



Environmental Statement 2022



## ENVIRONMENTAL STATEMENT 2022

(Regulation (EC) No 1221/2009 (EMAS) + 1505/2017 + 2026/2018)

JANUARY – DECEMBER 2022



## Environmental Policy

The European Foundation for the Improvement of Living and Working Conditions (Eurofound) is located in South Dublin with an Office in Brussels and maintains offices, meeting and conference rooms, catering and plant facilities and outdoor grass and woodland. Eurofound is the EU Agency for the improvement of living and working conditions. Eurofound's mission is to provide knowledge to assist in the development of better social, employment and work-related policies. While Eurofound is directed primarily at the EU level in its role and work, it is also linked with the Member States, with Management Board members appointed on nomination from governments and social partner organisations at European and Member States level.

Eurofound is committed to the protection of the environment by managing environmental matters as an integral part of an overall management system. It is Eurofound's policy to ensure the best available environmental processes and systems to achieve control of environmental aspects and to prevent pollution.

The Agency is committed to achieving environmental excellence in every aspect of our operations through continuous improvement and optimising the efficiency of our operations. Eurofound establishes and develops environmental objectives and targets to provide the framework for improvement and for implementing this environmental policy statement.

Energy efficiency and sustainability are key priorities for the Agency in line with the United Nations Sustainable Development Goals. To this end Eurofound aims to achieve carbon neutrality by using renewable energy sources and maintaining carbon fixing through the site's forested area.

Eurofound will minimise resource and materials consumption and waste and emissions generation, and re-use and recycling of the residual wastes. It is committed to minimising the environmental impact of its operations on the external and internal environment, including Eurofound staff, contractors and neighbours.

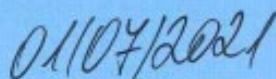
Eurofound is committed to complying with applicable legislation, regulations and any other relevant requirements and to implementing systems, programmes and procedures to achieve compliance. In addition, the Agency is committed to meeting the requirements of the Eco-Management and Audit Scheme (EMAS) and ISO 14001. This environmental policy statement will be communicated to all staff and contractors to create awareness on environmental matters regarding all aspects of operations. Eurofound will publish an environmental statement in compliance with EMAS. This policy is also made available to all interested parties.

Signed:

A handwritten signature in black ink, appearing to read "M. Kallin".

Executive Director

Date:

A handwritten date in black ink, "01/07/2021".

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## Scope of EMAS Registration

This document represents The European Foundation for the Improvement of Living and Working Conditions' (Eurofound) covering the year 2022 in Dublin. The registration applies to all activities undertaken by Eurofound in Dublin.

## Derogation

For the year 2022 The Department of Environment, Climate and Communications, as the competent authority for EMAS in Ireland, has granted Eurofound a derogation for small organisations under Article 7 of the EMAS Regulation. According to the derogation the updated Environmental Statement requires external verification every two years instead of annually. A copy of the derogation is available in Annex II.

This Statement covers the year 2022.

## Introduction

The European Foundation for the Improvement of Living and Working Conditions (Eurofound) is a tripartite European Union Agency, whose role is to provide knowledge to assist in the development of better social, employment and work-related policies. Eurofound was established in 1975 by Council Regulation (EEC) No. 1365/75 to contribute to the planning and design of better living and working conditions in Europe. A new Founding Regulation was adopted on 20 December 2018 and took effect on 20 February 2019.

Regulation (EU) 2019/127 of the European Parliament and of the Council of 16 January 2019 establishing the European Foundation for the improvement of living and working conditions (Eurofound), and repealing Council Regulation (EEC) No 1365/75

## Work programmes

The Programming document 2021–2024 has six strategic areas that will be implemented through the following operational activities. These include:

- Working conditions and sustainable work
- Employment and labour markets
- Living conditions and quality of life
- Anticipating and managing the impact of change
- Promoting social cohesion and convergence

## Scope of Business

Eurofound provides information, advice and expertise on working conditions and sustainable work, industrial relations, labour market change and quality and life and public services, to support the EU Institutions and bodies, Member States and Social Partners in shaping and implementing social and employment policies, as well as promoting social dialogue on the basis of comparative information, research and analysis. The Agency focuses on issues where it can draw on its core expertise in the areas of working conditions, industrial relations, employment and living conditions, to support its stakeholders, by providing evidence that can assist their policy action.

## Organisation

Eurofound is managed by an executive director who reports to a Management Board. The current Executive Director is Ivailo Kalfin. The Deputy Director, Maria Jepsen reports to the Executive Director. The Board is made up of representatives of the governments and the social partners (employers and trade unions) in the EU Member States, representatives of the European Commission and one independent expert appointed by the European Parliament. It provides the strategic orientation for Eurofound's activities.

Eurofound also maintains a Brussels Liaison Office, with the dual role of strengthening the visibility and impact of Eurofound research at EU level, and monitoring developments in policymaking. The Brussels Liaison Office shall not be included in the EMAS registration process at this time.

Some 100 staff members are drawn from a number of Member States and have a wide range of professional experience and background. Experts are occasionally seconded from national administrations.

Eurofound's offices are centred around the 17<sup>th</sup> century Loughlinstown House in Dublin, Ireland. Loughlinstown House is listed on the Record of Protected Structures (RPS), Number 1768 under the provisions of the Planning and Development Act 2000 (as amended) and is exempt from requiring Building Energy Rating certificate.

### Site and Facilities Management

Lighting, Heating and Ventilation: energy use, F gases, fluorescent tube waste, natural gas boilers, gas oil standby generator

Offices and Meeting rooms

Process and Equipment: energy use, emissions, noise, use of resources, hazardous materials

Catering: food waste, energy use, waste water, grease trap waste

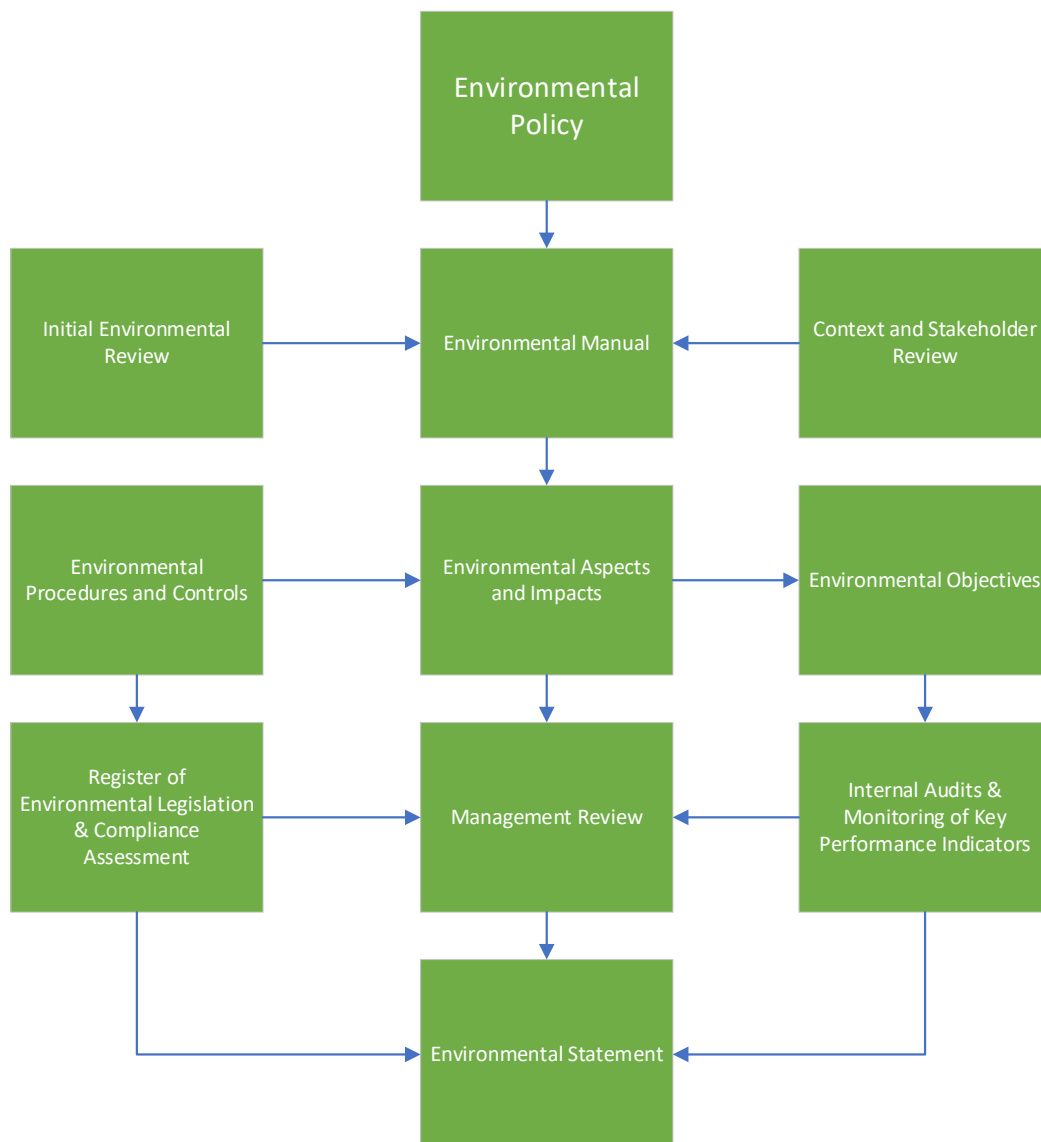
Waste Collection, Storage and Disposal: energy use, transport, emissions

### Eurofound Environmental Management Structure

The Environmental Management System is led by the EMAS Co-ordinator on site and by the Executive Director. The Policy was developed by the Senior Management Team in conjunction with the EMAS Steering Committee and provides direction to the EMS. Environmental Aspects and Impacts have been identified and evaluated to determine the key areas for the management system to address. An Initial Environmental Review (IER) was conducted with the aim of identifying the significant environmental aspects and the associated impacts, and the existing processes for management and control. The Environmental Manual has been developed in line with the requirements of both ISO 14001 and EMAS and acts as a road map for the documented system. Procedures and controls have been implemented. Environmental objectives have been set based on priorities determined in the IER and the aspects and impacts evaluation. Internal audits, management review, compliance assessment and KPI monitoring and reporting are implemented to continually evaluate the environmental performance of Eurofound. The results are reported in the Environmental Statement.

