



IMPACT REPORT 2022

STRATEGY, DATA AND METHODOLOGY

LEARN MORE ABOUT OUR STRATEGIC APPROACH

We want to create a positive impact in the world together. We're convinced that in order to achieve this, sustainability must be integrated at all levels of our business, beginning with our products and extending to our company as a whole and along the supply chain.

OUR SUSTAINABILITY VALUES

We're mission-driven, passionate and deeply believe in what we do. We're here to challenge the status quo and make a positive impact in the world – from cutting down local air pollution and fighting climate change to helping create a better and safer working environment for people.

For us, sustainability is not an add-on or a “nice to have” – it's at the very core of our DNA. Our sustainability values have been defined within a peer group at instagird. These values drive our work, attitude and behavior, both in our day-to-day activities and when making strategic decisions.



FACT-BASED

We constantly improve the quality of our data collection and measurements and establish monitoring processes. Wherever it seems appropriate we collect primary data. When using secondary data, they are from verified sources.



360°

We work on getting a holistic picture of our business activities, including impacts on environment and society along the lifecycle of our product. This enables us to take impact-based decisions and measures.



TRANSPARENT

We set information into context. We communicate on our positive impacts but also on negative impacts and challenges that we face. Communication will be provided in a comprehensible manner for different stakeholder groups.



COMMITTED

We are committed to our work and the people that work with us. We are keen to share our passion with others, establish trustful partnerships, act engagingly and set a high-level example.



IT'S ALL ABOUT THE IMPACT

Our sustainability strategy is based on identifying and strengthening our positive impacts and minimizing or eliminating any negative impacts resulting from our business activities. The strategy is the result of a comprehensive analysis, carried out from June to September 2022. Our approach is also shaped by input from our key stakeholders, as involving them in the process is the best way to understand the many complex ways our business is interlinked with society and environment. We engage with our stakeholders, including employees, suppliers, costumers and investors, through peer discussions, surveys and one-on-one meetings. This dialogue with internal and external stakeholders allows us to understand the level and depth of attention a given issue receives from different stakeholders. We value this exchange with different stakeholders as it enables us to take a wider lense and consider product-, country- and sector-specific impacts.

We take global developments also into account by referring to the Global Reporting Initiative (GRI) and the Sustainable Development Goals (SDGs).





Where can we make a significant change?

As a small company, we have big ambitions but also must consider where we can make the biggest difference. Through our business activities, we can cause, contribute or be linked to negative impacts on the environment and society at large.

Therefore, we must identify them and carry out corresponding measures to prevent, mitigate and end those negative impacts.

What does this mean in practice?

In order to identify instagrids most relevant positive and negative impacts we have conducted the following steps.

1 IDENTIFY

We've conducted desk research to identify the positive and negative impacts of our business activities on the environment and society. We've taken into account product-, sector- and country-level contexts. We have used various internal and external sources for guidance, including international frameworks, expert interviews and sector studies. The result is a list of 20 potential risks and impacts, which we have clustered into our three strategic pillars: Environment, Circularity and People.

2 ASSESS

We conducted a management workshop where the 20 potential risks and impacts were assessed according to their severity and likelihood. Within the context of this workshop, new topics were added and some merged for ease of reference. We then conducted a stakeholder consultation, through an online survey, following GRI guidelines. The survey helped us to understand how much attention each potential impact receives from different stakeholders. In total, 60 stakeholders participated in the online survey, including employees, customers, investors and suppliers.

3

PRIORITIZE

We incorporated the results in a joint matrix from both the management workshop and stakeholder survey. In order to prioritize issues, we divided the matrix into nine quadrants with three priority levels (low, medium and high). A third dimension, namely the leverage effect, was added to the matrix. This exercise helped us derive seven strategic priorities.

