





# DESIGN THE FUTURE, SPARK THE GROWTH

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# **Foreword**

It is my pleasure to launch the very first sustainability report of Volta Energy Solutions Hungary, 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 cosmetical 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 we have prepared our corporate and product carbon footprint as well as our life cycle assessment. This knowledge will guide us on managing and reducing our sustainability impact. This report sets the frame for our sustainability approach and provide you with detailed picture on our environmen-

tal impacts and activities. We are committed to continue our journey and complement our overview with the social and governance topics in our next report. 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 efforts. 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 just established our affiliate and manufacturing site in Hungary. In our first year 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.

Investors, banks and financial institutes all speak about sustainability now. This is not an emerging topics in finance anymore, but our everyday reality. Financial tools, such as materiality are integrated into ESG systems to ensure not only long term profitability but balance between our revenue and our impact. Material issues helps us to focus on what really matters.

Rating agencies look for environmental or social metrics, and companies needs to be more transparent. Environmental regulations frame not only the operational landscape but also the financial potential of a business process. ESG becomes an enabler to work with financial intitutes and enables us to access competitive financing conditions such as discounted loan rates and to deepen relationship and interactions.

When we design a new greenfield site, or a new CAPEX investment, sustainability kicks in from design. With this approach we not only build better and more efficient infrastruture to our business, but 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 deploy a thorough sustainability scheme at our company.

# Jongwoo KIM

Volta Energy Solutions S.a.r.l. Head of construction

# **Hayoung LEE**

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

### **Keunman KWAK**

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







Sustainability is the way to do business. We are driven by sustainability principles, because sustainability is not only good for the environment but also good for the business. It makes our processes more efficient, transparent and responsible. Long term financial stability requires us to create a balance between our business interest and our impact on the environment or the community. Reducing our energy consumption is good for the planet but at the same time reducing our cost base. Resource efficiency is a critical components of taking care of environment but at the same time generate more lean and efficient operations for our company. I personally support Volta's ambition to have excellent sustainability result.

Gyumoon KIM

in hand.

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

Producing battery foil is a delicate process. It requires lots of expertise on the

materials and the process we use. Life

cycle assessment provides us with the

direction on how to reduce our impact

and make our product more sustainable.

Continuous improvement of our process-

es improves not only our efficiency but

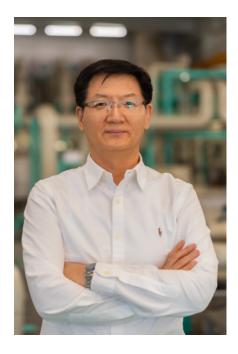
reduces our impact on the environment.

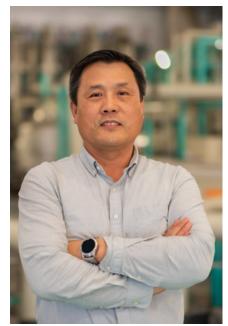
Product and process development objec-

tives and sustainability goals goes hand

# Sangbeom KIM

Volta Energy Solutions Hungary / Europe Kft. CEO





# 1. About this report

This is the very first report of Volta Energy Solutions Hungary/Europe. The company just established its presence in the Hungarian market in 2019-2020 to produce copper foil for car battery producers.

# Reporting approach

This report is for our stakeholders – employees, customers, suppliers, 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 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 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 2021 as our first full year of operation. We established this production centre in 2020 as a greenfield investment, thus no historic data is available. In the absence of backward-looking data, we cannot show the trends and the dynamics of our performance. In the years to come we will continuously communicate on our sustainability performance which will make it possible to see our progress. This report is about the standard opera-

tions of Volta, and excludes the project/

greenfield investment impact.

# Targets

Ambitious targets drive performance. Even with this understanding, we are not yet in the phase of establishing and communicating targets. We are aware of this gap and work on it. 2021 was the first year when we operated our site in Hungary. In 2022 the very same site will produce double capacity thus our operations will be scaled up significantly. We are committed to set ambitious targets on climate to reduce our  ${\rm CO_2}$  emission by 55% till 2030 and achive net zero by 2050.











