



EUROPEAN SUPPLIERS
OF WASTE-TO-ENERGY
TECHNOLOGY



ACTIVITY
REPORT 2019

WWW.ESWET.EU

CONTENTS

4	ESWET – Profile and scope of the association
5	Foreword by Dr. Edmund Fleck
6	Fact sheet - 4 reasons to support Waste-to-Energy
8	Waste-to-Energy, an advanced solution to improve waste management worldwide
10	Safe treatment of residual waste, the key to a sustainable Europe
12	ESWET policy updates
13	European Green Deal
14	Waste Incineration BREF
16	EU taxonomy for sustainable investments
18	ESWET Vision 2050 - clean technologies for sustainable waste management
22	ESWET activities in 2019
24	ESWET organisational structure
26	ESWET members

Credits

All pictures are copyright of ESWET or its member companies unless where stated differently.

Pictures at page 5 and 23 (top left) © Bénédicte Maindiaux

Picture at page 11 © Penzel Valier AG

Picture at page 12 © Veolia

Picture at page 22 (bottom left) © European Union

Picture at page 25 (top left) © CEWEP

© European Suppliers of Waste-to-Energy Technology– March 2020

EUROPEAN SUPPLIERS OF WASTE-TO-ENERGY TECHNOLOGY

THE MAIN PURPOSE OF ESWET IS TO RAISE AWARENESS OF THE POSITIVE IMPLICATIONS OF WASTE-TO-ENERGY IN TERMS OF SUSTAINABLE WASTE MANAGEMENT, CLEAN AND RELIABLE ENERGY, AND PROTECTION OF THE ENVIRONMENT.

ESWET aims to foster the development and the dissemination of Waste-to-Energy at the European level and around the world.

The technology from ESWET members is the heart in most of the Waste-to-Energy plants in Europe, recovering energy and materials from non-recyclable municipal solid waste.

This technology is also used by most plants worldwide.

ESWET activities promote Waste-to-Energy across different tools and channels. We publish a wide range of documents such as factsheets, opinions, figures and reports, including a guidance document on the WI BREF and our Vision 2050.

We organise events on circular economy, energy and environment, and we regularly exchange with EU policymakers to provide information on Waste-to-Energy.

WHAT IS WASTE-TO-ENERGY?

Waste-to-Energy (also called Energy-from-Waste) is an essential part of a sustainable waste management strategy.

Waste-to-Energy treats waste that is not suitable for recycling and reuse, and would otherwise be landfilled.

The energy recovered by Waste-to-Energy plants is used to heat and cool houses, buildings and industrial facilities or is converted to electricity to feed the national grid.

That is not all, bottom ash remaining after the combustion process consists of metals and minerals, both of which can be recycled. Metals end up in the corresponding industries, while minerals are used for road construction, as additive in the cement industry, etc.



FOREWORD

BY DR. EDMUND FLECK

(ESWET PRESIDENT FROM 2004 TO 2019).

It is not enough to believe that your industry is doing the right thing! You also have to convince the others - and especially those who don't agree with you - that what you are proposing is not of any harm for anybody or anything, but it is on the contrary fulfilling a necessary function in our society.

Waste-to-Energy is a very good example for that. Most people don't want it, they simply believe that we could do well without it. Whereas people like myself, with a lifetime career in this business, are of the entirely different opinion.

Unfortunately, emotions / myths are sometimes difficult to overcome. Data and rational arguments are of no help when they don't want to be heard.

When it comes to 'arguments', I am convinced that many people in the EU authorities have a much better understanding today that Waste-to-Energy is safe, proven, reliable, with very low emissions and is an essential part of sustainable waste management.

ESWET was founded in 2004 with the intention to bring knowledge of Waste-to-Energy to the EU authorities in Brussels. As the long-time President, my focus was to convince with arguments, while at the same time try to get the emotions out of the debate.

When it comes to 'emotions', I can't state that we have been successful yet, as we still see in many new draft EU regulations that Waste-to-Energy is being condemned. We as an association are still being forced to argue against many prejudices.

In the role of former President now, this leaves me with a mixed bag of feelings, much is still to be done.

But I am grateful for having been part of an activity that I am convinced is much needed and that has given me a lot of new, different and exciting experiences, as well as the chance of meeting and debating with many interesting people from all over Europe.

Fact sheet

Waste-to-Energy

Highlighting the key benefits of Waste-to-Energy (WtE) as a circular, low-carbon and low-polluting waste management option.

Waste-to-Energy for a clean circular economy



Waste-to-Energy treats residual waste: waste that cannot be recycled, ensuring a clean recycling stream and recovering energy for homes, offices and industry.

