Bioiberica

Climate Strategy

The report

This report includes information regarding the governance, strategy, management of threats and opportunities, goals, metrics and their trends related to climate change, following the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD).

The data on greenhouse gas emissions provided in this report are calculated using Bioiberica's internal procedures and based on conversion factors published by various public administrations and specialist organisations.

Content

01 Introduction

Climate change is the greatest environmental challenge facing society today and it's therefore essential to **act immediately**, both with individual and also collective actions from the public and private sectors. This urgent need due to the climate emergency became particularly relevant during the last COP 25 held in November 2022 in Morocco.

01 Introduction

The company began its work to **reduce its impact on the environment more than 20 years ago** with certifications by ISO 14.001, EMAS and ISO 50.001. The aim of this report is to underline our commitment to combating climate change through our Climate Strategy, thereby advancing towards the decarbonisation of our business. To make this a reality, the company sets ambitious greenhouse gas emission reduction targets.

Bioiberica strives to meet these targets by carrying out actions in line with the recommendations of the **Task Force on Climate-Related Financial Disclosures (TCFD)**, and are therefore based on the results of detailed analyses and quantifications of both the threats and opportunities arising from climate change. Furthermore, these actions are linked to the global targets defined in order to achieve the **Sustainable Development Goals** (SDG-7: Affordable and Clean Energy; SDG-12: Responsible Consumption and Production) for which the company is certified, and (SDG-13: Climate Action) for which it is in the process of becoming certified.

This **Strategy** must be complemented with measures to offset those emissions that cannot be avoided, as well as actions to adapt to the already evident effects of climate change. In this way, the company **increases its resilience to the new environmental conditions, both in terms of carrying out its business and also regarding its infrastructures.**

Of note in 2021 is the fact that we continued to work on measures to **reduce emissions** through investments in energy efficiency. New phases of photovoltaic energy installations for self-con-

01 Introduction

sumption have been commissioned; Morover, a renewable energy purchasing policy has started to be implemented which, in a few years' time, will cover all the company's plants.

By means of this report, **Bioiberica presents its Climate Strategy**, its future challenges and its primary goals aimed at achieving a low-emission economy.

All the progress made regarding climate change can be found in this report, which provides an inventory of greenhouse gas emissions, the targets set, the milestones achieved and how the company will tackle future challenges in its commitment to becoming climate-neutral, focusing on business opportunities and more sustainable activities.

02 Bioiberica

Bioiberica is a global life science company. Looking after human, animal and plant life has been our priority for more than 45 years. We are a world leader in the production of the active ingredient heparin, the main anticoagulant that saves approximately 100 million lives a year, and a benchmark in the manufacture of active and functional ingredients for the pharmaceutical, nutraceutical, veterinary, animal nutrition and agricultural sectors.

Our leadership is the result of our passion for life and science, as well as our commitment to quality and safety. Thanks to a safe and fully traceable supply chain, based on a circular economy model, we guarantee the productive excellence and sustainability of our operations, reaffirming our ongoing commitment to innovation and the development of projects for new molecules, APIs and ingredients with partners around the world.

Bioiberica continues to grow as a global company with headquarters in Palafolls and offices in Esplugues de Llobregat (Barcelona). We currently export to more than 80 countries, have production sites in Spain, Italy, Poland, Germany, the United States and Brazil, and a team of over 450 professionals to offer a portfolio of more than 100 products.

02 Bioiberica

That's how we've managed to become **one of the leading manufacturers** and to help our clients discover new possibilities. Thanks to our commitment to **excellence, safety and sustainability,** we explore new horizons. And, in doing so, we contribute even more to the advancement of everything we do.

SITE	LOCATION	COUNTRY
Bioiberica	Palafolls	Spain
Olèrdola site	Olèrdola	Spain
Bioiberica Gmbh	Rheda	Germany
Biolab slr	Quistello	Italy
Biotee sul-america	Palma-Paraná	Brazil
Biotee Polska SP	Rzeczenica	Poland
Sioux Pharm	Sioux Center, IA	USA
Bioiberica Nebraska Inc	Geneva, NE	USA

03 Governance

Bioiberica's **climate change strategy** forms part of the company's corporate policy and is therefore regularly discussed at Management Committee and Board meetings.

03 Governance

The CEO plays a particularly important role in this process as the monitoring and implementation of initiatives related to climate change are included within his agenda, these being handled together with the Supply Chain and Environment departments, which coordinate and manage this area throughout the company.

Regular meetings of the Board of Directors, the Safety and Environment Committee and the Continuity Committee are where they discuss, make decisions, establish requirements and review results related to climate change projects, initiatives and practices, as well as the implementation of the Quality and Environment policy throughout the company. The decision-making process takes into account aspects such as any emerging legislation related to climate change, technical requirements in response to new challenges due to legislation and trends in the countries where Bioiberica operates, as well as recommendations from government

Aspects such as new emerging legislation are taken into account in the decision-making process.

03 Governance

agencies and organisations, the commitment to reduce emissions, the implementation of mitigation measures, threats and opportunities, and changes in environmental indicators.

The CEO, with the support of the management team and different functions, draws up the company's strategy with the aim of achieving the goals defined by the Board of Directors.

The goals for the coming year are set each year, based on this strategy. Each area proposes its own goals. Both local departments and external plants are involved in developing these goals. Area and department heads ensure that the goals are deployed across all levels. These goals also include environmental and climate change targets.

Each area proposes its own goals.

04 Strategy

At Bioiberica we're very much aware that the quality and safety of our products, our respect for the environment, the application of energy efficiency principles, concern for the safety, health and well-being of people, risk prevention and corporate social responsibility are the driving forces that result in the satisfaction of our team, clients, suppliers and society at large.

04 Strategy

Within this framework, and realising that climate change poses the greatest challenge for everyone, we establish our strategy with a clearly defined ultimate goal: to become neutral in terms of our greenhouse gas emissions.

Based on the premise of combating climate change and adding value for the company's stakeholders, the global strategy has two areas of action aimed at decarbonising the economy and mitigating the effects of climate change.

Managing and reducing our own carbon footprint and that of third parties.

Developing new lines of business that will provide more efficient and sustainable technical solutions.

04 Strategy

Numerous initiatives have been implemented or are in the process of being implemented to achieve the desired reduction in emissions:

- Since ISO 50.001 certification, numerous energy efficiency improvements have been addressed: in lighting, HVAC, production operations, personnel awareness, controlling uses and consumption, etc.
- Energy efficiency criteria have been incorporated in the purchase of equipment and the acquisition of services, as well as taking out contracts with electricity suppliers of certified renewable energy, which has already been put into practice at the plant.
- The project to implement of 1,000 kW of photovoltaic power for self-consumption is underway.
- Regulation of the steam boilers has been automated.
- The use of variable frequency drives for high power pumps has become widespread.
- Work is underway to assess the emissions of the entire supply chain with the aim of implementing improvements.
- The threats and opportunities arising from climate change have been assessed and greenhouse gas reduction measures are being taken.
- Electricity from renewable sources is now purchased at the main production sites and this policy will be rolled out to the rest.

05 Managing threats and opportunities

Bioiberica has implemented and followed the recommendations of the TCFD (Task Force on Climate-Related Financial Disclosures).

05 Managing threats and opportunities

5.1 Climate-Related Threats

We have analysed and quantified the threats and opportunities related to climate change in all our business and geographic areas. Given the possible scenarios to be considered, this first year we have only considered the SDS (Sustainable Development Scenario). This scenario is consistent with the necessary decarbonisation of the economy to achieve the goals of the Paris Agreement. It includes a peak in emissions that will be reached as soon as possible, followed by a decline. An increase in temperature of 2°C or less has been assumed with respect to pre-industrial levels. SDGs are based on an increase in clean energy policies and investment that put the energy system on track towards the key SDGs. In this scenario, all current pledges of net zero emissions are fully achieved and major efforts are made to reduce emissions in the short term; advanced economies achieve net zero emissions by 2050.

Subsequently, we will introduce other possible scenarios in our analysis, such as the CPS (Current Policies Scenario) which considers the impact of those policies and measures that are firmly established at present. This scenario would assume a global temperature increase of 3-4°C by 2100. Also the NPS (New Policies Scenario). This incorporates not only the announcement of proposed policies and measures but also the effects of their implementation. This scenario would assume a global temperature increase of 2-3°C by 2100.

