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BUNGHEINRICH

# ESG 2022

## ENVIRONMENTAL SOCIAL GOVERNANCE

tvilum



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	2020	2021	2022
Number of employees	873	895	847

No. of packages produced annually in 2022

6 million boxes of furniture



Our sales  
OFFICES

- Denmark
- Norway
- Finland
- UK
- France
- Germany
- Italy
- Spain
- Japan
- China
- US
- Chile

Our production  
FACILITIES

- Faarvang (Denmark)
- Kjellerup (Denmark)
- Szczecinek (Poland)

Our distribution  
CENTERS

- Faarvang (Denmark)
- Szczecinek (Poland)
- South Boston (US)
- Los Angeles (US)
- Toronto (Canada)



# IN TVILUM, WE HAVE TARGETED *OUR WASTE VOLUMES*

**We continuously work to improve our waste management and update the area according to changing legislation**

In connection with our focus on sustainability, we have decided to increase the focus on waste reduction and selected a group of employees to work systematically with the optimization of Tvilum's waste handling.

Therefore, we have set the following targets for waste development in Tvilum:

- Annually reduction of 3.5% until 2030, which gives a total reduction of 25% compared to 2021
- Phasing out landfill as a waste destination by 2025 at the latest

## Examples of initiatives that have been or will be implemented

*Implementation of three waste fractions in Tvilum's canteens:*

January 1<sup>st</sup> 2023, we started sorting into three fractions in canteens and kitchenettes instead of only residual waste. Now we are sorting into biowaste, household plastic & beverage cartons, as well as residual waste. The experiences from this are positive as Tvilum's employees have welcomed the changes, which are an extension of what we already do in our private households.

The implementation of the three fractions supports the overall work with waste optimization and is also in line with the waste hierarchy, as both organic waste and household plastics are removed from the incineration fraction and moved to fractions that are recycled. This reduces both the amount of combustible waste and especially our CO<sub>2</sub>e emissions.

A curiosity related to household waste is the fact that we use around 300.000 plastic cups annually for coffee and drinking water at the production sites. We work purposefully to find a more sustainable solution, which is not as straightforward as it seems, requiring both a change in behavior and a willingness to change.

*Phasing out landfill:*

In Tvilum, we produce more than 50 tons of ash annually from the heating boilers in Fårvang and Kjellerup East. The ash consists primarily of chipboard and wood, and has previously been dumped in landfills. However, an analysis of the ash shows that it can be used for recovery instead. Therefore, we now deliver the ash to a company that mixes it with soil and uses it to produce noise barriers, e.g. for freeways. This has a direct positive effect on the environment and also on Tvilum's CO<sub>2</sub>e.

In addition, glass waste has also been removed from the landfill and is now being recycled into new glass. The glass waste in Tvilum typically occurs in connection with puncture damage to products in the warehouse where glass in frame doors or glass shelves breaks.

A process has now been implemented with relevant employees to separate the glass from the wooden frames and deliver it to a company that recycles the glass instead of ending up in a landfill. The wood from the frame doors is then sorted into the existing wood fraction, which are recycled at Kronospan for new chipboards.

We also throw out a lot of broken mirrors. It amounts to approximately 10-15 tons annually, which are currently deposited in landfill. Not many companies recycle mirrors, and those who do, require the fraction to be free of impurities. As a large part of our mirrors are glued to wardrobe doors, we are now working on a process to separate the mirrors from the back coverings without any risk of personal injuries. This will significantly reduce the weight of glass/wood for landfill, CO<sub>2</sub>e, and the costs for this.

*Analysis of 842 kilos of combustible waste:*

A major waste analysis of Tvilum's combustible waste has been carried out in collaboration with Stena Recycling. The purpose of



the research is to investigate the potential for optimization and reduction of the fraction. The study shows that only 35% of the 842 kilos is in fact combustible waste. The remaining 65% is waste that can be recycled into other fractions. Several of which are actually creating an income instead of a cost. This applies, among other things, to cardboard, wood and paper.

The analysis report from Stena Recycling is converted into an action plan, which the dedicated waste reduction team is working on implementing.

*Avoiding surplus cardboard:*

At Tvilum, we discard around 450 tons of cardboard waste annually, mainly consisting of unused packaging and single-use cardboard pallets. The large amount of unused packaging is mainly due to suppliers delivering larger batches than ordered and too large purchase orders compared to production batches. It is challenging to store cardboard packaging for a longer period due to the space used, but also because of the risk of collision damages and moisture that makes the cardboard wavy over time. The

amount of too large deliveries are estimated at approx. 8%, which amounts to around 430,000 pieces of unused cardboard packaging, which corresponds to a value of almost DKK 3 million.