Together with waste prevention, reuse and recycling, Waste-to-Energy contributes towards the achievement of zero landfills in Europe.

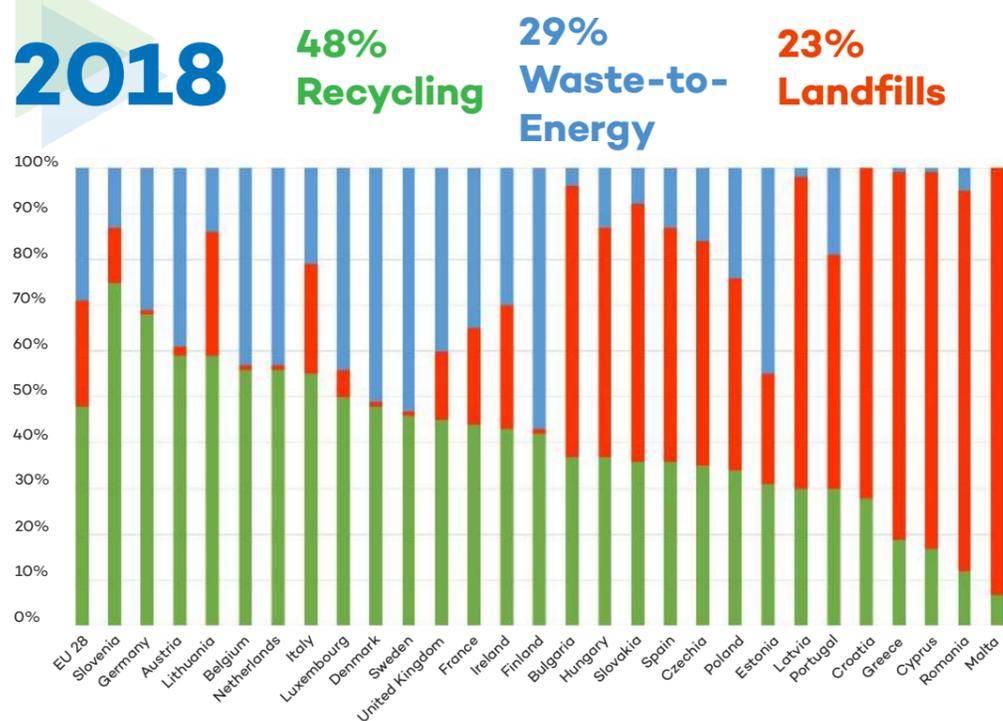
As recognised in the **Reflection Paper towards a Sustainable Europe by 2030**, published in 2019, Waste-to-Energy is part of the Circular Economy Action Plan set up by the European Commission.

Recycling and Waste-to-Energy lead EU municipal waste treatment

Eurostat data show that recycling and Waste-to-Energy are growing hand-in-hand in the EU.

Unfortunately, almost half of the EU member states still send to landfills more than 40% of their municipal waste.

Methane emissions by landfills are 86 times more potent than CO₂ over a 20-year period.



4 Reasons to Support

Waste-to-Energy

Clean Energy Production

EU Waste-to-Energy plants recover the energy potential of waste generating electricity, heating and cooling with efficiencies of up to 95%.

For example, did you know that 50% of the district heating network in Paris is supplied by energy recovered from Waste-to-Energy plants?



In Sweden, Waste-to-Energy provides heat to 1.2 million Swedish households and electricity for another 800,000.

Low Emissions

The emissions produced by Waste-to-Energy plants are among the lowest in the EU industry.

The UK's Environment Agency estimates that "in a year the whole Energy Recovery industry produces about one sixth of the dioxins produced by one 5th November Bonfire Night".



In 2015, researchers studied the presence of contaminants in vegetables and cow milk produced near three Waste-to-Energy plants in the Netherlands. The results did not show any difference compared to the average country levels.

In 2014, Waste-to-Energy plants produced 0.71% of NO_x emissions in the UK, compared to 31.7% of emissions emitted by vehicles.

Climate Change Mitigation

The diversion of waste from landfills to Waste-to-Energy plants prevents the production of methane (CH₄) emissions, which is up to 86 times more potent than carbon dioxide (CO₂) over a 20-year period.

Also, Waste-to-Energy produces about 39 TWh of electricity and 90 TWh of heat, thereby saving up to 50 million tonnes of emissions of CO₂ that would otherwise be emitted by extracted fossil fuels.

Finally, metals and minerals recycled from Waste-to-Energy prevent the extraction of primary raw materials and the energy needed for their extraction, refining etc.