05

Managing threats and opportunities

5.1 Climate-Related Threats

Following our review, it has been concluded that the short, medium and long-term threats for Bioiberica are as follows:

Transition-Related Threats

Increase in the cost of operations due to higher raw material prices, fossil fuel taxes, payments for emissions produced or the incorporation of some activity within the emission rights market. Issues such as policy restrictions on emissions, the imposition of carbon taxes, water restrictions, land use restrictions or incentives and changes in the demand and supply of services or disruption of operations are considered a "MAJOR" threat for Bioiberica. We also consider, albeit with a "MODERATE" impact, the potential technological investments to be made in order to achieve a low-emission economy.

Increase in the cost of operations due to higher raw material prices.

05 Managing threats and opportunities

5.1 Climate-Related Threats

Physical Threats

Although the physical threats analysed were rated as "MODERATE", the physical damage to infrastructures and temporary stoppage of activity, reduced productivity in extreme weather conditions, higher risk premiums or delayed delivery of services and products are some of the threats identified.

It can be assumed that these physical threats and financial impact are most likely to occur in the CPS and NPS scenarios, this probability decreasing as we move towards the more sustainable SDS. However, transition-related threats operate in the opposite direction. Measures to manage and reduce threats are therefore included, including taking out the relevant insurance policies.

In order to review these threats every year, the corresponding annual assessment procedure has been drawn up (Analysis of Threats and Opportunities resulting from Climate Change), which complements other analyses that have already been carried out in the areas of Environment and Energy Management.

Managing threats and opportunities

5.2 Opportunities

Looking at climate-related opportunities, the global trend towards a low-emission economy is directing investment and financing towards businesses that help to combat climate change and meet the goals of the Paris Agreement. The commitments adopted by the company create new opportunities in terms of more sustainable production, the mobility of people, energy efficiency, water management and the use of renewable energies instead of fossil fuels, as well as the conservation of biodiversity. These are essential factors to fulfil our environmental commitment to reduce our own emissions and those of clients and users of our products and services, without forgetting adaptation to the effects of climate change.

Opportunities related to resource efficiency (production processes, efficient distribution and application of policies based on a circular economy), low-emission energy sources and efficient technologies are particularly relevant in this respect, rated "MODERATE" according to our system.

Bioiberica has already started work on planning its future based on achieving the goals of mitigating emissions and adapting to the effects of climate change, providing solutions through its low-carbon business models.

Bioiberica is working on and planning its future based on achieving the goals of mitigating emissions and adapting to the effects of climate change.

Managing threats and opportunities

5.3 Sustainable business models

The Earth is experiencing unprecedented exploitation of its natural resources, significant and potentially irreversible changes in its climate, and a steady loss of biodiversity that threatens the stability of the living systems on which it depends. This situation is exacerbated by the world's growing population, which is expected to reach more than 9 billion by 2050.

The Paris Agreement aims to decarbonise the economy, reaching neutrality by mid-century and adapting infrastructures to the effects of climate change.

Bioiberica has been working with the commitment to continuously improve environmental conditions, based on an approach that comprehensively uses the whole process, minimises negative environmental aspects and conserves natural resources. We promote the use of energy from renewable sources as opposed to fossil fuels, energy efficiency, the improvement of water quality and its optimisation as a limited resource and also biodiversity.

Managing threats and opportunities

5.3 Sustainable business models

Circular economy

The Circular Economy model is proposed as an innovation of the production and consumption system, which aims to maintain and strengthen socio-economic development, including the sustainable creation of jobs, without compromising the functions of the ecosystem and also preserving natural resources for both present and future generations.

The aim of a Bioeconomy approach is to pave the way towards a more innovative and competitive society by making more efficient use of bio-based resources, balancing food security and the sustainable use of renewable resources for industrial purposes whilst also ensuring environmental protection.

Bioiberica is a vertically integrated company specialising in the extraction of biomolecules of high biological and therapeutic value. We currently have more than 100 products that improve the health of people, animals and plants. Bioiberica's production system therefore acts as a true biorefinery, extracting the maximum value from each of the biomolecules present in animal tissue, from active pharmaceutical ingredients to protein extracts for animal nutrition, as well as the production of biostimulants for Plant Health using animal co-products generated by food industries.

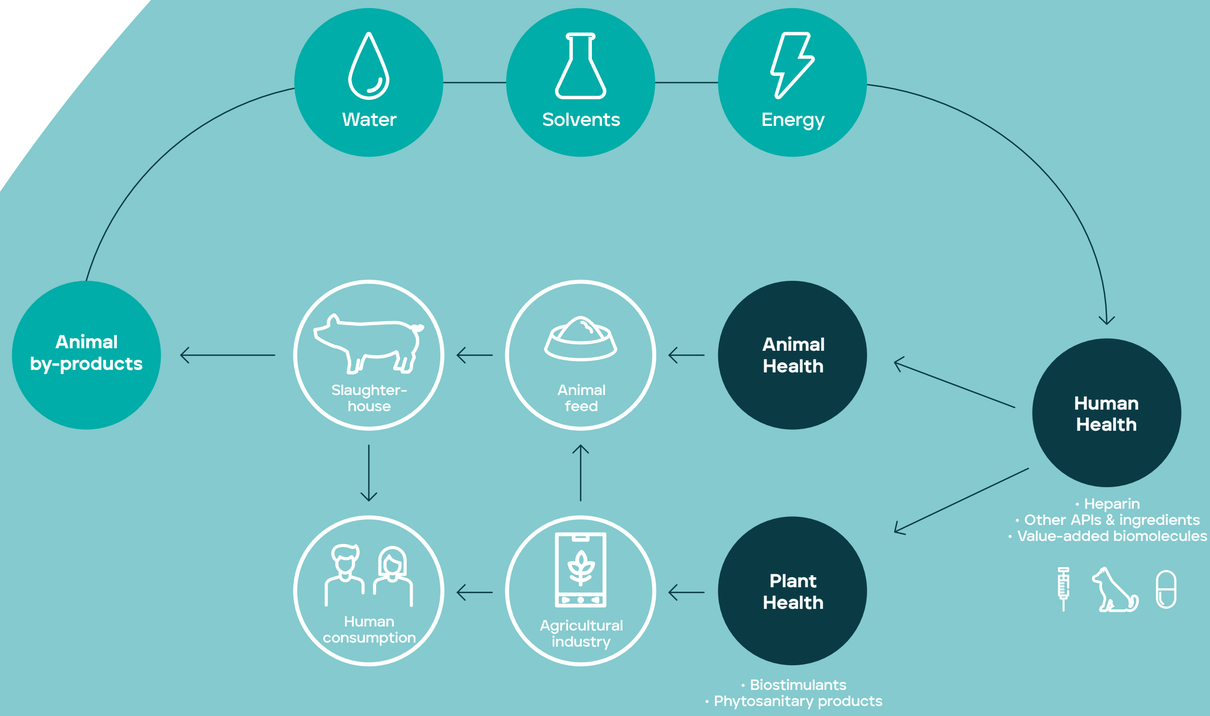
Bioiberica's production strategy is therefore 100% a Circular Bioeconomy. Starting with raw materials of 100% biological origin and using processes designed to minimise the consumption of water, energy and auxiliary raw materials, we obtain 100% efficient and sustainable final products.

Managing threats and opportunities

5.3 Sustainable business models

At Bioiberica we're convinced the principles of sustainability, economic efficiency, social fairness and environmental responsibility guarantee the continuity of our business and propel us into the future. We therefore want to progress even further with our Circular Bioeconomy strategy with the aim of improving the health and well-being of people, animals and plants and thereby improving the global health of the planet.

Sustainability, economic efficiency, social equality and environmental responsibility.



Managing threats and opportunities

5.3 Sustainable business models

Energy efficiency

Efficiency is one of the cornerstones of Bioiberica's Strategic Plan. The company is committed to the efficient management of energy use and consumption in the processes carried out, as a fundamental factor in sustainable development.

To this end, Bioiberica's main operational sites are certified according to ISO 50.001. The purpose of this certification is to provide a means to reduce energy consumption, associated financial costs and, consequently, greenhouse gas emissions.

