteria such as: sorting of waste in 7 different fractions; rainwater supply; LED lighting, PV panels, green roofs and spaces, and also heating and cooling from the Waste-to-Energy plant.

![](_page_8_Picture_7.jpeg)

Christian Germis Retail Property Technical Director of JLL at DOCKS BRUXSEL

## WASTE-TO-ENERGY REDUCES GREENHOUSE GAS EMISSIONS

PROPER WASTE MANAGEMENT CAN PROVIDE A HUGE CONTRIBUTION FOR THE REDUCTION OF GREENHOUSE GAS EMISSIONS. 200 MILLION TONNES OF CO2 EQ CAN BE AVOIDED ANNUALLY, IN PARTICULAR THROUGH DIVERTING WASTE FROM LANDFILLS TO A HIGHER TREATMENT IN THE WASTE HIERARCHY, IN PARTICULAR WASTE-TO-ENERGY.

In early October 2018, the Intergovernmental Panel on Climate Change (IPCC) sent a stark warning to the international community: reduce greenhouse gas (GHG) emissions now and drastically or the future will look apocalyptical.

In response to this alarming wake-up call, but also to a requirement of the Paris Agreement, the European Commission provided the following month its "Strategic long-term vision for a prosperous, modern, competitive and climateneutral economy by 2050", setting the "direction of travel of EU climate and energy policy" and opening a thorough debate among EU citizens and policymakers on "how Europe should prepare itself towards a 2050 horizon".

In this vision, the Commission acknowledged that EU waste management is among the activities that have already achieved massive GHG emissions reductions. Indeed, between 1995 and 2016, GHG emissions in the sector decreased from 344 MtCO<sub>2</sub>eq to 138 MtCO<sub>2</sub>eq, and 124 MtCO<sub>2</sub>eq alone consist of emissions from methane, which essentially originate from landfill operations.

Provided that the right incentives are in place, the waste management sector could achieve even further emissions reductions, by offsetting more than 200 Mt CO2eq annually. In particular, further landfill diversion, recycling and energy and materials recovery through Waste-to-Energy are key to achieve this. The EU Waste-to-Energy sector, through the associations ESWET and CEWEP, issued a position paper titled "Waste-to-Energy's contribution to the Long-term EU greenhouse gas emissions reductions strategy" to communicate about the benefits of Waste-to-Energy as a key, climate-friendly, component of waste management and outlined the directions the EU should take in order to further decarbonise the sector.

#### CO2 emissions legislation

Unlike other industries, the EU Emissions Trading System (EU ETS) is not adapted to the specificities of Waste-to-Energy. Any waste management operation is a public service and, more specifically,

Waste-to-Energy is a key component for the treatment of the residual fraction of waste that has been through several rounds of recycling.

![](_page_10_Picture_0.jpeg)

Waste-to-Energy aims at treating the residual fraction of waste. Subjecting Waste-to-Energy to an additional financial burden would create a risk that markets will re-direct residual waste to less environmentally sound routes.

Moreover, fuel switching, which is one of the key measures to achieve GHG emissions reductions under the EU ETS, is not possible for Waste-to-Energy. Finally, measures that contribute to GHG emissions reduction are already foreseen in other sets of rules, e.g. the Industrial Emissions Directive, the Waste Framework Directive, etc.

#### Non-CO2 emissions legislation

ESWET also called on public authorities to recognise the global warming potential of methane through concrete actions, including minimising methane emissions from landfilling and recognising that Waste-to-Energy is the only climate-efficient treatment option for residual waste.

Indeed, methane is a GHG which, over a 20year period, is 72 to 86 times more potent than CO2 and, without short-term actions to reduce its emissions, global temperature rise would be exacerbated.

### Renewable energy and energy markets legislation

ESWET last year initiated discussions with organisations involved in the promotion of cascading use of materials to promote their efficient use and deliver on a number of a sustainable development objectives. Indeed, Waste-to-Energy is a key component for the treatment of the residual fraction of waste that has been through several rounds of recycling.