Recovery of Materials

Ashes and residues resulting from the combustion process of Waste-to-Energy plants are more and more channelled into recycling processes.

The recycled metals and minerals can be used for several purposes, such as road construction materials, additives to cement raw materials, in concrete manufacturing, etc.



WASTE-TO-ENERGY, AN ADVANCED SOLUTION TO IMPROVE WASTE MANAGEMENT WORLDWIDE

THROUGHOUT THE WORLD, ALMOST 70 % OF THE WASTE PRODUCED IS DUMPED. THIS AMOUNT DOES NOT ONLY REPRESENT A LOST OPPORTUNITY IN TERMS OF RESOURCE RECOVERY, IT IS ALSO A HUGE DAMAGE TO THE ENVIRONMENT AND TO HUMAN HEALTH.

As reported by the World Bank in the What a Waste 2.0 report from 2018, global waste generation will probably increase by around 60 % by 2050. It is clear that the most advanced technologies from the WtE sector play a pivotal role in answering to that challenge.

The logic to follow is the one stressed by the European waste hierarchy: reduce the amount of waste generated, re-use and recycle as most as possible, and recover the fraction of waste which cannot be re-used or recycled. Waste-to-Energy serves society by treating non-recyclable waste, thus saving resources and protecting the environment.

Many countries worldwide face the need to reduce their dependence from landfills and – even worse – illegal dumpsites. Waste-to-Energy provides a solution to save primary raw resources, reduce soil pollution, abate CO2 emissions, improve air and water

quality, produce low-carbon energy, stabilise the electricity grids and non-the-least minimise landfills.

The Reppie Waste-to-Energy plant - first of its kind in Ethiopia and in Africa - which started commercial operation in August 2018 is an example. The plant treats 1,300 tons of waste per day from across Addis Ababa instead of having them dumped in the Koshe landfill.

As a result, cases of food poisoning as well as respiratory infections have gone down since the establishment of the plant, which has also an annual capacity of 185 gigawatts of electricity.

As recognised by UNEP in the recently published report Waste-to-Energy - Considerations for Informed Decision-Making, "Waste-to-Energy plants with advanced emission control technologies that are well-maintained have minimum



▶ Dundee, Scotland

public health impacts". Moreover, the technology is able to reduce the amount of waste sent to landfills by 90 %¹.

According to the latest survey carried out by ecoprog², about 2,400 Waste-to-Energy plants were active throughout the world in 2018.

By the end of 2028, the survey anticipates an increase of Waste-to-Energy plants to 2,700 units, with a global treatment capacity of approximately 530 million tonnes of waste per year. In Europe alone, 50 plants are expected to be commissioned in the next 5 years.

The Waste-to-Energy sector is globally moving towards very ambitious goals, such as recovering more and more electricity and heat, generating fuels like hydrogen out of residual waste, and increasing continuously the efficiency of the plants.

Overall, we are confident that, thanks to the contribution of our sector, illegal dumpsites and polluting landfills will be soon just an old bad memory.

Waste-to-Energy is able to reduce the amount of waste sent to landfills by 90%.



Siegfried Scholz
ESWET President

1 Waste-to-Energy - Considerations for Informed Decision-Making – Summary for policy makers – Page 5

2 ecoprog GmbH - Waste to Energy 2019/2020

SAFE TREATMENT OF RESIDUAL WASTE, THE KEY TO A SUSTAINABLE EUROPE

TODAY'S DECISION AT EU LEVEL WILL DEFINE WASTE MANAGEMENT FOR THE NEXT DECADES. THE KEYWORD OF THE NEW COMMISSION'S MANDATE IS OBVIOUSLY "SUSTAINABILITY" AND "GROWTH". BUT "HYGIENISATION" IS THE BASIS FOR ANY "SUSTAINABILITY" AND "GROWTH".

Along the renewal of the European institutions, the past year has been marked with significant events which highlighted the EU's desire to move towards a more sustainable Europe. It culminated with the landmark publication of the Commission's European Green Deal, an action plan which aims at reaching "climate-neutrality" in the EU by 2050.

Waste management certainly has a key role to play to succeed in this goal: global waste generation will increase by 60 % by 2050 and 70 % of waste is dumped worldwide¹. Even in Europe, about a quarter of municipal waste is still landfilled, more than 80 % in certain Member States².

The accumulation of our waste in landfills triggers risks of methane emissions (a gas 84x more potent than CO₂ in the short term) and underground pollution. While the case for landfill diversion is obvious, it can only be achieved by the optimisation of the synergy between the different steps of the waste hierarchy.

