

SUSTAINABILITY REPORT 2019



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Esta es nuestra **Comunicación sobre el Progreso** en la aplicación de los principios del **Pacto Mundial de las Naciones Unidas**.

Agradecemos cualquier comentario sobre su contenido.

Letter of engagement of the CEO of the Irizar Group



Irizar S.Coop (Irizar) is the parent company of the Irizar Group, which has an international presence and whose business is focussed on the passenger transport, electromobility, electronics, electric motors and generators, connectivity and energy sectors. All the companies in our Group base our strategy for the future on three main priorities: Brand, Technology and Sustainability.

Our strategic approach is oriented towards the construction of a more sustainable World and we therefore continue to move decisively in providing solutions for a mobility with a sustainable future. We are also committed to public transport as a fundamental solution for achieving these objectives.

Since 2011, the year in which we started with the Irizar Group's electro-mobility strategy, our main objectives have focused on advancing and investing in the creation of different technologies in order to offer pioneering solutions for the different needs of the mobility of the fu-

ture worldwide. Our vision is for the mobility of the future to advance towards more sustainable vehicles (electric, hybrid, gas, hydrogen), connected vehicles and with different degrees of automation until they become fully driverless in the long term.

Reducing the impact of our vehicles, eliminating emissions of greenhouse gases and noise pollution, improving information for users and increasing passenger safety are our priorities. We judge these to be the foundations on which to build all our sustainability actions that society demands of us. And that is where we want to be.

We are continuing to innovate, because innovation is in our DNA, and being close to our customers, adapting to their new circumstances. With this, we are focusing on the entire life cycle of our vehicles, from development to extraction of raw materials, production and use, to the end of their service life.

We are proud of our achievements in 2019, above all the fruits of the wonderful work and commitment of all the people who make up Irizar. Our goal is to continue being an attractive company for talent - to generate quality jobs. All this within a culture and business approach of integrity that is governed by Ethical Principles.

The purpose of this Sustainability Report is to be transparent with all our Stakeholders, so that they can consult our bases and performance in 2019 in the creation of shared and sustainable long-term value, covering the three dimensions of Sustainability - Economic, Social and Environmental. Our Sustainability initiatives reflect our collaboration and Responsibility with Customers, Passengers and Citizens, People (employees and cooperative members), External Contractors, Supply Chain and Alliances, Environment and Society in general.

We also report with satisfaction the annual renewal of the commitment that we undertook in 2013 to the ten Principles of the United Nations Global Compact, relating to Human Rights, Labour Standards, the Environment and the fight against Corruption. These Principles are our

frame of reference for advancing in Sustainability. We also capture our progress in contributing to the United Nations' 2030 Agenda, with the

conviction that its Sustainable Development Goals (SDGs) are the road-map for boosting the prosperity of people and the planet.

We are publishing this Sustainability Report at a time of great uncertainty due to the COVID-19 pandemic. It is still too soon to speculate on the possible magnitude of the consequences that this health and economic crisis may have, but it is clear that COVID-19 is making us all question many apparently well-established certainties: our health, our freedom, our wealth, much of our collective social lives are being challenged.

In this context we are closer than ever to our customers as we adapt to their new circumstances, with the commitment of all the people who today more than ever are demonstrating the values that define us. We must appeal to everyone to make an effort, to adapt to the changes that have emerged from this pandemic, to work together and be more supportive than ever. And in this sense, it is absolutely essential to continue creating wealth and employment, and to do so in an increasingly sustainable manner.

Although we are aware that we still have a long way to go, we are excited to be able to contribute our grain of sand to the construction of a better and more sustainable World, and to do so in the good company of all our stakeholders.

Thank you to everybody!



Rafael Sterling, CEO Irizar Group

2. Sustainable Competitiveness: corporate priority

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2.1 About Irizar

Irizar S.Coop. and its business group

Irizar is a business group with an international presence whose business is focussed on the passenger transport, electromobility, electronics, electric motors and generators, connectivity and energy sectors.

The Irizar Group is comprised of seven brands that have production operations in 13 plants spread across Spain, Morocco, Brazil, Mexico and South Africa. It also has its own R&D Centre with a long-term focus on the applied research process and the technological development of proprietary products and systems.

Founded in 1889, today, Irizar is a well-established Group made up of more than 3,042 people in 2019, with a commercial presence in the five continents. It is geographically and industrially diversified, continuously growing and firmly committed to the brand, technology and sustainability.

With turnover exceeding 766 million euros in 2019, we have a commercial presence in over 90 countries on five continents (some with their own branches).

Irizar, S. Coop is the parent company of the conglomerate and its headquarters are located in Ormaiztegui (Gipuzkoa, Spain) where Creatio, the Group's Research and Development Centre, is also located.

Although this Sustainability Report is from Irizar S. Coop., we believe that it is important to have the Group's perspective: to better understand its content, and because there are shared values, strategies and management models.



Irizar México

Irizar Mexico was founded in the city of Querétaro in 1999. It serves the high-end market with the Irizar i5, i6, i6S, and i8 models and is the supplier of choice for the largest overland transport and passenger companies. Currently, Market leadership with more than 50% market share.



Masats

Accessibility systems for public transport vehicles.

Creatio

Irizar Group's Research and Development Centre which was created in order to enhance the Group's applied research and technological development capabilities both for its own-brand products as well as for the main coachwork components.

Irizar

Wide range of biodiesel, hybrid and conventional integrated coaches and buses.

Irizar e-mobility

Integral electromobility solutions for cities. 100% zero emissions, electric vehicles, charging systems, electric traction, energy management and storage.

Datik

Integral fleet management IoT connected systems. ADAS (Advanced Driver Assistance System) solutions. Autonomous vehicles.

Alconza

Engines and generators for the marine, hydroelectric and industrial sectors.

Jema

Power electronics applied to network and transport quality. Power supplies for Big Science. Renewable energy, storage and Smart grids Electronics for coaches.

Hispacold

Climate control systems for buses, coaches and rail vehicles.



Irizar Brasil

In 1998, Irizar Brasil was created, in the town of Botucatu, with the objective of undertaking the Latin American market. Positioned in the luxury coach segment with the Irizar i6 and i6S models, Irizar Brasil is established as a project with a strong commitment to exports. From Brazil, the Group serves the markets of South America, Central America, Africa, and Oceania.

Irizar Maroc

In 1996, the company Irizar Maghreb was established in Morocco. In 2002, the Irizar Century model was launched, and in 2008, a new plant was opened in Skhirat, with a production capacity of 1,000 coaches per year. In 2013, it began manufacturing buses for Europe. Following the launch of the Irizar i6 in 2014, and the Irizar i6S in 2017, Irizar Morocco is consolidated as one of the most expansive projects at the international level, being market leader in the luxury coach segment.

Irizar Southern Africa

Irizar Southern Africa was created in 2004 in the city of Centurion (Pretoria). The plant serves the markets of South Africa, as well as neighbouring countries such as Namibia, Zimbabwe, Botswana, Zambia, Malawi, and Mozambique, among others. It covers the luxury coach segment with the Irizar i6 and i6S.

Branch offices

Irizar Benelux

Created in 2018, it offers sales and after-sales service for integral electric buses and coaches throughout Benelux.

Irizar Asia Pacific

Since 2006, Irizar has been present in Oceania, based in Melbourne, offering service to New Zealand and Australia.

Datik México

The Datik affiliate in Mexico responds to the great demand of the Mexican market, offering a close sales and after-sales service adapted to Mexican customers.

Jema USA

Based in California, it offers customised services in the photovoltaic, storage, and advanced services sectors. Additionally, it has references throughout the US in each of these sectors.

Hispacold Mexico

Founded in 2002, it is dedicated to the manufacture and supply of air conditioning systems for buses and coaches.

Irizar UK

Founded in 2011, it distributes the full range of integral vehicles in the UK market.

Irizar Autocars

Founded in 2011, Irizar Autocars offers sales and after-sales service to the French market with the full range of Irizar integral, electric, and hybrid vehicles.

Irizar USA

Created in 2016 and based in Las Vegas, it covers the US market with the Irizar i6 model.

Irizar Italia

Created in 1993 and based in Rimini, it offers service and a complete after-sales network throughout Italy.

Strategic thoughts: Mission, Vision and Commitments

Our Strategic Thoughts are the fundamental principles that guide both the strategic decisions and the organisational culture of the Group. Strategic Thoughts are reviewed periodically (taking into account aspects of the economic and social environment, the sector, market, competition, and the other internal and external stakeholders) and defined and shared by all the people in the organisation. Each year, a specific meeting is held with all the people of Irizar in which a full day is dedicated to reinforce the knowledge of these Strategic Thoughts.

In the in-depth reviews of Strategic Thoughts conducted every three or four years, SWOT analyses are carried out for the areas of improvement, resulting from the participation of personnel representing all the work teams at all levels (management team, board members, direct and indirect employees), that translate into action plans to be implemented in each organisation.

As in Irizar S.Coop, annual assemblies are held at all Irizar Group companies where strategy is the most important aspect.

The participation of Irizar S.Coop's people in the preparation and definition of the Strategic Thoughts is also included in the section on "Participation in Management" in Chapter "4. Responsible with our People"

Our Strategic Thoughts are extensive, and here we present our Mission, Vision and Commitments:

Mission

Continuously strengthen our business project and brand in order to grow and generate wealth and employment in our environment.

It is key to achieve a high degree of customer satisfaction by establishing a close relationship with them where we can provide the guarantee of an established project in which they can trust.

The flexibility to adapt to the needs of our customers by providing them with the products and services they require is a strategic factor that sets us apart from our competitors and enables us to earn their loyalty.

In addition, we strive to maximise satisfaction among the Irizar Group's employees, our external partners and society as a whole.

We are and will continue to work under a cooperative framework at Irizar S. Coop. and under an umbrella of communication and participation in management and profits among the other companies in the Group.



Vision

Our vision is to provide buses and coaches with a marked difference in safety, reliability, comfort and profitability for our customers, passengers and to society and set the standard in service, design, innovation, technology and sustainability.

We also strive to set the standard for providing value to our customers for all Group activities.

Commitments

Every day we strive for a position of leadership that reflects itself in profit for our customers. We work as a team and have employees who are committed to the customer and the Group's strategy. We promote efficiency, communication, participation, self-management and excellence in management.

We create environments where everybody who is part of our projects can give their best according to their talent, abilities and aspirations. This is key to our future success.

The key is to achieve a high degree of customer satisfaction by establishing a close relationship with them where we can provide the guarantee of an established project in which they can trust.

The flexibility to adapt to the needs of our customers by providing them with the products and services they need is a strategic factor that sets us apart from our competitors and enables us to earn their loyalty.

In addition, we strive to maximise satisfaction among the Irizar Group's employees, our external partners and society as a whole.

We are and will continue to work under a cooperative framework at Irizar S. Coop. and under an umbrella of communication and participation in management and profits among the other companies in the Group.

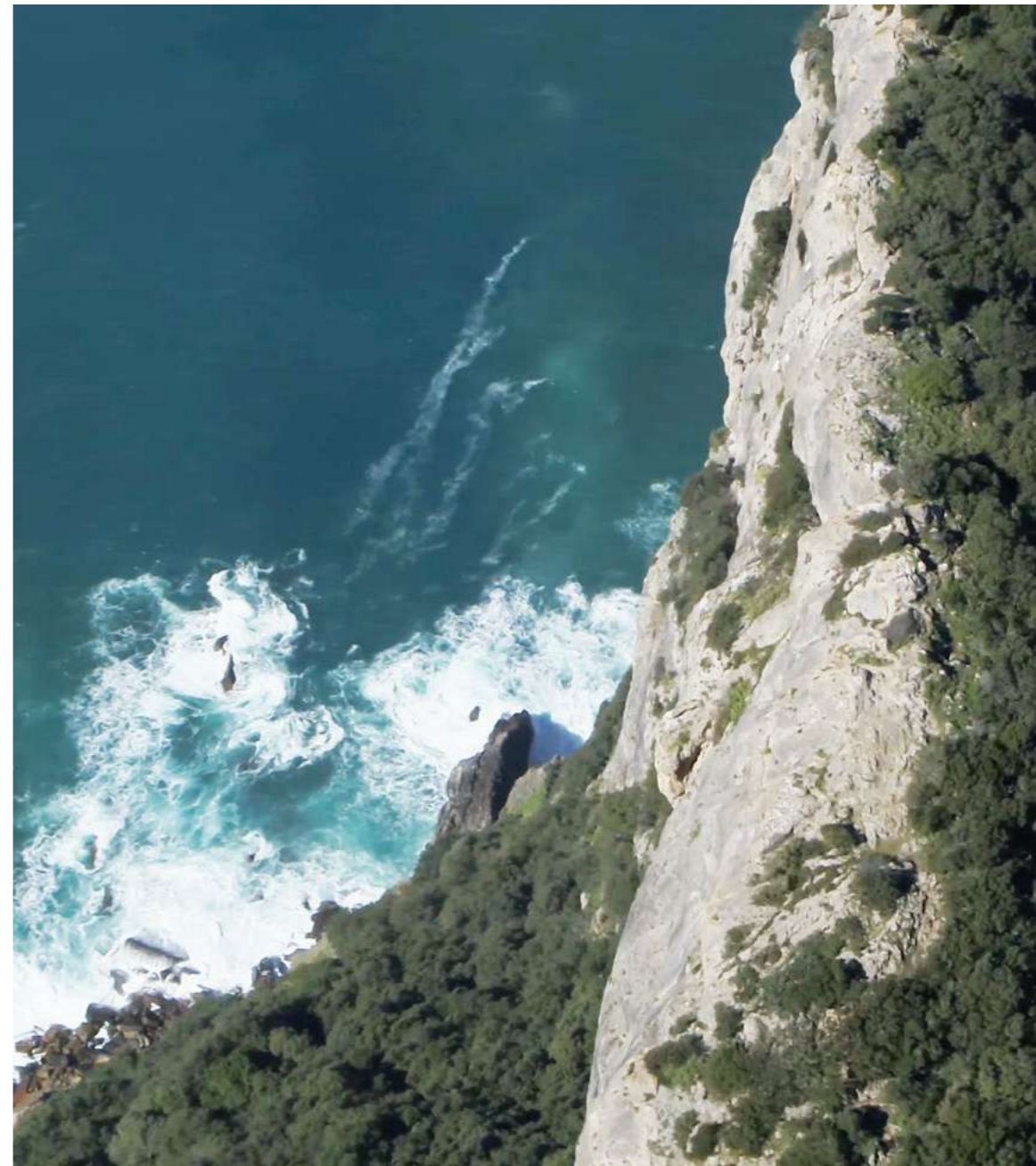
Brand, technology, and sustainability

Brand, technology, and sustainability are the three main building blocks on which the Irizar Group's future strategy is based. An inspirational framework that shows us the way to the future and defines our commitment to remain one of the world leaders in the sectors in which we are present.

Although we will deal with it in detail in chapter "3. Responsible with our Customers, Passengers and Citizens", we briefly summarize what we understand by **Brand and Technology**:

- Our strategic lines include the development of Irizar brand and technology products and a clear commitment to increasing our technological capacity and industrial diversification.
- We offer customers and society high added value by providing cutting edge products and services created and developed through contributions from the entire group. These products and services, aimed at the Premium segment, mark a difference in terms of safety, reliability sustainability, technology and profitability. Design and innovation are part of Irizar's DNA.
- Today we have a wide range of products and technological solutions including 100% electric buses, hybrid or biodiesel technology, in class II model coaches for urban and intercity services and integrated and conventional buses and coaches.
- All of this enables us to cover all sectors of public passenger transport, from occasional services to regular public commuter services, encompassing urban, intercity, and long distance routes.
- Creatio, the Irizar Group Research and Development Centre, enhances the Group's capacity for applied research and technological development for its products and systems. It combines the synergies and technological capabilities of the Group's companies and is the result of the Irizar Group's key strategy of ongoing commitment to industrial innovation.
- Innovation is one of the hallmarks of our corporate identity. It is part of our culture and extends to management, product, and service levels, as well as sustainability, technology, and image. We encourage innovation and creativity not only in what we do, but also in how we do it. Accordingly, we are constantly progressing, at Group level and in each of the Group's individual organisations. We are not only increasingly more agile, flexible, and adaptable but better able to anticipate future challenges while adding value to our brand and stakeholders.

Sustainability will be discussed in depth from here on in the entire Report.



