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Sustainability Report 2022

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Reporting according to GRI

This report was prepared in accordance with the GRI standards published in 2021 (www.globalreporting.org**)**

Dear shareholders and stakeholders,

Electricity plays an essential role in modern life and we almost take it for granted. Brugg Cables promotes since 126y by its high quality and innovative products and services a reliable energy transmission.

The reduction of greenhouse gases is a key issue within our society and electricity plays an increasingly crucial role in this matter. According to European Union estimates, the share of electricity in the overall energy consumption will increase from the current 23% to 50% by 2050. This represents a doubling of the amount of electrical energy consumed worldwide. Bearing in mind that this increase has to be covered by renewable energy it is obvious that the world has turned around dramatically since the late nineteen hundreds.

The growth of renewable energy is closely linked with the transmission network. For every Euro spent on renewable energy, the same amount must be invested in the transmission network. In turn, this means a substantial increase in demand for underground cables and the transformation to more sustainable energy generation is only possible with high quality products as delivered by Brugg Cables.

It is obvious that power transmission is a market, which is essential for a more sustainable world. In this respect I am proud that we have published our first sustainability report, a small step, but very meaningful for our future activities.

It is our sincere intention to render the production of power cables more sustainable. In the last year we invested in a new dosing system, allowing the use of recycled polymers in the outer sheath of our cables. Intensive tests have shown that this is possible without an impact on the quality. This is one step towards a true recyclable economy.

We are further expanding our worldwide network of suppliers, thus creating jobs and local value and optimizing the transport cost. We are determined to further localize our business in key markets, while ensuring the application of the highest ethical standards in all our activities.

With this in mind, we entered into a partnership with The Copper Mark. Copper is a key raw material for us and through the cooperation with The Copper Mark we receive all the necessary information for the sustainable procurement of this metal.

We have started a co-operation with Ergo Srl, an Italian based consulting company to launch a Product Environmental Footprint (PEF) tool. This will enable us to measure exactly the footprint of all our products, allowing us to define specific targets for improvements.

It was a pleasure participating in the National Future Day allowing young people to get an insight in the world of transmission cables. It is essential that our industry makes young people aware that we are up-to-date and more than ever contributing to a more sustainable energy supply.

Terna S.p.A as our shareholder is strongly committed to all aspects of sustainability and recently joined the science-based target initiative (SBTi). We will define how we can contribute to their ambitious 1.5°C near term target for 2030.

Samuel Ansorge
CEO Brugg Cables

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Contents

1 Scope of Sustainability Report (GRI 2-1 to GRI 2-5)

This Sustainability Report applies to Brugg Kabel Services AG with its controlled companies Brugg Kabel Manufacturing AG and Brugg Kabel AG, hereinafter referred to simply as Brugg Cables at the address Industriestr. 19, CH-5200 Brugg. The headquarter of Brugg Cables is at this address and the countries of operation are worldwide and supported by subsidiaries of Brugg Kabel AG and Brugg Kabel Manufacturing AG in China, Germany, India, Italy, KSA, Kuwait, Middle East and USA.

The activities of the subsidiaries are not the subject of this report. They will only be included in a future sustainability report. The headquarter in Switzerland is by far the biggest site and contributes to 66% of the total number of employees and approximately 95% of the emissions of Brugg Cables. Except for China, all other subsidiaries are non-operational. In China we have both, an office in Shanghai and a production site in Suzhou.

The ownership structure is shown below:

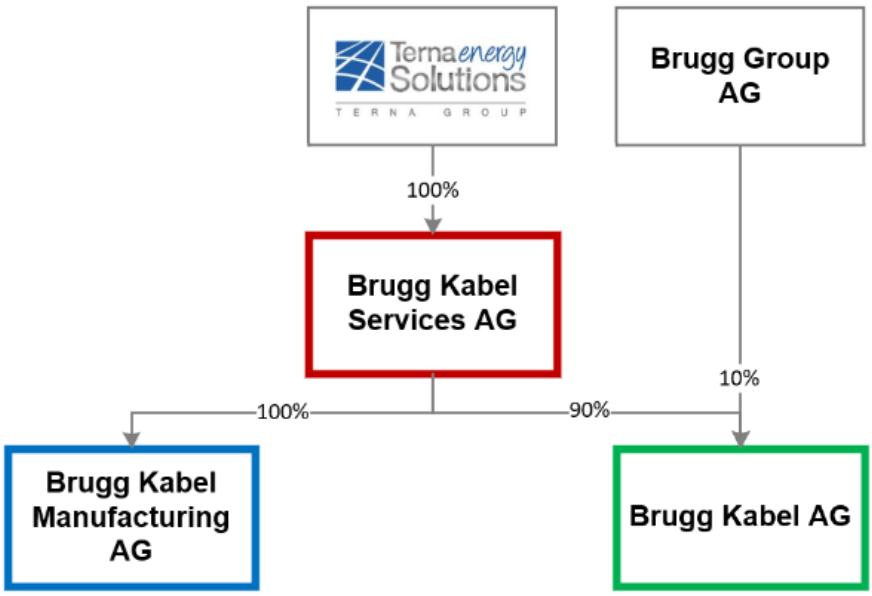


Figure 1 - Ownership structure

The consolidated financial statement is prepared by Deloitte, Switzerland, and contains all subsidiaries of Brugg Cables worldwide and has the same frequency and reporting period as the sustainability report.

Starting in the year 2020, KPIs from Brugg Cables are being publicly reported in the Terna S.p.A. integrated report[1]. This is the first time Brugg Cables is publishing an independent sustainability report, so there is no need to restate information.

The annual sustainability reporting period is 01. January – 31. December and not subject to external assurance except for the information also published in the Terna S.p.A. integrated report which is subject to a limited assurance by Deloitte & Touche S.p.A.[2]

As contact point for questions on the reported information please get in touch with:
Klaus Lattasch, Head of Global Quality Management, at klaus.lattasch@bruggcables.com

[1] 2022 Terna Annual Report - Integrated report
[2] Refer to page 290 of 2022 Terna Annual Report – Integrated report for limitations of assurance

2 Sustainability Strategy

Brugg Cables provides tailor made intelligent cable solutions, profound engineering expertise and worldwide maintenance capability through the business unit Power Cable Systems while the business unit Cable Accessories is an independent and well-proven provider of smart cable accessories supporting the clients globally with local installation services and intimate knowledge.

Brugg Cables is pursuing the ambitious goal of becoming the world's most sustainable cable and cable accessories manufacturer. In doing so, as participant of the UN Global Compact[3], we are guided by the UN's 10 principles in the areas Human Rights, Labor, Environment and Anti-Corruption and the 17 Sustainable Development Goals (SDGs), considering the expectations of our customers and other stakeholders as well as national and international laws and framework conditions.

Figure 2 – Brugg Cables overall sustainability goal

[3] https://unglobalcompact.org/what-is-gc/participants/148814-Brugg-Kabel-AG

3 Sustainability Targets

Brugg Cables' sustainability goals are in line with the 17 SDGs formulated by the United Nations.

Figure 3 - The 17 Sustainability Goals

Based on our product portfolio and business model, we have prioritized the SDGs to focus on those to which we can make the greatest contribution, and which are also relevant to our main shareholder, Terna S.p.A., in the context of its integrated report.