The Commission has already made clear its wish to boost and support waste prevention,

¹ Source: World Bank report "What a Waste 2.0"

² Source: Eurostat

reuse, and recycling. It needs to be asserted firmly: sustainable design of products, quality of information for consumers through labelling, proper separate waste collection, and support to recycling are all key to make a step closer to circularity in waste management.

However, it is also crucial not to overlook the safe treatment of non-recyclable waste. The need for residual waste treatment is based on a simple fact: every waste cannot be recycled; it is not always technically doable or in the interest of the environment.



And no one wants a toy to have high levels of pollutants or hazardous pathogens to be recycled



Zuchwil, Switzerland

If pollutants are not removed from the eco cycle, we will accumulate them in recycled products. And no one wants a toy to have high levels of pollutants accumulated in it. The same applies for hazardous pathogens that survive in products, e.g. in medical equipment. No one wants those recycled into products.

On top of this, waste can only be recycled for a limited number of times before its quality becomes too low to be used as a substitute for other material. Then, recycling this waste is no longer sustainable or is simply impossible.

This is why even in the most perfect world, the treatment of non-recyclable "residual waste" is part of any coherent waste management strategy.

A common alternative so far has been to turn a blind eye on European residual waste by dumping it into landfills or even shipping it on the other side of the world. Both options have clearly shown they are not a sustainable solution to the issue at hand, and the evolution of medical threats make the need for hygienisation even more visible.

On the opposite, Waste-to-Energy is actually the best option to both close the circular economy gap and protect our environment and health.

The sector is a pollutant sink that is safely taking toxic non-recyclable material out of the eco-cycle. It also prevents the extraction of raw materials and fossil fuels thanks to recovery from waste that would be otherwise dumped. All of this is done in plants that meet the strictest emissions requirements placed on any EU industry.

Without this broad picture in mind, the challenging road to sustainability and growth will only become a dead-end. Beyond doubt, support to recovery from waste will be decisive in our fight for climate-neutrality in Europe.



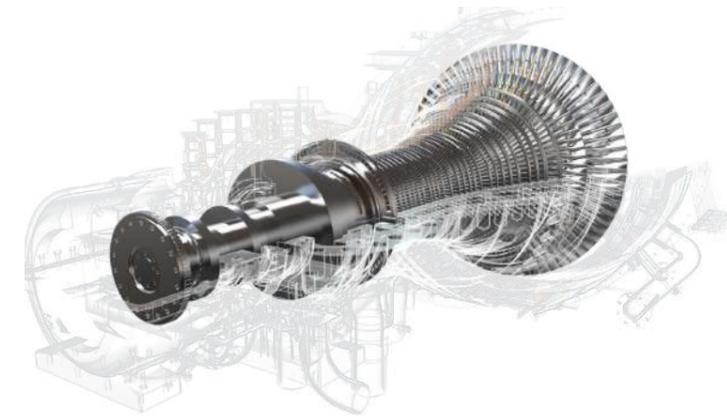
Patrick Clerens
ESWET Secretary General





▶ Leeds, England

EUROPEAN GREEN DEAL



▶ Steam Turbine

IN DECEMBER 2019, THE EUROPEAN COMMISSION RELEASED A PLAN THAT WILL DEFINE ITS MANDATE AND THE FUTURE OF WASTE MANAGEMENT: THE EUROPEAN GREEN DEAL.

Only a few days after it took office, the European Commission delivered its top priority: the European Green Deal, a plan detailing numerous initiatives to come and their agenda.

One of the core ambitions is to reach “climate-neutrality” by 2050 with “a zero pollution and toxic free environment”. The planned initiatives are legion, often cross-sector, and are built as a comprehensive approach dealing with all aspects of our society, whether social, economic, or environmental.

A significant fraction of these initiatives will be of interest to the Waste-to-Energy sector and can be classified into three categories: waste management-related, emissions-related, and finance-related.

- The waste management-related initiatives include legislative proposals for waste reforms, which concrete content has yet to be clarified, and a new circular economy plan which is expected to contain ideas to foster a functioning secondary raw material market.

- The emissions-related initiatives are mostly linked to “the revision of measures addressing pollution from large industrial installations”, in other words a likely revision of the Industrial Emission Directive.

- The finance-related initiatives will include the “Sustainable Europe Investment Plan” and the “Just Transition Mechanism” aiming at helping countries which have to make the most effort in the green transition, the review of State aid guidelines, and a “Renewed Sustainable Finance Strategy”.

The latter will be closely related to the so-called “EU Taxonomy”, a file in which ESWET has already been deeply involved this year.