# 2. This is Volta

Solus Advanced Materials is a steadily growing global company headquartered in Seoul, South- Korea aiming to provide leading solutions for core materials in electric vehicles, display materials and biomaterials.

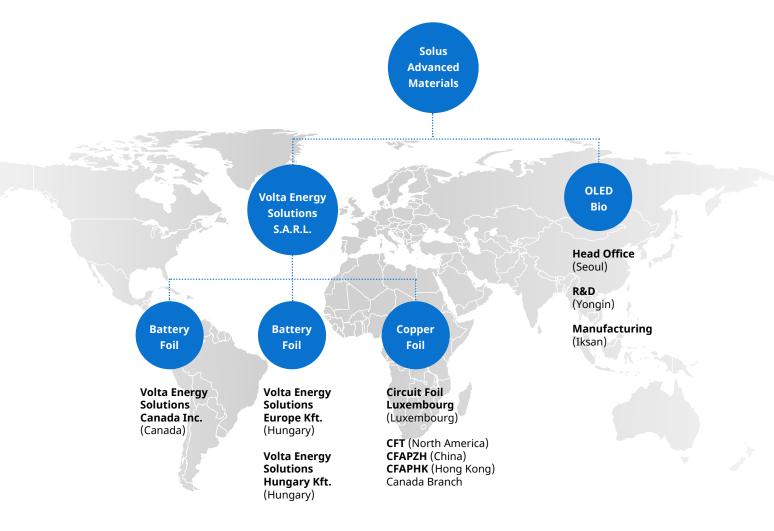
Apart from headquarters, South- Korea is home to the Iksan sites for biomaterials like cosmetics, pharmaceutics and nutraceutics, and electro display materials like OLED for different types of screens. Supporting innovation is the Suji R&D Centre

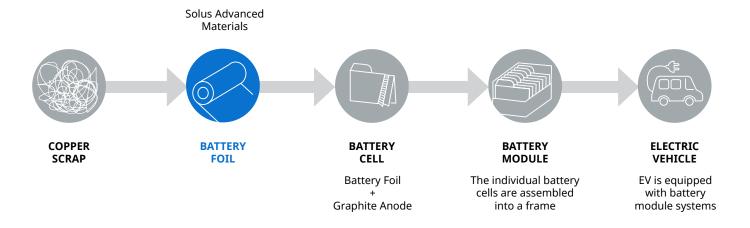
also in South- Korea. In the name of dynamic growth and diversification, Solus expanded their operations to Europe and established sites in Luxembourg for copper foil and most recently in Hungary for battery foil.

Battery foil is a core material of the electric car battery. Solus Advanced Materials has completed its development of highend, compact, high-efficiency battery 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.





### **Main Product**

# Standard battery copper foil (BF-PLSP)

# • Standard battery copper foil for electric vehicle batteries

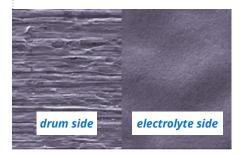
- Cylindrical / Prismatic / Pouch type
- Thickness: 6 18 um

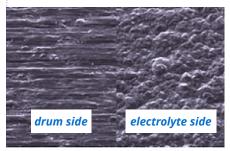
# High-elongation battery copper foil (SR-PLSP)

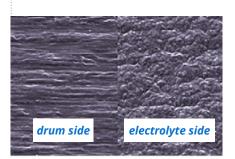
- Contributing to yield improvement by upgrading processability within the battery production process with high strength properties before heat treatment and increasing the life and stability of cylindrical and square batteries with high elongation properties after heat treatment
- · Cylindrical / Prismatic type
- Thickness: 6 12 um

# High-strength battery foil (HTS-PLSP)

- 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 battery 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.

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

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.



346 Employees



**2** Export country



15,000 Tons capacity (Phase 1)



100% Recycled base material

The battery foil manufacturing process can be split into some 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 long term eliminate carbon emission and make the continent carbon neutral. Electromobility is an essential part of this transition, and we are proud to be an active contributor of this process.

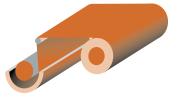
> Smooth and efficient manufacturing means efficient use of resources. Here sustainability and efficiency go hand in hand. By increasing productivity, we can reduce emissions per unit of net production.

