



Dutch Waste Management Association  
Partner in the circular economy



# Annual Review 2022

## MESSAGE FROM THE PRESIDENT

# We need **everyone** for the **circular economy**



Waste should not be just a political issue, but high in the public consciousness. Everyone can play their part in the circular economy. We want to show everyone just how important it is to separate waste, because we cannot do it all on our own. The Dutch Waste Management Association has decided to communicate with the general public much more than in the past. This year we began with a campaign to persuade people that when they are out of the house – at the office, in shops, at school or in cafes and restaurants, for example – they should dispose of waste just like they do at home. If we separate that waste better, we can recycle more and be more circular than we already are.

We are going to tackle more topics. The daily shopping is one. People may think they are being sustainable, but that is certainly not always the case. Products that consist of different materials – such as bread bags made of both paper and plastic – are not recyclable and we want to make consumers more aware of such things. By telling it as it is, we can help them to make informed choices for sustainable alternatives. In this way we are also trying to persuade producers to take a critical look at the design of their products.

And of course, when we do generate waste, we should put it in the right bin. But if it is mixed with too much of the wrong type of waste, we cannot recycle it. Raw materials will be lost and we will not be able to make useful new products from our waste. We need to explain this better, too.

Sometimes safety can be compromised. A safe and healthy work environment is a basic condition for everything we do in the transition to a circular economy. Batteries that are not returned separately can be damaged during collection and treatment, which increases the risk of fires breaking out. There is a similar situation at the moment with laughing gas canisters. We increasingly come across them in public places, in recycling centres or in residual household waste. They are a danger because they can explode. We are currently working with the Association for Refuse and Cleansing Management (NVRD) and the government to find a solution to this problem. As I said above, we cannot do it all on our own.

Boris van der Ham  
President of the Dutch Waste Management Association

Message  
from the president >

Vision & Strategy >

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# Vision

The Dutch Waste Management Association (DWMA) sees a future in which circularity is a given, very little waste is produced and most materials are recycled for new uses, a future in which the waste industry plays its part in further reducing greenhouse gas emissions. Although its roots are local, the industry needs an international orientation and a European level playing field to maintain the leading position in Europe enjoyed by the Dutch waste infrastructure.

# Strategy

The DWMA has translated its vision into a strategy, with three main themes: Vital Sector, Circularity and Climate. Circularity and Climate are about change – the transformation of the economy. The Vital Sector theme is the foundation – ensuring the essential conditions are in place.

Message  
from the president >

Vision & Strategy >

VITAL SECTOR

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**respect for people**  
and the **environment** >

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**materials** >

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**energy recovery** and  
**emissions reduction** >





## VITAL SECTOR

# A **circular** and **safe society** with **respect** for **people** and the **environment**

The primary duty of the waste industry is the safe and responsible collection and treatment of our waste. In other words, the Dutch waste companies keep the country clean and tidy. They manage their operations efficiently and with respect for people and the environment. These are the basic requirements for making the transition to the circular economy, because they enable waste companies to turn waste into raw materials and energy.

Message from the president >

Vision & Strategy >

VITAL SECTOR

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CIRCULARITY

**Maximum reuse** and **recovery** of **valuable materials** >

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**Maximum circularity, energy recovery** and **emissions reduction** >

## Covid-19 pandemic

The Covid-19 pandemic continued to hold the country firmly in its grip during 2022. The government extended the temporary regulations for transporting, packaging and processing waste contaminated with Covid-19 by a year to 1 April 2023. These regulations apply to waste from patient care, such as used personal protection equipment, and from test centres. If packaged in properly sealed plastic bags, this waste may be transported for treatment in waste-to-energy plants. The temporary regulation has proved to be well conceived and practical as Covid-contaminated wastes have been treated quickly and safely.