Most of the proposals are expected in 2020, some of them at the end of 2021, and all will require ESWET to ensure that the proper treatment of residual waste finds its due place in the Commission’s ambitious plan.

ESWET POLICY UPDATES

2019 HAS BEEN A YEAR OF MAJOR POLICY DEVELOPMENTS. THE NEW EUROPEAN COMMISSION LAUNCHED THE EUROPEAN GREEN DEAL AND DELIVERED A PROMISING AGENDA INCLUDING A BROAD SERIES OF ACTIONS AIMED AT ACHIEVING VERY AMBITIOUS CLIMATE TARGETS.

Some of the most important actions are the introduction of a new Circular Economy Action Plan, a European Green Deal Investment Plan, a Just Transition mechanism etc.

In this dynamic and fast changing regulatory environment, ESWET is the voice of the suppliers of Waste-to-Energy technology and has the mission to make sure that the prominent role of Waste-to-Energy is recognized by EU institutions and reflected in EU policies.

This year ended with the publication of the WI BREF BAT Conclusions in the Official Journal of the EU, a long-anticipated document, which marks the beginning of a new era for the WtE sector.

ESWET, together with CEWEP, FEAD and EUROHEAT & POWER, has contributed to the realization of an Explanatory and Guidance document of the WI BREF, which addresses important topics, such as uncertainty of measurements, and proposes practical solutions.

On December 2019 a compromise text was approved for the Taxonomy on Sustainable Finance regulation, which will provide a common framework for identifying the economic activities considered to be environmentally sustainable.

Over the year, ESWET has strived to promote the many reasons why Waste-to-Energy is an indispensable part of an integrated sustainable waste management.

WASTE INCINERATION BREF

AN OVERLOADED POLITICAL CONTEXT DID NOT SLOW DOWN THE WORK ON THE WASTE INCINERATION BREF, WHICH WAS FINALLY PUBLISHED AT THE BEGINNING OF DECEMBER. IT IS NOW FOR ALL THE INVOLVED STAKEHOLDERS TO SEIZE THIS DOCUMENT WITH ALL ITS SAID AND UNSAID... WITH THE HELP OF ESWET!

The WI BREF has finally been published

2019 ended with the publication of the Waste Incineration (WI) Best Available Techniques (BATs) REference document (BREF), a document the Waste-to-Energy sector had been awaiting a long time. The BREF is available here: <https://eippcb.jrc.ec.europa.eu/reference>

This document, that draws its source from the Industrial Emissions Directive (IED), includes binding provisions describing new BATs and their associated performance levels.

These new standards of excellence confirm Waste-to-Energy as the most sustainable waste management option for non-recyclable waste, as opposed to landfilling.

Implementation of these binding provisions – the so-called “BAT conclusions” – will be a challenging mission involving all players at national and European level and will need to be carried out in a way that ensures highest environmental protection in the most economically and technically viable conditions.

This will require a learning process that should not be underestimated in order to prevent implementation issues.

December 2019 marks the beginning of the implementation phase

Following the publication of the decision on BAT conclusions on 03/12/2019, public authorities now have 4 years to review and, if necessary, update permits so that new and existing Waste-to-Energy installations comply with the new requirements.

When elaborating or updating permits, these public authorities may fall short of useful contextual information shared during the BREF elaboration process or knowledge of complementary legal requirements not expressly stated in the BAT conclusions.



ESWET, together with other industry associations, published an “Explanatory and Guidance” document (E&G-d) to help stakeholders understand the BREF in its entirety



Salo, Finland

This may essentially lead public authorities, who sometimes lack the necessary knowledge, to set over-challenging requirements that will be extremely difficult to meet.

An “Explanatory and Guidance” document to help stakeholders

This is why ESWET, together with other industry associations, organised workshops – and will continue to do so – with consultants, operators and public authorities, throughout the implementation phase, to raise awareness on the challenges that the stakeholders will face in the implementation of the BAT conclusions.

Furthermore, an “Explanatory and Guidance” document (E&G-d) was also published in order to help stakeholders understand the BREF in its entirety, by addressing comprehensively all the key topics, such as uncertainty of measurements, and proposing practical solutions.

The Guidelines are divided into an executive summary, the main document, and 7 annexes open to stakeholders’ contributions, which are essential to make it clear and easy to use. The document is available at this link: <http://www.eswet.eu/reports.html>

Finally, ESWET continued to express its concerns towards policymakers that, as soon as we enter the compliance period, standards and measurement equipment may not be adapted to the new emissions requirements and that further research and legal certainty in this area should be pursued.