By being a full-fledged part of best practices in waste management according to the cascading principles, the renewable fraction of waste sent to Waste-to-Energy plants should be seen as complying with future sustainability criteria elaborated under the Renewable Energy Directive.

![](_page_10_Picture_9.jpeg)

Patrick Clerens ESWET Secretary General

![](_page_11_Picture_0.jpeg)

# ESWET POLICY UPDATES

2018 HAS BEEN AN IMPORTANT YEAR FOR ESWET IN TERMS OF POLICY ACTIVITIES. MANY TOPICS RELATED TO WASTE-TO-ENERGY HAVE BEEN IN THE SPOTLIGHT AND THE ASSOCIATION WORKED TO ENSURE THAT THE VOICE OF THE SUPPLIERS OF WASTE-TO-ENERGY TECHNOLOGIES IS WELL HEARD AND UNDERSTOOD BY THE EUROPEAN INSTITUTIONS.

This year saw the conclusion of the work of the "As 2019 will mark the publication of the Waste Technical Working Group (TWG) on the Waste Incineration BREF, the Waste-to-Energy sector Incineration (WI) BREF (Best available techniques will need to continue raising awareness on the REFerence document). In particular, during the outstanding ambiguities towards stakeholders final meeting of the TWG in April in Seville, the involved in its implementation, in particular substance of the BREF was set in stone.

ESWET, together with its members, actively Committee, stressed. contributed to the work of the TWG and pointed to a number of ambiguities left in the final draft of Other key issues kept the association alert. On the document. As 2019 will mark the publication of climate change, waste management, public and the BREF, ESWET will continue to raise awareness private funding, etc., ESWET was committed to on the challenges that stakeholders will face ensure that EU Waste-to-Energy's reputation for in its implementation, in particular throughout excellence is preserved. workshops and webinars.

throughout workshops and webinars", Hubert de Chefdebien, Chair of ESWET's Technical

## WASTE-TO-ENERGY AND RENEWABLE ENERGY

2018 ENDED WITH THE PUBLICATION OF AN IMPORTANT PART OF THE ENERGY UNION STRATEGY: THE REVISED AND CODIFIED RENEWABLE ENERGY DIRECTIVE, WHICH SETS THE STAGE FOR AMBITIOUS RENEWABLE ENERGY TARGETS BY 2030.

> Initially, it was foreseen that the target of renewable energy required for Europe in 2030 would be around 27 % but the outcome of COP21 in Paris as well as the reductions in costs of renewable energy sources led to the more ambitious figure of 32 %.

> The Waste-to-Energy sector particularly welcomed this effort. As was stated in the Special Report on Global Warming of 1.5°C, published by the Intergovernmental Panel on Climate Change (IPCC) in October 2018: "rapid, far-reaching and unprecedented changes in all aspects of society" will be needed to limit global warming to 1.5°C.

Residual waste sent to Waste-to-Energy plants consists of around 50% of bio-waste (contaminated food, paper, textiles, wood, etc..). As the renewable energy directive (RED II) recognises the biodegradable fraction of RED II clearly states that renewable energy sources municipal and industrial waste as "biomass", these 50% are biomass and, therefore, a renewable source of energy.

the Directive that support to Waste-to-Energy should only be granted if the waste hierarchy

![](_page_12_Picture_6.jpeg)

and separate collection are respected. Indeed, waste management systems are designed in an integrated manner and Waste-to-Energy treats the fraction of waste that cannot be put back as such in the circular economy by hygienising it and converting it to energy and secondary raw materials. After all, people tend to forget this: Waste-to-Energy is a public service.

Furthermore, ESWET believes that only biomass that has served a useful purpose prior to entering the Waste-to-Energy plant should be used, according to the "cascading principle". By applying this principle, biomass follows a sustainable pathway: rather than being cut and directly put into a boiler, wood lives several life cycles (as a chair, a cupboard, a panel, etc.) before entering the Waste-to-Energy plant, therefore storing carbon for a longer time.