## Crucial occupation

A poll by I&O Research revealed that nine out of ten people in the Netherlands think that the workers who take care of our waste are just as essential as other public servants, such as the police and firefighters. But in sharp contrast, just four per cent say they are willing to work in the waste industry. This is unfortunate, because these jobs are essential to keep society working. Everyone who works in the waste industry contributes towards a sustainable future, and for that they deserve our appreciation. That is why the Association for Refuse and Cleansing Management (NVRD), the Dutch association for transport and logistics (TLN) and the DWMA launched the Week of Waste Heroes in 2021. It is held each year in the first week of March and many organisations in the sector dedicate this week to celebrating their staff. The purpose of the campaign is to encourage public appreciation of the work done by the waste industry.

## Substances of concern

Substances of very high concern (SVHC) are found everywhere. Everyone agrees that SVHCs should be phased out, but it will take a long time before these substances work their way through the chain from production and use to waste treatment. It is a major challenge for the industry to identify exactly which SVHCs are present in different wastes. As producers and discarders are often in a better position to do this, the responsibility for providing this information lies with them. The DWMA raised this issue with a number of value chain partners. They discussed the steps in the value chain and performed 'integrity tests' in which they assessed them for the presence of SVHCs and identified when emissions may arise during the product lifecycle. The DWMA argues for the phased introduction of an appropriate policy for dealing with SVHCs that does not frustrate recycling. The waste sector wants a national regulatory framework with national government oversight. There should also be more consideration given to the potential risks of new substances coming onto the market. Independent scientists could take on this task, under government supervision. The presence of PFAS in products and fabrics is threatening to prevent licences being granted for importing, exporting and processing wastes abroad and the DWMA has given a clear message to parliament that this would frustrate progress towards the circular economy. If this treatment route is cut off, all parties involved would be affected and recycling loops would be broken. ▶

Message  
from the president >

Vision & Strategy >

VITAL SECTOR

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**safe society** with  
**respect for people**  
and the **environment** >

CIRCULARITY

**Maximum reuse** and  
**recovery of valuable**  
**materials** >

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**Maximum circularity,**  
**energy recovery** and  
**emissions reduction** >

## Battery fires

Lithium batteries are coming onto the market in increasing numbers and it is important that these energy carriers are disposed of in the right way. If they end up in the wrong waste stream, the chances are they will be damaged, increasing the risk of fires breaking out. But safety is not the only issue; many raw materials are lost as well. The Waste Fires Task Force is working with producer organisations to draw up an action plan to ensure that end of life batteries are put in the right waste collection bin. The Task Force is working on a national campaign to raise awareness of the right way to dispose of batteries and appliances containing lithium batteries. The campaign launches in 2023. The partners are also pushing for a return deposit scheme for batteries.

## Diesel engine emissions

The DWMA and the Dutch Labour Inspectorate (NLA) are working together to improve healthy and safe working practices in the waste sector. In 2022 the NLA took enforcement action to curb diesel engine emissions (DEE), following a discussion session on DEE organised by the DWMA and NLA. Waste companies are increasingly concerned about the health risks of DEE. This is an important issue for the Health and Safety Catalogue for the Waste Sector as well, which in turn creates wider awareness of this issue among the other industry associations and social partners involved. The Health and Safety Catalogue for the Waste Sector includes mandatory measures for avoiding or minimising exposure to soot particles from diesel engines. An inventory of



exposure to DEE in the waste sector clearly shows that it makes sense for companies to invest in the future and when purchasing new equipment to anticipate a tightening of the limit value for professional exposure to DEE.

## Physical workload

Employers and workers did not succeed in reaching agreement on the guidance document on the physical workload of refuse collectors. The board of the Health and Safety Catalogue for the Waste Sector therefore had no choice but to not include the guidance from the Safety Catalogue. In May 2022 the Dutch Labour Inspectorate scrapped the sections on physical workload ▶

Message from the president >

Vision & Strategy >

VITAL SECTOR

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CIRCULARITY

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**Maximum circularity,** **energy recovery** and **emissions reduction** >





protecting their refuse collectors from excessive physical workloads when collecting household waste.

