

Sustainability Report 2022



Volta Energy Solutions Hungary / Europe Kft.

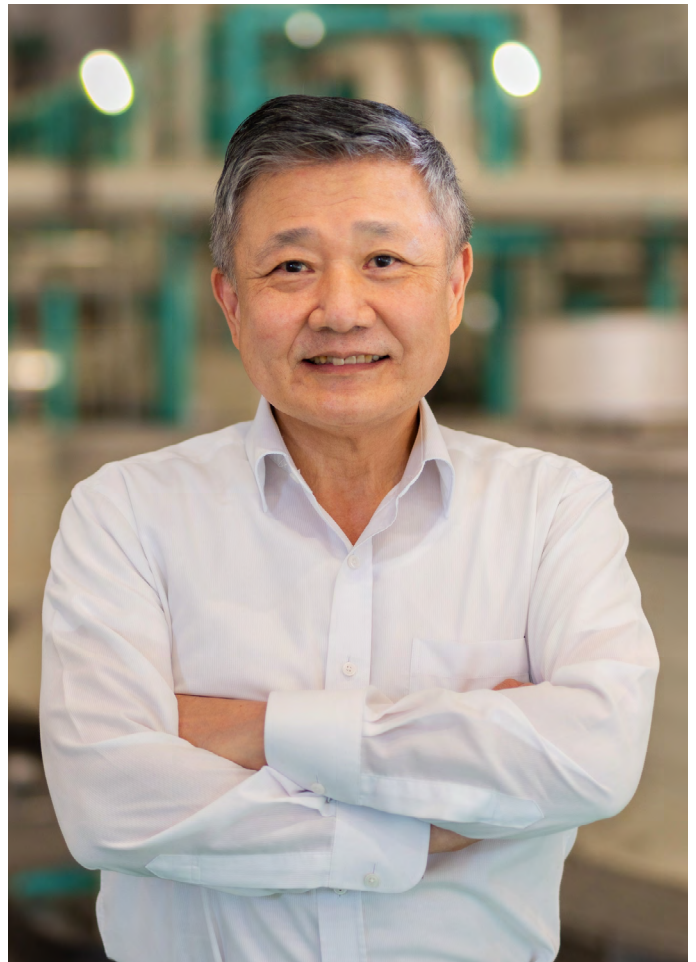
SUSTAINABILITY REPORT 2022

Volta Energy Solutions Hungary / Europe Kft.

DESIGN THE FUTURE, SPARK THE GROWTH

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Foreword

It is my pleasure to launch our second sustainability report of Volta Energy Solutions Hungary (Volta), the subsidiary of our global organization, Solus Advanced Materials. We at Solus Advanced Materials aim to be a global leader that provides customers with advanced materials and innovative solutions based on our excellent technological prowess that creates future value.

With this report we fulfil our ambition to show you the way we manage our very complex business in a sustainable way. We all know that sustainability is a key driver of today's business, which will be a critical component for the business in the long term. Our future oriented divisions give answer to some of the most important sustainability question of humankind: electromobility, technology development and biomaterials for the pharmaceutical, cosmetic and nutraceutical industries.

Although we are committed to sustainability, we know that our industry is an energy intense business. We are aware of this impact, and therefore in 2022 we have prepared our product carbon footprint, our life cycle assessment and our corporate carbon footprint. The latter we updated in 2023 as well to monitor our progress. This knowledge will guide us on further managing and reducing our sustainability impact.

In 2022, we have accomplished some major milestones in the development of our sustainable operation. We have further increased our production, however, in parallel with that we could decrease our carbon intensity. Moreover, we could still maintain our production with recycled materials and, last but not least, we have invested even more in the development of energy efficiency throughout 2022.

This report sets the frame for our sustainability approach and provide you with detailed picture on our environmental impacts and activities. We are committed to continue our journey and complement our overview with the social and governance topics in the upcoming years depending on our resources. Sustainability is key, and we are committed to keep environmental, social and governance impacts in our focus. Our company is in the phase of expansion thus the control of the growing impact requires relentless effort. This report is not our internal material, but a transparent declaration on our endeavours. We invite you to engage in this dialogue with your opinion and improvement ideas.

Wishing you a good read,

Kwangpyuk SUH

Solus Advanced Materials
Vice Chairman / CEO

At Volta, our ambition is to provide the world with leading and innovative products while understanding our responsibility for sustainability. We are part of a big international group, and in 2019 we established our affiliate and manufacturing site in Hungary. In our first couple of years of operations here, we dedicated attention and resources to understand our impact on the environment, and sustainability at large. Operating sustainably is an integral part of our business therefore we want to give everyone a transparent view on who we are, and what we do. Our industry is contributing to one of the biggest challenges of humankind – electromobility. We produce the key components of batteries for electric cars. Transport of people and goods are significant contributors to climate change and global warming, and we are proud to be able to contribute to the solution as well.

Keunman KWAK

Volta Energy Solutions S.a.r.l. CEO

Producing battery foil is a special process as an inseparable part of the electromobility industry. It requires a lot of expertise which we've developed by building on our know-how about the processes and materials we use. We target to improve our processes to make our production more efficient with less impact on our environment at the same time. Product and process development objectives and sustainability goals are strongly connected which can provide our sustainable development in the market.

Junghyun LEE

Volta Energy Solutions
Hungary / Europe Kft.
Head of Manufacturing
& Technology Centre

Sustainability has become a key topic in finances nowadays. Financial tools are strongly connected with ESG systems to minimize risks in long term profitability. By monitoring our material issues, we can more efficiently maintain balance between our revenue and impacts. The measurement and communication of our sustainability performance can help us to achieve better evaluation by rating agencies. Moreover, the results of the sustainability rating have such positive effects on our perception by the market. ESG makes it possible to work with financial institutes and enables us to access competitive financing conditions such as discounted loan rates and to deepen relationships and interactions with banks.

Minsu SHIM

Volta Energy Solutions S.a.r.l. CFO

Smooth and efficient manufacturing includes efficient use of resources. Sustainability and efficiency go hand in hand in our operation. By increasing productivity, we can reduce emissions per unit of net production.

Jenő MARÓDI

Volta Energy Solutions
Hungary / Europe Kft.
Head of Manufacturing
Operating Centre

As a market leader company, we offer high-standard product which is vital and inseparable component of the electromobility industry. We demonstrate the importance of sustainability through our product which we export to all over the globe. Currently, sustainability issues are raising all over the world, and became part of customer expectations: we fully support this notion.

Junwook LEE

Volta Energy Solutions
Hungary / Europe Kft.
Head of Sales Department

When we design a new greenfield site, or a new CAPEX investment, sustainability kicks in from design. With this approach we build a better and more efficient infrastructure to our business and, at the same time, we minimize the sustainability impacts of our constructions. Sustainability became a significant part of daily operation from design to project management. Properly choosing materials or technology we can significantly reduce our carbon footprint. This brings not only lower operating cost but at the same time lower environmental impacts. Keeping this in mind we are committed to implement a thorough sustainability scheme at our company.

Jongwoo KIM

Volta Energy Solutions
Hungary / Europe Kft.
Managing Director

Sustainability principles and environmental responsibility are key elements in our business which we are committed to prioritize in our operation. From a business management perspective, conscious sustainability strategy planning helps us to minimize risks and further improve our long-term financial performance in our Hungarian production facilities. Hungary is one of our strategic point of operation, thanks to its favourable geographical location from where we can effectively supply electromobility's rapidly growing market demand with our product.

Hyeongjun CHOE

Volta Energy Solutions
Hungary / Europe Kft.
Business Management CFO

1. About this report

This is the second sustainability report of Volta Energy Solutions Hungary / Europe Kft. since the company established its presence in the Hungarian market in 2019-2020 to produce copper foil for car battery producers.

Going forward, we will refer to Volta Energy Solutions Hungary / Europe Kft. as Volta to ease the read of this summary.

Reporting approach

This report is for our stakeholders – employees, customers, suppliers, investors and financial institutions, authorities, NGO's and anyone interested from the public. We want to provide them with a transparent and credible view on who we are and what we do.

This report is based on the Global Reporting Initiative (GRI) and takes the requirements of this international standard as a reference. This report also describes the way how we contribute to the global Sustainable Development Goals (SDG) and how our activities linked to the international sustainability frameworks.

Boundaries

The scope of this report is Volta's local Hungarian operations at our Környe manufacturing site. This is where all the critical sustainability impacts happen. The time boundary of this report is 2022. We established this production centre in 2020 as a greenfield investment, and our first full year operation was in 2021, thus limited historic data is available regarding the year 2021 to track the trends and dynamics of our environment-focused sustainability performance. In the upcoming years we will keep on measuring and continuously communicating our results, where we can already experience some positive impact, for instance, in carbon intensity progress of the whole operation.

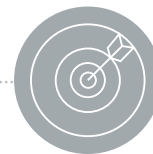
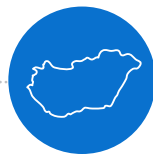
Targets

Ambitious targets drive performance. Even with this understanding, we are in the progress of establishing and communicating our targets in the upcoming years.

Volta is aware of its sustainability responsibilities and fully committed to reduce its carbon footprint which will be elaborated throughout 2023, based on the latest results of 2022 GHG emissions.

This report emphasizes our commitments and gives a good insight into our developments in all the key fields of sustainability by comparing our results with the performance of 2021. We have reached the level of full scale-up operation at our first production facility by the end of 2022. We are committed to set ambitious targets on climate to reduce our CO₂ emission by 55% till 2030 and achieve net zero by 2050.

Our operation is gradually expanding to higher production intensity, however, in parallel of this we aim to progressively reduce our carbon intensity at the operational level which is highlighted in this report as a critical topic. In the forthcoming years we also keep the climate related regulations, such as CSRD on our radar, because it will be important for us to align with it and report according to its criteria.



This is Volta



2. This is Volta

Solus Advanced Materials (Solus), an electric component and copper product maker in South Korea, aiming to provide leading solutions for core materials in electric vehicles, display materials and biomaterials. Solus earmarked significant investment in the construction of a battery copper foil factory in Quebec, Canada. The plant will start the mass production of 17,000 tons of foils in the second half of 2024.