4 Material Topics

By applying GRI 3 Material Topics 2021 we assessed Brugg Cables material topics following the recommended workflow therein:

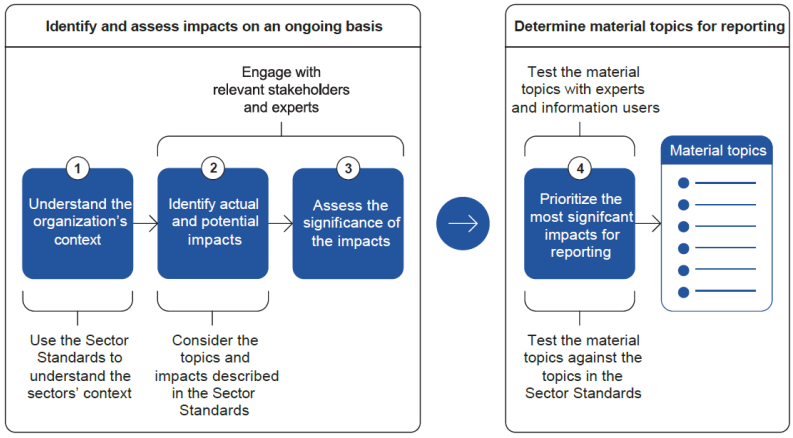


Figure 4 - Process for determining the material topics

As there is not yet a sector standard available for the cable industry, we assessed the significance of the impact of our business to the 10 principles and the 17 SDGs applying the relevant GRI topic standards.

The prioritization of the SDGs was carried out through an anonymous survey of the company's internal stakeholders on the importance for and possibilities of influence on the part of Brugg Cables Switzerland. Multiple selections were permitted, which led to the following result:

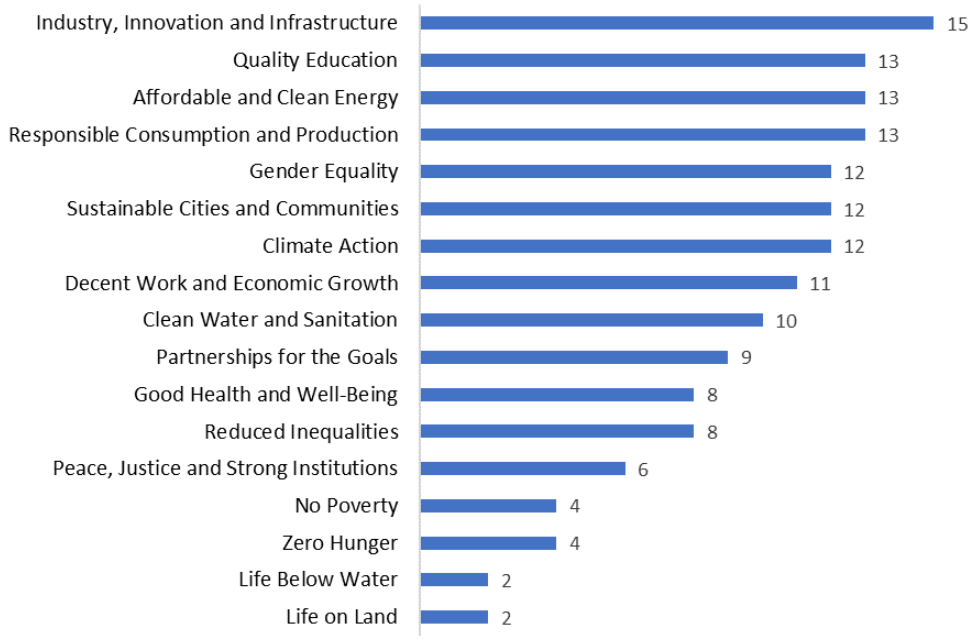


Figure 5 - Prioritized SDG's of Brugg Cables

Thus, the SDGs with the highest relevance for us in descending order are shown to the right.

For these selected SDGs, we have defined targets and adopted measures to achieve them.

The SDG 3 "Good Health and Well-Being", although rated lower, was included because KPIs relating to this are required for the integrated report of our shareholder Terna S.p.A.

Figure 6 - Material topics for Brugg Cables

Focusing on the above SDGs does not mean that we disregard the less relevant SDGs. We will also implement measures for this group of SDGs if we can make a contribution as a result. However, no targets will be set.

5 Target tracking of the measures

Brugg Cables has implemented a program called G4E (Go for Excellence), which is overseen by a full-time program manager. It contains all relevant targets to be achieved by the various functions, including those that have an impact on the above-mentioned SDGs. The targets are reviewed every two weeks and presented to the BoM (Board of Management).
As Brugg Cables' sustainability efforts evolve over the next years, for all material topics clear targets will be defined and tracked through the G4E program.

6 Targets and measures of the relevant SDGs

Objectives:

- Offer apprenticeships for young people
- Offering internal and external training through the Brugg Academy

Offer apprenticeships for young people

Brugg Cables has a long tradition of giving young people the opportunity to learn various trades. Currently we offer apprenticeships for commercial assistants, polymechanics and plant operators. Over the last 5 years 32 students completed an apprenticeship in these professions.

The apprenticeship lasts 2 - 3 years and ends with an examination and a practical test. Afterwards, some young people stay at Brugg Cables and gain experience in their profession. In today's fast-paced world, they need to keep their knowledge current. We therefore support employees who want to keep up to date or acquire additional knowledge and skills.

When young people start their apprenticeship, they are usually between 16 and 20 years old, but Brugg Cables starts much earlier to interest them in our company. We participate in the "National Future Day" initiative. In 2022, we were one of more than 2'500 Swiss companies, organizations, vocational schools and universities that took part in Future Day and gave interested 5th to 7th grade students an insight into gender-atypical professions. 16 students took the opportunity to learn where their parents or relatives work in the various functions and areas of the company.

Picture 1 - Participants of Future day 2022 at Brugg Cables in Brugg

At the other end we give older employees the opportunity to gain a professional certificate as a machine operator without having completed the corresponding basic vocational training. This is provided for in Article 32 of the Ordinance on Vocational Education and Training in Switzerland. Employees who have already gained many years of experience in their job at Brugg Cables are eligible to qualify for this program.[4]

[4] https://www.ag.ch/de/verwaltung/bks/berufsbildung-mittelschulen/bildung-fuer-erwachsene/berufsabschluss-fuer-erwachsene

Offering internal and external training through the Brugg Academy

In addition, we have established an Academy that offers online trainings since 2022 and for more than 100 years dedicated on-site trainings at our head quarters in Brugg or at the premises of our customers and partners worldwide. Participants learn first-hand and hands-on from our experts, who have acquired their knowledge and experience in many worldwide cable and accessories projects up to voltage levels of 550 kV (figure 7).

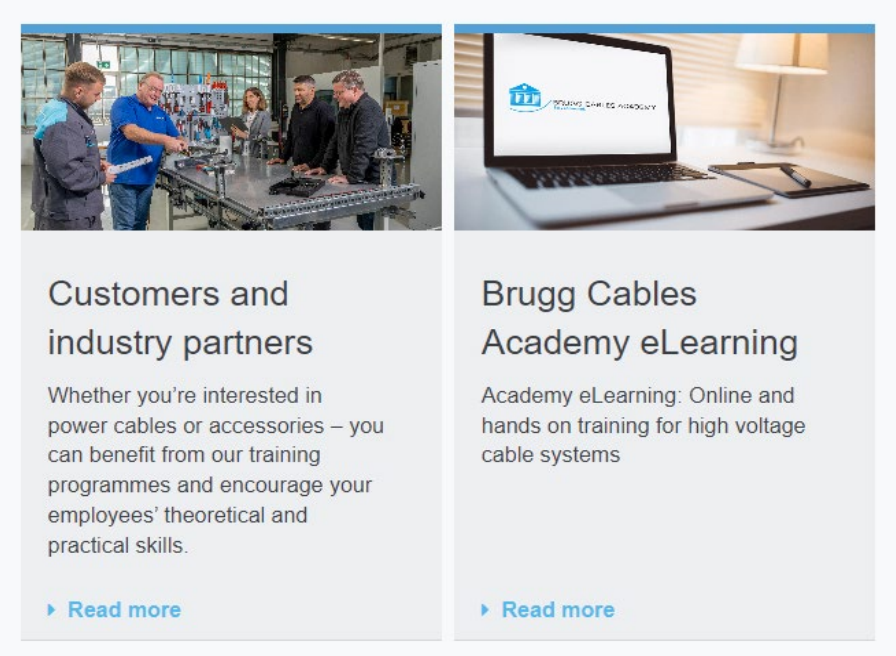


Figure 7 - Brugg Academy training on-site (left) and online (right)

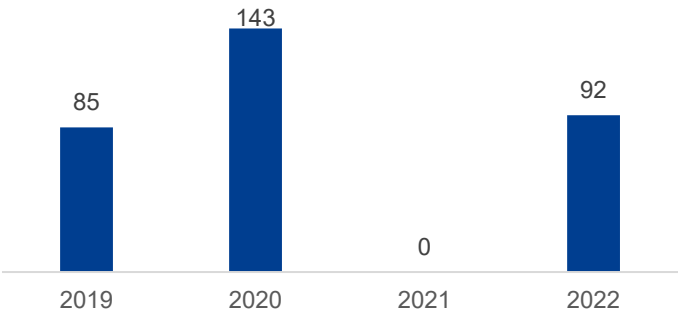


Table 1 shows the number of external participants in one of the 6 different cable courses offered.