EXPLANATORY & GUIDANCE
document on IED-based
Waste Incineration BREF
and BAT conclusions



SCAN ME



EU TAXONOMY FOR SUSTAINABLE INVESTMENTS

IN 2018, THE COMMISSION PUBLISHED ITS PROPOSAL FOR A SO-CALLED EU TAXONOMY, A CLASSIFICATION SYSTEM TO DETERMINE UNDER WHAT CONDITIONS INVESTMENTS ARE CONSIDERED SUSTAINABLE.

This tool which aims at helping investors and project promoters to navigate the transition to a low-carbon, resilient and resource-efficient economy, is likely to have far-reaching consequences for all the sectors covered.

Indeed, they could face the risk of not being considered “green enough” and thus see their access to finance more difficult, especially given that the EU Taxonomy could be used as a standard in finance and funding far beyond its current scope.

In this context, the Commission’s proposal was not giving enough recognition to the role of Waste-to-Energy. However, the EU co-legislators took into account the need to establish a sustainable investment framework that is technology neutral and relies on the basic principles of the waste hierarchy, and the Taxonomy now highlights situations where the technology cannot be considered harmful to the environment.

After one year of efforts, ESWET reinstates

that Waste-to-Energy should be supported as one of the only sustainable options to treat non-recyclable waste.

Developments

The Framework to facilitate sustainable investments (“EU Taxonomy”) aims to develop an harmonised classification system that identifies economic activities that deliver on EU sustainability objectives.

After one year of intense policy activity, ESWET reinstates that Waste-to-Energy should be supported as the only sustainable option to treat non-recyclable waste.



▶ Gujarat, India

This system will influence future EU policies, including Union-wide standards for environmentally sustainable financial products and eventually the establishment of labels that formally recognise compliance with those standards across the EU.

This classification system may also spill over far beyond its current scope and be used by the public sector or even become a basis for international standards.

Throughout the year, our work mainly focused on legislative discussions on the general framework (the “Taxonomy Regulation”) and on developing a first pillar of activities that substantially contribute to climate change mitigation and adaptation, as well as more detailed technical screening criteria for each activity covered by the Regulation.

The next steps

The provisions on Waste-to-Energy have now to be further detailed by the “Platform on Sustainable Finance” to be established at the end of this year with the aim to add or review in the future environmentally sustainable activities and their specific criteria.

ESWET will focus on the next steps of the legislative process and work thoroughly to ensure that the crucial role of Waste-to-Energy in the transition to clean energy is well reflected in the interpretation of these new rules.

ESWET VISION 2050 - CLEAN TECHNOLOGIES FOR SUSTAINABLE WASTE MANAGEMENT

GLOBALLY, WASTE GENERATION IS EXPECTED TO GROW BY ROUGHLY 60% BY 2050. THAT'S WHY THE ACKNOWLEDGEMENT AND COOPERATION OF ALL PARTIES INVOLVED IS ESSENTIAL TOWARDS THE COMMON GOOD FOR THE ENVIRONMENT. WASTE MANAGEMENT IS A CRUCIAL TOPIC FOR THE SUSTAINABLE DEVELOPMENT OF OUR SOCIETY.

Thanks to advanced technologies, waste management is turning into an integrated waste and resource management logic, thus reducing the exploitation of materials through recycling and transforming non-recyclable waste into a valuable resource for the whole society.

To implement this change, the phasing out of polluting dumpsites is the first objective that should be pursued.

Our Vision demonstrates how Waste-to-Energy technologies produced by European suppliers are profoundly committed to resource efficiency and climate change mitigation and are ready to contribute to better waste management in the EU and on a global scale.

It shows how, by 2050, Waste-to-Energy plants will contribute to low-carbon energy systems and circular societies and the policy and regulatory milestones needed to get there.

Waste-to-Energy technologies treat residual waste: waste which is not fit for

re-use or recycling and would otherwise be landfilled. For example, contaminated biomass such as wood treated with wood preservatives.

Waste-to-Energy plants transform this waste into energy which is used for electricity generation, for heating and cooling and for various industrial applications – among others to produce hydrogen.

Renewable and reliable energy, resource recovery and CO₂ emissions reduction

Half of the energy recovered is renewable as it comes from waste of biogenic origin. Moreover, renewable energy from Waste-to-Energy is plannable and reliable.

On top of this, Waste-to-Energy recovers secondary raw materials which are used in a variety of sectors such as construction, metal recycling or strategic applications such as battery manufacturing.

