



SOLARIS

A CAF GROUP COMPANY

2022 Solaris Sustainability Report



Contents

- 3** Letter from the President of the Supervisory Board
- 4** Letter from the CEO
- 5** Letter from the Management Board Member for Strategy, Transformation and ESG

The Solaris Group

- 7** Pillars of our offer growth strategy
- 8** Structure of the Solaris Group
- 9** Solaris Bus & Coach management structure
- 10** Financial highlights
- 11** Contribution to the pursuit of the UN Sustainable Development Goals
- 12** Our values
- 13** Solaris’ partnerships and memberships
- 15** Stakeholders and stakeholder relations
- 16** Selection of relevant reporting topics
- 17** Materiality matrix

Responsible governance

- 19** Responsible management in Business Ethics, Crime Prevention and Competition Law
- 22** Risk management
- 22** Management of sustainability issues
- 23** Tax management
- 25** Protection of personal data
- 25** Protection of confidential information

Sustainable product

- 27** Sustainable transport of the future
- 29** Solaris supporting innovation
- 35** Business profile
- 36** E-mobility support offer
- 36** Vehicles safe for people and the environment
- 38** Vehicle recyclability
- 38** Process innovation in logistics and production
- 39** Safety of vehicle use
- 39** Training and education
- 40** New investments

Sustainable production

- 42** Environmental management
- 42** Environmental risks
- 43** Consumption of materials and raw materials
- 44** Greenhouse gas emissions (GHG)
- 47** Waste
- 51** Water
- 51** Work with suppliers to ensure a sustainable supply chain
- 51** Due diligence in contracting with third parties

Social responsibility

- 54** Our team
- 55** Employment structure
- 57** Headcount and employee turnover
- 58** Benefits and working conditions
- 59** Training and development
- 60** Diversity and equality
- 63** Social engagement
- 64** Occupational health and safety
 - 65** Participation of the team in co-managing OHS issues
 - 65** Training in and promotion of OHS knowledge
 - 65** Management of OHS risks
 - 66** Protection against accidents and harmful factors at work
 - 66** Occupational risk prevention in figures
 - 67** Occupational safety and protection of vulnerable groups
 - 67** Health promotion at work

About the Report

- 69** Contact point
- 70** GRI content index

Letter from the President of the Supervisory Board

The CAF Group, which Solaris is a part of, is consistently developing its position as a global leader in the sustainable public transportation market.

Mobility transformation is key to building a more sustainable future. In this area, Solaris, with its wide range of environmentally friendly zero and low emission buses, is one of the European leaders. The manufacturer has for years consistently prioritized innovation and cross-sector collaboration in developing innovative solutions for zero and low emission transportation, combining this with a deep understanding of the needs of cities that are starting or are already on the road to a green transition in transportation.

Despite the challenges of 2022, Solaris – in line with the CAF Group's vision – is undertaking further activities and investments to, among other things, reduce its carbon footprint within its own operations as well as throughout the life cycle of the products it offers. This not only contributes to reducing

the organization's impact on the environment, but also helps ensure better living conditions for the residents of the cities in which Solaris buses operate.

While history shows us how difficult it is to predict the future, it also teaches us that innovation along with operational efficiency are the key to success in any scenario. In this regard, Solaris, within the CAF Group, will continue its decarbonization strategy, expanding its range of buses powered by alternative energy sources (electricity and hydrogen), automation of transportation systems, digitalization of processes, and cybersecurity, among others.

I therefore encourage you to read the Solaris Sustainability Report, in which you will find a summary of Solaris' activities over the past year in the following areas: business focus, operational efficiency, innovation and sustainability.

Javier Martinez Ojinaga

CEO of CAF Group,
Chairman of the Supervisory Board of Solaris Bus & Coach





Letter from the CEO

Among the challenges the world faces today, climate change and its social impacts remain constant. In 2022, as Solaris, we continued to work on developing our zero- and low-emission buses and innovative solutions for sustainable public transportation.

I am glad that the Solaris brand joins the cities across Europe on the road to a greener future. Last year, our modern vehicles with alternative drive systems (electric, hydrogen, hybrid and trolleybuses) accounted for 55% of deliveries made. Based on the orders secured, we can anticipate that this share will increase in the coming years. This demonstrates the growing need (as well as the ability) of cities to implement a green shift in public transportation. It also sends a clear message to manufacturers – including Solaris – that the path of innovation is the right choice.

Soon we will see further development towards improving our drives and developing innovative solutions by Solaris employees. In line with the Strategic Plan of the CAF Group, we plan to expand our portfolio in Europe with zero emission intercity buses and enter the North

American market with our exclusive zero-emission offerings. With this proposal, we want to continue Solaris' positive impact on the transformation of public transportation, thus contributing to improving the quality of life of current and future societies.

We take on the aforementioned challenges with great humility, yet with courage and feeling that the Solaris Group is made up of enthusiasts, determined to achieve their goals.

In the past year, as part of the CAF Group, we were committed to a shared vision of working towards sustainable development of our business. In line with our strategy, we have been actively working to reduce the carbon footprint of the organization and our products throughout their life cycle, and have implemented policies and procedures in the area of compliance or responsible purchasing.

I am therefore pleased to put in your hands our Sustainability Report, which presents the Solaris Group's activities in 2022 in a cross-sectional manner.

Javier Iriarte
CEO of Solaris Bus & Coach

Letter from the Management Board Member for Strategy, Transformation and ESG

Solaris' nearly 30 years of experience in the public transportation manufacturing sector demonstrates our ability to create long-term value for our customers and implement innovative product solutions. We do so having sustainable development and a better future for the generations to come as key driver behind all our operations.

Recent years have brought new global challenges to our societies and governments, as well as businesses. At Solaris, we work with carriers to respond to current and upcoming challenges and support urban resilience. In doing so, we continue our mission to change the image of public transportation.

Solaris' readiness to address these challenges is developed together with the CAF Group. In 2022, as part of our joint strategy, we worked to, among other things, reduce the Group's impact on the social and natural environment, and continued to cooperate to ensure a responsible value chain.

We further developed the area of product innovation, which is the basis for building a zero-carbon future. We are convinced that the measures we take throughout our buses life cycle have a positive impact on people's daily lives.

In the past year, we prioritized cooperation within the Solaris Group and the Company itself. In this area, we focused on increasing transparency, aggregating and measuring sustainability-related data from all companies in the Solaris Group, while maintaining the effectiveness of our transformation efforts for public transportation.

I would like to thank everyone involved at all stages in the preparation of this Report, which summarizes our contribution to sustainable development over the past year. We still have a lot of work ahead of us, and, as Solaris, we are motivated to take further steps toward a zero-emission future.

Enjoy your reading!

Agata Stańda
**Solaris Bus & Coach Management Board Member
for Strategy, Transformation and ESG**



Solaris Group

The Solaris Group

GRI 2-6

Solaris is one of the leading European producers of buses and trolleybuses. We enjoy the most comprehensive portfolio of electric vehicles and services in continental Europe, and we keep growing it relentlessly to support our customers in their transition to sustainable public transport. We are a member of the CAF Group, a Spanish manufacturer of rolling stock and rail vehicles with over 100 years of market presence.

Pillars of our offer growth strategy

- we keep expanding our offering of zero-emission drives
- we invest in technological innovations to shape the sustainability agenda
- we provide turnkey solutions (vehicles with comprehensive charging infrastructure)
- we adapt our vehicles in a flexible manner to the diverse needs of our customers and the characteristics of their cities

Deliveries of our vehicles in 2022

- we delivered 1,492 vehicles to 133 European cities in 18 countries
- alternative-drive vehicles (electric, hydrogen, hybrid, trolleybuses) accounted for more than 55% of our deliveries
- our largest markets are Spain, Poland, Italy, Belgium, Germany and Romania



* EU27, Norway and Switzerland without the United Kingdom and Ireland.

Alternative-drive vehicles in our supply mix

2018	2020	2022
29%	44%	55%

2022 marked the premiere of our articulated Solaris Urbino 18 hydrogen

We are one of the leading e-mobility producers in continental Europe*

- in the last 10 years, we have delivered the largest number of battery-powered buses among all manufacturers
- in 2022, we were ranked second on the market for zero-emission buses (electric and hydrogen)
- we are the leader in the hydrogen bus segment in 2022 with a 61% market share

2022 Awards

Our vehicles:

- Innovation Award in the Intercity Bus category awarded by the German “busplaner” magazine for the Solaris Urbino 9 LE electric bus
- Kielce Fair medal for the Solaris Urbino 18.75 electric bus as the best product in the Buses category, awarded during the Transexpo 2022 fair
- Award for action supporting the pursuit of the Sustainable Development Goals for 2021 for the Urbino 9 LE electric bus, awarded by the Polityka weekly
- Polish Project Excellence Award 2022 for our team in the New Technologies, Science and Innovations category for the execution of the Urbino 9 LE electric bus project, awarded by the International Project Management during the 25th IPMA Poland Conference

ESG area:

- Polityka’s CSR Silver Leaf award
- Rzeczpospolita’s Green Eagle award in the Company category for innovative industrial-scale environmentally friendly solutions

Our team

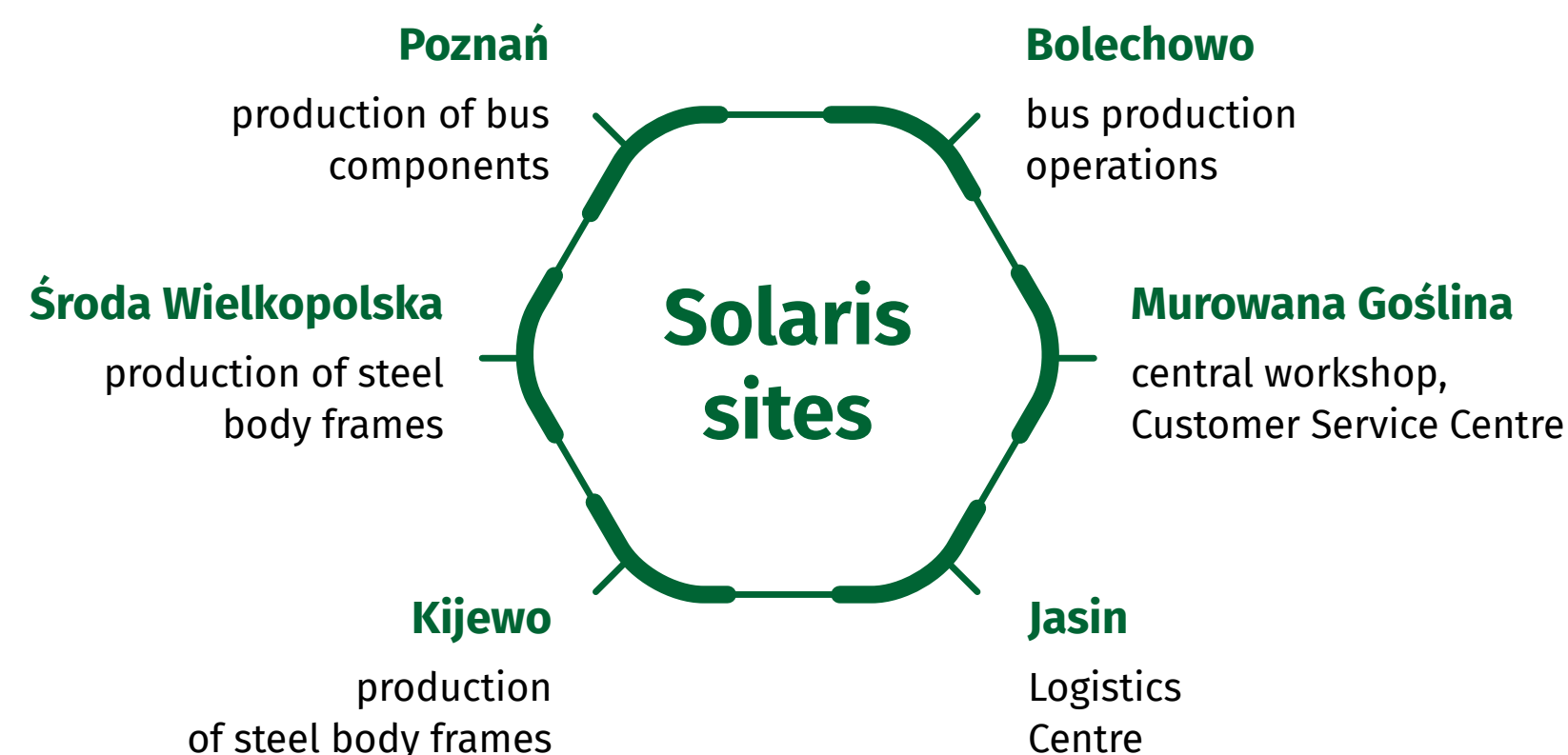
- we employ 2,759 people globally
- on average, staff stay for 9 and 4.5 years at Solaris Bus & Coach and its subsidiaries, respectively
- in 2022, 198 staff reached a 20-year tenure at Solaris Bus & Coach

GRI 2-1, 2-2

Structure of the Solaris Group

The Solaris Group (“Group” or “Solaris”) consists of the parent company Solaris Bus & Coach sp. z o.o. (“Solaris Bus & Coach” or “Company”) and 17 subsidiaries based in 17 other European countries. Our network is also supported by representative offices located in 5 other countries across the globe.

Solaris vehicles are fully manufactured in Poland. Our central workshop and logistics centre are also located in Poland. In addition, we maintain a network of workshops and spare parts warehouses across Europe, run by selected subsidiaries.



Solaris’ international presence makes us an expert in understanding the specific needs of urban centres. The responsibilities of each of our Group member companies include: maintaining ongoing contact with customers, analyzing local market trends and shaping our brand image. Information collected from international markets also serves us as the basis for coming up with innovative solutions.

Members of the Solaris Group*:

Solaris Bus & Coach sp. z o.o.	Solaris France SARL	Solaris Slovakia s.r.o
Solaris Austria GmbH	Solaris Hellas S.A.	Solaris Sverige AB
Solaris Belgium SRL	Solaris Bus Ibérica SLU	Solaris Netherlands BV
Solaris Czech spol. s.r.o.	Solaris Italia S.R.L.	Solaris Norge AS
Solaris Denmark Bus A/S	SIA Solaris Bus & Coach Latvia	Solaris Estonia OÜ
Solaris Deutschland GmbH	Solaris Schweiz GmbH	UAB Solaris Bus & Coach LT

Solaris representative offices are also located in Bulgaria, Croatia, Finland, Israel and Hungary.

2022 marked:

20 years of Solaris Czech

10 years of Solaris Sverige

Establishment of Solaris Estonia

The majority shareholder of Solaris Bus & Coach sp. z o.o., with a 97.33% stake in its share capital, is Construcciones y Auxiliar de Ferrocarriles S.A. (CAF).

* As at 31 December 2022.



GRI 2-9, 2-10, 2-11

Solaris Bus & Coach management structure

The Company's governing bodies are the Management Board, the Supervisory Board and the Shareholders Meeting. The Management Board consists of one or more Members, including the President of the Management Board (CEO). The number of the Management Board Members is determined by the Supervisory Board. If the Management Board consists of more than one person, a Management Board Member may also be entrusted with the position of Vice President. Management Board Members are appointed (and dismissed) by a resolution of the Supervisory Board for an indefinite term. Management Board Members hold an executive function, are in charge of the day-to-day operations in the specific area entrusted to them and represent the Company.

The Supervisory Board consists of at least three members, including the President and Vice President. Supervisory Board Members are appointed (and dismissed) by a resolution of the Shareholders Meeting for an indefinite term. Supervisory Board Members exercise supervision over the Company's day-to-day operations and the pursuit of the Company's strategy.

Supervisory Board in 2022*



Josu Imaz
President
of the Supervisory Board



Javier Iriarte
Vice President
of the Supervisory Board



Janusz Reiter
Member
of the Supervisory Board

Management Board in 2022*



Javier Calleja
CEO



Dariusz Michalak, PhD Eng.
Deputy CEO, R&D, Quality
Assurance, Procurement



Tomasz Barański
Management Board Member,
Production, Logistics



Olivier Michard
Management Board Member,
Sales, After-Sales, Marketing



Inigo Artamendi
Management Board Member,
Finance and Investment



Patryk Kawa
Management Board Member,
Human Resources and OHS

* Composition of the Solaris Bus & Coach Supervisory Board and Management Board as at 31 December 2022.

GRI 201-1

Financial highlights

	SOLARIS GROUP				SOLARIS BUS & COACH			
	2021		2022		2021		2022	
	thousands of euros	%	thousands of euros	%	thousands of euros	%	thousands of euros	%
Economic value generated								
Sales revenue	720,828	99.3	695,912	98.9	708,701	99.2	689,126	98.5
Other operating revenue	3,991	0.5	1,866	0.3	3,189	0.4	1,167	0.2
Financial revenue	1,112	0.2	6,153	0.9	2,366	0.3	9,003	1.3
Total revenue	725,931	100.0	703,931	100.0	714,256	100.0	699,297	100.0
Purchases of materials	461,725	63.6	459,027	65.2	467,762	65.5	483,902	69.2
Other expenses	120,259	16.6	134,667	19.1	121,427	17.0	124,546	17.8
Prepayments	581,984	80.2	593,694	84.3	589,189	82.5	608,448	87.0
Gross economic value	143,947	19.8	110,236	15.7	125,067	17.5	90,849	13.0
Depreciation	18,505	2.5	17,430	2.5	16,659	2.3	15,161	2.2
Net economic value	125,442	17.3	92,807	13.2	108,408	15.2	75,687	10.8
Economic value distributed								
To employees (wages, salaries, benefits)	76,958	61.3	83,404	88.4	63,149	58.3	66,925	88.4
To providers of capital (costs of financing)	10,913	8.7	21,275	30.2	10,912	10.1	22,858	30.2
To the state (taxes and duties)*	8,138	6.5	220	-1.0	7,031	6.5	-736	-1.0
To the company (profit allocated to reserve/ supplementary capital)	29,433	23.5	-12,093	-17.7	27,316	25.2	-13,360	-17.7
Net economic value	125,442	100.0	92,807	100.0	108,408	100.0	75,687	100.0

* Economic value distributed to the state is exclusive of VAT. Presented financial data comply with the financial statements for the year ended 31 December 2022.