As to be expected, the numbers went down during the Corona phase, but we have already received many applications for the year 2023.

Table 1 - Number of participants in on-site cable courses

While on-site training is also used by our customers and partners, online training is currently only available to our employees. Here we offer a growing number of training courses that can be completed at a self-determined pace. This offer was taken up by nearly all employees who currently have the choice between 30 online courses.

Next to the Brugg Academy, we also offer in-house training courses aimed primarily at operators. These trainings focus on the workplace and its specific risks. Due to the poor safety performance in 2022, as detailed below in section SDG 3, we have invested many training hours in this category.

We have also placed more emphasis on trainings in compliance, anti-bribery and our code of ethics for our managers and executives. Both training categories together are the reason why the number of training hours has almost doubled compared to 2021, as shown in the table below.

On top of the training needs that arise situationally (e.g., in the case of the aforementioned safety performance deficiencies), individual training needs are determined as part of the annual employee appraisal and performance review. This then leads to appropriate training measures in consultation with the supervisor and, in the case of more extensive training, with the involvement of the HR department.

In 2022 we approved CHF 60'000 for more extensive trainings. In particular, we signed 35 training agreements which we supported with money and time credits (50-100%) and will continue to do so.

GRI Topic Standard 404 Training and Education	**2022**	**2021**
KPI	**h**	**h**
Total hours of training per year per employee		
By gender		
- Men	1'722	879
- Women	124	92
By category		
- Executives	49	26
- Managers	292	91
White collars	601	499
- Blue collars	904	355
Average hours of training per year per employee[5]		
Total	6.1	3.3
Men	6.7	3.4
Women	2.8	2.2
	No.	**No.**
Programs for upgrading employee skills and transition assistance programs	35	40
	%	**%**
Percentage of employees receiving regular performance and career development reviews[6]	100	100

Table 2 - Information on training and education

[5] Number shown is the total number of training hours provided to employees divided by the total number of employees

[6] These are held annually for all employees and as needed during the year.

Objectives:

- Provision of cables and accessories to support the conversion to renewable energies
- Cables and accessories designed to transport energy as efficiently as possible
- Optimizing the design of cables and accessories to minimize the need for raw materials

Provision of cables and accessories to support the conversion to renewable energies

As a supplier of underground cables and accessories, Brugg Cables plays a key role in modern electric power transmission, which is placing more and more emphasis on protecting landscapes and the environment. Brugg Cables is one of the few cable manufacturers in the world in a position to produce cable systems and accessories that can handle the current maximum permissible voltage of 550 kV.

Our cables and accessories are at the heart of the transmission of electricity generated from renewable energy, for the connection between electricity producers and consumers, and for the planned electrification of road traffic. Especially in densely populated cities, the transport of the required electrical power for charging stations via overhead lines is impossible for various reasons. Here, underground cables offer the only practicable solution.

According to estimates by the ENTSO-E[7], more than 43'000 km route length of additional power lines will be needed for reaching Europe's decarbonization goals over the next years.

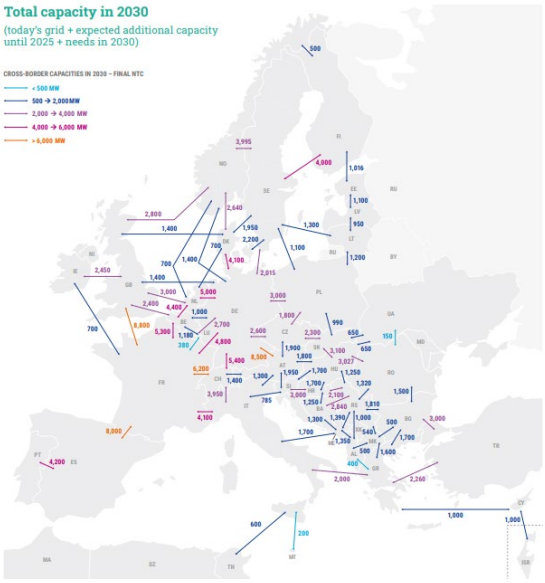


Figure 8 - Total cross-border capacities in 2030 (today's grid, capacities expected around 2025 plus capacity increases identified in the system needs study for the 2030 horizon). To not overcharge the map, only the highest value is displayed on borders where the value is not the same in both directions [7]

[7] European Network of Transmission System Operators for Electricity https://www.entsoe.eu/ and figure 8 from: System Needs Study https://eepublicdownloads.blob.core.windows.net/public-cdn-container/tyndp-documents/TYNDP2022/public/system-needs-report.pdf

Cables and accessories designed to transport energy as efficiently as possible

On top of laying additional cables due to increased energy demand, there is a need to replace old underground cables that have reached the end of their life span. Due to the longevity of underground cables, oil cables (paper impregnated with oil as an insulator) are still in use. In addition to the lower transmission capacity (see table 3) and higher line losses (5 – 15% depending on voltage level) these cables pose an environmental risk should the pressure regulating devices for the oil, which ensure a constant oil pressure inside the cable over the entire cable length, leak. Brugg Cables is able to replace these oil cables completely or provide transition joints in order to replace just defective sections with modern XLPE insulated cables.

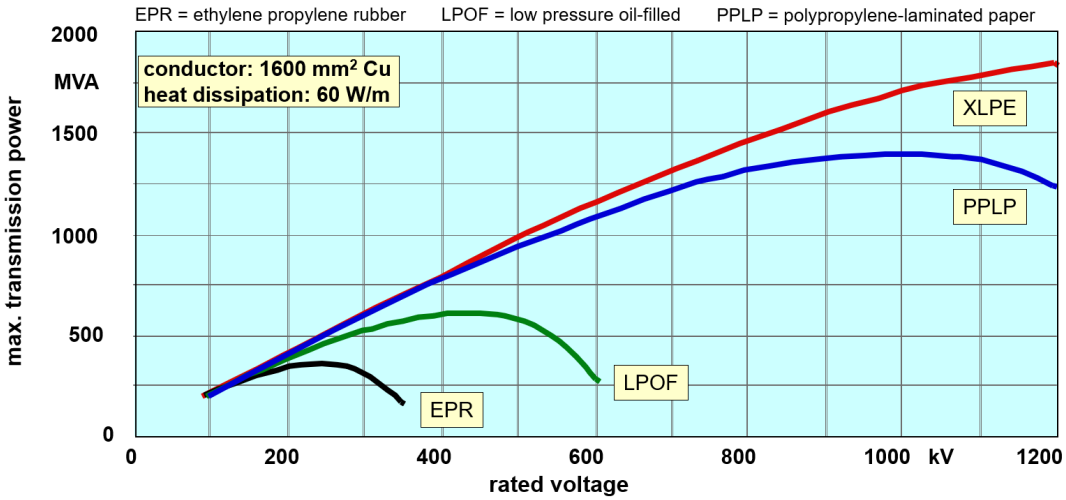


Table 3 - Transmission capacity for different cable types

Optimizing the design of cables and accessories to minimize the need for raw materials

Together with our customers we decide on the most suitable cable design and accessories for the projects. As can be seen in table 4 below, conductors of the Milliken type show a much lower skin effect at higher cross-sections compared to round stranded conductors. The skin effect raises the effective resistance leading to additional transmission losses. These losses are further reduced by stranding enameled copper wires. For the cross-section 2'500 mm², around 70% of the copper conductors are being produced with enameled wires at Brugg Cables, which have about the same ampacity (current carrying capacity) as a 3'000 mm² conductor. The use of enameled wires for the production of the conductor therefore reduces the need for even higher cross-sections and thus the demand for copper.