By combining the effects of landfill diversion, energy-efficient processes and improved materials recovery, Waste-to-Energy is a

WASTE-TO-ENERGY 2050

CLEAN TECHNOLOGIES FOR SUSTAINABLE WASTE MANAGEMENT



ESWET Vision 2050

considerable sink for carbon dioxide (CO₂) emissions.

Waste-to-Energy plants will allow to feed more renewable energy into the system which will be used, e.g. in the form of hydrogen, to decarbonise other sectors.

The future of WtE is circular

The future of Waste-to-Energy is circular, fully sustainable and widespread globally: hydrogen fuelled trucks will bring residual waste to the plant; while unloading the waste, they will refuel at the hydrogen station, thus avoiding the use of fossil fuels.

From households to industries, shopping centres and greenhouses, the amount of facilities heated and cooled by the energy recovered from waste will constantly grow. Integrated Waste-to-Water processes will

be able to improve waste management in desert areas, and the energy recovered from the waste will power seawater desalination plants to produce drinking water sustainably.

The roads we walk along and the buildings we live in will be more and more constructed with secondary raw materials from bottom ash, reducing the exploitation of primary materials.

The Waste-to-Energy plants themselves will turn into edutainment and sport centres, with ski slopes, climbing chimneys and tennis courts, restaurants with vantage points and education centres for school activities.

Read and download the full document: <http://bit.ly/ESWETVision2050>

ESWET ACTIVITIES 2019

FEBRUARY

On 27-28 February 2019, ESWET Secretary General Patrick Clerens participated at the Energy from Waste conference, in London. The presentation was titled "Future directions for dealing with incinerator bottom ash from Energy from Waste" focusing on the latest regulatory changes on the classification of Incinerator Bottom Ash.



MAY

On 24 May 2019, ESWET and CEWEP, co-organized an event in Brussels, within the framework of the EU Green Week, with the title "How to ensure a Clean Circular Economy". The discussion focused on the challenges in the implementation of the Circular Economy Package and the role of Waste-to-Energy to clean the recycling streams and treat residual waste. The event was attended by around 80 people between stakeholders and policy makers from the waste management and energy sectors.



MARCH

On 8 March 2019, a workshop was held in Copenhagen with consultancies to present a "final draft" version of the WI BREF Guidance document which is a common CEWEP-ESWET-FEAD explanatory and guidance document on how to use the WI BREF BAT conclusions and which touches upon ambiguities arising from the Industrial Emissions Directive (IED) and the WI BREF.



JUNE

On 4 June 2019 a second workshop on the WI BREF Guidance document was organized, this time in Brussels. The workshop was attended by more than 100 people among ESWET and CEWEP members, waste management companies, consultants and policy makers.

On 19 June 2019, ESWET co-organised a session at EUSEW with the title "Green hydrogen decoupling the European energy network". ESWET participated in the session with a presentation on hydrogen and Waste-to-Energy.



SEPTEMBER

On 24 September 2019, ESWET launched its Vision for 2050: "Waste-to-Energy 2050: Clean Technologies For Sustainable Waste Management", in a joint event with CEWEP in front of more than 150 people from the waste management and energy sector as well as the European Parliament, European Commission and Member States permanent representations. ESWET President, Dr Edmund Fleck, presented the Waste-to-Energy plant of the future, as a part of an integrated, decentralized and decarbonized energy system.



NOVEMBER

On 7 November 2019, ESWET's member SICK representative Aurélie Moll spoke at the Ecomondo Conference, in Italy. She presented the state of play of the WI BREF as well as the challenges related to the implementation of the WI BREF requirements, with a special focus on the issue of measurement uncertainty.



OCTOBER

On 15 October 2019, Patrick Clerens spoke in Vienna at the IRRC Waste-to-Energy conference. He presented ESWET's vision 2050. The presentation focused on Waste to Energy as the sustainable waste management option that can ensure the transition to low-carbon energy systems and circular societies in the EU and on a global scale.

DECEMBER

On 03 December 2019, Patrick Clerens participated at the Energy from Waste conference, in London. He gave a presentation on the ESWET Vision 2050 and promoted the role of Waste-to-Energy as an indispensable part of an integrated sustainable future waste management.



WASTE CHALLENGES MUST BE SOLVED GLOBALLY

Sound waste management technologies including Waste-to-Energy need to be rolled out globally to improve recycling and recovery and reduce dumpsites.

ESWET ORGANISATIONAL STRUCTURE

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.

General Assembly

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

Executive Board

The Executive Board implements the decisions made at the level of the General Assembly. It is composed of the full members that supply main components (grates, fluidised beds, rotary kilns, boilers, flue gas cleaning systems).