4

INTEGRATE

We chose an integrated and holistic approach to sustainability. In order to put this into practice, we set out a cross-function roadmap which includes objectives on a product-, company- and supply chain-level. The roadmap and objectives are based on our strategic priorities. To discuss strategic priorities and monitor our progress company-wide, we work in cross-department project teams and have established a cross-functional Sustainability Lab which meets on a regular basis. The Board of Management participates in annual workshops to help set the frame and ambition, and is regularly involved in strategic discussions.

5

REPORT

We aim to conduct a comprehensive impact report that's published on an annual basis. With our 2022 report, we are setting the baseline for comparative reporting over the years. We aim for the report to be transparent, fact-based and take a holistic perspective. In addition to our annual report, we also conduct quarterly reporting on selected metrics.

6

DEVELOP

Sustainability is not only an integrated process, but also a process of continuous development and improvement. Since we work in a very dynamic environment, we see a need to repeat this assessment on a regular basis or in response to exceptional changes in our operating environment. We are actively seeking to extend our stakeholder base, and intend to proactively invite stakeholders for an ongoing dialogue on sustainability topics.



OUR STRATEGIC PRIORITIES

Our seven strategic priorities which build the basis for our Sustainability Roadmap:



ENERGY CONSUMPTION OF PRODUCTION AND SOURCING

Emissions related to our business activities can negatively impact the environment and drive climate change. Also on a corporate level travel emissions, energy use of corporate buildings contribute to global GHG emissions. Learn more about how we want to reduce this on page 10 and in our impact report on our website.



ACCESS TO CLEAN ENERGY

Our products can positively impact peoples occupational health and safety by using a clean alternative. Learn more about how many people work in a cleaner environment on page 13 and in our impact report on our website.



LOCAL EMISSIONS

Our product has been developed to positively impact urban air quality: the use of our product results in zero local emissions. Local emissions linked to other product lifecycle stages, e.g. production and transportation, can harm people and the environment. Learn more about how we want to reduce this on page 10 and in our impact report on our website.



POLICY-MAKING AND PROMOTING GREEN ENERGY INFRASTRUCTURE

We see potential in using our expertise to educate others on the negative impacts and low regulation of non-road machineries. We want to share our story and show that we believe that there is another way. One way of sharing our story and expertise will be to release whitepapers on a regular basis and participate in panel discussions on national and EU level.





WORKING CONDITIONS

The battery supply chain is often linked to sourcing of conflict minerals and lithium in countries that have a weak rule of law. This bears the risk of violating human rights and unsafe working conditions. We want to ensure that we source our products responsibly. Learn more about our plans on page 15 and in our impact report on our website.



INNOVATION AND TECHNOLOGY

Through innovation and technology, we can have a positive impact on the environment. For example, we can increase the efficiency of energy use by innovative production processes. The innovative and modular design of our product also helps us improve the circularity of the product. Check out what we are doing here on page 11 and 12 and in our impact report on our website.



PRODUCT END-OF-LIFE

At the end-of-life stage, the capacity of the batteries slowly starts to decrease. When the battery does not deliver sufficient capacity for its user, it often gets dumped improperly or stored somewhere without being used. This negatively affects the environment due to hazardous substances that are contained in the battery cells. This is why we work on extending the lifetime of our products as far as possible, and create second use applications. We also seek into strategies to increase our clients' recycling rates. Learn more on page 11 and 12 and in our impact report on our website.



HOW WE CREATE IMPACT TOGETHER AND QUANTIFY IT

For ease of reference, we have created an overview of our impacts and the objectives linked to it. We will annually report on our progress and conduct quarterly reporting on selected metrics.

We are guided by internationally recognized standards. We're committed to the UN Guiding Principles of Business and Human Rights (UNGDP) and the International Labor Organization (ILO) Conventions. We've identified relevant Sustainable Development Goals (SDGs) and detailed how we contribute to their achievement. Where feasible, we link out KPIs to the Global Reporting Initiative Standard (GRI) as well.