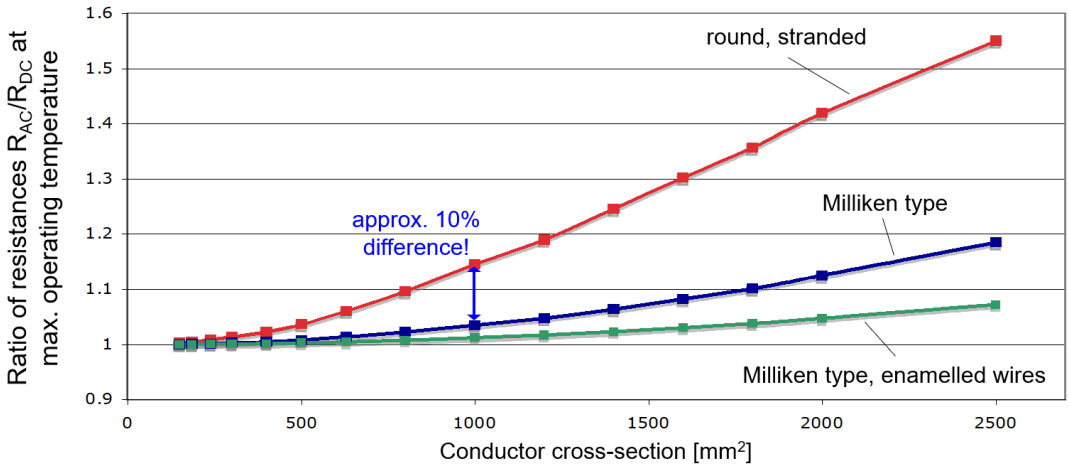


Table 4 - Ratio of resistance RAC/RDC for different conductor types and cross-sections

The conductor resistance causes the cable to heat up. The maximum allowed temperature of the cable insulation, typically 90 °C, thus limits the ampacity of the cable. This heat must be dissipated to the surrounding and hence it becomes obvious that the laying configuration, the laying depth and the thermal resistivity of the surrounding, are, amongst others, additional parameters that affect the current carrying capacity of the cable.

Other than in overhead power lines, where the heat is released into the air, the heat from underground cables eventually dissipates to the surrounding, which is typically soil. For several years, there has been controversy in Germany about whether radiated heat limits or even prevents agricultural use of the soil above the underground cable [8,9].

A pioneering study in Switzerland, initiated by Swissgrid and titled “Soil is a precious resource” [10] also measures the effect of heat emissions from underground cables on the environment. As test object serves the very first extended section of a 380 kV extra high voltage underground line from Brugg Cables in the Bözberg / Riniken area in the Canton of Aargau with a total length of 1.3 kilometers. It went operative in May 2020 and since then the soil temperature is being measured at three measuring stations down to a soil depth of one meter.
In addition, the earthworm population is being monitored. Earthworms are able to escape unfavorable soil conditions and their population is hence expected to decrease if this were the case.

Picture 2 - One of three installed temperature measuring stations[7]

In summary, the results are as follows:
There is a weak positive relationship between intensity of current and cable temperature over the entire measurement period (table 5) and hardly any relationship between intensity of current and soil temperature at a soil depth of one meter (table 6) over the entire two-year measurement period.

It can therefore be concluded that the slightly elevated soil temperature around the cable duct block has very little or no effect on soil biology and soil quality. This assumption is supported by examining the size of the earthworm populations of the six different species found at the three measuring sites. There was no significant difference in earthworm numbers between the soil above the underground

[8] https://www.bundestag.de/resource/blob/496350/8349c98b16c1dd4fb7b2310ee487a9f0/wd-5-125-16-pdf-data.pdf
[9] https://www.campus-halensis.de/artikel/schmale-ernte-durch-dicke-kabel/
[10] https://www.swissgrid.ch/en/home/newsroom/blog/2022/soil-is-a-precious-resource.html

extra high voltage cables and undisturbed control soil nearby. In addition, the population size was comparable to that found in grassland areas with similar temperatures and amount of rain fall.

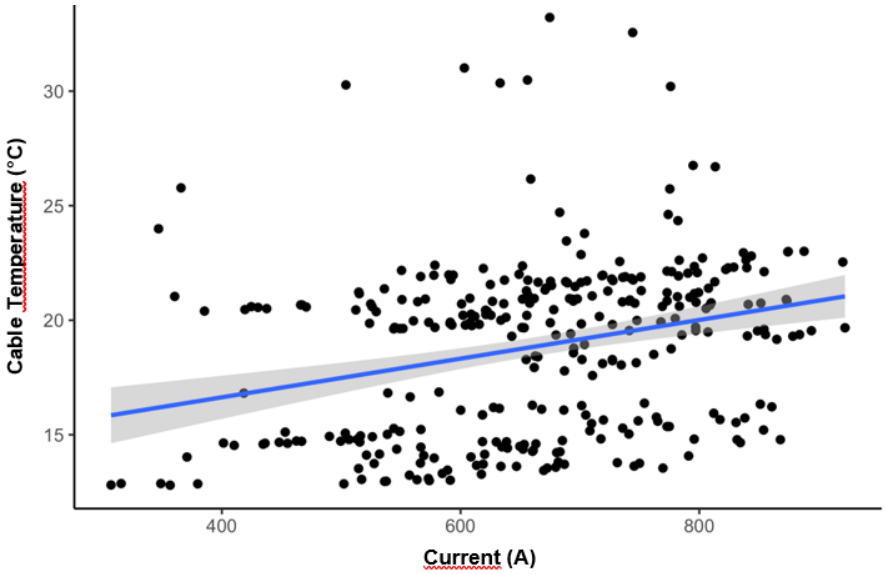


Table 5 - Cable temperature as function of current during measuring period 05.20 - 05.22 [11]

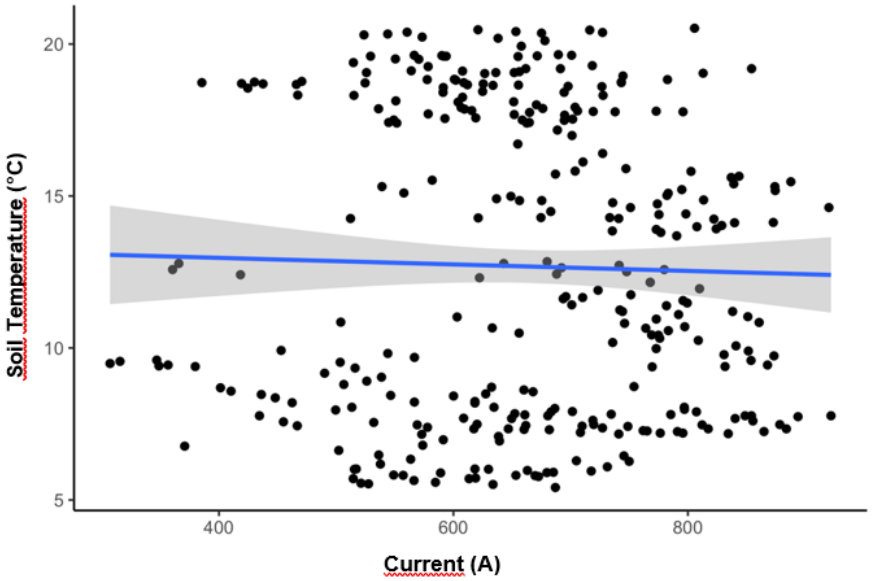


Table 6 - Soil temperature as function of current during measuring period 05.20 - 05.22 [11]

Swissgrid will continue this study over the next years to learn more about the long-term effects of underground cables on the environment, with a focus on soil function and biodiversity. The results to date do not indicate any environmentally harmful impact of underground cables.