Contribution to the pursuit of the UN Sustainable Development Goals

In the Solaris Group, we deploy innovations and carry out activities that support the pursuit of the UN Sustainable Development Goals (SDGs). In our business, we contribute in particular to the pursuit of the SDGs in the area of our strongest impact:



Affordable and clean energy

Ensure access to affordable, reliable, sustainable and modern energy for all.



Industry, innovation and infrastructure

Build resilient infrastructure, promote inclusive and sustainable industrialisation, and foster innovations.



Sustainable cities and communities

Make cities and human settlements inclusive, safe, resilient and sustainable.



Climate action

Take urgent action to combat climate change and its impacts.



Our values

At Solaris, we take action based on five values that define the corporate identity of our Group and what we collectively identify as key. Our values form a roadmap that serves us as the basis for our business decisions.

Customer Orientation

- We look at quality from the customer's perspective
- We achieve success together with our business partners mutually respecting each other's needs
- We are a role model of cooperation with customers

Innovation

- We are the leader of innovative solutions
- We set ourselves ambitious goals
- We are constantly developing our products
- We improve our work on a daily basis

Agility

- We are quick and flexible to react to changes within our organisation and beyond
- We are bold in our actions

Long-term orientation

- We observe the market to identify its needs and create solutions fit for the future
- We take our decisions having in mind the future of the company, our employees and the environment

Cooperation

- We are one team and we work together
- Our actions are based on trust, commitment, and mutual respect
- We care about relationships with others
- We are responsible for the decisions we make

Value Ambassadors

In 2022, we continued our Value Ambassadors project aimed at supporting our staff in the process of identifying with the culture and goals of the organization. Under the project, 5 teams of production and administrative workers from various areas of the Company were selected. Each team was assigned to work on a selected initiative representing a specific value of the Solaris Group.

The project initiatives included, among others:

- Vehicle delivery and acceptance (inspection) procedures open for participation by interested team members. This initiative aimed to achieve the following goals: increase the participants' awareness of the vehicle delivery and acceptance (inspection) procedure from the customer service perspective, see through the customer's eyes the vehicle inspection process and build a sense of responsibility for the final product (in particular among those team members who are not directly involved in the manufacturing process on a daily basis). To ensure the comfort of customers, a maximum of 4 team members were allowed to participate in each such procedure. In 2022, 8 delivery and acceptance procedures were conducted under the initiative, attended by a total of 26 staff. The initiative supported the Customer Orientation value.
- Guidebook on how to conduct good meetings, containing a collection of tips and best practices that support effective online meetings. The starting point for the preparation of the Guidebook was the pandemic that swept across the country and the world, and resulted into a shift towards remote work. The initiative supported the Agility value.

Solaris' aspiration and motivation:

Solaris' ASPIRATION: We are changing
the image of public transport.

Our MOTIVATION: Solid and long-lasting relations with our customers and team work.
We are proud of our products and our innovative technical solutions.

GRI 2-28

Solaris' partnerships and memberships

We continuously work on the development and execution of innovative projects with other sector participants, industry organizations and stakeholders who are active in the field of sustainable public transport. As part of our involvement, we promote e-mobility and modern transport solutions.

We are a member of the following organizations:

- Union Internationale des Transports Publics, UITP (International Association of Public Transport)
- Hydrogen Europe (NEW-IG)
- Innovative Transport Forum (ITF)
- Information Technology for Public Transport (ITxPT)
- Chamber of Commerce for Urban Transport
- VDV (Association of German Transport Firms)
- Polish Scientific Society of Internal Combustion Engines
- Polish-German Chamber of Commerce and Industry
- Wielkopolska Chamber of Commerce and Industry
- Wielkopolska Employers' Association LEWIATAN
- Polish Committee for Standardisation, Technical Committee 17 for Vehicles and Road Transport
- Polish-Spanish Chamber of Commerce
- Polish Chamber of Automotive Industry
- Polish Union of Public Transport Employers
- Open4PT Association for the Standardisation of Modern Transport Systems



GRI 2-28

Solaris' partnerships and memberships

Solaris participates in the following initiatives:

Sustainable Development Charter

Joined in 2011

As part of our activities in the UITP, we became a signatory to the Sustainable Development Charter. One of the main areas of activity of the Charter's signatories and the UITP members is the SDG Target 11.2: "by 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention paid to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons."

Clean Bus Deployment Initiative

Member since 2017

The document was signed by the European Commission and the biggest manufacturers in the sector. It is an expression of support for the large-scale deployment of completely zero-emission buses with alternative drive systems. The European Declaration is an initiative based on the following three pillars: **(1)** a commitment by cities and producers to pursue a joint mission of advancing the process of emission reduction, **(2)** creating a platform for information exchange between municipal authorities, carriers and financial organizations, and **(3)** establishing a group of experts providing professional analysis in the areas of technology, economics and logistics.

European Clean Hydrogen Alliance

Joined in 2020

The Alliance was established as an initiative led by the European Commission and its aim is to scale up, by 2030, the production and deployment of hydrogen as a fuel obtained using low-emission technologies and renewable energy sources.

Letter of Intent for the Wielkopolska Hydrogen Valley

Joined in 2021

An initiative involving the development of the Wielkopolska Hydrogen Valley and Poland's nationwide ecosystem based on hydrogen technologies. Signatories to the letter of intent for the Wielkopolska Hydrogen Valley include officials from the Wielkopolska Region, mayors of its largest cities, rectors of universities and the business community. The signatories' aim is to contribute to decarbonising the economy with a view to achieving climate neutrality.

Mazovia Hydrogen Valley

Joined in 2022

The aim of the Mazovia Hydrogen Valley is to boost hydrogen-based industry in the region and to establish a Mazovian hydrogen hub by promoting cooperation between the initiative's participants on innovative technologies enabling the deployment of hydrogen in transport, energy, public utilities, agriculture and other sectors of the economy.

GRI 2-29

Stakeholders and stakeholder relations

In 2020, we prepared a map of stakeholders of strategic significance to our business. As part of this exercise, we conducted an in-depth stakeholder identification and mapping exercise, identified stakeholder groups and then assessed the degree to which they impacted our company and vice versa.

All identified stakeholders were then broken down into five groups indicated by the CAF Group in the Code of Conduct: customers, suppliers, shareholders, people and society.

The manner and frequency of communication with each stakeholder group depends on the Company's current needs and is the outcome of our communication with stakeholders.

Through stakeholder relations, the Group fulfils its business, information and communication needs. Our proactive and attentive contact with stakeholders plays a vital role in the pursuit of Solaris' strategy. We are particularly fond of those forms of contact that support and enable two-way communication and exchange of opinions and permit stakeholders to become more deeply involved in the Group's activities (such as trade fairs, participation in initiatives and execution of joint projects, vehicle launch events, media conferences, etc.).

Selected departments are responsible for ensuring an effective communication with each group of Solaris' stakeholders as part of their daily work.

Methods of communication with stakeholders

Employees

- Internal communication tools (such as the Intranet, Przystanek magazine, internal newsletter sent out by e-mail, information on bulletin boards and TV screens)
- Social media channels
- Company's multilingual website
- CAF Group website
- Meetings with trade unions
- Work of the OHS Committee
- Dual education programmes
- Meetings of the Solaris Club for the Elderly
- Whistle-blower channel
- Regular Medical Check-ups in the Organization

Consumers

- Company's multilingual website
- Social media channels
- CAF Group website

Suppliers

- Company's multilingual website
- CAF Group website
- Social media channels

Customers

- Company's multilingual website
- CAF Group website
- Social media channels
- Solaris Customer Magazine
- Industry-specific events
- Company's bilingual website promoting e-mobility (eCity by Solaris)
- #SolarisTalks conferences for customers
- Regular customer satisfaction surveys, Net Promoter Score (NPS) analysis
- Customers' reports following their tests of demo buses
- Magbus spare parts platform for customers
- Study visits by customers to production facilities

Media

- Online press office
- Social media channels
- Company's multilingual website
- CAF Group website
- Press conferences and relations with the media
- Industry-specific events promoting e-mobility

Local governments

- Social media channels
- Company's multilingual website
- CAF Group website

Local communities

- Social media channels
- Company's multilingual website
- CAF Group website
- Social campaigns
- Visits of students from local schools focused on technical education relevant to our business

Industry organizations

- Social media channels
- CAF Group website
- Participation in trade fairs
- Membership in associations and industry organizations
- Vehicle launch events

Public administration

- Social media channels
- Company's multilingual website
- CAF Group website

Social organizations

- Social media channels
- Company's multilingual website
- CAF Group website
- Social campaigns

Scientific institutions and higher education institutions

- Social media channels
- CAF Group website
- Company's multilingual website

GRI 3-1, 3-2

Selection of relevant reporting topics

The impact exerted by the Company is analysed on many organizational levels as part of the ongoing work of pertinent operating divisions. Solaris Bus & Coach has an Integrated Management System in place an integral part of which is the review of internal and external factors that affect the organization and are relevant to meeting customer requirements and achieving the goals set by the organization. We place particular emphasis on environmental aspects, pollution prevention and issues related to occupational health and safety (OHS) in relation to all processes taking place within the Company.

We keep analyzing data and information collected inside and outside the organization as well as information collected from our stakeholders as it enables us to identify and assess risks and opportunities for the growth of our organization and to attain our goals related to quality, environment and occupational health and safety.

In 2022, we updated our set of topics relevant to ESG reporting. The process lasted a whole year and consisted of the following 4 consecutive elements:

- Preparation of a list of topics based on: materiality matrix from the previous reporting cycle; analysis of the sources of impact identified in the Integrated Management System; topics reported as relevant to stakeholders by operational departments; analysis of the extent of data reported by other sector participants; analysis of topics relevant to sustainable development by the ESG Team.
- Ratings of the materiality of topics by representatives of all groups of surveyed internal and external stakeholders, on a scale of 1 to 5; 349 individuals completed the survey.
- Review and assignment of the materiality level to specific topics by the ESG Team (through reviewing the materiality of the impact exerted by the Company in the respective area) and preparation of a list of recommended topics for reporting.
- Approval of the list of material topics to be reported by the Company's Management Board.

Compared to the previous Report, one major change has been made in the 2022 Sustainability Report: tax management has been identified as a new topic to be reported on.



GRI 3-1, 3-2

Materiality matrix

Environment

- 1 Weight and type of raw materials used by the company
- 2 Use of raw and recycled materials
- 3 Components for production and packaging materials subjected to recycling
- 4 Minimizing the volume of waste, recycling
- 5 Energy consumption and ways to reduce it
- 6 Reducing energy and fuel consumption by vehicles
- 7 Water consumption and ways to reduce it
- 8 Impact on biodiversity
- 9 Greenhouse gases emissions and ways to reduce them

Corporate governance

- 10 Impacts on the climate and actions taken to mitigate climate change
- 11 Compliance with environmental regulations, prevention of abuse and violation of environmental laws and regulations
- 12 Impact on local labor market
- 13 Direct economic value generated and distributed
- 14 Tax governance

- 15 The amount of orders from local suppliers
- 16 Financial implications and other risks and opportunities due to climate change
- 17 Financial assistance received from government
- 18 Customer privacy, preventing losses of customer data
- 19 Actions to combat anti-competitive behavior, anti-trust, and monopoly practices
- 20 Actions to prevent accidents of corruption

Society

- 21 Employment, new employees, remunerations, turnover rate, benefits
- 22 Occupational Health and Safety
- 23 Training and education, professional development
- 24 Diversity of governance bodies and employees
- 25 Equal pay
- 26 Non-discrimination in the workplace
- 27 Freedom of association
- 28 Impact (positive and negative) on the local communities
- 29 Health and safety impacts of product and service categories



Responsible governance

Responsible governance

GRI 3-3

We consider compliance with international and national laws, ethical standards and recognised best practices as the foundation of our business. Our relations with employees, counterparties and other stakeholders are based on the Company's key values, patterns and rules of conduct which we bear in mind while making our business decisions.

The groundwork for our organizational culture in the context of good corporate governance is defined by the following two documents: the CAF Group Code of Conduct and the Solaris Code of Best Practices. The CAF Group Code of Conduct is based on three pillars: ethical principles, behavioural criteria and implementation mechanisms. The rules and principles stipulated in these documents are applicable to all Group's employees, professionals and any third party which has a business relationship with any Solaris Group Company.

An extension of the principles and duties assumed in these documents is provided by a system of mandatory regulations involving compliance management, both at the level of the CAF Group and at the level of Solaris Group companies. The system covers, among others, issues such as: respect for law, Business Ethics, Human Rights, protection of exploitation of the child labour, public freedoms and Fundamental Rights, the principles of equal treatment and non-discrimination, protection of the natural environment and local communities, Due Diligence in the supply chain, taxes, principles and laws on Competition and Crime Prevention, including corruption.

The Company employees get familiarized with key documents during the onboarding process, through ongoing internal communication and, periodically, during mandatory e-learning courses. They confirm their adherence to the provisions of the codes and key policies in writing or through the e-learning platform. The Group's codes and key policies are also available at all times on the Company's Intranet and Company's internal application and in the CAF Group's corporate internal communication application. Selected documents covering the extent of activities and responsibilities of the production team are available in managers' offices in all production plants.

Responsible management in Business Ethics, Crime Prevention and Competition Law

Proposing, disseminating and overseeing the execution of procedures and policies related to i.e. Business Ethics, Competition Law and Crime Prevention is the responsibility of the Compliance Officer. At Solaris, these matters are managed in cooperation with the CAF Group's Compliance Department. The Compliance Officer also functions as a delegate of the CAF Group whose responsibility is to supervise the deployment of the Group's compliance procedures.



GRI 3-3, 205-2, 206-1, 2-27

Crime prevention

The Solaris Group is subject to the crime prevention programme laid down in the CAF Group Crime Prevention Manual. At the Solaris Group level we continue to develop a specific Crime Prevention sub-programme including specific guidelines for local legislation.

The Manual contains a list of crimes rated in terms of their risk of commission in the context of the CAF Group's business, identifies business activities that involve the risk of a crime and defines procedures and rules of conduct designed to prevent the pursuit of criminal actions, taking into account, in particular, crimes related to corruption (such as corruption between individuals, bribery or influence peddling) and money laundering.

The purpose of the Manual is to build a common framework of good practices and policies that must be followed by all employees of the CAF Group. Within the Solaris Group the ongoing dissemination and trainings are aimed to raising employee awareness of various types of crime considered particularly harmful or prevalent and potential sanctions for any violations as well as implementing guidelines and measures aimed at mitigating any identified risks.

The Manual, mandatory for all the employees in Solaris Group, is available at all times on the Intranet, in the Company's application and in the CAF Group's corporate internal communication application.

The contents of the CAF Group Crime Prevention Manual are also included in mandatory e-learning courses held for

all employees who have access to a company computer. As of the end of 2022, 1,011 individuals i.e. 91% of the administration team, have completed this training. Moreover, every new hire of the Solaris Group, regardless of the area of his or her involvement (production or administration), must read and confirm his or her familiarity with the Solaris Code of Conduct, which covers, among other issues, matters related to business ethics.

In 2022, we did not identify the occurrence, within the Solaris Group, of any cases of corruption or any other crimes referred to in the Manual.

Competition protection

For the CAF Group, unconstrained competition constitutes a fundamental pillar of market development and economic activity. The purpose of the CAF Group Competition Law Compliance Manual is to reinforce the commitment of CAF Group companies to strict observance of competition laws in all their business areas. The Manual covers matters such as: agreements that curb competition, prohibited exchange of information or documentation with competitors, abuse of a dominant position and business concentrations. The Manual lays down a list of security measures that must be applied in the Company's day-to-day business, concerning in particular: prohibited conduct and commercial practices in relation to agreements that restrict competition, abuse of a dominant position or dominance, economic concentrations and state aid in European Union.

All employees of the Solaris Group must comply with the obligations included in the abovementioned Manual. The contents of the Manual are also part of mandatory e-learning courses held for employees whose professional duties are related to the contents of the Manual. The full version and an abridged version of the Manual are available at all times on the Company's Intranet, in the Company's application and in the CAF Group's corporate internal communication application.

In 2022, we did not identify, within the Solaris Group, the occurrence of any breaches of competition protection regulations.

In 2022, we continued to file explanations and documents in response to the 16 December 2020 decision of the President of the Office of Competition and Consumer Protection to initiate a proceeding to investigate potential excessive delays in the disbursement of cash benefits by the Company under the Act of 8 March 2013 on Counteracting Excessive Delays in Commercial Transactions. As of 31 December 2022, the proceedings were in progress.

Due diligence in contracting with third parties

The Solaris Group has implemented the CAF Group Due Diligence Manual for contracting with third parties, which lays down the fundamental compliance due diligence measures as well as the model and accepted methods of verification of third parties with whom CAF Group companies intend to establish cooperation. The Manual is

an extension of the CAF Group Crime Prevention Manual and the CAF Group Code of Conduct.

All employees and representatives of the Solaris Group must comply with obligations resulting from the abovementioned Manual. The Due Diligence measures includes in particular signature of the Non-Disclosure Agreement, Competition Law and Business Ethics analysis: prevention of corruption, prohibition of contracting with public authorities, international sanctions, conflict of interests.

The Manual is available at all times on the Company's Intranet, in the Company's application and in the CAF Group's corporate internal communication application. In 2022, a new training module was uploaded to the e-learning platform, covering the contents of the Manual and offering a refresher of the basic principles set out in the CAF Group Code of Conduct.

In 2022, intense work was underway at Solaris to streamline all processes associated with the requirements laid down in the Manual. In order to automate the process of the compliance Due Diligence we started to implement the supplier management tool, which includes an IT tool that scans if the third parties are listed in the international sanctions lists and allows automatic compliance controls of the supplier registration process.

GRI 2-26

Reporting irregularities and protecting whistleblowers

The Company has an internal system in place for reporting irregularities regarding breaches of the law or ethical standards, procedures or other internal regulations adopted by the organization. Suspected breaches may be reported by all Company employees, regardless of their form of employment. All persons reporting such breaches are protected against any retaliation. The system operates on the basis of the Internal Reporting Regulations adopted by the Company's Management Board in accordance with Directive (EU) 2019/1937 of the European Parliament and of the Council (also known as the Whistleblower Protection Directive).

The complete reporting system is provided by an external vendor and is independent of any IT systems run by Solaris. It enables the reporting of breaches in a secure and confidential manner and lets the Company maintain two-way communication with the whistleblower without compromising his or her anonymity. The Compliance Officer is responsible for operating the reporting system and disseminating knowledge about the system among the Company's employees.