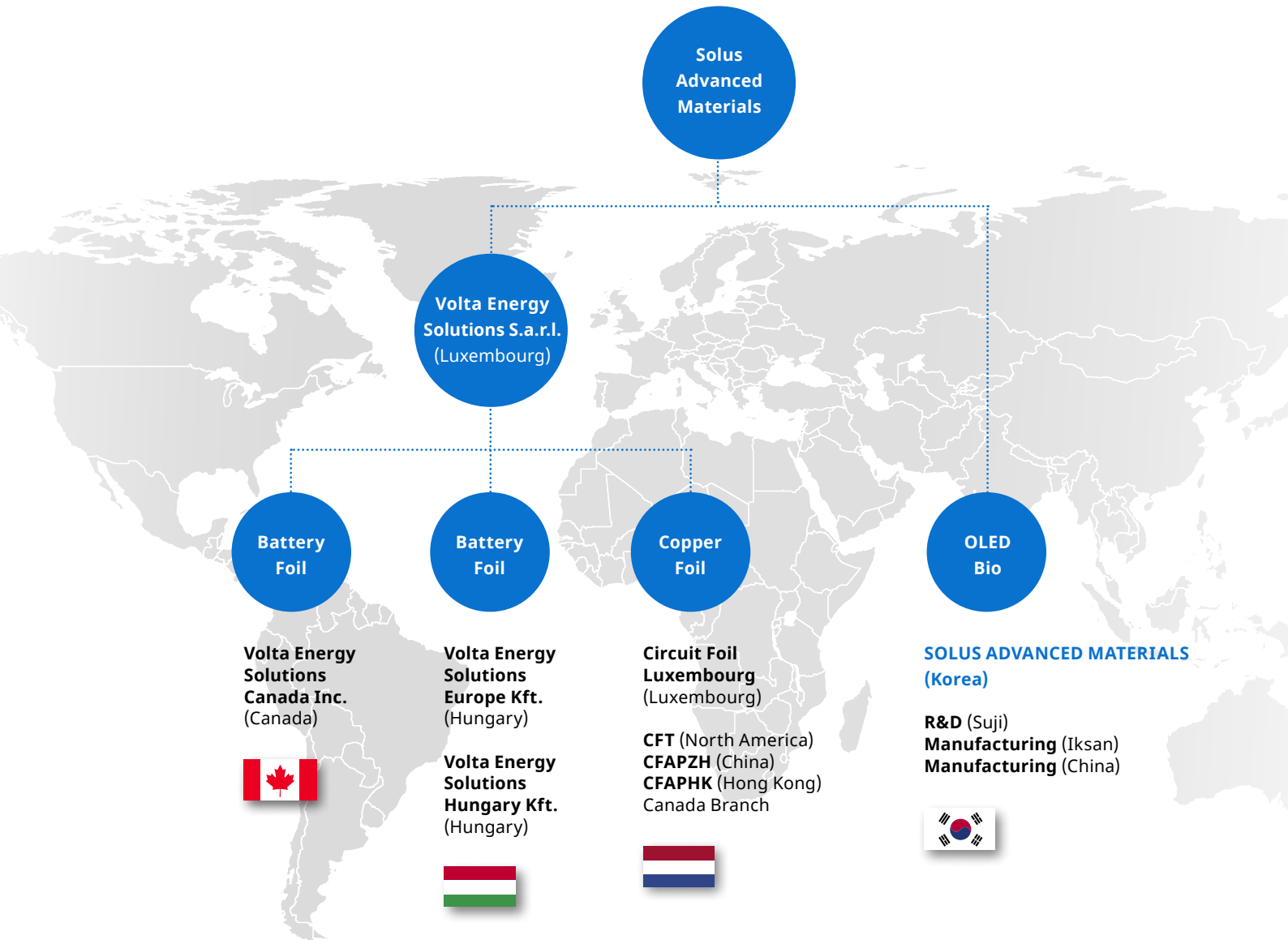
Apart from headquarters, South Korea is home to the Iksan sites for biomaterials like cosmetics, pharmaceuticals and nutraceuticals, and electro display mate-

rials like OLED for different types of screens. Suji R&D Centre also supports innovation in South-Korea. In the name of dynamic growth and diversification, Solus expanded their operations to Europe and established sites in Luxembourg for copper foil and most recently in Hungary for battery copper foil.

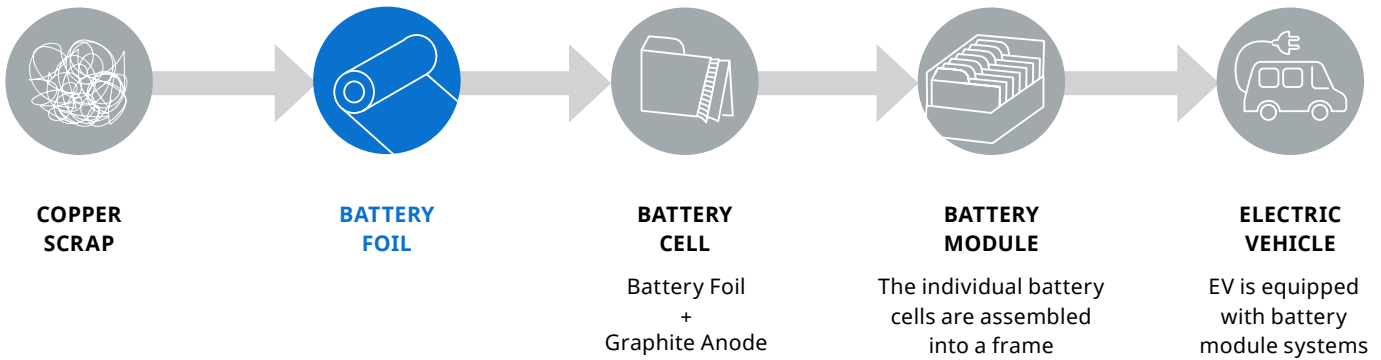
Battery copper foil is a core material of the electric car battery. Solus Advanced Materials has completed its development of high-end, compact, high-efficiency battery copper foil that can help increase the mileage of electric cars.

The battery foil plant that was constructed in Hungary in early 2020 is the only battery copper foil production base in Europe. Solus Advanced Materials will enhance its competitiveness steadily through the stable production of high-quality battery copper foil.

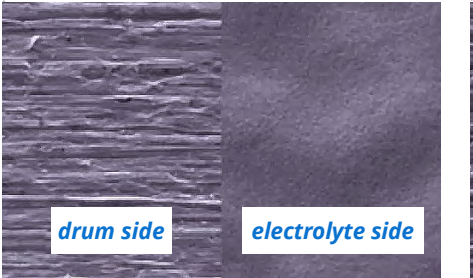
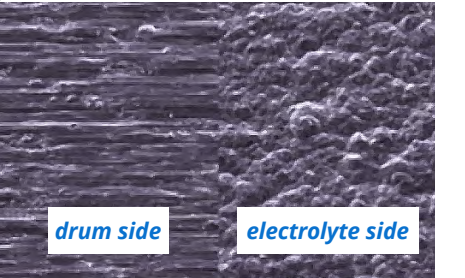
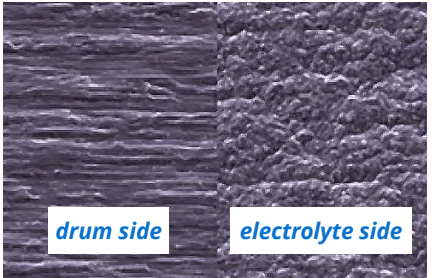
Battery foil is an essential component of electronic equipment in the form of circuits, transmission and most importantly, in batteries it serves as conduit.



SOLUS ADVANCED MATERIALS



Main Product

Standard battery copper foil (BF-PLSP)	High-elongation battery copper foil (SR-PLSP)	High-strength battery foil (HTS-PLSP)
<ul style="list-style-type: none"> • Standard battery copper foil for electric vehicle batteries • Cylindrical / Prismatic / Pouch type • Thickness: 6 – 18 um 	<ul style="list-style-type: none"> • Contributing to yield improvement by upgrading processability within the battery production process with high strength properties before heat treatment and increasing the life and stability of cylindrical and square batteries with high elongation properties after heat treatment • Cylindrical / Prismatic type • Thickness: 6 – 12 um 	<ul style="list-style-type: none"> • Possible to load much more active materials with high strength properties, contributing to the minimization of deformation at the time of battery charge and discharge by maintaining strength after heat treatment • Pouch type • Thickness: 6 – 12 um
		

Solus holds the world leading thin foil manufacturing technology and has developed mass produced copper foil for the first time in the world, based on more than 6 decades of cumulative experience and know-how. With our recent investments we can provide competitive delivery time and stable supply for our clients in Europe.

Volta's aims to provide high grade battery foil for electric car batteries in the European and global markets. To consider the sustainability impacts our operations result in; it is critical to understand our core process of foil production.



Volta Energy Solutions Hungary is the Hungarian site for Solus Advanced Materials Co.