[11] Dr. Beat Frey, Group leader, Swiss Federal Research Institute WSL, 8903 Birmensdorf

Objectives:

- Application of the concept of circular economy in our products
- Reduction of raw material and energy requirements

Application of the concept of circular economy in our products

Brugg Cables has created the opportunity to use recycled material in the production of outer jackets. Plastic waste, also from our own production, is re-granulated by specialized suppliers. This makes it possible for us to utilize recycled material and less primary plastics.

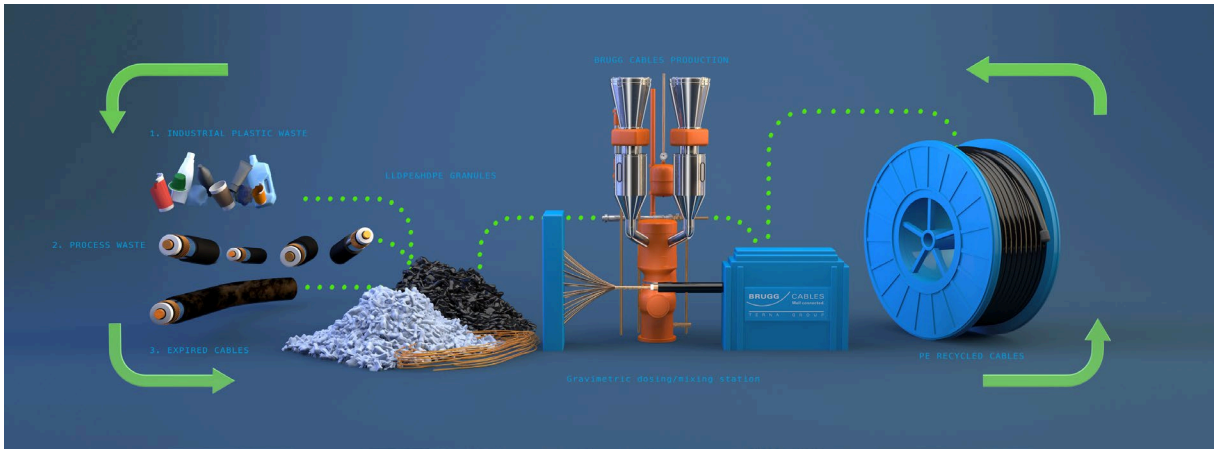


Figure 9 - Process of using recycled Polyethylene for cable sheathing

The use of recycled polyethylene reduces the need for primary plastic per year by 120 tons of LLDPE and HDPE, which is equivalent to around 240 tons of CO_2.

Reduction of raw material and energy requirements

We have initiated and introduced a number of measures that lead to lower demands of energy and raw materials:

- X-ray gauges for measuring the wall thickness of the outer sheath. This allows us to optimize the outer jacket thickness, which are described in IEC 60840 and IEC 62067

In the past, the wall thickness was measured manually and therefore not permanent. In order to stay within the range allowed by the relevant IEC standards, operators tended to stay on the safe side and produced cables with thickness of outer jackets closer to the upper specification limits.

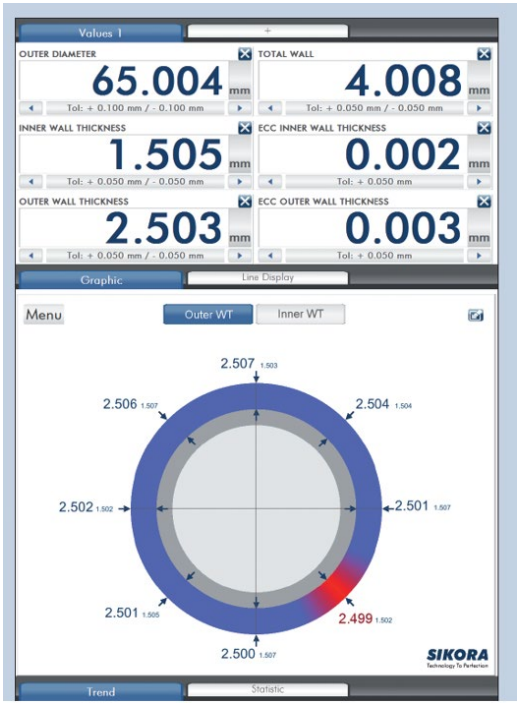


Figure 10 – X-ray thickness measuring device and display – Source: SIKORA

By permanently measuring the wall thickness and applying SPC, we can now produce close to the nominal value. The annual amount of material saved is 127 tons which is equivalent to around 250 tons of CO_2.

- Fit more cable drums into the heat chambers

Modern underground cables use cross-linked polyethylene as insulating material. The cross-linking is a chemical process, leading to the generation of gaseous byproducts within the insulation. These need to be removed from the cable before the next production steps. In order to speed up this process, the cables are stored in gas or oil heated chambers and stay there for several weeks at temperatures above 50°C. It is therefore important to organize the cable drums in a way within these chambers to fit in as many as possible and in the right order. This keeps the opening of the chambers and the resulting heat losses to an absolute minimum.
By investing in a special agile drum moving device, we are now capable of better moving the drums around and thus fitting around 30% more drums into the chambers. This translates to annual energy savings equivalent to 50 tons of CO_2.

The total annual reduction from the above measures, expressed in CO_2-equivalents is 540 tons.

Objectives:

- Equal opportunities for men and women

Equal opportunities for men and women

At Brugg Cables, all genders have equal opportunities. Nevertheless, the total number of women in the various functions remains low and no woman serves on the Executive Board (see table below for details). We are willing to change this and encourage applications from women and divers individuals. By participating in the National Future Day, we hope to interest all genders in our company at an early stage.

GRI Topic Standard 401 Employment		
KPI 401-1 New employee hires and employee turnover	**No.**	**%**[12]
New employee hires during reporting year by age		
Total	43	14.4
- below the age of 30	13	4.4
- between the ages of 30 and 50	24	8.0
- over the age of 50	6	2.0
New employee hires during reporting year by gender		
Total	43	14.4
- Men	34	11.4
- Women	9	3.0
Employee turnover during reporting year by age		
Total	38	12.7
- below the age of 30	12	4.0
- between the ages of 30 and 50	17	5.7
- over the age of 50	9	3.0
Employee turnover during reporting year by gender		
Total	38	12.7
- Men	33	11.0
- Women	5	1.7
KPI 401-3 Parental leave[13]	**No.**	**%**
Employees that were entitled to parental leave	9	3.0
Employees that took parental leave		
Total	9	100[14]
- Men	8	89
- Women	1	11
Employees that returned to work after parental leave ended		
Total	8	89

[12] Of total number of employees

[13] In Switzerland, men are entitled to 2 weeks and women to 14 weeks paid parental leave

[14] Of entitled employees

- Men	8	100
- Women	0	0
KPI 401-3 Parental leave continued[15]	**No.**	**%**
Employees that returned to work after parental leave ended that were still employed after 12 months after their return to work		
- Men	unknown	unknown
- Women	-	n.a.[16]
Return to work rate of employees that took parental leave		
- Men	8	100
- Women	-	-
Retention rate of employees that took parental leave		
- Men	unknown	unknown
- Women	-	n.a.[17]
GRI General Disclosures 2-7 Employees[18]	**No.**	**%**
Total	302	100
- Men	258	85.4
- Women	44	14.6
Permanent employees		
Total (% is compared to all employees)	289	95.7
- Men	249	86.2
- Women	40	13.8
Temporary employees		
Total (% is compared to all employees)	13	4.3
- Men	9	69.2
- Women	4	30.8
Non-guaranteed hours employees	0	0
Full-time employees		
Total (% is compared to all employees)	272	90.1
- Men	249	91.5
- Women	23	8.5
Part-time employees (% is compared to all employees)		
Total	30	9.9
- Men	9	30
- Women	21	70
KPI 405-1 Diversity of governance bodies and employees	**No.**	**%**
Percentage of individuals within the organization's governance bodies by gender[19]		
Total	6	
- Men	6	100
- Women	0	0