2.2 Sustainable Competitiveness

At Irizar we also call Sustainability Sustainable Competitiveness, to make clear our conviction that Competitiveness is not possible without Sustainability, or vice versa.

Sustainability is one of the three fundamental priorities of our Group's future strategy, and it drives us forward and commits us to working by contributing to the construction of a better and more sustainable World.

For years this commitment has been part of the culture of the people who make up the Irizar Group and of the projects and decisions that are addressed by the different companies of the Irizar Group.

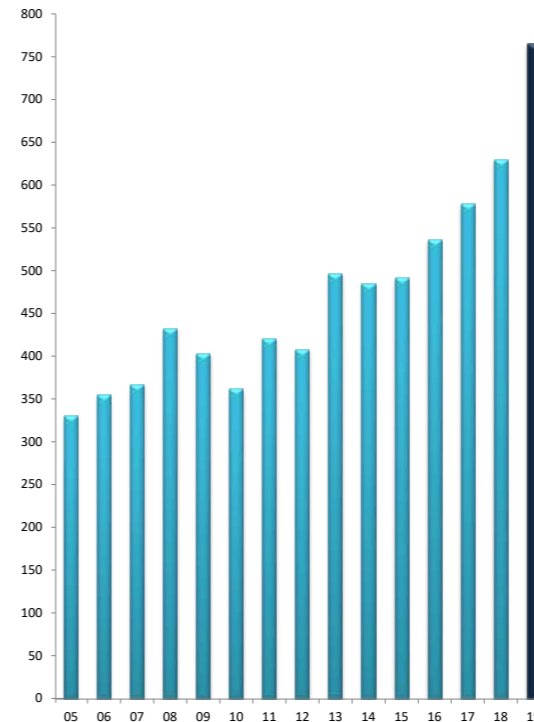
But we also focus on promoting and integrating our policy, objectives and actions in all the Group's production plants and companies internationally.

At the General Assembly held in May 2019, we addressed Sustainability as:

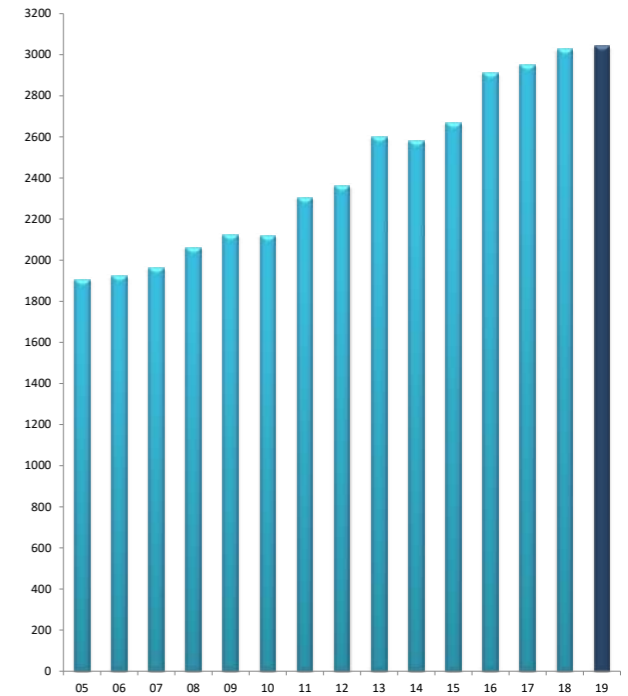


The following graph is the **best evidence of our real commitment to Sustainable Competitiveness** (economic, social and environmental) and reflects consistency with our Mission. Despite the crisis and the drop in sales, the Irizar Group maintained employment in 2009.

Consolidated turnover (millions of euros)



Job Creation



2.2.1 Sustainability: strategic priority

Our strategic approach is oriented towards the construction of a more sustainable World and we therefore continue to move decisively in providing solutions for a mobility with a sustainable future. We are also committed to public transport as a fundamental solution for achieving these objectives.

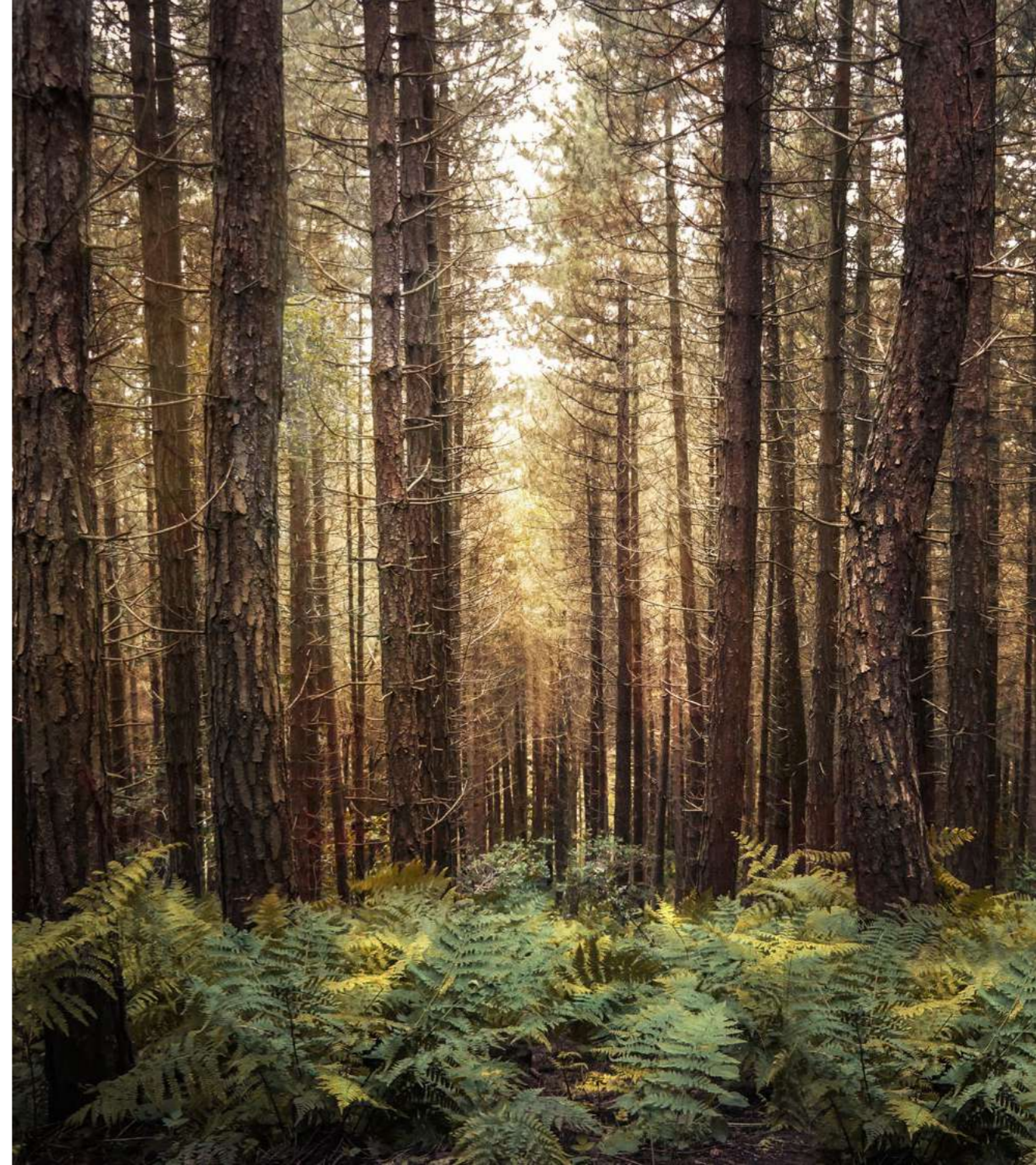
We are investing in the creation of different pioneering technologies and solutions that we make available to our customers, passengers and citizens (as we reflect in detail in Chapter 3.) and whose priorities are **focused on safety, on reducing emissions of greenhouse gases and noise pollution and on being a benchmark in Eco-innovation.** All this in line with the Paris Agreement and the European Green Agreement

Because our future success depends on us going far beyond the search for economic profitability and compliance with applicable legislation (local, regional, national, foreign, and international laws) and internal regulations. And all within a culture and business approach of integrity that is governed by Ethical Principles.

Our focus is to create **shared and sustainable long-term value, integrating economic (and governance), social and environmental** dimensions into our business strategy and operations.

And (as we outline in subsequent chapters) always by sharing and taking account of the **interests of all our stakeholders** who contribute to generating business value:

- Customers, passengers and citizens,
- People (workers and cooperative members),
- External partners, Supply Chain, and alliances
- Environment
- Society in general



2.2.2 Our global frames of reference

Our business model of Responsible Sustainability is inspired by the largest voluntary World Reference Frameworks in Sustainability: the 10 Principles of the United Nations Global Compact and the 17 SDGs of the United Nations 2030 Agenda.

10 Principles of the United Nations Global Compact

10 Principles regarding Human Rights, Labour Standards, the Environment and the fight against Corruption.

For the Global Compact, the sustainability of a company begins when it focuses its management on doing business based on the 10 Principles. These are minimum standards for responsible / sustainable business behaviour.

10 Principles for managing risks and “avoiding negative impacts”

Irizar S.Coop. adopted the United Nations Global Compact since 2013 and we draft an annual Sustainability Report, in which we renew our firm commitment to the 10 principles proclaimed by the Global Compact (referring to Human Rights, Labour Rights, the Environment and the fight against Corruption) and we bring together the main initiatives that we are pursuing with our stakeholders.

These 10 principles are important guidelines to enable us to move forward in our Responsible Action and help us better manage risks. <https://www.unglobalcompact.org/what-is-gc/mission/principles>. In section “2.3 Commitment to the Principles of the Global Compact” we provide a table showing the chapters / sections of this Sustainability Report with the areas and principles.

THE TEN PRINCIPLES
of the United Nations Global Compact

HUMAN RIGHTS **LABOUR**

ENVIRONMENT **ANTI-CORRUPTION**

- 1 Support and respect the protection of internationally proclaimed human rights.
- 2 Not be complicit in human rights abuses.
- 3 Uphold the freedom of association and the effective recognition of the right to collective bargaining.
- 4 Support the elimination of all forms of forced and compulsory labour.
- 5 Support the effective abolition of child labour.
- 6 Support the elimination of discrimination in respect of employment and occupation.
- 7 Support a precautionary approach to environmental challenges.
- 8 Undertake initiatives to promote greater environmental responsibility.
- 9 Encourage the development and diffusion of environmentally friendly technologies.
- 10 Work against corruption in all its forms, including extortion and bribery.

The Ten Principles of the Global Compact are based on Universal Declarations and Conventions and are divided into four main areas:

- **Human Rights:** Principles 1 and 2 They are derived from the Universal Declaration of Human Rights.
- **Labour:** Principles 3, 4, 5 and 6 are inspired by the ILO's Declaration on Fundamental Principles and Rights at Work.
- **Environment:** Principles 7, 8 and 9 refer to the Rio Declaration on Environment and Development
- **Anti-Corruption:** Principle 10, the last to be incorporated, is based on the United Nations Convention Against Corruption

Our annual Sustainability Reports, issued since 2013, detail all our commitments and progress. We publish them in different internal and external media, through our website and the United Nations website, in a clear commitment to Transparency, as a factor that creates trust with our stakeholders. <https://www.unglobalcompact.org/what-is-gc/participants/19510#cop>

Agenda 2030 and the 17 Sustainable Development Goals

Agenda 2030 and its 17 United Nations Sustainable Development Goals (SDGs), involving 169 targets.

For the next 10 years, the SDGs will stimulate action in 5 spheres of critical importance for humanity and the planet.

The United Nations assigns a leading role to companies in particular in implementing the goals.



17 Objectives to “make positive impacts”, “contribute to sustainable development and find business opportunities”

As companies we have an unavoidable responsibility to drive the development of Sustainability and to contribute to overcoming the main challenges that Global Society faces, from the fight against climate change to the eradication of poverty and economic and social progress.

In 2018, we began our approach to the United Nations’ 2030 Agenda and recognized the timeliness of the 17 Sustainable Development Goals (SDGs). We believe that contributing to the advancement of the United Nations Agenda 2030 will not only give us the satisfaction of being able to contribute our small part to transforming the Earth into a more liveable and prosperous planet, but will also provide us with significant business opportunities.

In 2019 we have continued our knowledge and learning of the SDGs. At the General Assembly in May 2019, we discussed (as stated in section “4.3.2. Communication and transparency” of chapter 4. Responsible with our People”), among other aspects of our strategy and progress in Sustainability, the need for our strategic approach to the 2030 Agenda and the SDGs from 2020. The Assembly is the ideal channel to sensitize the entire staff to ODS.

Progress in the process of integrating the SDGs into Irizar’s strategy is one of the priority aspects at this time and this is reflected in his message by the Group’s New CEO, who assumed his new responsibility in September 2019.

Although it is pending to carry out our in-depth analysis of our activity to see its alignment with the SDGs, and subsequently select the priority SDGs for Irizar, we reflect in section “2.4. SDGs related to our commitments” a table that relates the SDGs, to a greater or lesser extent, with stakeholders and chapters of this Report.

2.2.3 Corporate responsibility

Sustainability strategy and performance include corporate responsibility (which affects everyone and everything), and responsibility with each stakeholder (which is included in detail in the rest of the chapters of this Report).

Inclusion of Sustainability in strategy and management

- In 2019 we continued to **integrate Sustainability in strategic decision-making and daily management**, in line with the 10 Principles of the Global Compact (see previous section and subsequent chapters).

- We continue to make decided **progress in training and raising awareness of people in Sustainability**. **Details** of actions in 2019 can be seen in the chapter of “3. Responsible with our People”.

Starting in 2021, we plan to promote training in Sustainability and the SDG / 2030 Agenda (see previous section), first to the management team, and then deployment to leaders and other people. We consider this action to be very important within the objective of integrating Sustainability transverse in everyone’s commitment, operations and future strategy.

- As we will explain also in the chapter on “3 Responsible with our People”, we carry out in-depth reviews of the Strategic Thoughts every three or four years with SWOT analyses taking account of aspects in the economic-governance, social and environmental fields. All this, to establish priorities and define actions with the aim of aligning the Group’s strategy with the expectations of all stakeholders

and thus guaranteeing their needs, the sustainable growth of the business and the generation of value, wealth and employment, as reflected in our Mission.

The Irizar Group is exposed to risks that are directly related to the productive or commercial activities of its divisions or that result from external influences. These are risks that may prevent the Group, or any of its business areas, from achieving its objectives. At times, the risks translate into opportunities that must also be identified and exploited. Therefore, in the Irizar Group and all its business areas, risk and opportunity analysis is immersed in the culture, strategy, and management of each of the teams and processes. It is automatically integrated into strategic plans and decision-making to prevent illicit practices or those outside our framework of ethical action. The most recent revision of the Strategic Thoughts took place in 2016. In the following review of Strategic Thoughts, Sustainability will have a fundamental role.

- We remain committed to **dialogue with all of our stakeholders**. It helps us to listen to their concerns and needs and identify future trends to build trust and therefore increasingly consolidate our relationship with them. At the same time, it is an ideal way of transparently showing and sharing our assessments and our fields of action as well as the challenges we face in our management of sustainable growth. Discussions take place through regular meetings and different communication channels.

- In 2019 we grew sustainably in the areas in which we are present, as well as in new markets.
- We continue to promote and ensure, through our senior management (in collaboration with the other corporate governance bodies), that this **commitment and sustainable action**, beyond the people who work at Irizar, **extends to all other stakeholders** (customers, suppliers, external contractors, government agencies, etc.). Because risk reduction is vital to guarantee our reputation and the success of the long-term corporate strategy.

Moving Forward in Transparency, Good Governance and Integrity

- We continue to make progress in **Transparency, Good Governance and Integrity**. Therefore, we rely on our open culture and our firm conviction that only business activities that respect corporate ethics and sustainability constitute the only possible foundation for achieving sustained business success beyond compliance with internal regulations and applicable legislation (local, regional, national, foreign, and international).
- We are convinced that our **Transparency** contributes to improving our credibility, gaining the trust of our stakeholders, our brand and reputation. This is why we provide our stakeholders with the necessary information so that they can learn more about Irizar.

As we will see in the following chapters, we have multiple channels of communication with stakeholders, including our Sustainability Reports discussed in the previous section "2.2.2. Our global frames of reference".