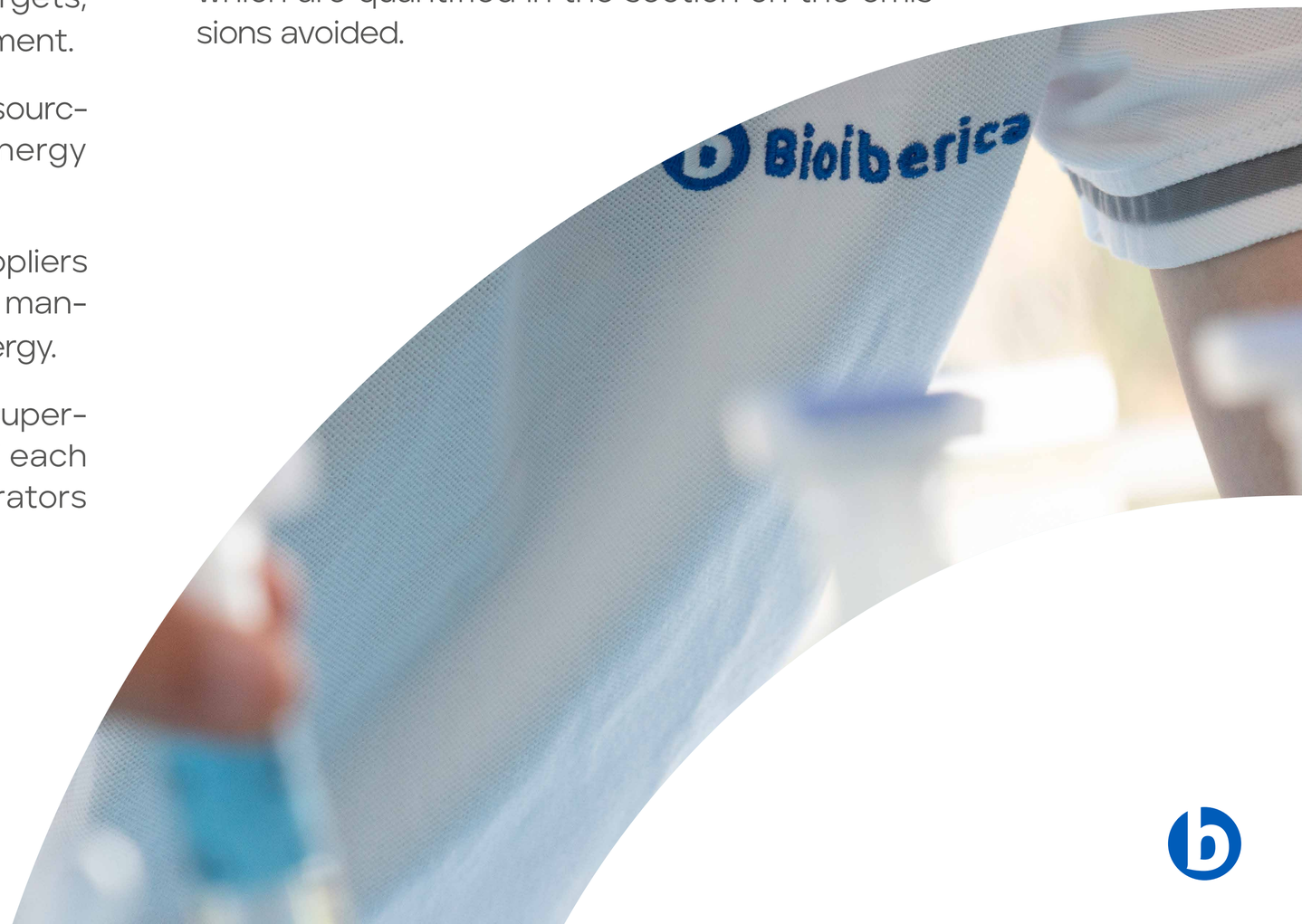
This commitment is embodied in the following principles:

- Promote efficiency in the use of energy resources in the company's facilities and activities throughout their life cycle, seeking to optimise the design of its processes and operations and the technology applied.
- Promote the search for and acquisition of energy-efficient products and services.
- Comply with current legislation and voluntarily acquired commitments related to the efficient use and consumption of energy.
- Establish energy efficiency goals and targets that promote continuous improvement in energy performance and the implementation of best energy practices.

Managing threats and opportunities

5.3 Sustainable business models

- Establish and maintain an Energy Management and Control System to evaluate and monitor compliance with the proposed goals and targets, within a framework of continuous improvement.
- Ensure the availability of information and resources necessary to achieve the proposed energy management targets.
- Encourage the participation of workers, suppliers and contractors in developing responsible management in the use and consumption of energy.
- Compliance with, adoption, follow-up and supervision of this policy is the responsibility of each and every one of the workers and collaborators involved in the organisation.
- As a result of this policy, we have numerous examples of success in energy efficiency improvements, which are quantified in the section on the emissions avoided.



Managing threats and opportunities

5.3 Sustainable business models

Water

We believe that water is the most important natural resource available to us on our planet and we consider access to water as a basic right for everyone. In addition, water is essential and necessary for the production of all our products, so we're firmly committed to managing it properly and conserving it sustainably for future generations.

Since 1997, after ISO 14001 and EMAS certification, the water vector has been one of our priorities, focusing our efforts on minimising its consumption and on sanitising the waste water resulting from our processes.

Bioiberica's commitments regarding water management are summarised as follows:

- Reduce the amount of water used per tonne of product.
- Ensure the company's activities respect local water resources.
- Ensure that any water returned to the environment is clean.
- Obtain sufficiently clean water for its internal reuse in activities permitted by regulations.
- Collaborate with others in society to raise awareness, conserve and guarantee access to water.

Water is essential and necessary to produce all our products, so we're ***firmly committed to managing it*** *properly and conserving it sustainably.*

Managing threats and opportunities

5.3 Sustainable business models

Water

Of note is the fact that we've already achieved several goals by obtaining authorisation to reuse treated water for cooling processes and, recently, for irrigation.

Water is the most important natural resource we have on our planet and we consider access to water as a basic right for everyone.

06 Goals and Targets

06 Goals and Targets

6.1 Our goals

The goal of reducing greenhouse gas emissions:

Scope 1+2: -30% by 2030 in absolute terms.
Scope 3: Calculation in progress.

Renewables

100% renewable electricity by 2024.

1000 kW of installed photovoltaic power.

Becoming climate-neutral by 2050.

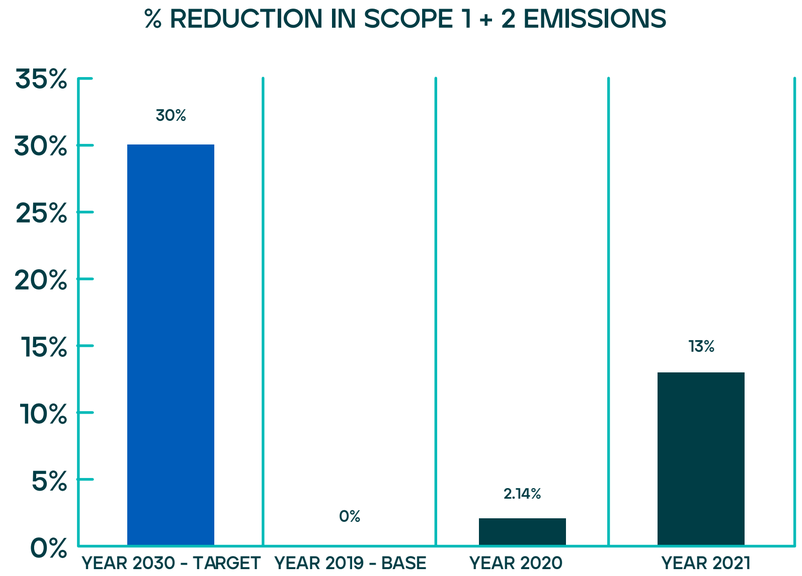
Managing threats and opportunities in the short, medium and long term.