The Internal Reporting Regulations may be accessed by all Company employees on the Intranet, through the Company's application or, for production personnel, also in hardcopy form at all Company locations. New hires become acquainted with the operation of the reporting system during their onboarding training. Information about the system was also disseminated in the form of an instructional animation and in a bulletin available to all employees.

In 2022, Solaris Bus & Coach conducted 3 proceedings initiated on the basis of received suspected breach reports. None of the cases concerned a grave breach of the law or posed a significant risk for the Company.

Solaris employees and third parties, such as suppliers, contractors and subcontractors, may report breaches by e-mail to whistleblowerchannel@caf.net, as disclosed on the CAF website.





GRI 201-2

Risk management

The Solaris Management Board is in charge of setting strategic directions for handling Solaris' financial and non-financial risks in the Company and oversees all risk management processes.

Moreover, the following actors are of key significance for these processes:

- Risk Director
- Management Board Representative for the Data Management and Protection System
- Risk Manager
- Compliance Officer
- ESG Team

The Risk Director chairs the Risk Committees, which purpose is to evaluate the tenders being prepared. He also supports the process of preparing data and taking additional actions necessary for the Risk Committees.

The Management Board Representative for the Data Management and Protection System role in the field of risk management is to: define and assess system risks in accordance with Section 6.1 of ISO 9001, ISO 14001 and ISO 45001, support process owners in identifying actions taken to eliminate and mitigate risks, and verify the approach to risks in the framework of ongoing internal audits and management reviews, as well as deal with any non-compliance in this regard.

The Risk Manager's job is to build an operational risk management system at the strategic, financial and legal levels.

The system is being created based on the CAF Group guidelines and the ISO 31000 and COSO international risk management standards.

The Compliance Officer's responsibilities include managing the compliance system at Solaris. This function is carried out in cooperation with the CAF Compliance Committee. The Compliance Officer also functions as a delegate of the CAF Group.

The role of the ESG Team in the area of risk management is to coordinate work on identifying environmental risks, including climate risks, based on the guidelines of the CAF Group's Integrated Control and Risk Management System. This system is based on the CAF General Risk Assessment and Management Policy, and is underpinned by Procedure Model Risk Control and Management.

Our risk management model is based on the following corporate documents: the CAF General Risk Assessment and Management Policy and the corresponding Procedure Model Risk Control and Management. A detailed description of the System is included in the [CAF Group's 2022 Sustainability Report](#) in section 5.2.

Risk management at Solaris is carried out in cooperation with the CAF Group Risk Management Department.

Management of sustainability issues

Solaris manages sustainability issues based on the objectives of the CAF Group Sustainability Policy. The Policy defines our sustainability-related goals, tasks and commitments. Its primary objective is to integrate the CAF Group's mission

with the sustainable fulfilment of the needs and expectations of our stakeholders in compliance with the applicable legal requirements, but also in line with the best practices of corporate governance, risk management and compliance with sustainability-related regulations and standards.

Reducing the adverse impact and maximizing the favourable impact is embedded in our business model. When developing innovative Solaris products, we use the available resources in a reasonable manner, by reducing energy and fuel consumption needs of our vehicles or minimizing the adverse social impact in the supply chain.

While performing their principal duties, all departments of our organization take actions to support the pursuit of Solaris' strategy in this area.

The Company has an ESG Team in place whose assignment is to support distinct substantive departments in taking ESG-related actions, proposing and initiating various initiatives, monitoring legislative amendments and reporting on Solaris' progress towards sustainability.

The Team's responsibility also includes cooperation with the CAF Group on sustainability issues and providing Solaris Group companies with support in this area. In 2022, the ESG Team was supported by a Supervisory Board Member who oversaw the ESG issues.

GRI 3-3, 207-1, 207-2, 207-3

Tax management

CAF's tax objective consists essentially of ensuring compliance with the tax legislation in force in each territory in which it operates, thus avoiding tax contingencies and fostering cooperation with the tax authorities.

CAF's ultimate objective is to build trust and distribute value in the domestic and international market through responsible action, particularly with regard to taxes. This objective also makes it possible to design a corporate strategy and ensure consistent tax behaviour throughout the organisation, which ultimately makes it possible to: satisfy the stakeholders; maintain a relationship based on mutual trust with the tax authorities and contribute to improving communities by paying taxes.

Tax strategy

The framework for tax management activities in the Solaris Group is defined by the corporate Tax Policy, which is publicly available on the CAF Group's corporate website, and the Tax Policy Implementation Manual, which applies to all companies in the CAF Group.

CAF's Tax Policy specifies that all the principles mentioned below will be implemented in accordance with CAF's general principles, specifically those relating to good faith and integrity vis-à-vis all stakeholders.

The following principles for CAF's actions in tax matters are a development of the fundamentals of the Code of Conduct, the Sustainability Policy and the General Risk Control and Management Policy, and should guide the actions of all those persons and entities to which they are applicable:

- Comply at all times with its tax obligations, always endeavouring to comply with the deadlines set out by tax regulations, both for the payment of taxes and for other tax obligations. To this end, CAF will ensure the quality, veracity and security of the information and data, as well as the accuracy of its tax returns.
- To collaborate at all times with the Tax Authorities, providing the information and documentation of tax importance requested by the competent tax authorities and other regulatory bodies, in a complete and truthful manner, and in the shortest possible time.
- Avoid the use of opaque structures, processes or systems designed exclusively for tax purposes, or for the purpose of preventing the Tax Administrations from knowing who is ultimately responsible for the activities or the ultimate owner of the assets and rights.
- Avoid investments or transactions in or through territories classified as tax havens under Spanish law, or territories with low or zero taxation, for the sole purpose of reducing the tax burden. Investments or operations in these territories will only be permitted when they respond to business reasons and are aimed at undertaking the activity included in CAF's corporate purpose, subject to prior approval by the Board of Directors in the cases provided for by law and regulations.
- Commit to ensure that there is always a valid economic rationale for tax actions.
- Prevent and reduce, as far as possible, tax risks in the course of its activities, while maintaining a prudent risk profile. In this framework, investments and operations that may represent a particular tax risk will be carefully assessed.
- Ensure compliance at all times with the obligations relating to related party transactions, maintaining a responsible transfer pricing policy in accordance with the arm's length principle, thus avoiding the erosion of tax bases through non-arm's length pricing.
- Manage its intangible assets responsibly, avoiding the use and generation of intangible assets for purely tax purposes.





Moreover, at Solaris Bus & Coach, we have an internal Tax Strategy in place, as endorsed by the Management Board. Among the areas defined in the Strategy are the fundamental principles of conduct applicable to tax-related matters, tax risks along with methods of their mitigation and the structure of accountability for the calculation and payment of taxes. The Strategy is complemented by various internal Policies pertaining to specific areas of tax accounting. The Company has an internal procedure in place aimed at preventing failures to comply with the obligation to provide information on mandatory disclosure rules.

The Company's primary objective in the context of the Tax Strategy is to ensure compliance with the applicable provisions of tax law. The Strategy is consistent with the Group's business strategy and ethical values.

The Tax Strategy and all procedures related to tax matters are reviewed at least annually. During the review, the Strategy's validity is verified in relation to the changes taking place within the Company and its environment. The CFO is in charge of reviewing and updating all pertinent procedures and the Strategy. The CFO is also responsible for verifying and monitoring the pursuit of the Strategy.

The procedures for validating the tax function adopted by the Company include internal control, executed on an ongoing basis by designated employees of the Finance Department, ongoing monitoring conducted within reporting to the CAF Group and external audit. Issues related to taxes and potential tax irregularities are reported by employees as part of internal communication

with the Tax Department. All employees of the Finance Department are required to become acquainted with the Tax Strategy. The Company also ensures continuous improvement of qualifications and updating of knowledge in accordance with the annual training plan geared towards structuring employee know-how and providing targeted training.

Information on the Tax Strategy pursued by the Company, in accordance with the applicable regulations, is available at www.solarisbus.com and is updated annually.

Tax risk management

The identification and assessment of tax risks faced by the Company is carried out as part of its day-to-day activities. The Management Board, the CFO, other employees of the Accounting Department and the Tax Department and staff of the operating departments take an active part in this process. Additional assistance in identifying tax risk related to unusual business transactions is provided by external experts. All identified risks are included in the internal Risk Register, which subject to annual reviews.

The tax risk management system, including the internal tax control system, is monitored continually by the Tax Manager. Once every year, the CFO evaluates the tax risk management system at each stage of its operation.

The tax risk management system concerns, in particular, the application of tax regulations in the Company's business transactions, the proper fulfilment of statutory fiscal obligations (submission of tax returns, payment of taxes,

provision of responses to requests from tax authorities, etc.) and the posting of liabilities and receivables in the correct amount in the Company's ledgers.

Cooperation with state administration authorities

In contacts with tax authorities, the Company is guided by the principles of honesty and transparency. Solaris Bus & Coach maintains transparent and open relationships with tax authorities and cooperates with them on an ongoing basis.

In July 2020, the Company submitted an application to join the pilot edition of the Cooperation Programme. The Programme constitutes a form of cooperation between the National Tax Administration Authority and large enterprises, based on mutual trust and understanding, and transparency that extends beyond the applicable statutory requirements. The purpose of the Programme is to take joint actions aimed at ensuring compliance with tax law, with particular emphasis on specific needs and expectations of key taxpayers with a view to ensuring better terms for the conduct of business activity in Poland. The Programme is based on the guidelines developed by the Organization for Economic Co-operation and Development (OECD). Within the framework of ongoing tax accounting and regards to related party transactions, the Company applies two unilateral Advance Pricing Arrangements (APAs) providing for an integrated service model and an integrated distribution model (pertinent decisions of the Head of the National Tax Administration Authority were issued in 2019).

The Company is not involved in any lobbying activities related to tax matters.

GRI 3-3, 418-1

Protection of personal data

CAF has created and deployed a personal data protection policy to guarantee compliance with current legislation in all the territories in which it operates. This policy and the accompanying manual set out the organisational and technical measures necessary to guarantee the correct management of personal data processed by CAF staff and third parties that engage with any Group company.

The organisational measures adopted this year include the creation of a Privacy Compliance Committee aimed at ensuring the correct management and deployment of the policy and manual across the CAF Group. A Data Protection Officer (DPO) was also appointed to guide CAF on compliance with the applicable regulations, supervise general compliance with these regulations, advise employees, and cooperate with and act as a point of contact for the supervisory authority.

Each CAF company ensures correct compliance with local regulations on the protection of personal data. In any case, the CAF regulatory framework on data protection places special emphasis on European privacy regulations, specifically on Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, repealing Directive 95/46/CE (“GDPR”).

At Solaris Bus & Coach, we have an internal Personal Data Protection Policy in place. It sets out the extent and detailed

methods of securing personal data, the use of organizational and technical measures and data protection mechanisms applicable to hard and soft copy documentation.

The Company processes personal data in compliance with the following principles:

- lawfulness, fairness and transparency
- restriction of the purpose of data processing (data processing for specific, explicit and legitimate purposes)
- data minimization (processing only the necessary personal data)
- proper data processing (processing only current data)
- restriction of data storage (deletion of data after the purpose of processing ceases to exist)
- integrity and confidentiality (protection against unauthorized access and loss)
- traceability

In order to ensure compliance with internal rules pertaining to the processing of personal data and to minimize any potential risk of leakage, theft or loss of personal data, GDPR training for new hires was continued in 2022. An extensive

anti-phishing campaign was also carried out, focused on building awareness of the significance of cybersecurity in e-mail communication.

In 2022, the Company recorded no substantiated complaints regarding the protection of personal data, nor any leaks, theft or loss of personal data.

Protection of confidential information

In 2022 the works on the Confidentiality Policy in Solaris were aligned with the implementation of the CAF Group Cybersecurity Policy Development Manual. The aim of these policies is to reinforce the information security above the level of protection resulting from the provisions of law, establish the organisational and technical measures that guarantee the confidentiality and to deploy the information security culture in our organisation. The Confidentiality Policy establishes the classification of sensitive and confidential information processed in the organisation as well as, along with the Cybersecurity Policy, determines the responsibilities and duties related to protection of information and the guidelines and measures of protection that must be followed by all employees. We plan to complete the implementation works in 2023.



Sustainable product

Sustainable product

GRI 3-3, 203-2

Sustainable transport of the future

The need for change

Today's cities are developing extremely fast. 55% of the population already lives in urban areas, and in 30 years the figure will be as high as 70%*. Such intensive development comes with various challenges, among others high emissions. Nowadays, cities are responsible for as much as 75% of CO₂ emissions**, with much of it coming from transportation. Another challenge is dense traffic, which has a significant impact on the quality of life of residents and the sustainability of the agglomerations.

The dynamics of urban development determine the need to change the way people move. We are already seeing a change in awareness in this area – among passengers, among our customers and among decision-makers at the European Union (EU) level. At Solaris, we believe that sustainable, friendly and accessible public transportation will play a key role in changing the mobility model.

The change at the EU level

Green Deal regulations, along with meeting ambitious climate neutrality targets in 2050, are a top priority in Europe. Sustainable public transportation, based on electrical drives, is a very important part of this project.

Public transport is the greenest and most sustainable way to travel

Among the many initiatives to accelerate the transition in transportation, it is particularly worth mentioning:

- “EU Directive on the Promotion of Clean and Energy Efficient Road Transport Vehicles,” which sets minimum targets for the share of zero-emission buses in urban fleets at 45% by 2025 and 65% by 2030
- “The EU Strategy for Sustainable and Smart Mobility,” which pledges to reduce CO₂ emissions in the transport sector by 90% by 2050
- NextGen funds aimed to accelerate the green transition in Europe

The future of transportation

Public transportation is crucial in any future mobility scenario. We can predict that the coming years will see a reduction in the use of private cars in favor of zero-emission subways, trams and buses.

According to forecasts, urban passenger transportation will increase 60-70% by 2050***. Electric buses in such a scenario will account for as much as 62% of all buses on the world's roads by 2040****.

What is more, the bus segment has one of the highest adoption rates of electric vehicles in the 2040 economic transition scenario, meaning it is “on track” to reach a net-zero scenario in 2050.



* Source: “68% of the world population projected to live in urban areas by 2050, says UN”, UN, accessed: June 26, 2023, www.un.org/uk/desa/68-world-population-projected-live-urban-areas-2050-says-un
 ** Source: “Cities and climate change”, UNEP, accessed: June 26, 2023, www.unep.org/explore-topics/resource-efficiency/what-we-do/cities/cities-and-climate-change
 *** Source: International Transport Forum “Policy Priorities for Decarbonization Urban Passenger Transport”
 **** Source: Electric Vehicle Outlook 2022, BloombergNEF

Challenges of 2022

The past year, like the previous one, was a challenging one for Europe's public transportation industry. It was impacted by the coronavirus pandemic, the war in Ukraine, high inflation and the general economic crisis.

Despite these factors, 2022 was a good year for the development of sustainable transportation and a year of major investment in the sector. In 2022 spending on electric vehicles and infrastructure has seen an impressive 54% increase globally in relation to 2021*.

More electric-powered buses

Although the total number of city buses declined in 2022, the electric bus market experienced a significant growth. The share of new e-bus registrations reached 44% globally, and nearly 30% in Europe. The number of electric and hydrogen buses hitting the roads of European cities was at a record high of approx. 4,200 vehicles**.

This growth is being fuelled by several factors: growing demand from carriers for sustainable vehicles, rapid progress in battery technology, as well as government and EU programs that fund green transportation solutions.

In Solaris' sales, the green trend is even more pronounced – more than half of the buses that left our factory in 2022 had alternative drives (battery vehicles, hydrogen vehicles, trolleybuses and hybrid buses).

Complete emission-free portfolio

Anticipating the green trend in transportation, Solaris has been investing in the development of clean drive technologies for nearly two decades. Today, the Company is the only manufacturer to offer complete range of zero- and low-emission buses. Our portfolio includes more alternatively powered vehicles than conventionally powered ones.

Various bus configurations, proven zero-emission solutions, millions of electric kilometers driven on different roads and in a variety of climatic conditions - hands on experience is gained in every possible field to ensure the reliability and efficiency of our vehicles. On top of that, one of our priorities is to work closely with clients at every stage of the given project. This includes feasibility studies, maintenance and after-sales support. Through ongoing dialogue with customers and close cooperation between us, we can offer solutions tailored to the specific needs of cities and the preferences of carriers. Our actions make a real impact on the green transition of public transportation.

Hydrogen trend

Hydrogen technology is one of the fastest growing sectors in Europe. Investments in hydrogen more than tripled compared to the previous year. This development is strongly supported by subsidies – the European Union sees hydrogen as one of the key elements in the energy mix of the future.

Hydrogen-powered buses are still a fairly young segment, but we are seeing a strong upward trend. In 2019, there were 32 hydrogen bus registrations in Europe, and in 2022 – already 88 buses.

Solaris has been developing hydrogen-cell vehicles since 2014, seeing great potential in this market segment from the very beginning. In total, we have already contracted 200 hydrogen buses, and with more than 40 vehicles delivered in 2022, we have captured 61%* of the European market***.



* Source: "Electrified Transport Spending Soars, Transition Rolls On", Bloomberg NEF, accessed: June 26, 2023, www.about.bnef.com/blog/electrified-transport-spending-soars-transition-rolls-on/
 ** Source: CME Solutions.
 *** EU27, Norway and Switzerland, excluding the UK and Ireland.

SDG 9, 11

Solaris supporting innovation

We set the trends

Since its incorporation, Solaris has followed technological trends, and often set them itself. For many years, technological development has been directed toward environmentally friendly solutions. We are a pioneer in implementing electric and hydrogen solutions in many European bus fleets.

Key directions of the CAF Group's innovation strategy:

- Zero emissions: Activities aimed primarily at the development of alternative propulsion systems to diesel and the reduction of consumption and emissions of its products and services
- Connected and automated mobility: Activities focused on the development of vehicles that operate in an automated manner and increase the safety and efficiency of transport systems
- Passengers and operator: Activities aimed at providing the market with better products and services for both CAF's customers and end users
- Competitiveness: Activities aimed at reducing the life cycle cost of the CAF Group's products and services, as well as their delivery times. In this area, digitalization is a major enabler of developments that increase the Group's competitiveness and that of its customers

The CAF Group's innovation strategy is materialized in an annual innovation plan.