- Our code of ethics is constantly being revised and the Governing Council, which together with the Management Team has decided to expand its scope and from 2020 we will have a **Code of Ethics for the Irizar S.Coop and its Business Group**, which will serve as a vital integration tool for all Group companies.

Alliances and collaboration in forums to promote sustainability

In addition to all the agreements and alliances that we will address in subsequent chapters of the Sustainability Report, we can highlight the double link with the United Nations Global Compact: worldwide and Spanish.



**APOYAMOS
EL PACTO MUNDIAL**

At Irizar S.Coop, we have been fully committed since 2013 al to the **United Nations Global Compact** (the largest voluntary Corporate Social Responsibility initiative in the World), which provides a reference framework for all our strategic progress in Sustainability and enhances our clear commitment to Transparency through the annual Sustainability Report.





Since 2018, we have been partners of the **Global Compact Network Spain** (Multistakeholder association that acts as a focal point for the United Nations Global Compact in Spain). Proactive participation enables us to show a greater commitment to sustainability, interact with the main agents of change (not only at the Spanish level but also internationally), generate shared values between the company and its environment, learn and share best practices, and strengthen relationships with stakeholders.



In 2019, we celebrated 15 years of leadership in sustainability with the Spanish Global Compact Network, as it is the local network with the most signatories to the UN Global Compact and is a world benchmark, which is notable for its operability and strength. In an event involving the participation of Cristina Gallach, **High Commissioner for the 2030 Agenda of the Government of Spain**, with whom we had the privilege of exchanging views on the 2030 Agenda and the need for alliances between the public and private sectors to achieve the SDGs.









2.3 Commitment to the Principles of the Global Compact










Although in this 2018 Sustainability Report we can reflect Irizar's commitment to each Principle of the United Nations Global Compact in more sections, this table shows the relationship with those where it is most relevant.

AREA	PRINCIPLE	RESPONSIBLE WITH
 DERECHOS HUMANOS	Principle 1 Businesses should support and respect the protection of internationally proclaimed fundamental human rights within their sphere of influence	2. Sustainable Competitiveness - Our global frames of reference - Corporate responsibility 4. Responsible with our People 7. Responsible with Society in general
	Principle 2 Businesses should ensure that their companies are not complicit in human rights abuses	2. Sustainable Competitiveness - Our global frames of reference - Corporate responsibility 5. Responsible with our External Contractors, Supply Chain and Alliances
 NORMAS LABORALES	Principle 3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	4. Responsible with our People - Company Board, any Regulation of Internal Arrangements and Collective Agreement 5. Responsible with our External Contractors, Supply Chain and Alliances - Sustainability requirements for our suppliers
	Principle 4 Businesses should support the elimination of all forms of forced or compulsory labour	2. Sustainable Competitiveness - Our global frames of reference - Corporate responsibility 4. Responsible with our People - People. Key Actors in Sustainable Competitiveness - Commitment to Quality Employment 5. Responsible with our External Contractors, Supply Chain and Alliances - Sustainability requirements for our suppliers
	Principle 5 Businesses should support the abolition of child labour	2. Sustainable Competitiveness - Our global frames of reference - Corporate responsibility 4. Responsible with our People - People. Key Actors in Sustainable Competitiveness - Commitment to Quality Employment 5. Responsible with our External Contractors, Supply Chain and Alliances - Sustainability requirements for our suppliers
	Principle 6 Businesses should support the elimination of discrimination in respect of employment and occupation	2. Sustainable Competitiveness - Our global frames of reference - Corporate responsibility 4. Responsible with our People - People. Key Actors in Sustainable Competitiveness - Commitment to Quality Employment 5. Responsible with our External Contractors, Supply Chain and Alliances - Sustainability requirements for our suppliers
 MEDIOAMBIENTE	Principle 7 Businesses should maintain a preventive approach to environmental challenges	2. Sustainable Competitiveness - Our global frames of reference - Corporate responsibility 3. Responsible with our Customers, Passengers and Citizens - European benchmark in Eco innovation - Reduction of emissions and electrification 5. Responsible with our External Contractors, Supply Chain and Alliances - Sustainability requirements for our suppliers 6. Responsible with the Environment
	Principle 8 Businesses should undertake initiatives to promote greater environmental responsibility	2. Responsible with our External Contractors, Supply Chain and Alliances - Sustainability requirements for our suppliers 3. Responsible with our Customers, Passengers and Citizens - Reduction of emissions and electrification 6. Responsible with the Environment
	Principle 9 Businesses should encourage the development and dissemination of environmentally friendly technologies	3. Responsible with our Customers, Passengers and Citizens - Reduction of emissions and electrification 6. Responsible with the Environment
 ANTICORRUPCIÓN	Principle 10 Businesses should work against corruption in all its forms, including extortion and bribery	2. Sustainable Competitiveness - Our global frames of reference - Corporate responsibility 4. Responsible with our People - People. Key Actors in Sustainable Competitiveness 5. Responsible with our External Contractors, Supply Chain and Alliances - Sustainability requirements for our suppliers

2.4 SDGs related to our commitments

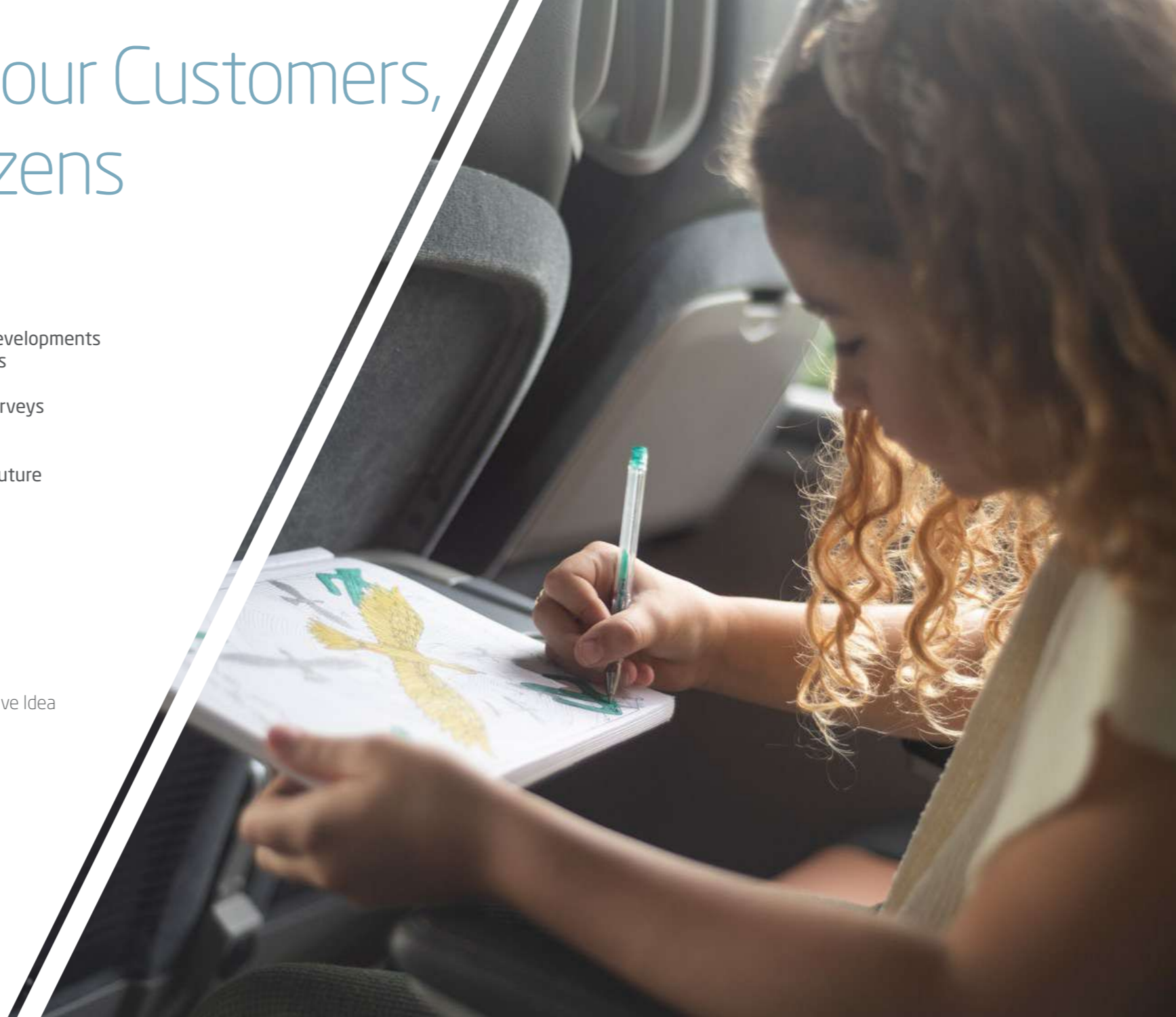
Although as we said previously, a prioritization analysis of the SDGs aligned to our activity is pending, the following table shows an approximation to how the SDGs are related (to a greater or lesser extent) with the chapters of this Report.

	RESPONSIBLE WITH					
	Sustainable competitiveness	Customers, passengers and citizens	People	External partners, supply chain, and alliances	Environment	Society in general
1 NO POVERTY 						
2 ZERO HUNGER 						
3 GOOD HEALTH AND WELL-BEING 						
4 QUALITY EDUCATION 						
5 GENDER EQUALITY 						
6 CLEAN WATER AND SANITATION 						
7 AFFORDABLE AND CLEAN ENERGY 						
8 DECENT WORK AND ECONOMIC GROWTH 						

	RESPONSIBLE WITH					
	Sustainable competitiveness	Customers, passengers and citizens	People	External partners, supply chain, and alliances	Environment	Society in general
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 						
10 REDUCED INEQUALITIES 						
11 SUSTAINABLE CITIES AND COMMUNITIES 						
12 RESPONSIBLE CONSUMPTION AND PRODUCTION 						
13 CLIMATE ACTION 						
14 LIFE BELOW WATER 						
15 LIFE ON LAND 						
16 PEACE, JUSTICE AND STRONG INSTITUTIONS 						
17 PARTNERSHIPS FOR THE GOALS 						

3. Responsible with our Customers, Passengers and Citizens

- 3.1. Close to our customers
 - o A customer-focused organisation
 - o Hand in hand from beginning to end
 - o Their opinion and expectations are fundamental
 - The customer, they key factor in our future developments
 - The customer, integrated in internal processes
 - Always informed
 - Quality and after-sale forums. Satisfaction Surveys
 - Driver training
- 3.2. Reality and Strategy towards the sustainable transport of the future
 - o European benchmark in Eco-innovation
- 3.3. Reduction of emissions and electrification
 - 3.3.1 Irizar brand integral coaches
 - 3.3.2 Irizar brand hybrid coaches
 - 3.3.3 The generations of coaches of the future
 - 3.3.4 Irizar Group electromobility, zero emissions
 - Integral electromobility solutions
 - Range of electric vehicles
 - Irizar ie truck, World Smart City award for Innovative Idea
 - Irizar batteries
 - Second life and recycling of batteries
 - Careful management of resources
 - Charging infrastructures
- 3.4. Safety and Driverless Vehicles
 - o Safety is first
 - o New support systems
 - o Towards autonomous driving
- 3.5. 3.5. Connectivity - Big Data



3.1. The **customer**, at the heart of our strategy

A customer-focused organization

Irizar is a well-established industrial project, with great challenges ahead. It is an ethical project based on transparency and integrity, comprised of valuable people, fully committed to customers, and based on innovation as a sign of identity. It has the absolute conviction that the way of the future is sustainable solutions and is committed to the talent of people who, accordingly, **become ideal partners that will accompany transport operators into the future.**

Irizar is positioned in all sectors of public passenger transport, from occasional services to regular public commuter services, encompassing urban, intercity and long distance routes, whilst being a leader in the sustainable mobility sector. Its commitment to providing high added value to its customers, passengers and citizens is clear in such important aspects as: design, customization, safety, operating cost, technology and sustainability.

Our main strategy is customer satisfaction and loyalty. For this reason, Irizar means, above all, closeness to the customer, supporting them from the definition of the product and service they need to the end of its service life, and offering them the guarantee of a robust project in which they can trust. The flexibility to adapt to their needs and the unlimited customisation we offer are differentiating factors to achieve their loyalty.



Hand in hand from start to finish

Irizar has custom solutions, designed and created to offer the best service: financing, repair and maintenance contracts and pick-up of your used vehicle. Irizar has a helpdesk in each European country and another centre that is open 24 hours a day, 365 days a year and offers customers close support and advice that results in optimised reliability and availability of vehicles. Finally, our electronic management solutions, Irizar connectivity, fleet management and remote diagnosis that result in a considerable reduction of consumption and emissions.

The coaches have a remote Diagnostic System to anticipate and plan the management of spare parts, their repair and the monitoring of the driving style of vehicles, helping our customers to define patterns of good practices for reducing fuel consumption and environmental pollution.

At Irizar, we understand that fuel is the major cost component for operators, so we make every effort to reduce consumption and of all TCO (total cost of operation). Also, the residual value of our vehicles is very high, which also reduces their financing cost.

Their opinion and expectations are fundamental

The customer, a **key factor** in our future projects

We have the involvement of passenger transport operators that integrate their vast experience and knowledge, as well as their needs and expectations, in our innovation projects, making them participants in the design and development of future solutions.

We are also striving to involve ourselves with our customers to share opinions and experiences, and discuss their sustainability concerns (economic-governance, social, environmental) and their vision of the future. Our goal is to achieve a productive dialogue that benefits both parties.

Always **informed**

We have a very close relationship with our customers. Through meetings, communication and marketing campaigns, we keep them constantly informed about our new products and services and also about the initiatives and results achieved in other sustainability issues.

The customer, **integrated in internal processes**

At Irizar, we have Customer Relationship Teams deployed all over the world and Customers Line Teams in the internal processes of the organisation. The objective of all this is to channel their needs to guarantee the development of products and services of the future.

Customer Relationship Teams maintain direct and close daily relationships with them, making them the main source of information and knowledge as regards their current and future needs. This knowledge flows and is shared throughout the organization through different channels and processes.

The dynamics of periodic Customer Line Team (ELC) meetings is one of the most important at Irizar. Each Customer Line Team is made up of all the teams of Irizar people involved in operations until they deliver each bus to the customer: customer relations, purchasing, supplies, product and process engineering, production, quality ... All of them are responsible for complying with or improving the expectations of customers who, in turn, are naturally included in this process.

The Customer Line Teams meet quarterly with the entire Management Team. In addition to monitoring the indicators and objectives established annually regarding production and service activities, the management team provides detailed information on activities; markets; innovation projects; environmental, safety, and health projects; and other topics of interest for all.



Quality and after-sale **forums.** Satisfaction Surveys

The monthly quality forum, referring to product quality, is made up of the heads of the Senior Management of the organisation (General Director, Industrial Director, Director of Production, Commercial Directors, Purchasing Manager, Product Innovation Manager, Engineering Manager, After Sales Manager, Quality Manager, and other Commercial Equipment and Industrial Department personnel). It is an open forum, in which all Irizar people are invited to participate.

In addition to exhaustive monitoring of the quality and environmental objectives set out in the annual plans, a review of the corrective actions of the main incidents presented by customers in different markets is also carried out. After prior validation in the after-sales forum, the most relevant incidents are transferred to the quality forum. The conclusions and decisions taken at these meetings are shared with the commercial teams and Quality Managers of the other Irizar Group external plants in a constant search to share learning and synergies.

We periodically conduct customer surveys to verify if we are meeting their expectations in terms of products and services, with the aim of improving any aspects that customers consider weaker.

As a result of the analyses of the Quality Forum, in 2019 two projects were launched to improve the process of reviewing complete coaches for quality before delivery to the customer:

- Incorporate a voice recognition system for quality technicians, to increase the homogenization of quality criteria and make the final review more efficient.
- Construct a new final quality control building for coaches, which provides optimal space conditions and lighting for the inspections.

Driver **training**

We have face-to-face after sales training for Irizar vehicle **Drivers and repair / maintenance technicians.** This training is also complemented by on-line training at **ISERVICE** (Irizar Web Post Sales platform).

We are still teaching all the eco-driving courses that our customers demand, examining the impact that **optimal driving habits** have on fuel consumption savings and, consequently, on the environmental impact.

Objective comparisons of fuel consumption analyses carried out on monitored vehicles show considerable reductions from efficient driving. These courses not only contribute to reductions in operating costs, but also help achieve safer and more efficient driving techniques.