### DSO test sessions

When the Environment and Planning Act comes into force – now planned for 1 January 2024, after many postponements – the digital system for the Environment and Planning Act (DSO) will replace the current online planning portal. DWMA members are preparing for the new online environment and held a number of test sessions. They were generally positive about the user friendliness of the system for making applications for planning and environmental permits, although in the second test session the DSO proved to be less suitable for smaller activities and SME members. It became clear that the system needs to contain more information on smaller activities and that its structure and contents should be simpler. ■

of refuse collectors from the appendix to the 2019 'Policy Rule on Health and Safety Catalogues'. From that moment the Health and Safety Catalogue for the Waste Sector could no longer be used as a reference frame by the Labour Inspectorate when carrying out inspections of the physical workload of refuse collectors. At the same time, these sections and the background information on the old P90 standard (on the physical workload of refuse collectors) was deleted from the Health and Safety Catalogue. It is therefore also no longer possible to refer to the Health and Safety Catalogue when carrying out a risk inventory and evaluation (RI&E). Employers will have to agree with their works councils or staff representation on a suitable procedure for

Message from the president >

Vision & Strategy >

VITAL SECTOR

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## CIRCULARITY

# Maximum reuse and recovery of valuable materials

With the waste sector actively working towards maximum circularity, the waste companies are playing their part in the reform of the economy as a whole. The aim is an economy which facilitates the maximum reuse and recovery of valuable materials. We will then need fewer primary raw materials.

Message from the president >

Vision & Strategy >

VITAL SECTOR

A **circular** and **safe society** with **respect** for **people** and the **environment** >

CIRCULARITY

Maximum reuse and recovery of valuable materials >

CLIMATE

Maximum circularity, energy recovery and emissions reduction >



## CIRCULARITY

### Circularity

While recycling is a part of circularity, the DWMA's concept of circularity is much broader. The circular economy is about a different way of producing and consuming: minimising materials wastage, using fewer primary raw materials, making repairable products and ensuring products and materials have a longer useful life. It is crucial that we think about the lifecycle of products in the design stage. Waste companies and manufacturers are working in tandem on this and are holding discussions about the product waste phase. They are looking into how to use fewer materials and making products repairable, reusable and recyclable. A positive sign is that the EU Green Deal proposes mandatory percentages

of recycled material in production processes, which will drive market development forward.

### Recycling

Recycling is the route to a clean environment; it facilitates the circular economy and protects the climate. Each kilogram of recycled waste delivers a reduction in carbon emissions. Just 9 per cent of all the raw materials used in the world are recycled. In the Netherlands we recycle almost 80 per cent of all waste arisings. We can go even further by making more use of recycled materials in manufacturing. During the annual Global Recycling Day on 18 March the DWMA highlighted the importance of recycling in [a film](#).

### Biobased

In the DWMA's vision, biobased plastics should only be put on the market if it is demonstrated that they do not disrupt the recycling process and there is a high-grade recycling infrastructure in place to treat them. Biodegradability should never be a leading principle in the choice of sustainable alternatives. Products that are suitable for treatment in an industrial composting plant under the EU standard are not by definition sustainable options. Neither is this standard consistent with Dutch industrial composting practices. The DWMA is of the opinion that biodegradable products should only be permitted in the food and garden waste stream if they contribute to higher recycling of food and garden waste into ►



Message  
from the president >

Vision & Strategy >

VITAL SECTOR

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**safe society** with  
**respect for people**  
and the **environment** >

CIRCULARITY

**Maximum reuse** and  
**recovery of valuable**  
**materials** >

CLIMATE

**Maximum circularity,**  
**energy recovery** and  
**emissions reduction** >



compost – an example being biodegradable kitchen waste bags – or if they have the potential to make a whole product group compostable, such as coffee pads and teabags. Other important factors are consumer awareness and intuitive behaviour when disposing of these materials. In short, sustainability should always be the guiding principle. We will only be working for real circularity when the possibilities for recycling are taken on board during the design of new products.