Jenö MARÓDI, Manufacturing

Preparing electrolyte for plating

Producing copper foil of uniform **Plating** thickness by plating Cu ion on drums in electrolyte solution

**Manufacturing process** 



Slitting Sheeting

Slitting in the width direction of the copper foil according to customer demand size



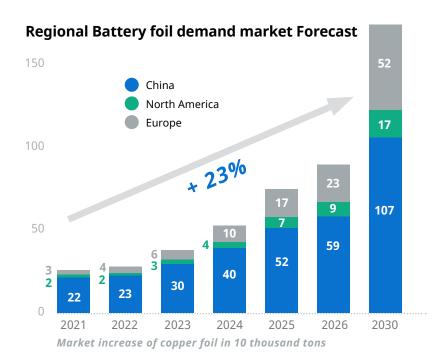
Inspection Shipping

Packing and shipping after quality inspection

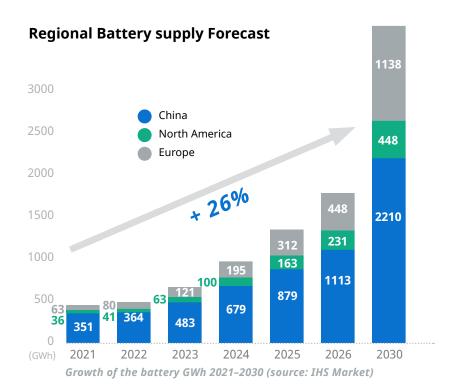


Mr. Chin discusses technology opportunities with management team members





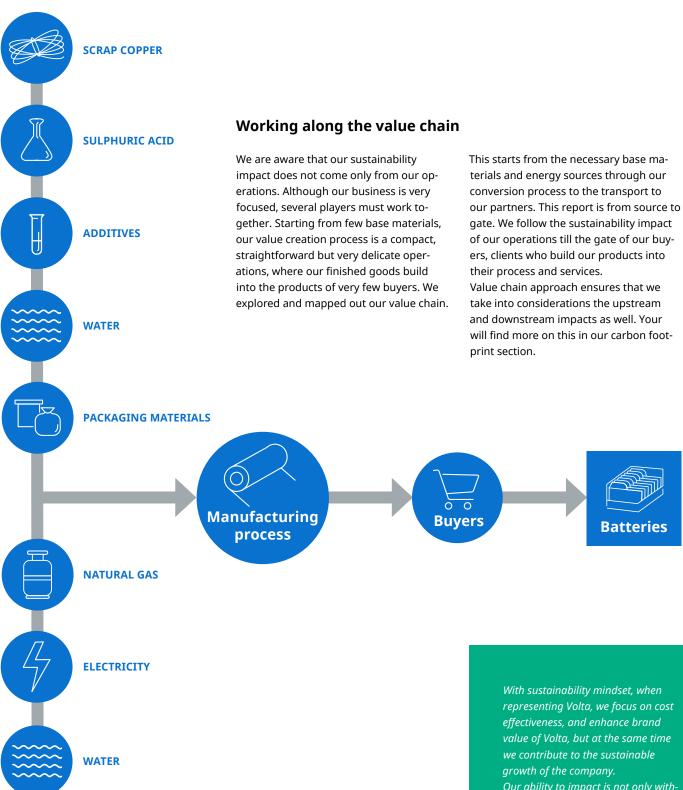
For Volta, this steady growth in demand means continuous increase in production capacity in the years to come. This highlights even more the necessity of keeping sustainability at the forefront of decisions. Our factory expansion programs already include in the design phase the engineering solutions 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.



Currently sustainability issues are raising up all over the world, and became part of customer satisfaction:
We fully support this notion.

Hyeokboo KWON, Sales

### **Base Materials**



# **Energy and Water**

With sustainability mindset, when representing Volta, we focus on cost effectiveness, and enhance brand value of Volta, but at the same time we contribute to the sustainable growth of the company.