Eurofound is meeting its Legal Requirements as part of the EMAS Standard for Registration.

In December 2022 Eurofound received a positive result following an EMAS Registration audit and is currently EMAS registered.



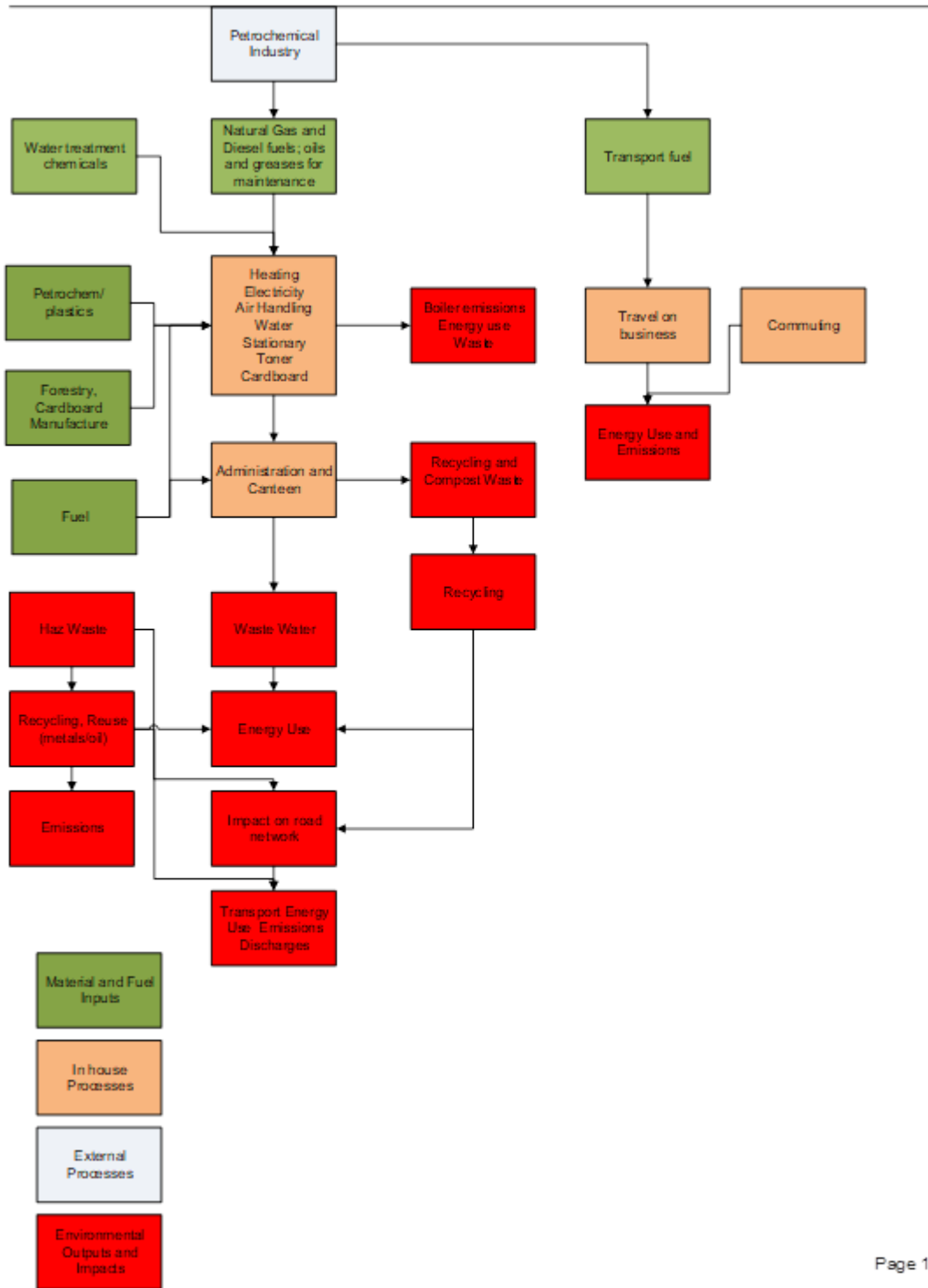
## Sectoral Reference Document

An implementation tool used by Eurofound in achieving its goals comes from Commission Decision (EU) 2019/61 of December 19 2018 on the sectoral reference document on best environmental management practices, sector environmental performance indicators and benchmarks of excellence for the public administration sector under Regulation (EC) No 1221/2009 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS) also referred to as the Sectoral Reference Document (SRD). This document includes best environmental management practices (BEMPs), environmental performance indicators for the specific sectors and, where appropriate, benchmarks of excellence and rating systems identifying performance levels.

## Life Cycle Description

### Environmental Life Cycle – Eurofound Dublin

February 2021





<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• Strong Board commitment</li> <li>• Collaborative approach</li> <li>• Stakeholder management</li> <li>• Highly developed technical capability</li> <li>• Sustainability, social and workplace expertise</li> <li>• Appropriate new technology implemented as applicable</li> <li>• Experienced, competent and professional employees</li> <li>• Risk based approach</li> <li>• Organisational learning</li> <li>• Environmental legal compliance</li> <li>• Successful implementation of projects</li> <li>• Central location</li> </ul>	<p><b>Weaknesses/Challenges</b></p> <ul style="list-style-type: none"> <li>• Difficulty in attracting and retaining expertise for some EHS roles</li> <li>• Lack of experience with EMAS</li> <li>• Most employees were working from home during the pandemic. New remote working policies have reduced on-site presence marginally</li> <li>• Difficulties in securing electricity suppliers providing 100% renewable electricity</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Monitoring of the baseline</li> <li>• Environmental competence raising</li> <li>• Energy, water and waste reduction</li> <li>• Charging points for e-cars</li> <li>• Bio-diversity programme</li> <li>• New energy efficient boilers</li> <li>• Replacing room lighting with LED's</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Brexit</li> <li>• Covid 19</li> <li>• Legal changes</li> <li>• Political policy changes</li> <li>• Economic downturn could impact resources</li> <li>• Loss of competence and organisational intellectual property</li> <li>• Increased energy costs</li> <li>• War in Ukraine</li> </ul>

PESTLE	
Issue	Impact/Action/Opportunity
Political	
<ul style="list-style-type: none"> <li>• Strong pro-European Union sentiment across political parties and state bodies</li> <li>• EU taking a greater role in setting and driving policy, e.g. energy</li> <li>• Ongoing concern over Russian gas supply – EU driving for an energy union to address</li> <li>• Britain exit of EU impact on energy and waste management supply and</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to reduce energy demand and use on site</li> <li>• Monitor energy market changes and opportunities</li> <li>• Reduce/eliminate hazardous waste</li> <li>• Reduce packaging waste</li> </ul>

<ul style="list-style-type: none"> <li>prices</li> <li>Government targets for environmental and energy improvements</li> <li>China market for plastic waste closed to EU</li> <li>War in Ukraine</li> </ul>	
<b>Economic</b>	
<ul style="list-style-type: none"> <li>Indigenous economic growth forecasts strong but impact of Brexit not fully established</li> <li>Increasing oil and gas prices</li> <li>For. Ex. fluctuations</li> <li>Increase in interest rates</li> </ul>	<ul style="list-style-type: none"> <li>Impact on Asset Management- workplan, risk management and strategies, contingencies</li> <li>Cost of assets</li> </ul>
<b>Social / Culture</b>	
<ul style="list-style-type: none"> <li>Good relationships with neighbours</li> </ul>	<ul style="list-style-type: none"> <li>Existing and future Corporate Social Responsibility programmes</li> </ul>
<b>Technological</b>	
<ul style="list-style-type: none"> <li>Mobile working</li> <li>Natural Gas</li> <li>Energy audit and opportunities</li> </ul>	<ul style="list-style-type: none"> <li>New digital opportunities</li> <li>Replacement boilers</li> <li>Environmental improvements/controls</li> <li>Move to LED lighting</li> </ul>
<b>Legislation</b>	
<ul style="list-style-type: none"> <li>General Data Protection Regulations</li> <li>FOI</li> <li>EU EHS legislation and standards</li> </ul>	<ul style="list-style-type: none"> <li>Challenges to stay current on legal and other requirements</li> <li>Implement legal register and compliance tool</li> </ul>
<b>Environmental</b>	
<ul style="list-style-type: none"> <li>EU target to reduce GHGs by a minimum of 80% by 2050</li> <li>More onerous energy and efficiency targets following the publication of the Energy White Paper and the signing of the Paris agreement</li> </ul>	<ul style="list-style-type: none"> <li>Identify eco opportunities</li> <li>Continue drive to reduce impacts – e.g., biodegradable cups, energy reduction/conservation.</li> </ul>

## Environmental Aspects and Impacts

Eurofound is an office based organisation which is currently operating at around 70% occupancy following the lifting of restrictive travel and work measures resulting from the global Covid pandemic. Contractors attend site only on an as needed basis. Security maintains a continuous presence on site.