[15] In case of "unknown", we don't have this information available for 2022 due to a change in the working time recording system
[16] 12 months not over yet. No historical data available
[17] 12 months not over yet. No historical data available
[18] Numbers are all head count
[19] Numbers are for the board of the holding company Brugg Kabel Services AG

	No.	%
Percentage of individuals within the organization's governance bodies by age group		
- under 30 years old	0	0.0
- 30 – 50 years old	2	33,3
- over 50 years old	4	66,6
Percentage of employees per employee category		
By gender		
- Men	258	85.4
- Women	44	14.6
By age group		
- under 30 years old (men/women)	32/12	12.4/27.3
- 30 – 50 years old (men/women)	131/18	50.8/40.9
- over 50 years old (men/women)	95/14	36.8/31.8
By category		
- Executives (men/women)	5/0	4.1/0.0[20]
- Middle managers (men/women)	16/2	6.2/4.6
- White collars (men/women)	101/39	39.2/88.6
- Blue collars (men/women)	136/3	52.7/6.8
By education		
- University degrees and diplomas	38	12.6
- High school diplomas	158	52.3
- Professional qualifications	106	35.1
- Elementary and secondary school diplomas	0	0.0
KPI 405-2 Ratio of basic salary and remuneration of women to men	**2022**	**2021**
Pay difference		
- Executives	0	0
- Managers	86.0	70.6
- Employees	78.6	75.4
Remuneration difference		
- Executives	0	0
- Managers	85.6	69.6
- Employees	72.5	74.8
Promotions		
- Manager to Executive (men/women)	0/0	0/0
- Employee to Manager (men/women)	4/0	0/1
GRI 406-1 Incidents of discrimination and corrective actions taken		
Total number of incidents of discrimination	0	0
GRI 407 Freedom of association and collective bargaining		
See remark below		

Table 7 - Employment at Brugg Cables

[20] Calculation excludes blue color workers

Remark on GRI 407:
There is freedom of association and the right to collective bargaining, but the workforce does not make use of it. We used to have an employee committee, which was discontinued in 2021 due to lack of interest from the employees. There is also no collective bargaining agreement, but instead each employee has an individual contract with the company.

Objectives:
- Grid development to support the ecological transition and combat climate change

Grid development to support the ecological transition and combat climate change

Brugg Cables, as part of the Terna Group, is contributing to Terna's National Transmission Grid Development plan, which – amongst others – includes

- Facilitating renewable energy sources (RES) deployment and integration
- Facilitating the spread of electric mobility and reducing emissions in the long term
- Supporting the increase in electricity penetration
- The upgrade and expansion of cross-border interconnections to boost exchange capacity with neighboring countries

In the year 2022, Brugg Cables Switzerland provided 140 km of cables for various Terna projects within Italy's national transmission grid, thus supporting above goals (see also page 11).

Objectives:

- Preventing occupational accidents by investing in trainings
- Health care and prevention of diseases

Preventing occupational accidents by investing in trainings

Protecting employees' safety is of utmost importance to Brugg Cables. Compared to the year 2021, the number of occupational accidents and lost days increased significantly and was at a level similar to the years before 2021.

GRI Topic Standard 403	2022	2021
KPI		
Lost time Injury rate[21]	31.9 (6.38)	13.2 (2.64)
Fatality rate	0	0
Serious injury rate, where the initial prognosis is > 40 days	1.68 (0.36)	0
Number of lost time injuries	19	8
- of which serious, where the initial prognosis is > 40days	1	0
- of which fatal	0	0
Number of hours worked	595'698	605'631
Type of occupational injury		
Falling from height	0	0
Traffic accident injury	0	0
Electrocution	1	0
Impact, crushing, cut	7	6
Falling on level ground, slipping	3	1
Manual handling of loads	7	0
Projection of solid fragments and/or liquid substances	0	0
Others	4	1

Table 8 – Occupational Health and Safety at Brugg Cables

We therefore intensified our efforts to bring these numbers down. Among the measures are:

- Brugg Cables signed the Safety Charter[22], which was launched by Suva[23] in collaboration with employers' associations, planners and trade unions. It is an alliance for more occupational safety between the partners involved in the work

[21] In accordance with UNI 7249:2007 standard (no. of lost time accidents multiplied by 1'000'000 divided by the total working hours. Numbers in brackets are calculated according to ILO definitions (multiplied by 200'000)

[22] https://www.sicherheits-charta.ch/de/home/

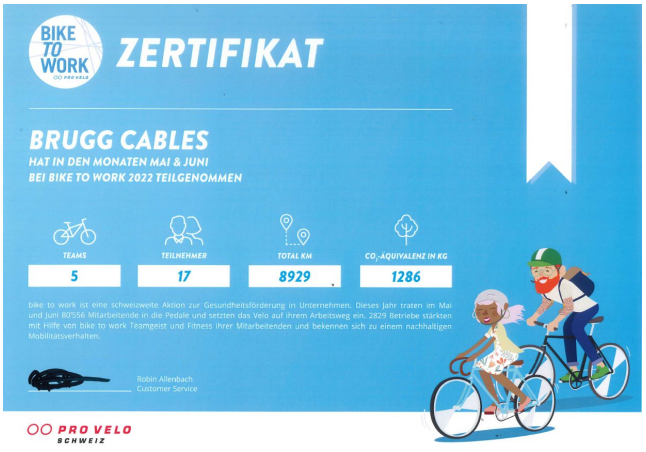
[23] https://www.suva.ch/

- As a consequence of this commitment, we started a 2-year journey with Suva under the title “Safety@work”, including:
  - Hazard analyses
  - Preparation of standard operating procedures for hazardous substances and all machines and equipment
  - Audits by Suva
  - Intensified safety related trainings, especially for all our supervisors and managers aiming at raising the awareness of their responsibility for occupational safety

Picture 3 - Snapshots from Suva training for supervisors and managers

Health care and prevention of diseases

Another focus area related to SDG 3 is health care and prevention of diseases. In the year 2022 we participated in the initiative “Bike to work[24]” for the first time. 5 teams used the bicycle during the month of May and June to commute to work and saved 1286 kg CO_2 equivalents.



We will take part again in 2023 and hope to achieve a higher number of participants through better promotion of this initiative.

Every year, Brugg Cables offers its employees the opportunity to be vaccinated against influenza by an occupational physician during working hours. In addition, hand disinfection stations are available in all washrooms and at the entrances and exits to our facilities.

[24] https://www.biketowork.ch/en

7 Sustainability key figures

Belonging to the Terna Group, Brugg Cables reports all its environmental, social and governance KPIs to its shareholder. They are consolidated in Terna's integrated report [1] (combination of report on operations, non-financial statement and sustainability) and are provided by us via the dedicated platform IMPACT (figure 11), including a validation workflow to ensure the correctness of the uploaded data.