Our ability to impact is not only within Volta's, but also to our external partners, with regular evaluation of our suppliers with reasonable 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



# 3. Our purpose

We create value through continuous new material development, technological innovation and providing solutions to changes 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 electro-mobility 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. 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 project, and treat sustainability as key issue in our strategy development.

Minsu SHIM, 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

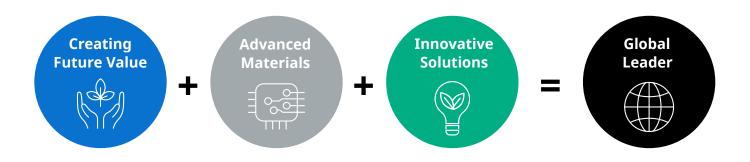
Additionally, limiting carbon emissions are increasingly backed by new regulations and new taxes. More and more can be expected.

Dedicating resources to ESG is an essential step to secure sustainable growth from corporate finance perspective. This enables us to access competitive financing conditions such as discounted loan rates and to deepen relationship and interactions with financial institutions.

Jungsoo HYUN, 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.





# 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. Therefore, we started



our sustainability journey with measuring, understanding, and managing our environmental impacts first, with the commitment to expand our scope to social and governance in our next report.

Producing battery foil



# 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.



# **Understanding what** 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

# Share of responding stakeholders in survey

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 impact assessment.

10% 20% 30% 40%

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 help us to guide our efforts to most significant topics and areas. With the involvement of the senior management team and consultants we defined which are the material issues. 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:

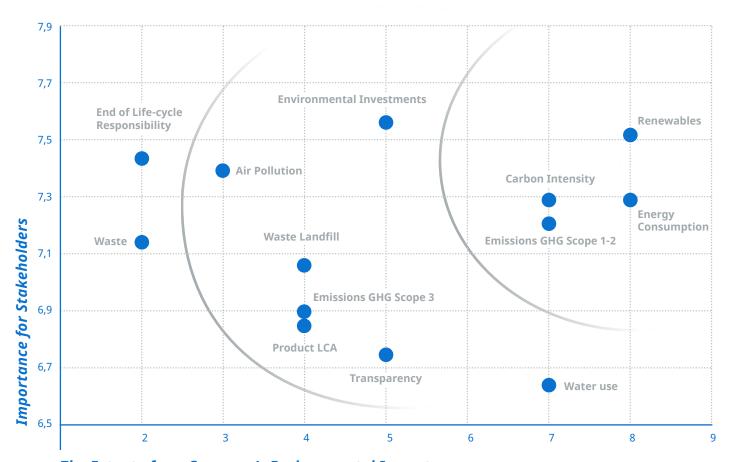
- 1. energy consumption
- 2. scope 1 and 2 emissions
- 3. carbon intensity
- 4. renewables
- 5. water impact.

In this report your will find detailed explanation on all these areas, their related programs, and initiatives. But before going into details of these material topics, let's see how we fit to the SDG's as the most important sustainability framework.

**OPERATIONAL** 

**STRATEGIC** 

**CRITICAL** 



The Extent of our Company's Environmental Impact

### Our contribution to the SDG's

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 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 influence on these 17 SDG's. We have prioritized where we can have our biggest contribution (primary SGD's) where our activities can make significant impact (secondary SDG's) and which are the ones (tertiary SDG's) where we have modest or even just small contribution.



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 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.























### Tertiary SDG's

We also support and contribute to the rest of the SDG's, 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"

7,258 tons of copper foil produced in 2021

Our environment provides us with all the condition 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:

# 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.

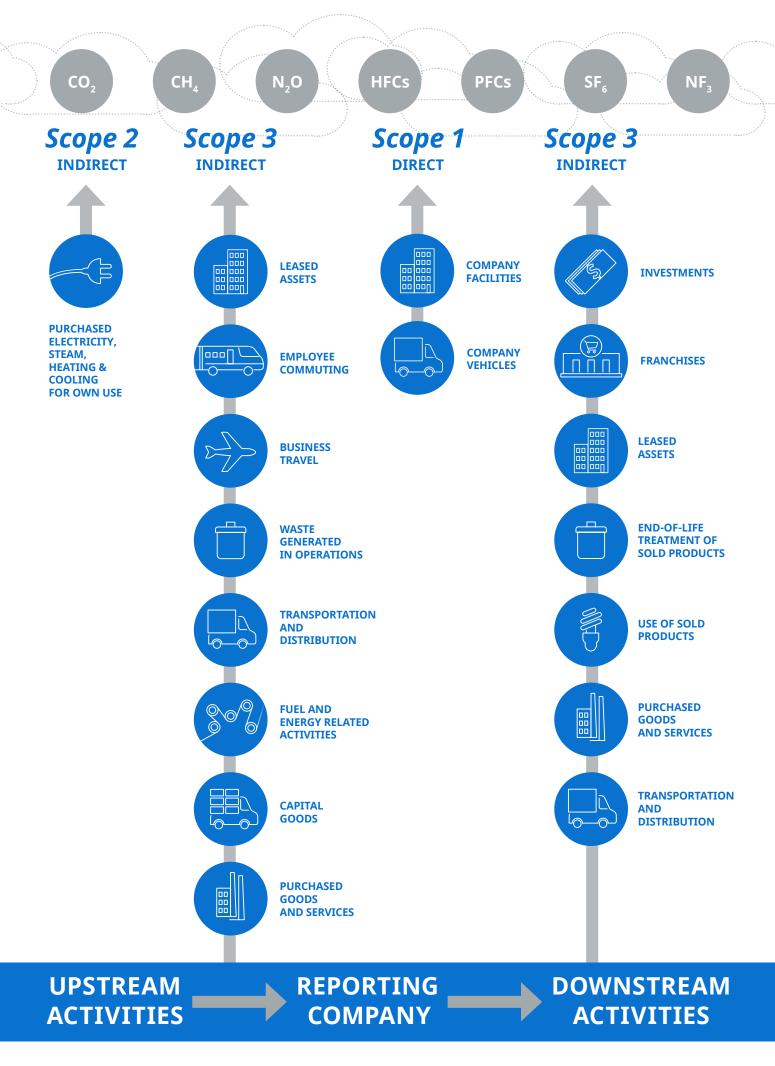
> 24,000 tons of CO<sub>2</sub> emitted From our scope 1 & 2

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 manufacturer.

Producing copper foil is an energy intensive process. A significant amount of electricity and natural gas are used during our manufacturing process. The first step towards managing our CO<sub>2</sub> emissions, is understanding its size and composition. Therefore, we decided to measure and calculate our corporate and product carbon footprints in 2021. Our footprint, similarly, to this report, drew the boundaries around the manufacturing site in Környe. (Source to gate approach).

We measured our Scope 1 and 2 and made estimates on Scope 3 emissions. Our total carbon emission (scope 1,2 and 3) is just above 40,089 tons of CO<sub>2</sub> eq. We contracted denkstatt Hungary Ltd. as consultants to provide us with expertise on carbon footprint calculation following the GHG Protocol. With this total quantity we are around 0,08% of the total Hungarian national carbon emission.

- 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.



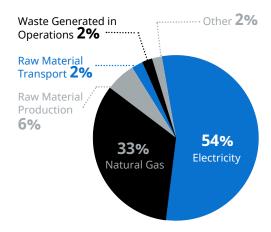
Scope	Activity	t CO <sub>2</sub> eq/2021	%
Scope 1	Energy sources burned on-site	9602	24,0%
	Company vehicles	4	0,01%
	On-site transport materials	112	0,3%
	Direct emissions (other sources)	5	0,01%
	Scope I total	9722	24,3%
Scope 2	Purchased electricity	15 837	39,5%
	Scope II total	15 837	39,5%
Scope 3	Energy transport & distribution	9331	23,3%
Upstream	Water use	113	0,3%
	Business travel	73	0,2%
	Employee commuting	43	0,1%
	Raw material production	2379	5,9%
	Upstream raw material transport	1227	3,1%
	Purchased services	147	0,4%
Down- stream	Treatment of waste generated in operations	840	2,1%
	Waste transport	6,9	0,02%
	Wastewater treatment	134	0,3%
	Downstream transportation and distribution of product	236	0,6%
	Scope III total	14 529	36,3%
Total		40 089	100%