The CAF Group's Innovation Plan combines activities for the development and advancement of products and services, as well as activities for the generation of the Group's own knowledge and technology, which allow it to differentiate itself from its competitors and supply products with high added value in sustainable mobility.

Within the variety of activities and lines of work included in the Innovation Plan, we highlight the following that are particularly aligned with the current and future priorities of society:

- Zero emissions
- Connected and automated mobility
- Digitalization



SDG 9, 11

Zero emissions

We are pursuing several areas of work under this path, focused on reducing environmental impact:

- Development of vehicles with battery and hydrogen-based drive systems. These types of vehicles do not cause CO₂ emissions at the point of use compared to internal combustion vehicles. In this area, Solaris has the most complete range of low- and zero-emission buses on the market, with more experience and market share than its competitors.
- Bus battery optimization. On average, every two years we develop a new generation of batteries with significantly better performance. For example, in high-capacity batteries, the energy density per kilogram of battery increased by 77% between 2014 and 2020. Improvements in the performance of batteries that provide high power are also significant, with great progress being seen in increasing charging power, allowing shorter battery charging times and recovering more energy from braking. All of these improvements have a major impact on vehicle performance and greatly enhance vehicle autonomy.
- Developing technologies to reduce vehicle energy consumption by improving the energy efficiency of vehicle components (e.g. energy devices based on new silicon carbide (SiC) transistors) or by reducing drag and lowering vehicle weight (e.g. through simplified architectures, new more aerodynamic geometries, new lighter materials, lighter components, reduced wiring, etc.). In recent years, Solaris has achieved fuel consumption reductions of more than 20% in its 12- and 18-meter electric buses.

- Smart management of energy consumed by the vehicle, including the development of driving assistance systems, efficient automatic driving systems, and smart systems for managing the operation and use of various technological solutions on board vehicles.
- Intensive work on the drivetrain of the Urbino 9 LE electric vehicle, introducing new suspension components of the drivetrain elements and carefully selected insulating materials, allowed us to reduce the noise inside the bus by an average of 2 dB, and in selected cases even by 8 dB (depending on the measurement point, case and frequency). The development and implementation of the advanced BTMS control software allowed for a significant reduction in fan operation time (depending on conditions, results of up to 25% of the initial figure were obtained). This translates directly into noise reduction inside the vehicle.
- The premiere of the latest solution in the company's emission-free portfolio: Urbino 18 hydrogen. This articulated hydrogen bus is able to cover about 350 km on a single refill in various weather conditions. Full refuelling of the vehicle takes around 20 minutes. Depending on the configuration, the bus can carry up to 138 passengers. Urbino 18 hydrogen opens up the possibilities of electrification of our customers' fleets even more.

In terms of the "Zero Emissions" path in 2022, we implemented activities, described later in this report, under the following R&D projects: ASSURED, TRUSTONOMY, VIRTUAL-FCS and StashH.

SDG 9, 11

Connected and automated mobility

Smart mobility brings significant benefits to operators and enhances passenger safety and comfort. The increasing automation of solutions and development of autonomous vehicles is also a key element in increasing transportation options, energy efficiency, punctuality and smooth door-to-door travel.

As part of this path, we are implementing the following activities:

- Cybersecurity Project
- ADAS (Advanced Driver Assistance Systems)
- Data exchange and passenger information systems
- Geofencing, which allows you to designate virtual zones in the city and program a change of vehicle drive mode within a specific area
- Secure vehicle positioning without the need for infrastructure equipment
- On-board control and diagnostic system capable of performing critical safety functions

Digitalization

The CAF Group is aware of the great importance of the digital transition process that is currently taking place in all areas of society.

Therefore, the Company is devoting a significant portion of its R&D efforts to developing its own vision of digitalization for rail and bus transportation, focusing on the following paths:

- Developing technology to provide the infrastructure to capture and transmit data throughout the transportation system, including aspects such as sensorics and vehicle-to-infrastructure communications.
- Managing and analyzing large amounts of information using big data techniques.
- Application of advanced data analysis techniques (artificial intelligence, machine learning, deep learning, etc.).
- Using these technologies to develop applications in areas of particular importance, such as diagnostics, maintenance, energy consumption and operations.
- On-board real-time vehicle monitoring systems and vehicle monitoring systems installed in infrastructure (Solaris eSConnect).



GRI 201-4, SDG 7, 9

Battery power

Currently, our engineers are working to maximize battery capacity and achieve the best possible results in increasing its range.

We are finalizing the design of a new version of the Urbino 18 articulated electric bus with new-generation batteries. Energy storages will guarantee even greater range on a single charge, better operability and performance, especially on demanding routes and hills. Improved performance will also be provided by the use of a distributed drive. The batteries will be located on the roof of the vehicle, which, along with the absence of an engine tower and the use of distributed drive, will translate into a higher passengers' capacity.

Safety first

At the same time, we are implementing the CMS (Collision Mitigation System) safety system and preparing for changes related to the entry into force on July 2024 of the EU's GSR2 (Global Safety Regulation 2), indicating a revision of approval standards. We are also keeping an eye on EU regulations related to data security and preparing for their implementation at the Company. Among other things, this year we launched the Cybersecurity project, which will enhance the digital security of buses.

R&D projects

The needs of our customers and the cities they represent inspire and push us to develop innovative solutions. At the same time, the rapid technology development

allows us to use alternative drives or innovative systems in vehicles much more often. Offering buses with a better environmental and social profile, including zero- and low-emission alternatives to classic powertrains, is a key goal we have set for ourselves.

We have been successfully raising external funding to support the execution of our innovative projects. In 2022 the Company was the beneficiary of more than EUR 1,174 thousand in public funds allocated entirely to R&D projects. De minimis aid transferred to the Company amounted to less than EUR 29 thousand in 2022.

Because of our ongoing activities, in 2022, we benefited from an R&D tax allowance intended to support taxpayers' innovative economic activities and increase the scale of investments in research and development in Poland. Taxpayers may deduct their R&D expenses from taxable income. In 2022, the Company deducted EUR 5,122 thousand in eligible expenses from taxable income, having generated a tax benefit of approx. EUR 960 thousand.



GRI 201-4, SDG 7, 9

Subsidized R&D projects implemented in 2022:

Virtual-FCS

The main objective of the initiative is to support the development and optimization and design of hybrid hydrogen fuel cell and battery systems for various applications.

Trustonomy

Completed in 2022, this project aimed to increase trust in, and acceptance of, automated vehicles and encouraging their users to use driver assistance systems.

Assured

Completed in 2022, this project developed fast and smart charging solutions for buses and other heavy-duty vehicles.

StasHH

As part of the project, an open standard for fuel cell modules for heavy duty applications in terms of physical dimensions, interfaces, controlling and test protocols is being developed.

Hybrid Beams

The project focuses on developing a new concept for a light-weight bus body frame.

Cybersecurity

Initiated in 2022, the project aims to develop a significantly improved cyber-security bus with a new OnePlatform architecture for data management. The platform is responsible for the vehicle's connectivity and will be the bus's new data exchange system. The systems under development will enable, among other things, remote diagnostics of the bus and remote analysis of the energy consumed.

Solaris Urbino 18 hydrogen

Completed in 2022, this project has developed a zero-emission articulated city bus powered directly by a hydrogen fuel cell. As a result, there is no need to periodically recharge its batteries, so it does not require the construction of special transportation infrastructure in the form of chargers along the route. The project work included the construction of the bus's drive system along with the entire hydrogen system including the fuel storage and battery pack in the most optimal way possible. The project was completed with pre-implementation work related to the preparation of documentation for mass production, customer testing and approval. The initiative was co-financed by the National Centre for Research and Development.

SDG 9

Cooperation with scientific centers and universities

Cross-sector partnerships are important for developing and successfully implementing innovative solutions in public transportation.

In 2022, we continued our R&D projects involving further development of our products in collaboration with various research and educational institutions in Poland and Europe.

- Consejo Superior de Investigaciones Científicas (National Research Council, Spain)
- AIT Austrian Institute of Technology GmbH (Research and Development Organization, Austria)
- University of Science and Technology in Krakow (AGH), Poland
- Belgisch Laboratorium Van De Elektriciteitsindustrie (Belgian Laboratory of Electricity Industry, Belgium)
- Communauté d'universités et d'établissements université Bourgogne-Franche-Comté (COMUE UBFC) (Association of Universities and Higher Education Institutions in the region of Bourgogne-Franche-Comté in the form of a "union of universities and institutions")
- Commissariat à l'Énergie Atomique et aux Énergies Alternatives (Alternative Energies and Atomic Energy Commission, France)
- Franche-Comté (UBFC) (Association of Universities and Higher Education Institutions in the region of Bourgogne-Franche-Comté in the form of a "union of universities and institutions")
- Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V. (Fraunhofer Society for the Advancement of Applied Research, Germany)
- Ikerlan Scl (Research Centre, Spain)
- Institut français des sciences et technologies des transports, de l'aménagement et des réseaux, Ifsttar (French Institute of Science and Technology for Transport, Development and Networks)
- Institute of Communication and Computer Systems (Greece)
- Instytut Transportu Samochodowego (Motor Transport Institute, Poland)
- Kompetenzzentrum – Das virtuelle Fahrzeug, Forschungsgesellschaft mbH (Institute of Science – Research and Development for Automotive Industry, Germany)
- Nederlandse Organisatie voor toegepast-natuurwetenschappelijk onderzoek TNO (Dutch Organisation for Applied Scientific Research)
- Panepistimio Patron (University of Patras, Greece)
- Politechnika Poznańska (Poznań University of Technology, Poland)
- Politecnico di Torino (Polytechnic University of Turin, Italy)
- Sintef AS (Research Institute, Norway)
- Teknologian Tutkimuskeskus Vtt Oy (Technical Research Centre, Finland)
- University of Leeds (England)
- Výzkumný a zkušební ústav Plzeň s.r.o. (Pilsen Research and Testing Institute, Czech Republic)
- Vrije Universiteit Brussel (Flemish University in Brussels, Belgium)
- Západočeská univerzita v Plzni (University of West Bohemia, Czech Republic)



SDG 11

Business profile

Vehicle offering

Customers and the needs of the cities they represent are at the center of our attention. We support the transition of public transportation by, among others, designing modern drives, introducing new bus lengths, or offering innovative safety systems. Our goal is to create and deliver vehicles with the best possible environmental and social profile.

Solaris brand drives

Alternative

- electric
- hydrogen
- hybrid
- trolleybus

Conventional

- CNG
- diesel

Vehicle lengths

- 8,9 LE
- 9 m **zero-emission model only**
- 10.5 m
- 12 m
- 15 m **zero-emission model only**
- 18 m
- 18.75 m
- 24 m **zero-emission model only**

Solaris zero-emission vehicles



Electric buses

Battery-powered vehicles fit perfectly into the requirements of urban traffic. The wide range of options in terms of bus lengths, engines, battery types and charging options make them easy to adjust to the specific features of different cities, climates, traffic characteristics, passenger volumes on distinct bus routes and even topography. A zero-emission drive system, innovative and safe ADAS, modern components and comfortable interior make them a real green alternative to diesel transport in urban areas.



Hydrogen buses

The energy source for these vehicles is hydrogen. It is turned into electricity in a fuel cell which serves as a miniature power generator on board the vehicle. The electricity generated in the cell is transferred directly to the drivetrain, while surplus energy is stored in batteries and used on an as-needed basis, for instance during acceleration. The only by-products of the chemical reaction occurring in the fuel cell are water and heat. Harnessing hydrogen technology in power generation enables buses to cover long distances in a completely emission-free manner.



Trolleybuses

They are powered by electricity drawn, just as in the case of electric trams, from an overhead powerline network, however, they do not need rails to move on the road. These quiet vehicles produce no local emissions either. They may feature additional batteries that are charged en-route using the In-Motion-Charging system enabling them to operate even without a connection to overhead wires.

SDG 9, 11, 13

E-mobility support offer

At Solaris, we strive to meet and exceed the expectations of carriers and support them in meeting the challenges of the green transition of public transportation. We offer customers with a comprehensive solution to better plan and manage the change, as well as a dedicated After Sales support structure:

Feasibility studies

Feasibility studies are advanced calculations and simulations carried out for customers in order to optimally match electric buses, their amenities, features and equipment, number, battery technology and charging method to the specific needs of the cities where they will be operated. To this end, we analyze a broad range of data and information, including the number of stops, passengers, the timetable at the respective location, the topography and climatic conditions.

Our broad offering and extensive experience enable us to provide customers with optimal solutions in terms of batteries, vehicle lengths, drive systems, climate comfort systems, amenities, features and equipment.

Turnkey projects

These complex projects include not only the delivery of vehicles, but also the setting up of full charging infrastructure, adapted to the specific features of the location. Solaris takes care of the execution of the construction work, including dealing with the necessary paperwork, such as building permits or permits for the use of charging infrastructure.

eSConnect

The system enables operators to monitor and efficiently manage their bus fleets and to use them in an optimal manner which, in turn, translates into energy consumption savings. In addition, eSConnect provides the ability to better adapt to the requirements of the modern city by allowing the vehicle to adapt to zero-emission zones and local speed limits. Thanks to reports generated by the system, the user can monitor in real time the energy consumed by the bus during operation.

eSConnect also provides remote access to the vehicle's diagnostic data, thanks to which technicians are often able to remotely diagnose a defective component and prepare the workshop to carry out any repair, if so required. Furthermore, in certain cases the system enables service technicians to remotely rectify the defect without the need to be physically present at the customer's location, which significantly reduces repair times, travelling costs and related environmental impact.

eSSyncroService

It is a system that uses augmented reality for remote repair and maintenance services and vehicle delivery and acceptance purposes. eSSyncroService uses goggles to give the mechanic a simultaneous view of the bus and a comprehensive scan of the vehicle. Using voice commands, she/he can call up documentation. These elements form a picture that, in the case of standard actions, is accompanied by guidelines and next steps. For more complicated issues, a mechanic can connect remotely with a Solaris expert, relaying the image to her/him. At the same time, a Solaris expert can apply markers indicating specific components to be repaired.

The eSSyncroService gives continuous access to the safety rules in effect at any given stage, which the person servicing the vehicle should follow.

With eSSyncroService, our customers can reduce repair time to a minimum and get buses back on the road immediately. By remotely contacting Solaris experts, the time required for them to come to the customer is eliminated.

Vehicles safe for people and the environment

Rail and bus transport, as environmentally friendly and high-capacity means of transport, offer tremendous potential for contributing to the fight against climate change and city congestion, thereby reducing the environmental impact, improving citizens' quality of life and contributing actively to the protection of the ecosystem.

CAF prioritizes activities aimed at replacing fossil fuels and reducing the energy costs of transport by providing highly efficient mobility alternatives to point the way to a sustainable, clean, ecological and emissions-free future.

Product Life Cycle Assessment

The Life Cycle Assessment (LCA) identifies processes, materials and components with the highest environmental impact. In the process, all life stages of products are considered: from the mining and transport of raw materials to the production with the highest environmental impact. In the process, all life stages of our products are

considered: from the mining and transport of raw materials to the production of components and vehicles, to the transport of the finished products to customers, to the operation, maintenance and disposal of vehicles.

In April 2022, on the basis of the LCA calculations, the Company obtained third-party verified EPDs (Environmental Product Declaration) for Solaris Urbino 18 electric and Solaris Urbino 12 hybrid vehicles.

Solaris Bus & Coach's life cycle analysis and EPD labeling supports public transportation operators in making more responsible purchasing decisions. This allows them to be guided not only by the price, technical parameters of the vehicle or warranty and service conditions, but also by how the purchase of a particular product will affect the environment. In this sense, the EPD declaration supports environmentally conscious choices and motivates manufacturers to increasingly manage their supply chains and production processes responsibly.

In future years, we plan to expand the scope of the analysis to include other types of buses.

Solaris' Environmental Product Declarations:

Solaris Urbino 18 electric bus:
www.environdec.com/library/epd5329

Solaris Urbino 12 hybrid bus:
www.environdec.com/library/epd5600

GRI 302-5, SDG 11, 13

Reducing energy and fuel requirements of vehicles

A life cycle analysis (LCA) of two types of our buses clearly showed that the highest environmental impact of the vehicles occurs during their operational phase. We take responsibility for our products throughout their life cycle, so we are working on solutions that reduce the energy and fuel requirements of Solaris vehicles during the use phase.

We take various measures at the design and development stage in cooperation with our suppliers and as part of the production process to reduce energy and fuel requirements.

In recent years, these measures have included, among others:

- Development and implementation of innovative systems and performing numerous tests. As a result, the Urbino 12 electric bus achieved 23% savings in energy consumption between 2018 and 2022, and the Urbino 18 electric bus reduced energy demand by 24% between 2019 and 2022. These figures were confirmed by tests in accordance with the requirements of the UITP E-SORT2 standard.
- The use of a battery thermal management system (BTMS) on vehicles to control the temperature of batteries, ensuring that they operate in optimal conditions and maximizing performance and service life. The use of batteries at too high or too low temperatures has a decisive impact on their capacity and service life cycle.
- Changes in the design of the bus body made during the evolution of the generation allowed us to achieve significant savings in energy demand. Less weight translates directly into less energy consumption for the vehicle.
- The electric bus market is so dynamic that, on average, we launch batteries based on a new generation of lithium-ion cells every

two years. This allows us to offer better and better solutions to our customers. Electric and hydrogen buses today can offer driving ranges similar to conventionally powered vehicles without producing any emissions at the point of use. A huge leap in battery development can be seen especially in the case of High Energy, a battery with high energy density that provides a long driving range for a vehicle. Since 2013 we have managed to almost triple the nominal energy rating of the battery while maintaining the same weight. In 2014-2020, we increased the energy density per kg of our High Energy battery by an astounding 77%. This means significantly longer driving ranges with the same battery weight, which translates into higher energy efficiency of an electric bus.

In the case of High Power, or high power density batteries, flexibility is more important. Although their rated output is lower, they provide instant recharging of the bus during the day and longer trips with passengers. We have also seen progress in this technology - a significant increase in the charging power parameter. The Solaris R&D Department works to optimize the housing and frame of the batteries and reduce their weight. The savings for a bus equipped with several batteries can reach up to several hundred kilograms. This is a weight reduction of about 15% per battery for High Power, and about 7% for High Energy. These improvements have the effect of reducing the bus's energy requirements and increasing its passenger capacity.