An initial evaluation of environmental aspects has been conducted based on the processes operated on site and initial information on resource use, emissions and discharges, waste generation and use of external resources, including suppliers and contractors.

CALCULATION OF SIGNIFICANCE RATINGS														
Eurofound Significance Ratings														
IMPORTANCE:		x< 14	15<x<27	>27										
SIGNIFICANCE:		Minimum	Moderate	High										
No.	Activity	Environmental Impact	(1) F Frequency	(2) (BL) Breach of law.	3 (S) Severity (Hazard, toxicity)							Significance 1X2X3(M+C+L+SC+I+A)	Owner	Trend
						M	C	L	SC	I	A			
1	Operation of Plant and Equipment	<a href="#">Energy - Electricity</a>	3	1	2	1	2	2	0	0	2	42	Facilities	
2	Heating	<a href="#">Gas heating</a>	3	1	2	1	2	3	0	0	2	48	Facilities	
3	Personnel	<a href="#">Public Health</a>	1	1	3	3	2	3	0	2	2	36	Management	
4	Operation of Plant and Equipment	<a href="#">Use of chemicals and materials</a>	2	1	2	1	0	3	0	0	0	16	Facilities	
5	Packaging	<a href="#">Non-hazardous waste</a>	3	1	2	1	1	3	1	0	1	42	Facilities	
6	Catering, hygiene	<a href="#">Water use</a>	3	1	2	2	2	0	0	0	2	36	Facilities	
7	Storm water	<a href="#">Emissions to surface and storm drains</a>	1	1	2	0	1	3	0	0	1	10	Facilities	
8	Diesel gene	<a href="#">Energy Diesel</a>	1	1	1	1	1	1	1	0	1	5	Facilities	
9	Chemical and fuel storage	<a href="#">Interactions with groundwater and soil</a>	1	1	1	2	1	3	0	0	0	6	Facilities	
10	Fire	<a href="#">Fire water</a>	1	1	3	3	0	3	0	0	2	24		
11	Utilities & Maintenance	<a href="#">Hazardous waste</a>	2	1	2	1	0	3	0	0	2	24	Facilities	
12	Travel and transport	<a href="#">Transportation</a>	3	1	1	1	1	0	0	0	2	12	Facilities	
13	Operation of Plant and Equipment	<a href="#">Air emissions</a>	3	1	1	1	0	2	0	0	1	12	Facilities	
14	Travel	<a href="#">Travel</a>	1	1	1	1	0	0	1	0	0	10	Eurofound	
15	Refrigeration and A/C	<a href="#">Fugitive emissions</a>	1	1	2	1	0	3	1	0	0	10	Facilities	
16	Buildings & facilities	<a href="#">Land use</a>	1	1	0	0	0	3	0	0	0	0	Facilities	
17	Operation of Plant and Equipment	<a href="#">Noise and vibration</a>	1	1	1	1	0	3	0	0	1	5	Facilities	
18	Purchasing	<a href="#">Supply Line</a>	2	1	1	1	0	0	0	0	0	2	Facilities	
19	Utilities & Maintenance	<a href="#">Interaction with ecosystems</a>	1	1	1	0	0	1	0	0	0	1	Facilities	
											<b>341</b>			
Positive Aspects (High score is related to positive impact)														
20	Facilities	<a href="#">Biodiversity</a>	3	1	3	3	2	3	2	0	2	108	Facilities	

Changes made within individual aspect descriptions are identified in red type

## Electricity

Electricity is used for office and administrative equipment, canteen equipment, lighting, general site utilities and facilities support.

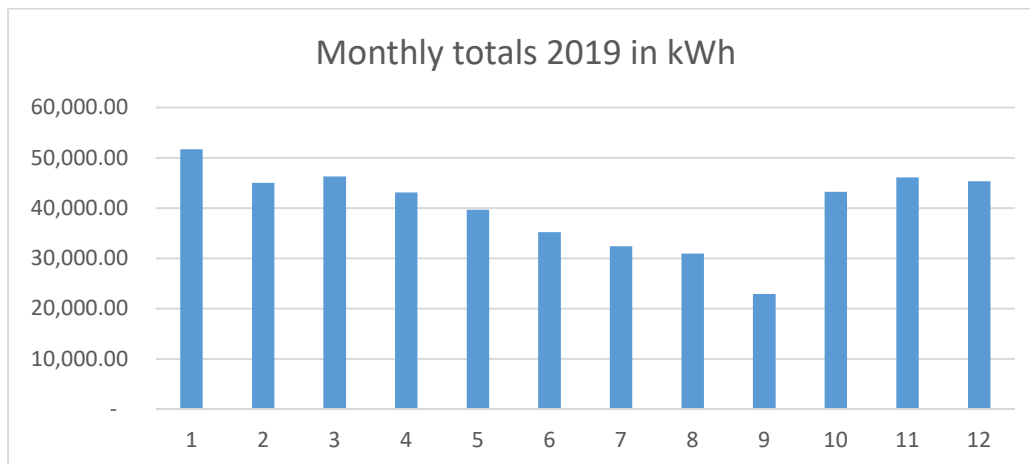
Eurofound currently does not produce its own electricity and relies solely on electricity supplied by a regulated utilities supplier.

Total electricity use reduced between 2019 and 2022, but there was a more significant reduction in 2020 due to the pandemic. Consumption increased in 2022 due to employees returning to the office however due to infrastructural improvements consumption is now running at 75% of pre-pandemic levels. Since July 2022 Eurofound has consumed only 100% renewable electricity and meets the benchmark of excellence in BEMP. The total renewable energy use for Eurofound is 42%.

The CO<sub>2</sub> produced by electricity consumption for 2022 in Eurofound was 124.78 tonnes based on 1kWh producing .3458 kg of CO<sub>2</sub>.<sup>1</sup>

Combined energy usage in terms of the benchmark of excellence as determined by the SRD is referenced below under Natural Gas.

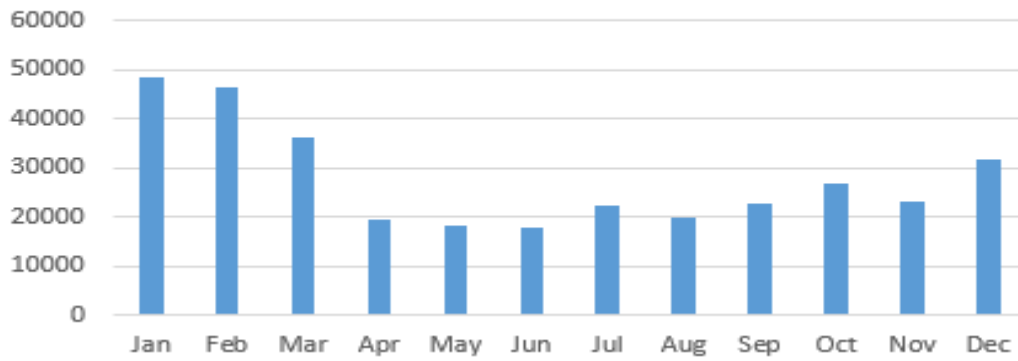
Year	Total kWh	% of 2019	Building area M <sup>2</sup>	Employees FTE <sup>2</sup>	kWh per M <sup>2</sup>	kWh per person
2019	481,718	100	5201	110.75	92.62	4,350
2020	332,876	69	5201	115.75	64.00	2,876
2021	329,001	68	5201	110.75	63.25	2,971
2022	360,830	75	5201	110.75	69.38	3,258



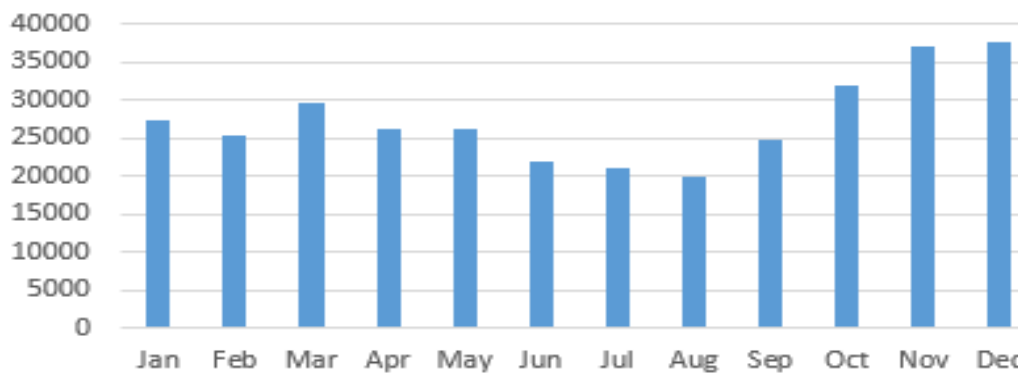
<sup>1</sup> Ref: <https://www.seai.ie/data-and-insights/seai-statistics/conversion-factors/>

<sup>2</sup> Each Permanent Staff member equal 1 FTE, Trainees and Agency Staff equal 0.5 FTE. Catering, Reception and Security Staff equal 1 FTE. All combined cleaning staff equal 1.75 FTE based on 70 hours cleaning per week.