Several initiatives have therefore been launched in alignment with goods receiving, controlling, and procurement, which will reduce cardboard waste over the coming years.

## Creating and implementing Tvilum's waste policy

The above is a selection of the initiatives we are working on in Tvilum concerning waste. To create a framework for our future work in the area, we have defined a waste policy based on the EU's waste hierarchy. The primary focus is on waste prevention, re-use of products, materials, and recycling materials. As the waste hierarchy indicates, we aim to reduce incineration and landfills to a minimum.

Tvilum's waste policy contains specific guidelines and targets for all elements in our value chain. We are constantly working to improve, and we monitor our progress.



# APPRENTICESHIP OF THE YEAR 2022

**In Tvilum, training and development of the employees is a high priority and an integrated process of our company's DNA**

At the end of September 2022, Tvilum was named Apprenticeship of the Year 2022 at Mercantec in Viborg.

It was Tvilum's employee, 52-year-old Stephen Dowsey, who had nominated Tvilum for the prestigious prize. After 25 years of employment at Tvilum, Stephen believed that his age and seniority at Tvilum would not be an obstacle for further training, thus becoming an apprentice automation technician.

Stephen is originally from Scotland. He always liked his workplace very much but dreamed of working with electronics - and Tvilum could help him fulfill that ambition.

*"I originally trained as a nurse, but I have always been passionate about electronics," says Stephen Dowsey. "I like to program and develop things, and then I got a good offer for an apprenticeship in Tvilum. I still have many years on the job market, so I could easily try something new."*

#### **A positive and supportive environment**

Stephen is happy about his change of course and has only words of praise for Tvilum, who gave him the opportunity. *"Tvilum is a workplace full of opportunities for an apprentice, and in this positive and sup-*

*portive environment, the effort from me comes quite naturally,"* says Stephen.

Stephen has completed the second part of the basic course but has already gained a lot of experience and skills. *"Tvilum is an interesting apprenticeship for an automation technician apprentices because of the large selection of production processes and different types of machines. The professional pride and high work ethic my colleagues show serve as a constant incentive for me to strive to learn new skills. Tvilum is a workplace full of opportunities for an apprentice in a positive and supportive environment",* he concludes.

#### **Helps to keep us going**

Stephen's approach refers to Tvilum's focus on training and our company's commitment to employee development and well-being. Peter Bech Sandahl, who heads Stephen's team daily, also sees satisfied and active apprentices as a great strength. *"It is important for us to have apprentices and students because it is an investment in the future,"* he says. *"And it's fantastic that we have employees who have been with the company for many years but would like to try something else and that we can then offer them the training. It helps us to keep going and makes us an attractive company."*



# ENERGY

**Tvilum has been ISO 50001 certified since 2015. This means all production sites are working systematically to reduce energy consumption, including the new site Kjellerup West which was certified for the first time in December 2022**

The introduction of the energy management system has prompted the development of an energy working group. The members of the energy group are maintaining energy KPIs, identifying improvement potentials and qualifying them as business cases, as well as supporting production and service to achieve the best results in terms of energy consumption. The following are a few peeks into the work done in 2022.

#### Combining production output with kWh monitoring

Our primary KPI is measuring how many kWh is used to produce a component. For this to improve, we need to use our machines as efficiently as possible energy-wise. We call it OEE(E) - Overall Equipment Energy Efficiency.

2022 was the year of fully implementing OEE at our factories in Fårvang and Kjellerup East. This means that all employees in the production are able to follow their efficiency (OEE) in real-time. Furthermore, at one machine line, we went even further and initiated a pilot project in corporation with our OEE software supplier. In this project, we tested showing energy consumption per produced item in real-time along with the OEE, meaning that people who work at this machine line can follow a measure directly linked to the primary KPI during production.

Through our OEE systems and a goal to increase production efficiency, we can also see a positive impact on other matters that are important to us, including; more efficient use of our energy



consumption, minimization of waste, optimized internal transport, common and better overview of efficiency in the organization, as well as faster and better support to our machine operators.

#### Focus on an energy consuming process

The major energy consumers in Tvilum production sites can roughly be categorized into three groups; machines, compressed air, and dust extraction, each accounting for approximately 1/3 of the total energy consumption. Naturally, many resources are put into ensuring that these run the best possible. In 2022, we placed a lot of focus on dust extraction.

Looking into the dust extraction systems, we made one of our most beneficial findings of 2022. We noticed that the automation on our largest filter, supplying our entire East factory, was not operating intentionally. Actually, there was no regulating of the ventilators and no shutoff during periods of no production, breakdowns, and breaks etc.

By updating the technical installation with several new inputs, we enabled the controller to run all the ventilators following the actual situation. With the new production dependent running form, we experienced a lower capacity of the ventilator being used and an even lower energy consumption. In the end, we can conclude that we managed to take our single most consuming installation and reduce it roughly in half - saving us more than 650.000 kWh.