Goals and Targets

6.2 Our milestones

01. The goal to reduce greenhouse gas emissions

- 30% reduction in Scope 1 & 2 emissions by 2030



- Reduction in Scope 3 emissions being calculated for 2022

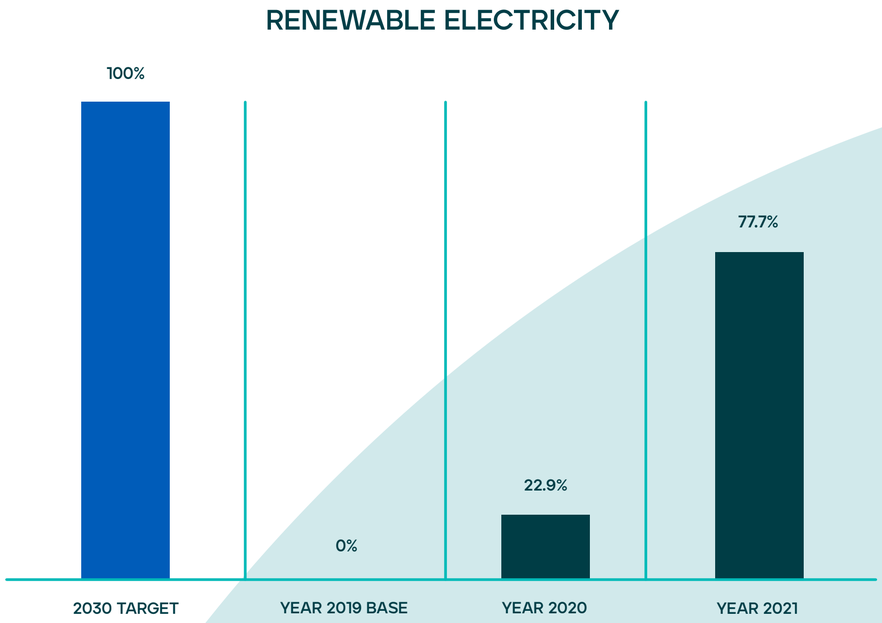
2022 has seen the calculation and definition of goals.

Goals and Targets

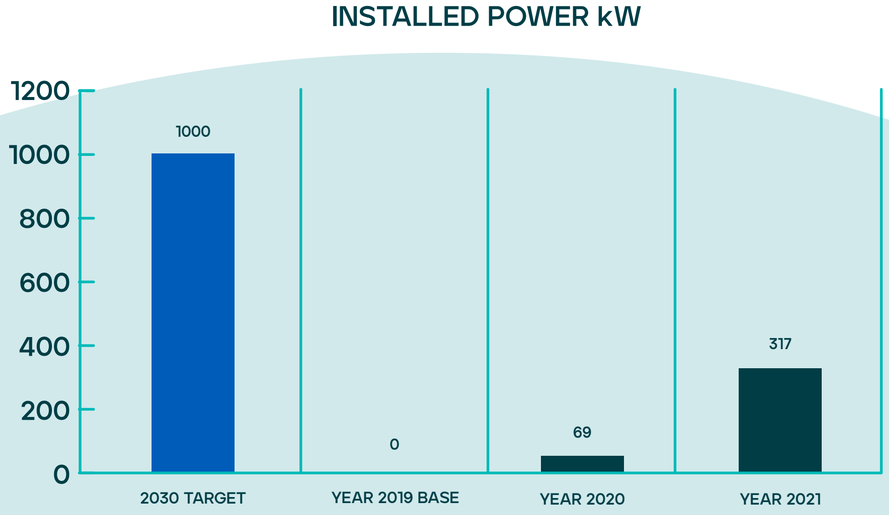
6.2 Our milestones

02. Renewable sources of electricity

- 100% renewable electricity by 2024



- Installation of 1000 kW photovoltaic power by 2024



Goals and Targets

6.2 Our milestones

03. Becoming climate-neutral by 2050

Although the measures currently adopted in terms of CO2 offsetting are limited, as we'll explain in later sections, we're in the process of adopting new measures of a broader nature, locally and/or internationally. The data for the last few years are as follows:

YEAR	TREES PLANTED	ESTIMATED CUMULATIVE ABSORPTION tCO_2e AT 20 YEARS
2019	50	18
2020	70	16
2021	68	3

We're working to broaden our local and/or international CO2 offsetting measures.

6.2 Our milestones

04. Managing threats and opportunities in the short, medium and long term

At Bioiberica we've implemented the recommendations made by the TCFD in its annual report. We've developed a procedure to analyse the Threats and Opportunities associated with climate change. Based on this analysis, we adopt measures to minimise the impact of the potential threats associated with our business. The decarbonisation of the business and its sustainable development have been identified as opportunities, based on:

- A change in the use of energy, focusing on renewable sources.
- Changes in processes aimed at minimising their impact.
- Application of energy efficiency measures in any activity.
- Application of circular economy concepts in all processes and activities.
- Minimising water use and treating to obtain reuse qualities for different processes (cooling, irrigation, etc.).

We adopt measures to minimise the impact of the potential threats associated with our business.

07 Recognition

At Bioiberica we've been working for a number of years on reducing the impact of our business on the environment in general and on climate action in particular.

07 Recognition

Our main industrial sites work in line with internationally recognised standards, with their corresponding certificates and seals.

For instance:

EMAS
Gestión ambiental verificada
REG.NO. ES-CAT-000309

ISO 50001
BUREAU VERITAS Certification

ISO 14001
BUREAU VERITAS Certification

Qualified by Ecovadis and Ecodesk:

BIOIBERICA

Spain. Manufacture of pharmaceutical products, chemical medicinal substances and botanical products for pharmaceutical use.

SILVER
2021
ecovadis
Sustainability Rating

60
/100

84th
percentile

07 Recognition

We work in line with the **SDGs (Sustainable Development Goals).**

We have been certified by Bureau Veritas in the following six SDGs and are currently documenting our upcoming certification for SDG 13 and 6.

08 Metrics, goals and trends

Metrics, goals and trends

8.1 Greenhouse gas emissions (Scope 1 & 2)

Consumption data by site from stationary and mobile sources.

Trend in fuel use by site							
Site	Fuel	2019	2020	2021	2020&2019	2021&2020	2021&2019
Nebraska USA	Natural gas MWh	4,974	5,852	8,647	18%	47.8%	74%
	Diesel Litres	11,813	16,595	11,083	40%	-33.2%	-6%
Sioux USA	Natural gas MWh	3,341	2,299	1,488	-31%	-35.3%	-55%
Brazil	Wood m3	5,227	5,666	5,422	8%	-4.3%	4%
Germany	Natural gas	7,699	20,045	24,193	160%	20.7%	214%
Poland	Propane / Natural gas MWh	11,262	11,889	11,698	6%	-1.6%	4%
Italy	Natural gas MWh	5,635	10,878	10,623	93%	-2.3%	89%
P. Biológicos ES	Natural gas MWh	6,388	8,669	6,449	36%	-25.6%	1%
Bioiberica-central ES	Natural gas MWh	67,487	69,982	66,230	4%	-5.4%	-2%
	Diesel	7,833	9,733	7,000	24%	-28.1%	-11%
Bioiberica Sur ES	Heating oil C	239,130	124,140	0	-48%	-100.0%	-100%

08 Metrics, goals and trends

8.1 Greenhouse gas emissions (Scope 1 & 2)

Consumption data by site from stationary and mobile sources.

Fuels used by stationary and mobile sources						
	2019	2020	2021	2020&20219	2021&2020	2021&2019
Natural gas (MWh)	106,787	129,614	129,328	21%	-0.2%	21%
Wood (m3)	5,227	5,666	5,422	8%	-4.3%	4%
Diesel (Litres)	258,776	150,468	18,083	-42%	-88.0%	-93%

Metrics, goals and trends

8.1 Greenhouse gas emissions (Scope 1 & 2)

Electricity consumption data by site and source in MWh.