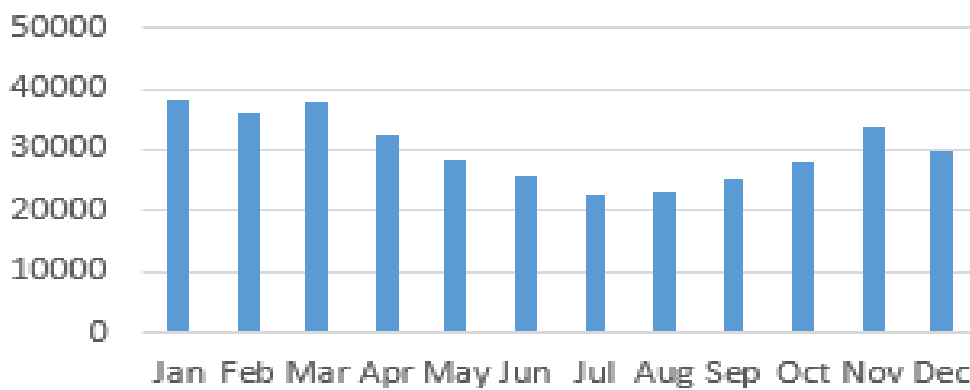
### Monthly totals 2020 in kWh



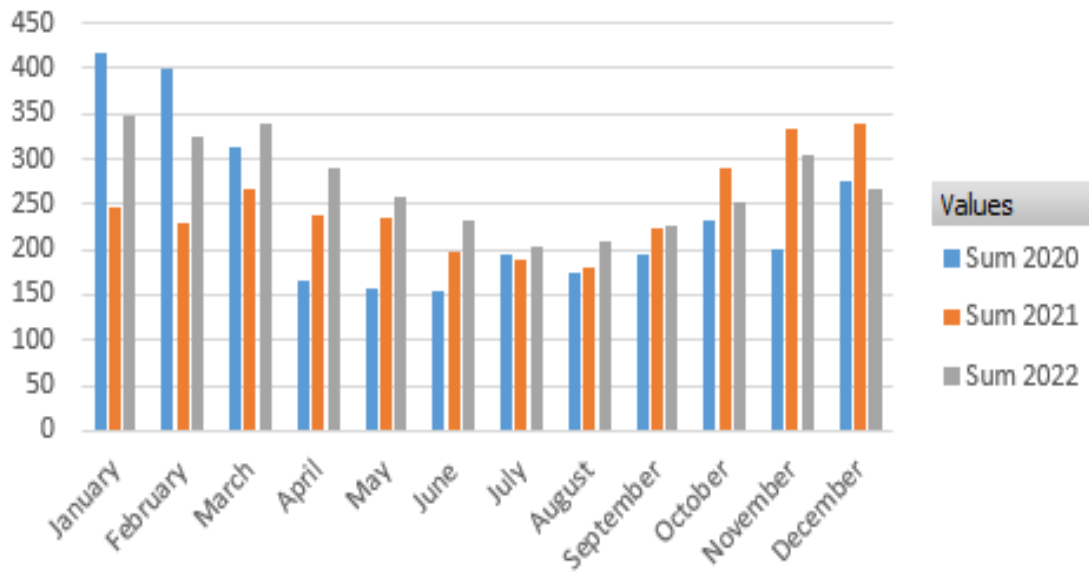
### Monthly totals 2021 in kWh



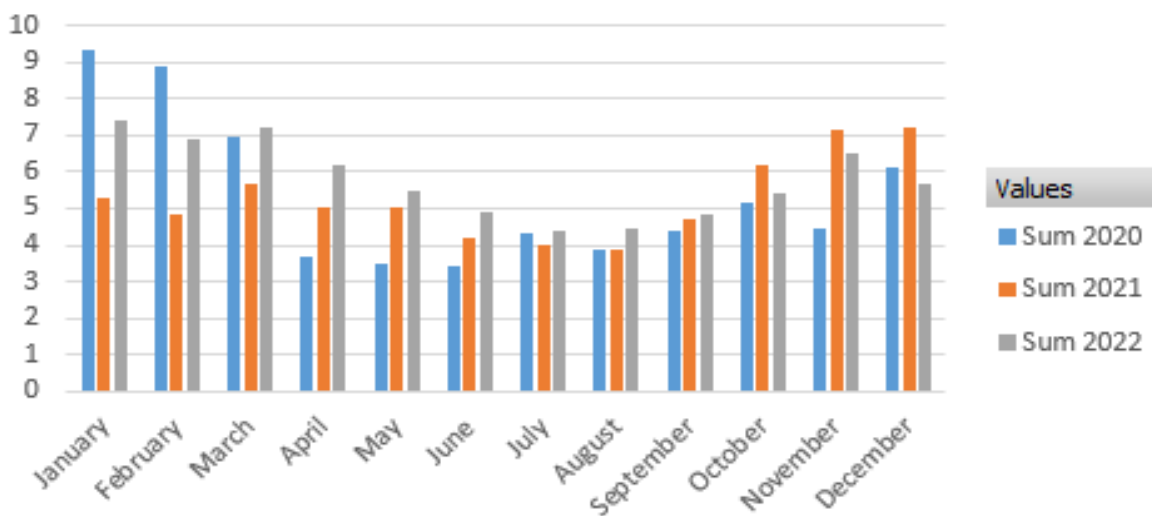
### Monthly totals in 2022 in kWh



**Total kWh per FTE**



**Total kWh per square meter**



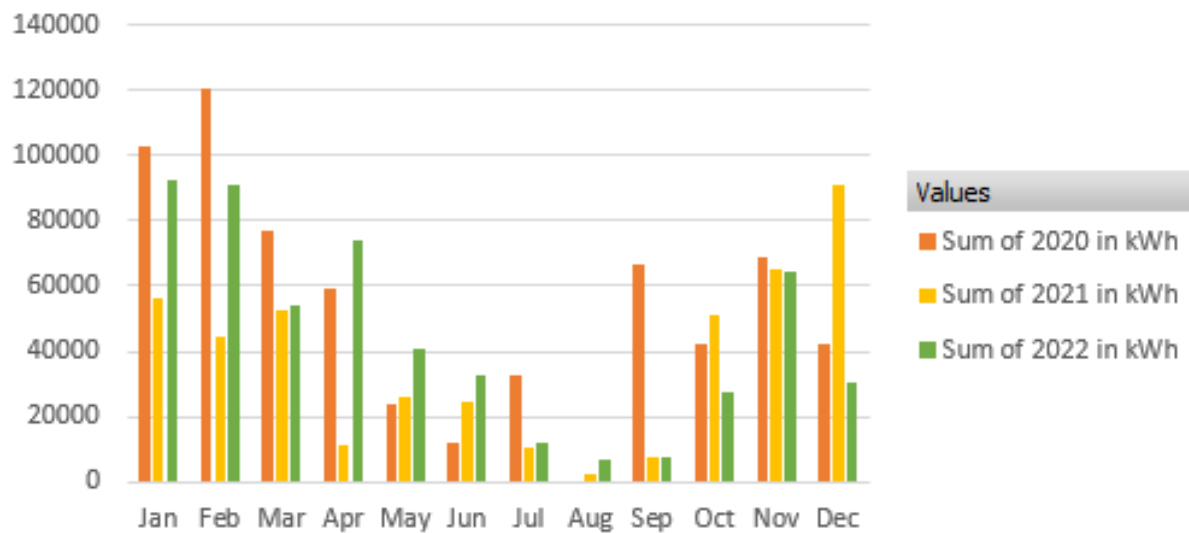
**Natural Gas**

Natural gas is used for heating the buildings on site. New boilers were installed in 2021 with significant improved efficiency. Increases in winter 2021 may be explained by a significant increase in occupancy however this figure is substantially lower than pre-pandemic levels . The combined use of electricity and natural gas in 2020 per meter squared in kWh was 189 m<sup>2</sup>, this dropped to 148m<sup>2</sup> in 2021 and increased in 2022 to 172 m<sup>2</sup>. The benchmark of excellence in the SRD for existing buildings is 100/kWh/m2/year and the 2022 figure is evidence of sustained, reduced energy consumption with full office occupancy compared to years prior to the Covid pandemic.