- Eco-design measures to improve the thermal insulation of the bus. In 2019-2020 we carried out a series of analyses and studies and introduced new insulation materials for the interior of the vehicle. The new materials represent up to 10% improvement in thermal insulation performance.



* Tests were conducted by a third-party entity in accordance with UITP E-SORT2 requirements, which reflects the energy consumption of a city bus in an average urban cycle.

GRI 3-3, 301-3, SDG 11, 13

Vehicle recyclability

Marking of components

We are mindful of the depletion of natural resources and ensuring sustainable production, so we make it possible to recycle components by properly marking parts made of metals, plastics and elastomers. Our component marking requirements are laid down in the company standard SN22-004-00L “Marking – identification of places, information and scope of marking,” which has been developed on the basis of the guidelines of international standards applicable in the area. Our suppliers are obliged to comply with it.

Based on the requirements of ISO 22628:2002, in turn, we have calculated the recyclability of our buses. On the basis of the data we published in the EPD environmental labels for the 18-meter electric bus and the 12-meter hybrid bus, the estimated recyclability rate is 94.9% and 95.9%, respectively, while the recoverability rate is 95.1% and 96.1%.

In addition, in order to ensure the safe handling of our vehicles throughout their life cycle, we also adhere to and require our component suppliers to act in accordance with their obligations under the European Commission’s REACH regulation.

Dealing with battery waste at the end of its life cycle

Under the Battery Act, Solaris is required to collect batteries following the completion of their useful life.

In this regard, we use the services of a certified recycler for the processing of spent batteries. Used batteries are processed in accordance with current standards, allowing the recovery of raw materials that can be reused in many industrial production processes.

Process innovation in logistics and production

Every year, we make a number of investments that improve the production process and improve product quality. The process innovations being introduced in logistics and production are also improving occupational safety, as well as minimizing electricity consumption.

Welding robots

At our production facilities in Środa Wielkopolska and Kijewo, where we manufacture bus frames, welding processes are supported by modern welding robots. The new equipment stabilizes the technological process and improves the quality of the welds made. The robots are integrated in the software, where we program welding paths or calculate welding times. In 2022 we also continued the process of replacing welding machines at both plants.

Bus roof work platform

To increase safety while improving efficiency, we introduced a work platform on the bus roof. The platform’s design allows operators to work at height

without the use of restraints thanks to barriers mounted on three sides. The platform adjusts to the height of the vehicle over which it is positioned.

Milling plotter (CNC)

The milling plotter cuts bus floor plates according to a pre-programmed custom design. Automating the cutting process translates into improved productivity, as well as improved working conditions and safety.

Manipulator for bus door assembly

The introduction of the mechanism has improved ergonomics and safety at work.



GRI 416-1, SDG 11

Safety of vehicle use**Safety systems in vehicles**

- Fire detection and extinguishing systems
- Electrical insulation measurements
- Tables and drawings showing torques for screws in relevant systems (such as the drive system)
- Enclosed driver's cabin
- Safety system to prevent people from being trapped in the door (opening automatically if any resistance is detected)
- Electric Nothan valve (to lock the door when the bus is in motion)
- Braking resistor (aids braking in e-buses)
- Retarder (aids extended braking and protects brakes)
- Use of flame-resistant materials
- Bus emergency exits
- High voltage shut-off system (emergency stop)
- Laying HV cables in ducts to prevent contact with people

ADAS (Advanced Driver Assistance Systems)

- MobilEye Shield+ – The system enables the driver to see more owing to cameras placed outside the vehicle. They detect the presence of pedestrians and cyclists in the so-called blind spot of the vehicle, which is particularly important when turning.

- MirrorEye – Cameras that replace side mirrors show what is happening on screens inside the vehicle and thus ensure enhanced visibility for the driver. They substantially broaden the field of view and improve the aerodynamics of the vehicle.
- CMS (Collision Mitigation System) intelligent braking assistance system – During an emergency, the system enters braking mode, reducing velocity and thus reducing the consequences of a potential collision. Its correct calibration is of great significance in city buses where there are no safety belts and most passengers ride while standing. Hence, the braking force is crucial for the passenger safety and comfort.
- BirdView system composed of four cameras – A precise device monitoring the surroundings of the vehicle, including all blind spots. The device provides high-quality bird's-eye view images of the vehicle, making maneuvers such as turning easier, thus increasing safety in the vehicle and on the road.
- Rain and dusk sensor – The sensor assists the driver when the vehicle is driven in unfavorable weather conditions. As soon as the weather deteriorates or it gets dark while driving, dipped headlights are automatically switched on or amplified to provide clear visibility.
- DDR (Driver Distraction Recognition) – A driver vigilance monitoring system that analyses the driver's facial expressions to alert him or her, should the driver be distracted, keep looking around or show signs of drowsiness. Fatigue and reduced concentration on the part of the driver

may set in especially on long routes. If the bus driver is tired, he or her will be alerted by a fatigue monitoring system, ensuring the safety of both the driver and passengers. The system detects signs of fatigue by constantly analyzing the driver's eye movements. Once the system detects reduced concentration, it alerts the driver of distraction and fatigue by displaying a warning icon and an audible signal.

Training and education**Driver training**

We have been supporting the broadening of drivers' knowledge and skills by running the "Safe Driver" training program since 2005. Its aim is to improve the safety of all road users. During the theoretical part and practical training on a special track, drivers learn to anticipate and quickly identify threats, acquire new skills and consolidate them to react properly in emergency situations. The training enables participants to become acquainted with the modern systems we offer in our buses, thereby taking full advantage of the potential of these solutions.

Customer training

Seeking to best prepare customers for the proper operation of Solaris products, we have established a special Technical Training Department which, apart from running practical training courses at the customer's location, is also in charge of the Technical Support Centre.

In 2022, the Technical Training Department conducted nearly 200 training sessions for a total of nearly 1,400 participants.

The training courses we offer include:

- Driver training in eco-driving
- Driver training in managing the workplace, basic maintenance and economical driving
- Training of the customer's technical staff in the construction, maintenance and repair of operated vehicles, either during the production process or at the customer's location
- Specialist training regarding built-in components, delivered by subcontractors' representatives
- Training for emergency and road services in the design of modern city buses and in safe conduct in the event of road accidents involving buses
- Internal technical training as per identified needs

SDG 9, 11, 13

New investments

Charging Park

Charging Park is an innovative, multi-station charging station for battery-powered vehicles: electric buses, hydrogen buses and trolleybuses. The investment in our own Charging Park, that is a single centralized site for charging e-buses, marks a natural step in the rapid development of the zero-emission Solaris portfolio. The Park has been developed to enable the demonstration to customers of the innovative solutions used in the energy replenishment processes in Solaris buses. The Charging Park also has a second extremely important function: it will enable the testing of new technologies and functionalities in the charging and discharging processes of manufactured battery-powered vehicles. The Park also supports the Vehicle-to-Grid (V2G) functionality, that is a bidirectional electricity flow between vehicles and the grid. The V2G technology enables the discharging of buses for test purposes and the use of vehicles as mobile electricity storage facilities. The investment includes eight bus charging stations, pantograph mechanisms, plug-in charging islands, a section of the trolleybus network, an info kiosk equipped with an LCD screen and a technical room. The station also has photovoltaic panels installed with a total capacity of 80 kWp.

Main Warehouse

The new Main Warehouse covers an area of 10,000 m². It was built in the immediate vicinity of the Solaris factory and is connected to it in terms of road infrastructure and utilities. The new warehouse facility plays a key role in the supply chain of parts and components for the production of Solaris buses and trolleybuses. The hall is equipped with a modern multi-level storage platform with an automatic conveyor line. Advanced systems for smoke detection have been implemented throughout the facility, and the equipment used in the new Warehouse has been fitted with special covers to dampen the noise generated by daily operations.

The new facility has a reinforced roof, on which 572 photovoltaic cells with a total capacity of 260 kWp have been mounted.

Sustainable production

Sustainable production

GRI 3-3, 201-2, 304-1, 413-2

Environmental management

Solaris, as part of the CAF Group, implements the CAF Group's Environmental Policy and Sustainability Policy in its operations. These documents define and consolidate the principles that guide all companies in the CAF Group in their sustainability activities. Environmental issues are an important aspect in them.

It is crucial for us to act strictly in accordance with relevant environmental regulations and requirements when conducting our business, and to undertake activities that combat climate change. Utilizing renewable energy sources, investing in research and development and introducing sustainable products and technologies, as well as maintaining compliance with environmental management system requirements are our priority activities in this area.

Since 2005, Solaris Bus & Coach has had a certified environmental management system in place, based on ISO 14001 requirements. It supports us in achieving our environmental and economic goals.

Environmental risks

Identification of environmental risks is a part of the CAF Group's Integrated Control and Risk Management System. The system is based on the General Control and Risk Management Policy, and is underpinned by the Control and Risk Management Procedure.

The following risks have been identified and assessed in the catalogue of environmental risks:

- consumption of raw and auxiliary materials
- consumption of natural resources due to inappropriate use of energy and natural resources
- water and soil pollution
- impact on biodiversity
- air pollution and global warming
- consumption of natural resources due to inadequate waste management
- noise pollution
- inadequate third-party environmental management due to outsourcing
- improper use and maintenance of machinery and equipment

This assessment complements risk identification process of the environmental management system in Solaris Bus & Coach. In accordance with the requirements of ISO 14001, environmental aspects were assessed, among which the most significant criterion was harmfulness to the environment. On this basis, significant aspects were identified that could potentially result in the materialization of risks. Countermeasures were also defined to avoid hazardous events and potential environmental pollution.

As part of the analysis of climate risks at the CAF Group level, risks and opportunities arising from climate change were identified based on the expected trends, in order to prevent and reduce the impacts of the risks and take advantage of the opportunities that this phenomenon will entail, defining how to address them.

The production facilities of Solaris Bus & Coach are located outside areas protected under national regulation – the Nature Protection Act. Being aware of the importance of protecting biodiversity, each time we make investment decisions we conduct an environmental impact analysis of our activities. We pay attention to the preservation of green areas and trees, as well as animal, plant and fungal species.



GRI 301-1, 301-2, SDG 13

Consumption of materials
and raw materials

We are acutely aware of the impact exerted by Solaris’ business on the natural environment and the local communities in which we operate. We take responsibility for our products throughout their life cycle and make efforts aimed at minimizing our potentially negative environmental impact, including through a reasonable use of available resources.

Recycled input materials used in components

Solaris is fully aware of the problem of depletion of natural resources, so it is defining measures to use recycled materials and make products recyclable, and to ensure the reuse of both raw materials and products.

In order to identify this potential, based on the best knowledge and information provided by our suppliers, Solaris has taken steps to identify recycled materials used in the production of vehicle components.

In 2022, the content of recycled steel in the stainless steel supplied by a main supplier to us used for the frame itself, which makes up a significant part of the total vehicle weight, was 89.8% according to ISO 14021. Taking into account our suppliers, use of recycled metal from waste streams, the content of recycled steel was 93.9% in 2022.

However, it is worth noting that the production of many groups of components requires the use of materials of the highest quality due to technical parameters and requirements, safety of use and aesthetic expectations of customers. In such cases, the use of recycled materials is not possible.

We used the following key materials and raw materials to produce our vehicles in 2022:

Material/Raw material	Weight [t]
Aluminum	637
Adhesives	480
Brass tubes	78
Plywood	459
Stainless tubes	62
Stainless steel 1.4003	7,056
Black steel	172
Copper used to make the bundles	305

For the purpose of packaging spare parts at Solaris Bus & Coach in 2022, we used:

Material/ Raw material	Weight [t]	Breakdown of raw materials by renewability
Wood	201	Renewable
Paper	52	Renewable
Plastics	1	Non-renewable



SDG 13

Greenhouse gas emissions (GHG)

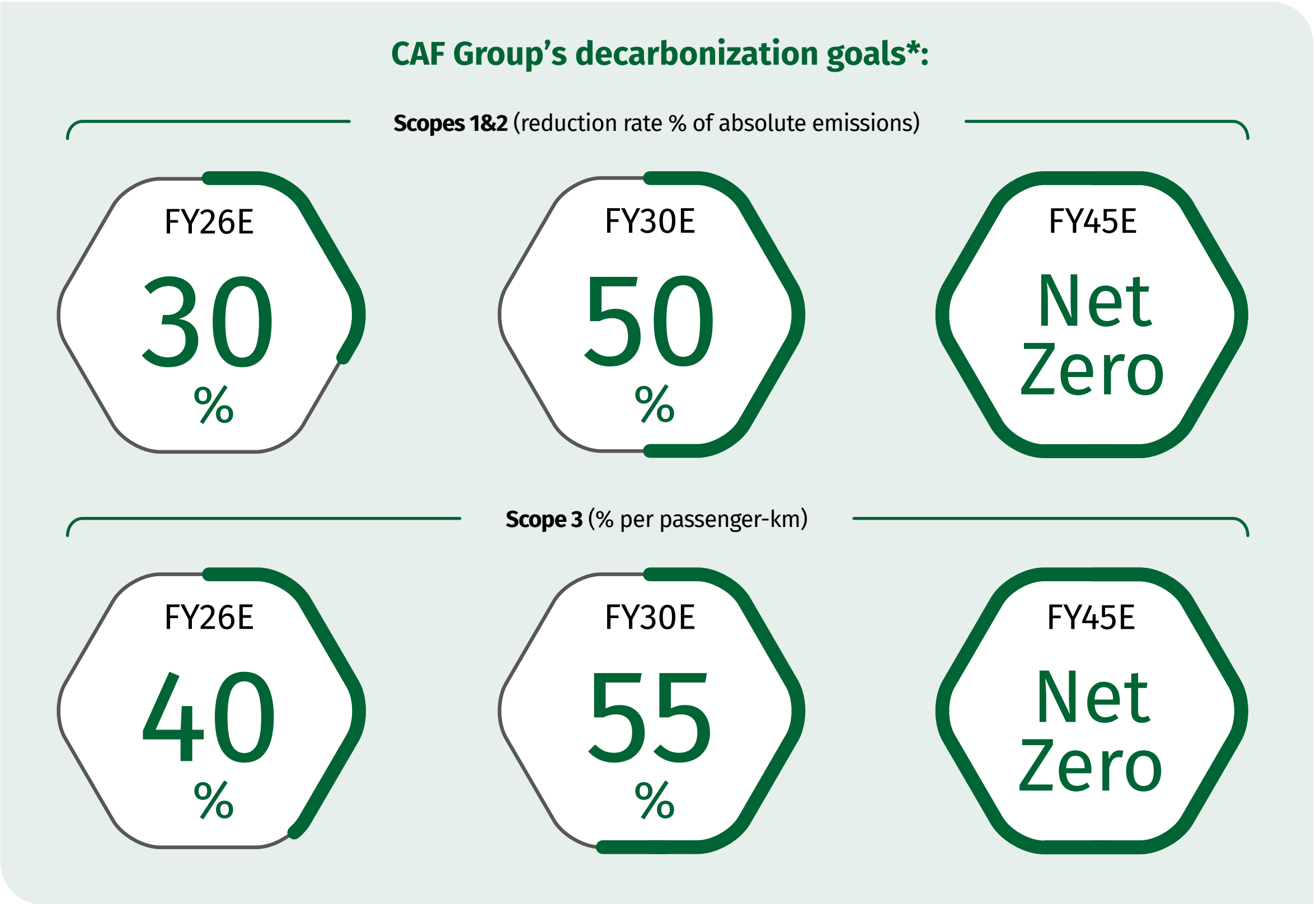
CAF Group is undertaking a number of initiatives to decarbonize the value chain. With the goals of the Paris Agreement in mind, in 2021 CAF Group joined the Science Based Targets Initiative (SBTi) and Race to Zero, and in 2022 moved these commitments to the 2026 Strategic Plan as part of the Zero Net Emissions initiative.

The main pillar of Solaris’ value chain decarbonization is the innovative products available in its ever-expanding range of hybrid, electric or hydrogen buses.

In 2022, CAF Group defined short- and long-term emission reduction targets, taking into account the SBTi methodology and using previous years’ carbon footprint calculations as a benchmark. The base year for the reduction targets is 2019.

Solaris, as a member of CAF Group, has made a commitment to achieve Zero Net Emissions by 2045.

In response to the set reduction targets and the promotion of strategies addressing climate change through the reduction of greenhouse gas emissions and the use of renewable energy sources, as part of the work of the CAF Group’s Sustainability Committee and the Zero Net Emissions initiative, CAF Group’s first CDP (Carbon Disclosure Project) climate change report was completed and a CDP score of B was achieved.



In setting reduction targets, CAF Group took into account its key sources of greenhouse gases (GHGs), which include emissions arising from the product life cycle related to energy consumption during the use phase, as well as emissions from energy consumption in operations.

Activities to achieve the targets focus on gradually reducing emissions through:

- improving energy efficiency in manufacturing operations and facilities
- increasing the share of renewable energy
- research and development toward developing sustainable, zero-emission transportation solutions

*As at the publication date of the report, the reduction targets are in SBTi validation.

GRI 305-1, 305-2, 305-3, 305-4, 305-5

Carbon footprint

The carbon footprint calculation was carried out in accordance with ISO 14064:2018 and it was subjected to external verification.

The carbon footprint was calculated and verified in the following scopes:

- direct emissions (Scope 1): emissions from fuel consumption in stationary and mobile installations, as well as fugitive emissions of fluorinated gases
- indirect emissions (Scope 2): from electricity consumption and thermal energy consumption
- other indirect emissions (Scope 3): product use phase, production and transportation of materials to Solaris production facilities, transportation of the product to the customer, waste management and transportation, water consumption, commuting and business travel

The greenhouse gases (GHGs) included in the calculations are expressed in equivalent tons of CO₂ and refer to emissions of carbon dioxide, methane and nitrous oxide (CO₂, CH₄ and N₂O, respectively), in addition to hydrofluorocarbons (HFCs) associated with refrigerant gas losses.

Scope 1&2 greenhouse gas emissions intensity at Solaris Bus & Coach converted into man-hours

	2019	2021	2022
Emission intensity [kg CO ₂ eq./man-hour]	3.2	3.1	1.4

Scope 3 emissions from the use phase of the vehicles delivered in 2022 by CAF Group (both buses and rail) are presented as an indicator trend relative to the 2019 baseline

Scope 3 (use phase)	%Δ2019-2022	2022 target
CAF Group	-14.8%	-19.6%

Carbon footprint results for 2019-2022* in Scopes 1&2 [tCO₂ eq.]