**More than
600 employees**



2 export countries



**79,545,036
USD Net revenue**



**11,845 tons of
copper foil produced**



**100% recycled
copper**

The battery foil manufacturing process can be split into the following steps:

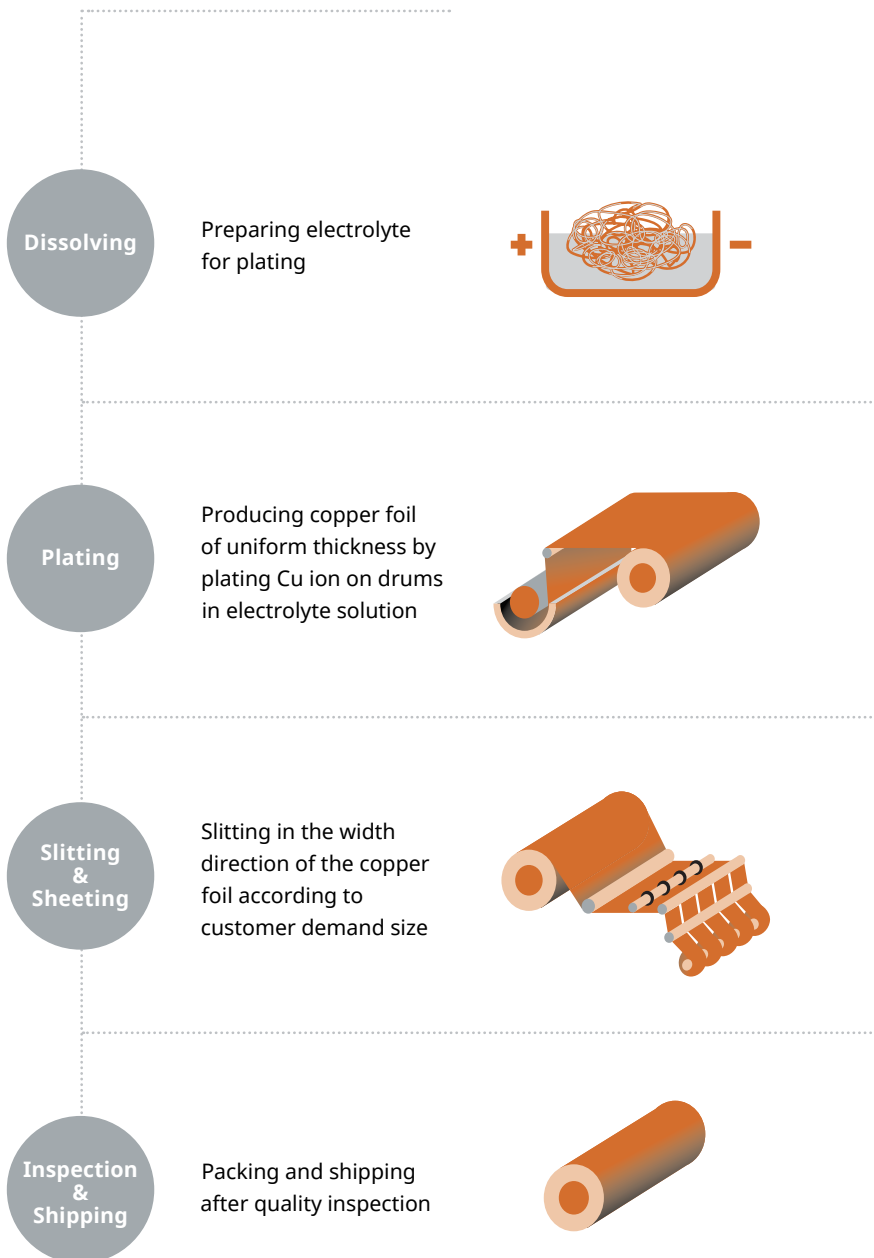
- Firstly, Volta receives the high-quality copper from recycled sources.
- Then, the copper is dissolved in acidic electrolyte, as preparation for the plating process.
- During plating, the copper foil is formed on the surface of slowly turning drums submerged in the electrolyte.
- The foil is then slit into the required size as per the demands of the customer and stored in rolls.
- Finally, due to the nature of the product, precision is essential, thus, thorough inspection is necessary before shipping.

The battery foil demand in the world, but especially in Europe will steadily increase. This comes from the European Union commitment to reduce and eliminate carbon emissions in long-term to make the continent carbon neutral. Electromobility is an essential part of this transition, and we are proud to be an active contributor to this process.

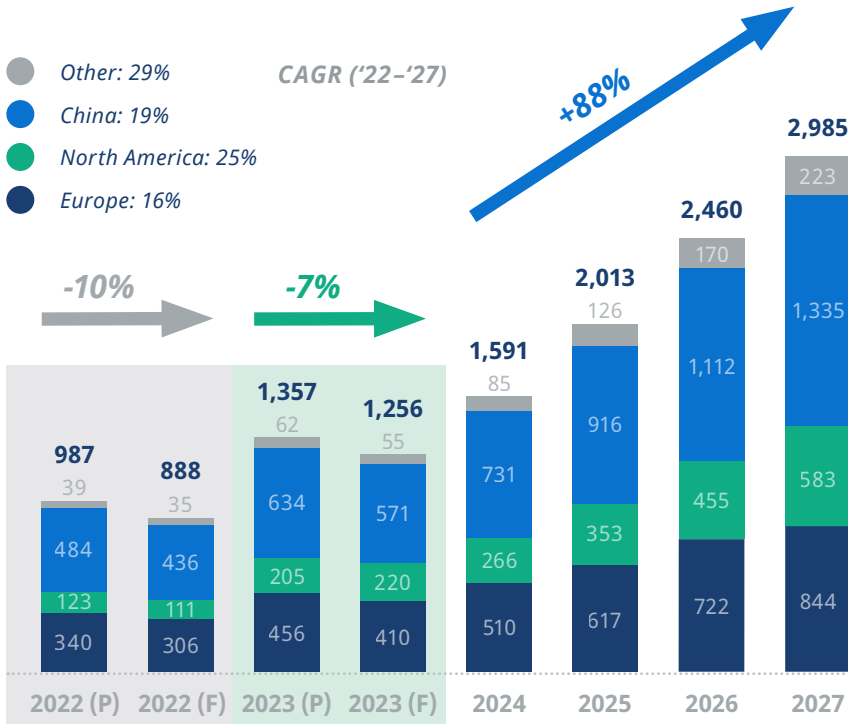


Dr. Chin discusses technology improvements with VES CEO and top management

Manufacturing process



Electric Vehicles



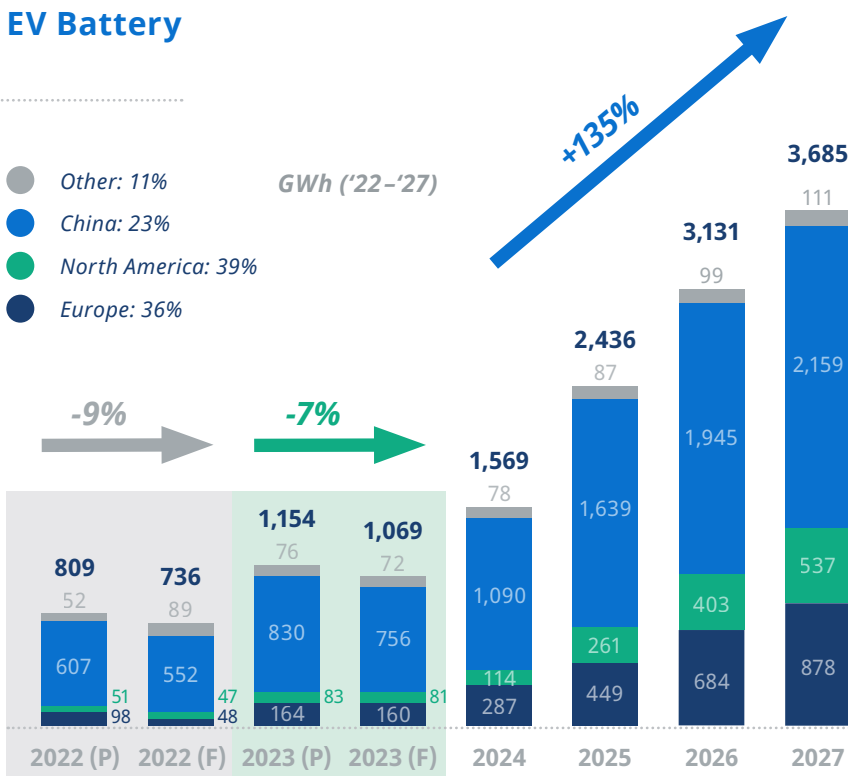
Increase of Electric Vehicles in M (carrying passengers) Vehicle market
(source: SNE research)

The demand for electric vehicles decreased by 10% in 2022 due to the volatile macro-economic environment caused by post-covid effects on the global supply chain, the Russian-Ukrainian war and increasing green transitional risks, however, long-term market projections show continuous growth in distribution which is driven by environmental regulations.

For Volta, this steady growth in demand means continuous increase in production capacity in the forthcoming years. This highlights even more the necessity of keeping sustainability at the forefront of decisions. Our factory expansion programs already include engineering solutions in the design phase and ways to minimise our impact on the environment. Resource use minimization is not only good for the environment but also a cost-efficient way of operations. With this we understand that sustainability and good business goes hand in hand.

9% decrease was estimated in 2022 in total battery production volume, equalling 736 GWh. Although, battery companies' production facilities are expected to intensively expand from 2024 in response to the growth of the global electric vehicle demand.

EV Battery

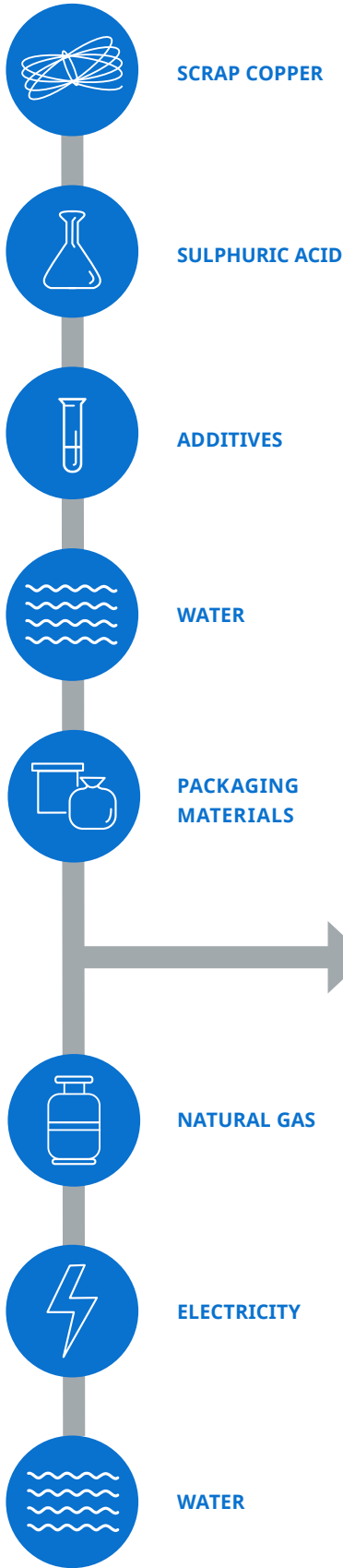


Growth of the battery GWh in the period of 2022-2027
(source: SNE research)

"As a sector leader manufacturer, our high-quality end-product represents our well-organized, wide perspective operational mechanisms through climate and sustainability consciousness."