The CO<sub>2</sub> produced by natural gas consumption for 2022 in Eurofound was 107.99 tonnes based on 1kWh producing .2029 kg of CO<sub>2</sub>.<sup>3</sup>

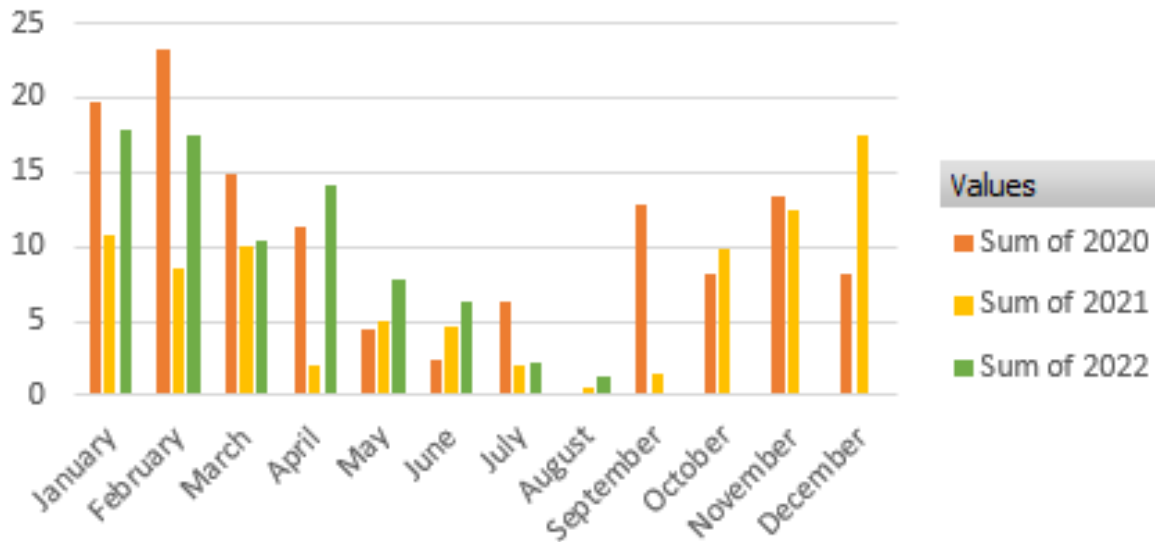
Natural Gas Use	2020	2020	2020	2021	2021	2021	2022	2022	2022
Heating	Use kWh	Use per M2	Use per FTE – 115.75	Use kWh	Use per M2	Use per FTE – 110.75	Use kWh	Use per M2	Use per FTE – 110.75
Jan	102497	19.7	886	55620	10.7	502	92449	17.78	835
Feb	120673	23.2	1043	44398	8.5	401	90943	17.49	821
Mar	77059	14.8	666	52631	10.1	475	54307	10.44	490
Apr	58978	11.3	510	10982	2.1	99	73629	14.16	665
May	23568	4.5	204	26051	5.0	235	40687	7.82	367
Jun	12083	2.3	104	24283	4.7	219	32348	6.22	292
Jul	32596	6.2	282	10785	2.1	97	11897	2.29	107
Aug	0	0	0	2647	0.5	24	6532	1.26	59
Sep	66752	12.8	577	7627	1.5	69	7321	1.41	66
Oct	42423	8.2	367	51007	9.8	461	27295	5.25	246
Nov	69110	13.3	597	65206	12.5	589	64213	12.35	580
Dec	42561	8.2	368	91168	17.5	823	30601	5.88	276
Total	648,300	124.6	5601	442,402	85.1	3995	532221	102.33	4805

Natural gas use in kWh for 2020, 2021 and 2022

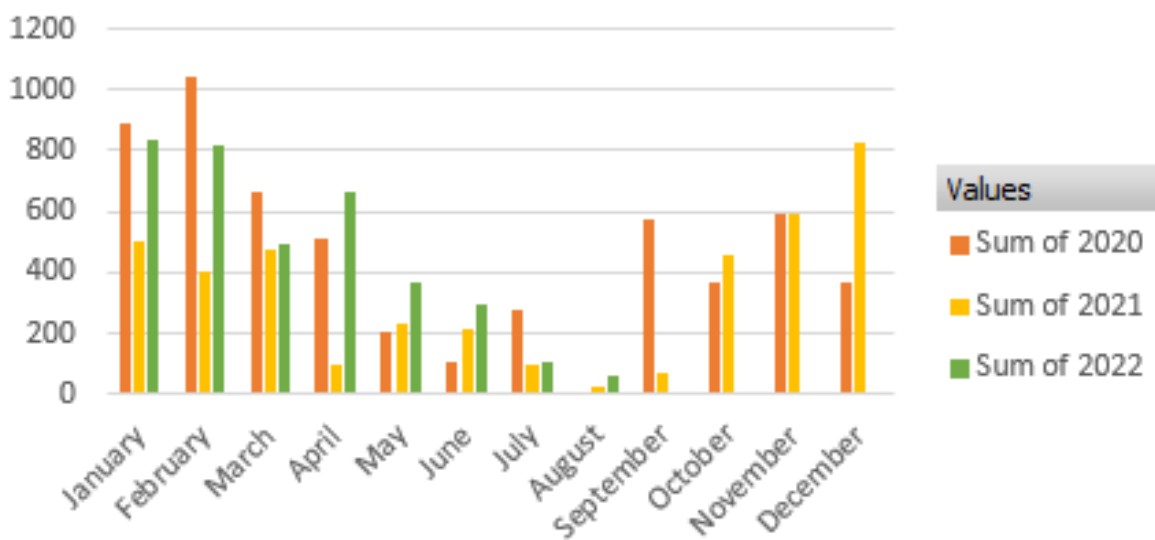


<sup>3</sup> Conversion factors for Equivalent CO<sub>2</sub> Tons <https://www.seai.ie/data-and-insights/seai-statistics/conversion-factors/>

**kWh per square meter**



**kWh per person**



The total combined amount of energy consumed on the Eurofound site measured in kWh for 2022 was 893,050 of which 360,829 was 100% renewable energy. This equates to 172 kWh per m<sup>2</sup> and 8063 per FTE.

The total combined amount of energy consumed on the Eurofound site measured in kWh for 2021 was 771,403 of which 329,001 was 100% renewable energy. This equates to 148 kWh per m<sup>2</sup> and 6965 per FTE.

In 2020 the amount consumed was 981,175 kWh of which 332,875 was 100% renewable energy. This equates to 189 kWh per m<sup>2</sup> and 8477 per FTE.



The rise in consumption in 2022 is explained with almost full office occupancy but still represents a reduction compared to 2020 when offices were vacated in March for most of the year.

### Gas Oil/Diesel

Gas oil is used periodically to test the back-up electricity generator and to fuel an on-site tractor. The double banded diesel tank is topped up approximately every 4 to 5 years.

### F Gases

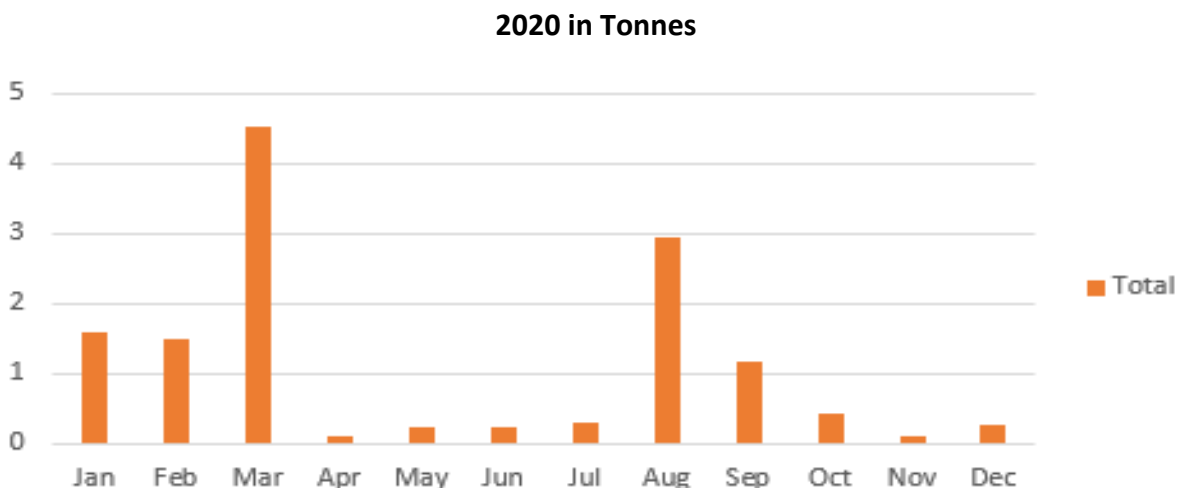
A small quantity of F Gas is contained in the air conditioning units on site. An F Gas register is maintained by a registered and qualified F Gas contractor. This gas will be removed and replaced with an environmentally friendly substitution early 2023.

### Hazardous Waste

Hazardous waste is generated in small quantities including fluorescent tubes, batteries, WEEE (Waste Electrical and Electronic Equipment recycling) and toner. Hazardous waste generated by contractor’s working on site is the responsibility of the contractor, who are responsible for the removal and treatment of their waste from the site by competent and authorised waste management contractors. WEEE is collected by registered competent contractors on an ad-hoc basis and is sent for recycling.