The DWMA has made its position clear in the EU and is in discussion with the Dutch government. On the agenda are a

national prohibition on the use of biodegradable plastics and repudiating unjustifiable claims of product compostability. In 2022 the coffee and tea industry worked hard to make their products more sustainable and from 2023 used coffee pads and teabags may be put in the food and garden waste bin. They are now on the 'Yes' side of the Dutch Yes/No list for food and garden waste. The composting companies are happy with this development, an outcome of the Green Deal the government signed with the Koffie & Thee Nederland industry association in 2020. For most people it is only logical that used coffee pads and teabags belong in the food and garden waste bin. Waste tea and coffee can now be put to good use to make more compost.

### Separation of commercial waste

The waste collection companies in the DWMA are keen to increase the separate collection of wastes from offices, shops and other service industries and a publicity campaign was developed to this end in 2022. The campaign highlights the need to dispose of waste properly at work and elsewhere outside the home, encourages waste separation and aims to halve the amount of residual waste in this sector. It launches in spring 2023 with radio spots, a campaign website, a social media campaign and free publicity under a slogan that exhorts people to dispose of waste as if they were at home. The sector is looking into the possibilities for minimum collection of two waste streams from customers with commercial waste. ▶

Message from the president >

Vision & Strategy >

VITAL SECTOR

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CIRCULARITY

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CLIMATE

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## CIRCULARITY

At the moment each business has on average 1.28 waste bins. The proposal is being reviewed by the Authority for Consumers and Markets for competition implications.

### Commercial waste collection

The extended producer responsibility (EPR) decree comes into force at the beginning of 2023. The Packaging Waste Fund and Nedvang (the industry organisation responsible for registering the recycling of packaging materials under the various product agreements) offered to arrange for the free collection of separated packaging waste and in 2022 launched a special website with information and an enrolment portal. The DWMA's position is that any new system for commercial waste collection from offices, shops and other services must not disrupt the market. The DWMA's Collection Section asserts that every customer should remain with its waste service provider, the waste streams must remain the property of the waste collector and the waste should continue to be collected by private waste collection companies. At the same time, payments should be made via the waste collector and the waste service provider retains control over both the collection and sorting of plastic packaging, metal packaging and drink cartons (PMD waste). The waste collection companies argue for a uniform composition of PMD waste throughout the Netherlands, both domestic and elsewhere.

### Modernising EPR

In 2022 the DWMA investigated the effectiveness of the Extended Producer Responsibility (EPR) scheme. EPR requirements have been drawn up for many products with the purpose of achieving the targets set for circularity. In its current form, EPR puts too much emphasis on the collection and recycling of products. Rather, it should incentivise producers to bring more recyclable products to market, use recycled materials in new products and avoid the use of hazardous materials. It is important that EPR aims for the lowest costs to society and not just the lowest system costs, because this would bring it into line with the polluter pays principle. In the DWMA's vision, the EPR scheme should be organised differently. As cooperation across the value chain is crucial in the circular economy, the DWMA would like to see a platform in which all parties in the value chain supervise all EPR streams. The government should ensure that this new EPR system is consistent with the goals of the circular economy. ▶

Message  
from the president >

Vision & Strategy >

VITAL SECTOR

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**safe society** with  
**respect for people**  
and the **environment** >