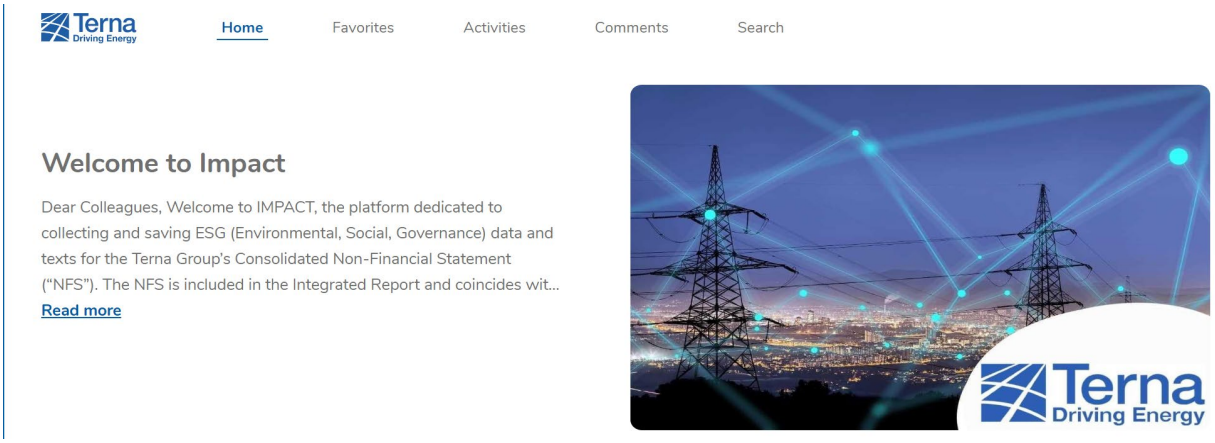


Figure 11 - Screenshot of Impact, Terna's reporting tool for ESG KPIs

IMPACT is organized according to the latest GRI standards adopted by Terna for the reporting of non-financial information. As Brugg Cables' figures are only presented as consolidated figures in Terna's integrated report, the KPIs are listed in the appropriate places in this sustainability report.

8 GRI 2 General Disclosures

Below table gives an overview according to GRI 1: Foundation 2021 and GRI 2: General Disclosures 2021. The column "Bookmark or URL" contains the links to the location of the disclosure within this document and to the internet.

Disclosure	Description	Bookmark or URL
2-1	Organizational details	Scope of Sustainability Report
2-2	Entities included in the organization's sustainability reporting	Scope of Sustainability Report
2-3	Reporting period, frequency and contact point	Scope of Sustainability Report
2-4	Restatement of information	Scope of Sustainability Report
2-5	External assurance	Scope of Sustainability Report
2-6	Activities and workers	Sustainability Strategy
2-7	Employees	Refer to Table 7 - Employment at Brugg Cables
2-8	Workers who are not employees	No workers who are not employees
2-9	Governance structure and composition	Shown on Brugg Cables website
2-10	Nomination and selection of the highest governance body	This is done by our main shareholder Terna S.p.A.
2-11	Chair of the highest governance body	He is not a senior executive in our organization
2-12	Role of the highest governance body in overseeing the management of impacts	See Terna Report on Corporate Governance and Ownership Structures
2-13	Delegation of responsibility for managing impacts	See Terna Report on Corporate Governance and Ownership Structures
2-14	Role of the highest governance body in sustainability reporting	Via Terna Integrated Report
2-15	Conflicts of interest	See Terna Report on Corporate Governance and Ownership Structures
2-16	Communication of critical concerns	Via the Brugg Cables Management Board to the Board of Directors of Brugg Cables[25]
2-17	Collective knowledge of the highest governance body	Via the Terna Sustainability Committee. See Terna Report on Corporate Governance and Ownership Structures
2-18	Evaluation of the performance of the highest governance body	See Terna Report on Corporate Governance and Ownership Structures
2-19	Remuneration policies	Via the Terna Remuneration Committee. See Terna Report on Corporate Governance and Ownership Structures

[25] As part of our risk and compliance management headed by our legal and compliance manager, we identify also negative impacts to the stakeholders concerned and evaluate these. In the reporting period, no critical concerns have been communicated to the highest governance body

2-20	Process to determine remuneration	Via the Terna Remuneration Committee. See Terna Report on Corporate Governance and Ownership Structures
2-21	Annual total compensation ratio	See table 7 above for details on employees
2-22	Statement on sustainable development strategy	See foreword on page 2 and in the letter to stakeholders on page 4 and 5 in the Terna Integrated report
2-23	Policy commitments	See Terna Code of Conduct and Terna Report on Corporate Governance and Ownership Structures
2-24	Embedding policy commitments	Policies of shareholder Terna are implemented through board decisions and training
2-25	Processes to remediate negative impacts	No negative impacts to be remediated.
2-26	Mechanism for seeking advice and raising concerns	Whistleblowing process, see Terna whistleblowing website No whistleblowing cases in the reporting year
2-27	Compliance with laws and regulations	No instance of non-compliance during the reporting period
2-28	Membership associations	No significant role in any association
2-29	Approach to stakeholder engagement	Regular board meetings with shareholders. On a group level see Terna Integrated report on page 234
2-30	Collective bargaining agreements	Zero collective bargaining agreements - see remark on GRI 407-1 on page 20 above

Table 9 – GRI 2 General Disclosures 2021

9 GRI Topic Standards Key Indicators Table

The following table is dedicated to the relevant topic standards, the majority of them published in 2016. Any references to later standards are shown in the table. There is currently no applicable sector standard for the cable and accessories industry to be observed.

GRI Topic Standard	Unit[26]	2022	2021
302-1 Energy consumption within the organization			
Petrol for company motor vehicles	tons	0	0
Diesel for company motor vehicles	tons	16.06	12.45
Natural gas for heating	000's m^3	443.121	583.885
Fuel oil for heating and generators	tons	50.05	49.60
Electricity total	GWh	9.48	9.75
Electricity for plant	GWH	8.53	8.78
Electricity for offices	GWH	0.95	0.97
Petrol for company motor vehicles	GJ	0	0
Diesel for company motor vehicles	GJ	695.87	539.51
Natural gas for heating	GJ	17'724.84	23'355.40
Fuel oil for heating and generators	GJ	2'168.55	2'149.17
Electricity total	GJ	34'117.20	35'100.00
Electricity for plant	GJ	30'704.40	31'608.00
Electricity for offices	GJ	3'412.80	3'492.00
303 Water and Effluents			
Water withdrawal	Ml	16.556	14.222
305-1 Direct (Scope 1) GHG emissions[27]			
Total	tons $CO_{2\ eq.}$	1'370.52	1'810.58
- Leakage of SF_6 (Sulfur Hexafluoride)	tons $CO_{2\ eq.}$	0	164.50
- Leakage of refrigerant gases (R22, R407C, R410A)	tons $CO_{2\ eq.}$	0	0
- Petrol for motor vehicles	tons $CO_{2\ eq.}$	0	0
- Diesel for motor vehicles	tons $CO_{2\ eq.}$	51.50	39.93
- Natural gas for heating	tons $CO_{2\ eq.}$	980.28	1'309.30
- Fuel oil for heating and generators	tons $CO_{2\ eq.}$	160.49	159.06
- CH_4, Methane, from XLPE cross-linking process[28]	tons $CO_{2\ eq.}$	178.25	137.79
305-2 Energy indirect (Scope 2) GHG emissions			
Electricity total	tons $CO_{2\ eq.}$	3'124.09	3'027.77
- Electricity for plant	tons $CO_{2\ eq.}$	2'811.58	2'726.54
- Electricity for offices	tons $CO_{2\ eq.}$	312.51	301.22
305-3 Other indirect (Scope 3) GHG emissions			
Air travel by employees for business purposes	tons $CO_{2\ eq.}$	227.4	134.0
305-4 GHG emissions intensity			
Ratio of total emissions (direct and indirect) to revenue			
Total	tons $CO_{2\ eq.}$ / CHF MM	21.7	26.2
- Intensity ratio Scope 1 emissions to revenue	tons $CO_{2\ eq.}$ / CHF MM	6.6	9.8
- Intensity ratio Scope 2 emissions to revenue	tons $CO_{2\ eq.}$ / CHF MM	15.1	16.4
305-5 Reduction of GHG emissions			
Total (see chapter SDG 12 for details)	tons $CO_{2\ eq.}$	540	
- Recycled material for outer jackets	tons $CO_{2\ eq.}$	240	

[26] To convert the volumes of the primary resources into gigajoules, the parameters set out in the Global Reporting Initiative (GRI) protocols were used.