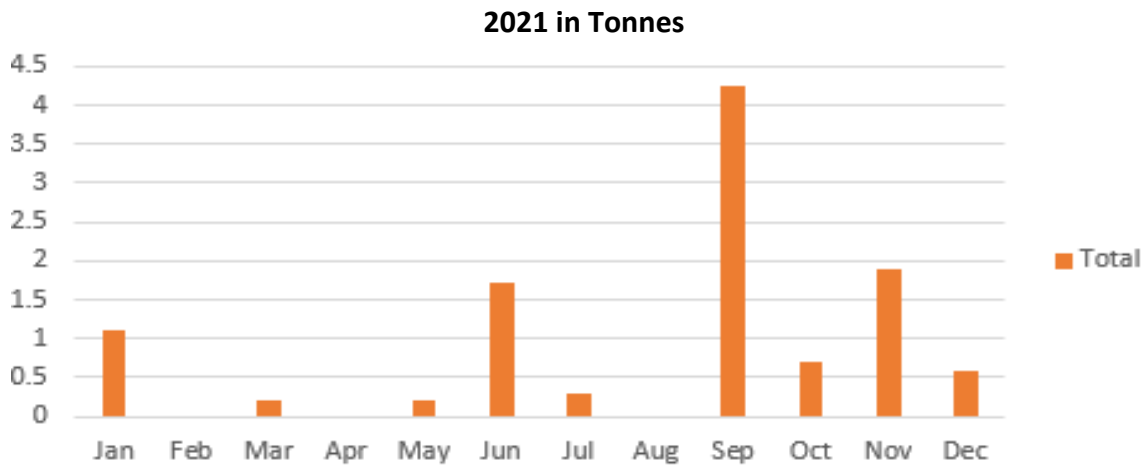
### Non-Hazardous Waste

Non-hazardous waste is generated from the dining hall, offices and meeting rooms, site landscaping and maintenance activities. The waste management contractor (Thornton’s) provides a breakdown of the waste as follows:

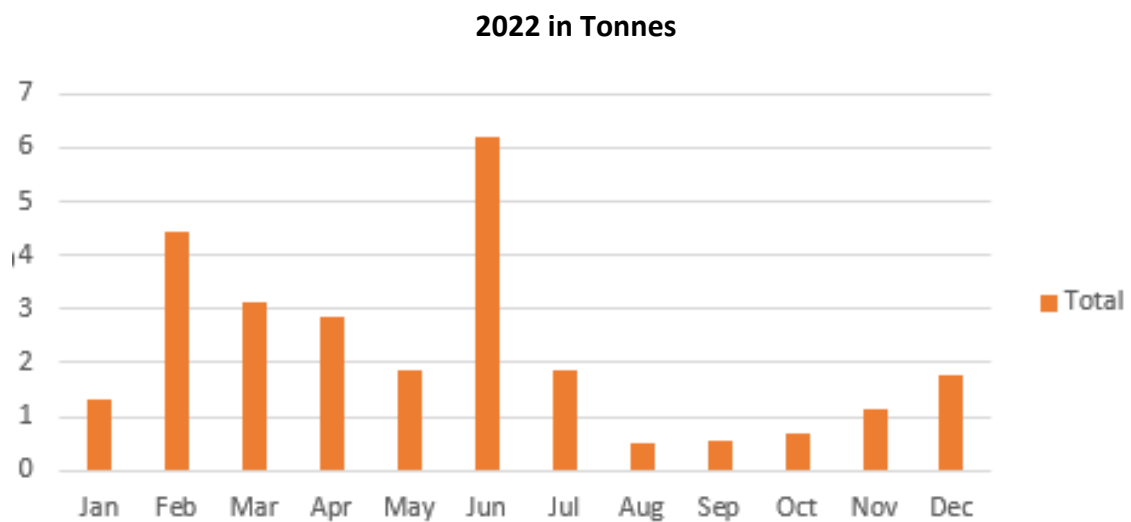


In 2020 Eurofound generated 13.35 tonnes of waste with an average recycling rate of 90.84%. Of the total waste produced 1.23 tonnes (9.16%) went to landfill with 12.12 (90.84%) tonnes being recycled by the waste management contractor. The waste generated per FTE for 2020 was 115kg and 0.003

tonne per m<sup>2</sup> which is under the recommended excellence benchmark of 200kg per person however limited office occupancy should be taken into account.

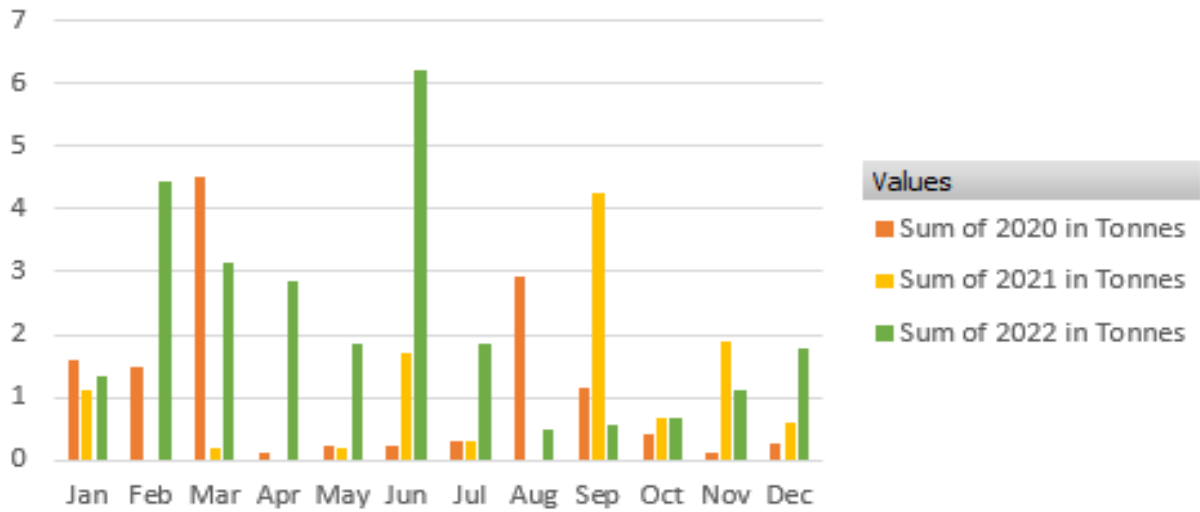


In 2021 Eurofound generated 10.97 tonnes of waste with an average recycling rate of 91.81%. Of the total waste produced 0.89 tonnes (8.19%) went to landfill with 12.12 (91.81%) tonnes being recycled by the waste management contractor. This represented a waste reduction of 17.84%. The waste generated per FTE for 2021 was 121kg and 0.002 tonne per m<sup>2</sup> which is under the recommended benchmark of 200kg per person however limited office occupancy should be taken into account.



In 2022 Eurofound generated 26.31 tonnes of waste with an average recycling rate of 92.37%. Of the total waste produced 2 tonnes (7.63%) went to landfill with 24.31 (92.37%) tonnes being recycled by the waste management contractor. This represented a waste increase of 139.94%. The waste generated per FTE for 2022 was 238kg and 0.005 tonne per m<sup>2</sup> which is over the recommended benchmark of 200kg per person.

### Waste disposal for 2020, 2021 and 2022



The quantity and mix of waste generated, removed and treated in 2022 considerably increased in 2022 due to the return to office based working however there was extensive cleaning and disposal tasks undertaken in order to facilitate the aforementioned return. It is expected that in 2023 the waste generated will return below the SRD benchmark of 200kg per person.

### Paper Use

Paper is used by personnel for printing and copying documents. All figures are based on data from the printing and photocopying machines as part of a managed print services contract. There was a considerable reduction in printing due to the Covid pandemic as staff were working from home. There were slight increases in Q4 2021 given increased presence of staff at Eurofound however with increased virtual meetings and conferences taking place there is a significant opportunity to permanently reduce paper consumption compared to previous levels.

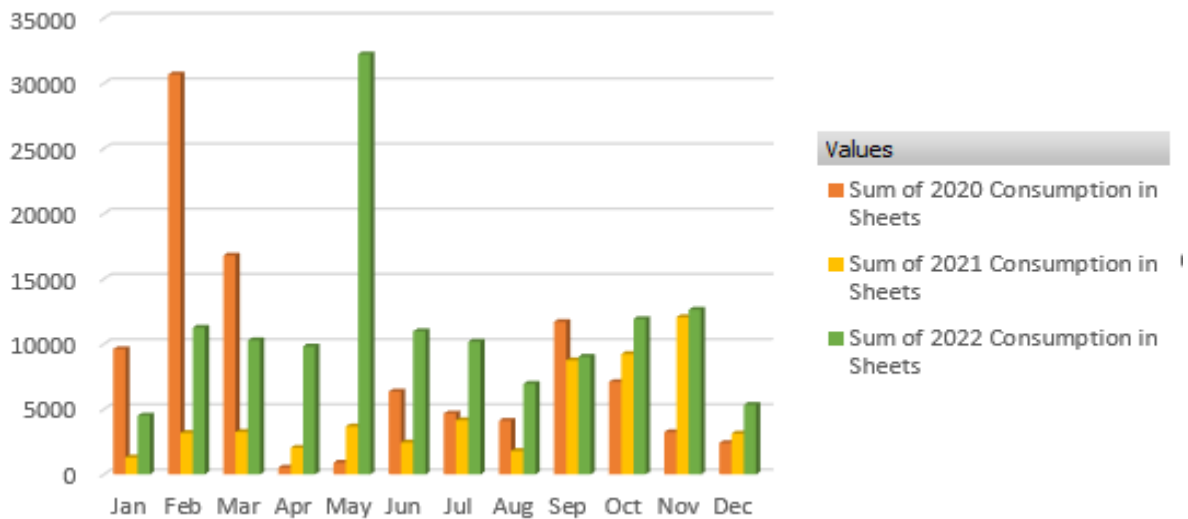
Paper use in 2020 was greatly reduced from 2019, even allowing for the approximate figures available for 2019. Total printed paper used in 2020 was 98,062 sheets or  $145,531 \times 5/1000000$  grms = 0.49 tonnes. Tonnes per month = 0.04. This equates to 847 sheets per FTE per annum producing 1.2 tonnes of CO<sub>2</sub>. This represents 18.85 sheets per m<sup>2</sup> per annum.

Paper use in 2021 saw a 44% reduction compared to 2020. Total printed paper used in 2021 was 55,062 sheets or  $56,722 \times 5/1000000$  grms = 0.28 tonnes. Tonnes per month = 0.02. This equates to 497 sheets per FTE per annum producing 0.7 tonnes of CO<sub>2</sub>. This represents 10.58 sheets per m<sup>2</sup> per annum.