As shown in the analysis, 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**

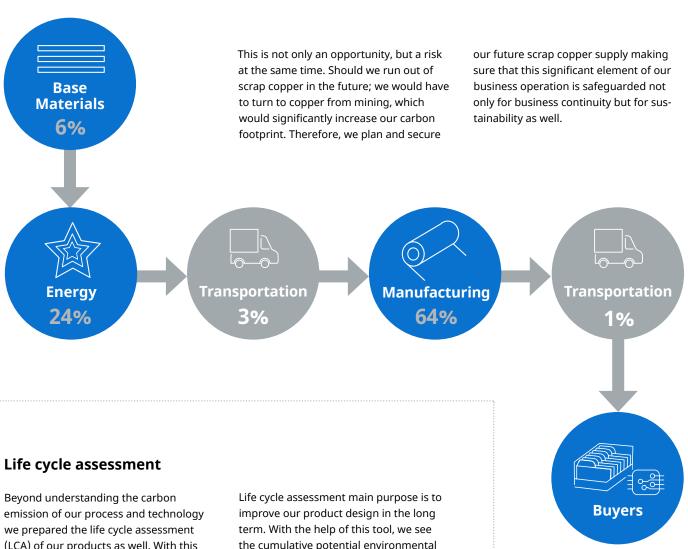
# scope 1 scope 2 scope 3

# Biggest contributors to the carbon footprint



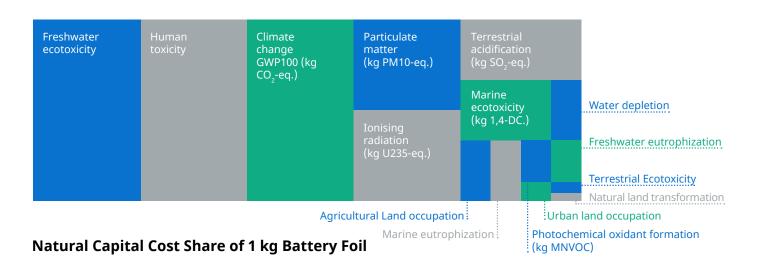
Our Scope 1 emissions exceeded 9,700 tons in 2021, being responsible for 24% of our total emissions. This comes mainly from the natural gas burnt on site to provide energy to our technology. Our Scope 2 emissions from purchased electricity

make up to 40% of our total emissions. With this we have a combined share of 64% from our scope 1 and 2 emissions. We are in the process to explore the ways to integrate changes in our operation to significantly reduce our GHG emissions.



Beyond understanding the carbon emission of our process and technology we prepared the life cycle assessment (LCA) of our products as well. With this assessment we made a big step towards understanding not only the carbon, but the entire environmental impacts our products have for its 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 main purpose is to improve our product design in the long term. With the help of this tool, we see the cumulative potential environmental impacts. The focus areas of this analysis 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.



Energy, water and utilities. My area of responsibilities are the key areas of sustainability. We draw our baseline to understand what and how we can improve. We continuously improve the setting and machine design, for example we will buy an axis shaft adjustment device that we will be able to reduce wrinkle problem. It means that we will produce more good quality products with the same amount of energy.

Vilmos Takacs, Facility management team

> 405 mio liter water

# 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 water.

Our process in not only energy but water intense as well. Our annual water consumption exceeds 405,000 m<sup>3</sup>, or 405 million litres. This is equal to 200 Olympic size swimming pool water quantity.

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 process. There is no local well or other source for water supply. Our water management currently focuses on efficient use of process water and reuse some of the water which leaves the manufacturing process.

Water is a critical sustainability factor not only for our current but for our long-term operation and growth as well. Our further looking plans to expand production takes water as an important element into consideration.

Our ambition is to establish a water balance and analysis and explore all potential in the technology to make our water use more efficient.

We have one water release source which require special treatment and cleaning process. This is the 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 only treated and cleaned water is released into the pipe system.

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

Reuse of the quality defect copper foil is 100%. With this we do not let precious resource to be wasted and cost effective solution.