Hyeokboo KWON,
EU Sales Team Leader

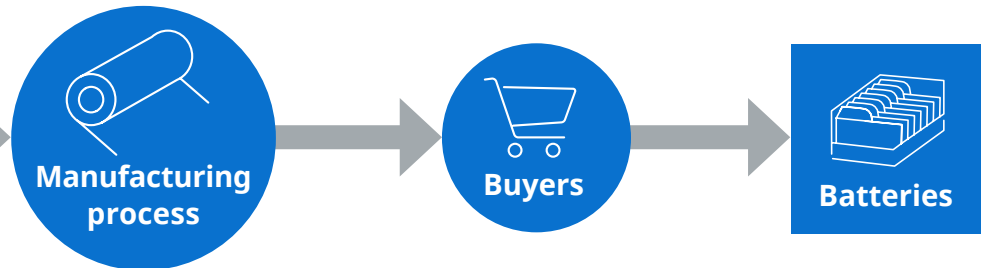
Base Materials



Working along the value chain

We are aware that our sustainability impact does not come only from our operation. Although our operation is very focused, several players must work together. Starting from few base materials, our value creation process is a compact, straightforward but very delicate procedure, and our finished goods are built into the products of very few buyers. We explored and mapped out our value chain.

This starts from the necessary base materials and energy sources through our conversion process to the transport to our partners. This report’s boundary has been made from cradle-to-gate. We follow the sustainability impact of our operations till the gate of our buyers, clients who build our products into their process and services. Value chain approach ensures that we take into considerations the upstream and downstream impacts as well. You can find more on this in our carbon footprint section.



Energy and Water

“With sustainability mindset, when representing Volta, we focus on cost effectiveness, and on enhance brand value of Volta, but at the same time we contribute to the sustainable growth of the company. Our ability to impact involves our internal and external partners as well, such as regular evaluation of our suppliers by concerning criteria, including environmental and social responsibilities. Because we work with hundreds of suppliers, our sustainability may be influenced along the entire value chain as well.”

Joowon KANG,
Supply Chain Management

An aerial photograph of a two-lane asphalt road that curves through a dense, lush green forest. A white car is driving on the road, positioned in the lower-left quadrant of the frame. The text "Our purpose" is overlaid in the upper-middle section of the image in a large, white, sans-serif font.

Our purpose

3. Our purpose

We create value through continuous new material development, technological innovation and providing solutions to change our customers' future.

Global warming is one of the biggest challenges of mankind. The increasing and ever-growing impact of industrialization creates steady warming of our planet which results in significant adverse changes of the climate. Mobility, travel, and transportation is responsible for a quarter of the global climate impact. Our challenge is to contribute to the solution of this significant problem and support electromobility and transport electrification with reliable and effective products. We produce critical components to electric car batteries, which support electromobility.

Our purpose is to be a reliable partner for these emerging industries with innovative and cost-effective copper foil.

We have defined development possibilities to optimize our operation and minimize our environmental effects at the same time:

- Stabilization of technology by reducing scrap products which resulted less emissions from electricity use.
- Reduction of the generated wastewater by water recirculation system.
- Elimination of wooden crates in storage processes.
- Revision of materials used for cleaning and replacing them to environmentally friendly materials.

"Sustainability as a business stream is rapidly changing, and the climate issue is turning to be the most significant one. As strategy team, we are dealing with ESG-related projects, and treat sustainability as key issue in our strategy development."

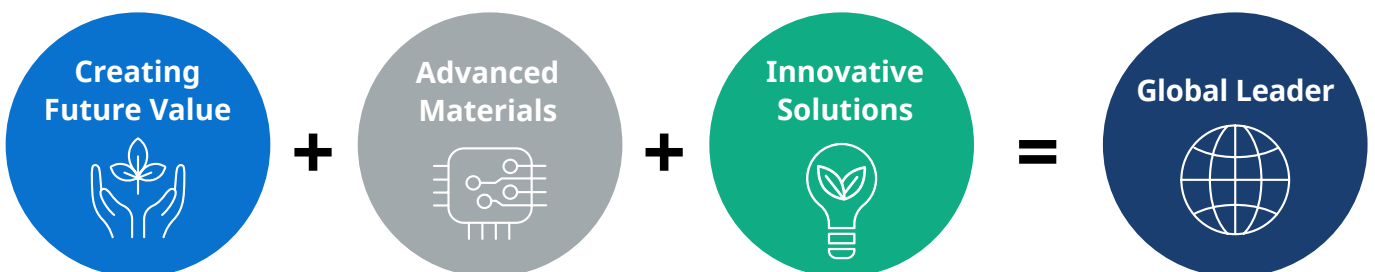
Jaesuck OH, Strategy

"ESG is an emerging topic, we are already seeing that from investors, banks, and financial institutes that sustainability is a key issue. A growing number of major companies have adopted sustainable business strategies to ensure their long-term profitability. Investors, lenders, and rating agencies expect greater visibility of an ever-broader range of nonfinancial metrics to better understand diverse social and environmental risks. Additionally, limiting carbon emissions are increasingly backed by new regulations and new taxes. More and more can be expected. Dedicating resources to ESG is an essential step to secure sustainable growth from corporate finance perspective."

Eunsuk LEE, Finance

No.1 Material Solutions Partner

We at Solus Advanced Materials aim to be a global leader that provides customers with advanced materials and innovative solutions based on our excellent technological prowess that create future value.



On June 2022, we have signed a five years syndicated green loan in the amount of USD 200 million involved with multiple banks. This funding enabled us to complete our ca. USD 310 million second

investment phase in Környe and open possibilities to increase the battery copper foil capacity from 11,845 tons per year to approximately 38,000 tons per year. To show our dedication to the

circular economy and that the investment paves the way for a greener future, our Loan Framework has been verified in a second party opinion by Moody's ESG Solutions.

Our approach to sustainability



4. Our approach to sustainability

Sustainability is an integral part of doing business. Our processes result in several impacts, and we are taking note of them. We aim to tackle and minimize these impacts and focus on improving our processes.

When we created this report, we followed the most important sustainability frameworks. The structure of this report is in line with the Global Reporting Initiatives (GRI) and uses their requirements as reference to its structure.

We understand that sustainability is a comprehensive view which covers environmental and social impacts, and transparency of our governance model.



Producing battery foil

Therefore, we started our sustainability journey with measuring, understanding, and managing our environmental impacts first, extended with social and governance scope as well.



Approach to our report

Step one is always to understand the legal framework and the main sustainability trends concerning our industry. This impact assessment highlights the most important impacts within our factory fence and along our supply chain. Then we involve our stakeholders in the

frame of an online anonym questionnaire which leads to the definition of the material issues. The whole materiality assessment was carried out in 2022 for our first report. In 2023 we reviewed the result, but we did not see the need of changing.



Understanding what is expected from us

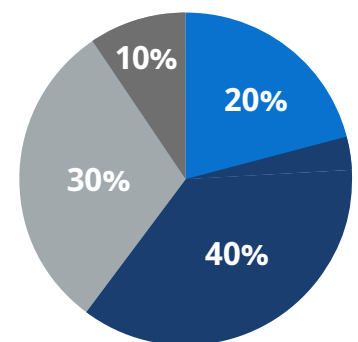
Our stakeholders help us understand where to focus and what to deal with. To explore this expectation, we conducted a stakeholder assessment in 2021. Following the GRI model we listed our stakeholders and prioritized them based on a *power-interest* methodology.

Then with the use of an anonymous online platform we asked them about their

expectations and rating of several environmental impacts. Based on the inputs received we got a critical input to our next process: materiality.

Here you see the composition of our respondents. We could rely on our buyers, suppliers, investors, and municipalities. All their inputs are integrated into our materiality assessment.

Share of responding stakeholders in survey



- Volta's product buyer
- Investor, Financing partner
- Supplier
- Authority, Municipality

Our materiality assessment

Materiality is a critical tool in sustainability. We need to know where to focus, what is significant (material) in sustainability terms. Ambitions and resources are not endless; thus, materiality helps us to guide our efforts to the most significant topics and areas. With the involvement of the senior management team and consultants we defined which are the material issues for Volta. We understand two important ingredients of materiality: how relevant the issues are, and how significant our impact on these issues. Based on this we split the emerging topics into three main categories:

Critical • Strategic • Operational

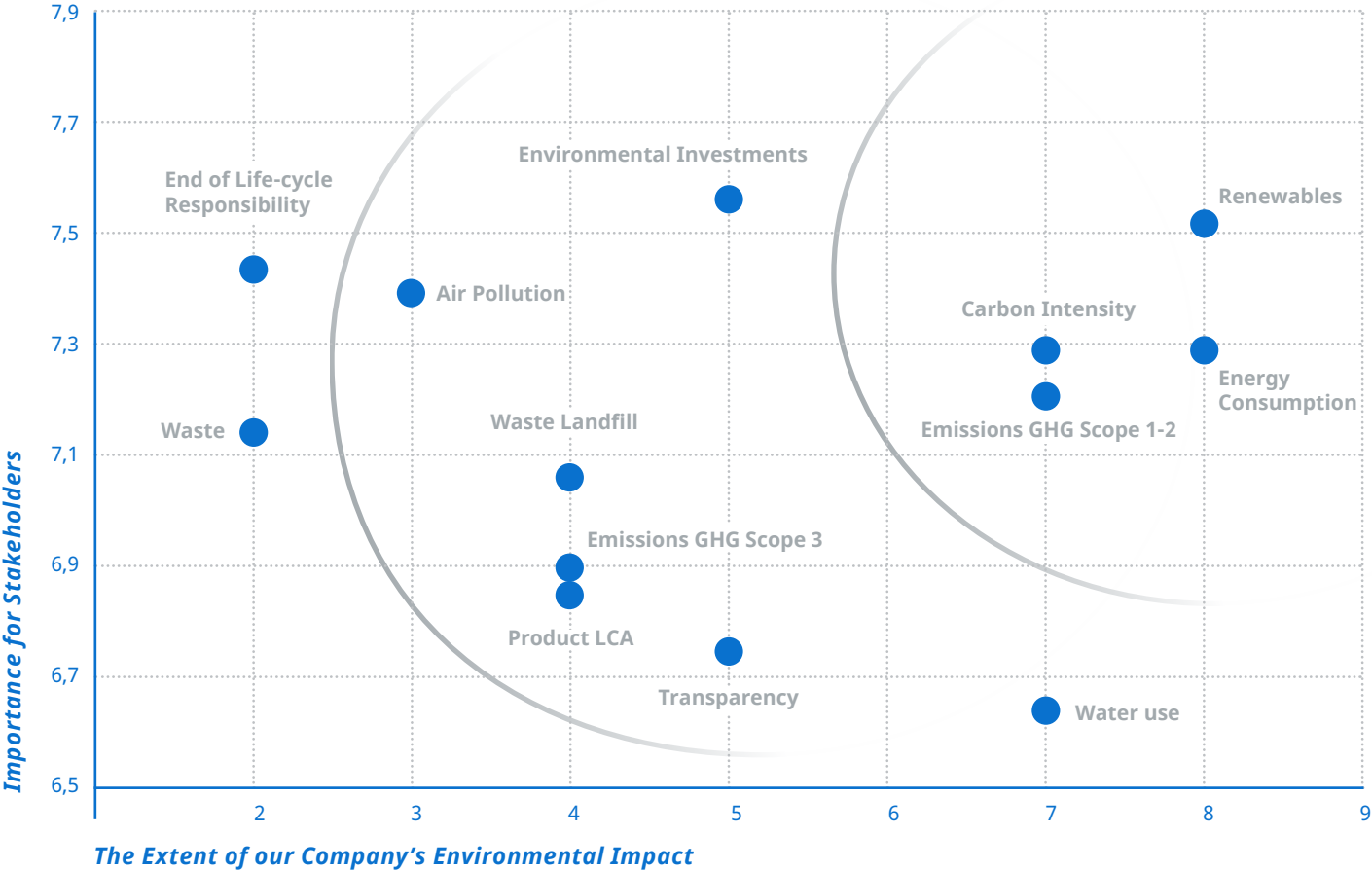
Our critical, material issues are:

1. energy consumption
2. scope 1 and 2 emissions
3. carbon intensity
4. renewables
5. water impact

In this report you will find detailed explanations on all these areas, their related programs, and initiatives. Before going into details of these material topics, let's see how we fit to the SDGs, as one of the most important sustainability framework.



Materiality matrix



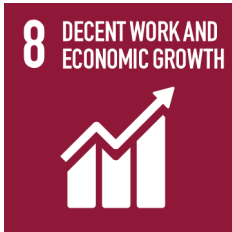
Our contribution to the SDGs

Volta Hungary, as part of a global organization plays an important role in protecting the environment, treating our people and communities well. We are committed to connect our efforts to the global sustainability goals.

The Sustainable Development Goals (SDGs) have been set by the United Nations to provide clear direction and call for the world's biggest challenges. Although all businesses should contribute to make progress on all these goals, different companies have different influences on these 17 SDGs. We have prioritized where we can have our biggest contribution (primary SDGs), where our activities can make significant impact (secondary SDGs) and which are the ones (tertiary SDGs) where we have modest or even just small contributions.



Our industry is producing copper foil to electric cars, making them more efficient and increasing their mileage. With this we contribute to the spread of electromobility and to the process of the shift from fossil fuel operated cars to zero emission electric vehicles. Our product contributes to the climate action and reduce not only fossil fuel use but also it contributes to cleaner air in the densely populated cities. Electric cars have not only zero emissions from energy use but no exhaust which prevents respiratory diseases and local air pollution.



Our secondary Sustainable Development Goals are SDG 8, 9 and 11. Our commitments towards these goals include ongoing innovation, efficient production processes and contributing to sustainable transport.



We also support and contribute to the rest of the goals as our tertiary SDGs, although to smaller extent. The way we develop our products, manufacture in our plant, and sell to our partners have endless opportunities to support all sustainability goals. Later in this report we will explain in detail several of our programs.

Environment



5. Environment

"At Volta we know that there is no Plan(et) B"

11,845 tons of copper foil produced in 2022, resulting 63% increase

Our environment provides us with all the conditions for life. Protecting and preserving it is our obligation. We, as an industrial player with high-intensity manufacturing processes, must do our utmost to balance, reduce, and eliminate our negative impacts.

Our guiding principles are around respect for the environment and prevention of any adverse impact:

- 1. Volta adheres to the environmental regulations a pivotal point in its business model.
- 2. The riches of nature can only be accessed in a sustainable manner.
- 3. Irreversible environmental damage should never be the result of creating profits.

Climate protection

Global warming poses a significant risk to all of us. The increase of the temperature will result in major consequences such as sea level rise, desertification, and global migration due to lack of water and unbearable heat. The international community recognized this upcoming threat and established the Paris agreement in which governments pledged to limit global warming to below 2 °C. Based on recent research this will not be enough to stabilize the warming and set even more ambition target (science-based targets – SBTi) to limit the impact to less than 1,5 °C increases versus pre-industrial level. To achieve these very ambitious targets all of us must contribute.

Volta’s impact on climate change goes two ways. On the one hand, as an energy intensive manufacturer we directly contribute to emissions. On the other hand, being part of the electromobility industry, our indirect impact also contributes to the solution as part of SDG11. In this chapter we explore our impact as a manufacturer.

Energy use

Producing copper foil is an energy intensive process. Significant amounts of electricity and natural gas are used during our manufacturing.

Our steps towards a more energy efficient operation:

- Lower consumption has been achieved with the replacement of the evaporative refrigerant.
- Fine-tuned energy recovery system: thermal energy that comes from the technological cooling system, is now utilized in the air handling system.

Carbon footprint

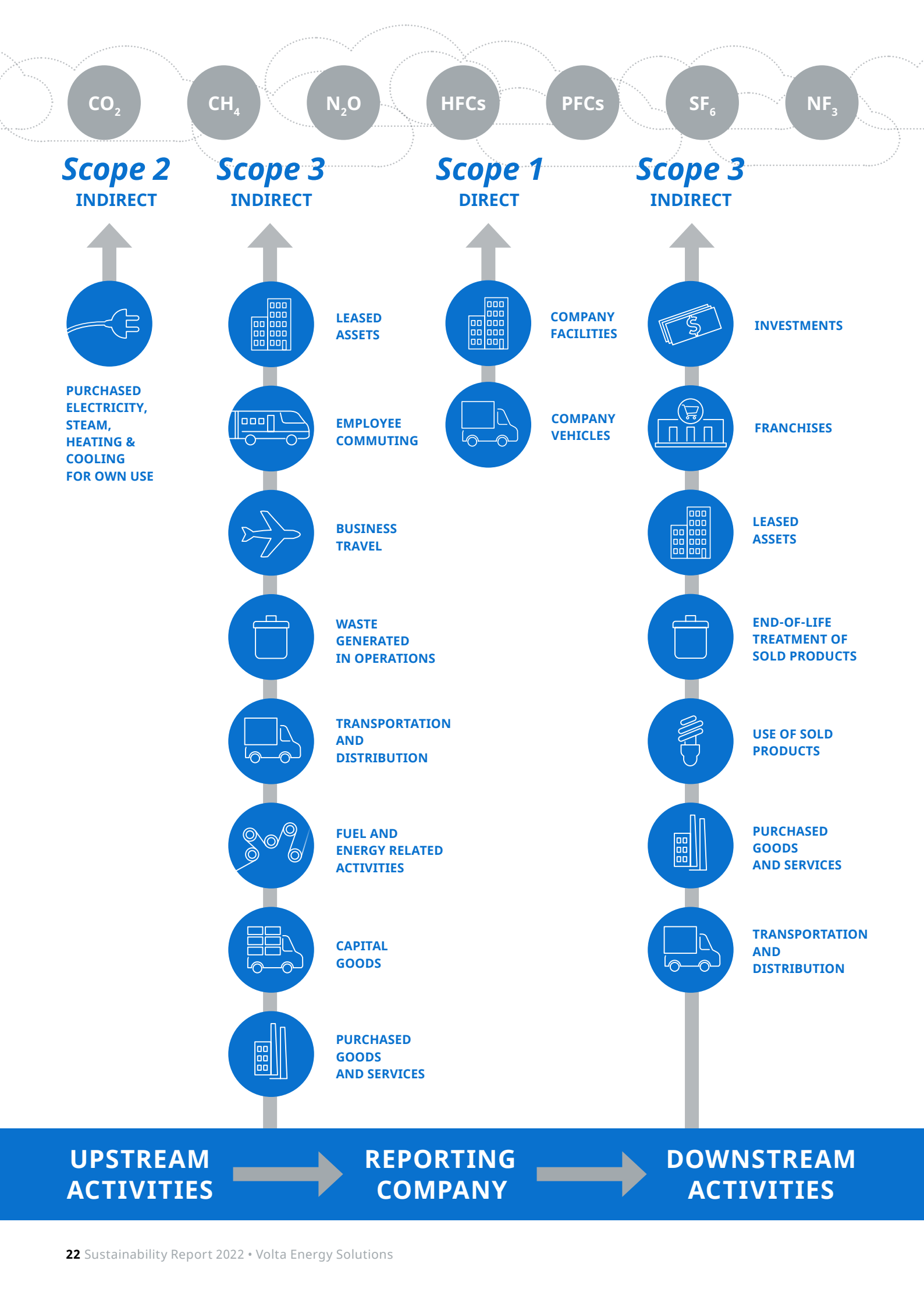
The first step towards managing our CO₂ emissions, is understanding its size and composition. Therefore, we decided to measure and calculate our corporate and product carbon footprints. In 2021 we have measured our corporate and product carbon footprints, while in 2022 we continued to measure our corporate carbon footprint and we are committed to continuously calculate it going forward. Our carbon footprint includes our value chain as well in accordance with the cradle-to-gate approach.

We measured our Scope 1 and 2 emissions according to the location-based and market-based calculation methodologies to fully align with the GHG Protocol Standards and made estimates on Scope 3 emissions. We contracted Denkstatt Hungary Ltd. as consultants to provide us with expertise on carbon footprint calculation following the GHG Protocol.