Trend in consumption of renewable and non-renewable energy												
Sites	2019		2020		2021		2020&2019		2021&2020		2021&2019	
	Mix grid	Renewable	Mix grid	Renewable	Mix grid	Renewable	Mix grid	Renewable	Mix grid	Renewable	Mix grid	Renewable
Nebraska USA	1,019	0	1,061	0	1,421	0	4%	-	34%	-	39%	-
Sioux USA	1,385	0	1,194	0	1,187	0	-14%	-	-1%	-	-14%	-
Brazil	689	0	552	0	579	0	-20%	-	5%	-	-16%	-
Germany	2,826	0	1,813	561	1,550	1,315	-36%	-	-15%	134%	-45%	-
Poland	356	0	412	0	366	0	16%		-11%		3%	
Italy	952	0	952	0	1,045	0	0%	-	10%	-	10%	-
P. Biológicos ES	1,608	0	1,181	452	0	1,668	-27%	-	-100%	269%	-100%	-
Bioiberica-central ES	18,232	0	13,678	5,240	0	18,903	-25%	-	-100%	261%	-100%	-
Bioiberica Headquarters-ES	68	0	108	0	191	0	59%	-	77%	-	182%	-
Bioiberica Sur ES	203	0	72	0	0	0	-65%	-	-100%	-	-100%	-
TOTAL	27,336	0	21,023	6,253	6,339	21,887	-23%		-70%	250%	-77%	-

Metrics, goals and trends

8.1 Greenhouse gas emissions (Scope 1 & 2)

Electricity consumption data by site and source in MWh.

Electricity by source in MWh						
	2019	2020	2021	2020&2019	2021&2020	2021&2019
Purchases Mix Grid	27,336	21,023	6,339	-23%	-69.8%	-77%
Purchases Renewable	0	6,253	21,644		246.1%	
Self-produced Renewable	0	6	243		3863.4%	
TOTAL	27,336	27,283	28,226	-0.2%	3.5%	3%

Metrics, goals and trends

8.1 Greenhouse gas emissions (Scope 1 & 2)

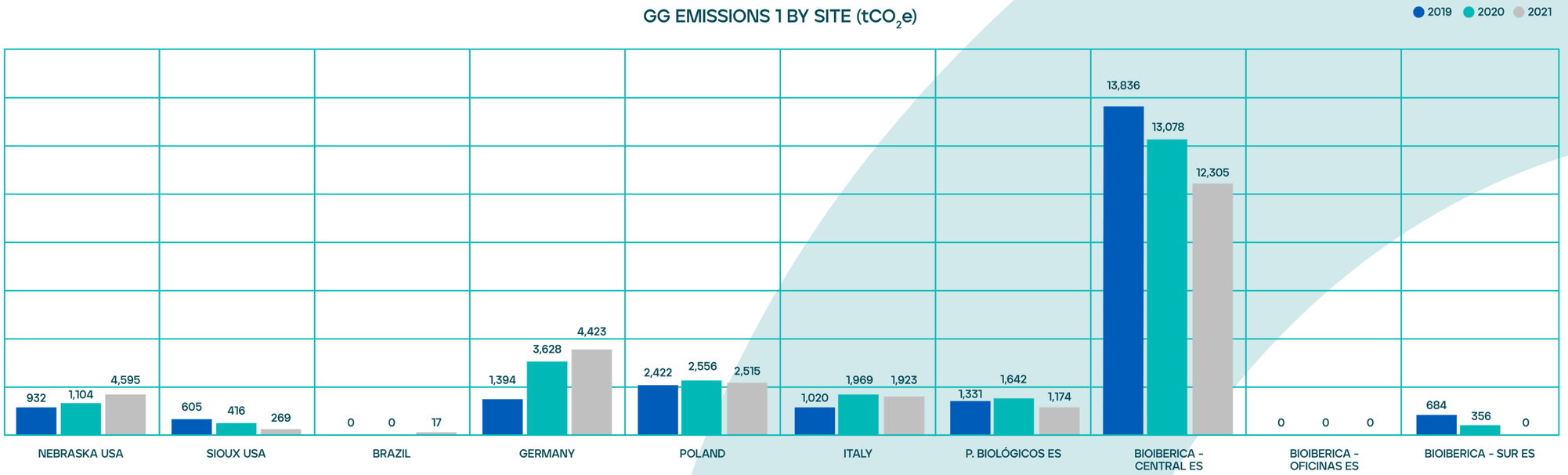
Greenhouse gas emissions
Scope 1 (tCO_2e). Absolute values.

GREENHOUSE GAS EMISSIONS Scope 1. Absolute values (tCO_2e)									
Site	A2019	Weight by Site 2019	A2020	Weight by Site 2020	A2021	Weight by Site 2021	2020 & 2019	2021 & 2020	2021 & 2019
Nebraska USA	932	4.2%	1,104	4.5%	1,595	6.6%	18%	44%	71.1%
Sioux USA	605	2.7%	416	1.7%	269	1.1%	-31%	-35%	-55.5%
Brazil	0	0.0%	0	0.0%	17	0.1%			
Germany	1,394	6.3%	3,628	14.7%	4,423	18.3%	160%	22%	217.4%
Poland	2,421	10.9%	2,556	10.3%	2,515	10.4%	6%	-2%	3.9%
Italy	1,020	4.6%	1,969	8.0%	1,923	7.9%	93%	-2%	88.5%
P. Biológicos ES	1,331	6.0%	1,624	6.6%	1,174	4.8%	23%	-29%	-11,8%
Bioiberica-central ES	13,836	62.3%	13,078	52.8%	12,305	50.8%	-5%	-6%	-11,1%
Bioiberica Headquarters-ES	0	0.0%	0	0.0%	0	0.0%			
Bioiberica Sur ES	684	3.1%	356	1.4%	0	0.0%	-48%	-100%	-100,0%
TOTAL	22,223		24,749		24,222		11%	-2%	9,0%

Metrics, goals and trends

8.1 Greenhouse gas emissions (Scope 1 & 2)

Greenhouse gas emissions Scope 1 (tCO_2e). Absolute values.



Metrics, goals and trends

8.1 Greenhouse gas emissions (Scope 1 & 2)

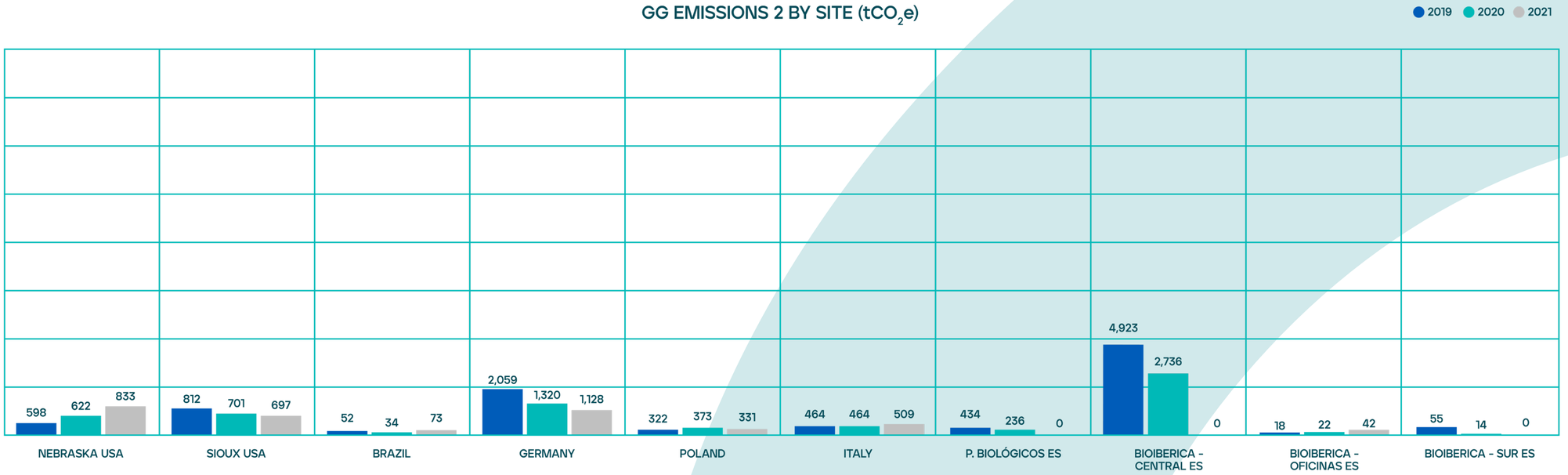
Greenhouse gas emissions
Scope 2 (tCO_2e). Absolute values.