In addition to training, since 2019 **“efficient driving manuals”** are included in all coaches along with vehicle documentation.

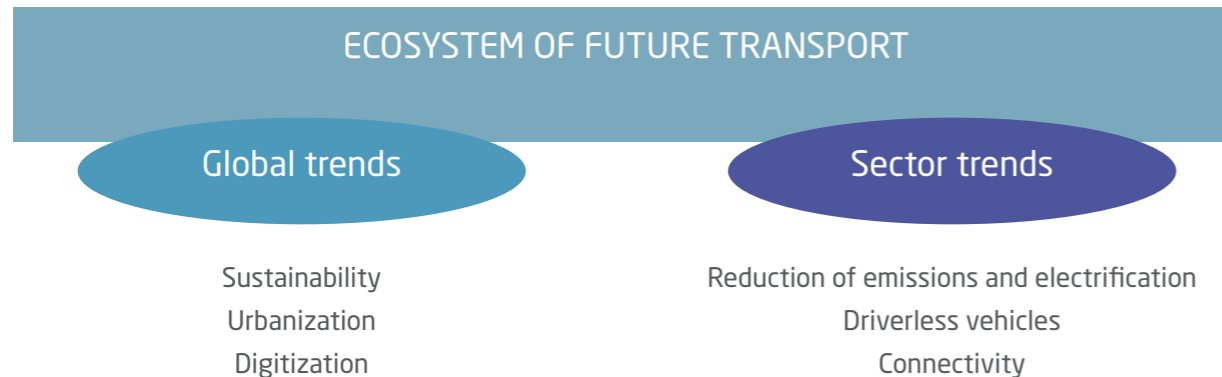


3.2. Reality and Strategy towards the sustainable transport of the future

Irizar has become an important reference in coaches and buses and has established itself in markets where it is currently present. Not surprisingly, it continues to develop and deploy its wide range of integral products, integral electromobility solutions for cities, as well as those developed in collaboration with the main chassis brands.

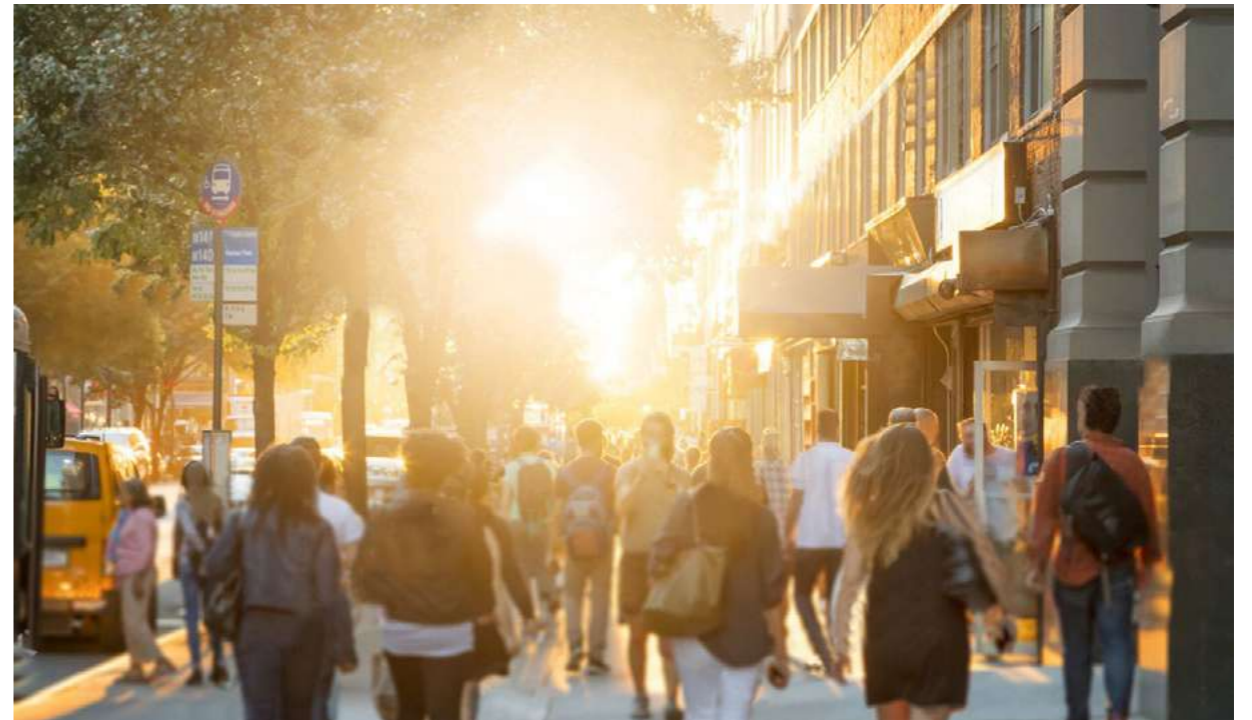
This strategy does not prevent us from continuing to work closely with chassis manufacturers, with whom we have common interests, and with whom we continue to increase our presence in both European markets and in the rest of the World.

The main global trends have a radical impact on the transport ecosystem that will be fundamentally transformed in the coming years. We believe that this change will be deeper and will happen faster than previously thought in the sector.



At Irizar we aspire to be a benchmark in the change towards a sustainable transport system. We rely on our financial strength and experience in mobility, which makes it easier to continue following the path of innovation, contributing our knowledge in the development of new technologies, solutions and services that guarantee a more sustainable future in economic, social and environmental terms.

In the following sections we explain how we are facing the three major trends in the sector at Irizar.



European benchmark in Eco-innovation

At Irizar, we have spent years relentlessly advancing in research and development in new coach manufacturing technologies and new materials, to be a **European benchmark and at the forefront of eco-innovation and eco-design throughout the product's Life Cycle.**

Ecological design implies the integration of environmental aspects from the very conception of the product in order to limit its impact on the environment. This integration, based on a global approach, must take into account all stages of the product life cycle and the mechanisms aimed at reducing its environmental impact, identifying technologies, ways to improve the choice of materials, and encouraging the use of clean materials.

After more than 4 years applying life cycle analysis (LCA) methodologies and establishing Product Category Rules (PCR) to assess the environmental profile of combustion and hybrid and electric buses, this year Irizar was awarded the **First Environmental Product Declaration (The International EDP System)**, which makes it the **first company in the sector worldwide to achieve this certification in the environmental area.**

Environmental Product Declarations (EPD) have been developed in accordance with ISO 14025 and they add a new dimension in the market, given that they enable information to be provided on the environmental performance or scope of products and services. They are created and registered as part of the Type III Ecolabelling Programme, under the

International EPD System, based on reference standards: UNE-EN ISO 14040:2006. Life cycle analysis. Principles and frame of reference), UNE-EN ISO 14044: 2006 (Environmental management. Life cycle analysis. Requirements and guidelines), UNE-EN ISO 14025: 201 (Environmental labels and declarations. Type III environmental declarations. Product Category Rules for preparing Environmental Product Declarations for Public and private buses and coaches (PCR 2016-04).

This life cycle analysis project has been carried out on the Irizar integral i4 model, at 13 metres in length, 55 seats, and DAF MX 11 E6 diesel engine, and is being applied to the rest of the Irizar Group's product range. In the future it will be extended to the rest of the Irizar Group product range.

EPD declarations provide differentiating advantages to customers and markets as they scientifically and independently evaluate the coach from an environmental perspective in terms of impact throughout the life cycle, energy consumption of renewable fossil resources at each stage of the life cycle, and pollutant emissions or hazardous substances from manufacturing. It also evaluates the environmental benefits of the product and environmental management or eco-design systems in the organisation or the way to manage the end of life of the product. Furthermore, it contributes to establishing measures aimed at reducing CO2 emissions and other pollutants of our products throughout the life cycle, based on the use of materials that are increasingly respectful of the environment, weight reduction, and fuel consumption. Efficient and sustainable driving habits also result in the achievement of these objectives.



CERTIFICATE EPD REGISTRATION

This document is to confirm that

IRIZAR, S.COOP.

has published an Environmental Product Declaration for

IRIZAR I4 INTEGRAL COACH

with registration number S-P-01571
in the International EPD® System.

The EPD has been developed in accordance with ISO 14025, the General Programme Instructions for the International EPD® System and the reference PCR 2016:04. Verification was performed by Tecnalia R&I Certificación, S.L.

This document is valid until 2024-05-17, or until the EPD is de-registered and no longer published at www.environdec.com.

Adam Lewrén
Secretariat of the International EPD® System
Gothenburg, Sweden, 2019-06-03

3.3 Reduction of emissions and electrification

The impact that CO2 emissions from transportation means have on global warming is a fact. Therefore, every day, we continue to focus all our efforts on advancing and investing in the creation of different technologies in order to offer pioneering solutions to the different mobility needs for the future worldwide. Reducing the impact of our vehicles and eliminating greenhouse gasses and noise emissions is our priority. All this in line with the Paris Agreement and the European Green Agreement.



3.3.1 Irizar brand integral coaches

Since 2011, the best representation of the Irizar brand has been our integral coaches and buses. Since 2018, we have monitored all our diesel integral coaches, which has enabled us to achieve good results.

Integral coaches are only offered with engines that meet Euro6D emissions standards. The engines presented are the Euro6 Step D. Fuel consumption, and consequently, CO2 emissions of Irizar integral vehicles are at their best levels and increasingly close to 20 l/100 km or 5 km/l for 12.2m and 19.5mt maximum weight units.

These state-of-the-art coaches represent a **substantial improvement in recent years:**

- Reduction in **Total Operating Costs**
- 6% reduction in **fuel consumption**
- **Power on demand** technology that: further reduces consumption, increased the life of components and extends maintenance intervals.
- Improved manageability, distribution and **weight reduction**
- Reduction of **noise** and vibrations.
- **Repair and maintenance** costs:
 - Improved access to engine compartments
 - Long service intervals (without changing oil filters, etc.)
- Increased **passenger capacity**
- Maximum comfort for the **driver**
- Our smart technology enables **predictive driving** to adapt to the topography and road conditions and to use the smartest gear changing strategy.

Highlights include the innovations introduced in our latest generation of model buses:

- **Irizar i4** The structural redesign of this version, the incorporation of new and lighter materials and corresponding reduction of weight, along with a more aerodynamic front end, provide this Irizar i4 with significant fuel savings.
- **Irizar i6S** A new system with a significant weight reduction that incorporates an indication detector for deployed barriers, and a safety device to prevent pick up if the platform is full.

3.3.2 Irizar brand hybrid coaches

In 2016, we launched the Irizar hybrid line to the market, becoming the **first European company to launch an inter-urban class II hybrid coach**. This is a parallel hybrid technology. A latest generation diesel or bio-diesel engine (HVO, hydrogenated vegetable oil diesel) is combined with an electric motor that provides power or generates electricity. And, depending on the situation, the engines can act either individually or together to achieve optimum efficiency and performance. The use of biodiesel eliminates the emission of sulphides.

A complete range of hybrids with two types of combustion engines, Euro6 D, 6.7l and 8.9l, approved for operation with fossil diesel, HVO (vegetable-based diesel), and N (compressed natural gas), with and without electric autonomy, in addition to versions with external charging, connected or pantograph.

A 20% decrease in consumption compared to a conventional diesel coach, which enables our customers to save 6,400 litres/year of diesel. This also influences reductions in CO2 emissions by up to 20%, which reduces about 236,830 Kg of CO2 over its service life (estimated at 100,000 km / year in 15 years).

Since 2018 we have monitored all hybrid buses, in order to assess how we continue to reduce emissions.



3.3.3 The generations of coaches of the future

We currently offer a complete range of integral, conventional, electric and hybrid vehicles, always meeting the needs of each customer and we are continuing to invest in alternative technology for the future, such as hybrid technologies with electric autonomy and combustion engines powered by HVO and natural, compressed or liquefied gas.

Furthermore, we are participating, along with major European brands, in various national and European projects for the research and development of a new generation of less polluting vehicles. The main lines of research are currently focused on aerodynamic improvements; reduction of weight; HVAC systems; efficiency of the kinematic chain; and electrification, control, and efficiency of all auxiliary components.

VECTO is the new standard simulation tool developed by the European Commission. It will be used to determine CO2 emissions and the fuel consumption of heavy vehicles (trucks, buses and coaches). Irizar collaborated in 2019 with the European Commission in the development of the VECTO pilot phase. Irizar is already investing significantly in a new generation of hybrid and diesel vehicles to reduce the level of CO2 emissions (fuel consumption), in anticipation of future regulations.

H2020-LONGRUN is another project in which Irizar is participating. It will start in early 2020, within a consortium of 30 organizations from 13 European Union countries (established in 2019), for the development of efficient and environmentally friendly long-distance Power Train systems for heavy trucks and coaches.

3.3.4 Irizar Group electromobility, zero emissions

Integral electromobility solutions

Therefore, in 2011, we started our electromobility business line, under which, we combined the knowledge and experience of the entire Group. Our strategic commitment to innovation in sustainable mobility for the future and the transformation of cities. We intend to contribute to improving the quality of life and health of citizens with more efficient, cleaner and accessible transport, and making urban environments more sustainable.

Irizar e-mobility provides comprehensive personalised electric mobility solutions for cities, both in terms of manufacturing zero emissions electric buses, and in terms of manufacturing and installing the major infrastructure systems necessary for charging, drive systems and energy storage. All designed and manufactured using 100% Group technology, with the Irizar guarantee and service quality.

We offer totally **customized turnkey projects**, designed and created to meet customer needs. The operator, therefore, has the differentiating benefit of having a single point of contact at every stage of the project, including after-sales service, maintenance, and custom repair, which also translates as optimised vehicle reliability and availability.

With our proprietary technology we can provide constant updates for the included systems with the goal of effectively meeting the challenge of maximising the useful life of every vehicle in order to optimise the value of your assets.. There is an Irizar exclusive and high-quality after-sales service in all cities where electromobility solutions are installed, with customised R&M packages and managed by local technical experts and employees, thus helping to create local wealth and jobs.

It carries out energy studies of the operator lines and uses the data yielded by these studies (operating data, speed, line characteristics, terrain, line etc.) to advise on the energy needed to embark on its optimization strategy, power parameters, solutions and charging times and battery life. We also offer the possibility to coordinate the civil engineering works.

The predictive and comprehensive maintenance of the main systems and components of the vehicle that directly impact life cycle costs, insofar as they optimise the performance and availability of the vehicle, and the residual value of the asset. We do it, fundamentally, using diagnostic tools capable of monitoring the vehicle (doors, batteries, climate control and heating).

Remote diagnosis tools provide statistics on the availability and reliability of the bus, optimize maintenance times and monitor the system in real time.

Ecoassist reports system data that allows reducing consumption, helping to identify route sections where more instructions are provided to the drivers. Energy monitoring gathers specific data on the exact energy consumption per route which enables future calculations to be made and issued, plus automatic reports that identify areas of improvement for reducing consumption.

2019, in addition to witnessing a major boost in the development and manufacture of different battery solutions and investment in photovoltaic energy, is the year in which the BRT electric fleet has been commissioned (with interoperable ultra-rapid and slow charging stations) in Bayonne, Aix en Provence, and Amiens.

Among the most global projects in which we participated in 2019, in consortium with other companies or research centers, to improve mobility in cities, and funded by the SPRI, are:

- **iPOWER4.0:** To research and generate the knowledge to start the digital transformation of bus manufacturing processes and the generation of new products / services to make the third generation of electric vehicles a reality.
- **CYBADEK:** "Technologies for the development and safe operation of the land transport infrastructure of the future".



Range of electric vehicles

The range of electric vehicles with the 12-metre Irizar ie tram bus and the second new generation 12 m Irizar ie bus.

Irizar e-mobility's vehicle range currently includes three models: Irizar ie bus, Irizar ie tram, and Irizar ie truck. These incorporate systems and components developed with Group technology.



The Irizar ie bus offers a sustainable and eco-efficient urban mobility solution for current and future needs of city transport. The versions developed so far are the 10.8m, 12m, and 18m articulated.



The Irizar ie tram is a 100% electric, zero-emission bus with the appearance of a tram that combines the large capacity, ease of access and internal configuration of a tram with the flexibility of a city bus. This model is available in 12m and 18m articulated versions with a maximum capacity of 155 people.



This led to the birth of the Irizar ie truck, a truck designed for different industrial uses in cities with a focus on electromobility. It will initially be used for collecting municipal waste. Current versions include zero-emission, gas, or HVO range extender trucks.