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, they provide feedbacks on all the technical questions addressed by the association and provide input to the work of the EU institutions whenever required.



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.



ESWET STRUCTURE

ESWET PRESIDENT

Dr Siegfried Scholz,
Standardkessel Baumgarte

ESWET VICE-PRESIDENT

Stanislas Ancel,
CNIM

ESWET VICE-PRESIDENT

Bruno-Frederic Baudouin,
Hitachi Zosen Inova

CHAIRMAN OF TECHNICAL COMMITTEE

Hubert de Chefdebien,
CNIM

CHAIRMAN OF PUBLIC RELATIONS COMMITTEE

Ole Hedegaard Madsen,
Babcock & Wilcox Volund

ESWET SECRETARY GENERAL

Patrick Clerens

MAKE THE VOICE OF THE WASTE-TO-ENERGY SECTOR STRONGER

JOIN ESWET!

ESWET MEMBERS



ANDRITZ
Wagner-Biro-Platz 1
A-8074 Raaba/Graz - Austria
www.andritz.com



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



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



GENERAL KINEMATICS EUROPE
Mündelheimer Weg 37
40472 Düsseldorf - Germany
www.generalkinematics.com



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



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



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



GE POWER SWEDEN
Kvarnvägen 2
352 41 Växjö - Sweden
www.ge.com



HITACHI ZOSEN INOVA
Hardturmstrasse 127
8037 Zürich - Switzerland
www.hz-inova.com



LAB
Avenue Jean Jaurès 259
69007 Lyon - France
www.lab.fr

ESWET MEMBERS



LHOIST
Rue Charles Dubois
281342 Limelette - Belgium
www.lhoist.com



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



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



STC POWER
Via Andrea Dragoni, 59,
47122 Forlì FC, Italia
www.stcpower.com/



T.M.E.s.p.A. TERMOMECCANICA ECOLOGIA
Via del Molo 3
19126 La Spezia - Italy
www.tme.termomeccanica.com



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



MARTIN GMBH
Leopoldstraße 246
80807 München - Germany
www.martingmbh.de



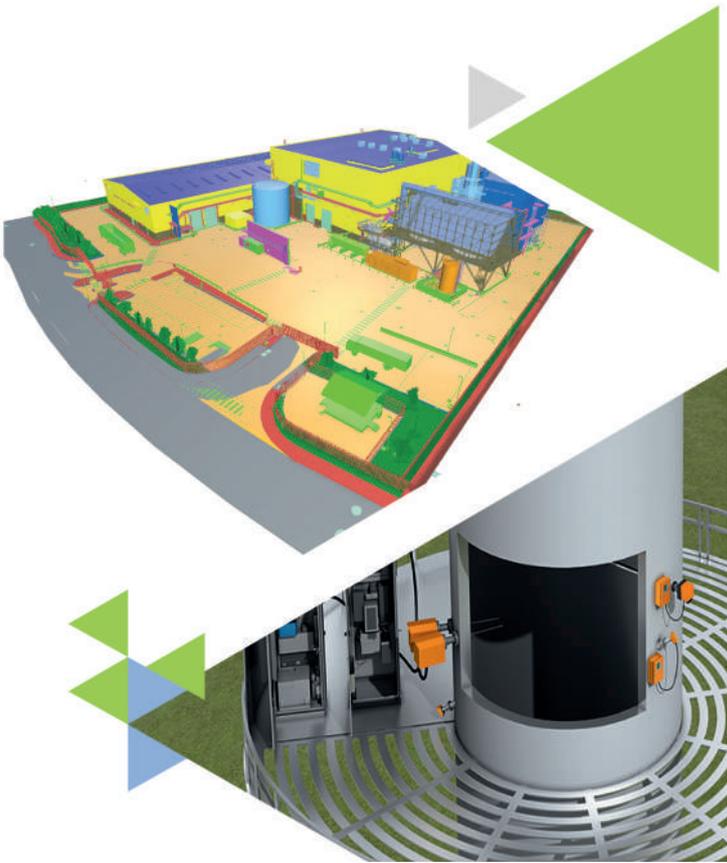
STANDARDKESSEL BAUMGARTE
Senner Straße 115
33647 Bielefeld - Germany
www.standardkessel-baumgarte.com/



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



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



Avenue Adolphe Lacombé 59
1030 Brussels

Tel.: +32 2 743 29 88
Fax: +32 2 743 29 90

www.eswet.eu
info@eswet.eu

EUROPEAN SUPPLIERS OF WASTE-TO-ENERGY TECHNOLOGY

 [@ESWET_EU](https://twitter.com/ESWET_EU)