GREENHOUSE GAS EMISSIONS Scope 2. Absolute values (tCO_2e)									
Sites	A2019	Weight by Site 2019	A2020	Weight by Site2020	A2021	Weight by Site 2021	2020 & 2019	2021 & 2020	2021 & 2019
Nebraska USA	598	6.1%	622	9.5%	833	23.1%	4.1%	33.9%	39.4%
Sioux USA	812	8.3%	701	10.7%	697	19.3%	-13.7%	-0.6%	-14.2%
Brazil	52	0.5%	34	0.5%	73	2.0%	-34.1%	114.7%	41.5%
Germany	2,059	21.1%	1,320	20.2%	1.128	31.2%	-35.9%	-14.5%	-45.2%
Poland	322	3.3%	373	5.7%	331	9.2%	15.8%	-11.2%	2.9%
Italy	464	4.8%	464	7.1%	509	14.1%	0.0%	9.8%	9.8%
P. Biológicos ES	434	4.5%	236	3.6%	0	0.0%	-45.6%	-100.0%	-100.0%
Bioiberica-central ES	4,923	50.6%	2,736	41.9%	0	0.0%	-44.4%	-100.0%	-100.0%
Bioiberica Headquarters-ES	18	0.2%	22	0.3%	42	1.2%	18.1%	94.8%	130.0%
Bioiberica Sur ES	55	0.6%	14	0.2%	0	0.0%	-73.9%	-100.0%	-100.0%
TOTAL	9,736		6,521		3.614		-33%	-45%	-62.9%

Metrics, goals and trends

8.1 Greenhouse gas emissions (Scope 1 & 2)

Greenhouse gas emissions Scope 2 (tCO_2e). Absolute values.



Metrics, goals and trends

8.1 Greenhouse gas emissions (Scope 1 & 2)

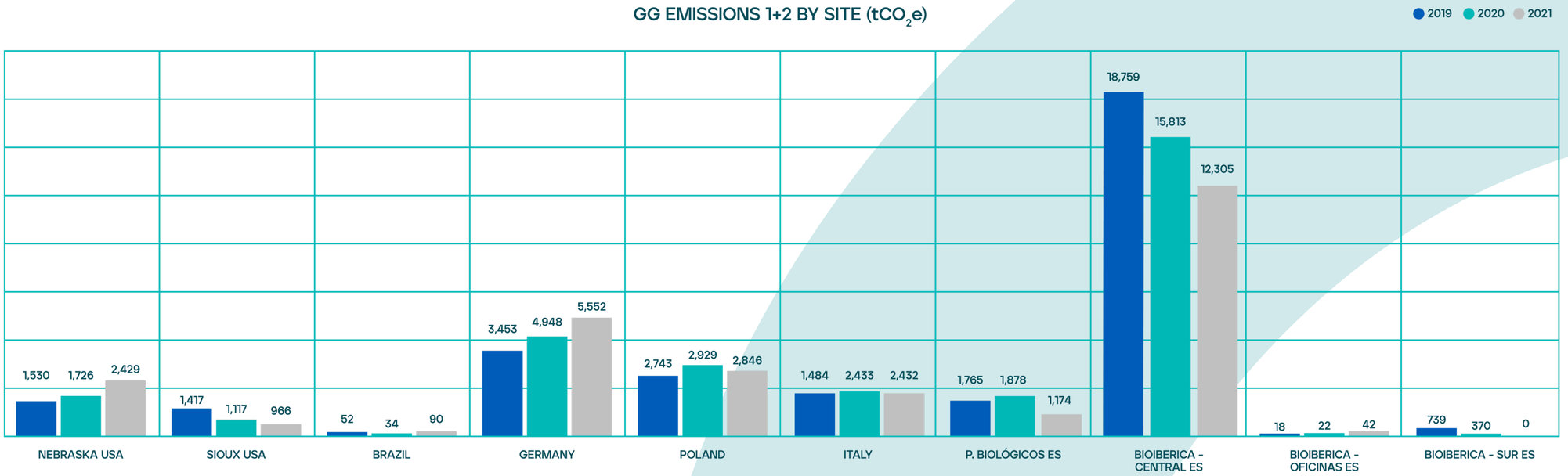
Greenhouse gas emissions
Scope 1 & 2. Absolute values (tCO_2e).

GREENHOUSE GAS EMISSIONS Scope 1&2. Absolute values (tCO_2e)									
Sites	A2019	Weight by Site 2019	A2020	Weight by Site 2020	A2021	Weight by Site 2021	2020 & 2019	2021 & 2020	2021 & 2019
Nebraska USA	1,530	4.8%	1,726	5.5%	2,429	8.7%	13%	41%	59%
Sioux USA	1,417	4.4%	1,117	3.6%	966	3.5%	-21%	-13%	-32%
Brazil	52	0.2%	34	0.1%	90	0.3%	-34%	165%	75%
Germany	3,453	10.8%	4,948	15.8%	5,552	19.9%	43%	12%	61%
Poland	2,743	8.6%	2,929	9.4%	2,846	10.2%	7%	-3%	4%
Italy	1,484	4.6%	2,433	7.8%	2,432	8.7%	64%	0%	64%
P. Biológicos ES	1,765	5.5%	1,878	6.0%	1,174	4.2%	6%	-38%	-34%
Bioiberica-central ES	18,759	58.7%	15,813	50.6%	12,305	44.2%	-16%	-22%	-34%
Bioiberica Headquarters-ES	18	0.1%	22	0.1%	42	0.2%	18%	95%	130%
Bioiberica Sur ES	739	2.3%	370	1.2%	0	0.0%	-50%	-100%	-100%
TOTAL	31,959		31,270		27,836		-2.2%	-11%	-13%

Metrics, goals and trends

8.1 Greenhouse gas emissions (Scope 1 & 2)

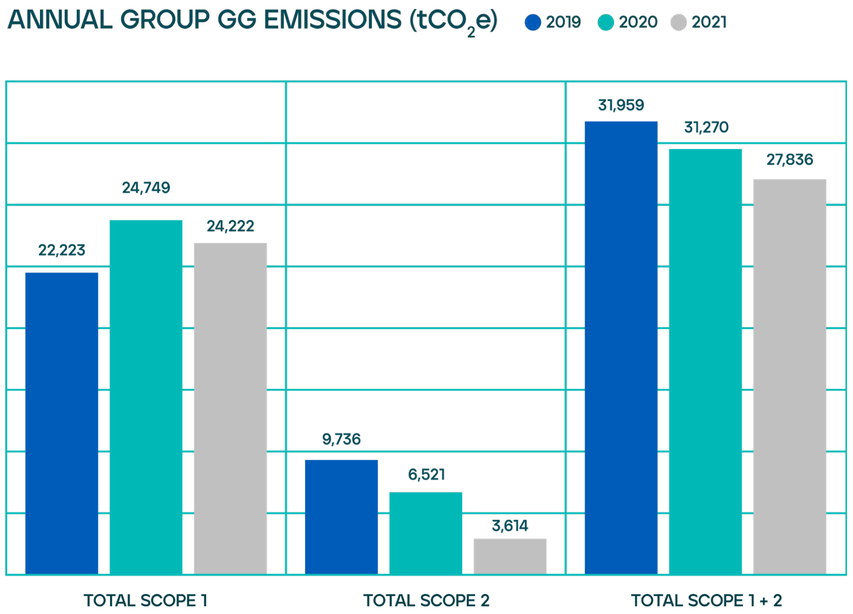
Greenhouse gas emissions
Scope 1 & 2. Absolute values (tCO_2e).