[27] The conversion of direct energy consumption and leakages of SF_6 and refrigerant gases into CO_2 equivalent emissions has been carried out using the parameters indicated in the IPCC Fifth Assessment Report (AR5) and the Greenhouse Gas Protocol (GHG) Initiative

[28] Calculated using the theoretical reaction mechanism

- Optimized wall thickness of outer sheaths	tons $CO_{2\ eq.}$	250	
- Increased storage capacity of heat chamber	tons $CO_{2\ eq.}$	50	
306 Waste 2020 (see chapter 10 and table 11 for details)			
Total waste produced	tons	1913.5	2120.0
of which hazardous	tons	22.0	14.9
of which non-hazardous	tons	1891.5	2105.1
Waste sent for recovery	tons	1364.8	1557.0
of which hazardous	tons	0.2	1.3
of which non-hazardous	tons	1364.6	1556.8
Waste sent for disposal	tons	548.7	562.5
of which hazardous	tons	21.8	13.6
of which non-hazardous	tons	526.9	548.9

Table 10 - Applicable GRI KPIs from the relevant topic standards

10 GRI 306 Waste 2020

10.1 306-1 Waste generation and significant waste-related impacts

The manufacturing of our products requires only a limited number of raw materials with no or low hazardous characteristics. Apart from production errors, waste is mainly generated by start-up lengths in the cable production and process-related residual quantities of silicone materials in the manufacture of silicone sleeves and semiconductive silicone field control elements.

Water, needed for cooling down the cables after extrusion, is circulated and kept at ambient temperature by running it through cooling units. When there is the need to replace or replenish circulated water, the lost volumes are normal waste water without contamination and do not require any treatment before discharging into the urban drainage system.

Waste from start-up lengths consists of either aluminum or copper and various plastics. Metals and plastics are separated in-house and send to specialized and approved recycling companies.

The insulation material of the cables consists of cross-linked polyethylene (XLPE). During the cross-linking process, methane (CH_4) is released to the air. The amount of methane estimated to have been released in the reporting period is shown in table 10. Since CH_4 is a potent greenhouse gas with a GWP[27] of 28, it would be desirable to replace XLPE by other plastics which don't release greenhouse gases and also don't need a lengthy, energy consuming curing process (see also actions assigned to SDG 12 above).

Unfortunately, due to the material properties required for high-voltage cables up to 550 kV and the fact that all changes to cable materials require time-consuming type testing and acceptance by our customers, a replacement is not expected in the near future.

10.2 306-2 Management of significant waste related impacts

All our waste (except for cooling water, which can be discharged into the urban drainage system) are collected according to specific waste categories (such as paper, cardboard, wood, plastics, metals) in-house and collected by dedicated and approved recycling companies which adhere to the respective Swiss laws[29,30] Only rubbish (urban waste), plastics and wood at the end of its circular economy are being thermically recycled, all other waste types are being re- or downcycled.

The chances for circularity measures of our products (cables and accessories) are limited to the metal content. The nature of our products is to enable reliable electricity transmission for time periods up to

[29] 814.01 Federal Act on the Protection of the Environment of 07.10.1983 (Status as of 01.01.2022)
[30] 814.600 Ordinance on the Avoidance and the Disposal of Waste of 04.12.2015 (Status as of 01.01.2023)

50 years or longer. There are no serviceable or replaceable parts as far as the cables are concerned and only silicone oils or SF_6 in the accessories.

Since silicone oil can cause serious harm to the environment in case of leakages and can't be recycled at the end of the product lifetime, our aim is to replace wet type terminations with dry type terminations, backfilled, if necessary, with solid gel which does not leak and can be properly disposed of at the end of life. Dry type terminations are favorable, since SF_6 is by far the most potent greenhouse gas[27].

Our products are delivered to worldwide customers on metal drums (for cables) and in wooden boxes (accessories). The metal drums weigh up to 3 tons net and apart from the DACH region are sold to the customer with the product. Returning them from all over the world to Switzerland would be very costly for us and administratively very difficult to handle. It is safe to assume that, given the value of the steel used, the drums will be recycled or upcycled in the country of destination. In the DACH region 95% of the required drums are rented to customers.

The procedure is similar for accessories. The wooden boxes are not returned but stay with the customer for recycling or further usage. The carbon footprint caused by returning them would by far exceed the benefit of a possible reuse. Within Switzerland and for deliveries not exceeding a volume of 58 liters and a weight of 30 kg, we use the Dispobox[31] of the Swiss Post.

The content of the box is emptied at the customers' premises and the box is returned to the pool. In addition, the CO_2 emissions caused during transport are offset by the Swiss Post by investing in high-quality climate protection projects and are further reduced by the use of electric vehicles for transportation of the Dispobox.

In 2022, about 85% of all accessories sold within Switzerland were delivered via Dispobox. All other goods were transported in recyclable cardboard boxes or above-mentioned wooden boxes due to higher product weight or larger volume.

Figure 12 - Dispobox types of the Swiss Post and pro clima label indicating carbon emissions offset

pro clima
swisspost.ch/climate
Shipment

[31] https://www.post.ch/en/sending-parcels/packaging-and-addressing/dispobox

The wooden boxes and cardboard boxes for the Swiss market are placed on euro-pallets, which are part of the PRS pooling system. Through recovery, refurbishment and reuse of pallets, PRS[32] is able to save in total 400'000 trees per year: around 1000 per day.

All the wood for the production of the boxes and the wood for the cladding of the cable drums is purchased in Switzerland. It is not FSC[33] or PEFC [34] certified. In Switzerland, these certificates are dispensable. Switzerland has the oldest forest law [35] in the world, dating back to 1876, where it is written that for every tree cut down, a new one must be planted. Since 1876, Switzerland has seen a 40% increase in forest.

10.3 306-3, 306-4, 306-5 topic disclosures

Below tables give a breakdown of waste generated (table 11, 306-3), waste diverted from disposal (table 12, 306-4) and waste directed to disposal (table 13, 306-5) in metric tons (t).

Disclosures 306-3 a, 306-4 a, 306-5 a	Waste generated	Waste diverted from disposal	Waste directed to disposal
Waste composition			
Metals (Cu and Al)	1'250	1'250	0
Mixtures of metals	80	0	80
Cardboards and paper	115	115	0
Miscellaneous[36]	6	0	6
Plastics	54	0	54
Rubbish	194	0	194
Wood[37]	193	0	193
Hazardous waste[38]	22	0.2	21.8
Total waste	1'914	1'365	549

Table 11 - Waste by composition

[32] https://www.prs-pooling.com/en
[33] https://fsc-schweiz.ch/
[34] https://www.pefc.ch/
[35] Link zur Medienmitteilung: 125 Jahre Waldgesetz: eine nachhaltige Erfolgsgeschichte
[36] PET, Electric waste, etc.
[37] Defective pallets and boxes, facing boards, packaging remains
[38] Solvents, condensates, oils, cooling fluid, lubricants

Disclosure 306-4 b and c	Onsite	Offsite	Total
Hazardous waste			
Preparation for reuse	0	0	0
Recycling	0	0.2	0.2
Other recovery operations	0	0	0
Total	0	0	0
Non-hazardous waste			
Preparation for reuse[39]	1'365	0	1'365
Recycling	0	1'365	1'365
Other recovery operations	0	0	0
Total	1'365	1'365	1'365

Table 12 - Waste diverted from disposal by recovery operation

Disclosure 306-5 b and c	Onsite	Offsite	Total
Hazardous waste			
Incineration (with energy recovery)	0	21.8	21.8
Incineration (without energy recovery)	0	0	0
Landfilling	0	0	0
Other disposal operations	0	0.014	0.014[40]
Total		21.8	21.8
Non-hazardous waste			
Incineration (with energy recovery)	0	446.9	446.9
Incineration (without energy recovery)	0	0	0
Landfilling	0	0	0
Other disposal operations[41]	0	80	80
Total			526.9

Table 13 - Waste directed to disposal by disposal operation

[39] In order to achieve the best results, copper and aluminum are separated from attached plastics at Brugg Cables before sending them to specialized contractors for the actual recycling

[40] Defective measuring gauge containing mercury

[41] This refers to mixtures of metals which will be used as scrap metal by specialized companies after separating the metal from attached plastics