CIRCULARITY

**Maximum reuse** and  
**recovery of valuable**  
**materials** >

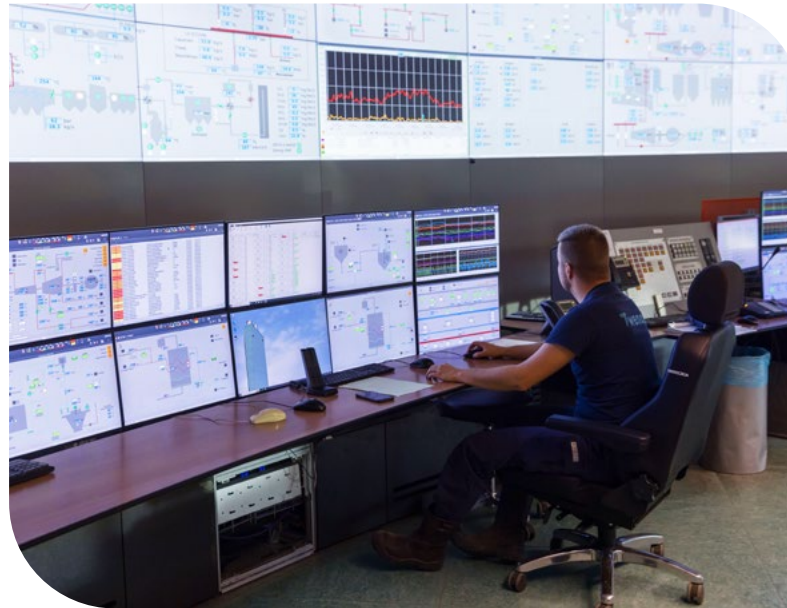
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**energy recovery** and  
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## Chemical recycling

The DWMA and some of its members are participants in the 'acceleration platform' for chemical recycling (Versnellingstafel Chemische Reiniging). The purpose of this platform is to develop the potential for chemical recycling (converting plastics by heat treatment and/or chemical reactions) in the Netherlands. In 2022 the potential for the chemical recycling of sorted plastics was explored. Further research is needed to obtain a realistic picture of the prospects for chemical recycling, how much plastic would be suitable for chemical recycling and the benefits in terms of reducing carbon emissions and recovering materials, as well as the investments that would be required. The study is planned for 2023. Depending on the results, the chemical industry and waste sector will then make a proposal to the government.



## Reducing WtE capacity

In 2021 the Dutch House of Representatives asked the government to prepare a realistic scenario for reducing the capacity of the Dutch waste-to-energy (WtE) plants as part of the route towards a circular and climate-neutral economy in 2050. This must include consideration of the effects on the whole waste chain, employment, the sustainable energy and heat supplied by the WtE plants, and carbon reduction at the

European level. Once agreement is reached on a scenario, the House of Representatives wants the import tax on foreign residual waste to be reconsidered. The Ministry of Infrastructure and Water Management and the DWMA have been holding discussions since 2021, but have not yet reached agreement on a joint plan. ▶

Message  
from the president >

Vision & Strategy >

VITAL SECTOR

A **circular** and  
**safe society** with  
**respect for people**  
and the **environment** >

CIRCULARITY

**Maximum reuse** and  
**recovery of valuable**  
**materials** >

CLIMATE

**Maximum circularity,**  
**energy recovery** and  
**emissions reduction** >

### Bottom ash

The waste sector is working to improve the quality of bottom ash (the residue remaining after the incineration of residual waste). The metals in the ash are recovered and recycled. The remaining minerals – sand and stony material – are upgraded into an ‘unrestricted application’ building material for use in roadbuilding projects or as an aggregate in concrete products. To stimulate the use of bottom ash, the DWMA has put in a request to relax the standard for the presence of antimony in the recycled materials. The Netherlands Institute for Public Health and the Environment (RIVM) has responded positively to this proposal and is consulting with the Ministry of Infrastructure and Water Management.