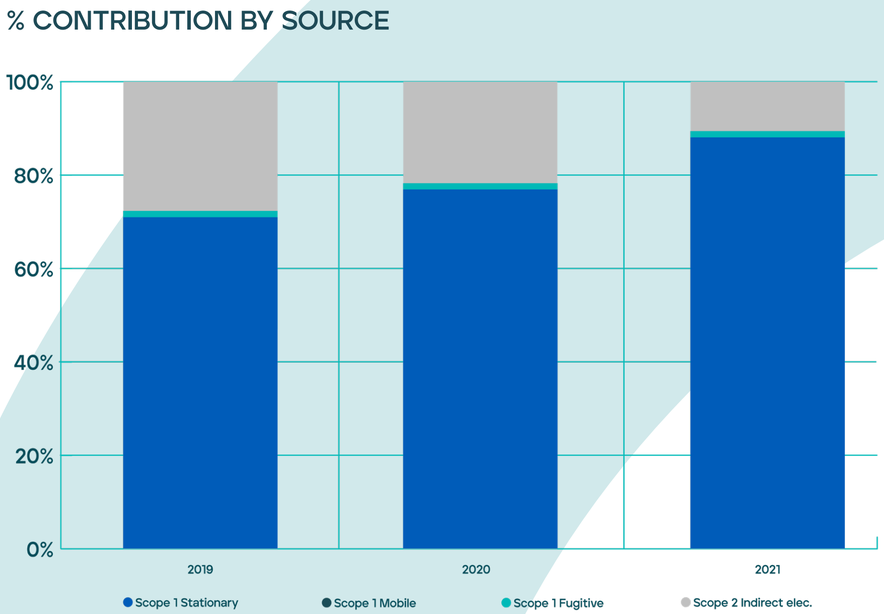
Metrics, goals and trends

8.1 Greenhouse gas emissions (Scope 1 & 2)

Overall trend Scope 1 & 2. Absolute total values.



Trend in contribution by source.

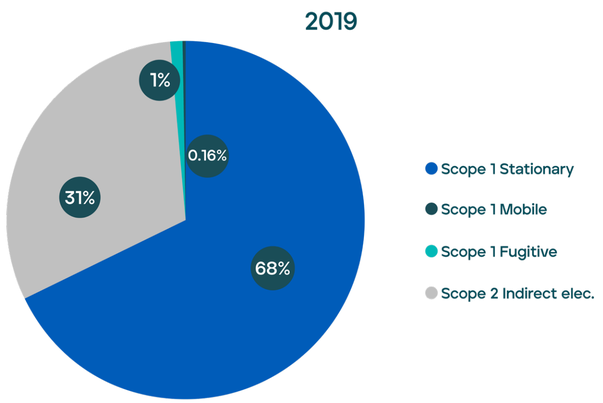


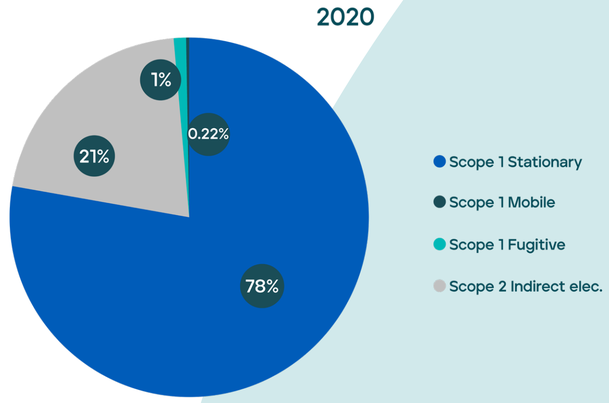
08 Metrics, goals and trends

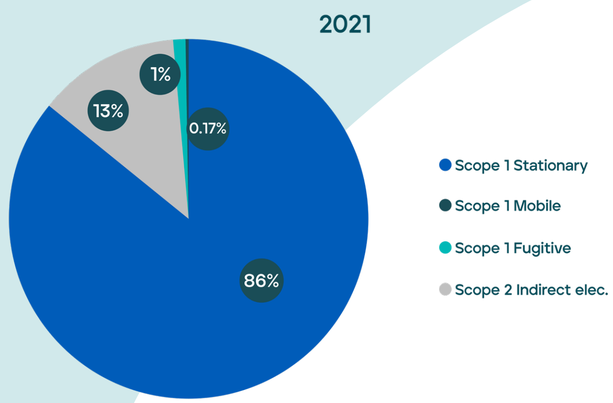
8.1 Greenhouse gas emissions (Scope 1 & 2)

Trend in contribution by source.

	Type	2019	2020	2021	2020 & 2019	2021 & 2020	2021 & 2019
Scope 1	Stationary	21,873	24,299	23,879	11%	-2%	9%
	Mobile	51	69	47	34%	-31%	-8%
	Fugitive	299	381	296	27%	-22%	-1%
Scope 2	Indirect elec.	9,736	6,521	3,614	-33%	-45%	-63%
TOTAL		31,959	31,270	27,836	-2%	-11%	-13%







Metrics, goals and trends

8.2 Greenhouse gas emissions (Scope 3)

Metrics, goals and trends

8.3 Trends in the goals

Bioiberica's aim is to reduce its Scope 1 & 2 emissions by 30% in absolute terms (tCO2e) by 2030 compared with 2019, which is the base year. A big step forward can be seen in 2021 compared with the previous year; this is particularly due to electricity from renewable sources being used at the main facilities. The reduction achieved was 13% with respect to the base year in absolute terms. The company promotes the purchase of electricity with a guarantee of origin and is progressively moving towards the goal of 100% by 2024. In 2021, 77.5% of the electricity consumed was from renewable sources, a significant improvement considering that, in 2019, renewable consumption was 0.

It's important to note that, in the case of Scope 1 fixed emissions, and essentially due to the use of natural gas in almost all plants, the variation in consumption is related to production rather than improvement measures. As we all know, at present there are few greener alternatives to natural gas as a fuel. However, in terms of efficiency, some actions have been taken to improve the performance of steam production equipment. At Bioiberica, the boiler burners have been modified and the regulation has been automated, with performance expected to improve by 1-1.5%. Two 2 economisers will also be included this year, with performance expected to improve by approximately 5%. Two compressors have also been replaced by more modern and therefore more efficient ones.

Metrics, goals and trends

8.3 Trends in the goals

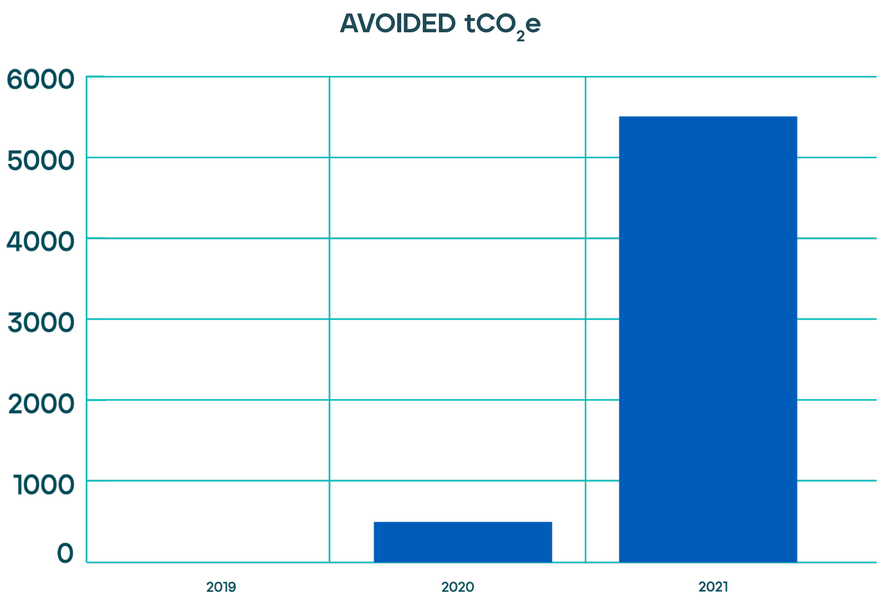
At our Olèrdola site, an old steam boiler has been replaced by a new one. This new equipment incorporates, as standard, the automation of the burner regulation as well as an economiser, automatic purges, etc. We estimate that performance will increase by about 5-6%. One compressor and one refrigeration unit have also been replaced with more modern and efficient ones.

The company promotes the purchase of electricity with a guarantee of origin and is progressively moving towards the goal of 100%.