In 2018. ESWET initiated contacts with stakeholders in the biomass sector, including wood and paper, to look out for potential synergies to maximise the cascading potential of biomass.

have a "fundamental part to play in promoting the security of energy supply [...] as well as technological and industrial leadership while providing environmental [...] benefits". Member ESWET supports the conditions spelled out in States should therefore see Waste-to-Energy as a reliable source of baseload energy, helping them to move away from imported, fossil-based sources and achieve their renewable energy targets.

# FINANCING (TAXONOMY, **COHESION FUNDS)**

THE WASTE HIERARCHY ESTABLISHES WASTE MANAGEMENT PRIORITIES BASED ON SUSTAINABILITY BY TAKING INTO ACCOUNT AN INTEGRATED APPROACH. REDUCE, REUSE, RECYCLE, RECOVER AND DISPOSE. THESE ARE THE 5 STEPS OF THE WASTE HIERARCHY AND THEY SHOULD BE WELL REMEMBERED BY POLICYMAKERS. ESPECIALLY WHEN IT COMES TO THE MANAGEMENT OF RESIDUAL WASTE.

management have, for many years, made tireless efforts to draw the attention of policymakers to the need to develop and maintain adequate facilities for the treatment of residual waste. which consists of the parts of waste that are of poor quality, not suitable for recycling or polluted. the residual waste will be landfilled and left as a

Choosing the best treatment option should be based on the waste hierarchy, according to which recovery operations stand above disposal operations. And, for residual waste, the only treatment options available are either Wasteto-Energy, a recovery operation, or landfilling, a disposal operation. Nevertheless, 2018 saw a number of EU initiatives to limit public and private investments in residual waste treatment.

Among them, a proposal for a Regulation on the European Regional Development Fund (ERDF) and on the Cohesion Fund proposed that neither funds should support investment in facilities for the treatment of residual waste for the upcoming EU multiannual budgetary period (2021-2027).

ESWET and other actors involved in waste It is anyone's quess where the residual waste will end up if facilities for the treatment of residual waste stop receiving public funding. And given the higher waste hierarchy position, and also the higher treatment costs of Waste-to-Energy compared to landfilling, our guess would be that ticking time bomb for the next generations. Out of sight, out of mind. The kids of our kids will deal with our waste.

> If the EU does not acknowledge that such initiative threatens waste management options that are in line with the waste hierarchy, it will directly contradict its commitment to ensuring that EU funding and other public financial support is directed towards such treatment options, as stated in its "Communication on Waste-to-Energy".

> A second initiative worth noting relates to the establishment of an EU classification system (or "taxonomy") of sustainable economic activities. In particular, one of the provisions of the Taxonomy Regulation promotes the "transition to a circular

![](_page_14_Picture_0.jpeg)

economy and waste prevention and recycling" by supporting activities that contribute to, a.o. "avoiding incineration and disposal of waste".

As a consequence to this provision, the recycling of persistent organic pollutants (POPs) or arsenic contributes to recycling and is therefore to be Members of the European Parliament have helped encouraged by means of taxonomy! What a strange logic does this entail? Again, shouldn't the waste hierarchy be used as a guide for defining what a sustainable activity is?

Worse still, a further provision of the Taxonomy Regulation defines as "significantly harming" the circular economy activities that lead to a "significant increase in the generation, incineration or disposal of waste". Again, the absence of link

to the waste hierarchy puts energy recovery of residual waste and throwing it into a landfill on an equal footing.

Step by step, meetings with the European Commission, the European Council and the shifting stakeholders' lines.

Discussions on these two important issues will continue under the next European Commission (who will take office on 1 November 2019). ESWET will work to ensure that reasonable conditions for the financing of residual waste treatment plants are set in both public and private finance legislation.