18 m articulated bus – **Elimination of 120 tons of CO₂** in the atmosphere every year.



The electric bus has a very low carbon footprint - estimated at 8.45 g CO₂ eq/km.p (per passenger kilometre). Compared to a conventional fossil fuel powered bus, around 800 tonnes of CO₂ are prevented from being emitted during its entire service life.

This figure is the difference between the emissions associated with the electricity consumption of batteries and burning fossil

86% reduction of carbon footprint compared to a conventional diesel bus.



Noise

The electric technology makes the noise of the combustion engine disappear, which means there are no exterior sound emissions to annoy pedestrians when the bus is stopped and starting (0 dBA). When driving, noise .

A study conducted in Sweden in 2014 by the Swedish company Koucky & Partners A.B and entitled "Quieter buses socioeconomic effects" concludes that **replacing 240 conventional buses by electric buses reduces noise pollution by 1.3 dBA, which translates into an annual socioeconomic saving of €52,650 per kilometre, with a reduction in costs of 27%.**

The European Bus System of the Future 2 project, financed by the H2020 programme of the European Commission, involves the development and validation of different solutions combining the efficiency of bus systems in an organized way with the objective of reducing the energy consumption of electric buses.

Irizar ie truck **World Smart City prize in Innovative Idea**

At the Smart City Expo World Congress 2019, the Irizar ie truck, won the World Smart City awards in the Innovative Idea category for affordable, versatile and high energy efficiency mobility for urban service vehicles. This award went to the company FCC Medio Ambiente, which presented the project, in competition with other very high quality projects.

Remember that the Irizar ie truck, the 100% electric truck, was developed by a consortium led by the Irizar Group and FCC Medio Ambiente. The truck has permanent electric traction, can be plugged into high power batteries, has a low cab right at the front, can be used for all urban service functions and is economical due to its industrial development. The first strategic objective for the truck is to facilitate the rollout of affordable electric mobility in urban services, which will bring enormous environmental benefits, such as a complete reduction in polluting emissions and noise, a reduced carbon footprint and maximized energy efficiency.

Replacing the fleet of around 30,000 diesel heavy vehicles with the Irizar ie truck could theoretically mean an annual reduction in the carbon footprint of close to one million tonnes of CO₂ equivalent and more than 9,000 GWh of energy consumption savings in the Spanish cities.

Irizar Batteries

Batteries are the cornerstone of an electric vehicle. The range, price, recharging speed and useful life of the vehicle depend on them. The Irizar battery system incorporated by hybrid and electric vehicles uses a modular design, developed to meet the needs of any operator. Also included is a liquid cooling systems that enables optimization of useful life and the possibility that vehicles can operate in extreme weather conditions. This is a robust and safe system that complies with the latest European regulations: R100 v2, R10, and UN38.3.

The different solutions we offer on the market are:

- **Energy pack for slow charging.** Designed so that the vehicle can travel the maximum number of kilometres and complete the operation with a single daily charge.
- **Nano pack for fast charging.** The perfect ideal pairing between battery charge and power for mixed operations, where the vehicle has sufficient battery life to operate during peak hours. The charge may be both slow and fast.
- **Power pack for ultra-fast charging.** This is the solution for 24/7 operation with charging of up to 600 kW.

The Irizar battery pack is a highly recyclable product. Treatment of all its components is ensured through a controlled process with the possibility of use for other types of applications being evaluated. Additionally, Irizar is constantly searching and researching increasingly efficient products with the least environmental impact.

Irizar is participating in the **SADE (Safe Storage Systems)** project, with the aim of researching and developing a battery-pack solution aimed at the opportunity charging strategy in urban mobility. The development will have a working prototype, to be validated and tested on a laboratory scale.

Second life and recycling of batteries

Irizar e-mobility, in collaboration with the Cidetec Technology Centre, participates in projects related to the analysis of the second life of batteries, which are used in urban electric buses. It is estimated that these batteries will reach their end of life at an approximate SoH (State of Health) of 80%. They must then be replaced and repurposed for other uses with less demanding electrical specifications, such as stationary applications including electrical storage for photovoltaic systems or electric vehicle charging systems. In parallel, the issue of recycling is also being addressed in collaborations with several European companies, to ensure final treatment of each component, controlling each process for safety and environmental aspects.

For urban electric buses, the service life of batteries can reach up to 10-15 years, depending on daily loads and the high powers to which they are subjected. After this time, the batteries must be replaced so that the vehicle

maintains its original functionality. The end of that first life, however, does not mean that a battery loses all its charging capacity. So, far from disposing of it, in order to further its environmental and circular economy commitment, sustainable reuse in stationary storage applications is needed to stabilize energy demand when charging electric vehicles with high power levels.

Along these lines, in 2019, Irizar reached a **partnership agreement with Ibil, a company that is leading the development of the largest electric vehicle charging network in Spain**, through which it will give a second life to the batteries used in electrical buses. The signed agreement will allow the batteries that Irizar produces and installs on its buses to be reused as energy storage devices, as well as the power electronics associated with the application, in the recharging infrastructures that Ibil is developing and deploying for Repsol service stations among other uses.



Careful management of resources

In addition to the manufacture of zero-emission electric vehicles for their use phase, our focus is also on reducing CO2 emissions and other pollutants throughout the life cycle of our electric vehicles. We have focused our efforts on optimising the efficiency of the three key aspects that contribute to the overall environmental impact of the bus: the traction system and the batteries, the raw materials used and the management of all its components at the end of its service life. The components used comply with the **European Union REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals)** regulation, which addresses the production and use of chemical substances and their possible impacts on both human health and the environment.

Irizar has modified its method of manufacturing buses, prioritizing the ability for components to be removed and recycled, changing the traditional weld system with a new method based on modular screw-in type, with vehicle recyclability and recoverability rates greater than 90% in accordance with standard ISO 22628 **"Road vehicles. Recyclability and recoverability calculation method"**. Recyclability rates of the components and materials comprising the ie bus model is 98.92%, according to the results of an analysis carried out through iHobe (Basque Government Environmental Management Partnership).

Charging infrastructures

The Irizar Group's different charging solutions are interoperable

- **In-depot charging.** The easiest and most traditional charging method, which involves plugging the bus in, usually overnight while the bus is stopped. Available for use outdoors as well as indoors. It also offers the possibility of complete automation of the slow load in garages through the commissioning of structures with contact vaults installed above the parking spaces, replacing the outlet solution that needs a manual connection by part of an operator.

The automation of the contact between the vault and the pantograph of the parked bus allows instant charging. This alternative solution reduces the presence of cables on the floor and, therefore, improves the safety of the operators.

- **Pantograph charging.** Recommended when the vehicle does not have sufficient range to complete the journey and it is necessary to charge vehicles during travel as well as in the depot. The charging stations are located at strategic points throughout the cities, at the end or start of each line, in order to charge/supply several buses or lines.
- **Smart charging system.** Control centre that efficiently manages all the charging conditions/restrictions in the depot. The system identifies the different charge requirements of each bus in order to optimise the total power required.

ASSURED: Fast and intelligent vehicle charging infrastructure for large vehicles. This ASSURED project addresses "The integration of electric commercial vehicles into the fast-charging infrastructure" of the Green Vehicle work programme. A consortium of 40 participants from 12 EU member countries will carry out the work. The overarching objective of ASSURED is to analyse the needs of cities, operators and end users in order to derive the characteristics and requirements of the new generation of heavy-duty electric vehicles (like buses), medium-duty trucks and light vehicles to operate in urban areas. In this way, we can obtain better cost improvements, develop the new generation of high voltage modular charging systems for electric vehicles and develop innovative charging management strategies.



3.4 3.4 Safety and Autonomous vehicles

Safety is first

Safety is an absolute and strategic value at Irizar. For this reason, we want safety to continue climbing places in the Irizar value pyramid.

Avoiding safety problems on the road is a requirement for our vehicles, and active and passive safety are strategic aspects for new product and service developments. From the design phase, we invest adequately in technology and innovation to be leaders in this field and to guarantee the highest levels of safety for both the driver and passengers.

All Irizar brand coach and bus models are equipped with the most advanced active safety technologies on the market in order to help, warn, and assist drivers and avoid risky situations. Highlights include stability control (ESP), adaptive and predictive cruise control (ACC + PCC), advanced emergency braking systems (AEBS), involuntary lane change (LDW), detection and monitoring of tire pressure (TPTMS), full LED headlights, driver fatigue detector (DFT) and optional predictive shifting (PS), as well as video surveillance for image recording and anti-theft device.

These active safety technologies also include the possibility of remote download of driver and vehicle cards and audible alerts for pedestrians in the case of silent buses and coaches.



With regard to passive safety, Irizar buses and coaches have been designed to withstand rollovers and head-on collisions by optimising weight distribution.

In 2019 we launched the **SAFERIDE project**, with the aim of developing technological solutions beyond the state of the art, in order to provide a radical advance in Active Safety in all the segments in which we operate, with which, at the same time, Irizar will enable the integration of fundamental elements for future Driverless Vehicles:

- Sensory (Cameras / Radars).
- Control (Algorithms / SW).
- Actuators (Acceleration, Brake, Steering).
- Driver Interfaces (Warnings / Signals).

Given its completely cross-cutting nature, the involvement of and synergies with the technological companies of the Irizar Group are necessary, in this case DATIK and JEMA, which are members of the consortium that will lead the programme.

New assistance systems

Irizar, in alignment with its strategy of alliances, has reached a **partnership agreement with Mobileye, of the Intel Group**, a world leader in the development of advanced functionalities to address different levels of automation. The objective of the agreement is to improve the safety, efficiency and connectivity (5G) of the Irizar Group buses and coaches.

One of these features is an accident prevention system that identifies potentially dangerous situations and provides visual and acoustic warnings to help drivers avoid or mitigate a collision, acting as a "third eye" that constantly monitors the road ahead of the vehicle.

This intelligent system warns of an impending frontal collision with a vehicle, including motorcycles, pedestrians and cyclists, both on the road and in the city, up to 2.7 seconds before it occurs. It helps maintain the correct safety distance with the vehicle in front and activates audible and visual warnings if the distance becomes unsafe. It activates visual and acoustic warnings up to 2 seconds before an imminent collision with a cyclist or pedestrian or when there is involuntary departure from the driving lane. It recognizes traffic signals and speed limit signs and is able to switch from high-beam to low-beam lights automatically so as not to dazzle other road users.

As a result of this agreement, all Irizar integral vehicles will be equipped with these systems starting October 2019.

Towards driverless vehicles

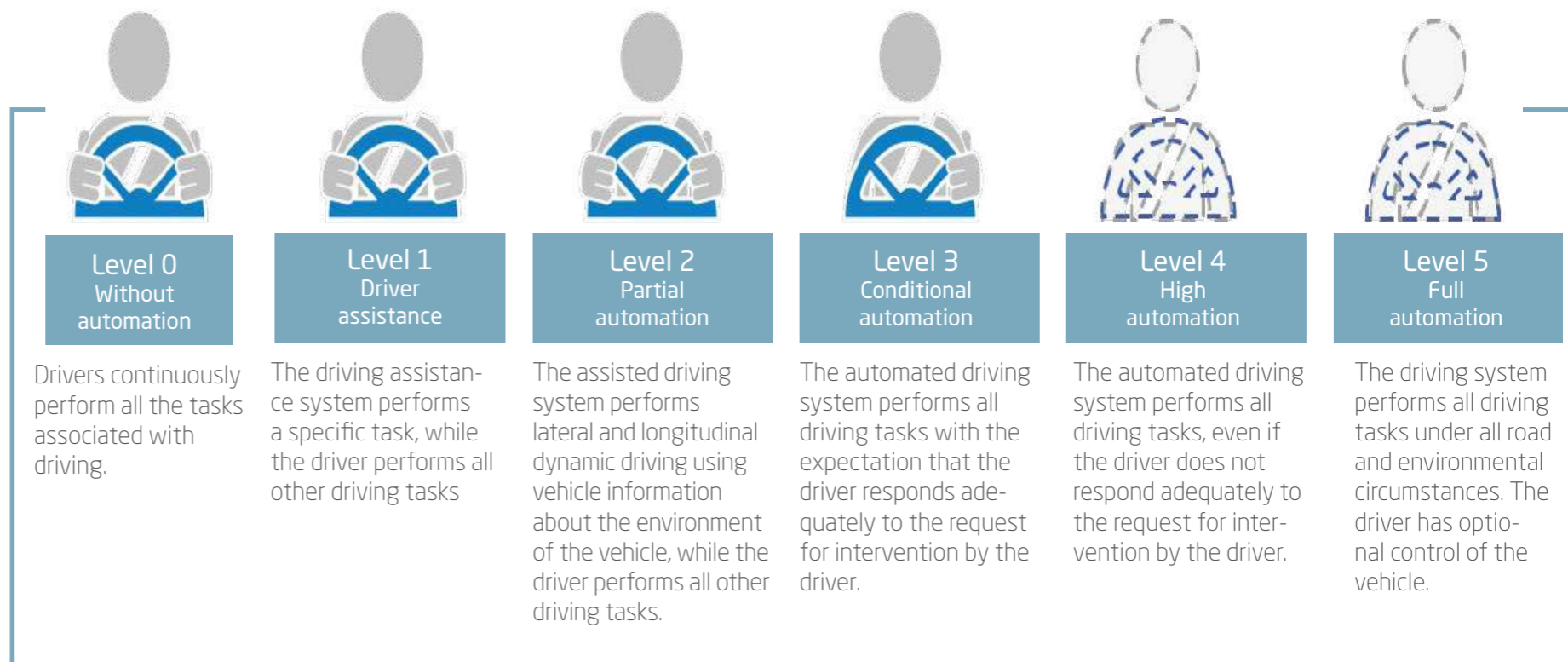
Connectivity and digitalization will play a crucial role in the future of mobility. Autonomous vehicles and new and more efficient services will shape this future. At the international level, six levels (from 0 to 5) are defined to classify autonomous driving. This classification system describes the degrees of automation of vehicles as well as the requirements that drivers must meet.

The Irizar Group is working to introduce different levels of automation for both buses and coaches. Driverless vehicles will progressively become a reality, as the result of a process of gradual transfer of responsibilities from driver to vehicle, until what is known as the 'Virtual Driver' is achieved. The depth of the transformations that will be required for the AC at the level of Electrical Architecture, Topologies and Domain Structure is still uncertain, but requires gradual progress.

For zero-emission urban vehicles, the Group is currently actively participating in local and European projects with the objective of reaching level 5 of driverless operation. These projects include: **Automost, HiAdvice and AUTODRIVE**.

Work is also taking place on driverless medium and long-distance coaches, with investment in advanced driver assistance system (ADAS) projects. Some functions that are being developed are the recognition of traffic signals; intelligent headlight control; signal recording; detection of bicycles, animals and pedestrians; and lane change assistance, among the main ones.

Autonomous driving levels



3.5 Connectivity - **Big Data**

Additionally, the Group offers intelligent driver assistance systems with a range of optional equipment to provide drivers and passengers an optimal form of mobility. Extensive experience in machine vision and deep-learning enables Datik to offer fleet management, preventive and predictive maintenance, and autonomous driving systems.

The Irizar Group is also involved in projects to develop technologies and strategies to create eMobility solutions (urban public transport based on 100% electric buses) that are modular flexible and scalable in order to make viable the mass deployment of medium / large electric bus fleets, thus minimizing the impact on the power grid and reducing initial and operational costs. We should also emphasise our involvement in the eFleet project.

eFLEET is an important strategic challenge as it seeks to unlock the limitations of a booming market in which the IRIZAR Group has been positioning itself since 2011.



4. Responsible with our People

- 4.1. People, key actors in Sustainable Competitiveness
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- 4.2. Commitment to quality employment
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 - 4.6.3 Other health and wellbeing services
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4.1 People: key actors in Sustainable Competitiveness

The people in the organisation are undoubtedly the key actors in achieving sustainable economic, social and environmental results in the medium and long term. **Having high levels of satisfaction and motivation for ALL Irizar personnel (partners-workers and employees) is the way to achieve a culture of excellence, sustainable competitiveness and the future success of the Irizar Group.**

In accordance with this firm conviction, we work resolutely so that the people of Irizar want to contribute their talent to realizing both our Mission and our strategic challenges, as well as our dream of contributing to the construction of a Better and more Sustainable World.