In 2022, our total carbon emission (scope 1,2 and 3) was just above 58,100 tons of CO₂ based on the location-based methodology, while the emission figure is a bit more than 65,200 tons of CO₂ according to the market-based methodology. With this total quantity we are around 0.11% of the total Hungarian national carbon emission in accordance with the location-based emissions, while the ratio is approximately around 0.12% in line with the market-based calculation methodology.

Scope 1&2 emissions in 2022: 35,000 tons (location-based) 42,000 tons (market-based)

"Making our factory more efficient contributes not only to the lower cost but also lower environmental impact. We explore different directions, such as application of high-efficiency motors as production process equipment and application of LED lights for factory lighting equipment. We also plan to reduce the boiler operation by recovering process waste heat and extending renewable energy via solar PHV."

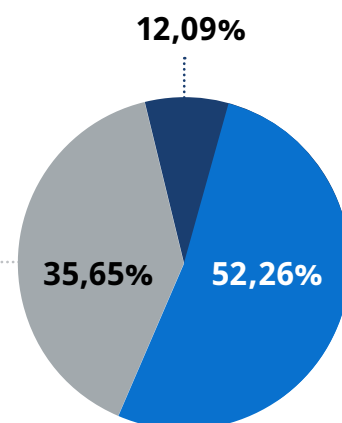


Scope	Activity	t CO ₂ eq /2022	% (market-based)	% (location-based)
Scope 1	Energy sources burned on-site	7,744.75	11.87%	13.33%
	Company vehicles	133.79	0.21%	0.23%
	On-site transport materials	4.66	0.01%	0.01%
Scope 2	Purchased electricity (market-based)	34,085.44	52.26%	-
	Purchased electricity (location-based)	26,979.88	-	46.43%
Scope 3 Upstream	Energy transport & distribution	14,118.62	21.65%	24.29%
	Water use	177.58	0.27%	0.31%
	Waste generated in operations	511.05	0.78%	0.88%
	Business travel	41.09	0.06%	0.07%
	Employee commuting	160.84	0.25%	0.28%
	Material production	5,323.30	8.16%	9.16%
	Upstream material transport	1,205.69	1.85%	2.07%
	Purchased services	539.10	0.83%	0.93%
	Capital goods	454.73	0.70%	0.78%
	Scope 3 Down-stream	Waste transport	3.92	0.01%
Wastewater treatment		223.79	0.34%	0.39%
Downstream transportation and distribution of product		491.77	0.75%	0.85%
TOTAL	Market-based	65,220.11	100%	-
TOTAL	Location-based	58,114.55	-	100%

In the following analysis of our carbon footprint, we are considering our market-based values as this will be used for our decarbonization planning in the future.

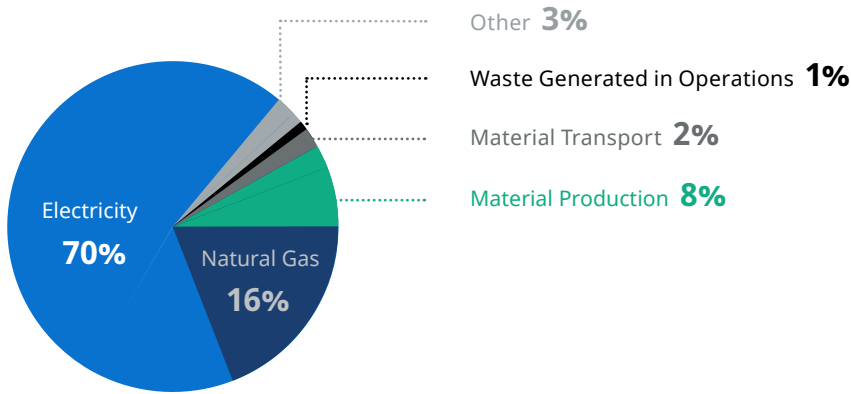
As shown in the table above, due to the energy intensive processes Scope 1&2 emissions cover more than 60% of our emissions (market-based values) and even our Scope 3 emissions are predominantly linked to energy generation, energy transport and distribution. The other significant component of our carbon emission is the base material transport and use. As we explained in our introductory chapter, we do not use copper from mining, but from scrap as our base material. This is considered as a recycling process, utilizing already used, recollected properly cleaned and treated material in our process.

Carbon footprint composition (market-based)



- Scope I
- Scope II market-based
- Scope III

Largest contributors to the carbon footprint (market-based)

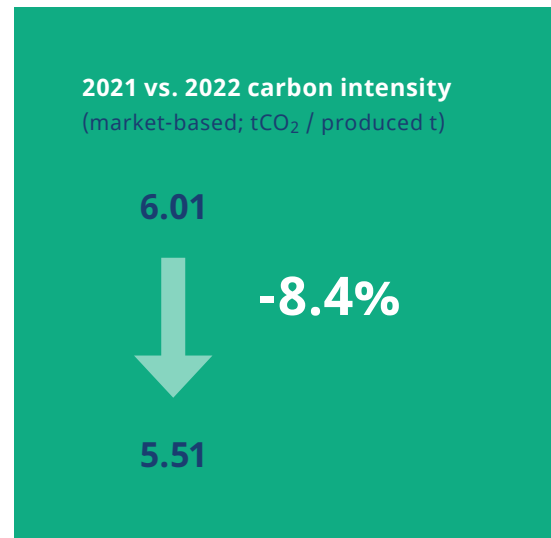


Our Scope 1 emissions are nearly 7,900 tons in 2022, being responsible for a little bit more than 12% of our total emissions. This comes mainly from the natural gas burnt on site to provide energy to our technology. Our market-based Scope 2 emissions equals more than 52% of the total emissions. With this, we have a combined share of nearly 65% in line with the market-based calculation methodology. We are in the process to explore the new ways to integrate further changes in our operation to significantly reduce our GHG emissions.

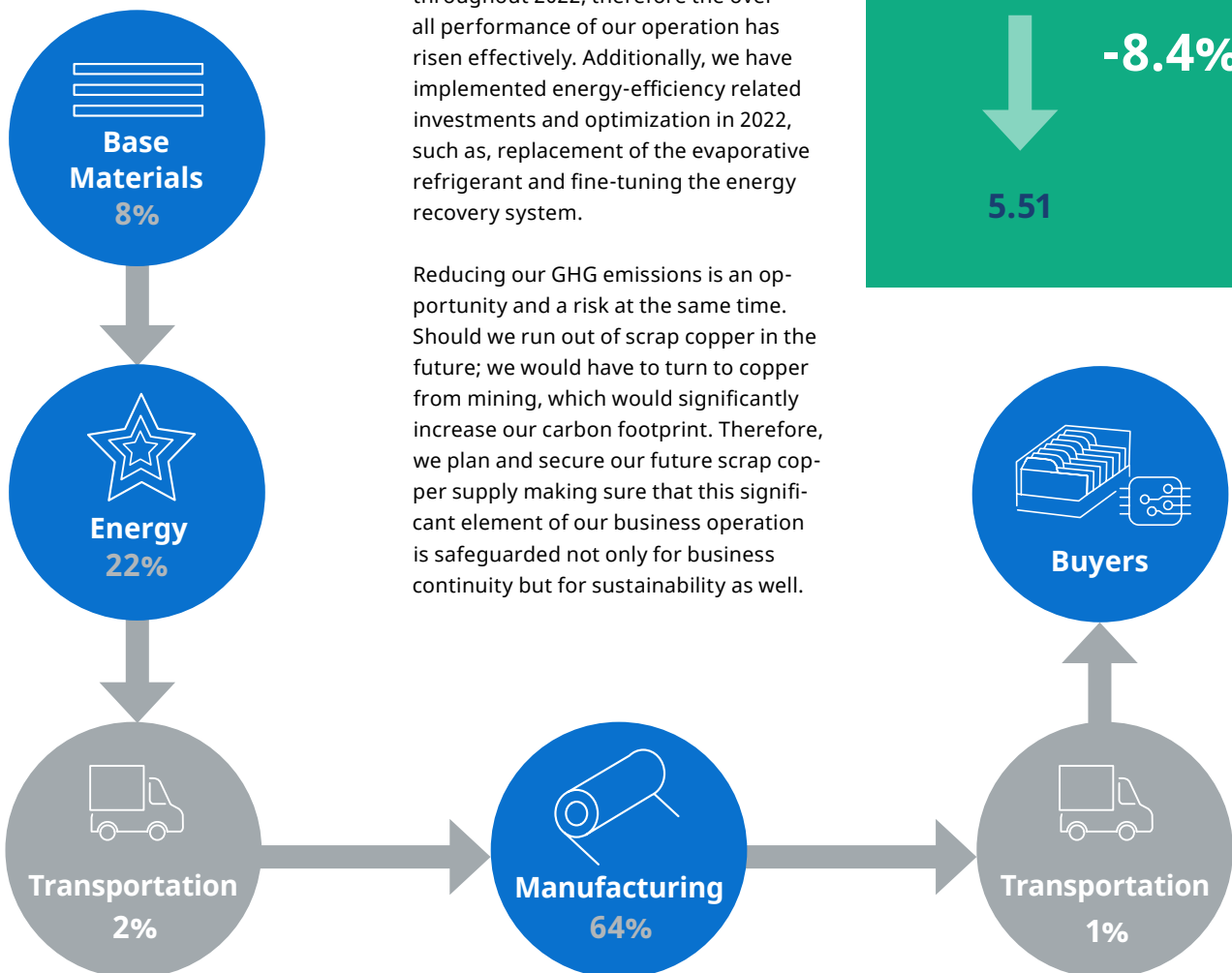
Carbon intensity

We are proud that our carbon intensity - as one of the most critical topics in our materiality matrix - has developed, hence decreased in 2022 compared to 2021. On one hand, the reason that our carbon

intensity has developed is because we have provided ca. 6.8% of our total electricity consumption with green tariffs, which was slightly more than 9 million kWh from our total purchased electricity in 2022. On the other hand, we have reached the full scale-up of operation throughout 2022, therefore the overall performance of our operation has risen effectively. Additionally, we have implemented energy-efficiency related investments and optimization in 2022, such as, replacement of the evaporative refrigerant and fine-tuning the energy recovery system.