#### Energy sources

In the last years, the focus on energy efficiency has been complemented by an increasing interest in energy sources and their CO<sub>2</sub> emission. Therefore, as a natural part of selecting projects, the effect on CO<sub>2</sub> emission is also considered.

One such project performed in 2022 had the effect that fossil fuels are no longer used for room heating in any of Tvilum's facilities in DK. This happened when three old oil-fired boilers servicing our spare parts warehouse and the distribution center in Fårvang were retired and replaced with district heating.

While district heating is not CO<sub>2</sub> neutral, it still resulted in a great reduction in CO<sub>2</sub> emission. The CO<sub>2</sub> discharge was reduced by more than 70 tons by changing from oil to district heating. Furthermore, the total MWh consumption was reduced by 10% due to the poor



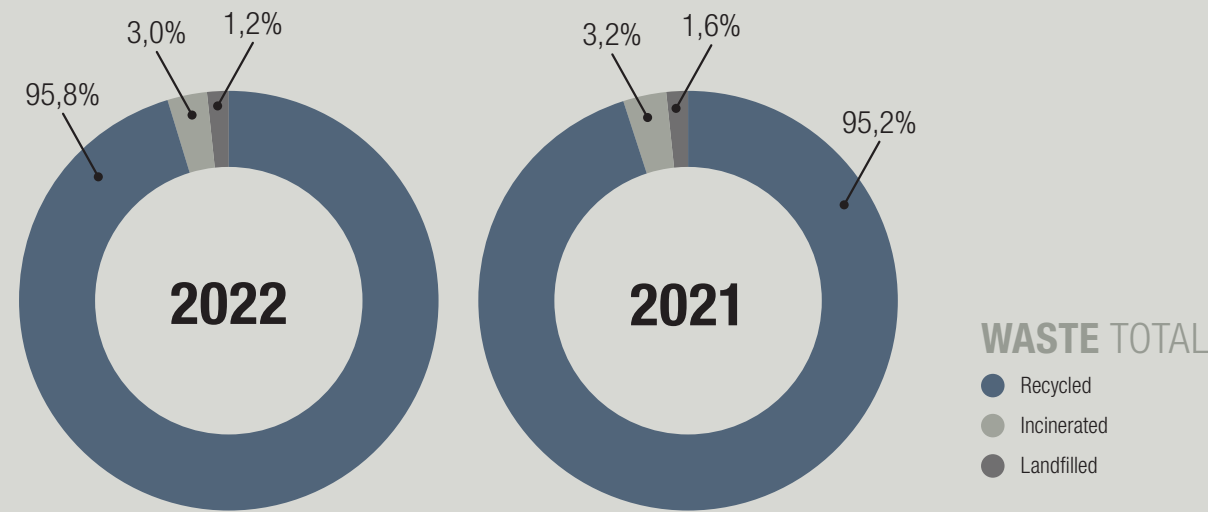
efficiency of an old oil-fired boiler, primarily caused by exhaust heat loss. In the end, this project saved a total of 32,5 MWh.

#### Outlook

Although a lot of savings were found in 2022, we believe there is still a lot to be done in terms of operating the machines more efficiently and finding low-hanging fruits in the form of optimizations that require only minor investments. To support this, we are planning the installation of more submeters in the production, enabling us to analyze our consumption in greater detail and increasing communication towards employees in the production sites.

ENVIRONMENTAL DATA

	2021	2022	Commentary
Scope 1 CO <sub>2</sub> e emission (tonnes)	508,6	729,6	Increased volume of biomass in incineration
Scope 2 CO <sub>2</sub> e emission (tonnes) - Location based - Market based	5436,6 9749,7	4492,5 9121,1	Decrease caused by reduced electricity consumption
CO <sub>2</sub> e emission from waste generated in own operations (scope 3, cat. 5)	393,2	342,5	Falling as a consequence of reduced activity
Electricity consumption (MWh)	21.411,8	19.272,7	Reduced as consequence of lower activity level
% of kWh consumption under ISO 50001 certification	99,1	99,1	New production was certified in 2022. Sales offices and warehouses remains to be certified
kWh power usage per colli	3,1	3,2	2022 numbers include new production site, that runs with a higher average kWh/colli. Sites included in 2021 runs at 2,9 kWh/colli for 2022
% of total spend on wood that is FSC certified	87,8	90,4	
% of total spend on packaging materials that are FSC certified	46	67,4	Requirement for FSC on consumer packaging was introduced medio 2021, the increase in 2022 reflects having the requirement effective for a full year