	Scope 1	Scope 2	Scope 1&2
2019			
Solaris Bus & Coach	4,255	9,075	13,330
Subsidiaries	1,121	1,150	2,271
Solaris Group	5,376	10,225	15,601
2021			
Solaris Bus & Coach	4,278	8,886	13,164
Subsidiaries	968	44	1,012
Solaris Group	5,246	8,930	14,176
2022			
Solaris Bus & Coach	4,279	1,606	5,886
Subsidiaries	644	36	680
Solaris Group	4,924	1,642	6,566



Carbon footprint reduction in 2019-2022 in Scopes 1&2

	%Δ2019-2022	%Δ2021-2022
2022		
Solaris Bus & Coach	-56%	-55%
Subsidiaries	-70%	-33%
Solaris Group	-58%	-54%

* The carbon footprint calculation did not include data for 2020, as it was not considered a representative year for the Company's actual operations.



GRI 2-27, 302-1, 302-3, 302-4, SDG 7

Energy consumption within the organization

The energy intensity rate per man-hour in 2022 was 7.3 kWh/man-hour, down by 0.5 kWh/man-hour from 2021.

Initiatives to improve energy efficiency in processes and use of renewable sources

The Company's two main production facilities in 2022 were powered entirely by renewable electricity with a guarantee of origin, helping to reduce the carbon footprint at Solaris Bus & Coach by 55% compared to 2021. In 2022, a 340 kWp photovoltaic installation was installed at the Bolechowo plant, which will further enhance energy independence. The installation is scheduled for commissioning in 2023.

Other measures taken over the years to improve energy efficiency and use of renewable energy:

- The use of electric forklifts in the Bolechowo warehouse and the Jasin Logistics Center
- Replacement of lighting systems with energy-efficient ones (in progress at all sites)
- Air curtains in the welding shop in Środa Wielkopolska to prevent heat loss
- Motion-controlled lighting in warehouse areas
- Heat cut-off curtains on loading docks
- Air destratifiers pushing warm air from the upper layers of storage halls

Compliance with laws and regulations

In 2022, we were in the midst of two appeal procedures relating to the decisions of the President of the Energy

Total energy consumption by Solaris Bus & Coach in 2022

Electricity [MWh]	Heat [MWh]	Gas [MWh]
12,093	5,468	13,677
91% renewable	14% renewable	Non-renewable

Regulatory Office from 2020 and 2022, imposing a penalty of nearly EUR 13 thousand and approx. EUR 42.6 thousand, respectively, for the Company's failure to submit within the prescribed time limit the legally required reports on the types and quantities of produced, imported and exported liquid fuels and their intended use. In both cases, we explained that the harmfulness of the omission was minor, including inadvertent violation of the regulations, and on our own initiative we performed all obligations even before the administrative proceedings were initiated, as soon as we became aware of their existence. As at 31 December 2022, both cases were pending.

The Company's two main production facilities in 2022 were powered entirely by renewable electricity with a guarantee of origin, helping to reduce the carbon footprint at Solaris Bus & Coach by 55% compared to 2021.

GRI 3-3, 306-1, 306-2, 413-2, SDG 7, SDG 13

Waste

Waste is an important part of assessing our impact on the environment. Hazardous waste constitutes a major environmental aspect of the Environmental Management System in place at Solaris Bus & Coach, in compliance with the requirements of ISO 14001. We reduce waste generation on our part and properly sort and store waste to enable the largest possible degree of recycling and recovery.

We strictly follow the requirements of the national regulations in the area: Waste Act and the waste management permits in force. Moreover, the Company has internal regulations in place that define the principles of proper waste management and recycling. Our environmental protection specialists in the Investment and Maintenance Department are responsible for ensuring compliance of the operations of Solaris Bus & Coach with the applicable waste management laws.

Waste generation and consequences of waste generation

The waste generated by the Company's operations is one of the elements that can affect the environment. We run our business in compliance with all administrative decisions on waste management and fulfill all legal requirements in this respect, including by keeping records of generated waste in the national online waste database (BDO).

Moreover, we have adopted our own qualitative and quantitative targets for each type of waste to monitor our waste generation volumes. We ensure that the waste we generate does not pollute the earth's surface, soil or waters. The containers we use for storing waste are tight and resistant to any chemical reactions that may be going on inside them. Our waste containers are marked with the type and code of the substances stored inside them. Our waste storage locations are protected against unauthorized access. We monitor the storage sites.

Further waste handling

We outsource the collection of our waste and the fulfillment of the obligation to recover and neutralize our waste to companies holding waste handling permits issued by a certified authority. In making decisions on transferring our waste to the next owner, we take into consideration the principle of proximity, meaning that we tend to move our waste to the nearest waste processing locations.





GRI 3-3, 306-1, 306-2, 413-2, SDG 7, SDG 13

Managing major waste-related consequences

We keep our waste management processes under close supervision, in consideration of the relevant environmental and economic aspects and strictly observing the applicable laws.

We are undertaking a host of activities to minimize the amount of waste produced, including the following:

Detail Packaging Cards

Documents imposing a uniform packaging method for the respective detail/group of details. The new procedure has been deployed in consultation with our suppliers. The cards contain all key information about the packaging of the components we order, including the type of protective materials such as foil or paper. Our regulations governing the type and form of packaging materials contribute to the reduction of their volumes and to the proper sorting of packaging waste.

Returnable packaging

In collaboration with our suppliers, we continue to deploy a returnable packaging system for deliveries. Reusable returnable packaging made of plastic or steel or aluminum reduces the volume of stretch wrap, foil, paper and cardboard in deliveries to the Company.

Reusable wheel and glass racks

We use reusable racks, thus reducing the use of wood and thus the amount of waste. The initiative

also improved the detail-picking ergonomics and streamlined the assembly preparation process. The application of this new solution has also resulted in a lower risk of damage to components during transport and has enabled the stacking of wheels, thereby letting us recover some storage space.

A trolley for delivering seats to the production station

enabling a reduction in the volume of materials such as foil, stretch wrap, paper and cardboard for securing seat components.

A non-rotating material circulation procedure

has streamlined the process of issuing opinions on non-rotating materials by selected departments, and thus facilitated efforts aimed at expending unused components. The process of issuing opinions is entered in the system. The use of non-rotating components has reduced their volume ending up in waste.

GRI 306-3

Waste generation

Solaris Bus & Coach keeps records on the quantities and qualities of all its waste using the national online waste database (BDO) and submits files all required reports within the statutory time limits.

Waste generated at Solaris Bus & Coach in 2022 by waste type

Waste type	Waste weight [t]
Packaging waste (wood, paper and cardboard, plastics)	1,045.1
Metal waste	546.8
Waste generated in painting processes	88.0
Oil waste	4.5
Hazardous substance packaging waste	11.3
Batteries	93.0
Other	969.6
Total	2,758.2

Waste generated at Solaris Bus & Coach in 2022 by location

Production plant	Waste weight [t]
Bolechowo	2,020.9
Jasin	68.1
Kijewo	55.0
Murowana Goślina	160.2
Poznań	60.9
Środa Wielkopolska	393.1
Total	2,758.2

Waste generated by Solaris Bus & Coach in 2022,
broken down into hazardous and non-hazardous waste

Waste classification	Waste weight [t]
Non-hazardous waste	2,449.3
Hazardous waste	308.8
Total	2,758.2



GRI 306-4, 306-5

Waste generated at Solaris Bus & Coach in 2022 by disposal method

Owing to proper waste management carried out within the framework of our waste recovery processes, in 2022 waste recycling ratio at Solaris Bus & Coach stood at 68%. None of the waste we generate ends up in landfills.

Waste subject to neutralization

	Incineration	Storage	Other waste disposal operations
Non-hazardous waste			
Packaging waste (wood, paper and cardboard, plastics)	0	0	0
Metal waste	0	0	0
Other	14.3	0	668.0
Total	14.3	0	668.0
Hazardous waste			
Waste from painting activities	54.7	0	33.2
Oil waste	0	0	0
Packaging waste	0	0	11.3
Batteries	0	0	0
Other (adhesives, solvents, antifreeze)	106.9	0	5.3
Total	161.6	0	49.8

In 2022 waste recycling ratio at Solaris Bus & Coach stood at 68%.
None of the waste we generate ends up in landfills.

Waste subject to recovery

	Reuse	Recycling	Other recovery operations
Non-hazardous waste			
Packaging waste (wood, paper and cardboard, plastics)	0	1,045.1	0
Metal waste	0	546.8	0
Other (plywood, glass, tires)	0	175.2	0
Total	0	1,767.0	0
Hazardous waste			
Waste from painting activities	0	0	0
Oil waste	0	4.5	0
Packaging waste	0	0	0
Batteries	0	93.0	0
Other	0	0	0
Total	0	97.5	0

GRI 3-3, 204-1, 303-1, 303-2, 303-3, SDG 13

Water

Water consumption

At the Company, we use water primarily for workplace amenities and facilities. In the production process, we use relatively small amounts of water to wash our vehicles. **The car wash is equipped with a closed water circulation system.** The water used there is recycled through a device that treats wastewater from washing the bodies of buses. Through filtration on a quartz bed, adsorption on activated carbon and oxygenation by air injection, the recovered water can be reused for washing. The water consumed by Solaris Bus & Coach is obtained from the municipal water distribution system.

Solaris Bus & Coach's total water consumption in 2022 was 25.93 ML.

Ongoing monitoring of water consumption based on monthly meter readings makes it possible to detect any uncontrolled water leaks. The results are analyzed and archived over the years.

Work with suppliers to ensure a sustainable supply chain

In order to ensure a sustainable supply chain, Solaris takes into consideration environmental and social aspects as well as corporate governance in its relationships with suppliers. This is to avoid risks in the supply chain, but also to encourage suppliers to incorporate sustainability into their operations.

The Company manages the supply chain in compliance with the following principles:

- giving preference to domestic suppliers, thereby contributing to the maintenance of jobs in Poland and a reduction of greenhouse gas emissions in transport
- optimizing logistics processes
- acquiring components and materials used in the production of our buses from businesses fulfilling certain social and environmental criteria

Basic data

In line with the proximity principle, we are conscious to give preference to domestic suppliers. Therefore, in 2022, we worked with 1,501 suppliers, of which **68.8% were domestic suppliers** and the remainder suppliers originated from other European countries (28.5%) and outside Europe (2.7%), respectively. In 2022, 57% of the value of our orders went to domestic suppliers.

In 2022, we primarily purchased from domestic suppliers in the divisions:

- vehicles
- trailers and semi-trailers
- professional and business services
- warehouse and transport services
- municipal and recycling services

Due diligence in contracting with third parties

We strive to instill responsible practices in the daily operations of third parties. To this end, we use the CAF Supplier Code of Conduct, in order to better convey our expectations. This document requires our suppliers to comply with the standards adopted by the CAF Group in its code of ethics (CAF Group Code of Conduct) and sets forth requirements and recommendations in the following six categories: Compliance with the Law and Human Rights, Working Conditions, Health and Safety, Environment, Business Ethics, and Confidentiality. Since the adoption of the CAF Supplier Code of Conduct, any business intending to establish cooperation with us must declare full compliance with the provisions of this document and communicate the principles contained therein to those below in the supply chain. An exception to the above rule applies if a contractor has its own code of conduct which contains provisions equivalent in nature to the CAF Supplier Code of Conduct. All CAF Group suppliers are required to comply with the applicable laws and regulations, including those pertaining to combating corruption, bribery or extortion, and must adhere to the principles of fair competition and integrity, both in their relationship with CAF Group and with any other public or private entity.

Verification of counterparties

The Company has implemented the CAF Group Due Diligence Implementation Manual for Contracting with Third Parties. It establishes a minimum standard procedure

prior to entering into a contract with third parties and sets out the parameters for evaluating third parties for compliance requirements including, in particular, entities considered to be competitors (together with the CAF Group Competition Law Compliance Manual). We continually implement the principles arising from the Manual and train our employees in this area. Detailed information about the Manual is included in the chapter „Responsible Governance”.

We also verify suppliers and customers based on the Due Diligence Contractor Verification Instruction. It specifies the steps we take before entering into any transaction with a new counterparty.

For this purpose, we use the „Due Diligence” application to obtain confirmation of:

- the counterparty's credibility
- the ability to perform proper VAT settlements, including the possibility of applying the 0% rate
- the ability to post fees for the provision of intangible services as tax-deductible expenses
- the ability to perform withholding tax (WHT) settlements

Such verification is conducted every time before establishing cooperation with a new counterparty and periodically in respect of already verified entities (to ascertain whether continued cooperation is unthreatened).

GRI 308-1, 308-2, 407-1

ESG issues in supplier assessment

Sustainable supply chain management includes environmental, social and corporate governance aspects. The approach to supply chain management is based on the Group Purchasing Policy, the Environmental Policy, the Health and Safety Policy and the Supplier Code of Conduct, all of which take into account the UN's human rights, environmental and anti-corruption principles and provide guidelines not only for our organization but also for our suppliers.

Specific requirements for respecting human rights in the CAF Group Companies' own operations are also included in the CAF Group's internal Procedure for Proper Conduct in Respecting Human Rights.

Responsible procurement

In 2022, as part of developing responsibility in the supply chain, Solaris began implementing a responsible procurement program to ensure compliance with CAF Group's supply chain policies.

In accordance with the program's guidelines, the Group selected suppliers whose activities pose the greatest environmental, social and ethical risks because of not only the potential negative impact of the products they supply, but also because of the country in which they operate and the likelihood of risk in the aforementioned areas. The entities on the list of suppliers with potential ESG abuse risks will be further assessed for their approach to sustainability management.

In 2022, we have continued our cooperation with battery suppliers to develop a responsible supply chain given the

risks involved in battery production, particularly in sourcing the scarce raw materials needed to make them. Based on the prepared self-assessment sheet, we verified the battery suppliers' sustainability activities.

We prefer suppliers certified by global responsible raw materials mining initiatives, such as the Responsible Cobalt Initiative and the Responsible Minerals Initiative. Thanks to our battery supplier qualification criteria, we are able to obtain information on whether the materials necessary for the production of our battery cells are obtained in areas free from armed conflicts or an elevated risk of human rights violations.

Due diligence in respecting Human Rights

The Solaris Group has an internal CAF Group Human Rights Due Diligence Procedure, which supports employees in conducting a preliminary assessment of each potential bid, contract or project to ensure that its participation does not give rise to a breach of Human Rights, either through its own activities or as a direct result of its operations, or due to the sale of its products or the services provided. At the same time, the possible existence of international sanctions is checked on a general basis. For this purpose, CAF Group uses internationally recognized human rights risk indicators and public databases on international sanctions.

The first step is to analyze whether the country, region or city in which the project is located, or the characteristics of the project, have a level of risk that a priori requires the adoption of special measures on potential associated impacts. In a second step, a tailor-made study of the specific circumstances of the case is carried out in order to determine

the specific risks and, if necessary, the preventive risk and impact management measures to be adopted if the project is classified as admissible.

In 2022, CAF Group updated the list of countries at risk of human rights violations and subject to international sanctions. In order to consolidate knowledge for the Company's Sales and Procurement departments, training on international sanctions requirements in public procurement was implemented in 2022. CAF Group continued to undertake training and dissemination activities on Human Rights Due Diligence commitments among the Group's employees as part of general Compliance training. A new additional e-learning module has been launched to specifically train those employees in charge of carrying out Human Rights Due Diligence.

In 2022, the Solaris Group did not identify any bid, order or project that violates Human Rights.



Social responsibility

Social responsibility

GRI 2-7, 3-3

We are fully aware that our business operations may affect the lives and daily existence of various individuals across the Solaris value chain. We take specific targeted actions to maximize our favourable impact while minimizing our potential adverse influence.

The CAF Group Code of Conduct constitutes the internal framework which lays down the manner of the Solaris Group’s conduct in the area of social responsibility.

By reference to the principles laid down in the Universal Declaration of Human Rights and the UN Global Compact in the area of human and labour rights, the Code covers the following matters:

- respect for human rights and civil liberties
- respect for fundamental rights and principles of equal treatment and non-discrimination
- protection against child labour
- ensuring secure and healthy work conditions
- equality
- counteracting discrimination in the workplace

Our team

Employees are a fundamental force that enables Solaris’ vision of growth. As at the end of 2022, the Solaris Group had 2,759 staff working in dozens of locations across Europe. We are a team of individuals with diverse competencies fulfilling different functions, but sharing the same goal: we are changing the image of public transport.

Although each entity of the Solaris Group – due to its own characteristics and the diversity of local laws – enjoys independence when it comes to team management, yet each of them is subject to uniform codes, policies and patterns of conduct. The fundamental obligation of each Group company is to comply with international and national laws, standards of conduct, internal regulations and the Group’s values set out in our codes of ethics.

Solaris Bus & Coach has a number of internal documents in place, such as the Work Rules and Regulations and the Remuneration Rules and Regulations, along with other internal policies and procedures. The purpose of these documents is to implement the applicable provisions of Polish law, as formulated in the Labour Code, into the Company’s internal management system. The Human Resources Department is in charge of ensuring compliance of the Company’s internal regulations with the Labour Code and other workplace regulations and standards. At the Management Board level,

the Human Resources Department is supported by the Management Board Member responsible for HR and Occupational Health and Safety. The Human Resources Department and managers of each substantive department are responsible for the execution of the Company’s HR Policy.

When carrying out HR-related activities, we focus on:

- building working conditions that support employees’ commitment and identification with the Solaris brand
- supporting open and transparent communication with the team
- the well-being and work-life balance of employees



Employment structure*

Total number of employees

	2020			2021			Growth	2022			Growth
	Women	Men	Total	Women	Men	Total		Women	Men	Total	
Solaris Bus & Coach	340	2,111	2,451	374	2,080	2,454	0.1%	424	2,096	2,520	2.7%
Subsidiaries	49	168	217	57	173	230	6.0%	54	185	239	3.9%
Solaris Group	389	2,279	2,668	431	2,253	2,684	0.6%	478	2,281	2,759	2.8%

Type of employment (indefinite or fixed term)

	Indefinite term		Fixed term		Total
	Women	Men	Women	Men	
Solaris Bus & Coach	356	1,920	68	176	2,520
Subsidiaries	50	182	4	3	239
Solaris Group	406	2,102	72	179	2,759

Type of employment (full-time or part-time)

	Full-time		Part-time		Total
	Women	Men	Women	Men	
Solaris Bus & Coach	419	2,094	5	2	2,520
Subsidiaries	42	179	12	6	239
Solaris Group	461	2,273	17	8	2,759



* All headcount data for the Solaris Group are presented as at 31 December 2022. The number of Solaris Bus & Coach employees as at 31 December 2022 does not include juveniles hired under an apprenticeship contract or individuals remaining on unpaid or parental leave. This also pertains to all other tables. Due to Polish law, a juvenile is an employee who has reached the age of 15 and has not exceeded 18.