2022 saw an increase of 145% in printing and photocopying in Eurofound compared with 2021. Total printed paper used in 2022 was 135,096 sheets or  $135,096 \times 5/1000000$  grms = 0.68 tonnes. Tonnes per month = 0.06. This equates to 1,351 sheets per FTE per annum producing 1.7 tonnes of CO<sub>2</sub>. This represents 25.98 sheets per m<sup>2</sup> per annum.

The average use of paper sheet per FTE per day in 2020 was 4, in 2021 it was 2.5 and in 2022 it was 6. All figures are lower than the SRD benchmark of 15 per day. The 2020 and 2021 figures are unusually low due to low office occupancy.

**Paper use in sheets for 2020, 2021 and 2022**



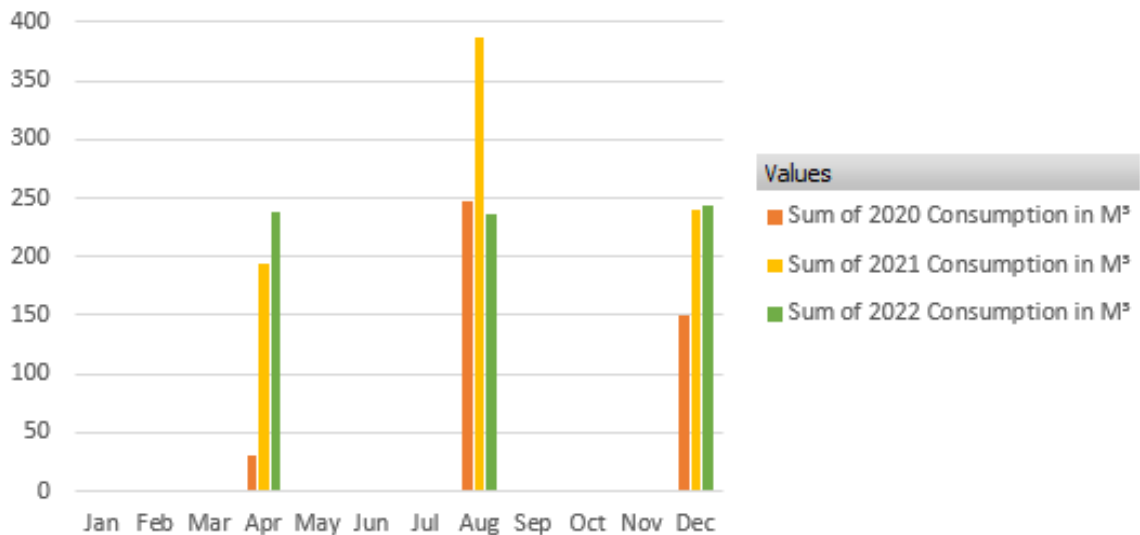
## Water Use

Water use data from the local authority, Irish Water, is issued in the form of charges linked to a standing charge and a water use and waste water treatment charge. Irish Water assume that water treated is equivalent to the water used, which is a good approximation as there are no processes used where water could be evaporated or incorporated into a product or service. Cubic meter use per FTE in 2020 was 3.69 (lower than SRD benchmark of 6.4) and in 2021 was 7.4. Usage in m<sup>3</sup> per square meter of floor space in 2021 was 0.16 reflecting an increase 52% on the previous years reading of .08 m<sup>3</sup> consumed per m<sup>2</sup>.

Water consumption reduced by 12% in 2022 to 6.48m<sup>3</sup> per FTE, almost in line with the SRD benchmark of 6.4m<sup>3</sup>. This reflects 0.13m<sup>3</sup> per m<sup>2</sup> of floor space.

Third & Year	Water used cubic metres	Water treated cubic metres
T1 2020	30	30
T2 2020	248	248
T3 2020	149	149
T1 2021	195	195
T2 2021	386	386
T3 2021	239	239
T1 2022	238	238
T2 2022	237	237
T3 2022	243	243

**Water used and waste water by cubic meter per third**



### Water Effluent

The site discharges to the local authority sewer system from its sanitary processes. It does not generate process waste water.

### Surface Water and Ground Water

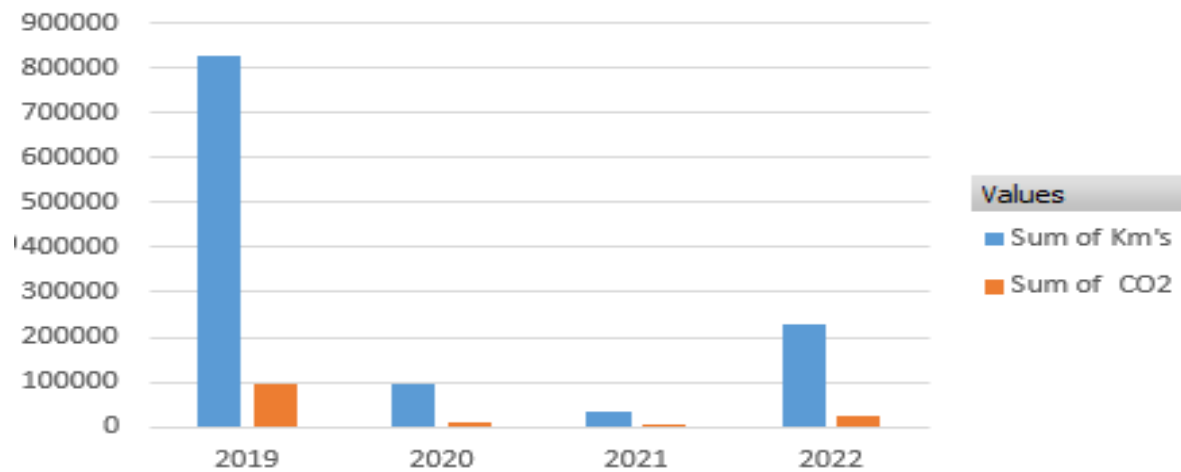
There have been no emissions to surface or ground from the site or its activities. The diesel tank is internally bunded. A programme of secondary containment has been implemented for small containers of liquid chemicals and oils on site. A number of staff have been trained in spill management and containment. Spill containment equipment has also been procured. In 2022 an addition Standard Operating Procedure was added to the Eurofound EMAS documentation to prescribe procedures in the event of chemical and oil escape.

## Transport and Travel

Air travel in 2019 amounted to 827,726 kms equating to 95,188 kg of CO<sub>2</sub>. 2020 amounted to 96,122 km and emitting 11,054 kg of CO<sub>2</sub>. Travel was minimal by previous standards in 2021 finishing at 35,328 km and emitting 4,052 kg of CO<sub>2</sub>.

In 2022 Eurofound amassed 227,837 air kilometres in business travel emitting 26,201 kg of CO<sub>2</sub>. While it is a substantial increase on 2021 it is a 72% decrease in CO<sub>2</sub> emissions prior to the global pandemic.

[https://www.carbonindependent.org/sources\\_aviation.html](https://www.carbonindependent.org/sources_aviation.html) estimates that CO<sub>2</sub> emissions from a Boeing 737-400 are 115 g per passenger km.



## Noise

Noise is not a significant environmental aspect at Eurofound.

## Land Use and Biodiversity

Eurofound occupies a campus totalling approximately 53,000 square meters of which 5,200 square meters are used as office space and approximately 2,500 square meters of space is occupied by roadway, parking and a tennis court. Of the remaining occupied land over 50% (23,000 square meters) is arboreal and much of the remaining land is under grass. This is a valuable resource in an area which is combined commercial and residential. Eurofound is planning to develop a biodiversity programme over the coming years, including establishing the species and habitats present on site. It also operates a 'Managed for Wildlife' and 'Pollinator Friendly' maintenance programme. The carbon captured by the woods and grassland on site will also be estimated.

## Emissions

The combined CO<sub>2</sub> emissions for 2022 occurred from natural gas boilers used for space heating, water heating and cooking and from paper use and business travel for the organisation.

The German TA Luft Regulations are used to specify limits for emissions to air for the protection of the environment and health. Eurofound's boilers are fully compliant with the TA Luft limits for NO<sub>x</sub> and SO<sub>2</sub>.

Boiler emissions are tested annually.

Eurofound produced 144.52 tonnes of CO<sub>2</sub> in 2020 and in 2021 this amount reduced to 93.87 (4.05 tonnes from travel and 89.82 tonnes from natural gas consumption, 113.77 tonnes from 100% renewable electricity not included) representing a 63% reduction owing largely to significant business travel reduction. Eurofound is actively reducing business travel against pre-pandemic levels through reductions in the travel budget.

In 2022 Eurofound produced 134.19 (4.05 tonnes from travel and 107.99 tonnes from natural gas consumption, 124.78 tonnes from 100% renewable electricity not included) representing a 43% increase on 2021 but a 7% decrease of CO<sub>2</sub> emissions on 2020 levels which may be a more comparative year.

In 2022 there were no leaks of F gas emissions to air from cooling equipment.

## Compliance with Legal Requirements Related to the Environment

Eurofound is compliant with existing environmental legislation and the requirements of EMAS and the ISO14001 standard.

The EMAS Coordinator regularly evaluates Eurofound's compliance with pertinent regulations and environmental legislation. In ensuring compliance the organisation considers legislation and legislative changes along with industry practice and monitors all relevant legislation and guidelines using the Legal Register. Compliance is reviewed at regular meetings and the organisation conducts internal audits for verification.

## Environmental Management Programme

### Objectives and Targets

This is Version 1 of the Environmental Management Programme at Eurofound, Loughlinstown, Dublin. The objectives and targets comprising the Management Plan are set out on the following pages.