SOCIAL DATA

	2021	2022	Commentary
Number of employees (FTE)	895	847	
Number of work related accidents with lost time	32	21	The increase in number of accidents and, as a consequence, number of days off is the result of increased focus on safety. As part of this more people has been following the legally required training for safety representatives. Also leaders have been trained in workspace risk evaluation, and risk evaluation is made an obligatory part of corrective actions after accidents
Number of days off due to work-related accidents	274	184	
Number of near-misses reported	368	282	
Number of observations reported	949	1018	The increase is the result of increased focus on reporting started in 2021
Employee turnover ratio %	20	29,8	
Sickness abscence % (only Faarvang and Kjellerup East)	4,86	6,26	
% of employees being performance assessed	86	97	Performance assessment was introduced in US and Poland during 2022
Women in non executive board %	0 of 5	0 of 5	There has been no changes in composition of board or management. Target for 1 female board member by 2025 still stands
Women in senior management %	2 of 7	2 of 7	

GOVERNANCE DATA

	2021	2022	Commentary
Number of fees and fines imposed to any part of Tvilum Group whether paid or not	0	0	
Value in DKK of fees and fines imposed to any part of Tvilum Group whether paid or not	0	0	
% of employees being trained in Tvilum whistleblower scheme	87	100	Last site received training during 2022, and whistleblower scheme is made part of the onboarding program for new employees
Number of written complaints received	0	1	A neighbor was disturbed by noise from seagull scare system. System was inactivated immediately





Policies

At Tvilum, our policy is to conduct all business activities responsibly, ensuring people's health, safety, and well-being, preservation of the environment, and quality of products and services. Our ethical business practices are an integral part of our corporate culture.

Human rights

Our company strives to ensure that all suppliers comply with the obligation they received and signed when becoming suppliers to Tvilum. As we consider the most significant risk for breaches of human rights to be within the supply chain, the importance of the Code of Conduct is continuously stressed in dialogues with suppliers.

Labor

We believe that workplace safety and employment discrimination represent the main areas of labor-related risk that we need to manage in our operations. Thus, these two areas are where we pay the most attention to safety measures, personnel policies, and close dialogue between management and employees.

Environment

At Tvilum, we use energy to turn wood into furniture that leaves back residual waste. All resources are critical for a sustainable environment. We consider the key environmental risks to be external. Hence our company is continuously monitoring changes in the external environment to the best of its abilities. To set up operational guidance within the areas, we have implemented policies regarding energy consumption, waste and a purchasing policy for wood or wood-based products.

Anti-corruption

Sourcing is the activity where corruption is the most reoccurring risk. Therefore, the topic is stressed in the Supplier Code of Conduct, and when we perform supplier evaluation, risk of corruption is one of the criteria applied. Internally, towards our employees, our stance towards corruption is expressed in the employee handbook, and employees have the opportunity to report cases anonymously to management or a third party without the risk of repercussions.

Regarding gender representation

The current status of gender representation is seen in the ESG data pages. Our target is to have a 20% mixed-gender representation on the board by 2025.

Governing ESG

Our ESG efforts are signed off and approved by the Tvilum Supervisory Board. The strategic prioritization, ESG policies, investments and resource allocation, and KPI follow up are coordinated by our ESG board.

Scope

This report covers the reporting period of January 1<sup>st</sup> to December 31<sup>st</sup> 2022.

Boundaries

This report covers all majority owned subsidiaries i.e. companies, that Tvilum Group directly or indirectly have owned and controlled more than 50 % of the voting rights or that it otherwise controlled during the entire reporting period:

These companies are included:

- Tvilum A/S
- Tvilum LLC warehouse
- Tvilum Poland Sp. Z o.o.

Materiality assessment

Our ESG strategy is based on a materiality assessment conducted in 2020, based on internal and external data and stakeholders. The graphical overview of the outcome can be found on Tvilum.com.

METHODOLOGY

Indicator	Factor	Comment	Reference	Publication
Scope 1 emissions	Fossil and biomass fuels Refrigerants Biomass		UK Department for Environemnt, Food and Rural Affairs (DEFRA), 2022	UK government GHG conversion factors for company reporting
Scope 2 emissions	Carbon emissions from power purchased	In Denmark	Energinet DK, 2021	General deklaration og Miljødeklaration (Generic declaration and environmental declaration)
Scope 2 emissions	Carbon emissions from power purchased	In Poland	Association of issuing bodies (AIB), 2021	European Residual Mixes
Scope 2 emissions	Carbon emissions from power purchased	In USA	U.S. Environmental Protection Agency	eGrid
Scope 3 emissions	Carbon emissions from waste generated in own operations	All countries	UK Department for Environment, Food and Rural Affairs (DEFRA), 2022	UK government GHG conversion factors for company reporting

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