# WASTE-TO-ENERGY ENTERS THE RECYCLING LEAGUE

2018 MARKED THE PUBLICATION OF THE REVISED DIRECTIVES ON WASTE, ENDING A DEBATE THAT SPANNED ACROSS ALMOST THE ENTIRE MANDATE OF THE JUNCKER COMMISSION, ESWET LOOKS AT THE KEY PROVISIONS ADOPTED.

The revised Waste Framework Directive sets ambitious recycling targets for municipal waste (55% by 2025, 65% by 2035). A more reliable system for the calculation, verification and reporting of data, but also recent market trends such as the Chinese ban, will make the attainment of the targets guite challenging to achieve.

that the circular economy potential of Waste-to-Energy is fully accounted for in the legislation on waste.

The adopted requirement that Member States should take measures to promote high-quality recycling is of utmost importance. For the waste that cannot be recycled, either for technical or environmental reasons, Waste-to-Energy ensures that it is treated adequately while minimising risks that it is either sent to landfills or sent to third countries for substandard material treatment.

10% cap on landfilling for municipal waste. This in 2014. Furthermore, during the same year, these provision replaces an initial proposal to put in two countries recovered respectively 452,000 and place a cap on incineration, which would have 103,000 tonnes of ferrous metals from Waste-tohad the perverse effect to slow down landfill Energy. diversion efforts. While this 10% cap is good news

for an environmentally sound waste management, we must ensure that no more waste containing recoverable energy and materials are landfilled in the future.

Most importantly, the legislator acknowledged that Waste-to-Energy is able to do more than just recovering energy, by introducing a provision ESWET has been actively engaged in ensuring allowing Member States to take into account the recycling of metals separated after incineration of municipal waste when assessing whether their recycling targets are attained.

> The latest statistics on the recovery of incinerator bottom ashes (IBA) are unequivocal: a higher fraction of the most precious metals is recovered from Waste-to-Energy year after year.

For example, 76,000 tonnes of non-ferrous metals were recovered in Germany as compared to 58,000 tonnes in 2013. Similarly, 29,000 tonnes of non-ferrous metals were recovered in the Another important step is the adoption of a Netherlands in 2017 as compared to 25,000 tonnes

![](_page_16_Picture_0.jpeg)

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And metals recycling is not only good for saving resources, it also helps mitigating climate change!

GHG savings/credits from metal recycling from Waste-to-Energy bottom ash are estimated to be about 2,000 kg CO2-eq/tonne of recycled metals. Only by recycling metals from IBA, the CO2 saving potential for the EU is more than 3 million tonnes of CO2 emissions per year (equivalent to removing more than 600,000 passenger cars from the road).

The work on the waste directives does not mark the end of ESWET's efforts to have Wasteto-Energy fully recognised as a component of the circular economy. The association is fully committed to demonstrate that the mineral fraction of IBA, which averages 80-85% of the total IBA output, can be safely used and should also be counted towards recycling targets.

ESWET has been actively engaged in ensuring that the circular economy potential of Waste-to-Energy is fully accounted for in the legislation on waste.

# **ESWET ACTIVITIES 2018**

### **FEBRUARY**

On 20-21 February 2018, ESWET participated at the Circular Economy Stakeholder Conference organised by the European Commission and the European Economic and Social Committee. The event gathered several hundred stakeholders and policy makers across different sectors working together for the adoption of a circular economy.

ESWET co-signed a paper warning future users of the Waste Incineration BREF on the applicability for industrial permits of draft Best Available Techniques Associated Emission Levels (BAT-AELs).

![](_page_17_Picture_4.jpeg)

### **APRIL**

![](_page_17_Picture_6.jpeg)

The final Technical Working Group meeting for the review of the Waste Incineration BREF (Best available techniques Reference document) took place in Seville on 23-27 April 2018. ESWET was present among the experts of the industry and worked together with other key players and decision makers to improve the document towards the best outcome for the environment, the industry and the people.

![](_page_17_Picture_8.jpeg)

### MARCH

In March 2018, ESWET co-signed the Joint Paper of the Industry4Europe coalition "Setting indicators - For an EU industrial strategy". The aim of this Joint Paper is to propose a short list of indicators that can be used to both assess the health of the European industry and monitor the progress made by the EU on the implementation of its industrial strategy.