We uphold an open and transparent culture with the firm conviction that business activities with respect for total integrity are the only basis possible for achieving sustainable success. We are convinced that the main instrument for strengthening Integrity is an Organizational Culture based on shared principles and assumed by all the people in Irizar S. Coop., as it constitutes the best element for preventing bad practice, illegal or even criminal behaviours in organizations.

Therefore, starting with the example of the company senior management, **it is vital to continue promoting our real commitment to all personnel:**

- a) Offering attractive, fair working conditions (both in human rights and labour standards) with long-term perspectives. We can affirm that a very high percentage of new hires to the Irizar Group is aimed at permanence and stability.
- b) Investment in long-term talent. Constant work to improve the quality and attractiveness of employment and to incorporate, develop, and retain highly qualified personnel.
- c) Pushing continuous training and development of professional life. Strengthening each one's abilities in the belief that all personnel and their talents are paramount. Increased training, adaptability, and flexibility are key to responding to changes, situations of uncertainty, and new challenges of the future. Digitalisation and automation are undoubtedly new scenarios to which we must adapt.
- d) Promoting trust, communication, leadership, participation, self-management, and teamwork. To create a working environment where everyone can contribute something more to the business

project based on their possibilities and dreams. We believe this is the way to encourage each person to carry out their part of the process responsibly and professionally and, in the end, ensure that personnel are committed (to the project, mission, vision, keys, and common values) to achieving the established objectives.

- e) We stand for equality, non-discrimination, and respect for diversity.
- f) Improvement of work/life balance: personal, family, and professional. Flexibility of work hours, reduced work hours, and the possibility of work leave.
- g) Maintenance of health, safety, and long-term performance.
- h) Encouraging each person to contribute actively to the environmental balance, working to minimise any impact arising from our activities, and to the preservation of the natural environment.
- i) Businesses should work against corruption in all its forms, including extortion and bribery
- j) Making participation a reality for the design of the Company's strategy for the future beyond mere performance in daily operations.
- k) Sharing of business economic profit, also available for employees who are not members of the cooperative. We undoubtedly offer major advantages and attractions that make us stand out from other companies in the environments where the Irizar Group is present.

Social Innovation for Equal Opportunities

In 2019 we started a Social Innovation Project for Equal Opportunities for people. The main objective of the project is to provide new answers to the challenges and questions that currently face from the social point of view, to promote projects that primarily benefit the people of Irizar but also the society of our surrounding environment.

We want to generate social innovation based on participation and, for this purpose, a diagnosis of the current situation will be performed, launching a community listening process. Within this process, various activities will be organized, such as open discussion sessions, interviews and collective interpretation, surveys, among others. This listening process will mainly involve Irizar people, but also some representatives of government agencies and social organizations in Guipúzcoa.

Our key objective is to work on **equal opportunities of people**, focusing on managing:

- a) **gender** (reinforcing the Equality Plan)
- b) **diversity** (Race, Nationality, Religion, Sexual Orientation, etc.),
- c) **work-life balance**, and
- d) **social inclusion**.

In short, we want to reinforce the social commitment to and of the people of Irizar and we have started working on the search for this. Working for equal opportunities, directly or indirectly, will contribute to:

- Reinforcing the sense of belonging of Irizar people.
- Achieving a position as a socially innovative company.
- Being attractive to talent.
- Strengthening the image of the Irizar brand in the social sphere.
- Social transformation
- Achieving Corporate Sustainability
- Enhancing dialogue with our stakeholder groups

Strongly to promote the Project, a multidisciplinary Social Innovation Team has been created in which, together with an external partner, people from the different bodies of the cooperative participate, as well as other people from the organization who are highly conscious of the project. This team will be enriched with new members interested in promoting the objectives derived from the different surveys that are being carried out.



4.2 Commitment to **quality employment**

Irizar is a Cooperative Society. The main difference between a Limited Company and a Cooperative is that in the Limited Company the capital is in the hands of the shareholders, whether or not they work in it (sovereignty of capital), while in a Cooperative sovereignty resides in the work, as the members must work in it and are self-governing using the formula 1 member = 1 vote, regardless of the capital that member has in the Cooperative.

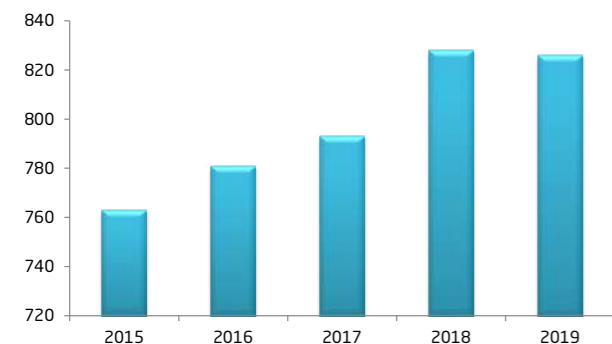
People who start working at Irizar do so as employees with an employment contract, and after several years of positive evaluations of their professional performance, they have the option of becoming partner-workers (cooperative members), with the economic advantages, investment and job security that this implies.

4.2.1 Job creation and evolution of workforce

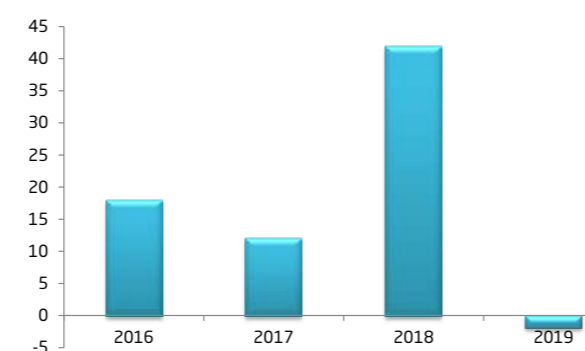
The mission of the Irizar Group has the ultimate goal of generating wealth and employment in its own environment, wherever it operates. In line with this, and as can be seen in detail in chapter 2, Sustainable Competitiveness: Corporate priority”, the graph of employment evolution in the Irizar Group is the best reflection of our social contribution and the best indicator of strategic commitment to Sustainability, since it evidences a continued increase and maintenance of jobs, including in the most difficult periods of the crisis (especially 2009).

Job Creation

Job creation (Irizar S. Coop.)



Job creation (Irizar S. Coop.)



Job growth has been 8.3% in 4 years (since 2015). Which has resulted in the creation of net employment for 63 people.

The majority of people incorporated in 2018 and 2019 have come from higher-level training cycles of industrial sectors, and the rest are, primarily, industrial engineers.

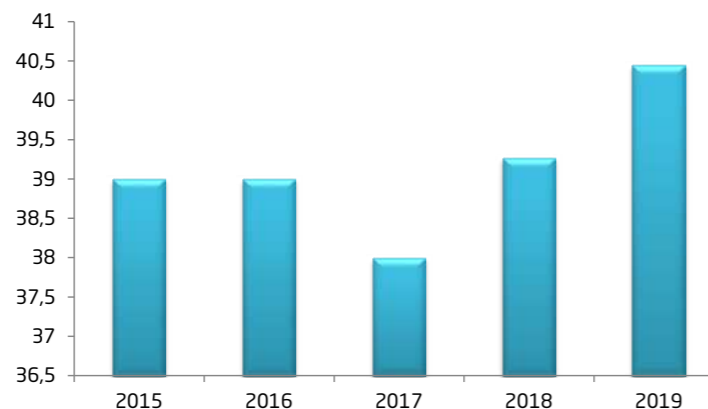
Workforce distribution by gender, category and age

Workforce distribution by gender and category									
	Men			Women			Total		
Irizar S. Coop	MOI	MOD	TOTAL	MOI	MOD	TOTAL	MOI	MOD	TOTAL
2018	162	602	764	44	20	64	206	622	828
2019	166	597	763	43	20	63	209	617	826

Distribution by sex of the workforce: in 2019 7.62% were women and 93.37% men, the same as 2018 levels. This is due to the fact that, due to the type of profile demanded, applications mainly come from men.

Distribution by professional category: in 2019 74.5% are MOD (with higher level qualifications) and 25.5% MOI (mainly with qualifications in engineering, business administration and management or administrative), which is a slight indirect staff increase (0.6%) compared to 2018.

Average age of workforce (Irizar S. Coop.)



Workforce distribution by age					
Irizar S. Coop	Less than 30	Between 30 and 39	Between 40 and 49	More than 50	Average age
2018	153	266	313	101	39,27
2019	134	258	341	93	40,45

Despite the slight increase in the last year, in recent years there has been a significant drop in the average age, because there has been a significant number of recruitments in younger age groups.

Quality of recruitment, remuneration and salary gap

Distribution by contract type							
	Worker-partners			Recruited Employees	Total workforce		
Irizar	Duration	Permanent	Total	Temporary	Members	Employees	Total
2019	157	569	726	100	726	100	826

As shown by the indicators, we promote the incorporation of people to Irizar dedicated to permanence and stability. Primamos la calidad de la contratación, de tal forma que el 88% de los trabajadores de Irizar son socios de la cooperativa frente al 12% de empleados con contrato laboral.

Some options for starting work at Irizar:

- We have started the Irizar Trainee Program (ITP), a training and development program designed to incorporate professionals in the technical areas as well as in the areas of production or marketing which, after undergoing continuous a training and evaluation process, will understand our strategy, develop professionally with us and are hired indefinitely with the company. This program is designed for mechanical, electrical and organizational industrial engineers without experience or with less than one year of experience and with a high level of qualifications.
- We also offer scholarships for different specialities and the option of carrying out the final university project with us.
- In collaboration with local vocational training schools, we offer the students the opportunity to do their training programme internships with us. These are very important for students to be able to develop the skills they have acquired and so they can get first hand experience of how a company works.

Job profile diagrams are tools that enable us to carry out evaluations and monitor the performance and leadership of the personnel who join the entire Irizar Group. Evaluations are carried out for all personnel by team members where they are incorporated and by other personnel from different departments who are in direct contact with their duties and/or assignments. These evaluations enable us to measure the development and evolution of personnel for their definitive integration into the Irizar Group.

All personnel enjoy fair labour conditions that are well above the average conditions in the area.

1. We compensate the work of personnel with the same principles in all countries where we are present. Salaries are determined based on qualifications and responsibilities. When establishing remuneration, we are not guided by gender or place of origin, but exclusively by the work and responsibility carried out, as well as by the surrounding conditions. The **general level of remuneration is very competitive** and above the sectoral agreements of the local environment.
2. We offer **significant advantages and promotions** in areas related with banking, communications, insurance, travel, fuel, spending, etc., which are promoted and negotiated through the Company Board.
3. However, what truly distinguishes Irizar is that, as a Cooperative Society, it offers the possibility for the people who work in it to join as worker-members, after a period of 3 years as an employee. After which they become a partner for a fixed term. They will retain this status for a maximum of four years, at which point they will become a indefinite member, after having successfully passed the applicable periodic assessments (job profile diagram).

Wage gap

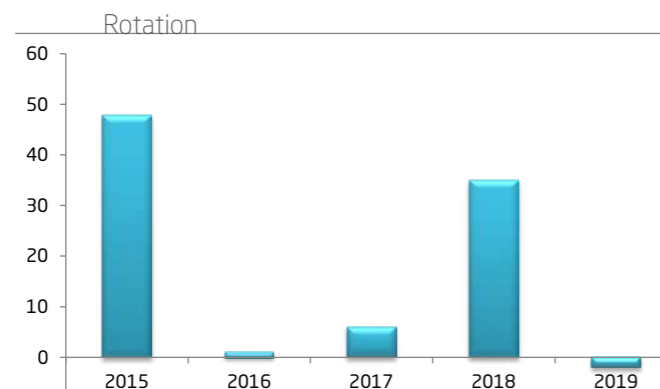
All Irizar work are assigned to a job with pay commensurate with the responsibilities they perform, and there is no differentiation on the basis of sex. Nor is there discrimination in salary for any other reason: age, race, nationality, religion, disability, sexual orientation, union or political affiliation.

Wage gap									
	Indirect Labour (MOI)			Direct Labour (MOD)			Total workforce		
	Male	Women	Average MOI	Male	Women	Average MOD	Male	Women	Average workforce
Irizar S. Coop									
2018	104,8%	82,1%	100%	100,4%	86%	100%	100,4%	95%	100%
2019	104%	82,5%	100%	100,3%	91,1%	100%	100,2%	96,8%	100%

In 2019, the average salary at Irizar for men was 100.2% of the average, while the average salary of women was 96.8% of the average (this represents a small increase of 1.8% compared to 2018).

The previous table shows the deviations between men and women, differentiating between Direct and Indirect Labour. It can be seen that there is a greater wage gap between men and women in indirect jobs (MOI). This greater difference is the result of the majority of indirect jobs being done at higher rates by men.

Rotation, entries and exits (by sex and age) and dismissals



Rotation rates are very low. The rate is always below the average of the countries in which Irizar operates. Undoubtedly this is further proof of the satisfaction and the motivation of our personnel. All this is mainly the result of:

1. a determined commitment to enhance the capacity and talent to adopt a long-term vision when addressing to the challenges to come: enhancement of R&D (Creatio), new lines of business (electromobility, etc.), increased demand, new markets, etc.
2. people value the quality of recruitment prioritizing permanent contracts and the possibility of becoming a member of the cooperative

Entries and exits (by sex and age)

New recruitments by sex and age							
Irizar S. Coop	Under 30	Between 30 and 39	Between 40 and 49	Over 50	Total		
					Men	Women	Total
2018	50	19	0	0	64	5	69
2019	15	4	0	0	14	5	19

Departures by sex and age							
Irizar S. Coop	Under 30	Between 30 and 39	Between 40 and 49	Over 50	Total		
					Men	Women	Total
2018	15	8	0	11	25	9	34
2019	8	2	2	9	16	5	21

Dismissals by sex

Dismissals by sex			
Irizar S. Coop	Men	Women	Total
2018	1	0	1
2019	1	0	1

Of the total of 21 departures in 2019, only 1 was a dismissal.

4.2.2. Organization of work and commitment to work-life balance

Since 1995, we promote a culture based on people's trust and schedule flexibility. We offer a **flexible schedule** where the main objective is the performance and fulfilment of the established objectives and not simply presence.

Irizar personnel have different alternatives to help **balance personal and work life**, in addition to schedule flexibility within certain margins, **reduced work hours, and/or unpaid leave**. This means offering in many cases a flexibility that goes beyond what is legally established.

Given that work-life balance is one of the target areas of the Social Innovation Project that is under way, we hope in the future to continue moving forward decisively in the approach and possibilities of work-life balance for Irizar people.

People with reduced hours			
Irizar S. Coop	Male	Women	Total
2018	15	9	24
2019	12	9	21

Of the total of the 21 workers on reduced working hours in 2019, 9 are women and 12 are men. This represents a decrease of 3 people compared to the previous year.

Work absenteeism		
Irizar S. Coop	Lost days rate (T. D. P.)	Absenteeism Rate (T.A.L)
2018	7,32	5,85
2019	7,10	5,59

Absenteeism is reflected in the rate of days lost (number of days lost based on the total number of hours worked) and the rate of absenteeism (total hours of sick leave and the total hours of accident sick leave, each based on the total hours worked). Both rates improved in 2019 compared to the previous year.

4.2.3. Participation in the management and economic results

Participation in economic profits

In addition to the participation in the profit of Irizar S.Coop for cooperative members, at all the Irizar Group companies, regardless of their business name, all workers participate in the management and economic profit.

Participation in management

The participation of all Irizar personnel in decision-making is constant through self-managed multifunctional teams, to address the strategy and daily operations of the management processes in which they are involved.

Participation in Strategic Thoughts

All personnel participate in the strategic analyses conducted periodically at Irizar, as well as in the annual assemblies, where strategy is the most important aspect. Strategic Thoughts are reviewed every three of four years (taking into account aspects of the economic and social environment, the sector, market, competition, and the other internal and external stakeholders) and are defined and shared by all the people in the organisation. Each year, a specific meeting is held with all the people of Irizar for which a full day is dedicated to reinforce the knowledge of these Strategic Thoughts.

The process of this analysis includes different working meetings where personnel from the Management Team, the Board of Directors, and direct and indirect personnel participate in the initial phase covering aspects of external debate that affect Irizar's activities such as the macroeconomic situation, analysis of the sector, the market, and competition.