ENVIRONMENT	Baseline	Objectives			Reference to inter. frameworks	Methodology
	2022	2023	2025	2030		
Amount of energy delivered accumulated over years	1.9 GWH Equals 1300 peoples annual electricity consumption in Germany	n/a	n/a	10 TWH	n/a	Calculation, extrapolation and assumption based on on-field data Comparison with annual electricity consumption: Energieeffizienz, BDEW
Product Carbon Footprint in kg CO ₂ e (total and share of material related GHG emissions of production phase)	1260 kg Aluminium: 9.5 % Battery cell: 49.9 % Electronics: 33.5 % Copper: 0.2 % Plastics: 6.3 % Steel & iron: 0.6%	n/a	n/a	n/a	GRI 305-5 SDG 13 – 15	Comparative Lifecycle Analysis according to DIN EN ISO 14040:2021/ DIN EN ISO 14044:2021
CO ₂ e reduction of replacing a combustion generator by an IG ONE max	High profile user: - 94 % Average profile user: - 97 %	n/a	n/a	n/a	n/a	Comparative Lifecycle Analysis according to DIN EN ISO 14040:2021/ DIN EN ISO 14044:2021 Normalized by the function unit, 1kWh of electricity delivered and taking into account the market share of diesel and fuel generators
CO ₂ e emission savings in tons accumulated over years by replacing a combustion generator	21000 equals 6 wind turbines powered for a year	100000	1 500 000	n/a	SDG 12	Comparative Lifecycle Analysis according to DIN EN ISO 14040:2021/ DIN EN ISO 14044:2021 Comparison wind turbines: Greenhouse Gas Equivalencies Calculator, US Environmental Protection Agency



ENVIRONMENT	Baseline	Objectives			Reference to inter. frameworks	Methodology
	2022	2023	2025	2030		
NOx emission savings in tons per year by replacing a combustion generator	10 Equals taking 14 000 cars off the street	40	700	n/a	SDG 12, 14, 15	Comparative Lifecycle Analysis according to DIN EN ISO 14040:2021/ DIN EN ISO 14044:2021 Comparison cars: NOx emission standards, European Environment Agency and Sectoral Profile Transport Odyssey Mure
Corporate Carbon Footprint in kilo tons CO ₂ e	11.3	Set up net zero roadmap	n/a	n/a	GRI 305-1, 305-2, 305-3 SDG 7, 13 – 15	GHG Methodology (spend- & activity based)
Scope 1 & 2 emissions in % of our total emissions	0.2	Set up net zero roadmap	n/a	n/a	GRI 305-1, 305-2	GHG Methodology (spend- & activity based)
Scope 3 emissions in % of our total emissions excluding PCF	14.6	Set up net zero roadmap	n/a	n/a	GRI 305-3	GHG Methodology (spend- & activity based)
Scope 3 emissions (PCF) in % of total emissions	85.2	Set up net zero roadmap	n/a	n/a	GRI 305-3	GHG Methodology (spend- & activity based)



CIRCULARITY	Baseline	Objectives			Reference to inter. frameworks	Methodology
	2022	2023	2025	2030		
Material Circularity Index	52 %	Increase Circularity by 10 %	Increase Circularity by 25 %	n/a	SDG 12 – 13	Based on Ellen Mc Arthur Foundation Methodology
Input material: Mass share per material	Material Battery cells: 46.1 % Electronics: 5.0 % Copper: 0.4 % Plastics: 18.6 % Steel and iron: 1.6% Aluminum: 20.2 % Share of recycleed material: 73.0 % Paper: 8.0 % Share of recycleed material 37.0 % Ceramics: 0.1 %	Increase Circularity by 10 %	Increase Circularity by 25 %	n/a	SDG 8, 12	instagrid ONE max combined with packaging and its charging cable weighs 22 kg Based on external dismantling and recycling study
Material output: Share of recyclable materials	92 %	Increase Circularity by 10 %	Increase Circularity by 25 %	n/a	SDG 8, 12	instagrid ONE max combined with packaging and its charging cable weighs 22 kg Based on external dismantling and recycling study
Recycling procedure	80.5 % subject to material recycling 10.3 % subject to energetic recycling 9.2 % subject to disposal	Increase Circularity by 10 %	Increase Circularity by 25 %	n/a	SDG 8, 12	instagrid ONE max combined with packaging and its charging cable weighs 22 kg Based on external dismantling and recycling study