09 Emissions avoided

09 Emissions avoided

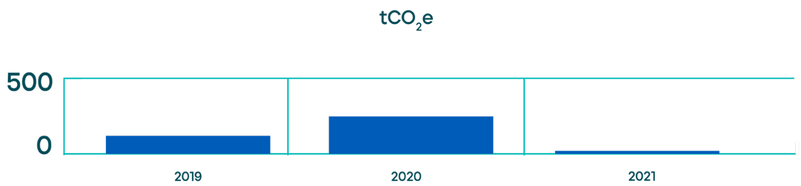
9.1 Use of renewable energy

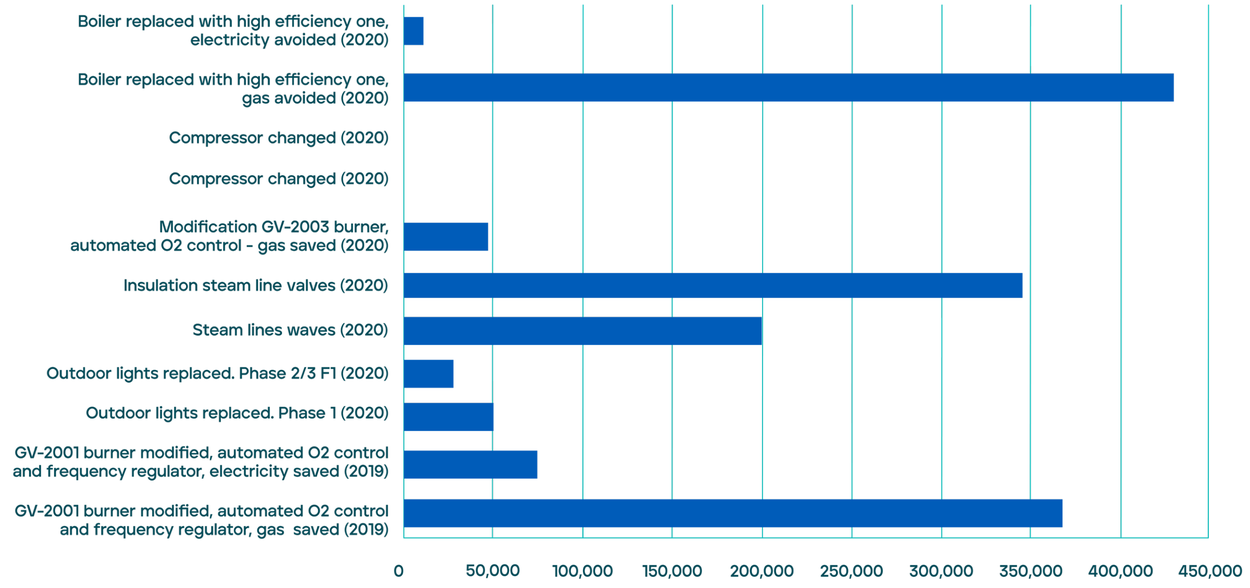


Avoided by energy source			
	2019	2020	2021
tCO2e	0	540	5555

Emissions avoided

9.2 Consumption avoided through Energy Efficiency measures





10 Neutrality and offsetting emissions

The company is committed to becoming emission-neutral by the middle of the century by reducing its emissions and offsetting non-avoidable emissions through its participation in voluntary, verifiable offset projects. Several local and international offset projects are currently being evaluated.

11 Conclusions

11 Conclusions

- The Climate Strategy is integrated within the Corporate Strategy
- Targets defined for reducing green-house gas emissions
- Goal set of 100% electricity from re-newable sources
- Goal set of becoming climate-neutral by 2050
- Delivering on our roadmap of emission reduction targets
- The recommendations of the Task Force on Climate-Related Financial Disclosures have been incorporated in our reports
- Threats and opportunities assessed related to climate change
- Decarbonising the economy with our products and services

12 Source of the data

12

Source of the data

12.1 Consumption data

Energy consumption data are regularly provided by those responsible for monitoring energy at the various sites and are corroborated by invoices.

Bioiberica measures the greenhouse gas emissions from its activities worldwide.

Source of the data

12.2 Calculation method and emission factors

Bioiberica measures the greenhouse gas emissions from its activities worldwide. To calculate the footprint of plants located in Spain, we use the tool published on the website of the Ministry of Ecological Transition. For international plants we use the Greenhouse Gas Protocol.

For the calculation, operational control is considered as an organisational limit. Under this approach, a company includes emissions from those sources over which it has full authority to introduce and implement its operational policies.

Source of the data

12.2 Calculation method and emission factors

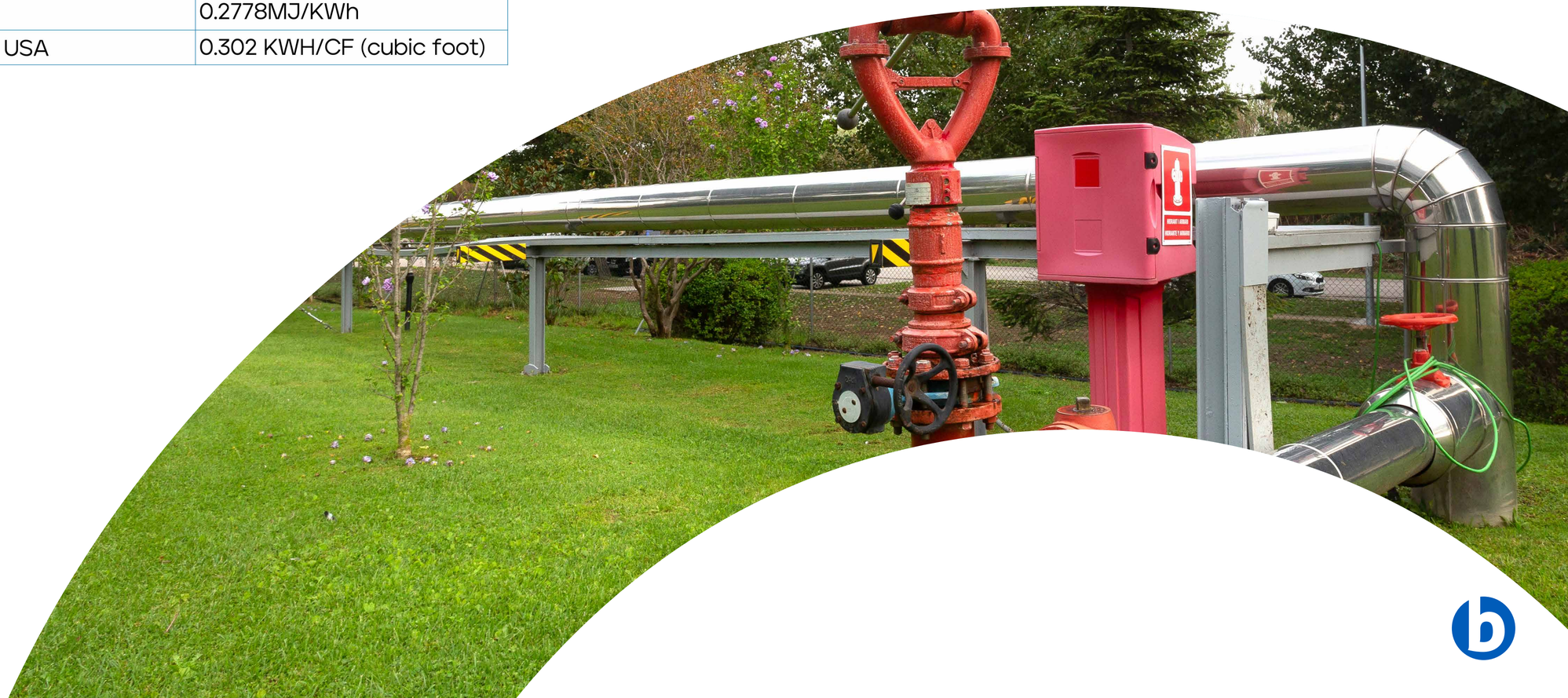
The greenhouse gas emissions generated by activities are classified as follows:

- Direct emissions (Scope 1). Those from sources owned or controlled by the company. These mainly come from:
  - Combustion of fuels in stationary equipment (boilers, dryers ...) to produce electricity, heat or steam. Combustion of fuels in vehicles owned or controlled by the company.
  - Fugitive emissions. Refrigerants.
- Indirect emissions (Scope 2). Generated as a result of the consumption of electricity purchased from other companies that produce or control it.

Source of the data

12.3 Changes in units and various heat rates

Changes in units and Heat rates	
1MMBtu	293.07107 KWh
HHV Natural Gas	11.98KWh/Nm3
LHV Natural Gas	10.7 KWh/Nm3
HV Natural Gas (Italy)	38.52MJ/Smc
	0.2778MJ/KWh
HV Natural Gas USA	0.302 KWH/CF (cubic foot)



Bioiberica

Energy Management and Climate Action

Sustainability Division