### Landfill sector

Landfills will always be necessary for the safe and responsible disposal of waste streams that cannot be recycled or incinerated. To ensure these activities remain affordable, landfill policy must be modernised and adequate nominal interest rates for aftercare funds are needed. The DWMA is in constructive talks with the government on this issue. In 2022 the Ministry of Infrastructure and Water Management commissioned two studies, one on interest rates and the other on the position of landfill in the circular economy. The conclusion is that landfills will still be needed in the circular economy. The researchers state that the landfill option must be safeguarded in future, both in the legislation and by ensuring the availability of landfill sites. They recommend drawing up detailed provisions in consultation with the sector and setting up a national aftercare fund. ■



Message from the president >

Vision & Strategy >

VITAL SECTOR

A **circular** and **safe society** with **respect** for **people** and the **environment** >

CIRCULARITY

**Maximum reuse** and **recovery** of **valuable materials** >

CLIMATE

**Maximum circularity, energy recovery** and **emissions reduction** >





CLIMATE

# Maximum circularity, energy recovery and emissions reduction

The waste sector is pressing ahead to minimise greenhouse gas emissions. In the process, the waste companies are actively contributing to the climate transition of the whole economy into one in which maximum circularity is feasible, non-recyclable streams are processed as efficiently as possible, energy is recovered and emissions reduced.

Message from the president >

Vision & Strategy >

VITAL SECTOR

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CIRCULARITY

**Maximum reuse** and **recovery** of **valuable materials** >

CLIMATE

**Maximum circularity, energy recovery** and **emissions reduction** >



## Sewer maintenance

In 2022 the sewer cleaning and inspection companies in the DWMA called attention to the importance of their work. In a position paper, they stressed that well executed and timely sewer maintenance and integrated water management are essential to keep the sewer system functioning properly. A well-functioning sewer system is a necessary condition for tackling some of the major issues facing society. Climate change, public health, urbanisation and population growth are putting increasing pressure on the sewer system. The sewerage sector calls for municipalities and contractors to take joint responsibility and prevent health risks, overdue maintenance and overloading of the sewer system in order

to maintaining a safe and pleasant living and working environment. The position paper was shared among the network of councillors with sewerage and water management in their portfolios and discussed by the sewer inspection and cleaning companies at the RIONEDdag 2022 conference.

## CO<sub>2</sub> reduction

Research in Europe has shown that the waste sector makes a substantial contribution towards meeting European climate targets. In 2018 the treatment of many waste streams was virtually carbon neutral, including paper, glass, plastic, aluminium, wood, textiles, biowaste and residual waste. If the European Union successfully implements the current policies for recycling, energy recovery and landfill, the waste industry will certainly be able to reduce carbon emissions by 150 megatonnes CO<sub>2</sub> equivalents (a unit used to express the global warming potential of all greenhouse gases) by 2035. It would be possible to almost double the reduction if a more ambitious policy were followed. Such a policy would require an integrated approach that includes the mandatory use of recycled materials in products, design for recycling, good taxonomy regulations – including energy recovery (this is a ‘sustainability’ hallmark for investors) and efficient rules for waste shipments within the EU. ▶



Message  
from the president >

Vision & Strategy >

VITAL SECTOR

A **circular** and  
**safe society** with  
**respect for people**  
and the **environment** >

CIRCULARITY

**Maximum reuse** and  
**recovery of valuable**  
**materials** >

CLIMATE

**Maximum circularity,**  
**energy recovery** and  
**emissions reduction** >

## Climate transition

The DWMA investigated how the Dutch waste sector can play a full part in the climate transition. One clear outcome of the study is that the sector's role in avoiding emissions elsewhere in the value chain should be made more widely known and given due recognition. Also, waste companies should develop a more uniform method for reporting these avoided emissions. The sector is looking into how it can reduce its own emissions by making every step in the waste management chain more sustainable, for example by using more sustainable equipment and reducing energy use. The sector wants to contribute to the climate transition by reducing the amount of waste that is produced. Multiple interventions will be needed to move further up the waste hierarchy. Among the options being

considered is more source separation of a number of specific streams in commercial waste and post-separation of other streams, so that more can be recycled, with environmental gains. A prohibition on incineration could be considered as a final measure for certain streams when all other options have been exhausted, as long as it is enforceable. Mandatory separation of kitchen and garden waste could also be helpful. In 2023 the sector aims to present its own climate agenda containing measures that will make the best possible contribution to the climate transition. Possibilities for making agreements with the government or drawing up a Green Deal are being explored.