GRI 405-1

Employment structure*

	Age	Women	Men	Total
Central and Eastern Europe: Czech Republic, Estonia, Lithuania, Latvia, Poland, Slovakia	0-29	126	488	614
	30-49	274	1,287	1,561
	50 and above	39	364	403
Southern Europe: Greece, Spain, Italy	0-29	4	2	6
	30-49	13	23	36
	50 and above	2	8	10
Northern Europe: Denmark, Norway, Sweden	0-29	0	3	3
	30-49	3	16	19
	50 and above	1	17	18
Western Europe: Austria, Belgium, France, the Netherlands, Germany, Switzerland	0-29	2	18	20
	30-49	12	34	46
	50 and above	2	21	23
Solaris Group	0-29	132	511	643
	30-49	302	1,360	1,662
	50 and above	44	410	454
Solaris Group	Total	478	2,281	2,759

Type of employment (indefinite or fixed term) by region

	Indefinite term		Fixed term		Total
	Women	Men	Women	Men	
Central and Eastern Europe: Czech Republic, Estonia, Lithuania, Latvia, Poland, Slovakia	369	1,962	70	177	2,578
Southern Europe: Greece, Spain, Italy	17	33	2	0	52
Northern Europe: Denmark, Norway, Sweden	4	36	0	0	40
Western Europe: Austria, Belgium, France, the Netherlands, Germany, Switzerland	16	71	0	2	89
Solaris Group	406	2,102	72	179	2,759

The Solaris Group does not hire non-guaranteed hours employees. In 2022, no significant changes occurred in the level, type or form of employment within the Solaris Group.

Contracts other than employment contracts account for a small percentage of all labour relations. For the most part,

we enter into such contracts with individuals participating in dual study programmes or internships and with persons who provide us with services in certain areas (chiefly marketing, graphics and IT). In 2022, we entered into civil-law contracts with 110 individuals and into B2B contracts with 5 persons.

* All headcount data for the Solaris Group are presented as at 31 December 2022. The number of Solaris Bus & Coach employees as at 31 December 2022 does not include juveniles hired under an apprenticeship contract or individuals remaining on unpaid or parental leave. This also pertains to all other tables. Due to Polish law, a juvenile is an employee who has reached the age of 15 and has not exceeded 18.

GRI 3-3, 401-1

Headcount and employee turnover

Our team, based on the competencies and experience of its individual members, provides a fundamental contribution to the Solaris Group’s position as a leader in its industry. We strive to ensure that our staff associate their professional future with Solaris for a long time to come. Moreover, our ambition is to be the employer of first choice for potential candidates who are willing to help pursue Solaris’ aspirations and identify with our values.

We provide our team with comfortable, competitive and fair working conditions as well as good opportunities for development. We foster a work culture based on joint responsibility, dialogue and mutual respect.

9 years

average length of service Solaris Bus & Coach

4.5 years

average length of service Subsidiaries

Women accounted for 27%

of new hires in the Solaris Group in 2022

Total number of new hires* by region

	Women	Men	Total	Rate
Central and Eastern Europe: Czech Republic, Estonia, Lithuania, Latvia, Poland, Slovakia	87	210	297	10.8%
Southern Europe: Greece, Spain, Italy	2	9	11	0.4%
Northern Europe: Denmark, Norway, Sweden	1	7	8	0.3%
Western Europe: Austria, Belgium, France, the Netherlands, Germany, Switzerland	1	14	15	0.5%
Solaris Group	91	240	331	12.0%

In 2022, the percentage of new hires in the Solaris Group’s total headcount was 12%. For Solaris Bus & Coach, the percentage was 10.6%, while for all subsidiaries, it was 15.9%.

Total number of persons who left their jobs (at the initiative of either party) by region

	Women	Men	Total	Rate
Central and Eastern Europe: Czech Republic, Estonia, Lithuania, Latvia, Poland, Slovakia	36	200	236	8.55%
Southern Europe: Greece, Spain, Italy	2	4	6	0.22%
Northern Europe: Denmark, Norway, Sweden	3	9	12	0.43%
Western Europe: Austria, Belgium, France, the Netherlands, Germany, Switzerland	3	9	12	0.43%
Solaris Group	44	222	266	9.64%

In 2022, the employee turnover ratio in the Solaris Group was 9.64%. For Solaris Bus & Coach, it stood at 9.3%, while for all subsidiaries, it was 13.4%.

* The number of newly hired staff as at 31 December 2022 does not include juveniles whose basis of employment changed from an apprenticeship contract to an employment contract or individuals who returned to work from their unpaid or parental leave.



GRI 3-3, 201-3, 401-2

Benefits and working conditions

We consider equal treatment of all persons remaining in a labour relationship with us to be of fundamental significance, which is why all individuals hired under an employment contract, regardless of the type of employment (full/part-time, definite/indefinite term) at Solaris Bus & Coach, are provided with access to the same benefits and perquisites.

Benefits at Solaris Bus & Coach

- Monthly discretionary bonus
- Vacation bonus
- Christmas bonus
- Attendance bonus
- Christmas present
- Annual bonus based on EBIT
- Basic medical care
- Employee nursery school
- Subsidized meals
- Employee Pension Scheme (PPE), which may be joined by all employees with a length of service in the Company of at least 1 year, regardless of the type of employment contract. Under the Scheme, the Company pays monthly contributions towards future pensions of participating employees
- Group life insurance
- Business-related language courses
- Partial funding of business-related postgraduate or MBA studies
- Cafeteria benefit platform, enabling employees to collect points in order to receive additional subsidised healthcare services, leisure cards and numerous discounts
- “I have an Idea” programme of employee initiatives, enabling our employees to contribute to improving the Company’s operations by suggesting improvements and, after a favourable verification, to share in the savings after the improvement has been implemented. In 2022, the program had its 15th anniversary of successful launch

Moreover, in accordance with the applicable laws:

- we have implemented an Employee Capital Scheme (PPK) which is the government’s general savings scheme for employees offered based on the principle of cooperation between employers and the state
- we pay retirement and disability benefits to employees who leave work in relation to the right to the age or disability pension

Administrative employees at Solaris Bus & Coach, due to the nature of office work, may also take advantage of the following options:

- hybrid work
- flexible working hours (start of work between 6:00 and 9:00 in the morning)
- equivalent working time
- individual work schedule for selected positions in response to submitted requests

GRI 3-3, 203-2, 404-1, 404-2, 404-3

Training and development

The continuous improvement of our employees is crucial. It enables us to develop innovative solutions for sustainable public transport. A broad range of training options and continuous vertical and horizontal professional development solutions supports our team in building employment continuity and simultaneously increase of employee commitment and job satisfaction.

All employees of the Company, regardless of the form of employment (full/part-time, definite/indefinite term), are provided with access to training and development opportunities.

External specialist training

This includes qualification courses, for instance, to acquire SEP (Association of Polish Electrical Engineers) or forklift and welding certificates and various training courses to broaden the employees’ knowledge and improve competencies in such areas as project management, business reporting, product features for non-production departments, human resources, finance, bus design, labour law, employee relations for team managers and IT applications for the office.

“Be a Better Boss” programme

This is an extensive training programme for foremen, leaders, managers and directors. It helps participants to improve their managerial skills, both hard and soft ones, and to learn how to manage one’s team more effectively, how to contribute to its development and how to support it. The programme is partly based on the Ken Blanchard SLII® methodology.

“Electromission” programme

This is a development programme initiated in response to the changing automotive market and the resulting shift towards the production of electric vehicles. “Electromission” is a series of internal training courses that provide

employees with the opportunity to improve their qualifications. This project aims to retrain people from assembly jobs to electrical workstations at various levels of advancement. It involves both people from inside and outside the organization who are willing to expand their electrical competencies or become retrained. The training is also targeted at electricians who wish to improve their skills and take up work at workstations where advanced electrical operations are performed. “Electromission” enables the acquisition of new, future-oriented qualifications and is executed as a key development project in the manufacturing area. With the project, we intend to increase social awareness about electromobility and promote electrician jobs as professions of the future.

Language courses

Employees whose duties require foreign language skills are offered the opportunity to take part in free language classes.

Co-funding for post-graduate or MBA studies

In order to improve various relevant qualifications of our staff, whenever this is reasonable from the business perspective, employees may attend courses co-funded by the Company.

In-house training

In-house training covers courses dedicated to specific topics and areas. They are provided to address current needs, identified and analysed by the HR Department, including training in the conduct of periodic performance evaluations and technical in-house training.

In addition to training aimed at improving the participants’ knowledge and skills, we also provide:

Onboarding training

Every new employee is provided with extensive induction and onboarding training. The training introduces new members of our team to the company’s structure and the responsibilities of individual departments. Participants also have the opportunity to talk to an HR Business Partner and thus gain in-depth knowledge of employee issues. Induction training is also conducted for all employees working in our subsidiaries, regardless of their country of residence or the country they work in.

Mandatory initial and periodic occupational health and safety training

Average number of training hours per person by gender at Solaris Bus & Coach*

Women	9
Men	7
Total average training hours per person	7

Average number of training hours per person by job category at Solaris Bus & Coach*

Directors	37
Managers	20
Production managers	15
Administration	11
Direct production	4
Production, other	5
Total average training hours per person	7

* Without initial occupational health and safety training and onboarding training.

GRI 3-3, 203-2, 404-1, 404-2, 404-3

In order to properly manage the knowledge and competencies of our staff and at the same time improve working conditions in accordance with the needs of our team, we take the following actions:

Organizational Health Survey (OHS)

Every year, we conduct anonymous Organizational Health Survey to collect the insights from our people on various aspects of work in our organization, inter alia, development opportunities, management style or work environment. Based on the collected insights, we introduce measures to improve health of the organization.

Competence matrices

The SkillBox is a tool for gathering and analysing information about the competencies of individual Company employees and for facilitating team development. It also helps us identify areas in need of continued work and improvement. The purpose of this tool is to support the planning of improvement of employee skills in accordance with the needs of the organization. In 2022, we continued to deploy this tool in subsequent teams across the Company.

Annual appraisals

Annual appraisals form a significant component of professional development of the Solaris Group team as a whole and of each team member. These

appraisals enable the preparation of structured feedback and a joint review of objectives and the degree of their achievement by superiors and subordinates. In 2022, all Solaris Group employees underwent their periodic appraisals.

Internal recruitment

The Company's in-house recruitment invariably contributes to the professional development of individual team members, their identification with the organization and the acquisition of internal talents for new jobs. Our consistent and transparent rules facilitate a smooth execution of the recruitment process, termination of work in the current job and taking up a new function.

Promotions

In 2022, 10% of the Solaris Bus & Coach team was promoted within the framework of 4 development paths:

- 54 managerial promotions: promotion to a position related to team management
- 24 vertical promotions: promotion to a higher position, combined with a relocation to another department
- 135 career path development cases: development within a certain position (e.g. from junior to senior specialist)

- 42 lateral promotions: change of a position based on the initiative of an individual employee, within the same level

Diversity and equality

All of Solaris' employees, regardless of their age, gender or any other characteristics, enjoy the same working conditions and have the same opportunities for vertical and lateral promotion, based solely on their competencies and qualifications. We are committed to fostering diversity in our team.

Training future employees

In a world of rapidly changing technologies, we consider the professional education of future employees and engineers to be one of our top priorities. We have been developing our cooperation with technical schools in the Wielkopolska region since 2007. Not only do our initiatives provide young people with a tremendous head start in their profession, but they also support local education and serve as an investment in the local labour market.

In 2022, we continued the following three forms of education:

- Dual study programmes offered in collaboration with the Poznań University of Technology
- Practical vocational training in collaboration with the vocational school Branżowa Szkoła I Stopnia, part of the agricultural school grouping Zespół Szkół Rolniczych in Środa Wielkopolska, and its counterpart school in Murowana Goślina
- Professional internships

Number of persons participating in various programmes in 2022

	Dual studies	Practical vocational training	Traineeships
Solaris Bus & Coach	13	57	95

Employees of retirement age

We support those of our staff members who have reached retirement age. Employees who, despite being eligible to retire, wish to continue working are offered the opportunity to continue their employment on the same terms. In turn, those who wish to retire receive a farewell gift package from the company. As at the end of 2022, despite having reached retirement age, 12 members of our staff decided to continue working at Solaris Bus & Coach sp. z o.o.

We also keep in touch with retired employees through our Club for Seniors. All retired employees are welcome to join it. Currently, the Club has around 40 active members.

* Without initial occupational health and safety training and onboarding training.



GRI 401-3

Working parents

We create the right conditions for those of our employees who return to work after childbirth in order to help them reconcile their professional and private lives, enabling them to spend more time at home with their families and derive satisfaction from their job at the same time.

The forms of support we offer include:

- optional use of a Company nursery school by persons employed in the Company for at least 1 year
- flexible working hours
- equivalent working time
- hybrid work

Leaves associated with the birth of a child

		Women	Men	Total
Number of persons who were on maternity* or paternity** leave in 2022	Solaris Bus & Coach	30	119	149
	Subsidiaries	6	2	8
	Solaris Group	36	121	157
Number of persons who returned from maternity or paternity leave in 2022	Solaris Bus & Coach	15	140	155
	Subsidiaries	3	1	4
	Solaris Group	18	141	159
Number of persons who returned to work after maternity or paternity leave and were still employed within 12 months of returning	Solaris Bus & Coach	15	97	112
	Subsidiaries	0	0	0
	Solaris Group	15	97	112

Return-to-work and job-retention ratios

	Ratio	Women	Men
Solaris Bus & Coach	of return to work	100%	100%
	of job retention within 12 months of returning	100%	84%

* According to Polish law, the 12-month “maternity leave” consists of the following two components: 20 weeks of maternity leave to be taken only by women and 32 weeks of parental leave to be used by either men or women.
** In accordance with Polish legal requirements, a father who raises a child up to 2 years of age is entitled to paternity leave and may use that leave within 2 years of the child’s birth. Fathers are not required to provide the employer with the child’s birth data unless they wish to take paternity leave.

GRI 3-3, 202-1, 405-2

Competitive remuneration and equality in employment

Solaris Bus & Coach has the Remuneration Rules and Regulations in place, setting out the basic principles of remunerating the Company’s personnel. The purpose of our policy in this area is to attract and retain the most qualified and committed individuals. When determining the amount of remuneration, we are guided solely by the qualifications, competencies and experience of the person in question.

In the Company, we offer an attractive remuneration package comprising:

- base remuneration
- monthly bonus
- additional financial benefits

All full-time Company employees receive base employee compensation higher than the lowest allowable wage or salary set by Polish law (the same minimum salary applies throughout Poland at EUR 661,6 pre-tax as at the end of 2022).

We consider equal pay for women and men to be another one of our priorities. We carry out regular reviews of remuneration levels and, if any gaps are identified, we strive to eliminate them.

With every passing year we have been observing an increase in interest among women in receiving education in engineering and pursuing a professional career in a technical field. In 2022, women accounted for 26.7% of new hires in the Solaris Group.

* The ratio takes into account remuneration for positions where both women and men are employed in the respective year.
** Remuneration including bonuses and additional financial benefits.

Ratio of remuneration to the minimum wage at the lowest job level, by gender at Solaris Bus & Coach

	Women	Men
Average base remuneration at the lowest job level	134%	153%
Average total* salary at the lowest job level	180%	203%

Remuneration ratio of women to men at Solaris Bus & Coach*

	Average base remuneration	Average total remuneration**
Managers	101%	99%
Administration	97%	97%
Direct production	94%	94%
Production, other	93%	91%



GRI 203-2

Social engagement

Educational project #CityMission Solaris

In 2022, we organized the #CityMission by Solaris educational project aimed at children in grades 1 to 3 of primary school from Poznan County. Its aim was to enhance environmental awareness among children and to encourage them to use public transport as the most environmentally-friendly solution. The project consisted of: a creative contest with environmentally friendly prizes in the form of breathing murals and air-purifying vertical gardens, educational classes and an urban game. The competition task was to design a cutting-edge bus of the future.

Environmentally friendly prizes were installed in the three winning schools: breathing murals or air-purifying vertical gardens. Pupils from these schools were also be invited to participate in this endeavour, which created an excellent opportunity for joint action. In addition to the educational value for the recipients of the project, the action allowed us to realize our strategic goal of promoting sustainable public transportation.

Corporate foundation

The Green Dachshund Foundation, for the rescue of the defenceless, was established in 2012. The regular beneficiaries of the Foundation have included our employees and their immediate family members. We also provide ongoing support to the Special School Grouping in Kowanówko, to which we donate computers, classroom equipment, educational aids and other equipment that helps in the day-to-day operation of the facility. Furthermore, every year we organize Christmas campaigns.





Occupational health and safety

GRI 3-3, 403-1, 403-7, 403-8

The health and safety of the Group's employees is of fundamental importance for us. We take a number of initiatives, in close cooperation with our teams, to ensure appropriate and comfortable working conditions.

Being part of the CAF Group, Solaris Bus & Coach is implementing the corporate Occupational Health and Safety Policy, which sets out the relevant principles, standards and codes of practice to support the creation and maintenance of appropriate working conditions. The main objective of the Policy is to guarantee the health and safety of people, highlighting its commitment to use the necessary means to eliminate or reduce occupational risks by promoting a preventive culture among all the people who carry out their professional duties at CAF.

The basic principles of Occupational Health and Safety defined in the Corporate Policy are as follows:

- Build a positive preventive culture through the leadership of management and the line of command, in consultation with and the participation of employees and workers.
- Establish or reinforce the occupational health and safety management systems that are focused on continuous improvement and that contribute to integrating the preventive culture into all activities.
- Respect current occupational risk prevention regulations in the countries where the Group operates and, as far as

possible, anticipate the introduction of new regulations and comply with the occupational health and safety commitments voluntarily acquired by the Group.