![](_page_17_Picture_11.jpeg)

### MAY

On 28 May, ESWET issued a press release "Single plastics use must be banned" welcoming the publication of the Commission proposal to reduce the impact of certain plastic products on the environment.

On 29 May, ESWET held his annual event in Brussels. With the support of high-level speakers from the industry and the European institutions, such as Mr Jori Ringman from CEPI and Mr José Jorge Diaz del Castillo from DG Environment, ESWET discussed the synergies between Waste-to-Energy and Circular Economy by addressing the crucial question: "How Circular is the Circular Economy?".

![](_page_17_Picture_15.jpeg)

### JUNE

On 7 June, ESWET President, Dr. Edmund Fleck, delivered a presentation at the European Sustainable Energy Week (EUSEW) in Brussels, the biggest event dedicated to renewable and efficient energy use in Europe. He spoke at the session "Decarbonisation of the heating and cooling sector: Coupling efficiency and renewable with security of heat supply". The event was a great opportunity to promote the role of Waste-to-Energy in a decarbonised economy.

![](_page_18_Picture_2.jpeg)

### **SEPTEMBER**

On 20 September, ESWET attended the 9th CEWEP (Confederation of European Waste-to-Energy Plants) conference in Bilbao, Spain. The topic of this conference was "Making Circular Economy Happen". After the presentations, our representatives had the opportunity to meet key stakeholders, officials from the European institutions and local authorities.

![](_page_18_Picture_5.jpeg)

On 1 October, Patrick Clerens spoke in Vienna at the IRRC Wasteto-Energy conference. He presented the role of "Waste-to-Energy in the EU's Long-term Greenhouse Gas Emissions Reduction Strategy". The presentation focused on the contribution of Waste-to-Energy towards decreasing CO2 emissions, such as diversion from landfilling and material recovery.

ESWET submitted its contribution to several public consultations, in particular in preparation of the EU strategy for long-term EU greenhouse gas emissions reduction and in view of upcoming initiatives to improve how legislation on chemicals, products and waste work together.

![](_page_18_Picture_8.jpeg)

### NOVEMBER

On 8 November a conference on "Metals and minerals recovery from IBA" was organised by the VDI-Wissensforum in Düsseldorf, Germany. On this occasion, Alexis Thuau delivered a presentation on Incinerator Bottom Ashes (IBA) and EU Regulation.

On 28 November, ESWET and CEWEP jointly issued a position paper to outline the GHG emissions savings potential of Wasteto-Energy. The paper lays down policy recommendations in the areas of waste, energy, climate, infrastructure, research and innovation.

![](_page_18_Picture_12.jpeg)

![](_page_18_Picture_13.jpeg)

## ESWET ORGANISATIONAL STRUCTURE

#### **General Assembly**

The decision-making body within ESWET is the General Assembly, where top representatives of the member companies meet to define the way the association operates as well as its key policies.

#### **Public Relations Committee**

The Public Relations (PR) Committee defines the way ESWET communicates. It covers a broad range of tasks, from organising ESWET-branded events and workshops to ensuring the visibility of the association by creating attractive campaigns and slogans. As ESWET engages with a wide range of people, the PR Committee identifies the appropriate level of communication, ranging from technical exchanges to simple explanations of how Waste-to-Energy works.

#### **Technical Committee**

The Technical Committee (TC) oversees the policy, legal and technical work of ESWET. Its members are regularly updated on EU developments. They implement the policy positions of ESWET and provide input to the work of the EU institutions whenever required.

#### Working Group on BREFs

The Working Group on BREFs was established for the purpose of preparing the review of the Waste Treatment and Waste Incineration BREF under the new rules of the Industrial Emissions Directive. It is more generally involved in all activities related to the implementation and review of the Industrial Emissions Directive (IED).