Reducing our GHG emissions is an opportunity and a risk at the same time. Should we run out of scrap copper in the future; we would have to turn to copper from mining, which would significantly increase our carbon footprint. Therefore, we plan and secure our future scrap copper supply making sure that this significant element of our business operation is safeguarded not only for business continuity but for sustainability as well.



Life cycle assessment

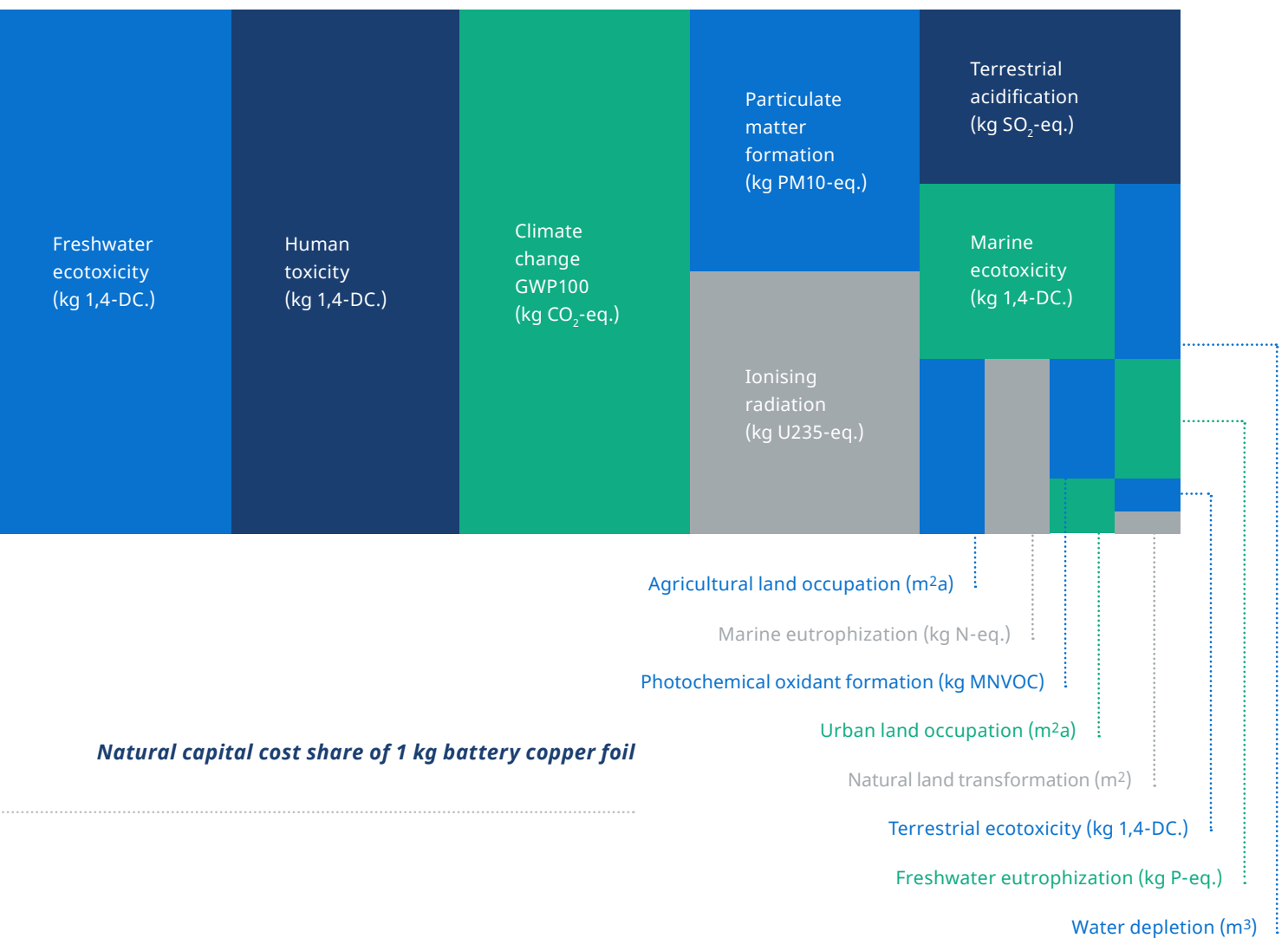
Beyond understanding the carbon emission of our process and technology in 2022 we prepared the life cycle assessment (LCA) of our products as well. With this assessment we made a big step towards understanding the entire environmental impacts our products have for their entire life cycle. This cradle-to-grave approach assesses from raw material extraction and processing (cradle), through the product's manufacture, distribution and use, to

the recycling or final disposal of the materials composing it (grave).

Life cycle assessment's main purpose is to improve our product design in the long term. With the help of this tool, we see the cumulative potential of environmental impacts. Although the LCA study of our products was prepared based on data from 2021 and our production increased since then, we can still assume that the focus areas of this analysis ha-

ven not changed. These are freshwater and human toxicity, climate change and particulate matter formation.

These significant impacts can be controlled more effectively at different stages of the product life cycle. Our manufacturing can significantly contribute to the climate impact control via decarbonisation and proper air emission measures to control particulate matter emission into the air.



Water management

Water is the precondition for life. Although, the water reserve of our planet seems to be high, only a small fraction is accessible and can be used. In Hungary, around our factory location we have good quality and sufficient quantity of water.

Our process is very water intensive as well. Our annual water consumption exceeds 575,909 m³, or ca. 576 million litres.

This water is sourced from local municipal pipeline, in drinking water quality. With reverse osmosis we treat and clean this water before using it in our manufacturing processes. There is no local well or other source for water supply.

Water is a critical sustainability factor not only for our current but for our long-term operation and growth as well. Our strategic plan is to expand the production by considering water as a critical element.

Well represents the progress in our water efficiency development ambitions, that

“Water is a vital element of sustainability, so we are keen to manage our water consumption with the highest effectiveness we can. Moreover, our water management currently focuses on effectively reusing certain quantity of the water which leaves the manufacturing process. With that said, we’ve made a major CAPEX investment in our water operation in 2022.”

Péter BALLA,
WT/WWT leader

576
million litres
of water

we have replaced the contact block’s flow-through cooling system with a fully closed circulation system. Consequently, our water intensity has improved in 2022 compared to 2021, resulted mainly by this investment.

We have one water discharge point with special treatment and cleaning process for water coming from the technology. To ensure the cleanness of this process water we have a water treatment plant within our site. The water treatment

plant removes the copper, chromium and sulphates and ensure that only treated and cleaned water is released into the pipe system.

The outcome of this removal results in chromium hydroxide sludge which is landfilled.

OUR AMBITION IS TO ESTABLISH BALANCE IN WATER USE AND EXPLORE ALL POTENTIAL IN THE TECHNOLOGY TO MAKE OUR WATER USE MORE EFFICIENT.

2021 vs. 2022 water intensity
(water m³ / produced t)

13.6



7.0

-48.5%

Total amount
of waste
2,105
tons

Waste management

Our waste management system controls hazardous and non-hazardous waste types as well.

Non-hazardous wastes are mainly packaging materials and communal waste generated in the factory. These are collected selectively and transported to our qualified waste management partner.

In 2022, hazardous waste comprised 88,6% from our total generated waste during the manufacturing process. Our special waste is copper-bearing sludge, from which our waste treatment partners can extract the copper content and treat this waste properly. By improving the efficiency of our processes, we will significantly reduce the relative amount of waste generated in the production of 1 kg of copper foil in the coming years. At our

site, there is no specific waste treatment process. In our waste yard we selectively collect waste, but no further treatment is done locally. We hand over our collected waste to qualified partners.

Reuse of the quality defect copper foil is 100%. With this we do not let precious resources to be wasted besides ensuring cost-effectiveness as well.

Hazardous waste is collected and stored in an outside (open air) waste yard in containers and tanks protected by engineering control. The material flow within the factory site is done through a closed pipe system, while in smaller portions it is treated by manual handling process in containers.

We have cut our waste intensity in 2022 compared to 2021.

2021 vs. 2022 waste intensity
(waste t / produced t)

0.25



-28%

0.18



Manufacturing waste awaits for recycling



Air emissions

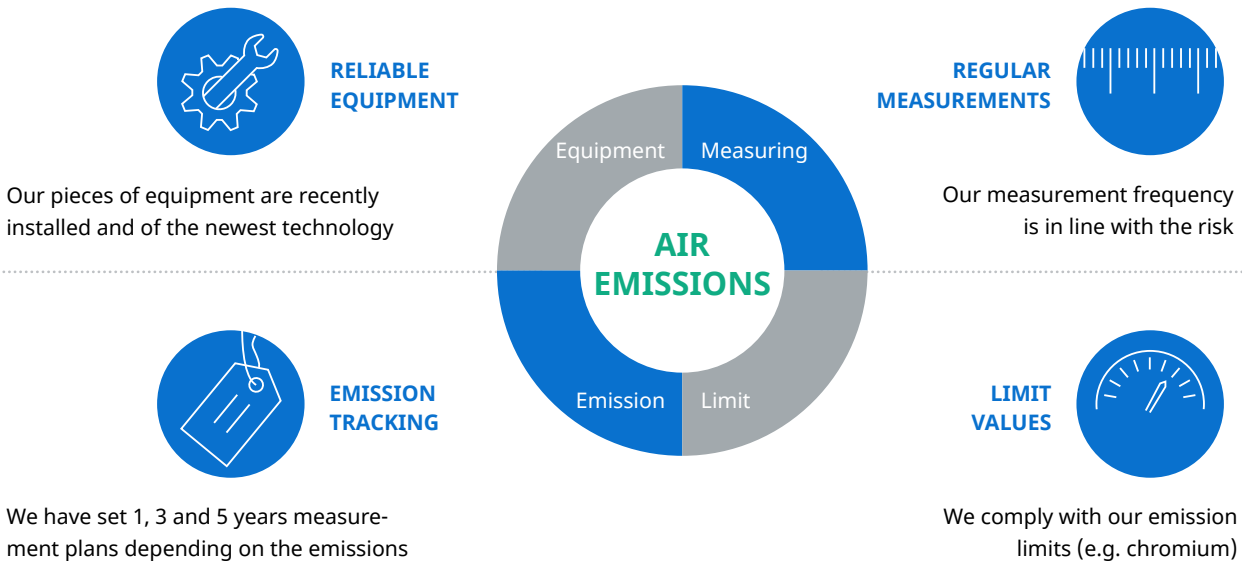
Although our manufacturing site is in an industrial zone far from residential areas, air emissions are under surveillance and control.