- Continuously identify and evaluate the working conditions of the activities carried out to generate safe and healthy work environments.
- Report clearly on the results and actions in the area of occupational health and safety, maintaining the appropriate channels to promote communication with employees and workers and with stakeholders in general.

In 2022, as part of building and promoting a health and accident preventive culture at Solaris Bus & Coach, we have taken a number of measures, including: conducting regular workplace audits and updating and improving workplace safety knowledge through internally and by external suppliers training courses and workshops. Moreover, we have promoted a preventive culture among management by conducting periodic thematic workshops. Once again, we actively participated in the celebration of Occupational Safety and Health Days, organized under the auspices of the National Labour Inspectorate. These activities are described in detail below.

The basis for managing issues related to occupational health and safety (OHS) in the Company is strict compliance with the Labour Code and other applicable regulations. The Health and Safety Department oversees the compliance

of our internal regulations governing health and safety matters with the applicable legal regulations and best standards. The Department is composed of occupational health and safety specialists, experts in chemical substances and fire inspectors. At the Management Board level, the Department is supported by the Management Board Member responsible for Human Resources and OHS.

Solaris Bus & Coach has an OHS management system in place, certified in 2022 in compliance with the ISO 45001* standard. It supports the Company in ensuring proper working conditions and continuous improvement in the occupational health and safety area. The system covers our employees hired under an employment contract and other persons who perform work directly for the Company.

The Occupational Health and Safety Management System is regularly supervised through, among other things, internal audits and reviews of legal and other requirements. Qualified internal auditors assess the effectiveness of the Management System and confirm compliance with CAF internal procedures, instructions and policies.

The results of internal audits provide a basis for taking corrective actions to address any identified non-conformities and initiating actions to improve the management system.

* As at 31 December 2022, our ISO 45001 certification covered all Company locations, except for the service station located in Murowana Goślina. The service station will be certified at the next phase of the standard implementation procedure.

GRI 403-2, 403-4, 403-5, 403-7, 403-9, 403-10

Participation of the team in co-managing OHS issues

The employees' active participation in the establishment of the occupational health and safety system and the team's high degree of awareness of OHS issues play a key role in maintaining appropriate working conditions in the Company.

Consulting on health and safety issues

The Company has established an Occupational Health and Safety Committee which serves as a consultative and advisory body. The Committee is composed of OHS services and a medical doctor providing preventive health care and employees representing various departments and areas.

The Committee meets quarterly, each time at a different site. The minutes of each OHS Committee meeting are taken, including conclusions and opinions, and are then presented to management of each plant during separate meetings.

Informing the team about health and safety concerns

We regularly provide our team with information on the events, developments and achievements related to our occupational health and safety management system. Depending on the scope of data, we regularly (on an annual, quarterly, monthly or ongoing basis) provide the following: information on the fulfilment of annual objectives and KPIs related to occupational health and safety; statistical data; outcomes of working environment

measurements, information on new solutions and changes in the organization of workstations or updates of the Occupational Risk Assessment.

To this end, we use various internal communication tools at our disposal to make sure these data and information are available to all Company employees.

Training in and promotion of OHS knowledge

As part of our efforts to promote the knowledge of occupational health and safety issues in 2022, we carried out the following:

- mandatory initial general and on-the-job training for each new hire during his or her first day at work
- mandatory periodic training to refresh and update employees' knowledge of occupational health and safety issues
- 3-day workshop "Safety Days at Solaris 2022", held under the auspices of the Chief Labour Inspectorate
- monthly outreach campaign (Topic of the Month) via internal communication tools to popularize various occupational health and safety issues
- regular (weekly) meetings with heads of production and warehouse logistics devoted to occupational health and safety matters
- intensified cooperation with the Social Labour Inspector

Management of OHS risks

In order to eliminate OHS-related hazards and minimize any pertinent risks, Solaris Bus & Coach has developed an **Occupational Risk Assessment** document, which contains an inventory of occupational risks identified in each of the Company's production plants for each workstation. The document is subject to regular periodic and ad-hoc updates (following measurements of the working environment, acceptance audits of machinery and equipment, significant technological changes and accidents).

Risk identification and updates of the Occupational Risk Assessment document are the responsibility of a team comprising a representative of the OHS Department, the manager and a representative of the team from the area under analysis, and the Social Labour Inspector. The diverse composition of the team is conducive to the preparation of a complete and up-to-date picture of the risks described in the Occupational Risk Assessment document. The risk assessment procedure is described in detail in the internal "Instructions for occupational risk assessment at workstations". The Instructions describe the hazards that the respective process may generate along with the consequences that may be caused by such hazards. On this basis, appropriate preventive measures are selected.

Potentially hazardous situations are also identified with the involvement of the Company's employees. Any hazards identified during ongoing work and any accidents that have

occurred may be reported to the OHS Department through our standard communication channels (in person, by phone, e-mail, suggestion box).

The procedure to be followed in the event of an accident at work is laid down in the Company's internal manual entitled "Determining the circumstances and causes of accidents and how to document them". The accident log is kept by the occupational health and safety services.

All new hires become acquainted with the Occupational Risk Assessment and the company's manual on what to do in the event of an accident on their first day at work.

In order to improve the occupational health and safety system and motivate our team to pay attention to and report any departures from the adopted OHS rules, the Company has developed an **app for reporting near-misses**. By analysing the reports sent through the app, we are better able to take corrective actions before a hazardous event or a situation that may threaten human health or life in the workplace occurs. Once near misses have been identified, changes in the work environment are made, significantly contributing to an improvement in the safety of all our employees and subcontractors.

GRI 403-9, 403-10

Protection against accidents and harmful factors at work

In order to appropriately protect the health of our employees, their **work environment is regularly measured** in all Solaris Bus & Coach production plants and warehouses and at every workstation wherever factors harmful or arduous to an employee’s health have been identified. Surveys of working conditions are carried out by an external company fully accredited to administer such surveys. Information about the survey outcomes is communicated to our team through internal communication channels.

Due to a specific nature, materials used or local conditions of work performance, there are certain workstations in the Company where the risk of accidents is greater than elsewhere.

In order to minimize any risks associated with the performance of activities of this type and in the light of work safety, ergonomics and other pertinent considerations, for each Solaris Bus & Coach plant, in cooperation with the Company’s Production Engineering Department, the following documents have been prepared:

- list of particularly hazardous works
- list of works to be performed mandatorily by a team of at least 2 persons

A system of written permits for the performance of such works has also been put in place.

In order to protect our staff against any harmful effects of chemicals and other physical factors affecting their health, we provide them with appropriately selected **technical protective equipment and collective and personal protective equipment**.

Occupational risk prevention in figures

Due to the specific nature of work, the following three main types of injury occur in the Company’s plants:

- injuries resulting from movement (specifically, sprains of the joints of the lower limbs)
- cuts and injuries related to impacts with vehicle structural elements or workstation hardware
- eye irritation

Owing to regular and ongoing actions, the number of accidents at work at Solaris Bus & Coach in 2022 decreased by 17.7% compared to 2021.

Number and rate of accidents at work at Solaris Bus & Coach in 2022

	Fatalities as a result of work-related injury		High-consequence work-related injury*		Recordable work-related injury**		Number of hours worked
	Number	Indicator***	Number	Indicator***	Number	Indicator***	
Persons employed in the Company under an employment contract	0	0	0	0	51	11.9	4,274,121
Persons performing work for the Company	0	0	0	0	0	0	268,683

In 2022, no case of occupational disease was recorded among Solaris Bus & Coach employees or other persons working directly for the Company.

17.7% fewer accidents at work than in 2021

* Except for fatal accidents at work.
** Work-related injury that results in any of the following: death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, or loss of consciousness; or significant injury or ill health diagnosed by a physician or other licensed healthcare professional, even if it does not result in death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness.
*** Indicators calculated in compliance with the GRI Standard (based on 1,000,000 hours worked according to the formula: number of incidents divided by the number of hours worked and multiplied by 1,000,000 hours worked).

GRI 403-3, 403-5, 403-6

Occupational safety and protection of vulnerable groups

We give great significance to positions in which women, people with disabilities and young workers are employed in our organization. Our Work Rules and Regulations govern all issues related to the occupational health and safety protection covering these groups. We are also in an ongoing dialogue with our team, which enables us to analyse various situations and adapt specific solutions, going above and beyond what the current legal regulations require.

In areas where young workers undergo practical vocational training, a detailed hazard analysis, including a risk assessment, is conducted. Vocational trainers (certified or educated as teachers) ensure the proper vocational training and safety of young workers.

Health promotion at work

We provide our employees with mandatory and preventive medical care.

Within the framework of our cooperation with a private medical network, we perform mandatory preliminary, periodic and verification **occupational medical** examinations. As part of his or her care for our team, an occupational medicine physician also deals with

the prevention of occupational diseases by monitoring the working environment and factors that have an adverse impact on human health. The occupational medicine physician also regularly participates in meetings of the OHS Committee and has access to information about the outcomes of the measurement of factors affecting the working conditions, which enables us to properly protect the health of our staff. These meetings also enable our team to consult with the occupational medicine physician the organization of workstations in the context of ergonomics, physiology and psychology of work, and carry out diagnostics and treatment activities in the field of occupational pathology.

Moreover, all Solaris Bus & Coach employees hired under an employment contract are offered **private medical care** through the Company's benefit platform. As part of this care, free access to specialist consultations and examinations and medical services is offered. The basic package, which is fully paid for by the Company, may be extended by applying points available on the benefit platform. All our employees, their spouses or life partners and employees' children are eligible to join the private medical care programme.



About the Report

About the Report

GRI 2-2, 2-3, 2-4, 2-5, 2-14

The 2022 Sustainability Report prepared by Solaris is based on GRI Standards and the 9 Reporting Principles contained therein. The publication also includes references to the Sustainable Development Goals (SDGs). The contents of the Report include the data and description of the activities of Solaris Bus & Coach sp. z o.o. in the period from 1 January to 31 December 2022.

Our Report focuses primarily on the Company's operations in Poland in 2022. It also includes key information in the reported period on Solaris Group subsidiaries (Solaris Austria GmbH, Solaris Belgium SRL, Solaris Czech spol. s.r.o., Solaris Denmark Bus A/S, Solaris Deutschland GmbH, Solaris Estonia OÜ, Solaris France SARL, Solaris Hellas S.A., Solaris Bus Iberica SLU, Solaris Italia S.R.L., SIA Solaris Bus & Coach Latvia, UAB Solaris Bus & Coach LT, Solaris Schweiz GmbH, Solaris Slovakia s.r.o, Solaris Sverige AB, Solaris Netherlands BV, Solaris Norge AS). Any reference to the activities carried out by our subsidiaries or foreign representative offices or activities of the Solaris Group pursued outside the reporting period are clearly marked as such in each case.

The information and data presented in our Report have been developed and verified internally and in cooperation with representatives of the CAF Group. Our Report has not been audited by an external company.

All key aspects and the extent of reporting coverage were selected with the involvement of stakeholders of strategic significance for Solaris Group. The updated materiality analysis was based on the results of an anonymous stakeholder survey and an analysis of: the impacts identified in the Integrated Management System, topics reported as material by the Company's various operating divisions, the extent of the reported data by other industry participants, and topics relevant from the sustainability perspective by the ESG Team. To select its content, we also kept in mind our internal policies and strategies as well as information relevant to customers' tender requirements. The selection of topics for reporting was approved by the Company's Management Board. Additional information on the process of defining material aspects and the list of material aspects are presented in the subsections: Stakeholders and Stakeholder

Relations, Selection of Material Topics for Reporting, and Materiality Matrix.

The members of the Company's Management Board and Supervisory Board have reviewed this Report and approved the contents presented therein.

Solaris Bus & Coach sp. z o.o. reports on an annual basis. As at the date of this Report, the Company is not required to report and does so voluntarily. Solaris' previous Sustainability Report, for 2021, was published on 7 September 2022. During the 2022 reporting period, there were no significant changes from the previous reporting period.

The publication is the outcome of the work of employees representing various departments of Solaris Bus & Coach sp. z o.o and individual subsidiaries in the Solaris Group with the support of representatives of the CAF Group. We would like to thank everyone involved for their contribution to this publication!

Contact regarding the Report:

E-mail: esg@solarisbus.com

Weronika Krzywicka-Styzińska

ESG Project Coordinator
ESG Department

Phone: +48 691 997 894

E-mail: weronika.krzywicka-styzinska@solarisbus.com

Ewa Wojtysiak

ESG Specialist
ESG Department

Phone: +48 697 950 739

E-mail: ewa.wojtysiak@solarisbus.com

GRI Index

GRI	Disclosure title	Location of solaris response	Page
2-1	Organizational details	Solaris Group	8
2-2	Entities included in the organization’s sustainability reporting	Solaris Group	8
2-3	Reporting period, frequency and contact point	About the Report	69
2-4	Restatements of information	About the Report	69
2-5	External assurance	About the Report	69
2-6	Activities, value chain and other business relationships	Solaris Group	7
2-7	Employees	Social responsibility	54
2-9	Governance structure and composition	Solaris Group	9
2-10	Nomination and selection of the highest governance body	Solaris Group	9
2-11	Chair of the highest governance body	Solaris Group	9
2-26	Mechanisms for seeking advice and raising concerns	Responsible governance	21
2-27	Compliance with laws and regulations	Responsible governance	46
2-28	Membership associations	Solaris Group	13
2-29	Approach to stakeholder engagement	Solaris Group	15
3-1	Process to determine material topics	Solaris Group	16
3-2	List of material topics	Solaris Group	16

GRI	Disclosure title	Location of solaris response	Page
3-3	Management of material topics	Sustainable product	27
201-1	Direct economic value generated and distributed	Solaris Group	10
201-2	Financial implications and other risks and opportunities due to climate change	Responsible governance, Sustainable production	22, 42
201-3	Defined benefit plan obligations and other retirement plans	Social responsibility	58
201-4	Financial assistance received from government	Sustainable product	32-33
3-3	Management of material topics	Social responsibility	59-60, 62
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	Social responsibility	62
203-2	Significant indirect economic impacts	Sustainable product, Social responsibility	27, 59-60, 63
3-3	Management of material topics	Sustainable production	51
204-1	Proportion of spending on local suppliers	Sustainable production	51
3-3	Management of material topics	Responsible governance	20
205-2	Communication and training about anti-corruption policies and procedures	Responsible governance	20

GRI	Disclosure title	Location of solaris response	Page
205-3	Confirmed incidents of corruption and actions taken	In 2022, no case of corruption was reported.	-
3-3	Management of material topics	Responsible governance	20
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Responsible governance	20
3-3	Management of material topics	Responsible governance	23-24
207-1	Approach to tax	Responsible governance	23
207-2	Tax governance, control, and risk management	Responsible governance	23-24
207-3	Stakeholder engagement and management of concerns related to tax	Responsible governance	24
3-3	Management of material topics	Sustainable product, Sustainable production	38, 42
301-1	Materials used by weight or volume	Sustainable production	43
301-2	Recycled input materials used	Sustainable production	43
301-3	Reclaimed products and their packaging materials	Sustainable product	38

GRI	Disclosure title	Location of solaris response	Page
3-3	Management of material topics	Sustainable production	42
302-1	Energy consumption within the organization	Sustainable production	46
302-3	Energy intensity	Sustainable production	46
302-4	Reduction of energy consumption	Sustainable production	46
302-5	Reductions in energy requirements of products and services	Sustainable product	37
3-3	Management of material topics	Sustainable production	42
303-2	Management of water discharge-related impacts	Sustainable production	51
303-3	Water withdrawal	Sustainable production	51
3-3	Management of material topics	Sustainable production	42
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Sustainable production	42
3-3	Management of material topics	Sustainable production	45
305-1	Direct (Scope 1) GHG emissions	Sustainable production	45
305-2	Energy indirect (Scope 2) GHG emissions	Sustainable production	45

GRI	Disclosure title	Location of solaris response	Page
305-3	Other indirect (Scope 3) GHG emissions	Sustainable production	45
305-4	GHG emissions intensity	Sustainable production	45
305-5	Reduction of GHG emissions	Sustainable production	45
3-3	Management of material topics	Sustainable production	42, 47
306-1	Waste generation and significant waste-related impacts	Sustainable production	47
306-2	Management of significant waste-related impacts	Sustainable production	47
306-3	Waste generated	Sustainable production	49
306-4	Waste diverted from disposal	Sustainable production	50
306-5	Waste directed to disposal	Sustainable production	50
3-3	Management of material topics	Social responsibility	57
401-1	New employee hires and employee turnover	Social responsibility	57
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Social responsibility	58
401-3	Parental leave	Social responsibility	61
3-3	Management of material topics	Social responsibility	64
403-1	Occupational health and safety management system	Social responsibility	64

GRI	Disclosure title	Location of solaris response	Page
403-2	Hazard identification, risk assessment, and incident investigation	Social responsibility	65
403-3	Occupational health services	Social responsibility	67
403-4	Worker participation, consultation, and communication on occupational health and safety	Social responsibility	65
403-5	Worker training on occupational health and safety	Social responsibility	65, 67
403-6	Promotion of worker health	Social responsibility	67
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Social responsibility	64-65
403-8	Workers covered by an occupational health and safety management system	Social responsibility	64
403-9	Work-related injuries	Social responsibility	65-66
403-10	Work-related ill health	Social responsibility	65-66
3-3	Management of material topics	Social responsibility	59
404-1	Average hours of training per year per employee	Social responsibility	59
404-2	Programs for upgrading employee skills and transition assistance programs	Social responsibility	59-60
404-3	Percentage of employees receiving regular performance and career development reviews	Social responsibility	59-60

GRI	Disclosure title	Location of solaris response	Page
3-3	Management of material topics	Social responsibility	54, 62
405-1	Diversity of governance bodies and employees	Social responsibility	56
405-2	Ratio of basic salary and remuneration of women to men	Social responsibility	62
3-3	Management of material topics	Social responsibility	54
406-1	Incidents of discrimination and corrective actions taken	In 2022, no case of discrimination was reported.	-
3-3	Management of material topics	Sustainable production	42
413-2	Operations with significant actual and potential negative impacts on local communities	Sustainable production	42, 47, 48
3-3	Management of material topics	Sustainable product	36
416-1	Assessment of the health and safety impacts of product and service categories	Sustainable product	39
3-3	Management of material topics	Responsible governance	25
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Responsible governance	25



SOLARIS

A CAF GROUP COMPANY

www.solarisbus.com