Beyond the ideas of this first analysis, a series of reflections are carried out about Irizar's internal situation as well as the SWOT (Strengths, Weaknesses, Opportunities and Threats) in order to arrive at general conclusions which, in turn, are transferred to all Irizar personnel, who have the opportunity to participate in the process by taking in suggestions and proposals which will subsequently result in actions to improve the competitive position.

In the following in-depth review of Irizar strategic thoughts, Sustainability will play a fundamental role, based on our strategic lines and commitment to the search for sustainable mobility.

4.2.4. Job creation

New hires

We establish cooperative relationships and maintain permanent contact with vocational training centres and universities in our local environments to facilitate access to employment for young people and to incorporate the best talent.

We establish links for cooperation and we are in contact with the Universities in Basque Country (UPV, MU, Tecnum...) through their different Employment Forums, collaborating in the training and incorporation of students in the job market and teaching conferences and classes in advanced Master Degrees in accordance with the University Study Plan. All this enables us, on the one hand, to attract the talent of young university students to our organisation, and, on the other, to transfer the characteristics of the profiles of our organisation to universities.

2018 and 2019 were especially intense in this sense. We presented the Irizar Group to final year students of practically all the universities and training schools in our local environments. This helps to carry out the initiatives detailed in the section dedicated to the quality of employment:

- Irizar Trainee Program (ITP),
- Scholarships for different university programs,
- Option to carry out the final project,
- Possibility of internships for advanced training cycles.

Internal promotions

Whenever possible, at Irizar S. Coop., we open internal promotion processes to fill positions of greater responsibility. These are systematic and rigorous processes with a similar or greater level than the processes for new hires.

Thus, in 2019 we covered 2 internal promotions of the 7 positions generated.



4.3. Communication, transparency and participation

4.3.1. Leadership and teamwork

Starting from the CEO and the rest of the management team and reaching all levels of responsibility, it is VITAL to promote and display a commitment to all People based on trust, communication, leadership, involvement, self-management and teamwork. This priority of our management model is basic for motivating people and making it easier for them to want to contribute their talent and commitment to the Business Project, depending on their abilities and hopes.

Leadership makes it possible to create self-managed work team environments with people committed to Irizar's values, customers, strategy and management excellence. Leadership and teamwork are key to our future Sustainable Competitiveness.

4.3.2. Communication and transparency

Communication and transparency are the cornerstones to ensure information and knowledge about the corporate strategy, the projects, objectives and the monitoring of the daily activity, flows and is shared by all. We publish the most important events, advances, and achievements of the company (economic-governance, social, and environmental), evolution of the sector, and socio-cultural activities.

But fundamentally, we believe that internal communication is the way to strengthen our corporate ethics and culture, and generate integration, satisfaction, motivation, and involvement of all personnel. This communication model makes it easier for us to have personnel who are increasingly committed to Sustainable Competitiveness, while having them share in the actions and decisions that affect them.

The structure and communication channels that contribute to guaranteeing the flow of information to/from all personnel, are active and subject to constant review, both in the operation of business processes and for strategic reflections (as detailed in the "Participation in Strategic Thoughts" section), taking into account the opinion of all representatives of the work teams that represent Irizar personnel, both directly and indirectly.

Two-way communication is part of our management model based on **self-managed multifunctional teams**, both to address the strategy and the daily operations of Irizar.

Additionally, we have **complementary internal communication channels**, including:

Forums at the highest level where all personnel participate.

These are the main mechanisms for communication, carried out directly by the CEO and the management team and where the most relevant information is posted for all Irizar personnel. The following is carried out annually:

- **2 Assemblies** where purely strategic issues are discussed as well as annual action plans and legal issues related with the cooperative. These assemblies are open to all the personnel of Irizar S.Coop, although only employee-members are able to vote. In the Assemblies in 2019, as we saw in the chapter dedicated to "Sustainable Competitiveness", we addressed issues of our Sustainability strategy:
 - o Sustainability is an essential key competitiveness factor of the Irizar Group
 - o The importance of our commitment to Human Rights, Labour Standards, the Environment and Anticorruption, in line with the United Nations Global Compact.
 - o Progress in drafting the Irizar Code of Ethics, involving an in-depth review of our Ethical Principles and Guidelines for Conduct
 - o The need to continue our approach to the 2030 Agenda in 2019 and to commit ourselves strategically to the Sustainable Development Goals (SDGs) from 2020.
- **Meetings of the Customer Line Team**, where fundamentally a quarterly monitoring of the daily activity is carried out in reference to the annual objectives set, presented by members of the management team or other managers of different teams or functional areas. In these meetings, the CEO the opportunity of being in the presence of all the people in the organization, who have the opportunity to channel and express all those concerns or issues that directly affect their status as workers. Any dissatisfaction, suggestions, or proposals are collected for analysis and subsequent action.

Company Board, Regulation of Internal Arrangements and Collective Agreement

- The Social Council is the internal **representative body of worker-members in matters that affect the employment relationship**. Its functions are:
 - a) To inform, advise and consult the Governing Council in matters pertaining to employment relationships.
 - b) To inform its representatives and collect contributions and opinions from them, on job roles and issues.
 - c) To record, in the minutes, issues relating to daily activity and the monthly economic position, but also decisions made at the Governing Council meetings, issues related to Health and Safety, the environment and social issues.
 - d) Make the Minutes of the Meetings of the Social Council available to all workers on a monthly basis.

In addition, at Irizar **we extend the business of the Social Council to temporary employees** (non-members), both to receive their contributions and queries, and to make the Minutes available through the intranet.

- Questions relating to the Labour Arrangements of worker-members are regulated in the **Regulation of Internal Arrangements**. Irizar extends these Labour Arrangements to non-member employees in matters of:
 - Labour organization
 - Work time (days, calendars, overtime, shifts, public holidays, leave, permits, etc.)
 - Professional classification (professional development, internal promotions, training, etc.)
- As indicated previously, in the daily dynamics with employed workers the same criteria are followed as with the members, although administratively they are governed by the **State Metal Collective Agreement**.

Other communication channels

- **TV screens**. Installed in all break areas to complement and offer greater information: general news of the sector, economics, photographs, videos about Irizar and its personnel, culture, and sustainability strategy, visits to our facilities (customers, institutions, and media), and collaborations and support for culture, sport, NGOs, etc.
In 2019, we used them to disseminate sustainability reproducing videos, campaigns, messages, and activities about: 2030 Agenda and SDGs, Human Rights Day (young people advocate for human rights), Climate Change Week and SDG13, Environment, etc.
- **Information centres and electronic panels**. Communications centres and electronic panels at access and general visibility points of the installation where to post issues about quality, internal communications, plant image, safety and health and the environment.
- **Irinet**. Irizar's Intranet as a tool for compiling and centralizing all the information posted at Irizar. Also provides services that go beyond the daily management, including cultural activities or dictionaries.
- **Internal magazine - Irizar Berriak**. It is an efficient tool that is not only directed at personnel working at Irizar, but also to the families and retired personnel for the purpose of creating a vehicle for informing about aspects that are purely related with the external communication with customers and issues of interest for the general public. The magazine is published semi-annually or annually in bilingual format.
- **Personal emails**. In addition to employment information, because most direct staff do not have a professional email address at Irizar, we use this medium more and more to share information, videos and documents on relevant aspects to help motivate and increase knowledge of all our people about them



4.4. Strengthening talent: Education and training

In order to undertake our ambitious strategic challenges for the brand, technology and sustainability, we are aware that we must respond to an increasingly high technological demand, the growing complexity of our activity, and our entire value chain (commercial, design and development, execution of products and services, etc.), forming alliances and working in collaboration with our stakeholders.

This growing need to anticipate the future requires increasingly more specialised training capable of adapting to the changes and new challenges that we undertake each year. Accordingly, Irizar works constantly in favour of quality education to empower talent.

This is because innovation is part of our culture and we want to expand the limits of knowledge, discover new ways of creating truly differentiated and surprising products and services, to go one step ahead, and to be able to respond to the training needs that arise from our strategic reflections (annual and medium/long term) and the ideas and suggestions of our stakeholders.

We provide **rigorous multidisciplinary training plans** tailored to people with the particular aim of maintaining and improving their qualifications, profile, and versatility, understanding that all this undoubtedly leads to the benefit of increased knowledge of the quality of our products and services and the improvement of our sustainable competitiveness.

Most of this training is delivered internally. Internal training courses include:

- **Reception plan for new hires**, which includes educational training sessions to promote more effective integration in the company: knowledge of the Irizar culture and strategy, the Integrated Quality and Environment Systems, Safety and Occupational Health, and other internal policies and regulations.
- **Training in versatility of direct personnel.** This entails increasing theoretical and practical knowledge to handle working in other positions. It also facilitates the ability to respond to the personal preferences of each worker, to face new market demands, to improve the quality of our products and services and, to be able to act preventively as regards ergonomics by facilitating postural changes and other measures to enhance health and safety.
- **Continuous flow of people between production plants** in different countries and Irizar Group companies to: support, promote and take advantage of synergies in the activities and actions carried out within the strategic and work lines proposed, with the fundamental objective of increasing knowledge and capabilities while maintaining continual training in aspects, innovations, and solutions incorporated in products and services, management, image, sustainability, and technological implementation. Thus in 2019 we had people from Irizar Brazil and Irizar Mexico.

- **Continuous training and certification** in critical manufacturing processes (welding, bonding, and painting) of direct personnel, with the collaboration of our integrated suppliers and/or specialised external companies.

Internal training plans are complemented by continuous training programs carried out by external professionals. Their intensity and content is more variable and more linked to changes in strategic focus, new lines of products and services, and new markets, etc. Its quantitative evolution is shown in the following table.

External training							
	2013	2014	2015	2016	2017	2018	2019
Hours dedicated to training	5779	6551	4701	4546	4119	3122	3066
No. of people	210	264	166	222	236	135	161

- Training in 2019 was highlighted by languages and vehicle operation.
- There has also been a very varied range of training courses based on the profiles of the attendees (for example: engines, tyres, integrated management systems, customs management, Recruitment 2.0 to search for talent in social networks, team management, smart vehicles, Demand Driven , etc.).
- As well as training in different aspects of Sustainability delivered by the United Nations Global Compact or other organizations (including: 2030 Agenda and SDGs, Ethics and good governance, Human Rights, trends in Sustainability, Climate change, etc.).



Beyond professional level training, we carry out initiatives for awareness, training, and personal enrichment. For 2019, we can highlight:

- Courses addressed in the Environment chapter.
- Healthy lifestyle habits forums, addressed in the Health and Safety section
- Sustainability awareness courses and campaigns: Human rights, environmental aspects, equal opportunity, etc.

4.5. Gender equality, diversity and social inclusion

Respect for diversity, gender equality, non-discrimination in employment, dialogue, professional development and knowledge sharing are our priorities, which is reflected in our Statutes and our Strategic Thoughts.

As regards diversity, our statutes include: "The following will not be reasons for denying admission: political, trade union or religious ideologies, (as well as the race, language, sex or marital status of the candidate) unless these are explicitly opposed to cooperative principles and organisation and to the goals, commitments, values, and principles of Irizar,

Our selection processes are non-discriminatory in terms of sex, age, race, nationality, religion, disability, sexual orientation, union or political affiliation.

We **do not tolerate discrimination** in employment for any reason. All personnel hired at Irizar are covered by the same conditions, including salaries, as long as they are filling positions with the same level of responsibility. This principle is included in the Statutes of the cooperative and the Strategic Thoughts.

As we stated at the beginning of the chapter, in 2019 we started a **Social Innovation Project** for Equal Opportunities for people, focusing, among other areas, on managing: gender (reinforcing the Equality Plan) and diversity (Race, Nationality, Religion, Sexual Orientation, etc.). Open discussion sessions on gender began in 2019 and it is planned to carry out a diagnosis of the current situation in 2020, thus setting in motion a process of community listening in which Irizar people will give their basic opinion (through sessions of open reflection, interviews and collective interpretation, surveys, etc.).

We are also cooperating with **training centres** in the local environment to promote and facilitate increased incorporation of students from upper training cycles into company internships. As our Strategic Thoughts and Statutes reflect, age is not a restriction for the incorporation of personnel at Irizar.

As an **international group**, diversity is part of our culture, and we understand that it is an enriching value. It enables greater knowledge of the needs and desires of our stakeholders around the world to consequently adapt our products and services to their needs.

- We have personnel from our team assigned to the different production plants around the world, who interact with the Irizar Group headquarters, with closer proximity to international customers. In this way, we have strengthened the Irizar brand worldwide and make foreign projects more competitive.
- In addition to the constant flow of people between coach production plants in the different countries of the Group for training and to take advantage of synergies, already discussed in the section "Strengthening talent: Education and training" We also take advantage of the synergies produced by Irizar's

experience and the opportunities provided by its operations in international markets with production plants, to establish other Group companies in the countries where it operates. Thus, Hispacold and Masats have emerged in Mexico, as well as those developed by Jema in Brazil, Mexico, and the USA.

All our facilities are equipped to facilitate accessibility of people with disabilities. Disability is another area that is not subject to any type of discrimination.

Additionally, our philosophy is to work, as far as possible, with external contractors that welcome or recruit people with disabilities (as we saw in the relevant chapter).



4.6. Health and Safety

This last section of the chapter, dedicated to Responsibility with our personnel, is undoubtedly the most important.

We can affirm that in terms of hygiene and ergonomic-comfort measures, at Irizar, we are at maximum levels, far above the legal requirements and other companies in the local sector. We hope to continue along this line with the involvement of all personnel.

4.6.1. Occupational Hazard Prevention System

The Irizar S. Coop. occupational risk prevention system (as with the other Irizar Group companies) prioritises the safety of personnel over any other aspect to which it dedicates the necessary resources. It includes all measures for the prevention of accidents and illnesses related to daily work. Our basic accident prevention tool is a risk assessment of jobs and work processes.

The strategic importance of safety and health for Irizar is demonstrated by:

- Its priority in all assemblies. Data are provided both on the indicators and on the actions and investments made in the year to improve health.
- The dynamics, established for more than 25 years, of monitoring by the Health and Safety Committee of all accidents, incidents, audit results (internal and external) and inspections (safety and health, industrial safety of all facilities), and improvement proposals that affect health.
 - This committee, led by the Health and Safety Manager (who reports to the Management Team), carries out comprehensive management of these sections on a monthly basis.
 - The members of the Committee include: the CEO, the Director of Personnel and the President of the Governing Council of the Cooperative, Prevention Representatives who are members of the Social Council, other members from different health and safety related areas.
 - Also, it is an open committee in which any person from Irizar may participate.
 - Its goal is to ensure that all guidelines are adhered to, in addition to legal occupational health and safety requirements. Monitoring results in these areas.
- **Inspections are carried out regularly.** In addition, internal audits are carried out continuously,
- We analyse 100% of injuries, accidents and incidents. In this context, actions have been launched with an investment of € 418,980 in 2019 alone and more than €1,000,000 over the last three years. This has **increased safety, especially for reducing risks** that could result in serious consequences.

Irizar's prevention service is a joint Osarten service (joint prevention service) where Irizar has preventive activities integrated in speciality areas of safety, hygiene, ergonomics, and psycho-sociology and an external prevention service with Quirón in the speciality area of preventive medicine.

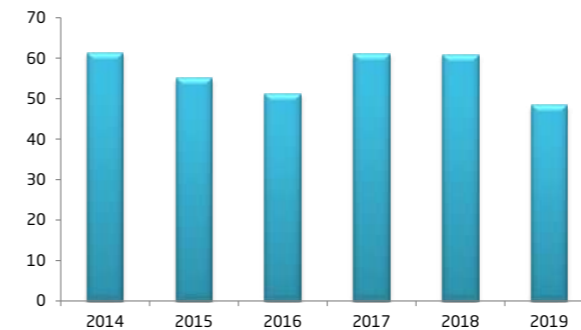
The Health and Safety team makes the following available to staff: **key safety plans, instructions and procedures** focused on prevention and continuous improvement. These guidelines emphasise the obligation to act responsibly and also underline the fact that each person must actively participate in said measures. Personnel may access this information through various means, including computers available in all production areas.

Initiatives are also carried out to raise awareness among personnel regarding existing risks, with emphasis on the culture of work safety, training, workshops, communication campaigns, etc.