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

**OUR AMBITION IS** TO ESTABLISH A WATER **BALANCE AND ANALYSIS** AND EXPLORE ALL POTEN-TIAL IN THE TECHNOLOGY TO MAKE OUR WATER USE MORE EFFICIENT.

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 in production process equipment, application of LED lights to factory lighting equipment. We also reduce boiler operation by recovering process waste heat and extend renewable energy via solar PHV.

Sihyung LEE, **Construction team** 

## **Waste management**

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

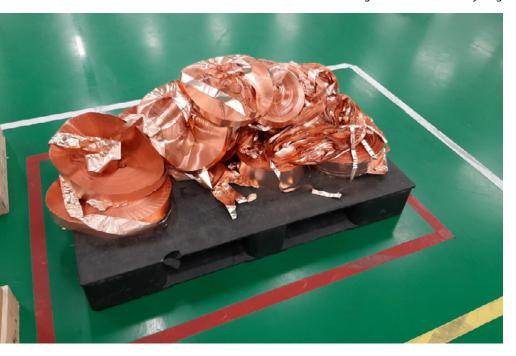
Non-hazardous wastes are mainly the packaging materials and communal waste generated in the factory. These are collected selectively and transported to our qualified waste management partner.

Significant part of our waste is the hazardous waste which is generated in the technology and appears as sludge containing high quantity of copper. For this reason, this is very valuable and a precious material for our waste management partners who can recover the copper content and treat this waste properly. Improving our process efficiency, we will significantly reduce our total waste quantity in the years to come.

Hazardous waste is collected and stored in outside (open air) waste yard in tanks protected by engineering control. The material flow within the factory site is done through a closed pipe system, and in smaller quantity materials via manual handling in small containers.

Total amount of waste 1,751 tons

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 eight emission point sources. Three of them belong to a boiler each, used for heat during production. Emissions from burning gas,

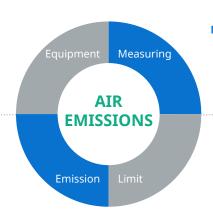
apart from GHG-s include nitrous-oxides (NOx), which can have adverse respiratory effects, contribute to atmosphere acidity and multiple other issues due to their high reactivity. Four point- sources are the end-gas scrubbers from our onsite wastewater treatment unit, where the compounds used in our manufacturing, like copper and sulphuric- acid have the option of entering the atmosphere with the water steam. Similarly, chromium

compounds can also be emitted from the final point source 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 chromium dissolving unit emission point in each year.



Our equipments are recently installed and of the newest technology





Our measurement frequency is in line with the risk



We have set a 1, 3 and 5 years measurement plans depending on the emissions



We comply with our emission limits (e.g. chromium)

### 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 does not come from the process and technology but from the facility management opera-

tions. Main noise sources are the facility management equipment and cooling towers. Daytime traffic can generate some noise, but since we are in an industrial zone no complaints, or any other issues are reported.

# 6. Our sustainability governance and business ethics

Volta assigned the responsibility of sustainability activities to a member of the management team, the ESG manager. Our ESG manager reports to the CEO, ensuring the direct access to decision makers and 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 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.
- 2. We shall have a safer working environment, establish its working procedures, and then comply with them in order to guarantee the safety of workplaces and to prevent a possible injury.
- 3. We evaluate EHS risks in all such activities as development, product production, sales, and the establishment of factories.

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 activ-

ities which defines the requirements of fair ways of doing business wherever we operate.

Additionally, critical elements of this initiative 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, if the company is 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.

Tamas SOLOMOS, Human Resources



# 8. Helping local communities

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



As stated in the boundary section of this report we are committed to expand the current scope of this report with the social sustainability and governance chapters as well. Our next edition will have a thorough overview of all sustainability and ESG impacts.



Preparing for Christmas 2021 many of our colleagues collected toys and other gifts from their households and brought them to the company. For days the EHS and Factory Logistics team worked hard on purchasing and wrapping up the presents for this special occasion bringing a bit of joy to the less fortunate families.

Our company is planning to operate a program to enhance the understanding of social responsibility and engage with our employees to extend their involvement.