## Carbon market

The European Union aims to cut its greenhouse gas emissions by 55% from 1990 levels by 2030. One of the measures being considered to achieve this target is a revision of the EU Emissions Trading System (ETS), which regulates the trade in greenhouse gas emission rights in Europe. Companies that fall under the ETS may only emit greenhouse gases if they hold emission rights. The European Commission wants to expand the scope of the ETS and is also looking to include facilities for incinerating hazardous or municipal waste. The EU Council of Ministers asked the Commission to investigate the impact and feasibility of the mandatory inclusion of these facilities in the ETS. The waste industry endorsed the importance of such a study, as bringing all the WtE plants within the ETS would help to create a more level playing field in Europe. However, ►



Message  
from the president >

Vision & Strategy >

VITAL SECTOR

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**safe society** with  
**respect for people**  
and the **environment** >

CIRCULARITY

**Maximum reuse** and  
**recovery of valuable**  
**materials** >

CLIMATE

**Maximum circularity,**  
**energy recovery** and  
**emissions reduction** >

## CLIMATE

the current system leaves the WtE plants little room for manoeuvre, given that their only option within the ETS is carbon storage. Inclusion within the ETS as it stands would raise the costs (financial and social) of waste processing without leading to any reduction in emissions.

### Energy strategy

The Dutch climate policy sets targets for five sectors: electricity, built environment, industry, agriculture and land use, and mobility. For the industry sector, five 'industry platforms' have been established, each representing one of the industrial regions in the Netherlands. These are complemented by the 'Cluster 6' negotiating forum in which the DWMA represents the waste and recycling sector. In 2022, Cluster 6 presented its cluster energy strategy (CES). The production of heat and electricity by the waste sector reduces dependence on gas, both for industry and the built environment, and some of these energy flows involve no fossil carbon emissions. Waste-to-energy plants have many opportunities to play a bigger part in the Dutch energy transition and meeting the carbon reduction target, but they must first have clarity on the options available to them and will need financial incentives. For example, the obstacles preventing the use of CO<sub>2</sub> from WtE plants in greenhouse horticulture must be removed. In 2022 the sector received support from the Dutch House of Representatives on this point. The carbon tax is pushing the waste sector in the direction of carbon capture and storage (CCS) instead of carbon capture and utilisation (CCU), which is more appropriate to the circular economy.

### Negative Emissions Task Force

The Negative Emissions Task Force, an initiative by the Dutch Association for Renewable Energy (NVDE) and the CCU Alliance, was set up in 2022. The DWMA and some of its members are involved in the CCU Alliance. The Task Force has called upon the government to encourage and support the use of all technologies in all sectors that remove CO<sub>2</sub> from the atmosphere. Businesses and scientific institutions are working on methods to collect and fix carbon in products and processes which will result in 'avoided and negative emissions'. Such activities reduce the amount of CO<sub>2</sub> in the atmosphere or – if the captured carbon is removed directly from the atmosphere or comes from biogenic sources – lead to net negative emissions. The Task Force participants have made it clear that the energy transition is inseparable from the circular economy, in which CO<sub>2</sub> is a raw material that replaces fossil resources. Negative emissions are important for achieving the circularity and climate targets. ■

Message  
from the president >

Vision & Strategy >

VITAL SECTOR

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**respect for people**  
and the **environment** >

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**Maximum reuse** and  
**recovery of valuable**  
**materials** >

CLIMATE

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**energy recovery** and  
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The Annual Review 2022 looks back on some of the important developments during the year.

Text and editing: Dutch Waste Management Association, Daniëlle van Vleuten

Translation: Derek Middleton

Design: ontwerp bureau suggestie & illusie

July 2023

Dutch Waste Management Association

P.O. Box 2184

NL-5202 CD 's-Hertogenbosch

+ 31 73 627 94 44

info@dwma.eu

www.verenigingafvalbedrijven.nl

www.wastematters.eu