Objectives are defined together with a reason for the objective and a programme for achieving it. The environmental relevance of the objective is indicated in the table below.

The programme describes how each objective is to be achieved; the title of the person responsible for carrying it out; and the timeframe for each stage of the programme.

Each objective is referenced to its corresponding significant environmental impact in the Register of Environmental Aspects.

Associated with each objective are a number of targets. For each target responsibilities are defined as well as a target date.

The most significant environmental aspects include:

1. Electricity
2. Natural Gas
3. Resource Use

<b>OBJECTIVE</b>	<b>Monitoring</b>	<b>Management</b>	<b>Improvement</b>
Implementation of EMAS and ISO 14001	X	X	X
Reduce use of electricity	X		X
Reduce use of natural gas	X		X
Reduce use of paper	X		X



**OBJECTIVE #1**

Implementation of ISO14001 and EMAS

**REASON**

To implement and demonstrate good environmental safety management to stakeholders through an independently assessed management system in compliance with the EMAS Regulation and ISO 14001:2004

**Environmental Aspects Register:** Not applicable

**PROJECT METHOD**

Step	Method	Person Responsible	Target Date	Status
2	Draw up Baseline Study and develop Register of Aspects and Impacts	Antaris	Q1 2021	Complete
3	Draft Environmental Policy Review and agree Policy	Eurofound Management	Q1 2021	Complete
5	Draft Environmental Management Plan	Antaris/Eurofound	Q1 2021	Complete
6	Draft and implement Environmental Procedures Manual	Antaris/Eurofound	Q1 2021	Complete
7	Prepare Environmental Manual	Antaris/ Eurofound	Q1 2021	Complete
8	Prepare environmental Register of Legislation and conduct compliance assessment	Antaris/Eurofound	Q2 2021	Complete
9	Conduct internal audits	Eurofound	Q1 2022	Complete
9	Carry out Management Review	Eurofound	Q4 2022	Ongoing
10	Document Environmental Statement and have validated by approved body	Eurofound	Q4 2022	Ongoing
11	Undergo Certification Audit	Certification Body/Eurofound	Q4 2022	Done
12	Respond to Findings and implement Corrective actions	Eurofound	Q4 2022	Done

**Overall responsibility for objective # 1**

**Environmental Coordinator**

**Overall target date for achievement of objective # 1**

**December 2022**

**OBJECTIVE # 2**

Reduce the use of electricity on site

**REASON**

Electricity use is a significant environmental aspect and the site has the potential for reducing further, as identified through the initial environmental review and the development of the environmental aspects and impacts register.

**Environmental Aspect Reference:** Electricity use

**PROJECT METHOD**

Step	Method	Person Responsible	Target Date	Status
1	Identify initial opportunities – LED lighting to replace existing bulb lighting	Site FM Team	Q1 2021	Complete
2	Cost and plan implementation of LED change out	Site FM Team	Q2 2021	Complete
3	Implement phased changeover – phase 1 – 75% of lights	Site FM Team	Q3 2021	Complete
4	Implement remaining phases	Site FM Team	Q1 2023	Done
5	Target reduction of 40% lighting cost (power requirement reduced by c. 38.5 – 40%)	Site FM Team	Q1 2023	Ongoing

**Overall responsibility for objective # 2**

**Site Facilities Team**

**Overall target date for achievement of objective # 2**

**March 2023**

**OBJECTIVE # 3**

Minimise use of natural resources and emissions to air from fuel use.

**REASON**

To eliminate or reduce air emissions and reduce use of natural gas.

**Risk Assessment:** Use of natural resources, Air emissions, Greenhouse gases.

**PROJECT METHOD**

Step	Method	Person Responsible	Target Date	Status
1	Review natural gas use	Site FM Team	Q1 2021	Complete
2	Review options for significant users (boilers, kitchen)	Site FM Team	Q1 2021	Complete
3	Initiate boiler changeout project (age and efficiency of boilers) – ITT	Site FM Team	Q1 2021	Complete
4	Identify optimal supplier and installer	Site FM Team	Q1 2021	Complete
5	Replace gas boilers with new higher efficiency models	Site FM Team	Q3 2021	Complete
6	Continue to monitor natural gas use and estimate savings	Site FM Team	Ongoing	Ongoing

**Overall responsibility for objective # 3**

**Site Facilities Team**

**Overall target date for achievement of objective # 3**

**March 2023**

**OBJECTIVE # 4**

Reduce/maintain reduction in paper use on site.

**REASON**

Subjective observation of major reduction in paper use since Covid restrictions, indicates potential for long term reduction.

**Environmental Aspects:** Resource use

**PROJECT METHOD**

Step	Method	Person Responsible	Target Date	Status
1	Quantify annual paper use from print management system	EMAS Coordinator	Q1 2022	Complete
2	Monitor use on a monthly basis	EMAS Coordinator	Q2-4 2022	Ongoing
3	Survey users to understand main requirements for paper	EMAS Coordinator	Q4 2022	Ongoing
4	Identify potential for: Reduction – e.g., print both sides, use thinner gauge Re-use of paper e.g., other side of paper for informal use Recycling – ensure all paper is recycled after use, use recycled paper where possible	EMAS Coordinator	Q4 2022	Ongoing
5	Trial potential elimination, reduction, reuse and recycling opportunities	EMAS Coordinator	Q4 2022	Ongoing
6	Implement successful opportunities	EMAS Coordinator Procurement/All users	Q2-Q4 2022	Ongoing

**Overall responsibility for objective # 4**

**Colm O’Brien**

**Overall target date for achievement of objective # 4**

**December 2022**

## Annex I Main Legal Requirements

At the beginning of each year, the EMAS Coordinator contracts an external consultancy or legal practice to maintain Eurofound's Register of Environmental Legislation and to provide ongoing updates.

The Register of Environmental Legislation is reviewed/updated continually by an external consultancy at <https://www.hse-compliance.net/?p=101&sp=1>. As a new or updated piece of information is added to the register an automated email is issued to Eurofound users notifying them of the change.

For each piece of legislation, the following information is given in the Legal Register:

- a. Full title of legislation
- b. Reference number
- c. Purpose of the Act/Regulation/Directive
- d. Implications for Eurofound
- e. Summary of the Act/Regulation/Directive

The Register of Environmental Legislation is divided into the following sections:

- |              |  |
|--------------|--|
| Section 1 -  | General Environmental Legislation                      |
| Section 2 -  | Water  |
| Section 3 -  | Waste  |
| Section 4 -  | Air Pollution  |
| Section 5 -  | Physical Planning                                      |
| Section 6 -  | Noise  |
| Section 7 -  | Energy   |
| Section 8 -  | Dangerous Substances                                   |
| Section 9 -  | Emergency Preparedness                                 |
| Section 10 - | Habitats and Eco systems                               |
| Section 11 - | Existing Licenses, Planning Permissions and EMS Policy |

Any new legal or other requirements which Eurofound becomes aware of or are notified of, should be communicated to the consultancy/legal practice by the EMAS Coordinator. as soon as practicable.

The EMAS Coordinator should review any update to the Register of Environmental Legislation within one week of receipt. Updates with major implications will also be reviewed at Management Review meetings.

The EMAS Coordinator will decide what relevant changes need to be made to the Environmental Management System.

The appropriate personnel will be informed of any changes by the EMAS Coordinator.

Any changes to other documentation within the system will also be made by the EMAS Coordinator.

The Register of Environmental Legislation is reviewed in detail on a regular basis by the EMAS Coordinator to ensure ongoing compliance. This review will be used to determine if Eurofound is complying with the relevant legislation as well as planning permissions or other requirements. Any corrective actions required in order to ensure compliance will be documented at this review and communicated to relevant managers and staff.

Compliance shall be assessed using the Red-on-Line Legal Register compliance assessment tool built into the on-line register. This may be done by 1) using the questionnaires associated with significant environmental legislation and/or 2) completing the legal compliance section of the main page of the piece of legislation and providing a justification for the level of compliance assessed.

In addition, a summary of the changes in legislation is reviewed every six months by the EMAS Coordinator and the implications and any required actions are documented and retained within the EMAS document file.

Eurofound also conducts internal audits and inspections of its operations, including audits of service level agreements and contractual obligations where legal requirements are implemented through external bodies including contractors and suppliers. Internal audits of the EMS will also be used to verify compliance.

An annual review of Eurofound's compliance with relevant Environmental legislation and regulations is carried out at the annual EMS Management Review in addition to the review of legislation/regulations carried out by the EMAS Coordinator.

## Annex II Derogation

An Roinn Comhshaoil,  
Aeráide agus Cumarsáide  
Department of the Environment,  
Climate and Communications



FAO: Colm O'Brien  
Eurofound,  
Wyattville Road,  
Loughlinstown,  
Dublin,  
D18KP65

17/08/2023

Email: colm.o'brien@eurofound.europa.eu

### **RE: Confirmation of EMAS Derogation**

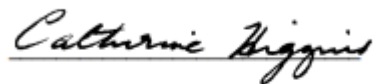
Dear Colm,

I acknowledge the submission of your documentation for derogation under Article 7 of the EMAS Regulation.

The Department of the Environment, Climate and Communications (DECC), as the competent body for EMAS in Ireland, are pleased to advise you that the derogation has been granted for 2023.

Should you have any questions please do not hesitate to contact the undersigned.

Kind Regards



Catherine Higgins,  
Assistant Principal  
Circular Economy Division

Roinn Comhshaoil, Aeráide agus Cumarsáide  
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