### **The Secretariat**

The ESWET Secretariat is in touch with representatives of all member companies. It provides support to the Members when they have special needs and also acts as the contact and follow-up point with the EU Institutions. The Secretariat is glad to address questions from the public and promotes Waste-to-Energy in a large number of events.

![](_page_19_Figure_12.jpeg)

![](_page_20_Picture_0.jpeg)

# HOW MANY LIVES WILL THIS CAT LIVE?

An ancient proverb claims:

A cat has nine lives. For three he plays, for three he strays and for the last three he stays".

While we are not sure that this works for our feline friends, it is actually true for plastics cats!

Plastics can be tipically recycled for a maximum of 9 times before they become unusable. Then we get the remaining energy out by using thermal waste incineration. We close the gap in the circular economy.

### ESWET MEMBERS

![](_page_21_Picture_1.jpeg)

BABCOCK & WILCOX VOLUND Odinsvej 19 6705 Esbjerg – Denmark www.volund.dk

![](_page_21_Picture_3.jpeg)

**CNIM** Rue de Bassano 35 75008 Paris – France www.cnim.com

![](_page_21_Picture_5.jpeg)

**GE POWER SWEDEN** P.O. Box 1233 35112 Växjo – Sweden www.ge.com

![](_page_21_Picture_7.jpeg)

KEPPEL SEGHERS Hoofd 1 2830 Willebroek – Belgium www.keppelseghers.com

![](_page_21_Picture_9.jpeg)

**LHOIST** Rue Charles Dubois 281342 Limelette – Belgium www.lhoist.com

![](_page_21_Picture_11.jpeg)

CARMEUSE Bd de Lauzelle 65 1348 Louvain-la-Neuve – Belgium www.carmeuse.com

![](_page_21_Picture_13.jpeg)

DOOSAN LENTJES Daniel-Goldbach-Strasse 19 40880 Ratingen – Germany www.doosanlentjes.com

### Hitachi Zosen INOVA

HITACHI ZOSEN INOVA

Hardturmstrasse 127 8037 Zürich – Switzerland www.hz-inova.com

![](_page_21_Picture_18.jpeg)

LAB Avenue Jean Jaurès 259 69007 Lyon – France www.lab-stuttgart.de

### ESWET MEMBERS

![](_page_22_Picture_1.jpeg)

LÜHR FILTER Enzer Straße 26 31655 Stadthagen – Germany www.luehr-filter.de

![](_page_22_Picture_3.jpeg)

MARTIN GMBH Leopoldstraße 248 80807 München – Germany www.martingmbh.de

![](_page_22_Picture_5.jpeg)

**STANDARDKESSEL BAUMGARTE** Senner Straße 115 33647 Bielefeld – Germany www.baumgarte.com

![](_page_22_Picture_7.jpeg)

Termomeccanica Ecologia Termomeccanica Group

**TM.E S.p.A. TERMOMECCANICA ECOLOGIA** Via del Molo 3 19126 La Spezia – Italy www.tme.termomeccanica.com

![](_page_22_Picture_10.jpeg)

MAGALDI INDUSTRIE Via Irno 219 84135 Salerno - Italy www.magaldi.com

![](_page_22_Picture_12.jpeg)

SICK Erwin-Sick-Strasse 1 79183 Waldkirch – Germany www.sick.com

![](_page_22_Picture_14.jpeg)

**STEINMÜLLER BABCOCK ENVIRONMENT** Fabrikstrasse 1 51643 Gummersbach – Germany www.steinmueller-babcock.com

![](_page_22_Picture_16.jpeg)

VINCI ENVIRONNEMENT

Bd Franklin Roosevelt 89 92506 Rueil-Malmaison Cedex - France www.vinci-environnement.com

![](_page_23_Picture_0.jpeg)

![](_page_23_Picture_1.jpeg)

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www.eswet.eu info@eswet.eu

EUROPEAN SUPPLIERS OF WASTE-TO-ENERGY TECHNOLOGY

![](_page_23_Picture_6.jpeg)