The Volta plant at Környe has twenty-five emission point sources. Six of them are attached to boilers, each used for heat during production. Emissions from burning gas, apart from GHGs include

nitrous-oxides (NOx), which can have adverse respiratory effects, contribute to atmosphere acidity and multiple other issues due to their high reactivity. Ten pieces of point sources are responsible for end-gas scrubbers, where the compounds used in our manufacturing, like copper and sulphuric-acid enters the atmosphere with the water steam. Similarly, chromium compounds can also

be emitted from two point sources at our chromium solution unit.

We measure our emissions based on our legally defined requirements. We have a systematic approach to ensure that we control our air emissions. Our boiler emissions are measured in every 3 years, the wet scrubbers every 5 years and the chromium dissolving unit emission point in each year.



Noise and other nuisances

Our factory site operates 24/7 for 365 days a year. This continuous operation requires ongoing facility management support. Our noise emission comes from the facility management operations, for instance, mainly from the operation of buildings and refrigeration systems. Main noise sources are the facility management

equipments and cooling towers. These systems are operated based on necessity, and we make sure to regularly maintain, and when it is actual, renovate them. Daytime traffic can generate some noise, but since we are in an industrial zone no complaints, or any other issues were ported.

6. Our sustainability governance and business ethics

Volta assigned the responsibility of sustainability activities to the ESG manager, who is a member of the management team, and reports to the CEO, ensuring direct access to decision makers by immediate and impactful communication on critical matters. Beyond this formal organizational setup, we manage a sustainability team consisting of the most significant members of the factory.

Our system is based on an ESG Friendly Management approach where the main principles are the following:

1. We strictly comply with all the laws and regulations related to environment, health, and safety that are applied to our operation activities. Therefore, we have implemented ISO 14001 and ISO 45001 management systems in 2021 to our operations and the first supervision audit took place in 2022.

2. We would like to arrange a safe working environment provided by relating policies which guarantee the safety of workplace to prevent possible injuries. Our integrated management system operates according to a common policy in parallel with our specific goals. The management recognizes the importance of environmental and labour protection and declares our related key principles in the policy:

- Maintenance of a safe working environment that does not endanger environment and health.
- Prevention of work-related health damage and elimination of hazards by risk-management.
- Emphasize the aspects of accident and fire protection.
- Ergonomic workplace, personal protection, machinery and chemical safety.
- Expressing the necessity of development of our production sites in terms of environmental and occupational safety as well.

Besides complying with the legislation, our internal rule system supports the achievement and control of broader compliance.

3. We evaluate EHS-risks in all such activities as development, production, sales, and the establishment of factories. We plan to define more KPIs for environmental and occupational safety performance, which we will continuously monitor, and if necessary, adjust the target values to match with realistic goals. According to our 'PR 1042' procedure we gradually evaluate our performance, while based on our 'PR 1057', we check the operation of the system by an annual management review.

Volta issued its commitment and internal regulation on managing business ethical questions on January 1, 2021. This is driven by honesty and transparency, open mindset, and respect.

Our business ethics commitment defines the expected behaviours for all levels of staff.

Our approach aims to establish a sound corporate culture where integrity and customer orientation is the main driver. In this program we frame several activities which defines the requirements of fair ways of doing business wherever we operate.

Additionally, the critical elements of this initiative are our commitment to social development and responsibility for society. In our next chapter you will find some examples on how we contribute to our local community and act as a driver for improving livelihoods for all.

"People make sustainability happen; therefore, we train and develop them in the field of sustainability. This could influence our Employer Branding reputation. If somebody engaged in its private life for sustainability, we could attract them (applicants) as Employer, by being publicly dedicated for this value. The same way our current employees can be proud of Volta, if the company represent sustainability values. Not only in PR, but according to the culture of "walk the talk", also in practice."

Tamás SOLYMOS, Human Resources



7. Our commitment towards the community

As a member of a global corporate citizen, Volta shall contribute to the national economy and social development by carrying out its responsibilities and obligations, such as the improvement of productivity, creation of employment and sincere payment of taxes and social contributions. This is not only our internal drive, but our external stakeholders expect us to do so. Social responsibility is part of the way we operate business.

Volta 2022 has prepared a surprise for the young children of its employees for



By agreement, waste wood is provided free of charge to the Vértesszőlős Municipality, which also helps families in need of fuel for winter.

Our company is planning to operate a program to enhance the understanding of social responsibility and engage with our employees to extend their involvement. As stated in the boundary section of this report we are committed to further expand the current scope of this report with the social sustainability and governance chapters as well.



Santa Claus Day. Children up to the age of 14 received a gift package from Santa Claus, who came to the factory personally, and they went home from their parents' workplace with great joy and a wonderful experience.

With the contribution of the Hungarian Red Cross, we organised 3 blood donations at Volta in 2022. The staff of the National Blood Service have expressed their satisfaction with the participation of our employees, and our aim is to promote blood donation and further increase participation in this vital initiative.

"Taking care of people and the planet is the prime role of our duty. We coordinate all the departments accordingly to make it happen."

Katalin NAGY, ESG team

Volta finds it extremely important, to be a part of the local community. Spending part of the profit to help solve local social issues is a key aspiration of the company. These consist of lending aid during emergencies, providing opportunities for less fortunate people.

8. Conclusion

We hope that reading our second sustainability report was useful and informative. We are committed to do our business in line with sustainability principles. We decided to start with the environmental pillar, since the biggest impact of our process is on the environment. To understand what is expected from us, we conducted a stakeholder management review back in 2021. We asked our partners, authorities, suppliers and buyers about how they see our industry's biggest sustainability challenges. Then we completed our materiality assessment. By highlighting what is material, we know where to focus our efforts and investments. Our industry is very energy intensive, which leads us to high carbon intensity as well. Climate change is a serious concern, and we want to take part in limiting of the global warming. This is why we measured our corporate carbon footprint for the second year in a row. With this tool we can see what the most carbon emitting processes are, based on which we can

define our decarbonization pathway. We have also completed the Life Cycle Assessment of our product in 2021 to understand the climate as well as the entire environmental impact of it. Although, climate is the most important environmental impact, we also gave overview in this report on our water management processes as well as air emissions. 2022 was the first year in full scale-up operation at our first production facility, thus we could measure the trends of our carbon intensity which had positive results in 2022. After consolidating our production processes, our short-term goal is to set our decarbonization pathway for the whole operation, including the first and second production facilities. Sustainability is not only about environment. This is why we made our commitment to expand our programs and transparency to social sustainability and governance pillars. In our next report you can expect a more comprehensive review of all environmental, social and governance (ESG) topics. Looking forward to your comments and improvement ideas.

9. GRI Index

GRI indicator	Description	Chapter	Page
GRI 2: General disclosures 2021			
Organizational overview			
2-1	Organizational details	This is Volta	7-13
2-1	Organizational details	This is Volta	7-13
2-6	Activities, value chain and other business relationships	This is Volta	7-13
Strategy and analysis			
2-22	Statement on sustainable development strategy	Foreword	4
Business ethics and integrity			
2-23	Policy commitments	Our sustainability governance and business ethics	29
Stakeholder involvement			
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2-29	Approach to stakeholder engagement	Our approach to sustainability	16-19
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2-3	Reporting period, frequency and contact point	Impressum	34
GRI 1: Foundation 2021	Publish a GRI content index	GRI index	32
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3-3	Management of material topics	Climate protection	20-25
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306-2	Handling of waste impacts	Waste management	27
306-3	Waste generated	Waste management	27

10. Environmental performance metrics

	KPI	measure	2021	2022	y-o-y change %
Production data					
Total amount produced / sold		t	7,258	11,845	63%
Combat climate change					
Total GHG emissions location-based		t CO ₂ e	40,088	58,115	42%
Total GHG emissions market-based		t CO₂e	43,647	65,220	49%
Scope 1		t CO ₂ e	9,722	7,883	-19%
Scope 2 location-based		t CO ₂ e	15,837	26,980	70%
Scope 2 market-based		t CO₂e	18,626	34,085	83%
Scope 3		t CO ₂ e	15,298	23,251	52%
Carbon intensity (as per location-based Scope 2)		t CO ₂ e/t	5.63	4.49	-13%
Carbon intensity (as per market-based Scope 2)		t CO₂e/t	6.01	5.51	-8%
Total electrical energy consumption		MWh	64,549	132,384	105%
Total gas consumption		m ³	2,622,395	3,009,858	15%
Renewable energy		%	tbd	6.81	-
Electrical energy intensity		MWh/t	8.89	11.18	26%
Water management					
Total water withdrawal		m ³	405,763	493,390	22%
Water consumed (withdrawal minus discharged)		m ³	99,018	82,519	-17%
Wastewater		m ³	277,702	574,704	107%
Water intensity		m ³ /t	13.6	7.0	-49%
Waste management					
Total amount of waste		t	1,781	2,105	18%
Recycling ratio		%	N/A	0.91	-
Landfill ratio		%	N/A	0.08	-
Incineration ratio		%	N/A	0.004	-
Hazardous waste		t	1,567	1,864	19%
Waste intensity		t/t	0.25	0.18	-28%
Air emissions					
NOx		kg	1,226	1,456	19%
CO ₂ (boiler emission measurement)		t	3,198	4,002	25%
Chromium		g	0.10	0.01	-90%
Sulfuric acid		kg	637	1,500	135%
Copper		kg	5	12	133%

* tbd - to be developed

** N/A - not available

Impressum

Volta Energy Solutions Hungary / Europe Kft.
2851 Környe, Han folyó utca 1.

Consulting partner: Denkstatt Hungary Kft.

Design: Kara Orsolya, Szalay Miklós

Photos: Volta Energy Solutions Hungary / Europe Kft.

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