Taking care of people and the planet is the prime role of our

We coordinate all the departments 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.

# **Conclusion**

We hope reading our very first 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. We asked our partners, authorities, suppliers and buyers about how they see our industry's biggest sustainability challenges. Then we completed our materiality assessment. Highlighting what material, we know where to focus our efforts and investments.

Our industry is energy intensive, which leads us to high carbon intensity. Climate change is a serious concern and we want to take part in reducing or limiting of the global warming. This is why we measured our corporate and product carbon footprints. With this tool we see which our most carbon emitting processes are, and can build plans for decarbonization of these steps. We have also completed

the Life Cycle Assessment of our product to understand not only the climate but the entire environmental impact of our products.

Although climate is the most important environmental impact we gave overview in this report on our water management processes as well as air emissions. 2021 was the first full year of operations for our site thus no historic data available yet. Since one year of operation was not sufficient to establish our baseline impact, we could not set targets for the future. We are aware of this gap, and work on it. After consolidating our production processes we set targets for all significant environmental impacts.

Sustainability is not only about environment. This is why we made our commitment to expand our programs and transparency to social sustainability as well as governance. In our next report you can expect a 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	Remark
GRI 102: General disclosure			
Organizational overview			
102-1	Name of the organization	This is Volta	
102-3	Location of the reporting entity	This is Volta	
102-7	Size of the reporting entity	This is Volta	
Strategy and analysis			
102-14	Statement from leadership	Foreword	
Business ethics and integrity			
102-16	Values and norms	Business ethics	
Stakeholder involvement			
102-42	Stakeholder identification and selection	Our approach to sustainability	
102-43	Stakeholder involvement	Our approach to sustainability	
Reporting practice			
102-46	Boundaries	About this report	
102-47	List of material issues	Our approach to sustainability	
102-53	Contact details concerning report	Impressum	
102-55	GRI index	GRI index	
Data provided based on materiality			
GRI 302 Energy use			
103-1,2,3	Management approach	Climate protection	
302-3	Energy intensity	Climate protection	
GRI 303 Water use and sewage			
103-1,2,3	Management approach	Water management	
303-1	Water as shared resoruce	Water management	
303-4	Water release	Water management	
GRI 305 Air emissions			
103-1,2,3	Management approach	Climate protection	
305-4	GHG emissions	Climate protection	
GRI 306 Wastes			
103-1,2,3	Management approach	Waste management	
306-1	Impact assessment concenring wastes	Waste management	
306-2	Handling of waste impacts	Waste management	
306-3	Waste generated	Waste management	

# 10. Environmental performance metrics

KPI		2020	2021	Target	Remarks
Combat climate change					
Total GHG emissions	t CO₂e	N/A	40 088		
Scope 1	t CO <sub>2</sub> e	N/A	9722		
Scope 2	t CO <sub>2</sub> e	N/A	15 837		
Scope 3	t CO <sub>2</sub> e	N/A	14 529		
Carbon intensity (emissions per amoun produced)	t CO <sub>2</sub> e	N/A	19		
Non-fossil energy	%	N/A	tbd		
Renewable energy	%	N/A	tbd		
Electrical energy intensity	kWh/t	N/A	30,6		
Water management					
Total water withdrawal	m³	N/A	405 763		
Water consumed (withdrawal minus discharged)	m³	N/A	99 018		
Water intensity	m³/t	N/A	46,9		
Water reused	%	N/A			
Waste management					
Total amount of waste	t	N/A	1781		
Recycling ratio	%	N/A	tbd		
Landfill ratio	%	N/A	tbd		
Hazardous waste	t	N/A	1567		
Waste intensity	t/t	N/A	0,8		
Air emissions					
NOx	kg	N/A	1226		
CO <sub>2</sub> (boiler emission measurement)	t	N/A	3198		
Chromium	gramm	N/A	0,1		
Sulfuric acid	kg	N/A	637		
Copper	kg	N/A	5,2		

<sup>\*</sup> tbd - to be developed

<sup>\*\*</sup> targets – although current data on targets are not available we commit ourself for future reporting of these elements.

<sup>\*\*\*</sup> NA – not availabe

# *Impressum*

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