CIRCULARITY	Baseline	Objectives			Reference to inter. frameworks	Methodology
	2022	2023	2025	2030		
Repair Rate	88 %	90 %	n/a	n/a	GRI 301-3 SDG 12	number of repaired products / (total number of products returned – products which were misused)
Amount of waste generated in t	Total: 3.95 t Includes: 1.835 t paper&cardbor 0.610 t metal 0.700 t wood 0.660 t plastics 0.020 t biological waste 0.1207 t residual waste	n/a	n/a	n/a	GRI 306-3	Waste balance sheet 2022 instagrid GmbH; residual waste based on conversion factor

PEOPLE	Baseline	Objectives			Reference to inter. frameworks	Methodology
	2022	2023	2025	2030		
KPI	2022	2023	2025	2030	Reference to inter. frameworks	Methodology
People with access to clean energy	22000	50000	n/a	10000000	GRI 403-1, 413-1 SDG 7	Units sold multiplied by number of people impacted: B2B sales 3 people/unit (derived from field studies as part of the EU LIFE Project) B2C sales 1 person/unit
Number of full time employees	81	n/a	n/a	n/a	GRI 2-7	incl. temporary employees
Number of part time employees	11	n/a	n/a	n/a	GRI 2-7	excl. working students and interns
Number of employees in leadership positions	17	n/a	n/a	n/a		
Number of employee languages	21	n/a	n/a	n/a		
No. of employee nationalities	19	n/a	n/a	n/a	SDG 10	
Share of non-leadership employees that identify as women	43 %	n/a	n/a	n/a	GRI 2-7 SDG 5	
Share of leadership that identify as women	47 %	n/a	n/a	n/a		



PEOPLE	Baseline	Objectives			Reference to inter. frameworks	Methodology
	2022	2023	2025	2030		
Share of board of management that identify as women	33 %	n/a	n/a	n/a	GRI 2-9	
Employees under the age of 25	3 %	n/a	n/a	n/a	GRI 2-7 SDG 5	
Employees over the age of 50	10 %	n/a	n/a	n/a	GRI 2-7 SDG 10	
Trainings in h / employee	9	n/a	n/a	n/a	GRI 404-1	
Scope of training	All employees have access to: <ul style="list-style-type: none"> • Digital language training • Coached Feedback training • Digital learning platform <p>Training according to individual needs e.g. conflict negotiation and resolution</p>	n/a	n/a	n/a	GRI 404-2 SDG 4	
Gender Pay Gap	13.32% in favour of women	n/a	n/a	n/a	GRI 405-2	Average salary gap between men and women at equal job, seniority level and location





PEOPLE	Baseline	Objectives			Reference to inter. frameworks	Methodology
	2022	2023	2025	2030		
% of Supply chain mapped Tier 1-Tier 3	n/a	100 %	Expand to Tier 4 - 5	n/a	SDG 3, 7, 8	
Supply Chain Due Diligence Tier 1 - Tier 3	Define supplier requirements and develop monitoring measures	Evaluate 70 % of Tier 1 to Tier 3 suppliers	Expand to Tier 4 - 5	n/a	SDG 8	

CONTACT

Mail:

hello@instagrid.co
sustainability@instagrid.co

Phone:

+49 7141 69624 - 0

Office:

instagrid GmbH
C/O GETRAG AREAL
Hermann-Hagenmeyer-Straße 1
71636 Ludwigsburg
GERMANY

Represented by:

Dr. Sebastian Berning
Dr. Andreas Sedlmayr