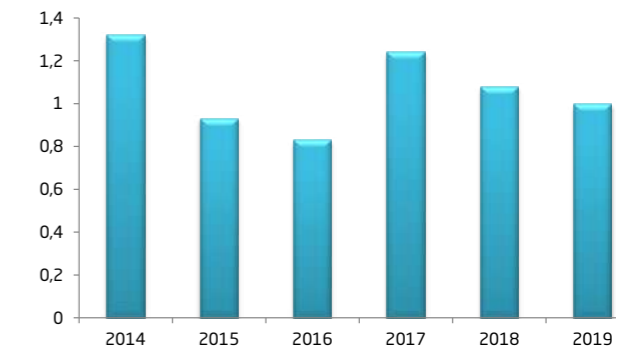
Irizar e-mobility also demonstrates its commitment to the health and safety of people along the same lines, and has been working in 2019 to obtain ISO45001: 2018 certification in 2020.

Frequency and incident indices

Frequency index
(number of accidents per hours worked)



Severity index (number of days not worked due to work accident, based on the actual number of hours worked)

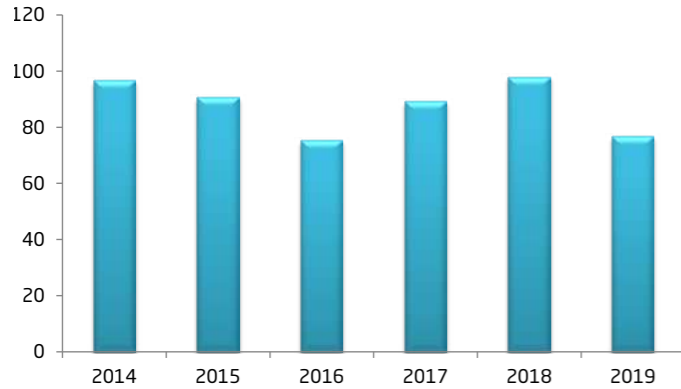


The frequency rate (number of accidents per hours worked) and the severity index (Result of number of days lost per thousand hours worked) improved significantly in 2019, mainly as a result of: investment, monitoring of accidents and incidents that have occurred, improvements in Personal Protective Equipment and awareness campaigns to increase its use.

The severity index (Result of number of days lost per thousand hours worked) also improved in 2019 - the most frequent accidents were minor, mostly due to bruising from objects, pulls and sprains.

Incident rate and accidents at work with sick leave

Incidence rate (number of accidents per number of employees)



Accidents with disability						
Year	2014	2015	2016	2017	2018	2019
People	754	786	778	791	836	833
Accidents resulting in absence	70	70	67	77	82	64

Essentially, as a consequence of working fewer working hours than in 2018, both the Incidence Rate (number of accidents per number of employees) and accidents with sick leave, decreased in 2019.

Following our exhaustive analysis in 2018 in which we identified that there had been an increase in the number of accident victims of new recruitments compared to the previous year, the need was defined for a **2019-20 Health and Safety Training Plan for all new recruits**. This training plan is based on the metal collective agreement, which we began to plan in 2019 and will be taught in 2020 not only to new recruits, but will be extended to all workers (temporary and partners).

We intend to continue making progress in the future thanks to the clear involvement of all Irizar employees.

4.6.2. Ergonomics-Comfort Programs

Personal ergonomics is an unwavering dogma when applying any innovation to products and/or productive processes, with the primary objective of adapting the job position to personnel. It is our responsibility to start working on these aspects during the conceptual stage. We invest what is necessary in this field in order to prevent possible injuries. We have spent years focusing efforts on providing maximum ergonomics to all jobs with solutions, in many cases, designed and developed with the participation of the employees themselves.

The Irizar ergonomics program includes job rotations as a preventive measure, as required (physical disabilities, weakened health, ageing, etc.). We carry out continuous evaluations and job improvements that have resulted in investments in the implementation of different measures (weightless tools, handling trucks, external manufacturing, etc.) to reduce the handling of loads and repetitive movements. In recent years, investments have been made throughout the company to improve thermal comfort.

Regular activities and measures taken in recent years

Below is a summary of the measures implemented in recent years. Most of these are specifically designed with the participation of the Irizar personnel with the aim of offering optimal conditions in terms of ergonomics and occupational health:

Ergonomics:

- Work platforms for sheet metal roof shapers.
- Turners for the manufacture of roofs and roof duct handlers.
- Installation of lifts and adaptation of their regulation systems for postural improvement in structural welding and safety improvements.
- Aluminium shapers to reduce weight.
- Manual handlers for processes involving loads in sheet metal and assembly areas.
- Handling of front and side windows with weightless systems.
- Lifting systems using vehicle columns for ergonomic improvements.
- Handler for installation of seats inside vehicles.

Hygiene:

- Investments in the manufacturing and roof assembly area aimed at thermal comfort by installing evaporative coolers.
- Storage of all APQ10 chemicals.
- Substitution of critical chemicals with non-hazardous chemicals.
- Implementation of motorised breathing equipment for all painting and framing processes with maximum protection.

- Push and pull suction equipment in critical areas with suspended suction equipment for work on vehicles.
- Heavy-duty suction equipment for sanding tasks.
- Automation improvements in cabins to minimise hygiene exposure.
- Status control for filters by automatic notification (4.0).
- Localised suction for dust exposure.

Security:

- Installation of collective protections for cabin maintenance.

Installations

The facilities have also undergone significant improvements to reach the highest **levels of ergonomics, thermal comfort, hygiene and health of personnel:**

- All facilities have been air-conditioned for all jobs, with improvements to prevent currents in certain work areas for optimum temperatures and working conditions for Irizar personnel in both winter and summer.
- The lighting system has been replaced with adjustable LED technology with the aim of increasing the lumens in work areas.
- It has been equipped with general suction systems for environmental hygienic improvement.
- Installation of glue booths for all work with exposure to glue.
- Improvements to hygiene conditions in the painting section by providing all workers with protective equipment that reduces exposure to chemical agents to inappreciable levels.
- Purchase and installation of defibrillators in all areas and facilities of the Irizar headquarters.

Clothing and equipment:

All clothing and equipment used is compliant with the specific UNE Regulations. Personnel participate directly in the selection and improvement of the clothing and PPE. Management of the PPE is carried out using dispensing equipment that is always connected with the supplier, thus allowing to have an unlimited System for ordering PPE with full traceability.

Measures and investments in 2019 and future plans

In addition to all the health and safety activities that are carried out on a regular basis, and the aforementioned investments, it is worth highlighting the new investments made during 2019:

Occupational risk prevention management

- Start of the multi-year development project of the new OHP management programme and transfer of data from the current system to the new one.
- Corrective maintenance Intranet-web application.
- New project for registration and grouping of all climate control equipment in the existing industry files.

Ergonomics:

- Acquisition of two exoskeletons for the plant where the final assembly of the integral coaches takes place. Ekso and Noonee.
- Work on the Omer elevator, to expand gap between platforms for better accessibility.

Hygiene:

- New air conditioning control system in the production plant and offices on the ground floor. Plant evaporators in the sheet metal area.
- Nederman suction plate installation improvements.
- Automation of paint booths to optimize resources: SAT, Parts Cabin and all structure painting booths.
- Facilities to improve thermal comfort with evaporating plates.
- Control substitution and improvements in the suction of the reinforcement area in the plant.

Security:

- Adequacy of the implementation of new regulations and subsequent revision of the industry in fire protection installations. Fire-fighting equipment (sprinklers) cabin painted structure finished.
- Paint booth lifting platforms: Placement of a chain entrapment detector at the outlet of the reducer (prototype P2A).
- Improvements in the acoustic signalling of fire protection equipment

Digital transformation or industry 4.0:

Throughout 2019, the steps started in 2018 towards digital transformation or industry 4.0 were continued with the incorporation of:

- Communications of equipment or critical processes to areas involved in them, Paint booths for: painting of structures, SAT and Parts.

As we said at the beginning, we consider Irizar to be a benchmark in Hygiene and Ergonomics-Comfort Measures, and we hope to continue in this line, with the involvement of all workers. Thus, among the objectives planned for 2020 to improve working conditions and facilities, we highlight:

- Continue with the multi-year development project of the new OHP management programme and transfer of data from the current system to the new one.
- Environmental improvements in the manhole cover area, with air renewal with heat exchanger and suction table for rock wool fibres.
- Capture and management of energy consumption
- Trolley for input of engines the plant where the final assembly of the integral coaches takes place.
- Conveyor for Maderas car in the Previo plant area
- Cover in the chassis inspection area
- Training of workers (metal collective agreement)
- Training in Health and Safety for all people: new recruits and other people who already work at Irizar (temporary and members).

4.6.3. Other health and wellbeing services

a) **Medical attention** for persons (occupational and emergency). Irizar provides all its people with comprehensive medical and care services. In the facilities, we have a medical service, which has the necessary means to carry out measures for the prevention of general health problems, such as occupational illnesses, maintenance of occupational health, and diagnosis and treatment of acute illnesses related to injuries and accidents.

Periodic medical check-ups are carried out with the health monitoring service according to the protocols established as a form of health prevention.

b) **Physiotherapy service.** We also have a daily physical therapy service in the facilities as a preventive measure for postural and ageing problems.

c) In addition, Irizar personnel are provided with **private health care and dental insurance** through leading companies in Spain with excellent coverage. As an additional service, it offers the option of providing medical and dental coverage to direct family members under absolutely advantageous conditions.

d) Periodically, in parallel, Irizar carries out continuous work to promote healthy lifestyle habits through campaigns and advice. The aim is to convey healthy values and help improve health, both personally and at work.

To facilitate these healthy habits, Irizar makes **fruit** available to workers in the rest areas every day.

e) **Dining area.** Irizar has its own food service, offering all personnel the possibility of eating a high-quality healthy diet, including fresh products from local farmhouses and establishments. Continual improvements are made to the menu and cooking methods in the company dining area (reduced salt, oil, fried dishes, etc.). This has been extremely popular and the number of guests served in the dining area has increased significantly.

Good eating habits are also promoted through TV screens in the canteen. Among others, consumption of salad is encouraged by setting up a salad bar in the company dining area as an complementary option to the daily menu.

f) **Physical activity is encouraged**, sponsoring people participating: representing Irizar in Empresen Las-terketa (business race in Donostia) or in other sporting events (Zegama Aizkorri, Ehun Milak, etc.).

4.7. Shared leisure activities

Irizar is increasingly promoting activities outside the workplace for workers. For example, we mention some of those in 2019:

- **Photography contest:** The motivational team asked for holiday photos be sent, as it does every year. First prize went to the beautiful Canadian photograph and will be the cover of the Irizar 2020 calendar. Participants had to guess where the photos sent had been taken and the most successful guesser also won a prize.

- **Korrika:** A march held in Euskadi in support of its native language, Euskera. It is organized by the Literacy and Euskaldunization Coordinator and also seeks to raise funds for its network of Euskera teaching centres. Korrika marched past the Irizar facilities on 13 April. With the contribution in exchange for the Lur eta Amets books, 3 km were purchased and 3 people from Irizar were responsible for carrying the baton.

- **Trip to Ondarre:** We went on a trip to the Ondarre de Segura farmhouse in mid-June. We often forget to find out about our environment in modern life, and although two external partners (one English and one Korean) gave a global aspect to the group, we discovered a way of life that is very close to us. Care for sheep, cheese making, utensils ... we also had the opportunity to taste and buy cheeses and ciders.

5. Responsible with External Contractors, Supply Chain and Alliances

- 5.1. Our value chain
- 5.2. Sales, distribution and after-sales network
- 5.3. Sustainable Supply Chain
 - o Sustainability requirements for our suppliers
 - o Supply of cells for batteries
- 5.4. Purchases committed to the social surroundings
- 5.5. Logistics optimisation at the Group level
- 5.6. Other agreements and alliances
 - o R&D - Future projects
 - o Alliances and collaboration with the environment
 - o UTE for the Intelligent Electric Bus (BEI) of Vitoria
 - o AERCE (Association of purchasing, contracting and supply professionals)



5.1 Our value chain

Our entire value chain is focused on adding value to our customers and other stakeholders.

In line with our business strategy, alliances with different kinds of external partners play an important role in Irizar's **competitive sustainability**.

In addition to the different types of collaboration that we establish with external partners and the supply chain that we discuss in this chapter, we also discuss special relationships and alliances with partners in the rest of the chapters of this Report:

- **"Sustainable Competitiveness"**: United Nations Global Compact
- **"Customers, passengers and citizens"**: customers, European Commission, consortiums and agreements with other European organizations and research centres with whom we share technological innovation projects, collaboration agreements with other companies for the development of joint products or functionalities or to give a second life to batteries

- **"People"**: we summarize our collaboration with universities and training centres
- **"Environment"**: foundations and organizations with which we collaborate for the Circular Economy of our production surpluses, and participation in the public-private initiative for the largest solar park in the Basque Country.
- **"Society"**: we summarize our agreements with the social environment at national and international level.

Our aim is to continue innovating, and to address new challenges by strengthening ties and looking for collaborators with the aim of staying at the global forefront, establishing relationships and alliances with them based on Sustainable Competitiveness (Economic-Governance, Social and Environmental).



5.2 Sales, distribution and after-sales network

As we saw in section 3.1. of chapter “3. Responsible with our Customers, Passengers and Citizens”, we remain close to our customers throughout the value chain and we also include them in our internal processes.

We have our own sales and after-sales teams. In addition, we are continuously expanding our sales, distribution and after-sales network worldwide, based on collaborations and alliances with distributors and business partners, which facilitate distribution and close customer service in more than 90 countries where we operate throughout the world. <https://www.irizar.com/mapa/> presents our complete network in detail.

In Europe, which is the area of greatest influence of Irizar S.Coop., we operate in ALL countries and, where we do not have our own network, we have commercial alliances with partners based on trust, ethics and the search for sustainable shared competitiveness. Thus, in 2019, we boosted our activity through collaboration agreements in: Germany (with Scania), Switzerland and Austria (with local distributors). The after-sales network, in the EU alone, has coverage of more than 300 workshops, our own or by agreement, and they are supported by their own itinerant technicians.

We regularly run appropriate training courses to keep technicians from our extensive network of after-sales workshops abreast of innovations that are being incorporated into each model of coach so that their performance in terms of safety or repair and maintenance work is of the highest quality.

We also have training, Irizar’s online training and vehicle repair platform. This platform is intended for Irizar dealers and distributors and offers the possibility of carrying out online tests and training, along with the option to make contact with other dealers via forums.

Additionally, we have decided to implement exclusive after-sales and warranty services in the cities where electromobility solutions are incorporated, with customised R&M (repair and maintenance) packages. These are comprehensively managed and centralised by local technical experts and personnel, thus, contributing to the generation of local wealth and employment.

We are continuously expanding our sales, distribution and after-sales network worldwide, based on collaborations and alliances



5.3 Sustainable Supply Chain

Our suppliers and the rest of our external partners are able to offer products and services that help us improve our brand and our competitive position, which makes them key links in our supply chain.

We enable a high level of integration with suppliers while developing our products and processes by mobilising and exchanging knowledge, specialisation, technology and resources. We encourage and promote setting up effective alliances by making the most of the various actors' experience and strategies. A noteworthy example of this is our alliances with key suppliers for integral coach components, without which the progress we have made in consolidating our strategic commitment to these vehicles would not have been possible.

With the main suppliers, we establish what we call "logical management per coach", for which these suppliers are integrated in the daily management of Irizar: production planning, purchase orders, merchandise received, and continuous customer revisions regarding confirmed specifications and corresponding items by coach.

Our **alliances with suppliers** include customer service during the life of the vehicle, covering both the guarantee of its parts and the after-sales service that required. So our suppliers are present in our sales and after-sales network.

Supply Chain Sustainability is the management of economic / governance, social and environmental impacts, throughout the life cycle of our coaches, buses and services. The objective of Supply Chain Sustainability is the long-term creation, protection and cultivation of: the environment, social and economic value for all stakeholders with which we participate in bringing products and services to the market.

For this reason, Supply Chain Sustainability is a key component of corporate Sustainability, and Irizar promotes and supports **responsible processes for the acquisition of raw materials and services**. In general, and before any agreement is signed, new suppliers undergo analyses and certification to assess their sustainability performance. The objective is none other than to guarantee that, in addition to complying with the law, our suppliers and, in turn, their suppliers are governed by our standards of sustainability in the supply chain, based on the the Principles of the UN Global Compact (human and labour rights, environment and anti-corruption).

In addition to establishing lasting relationships with suppliers that are competitive based on the parameters of a classic business relationship (quality, cost, service and innovation), we are committed to reducing social, ethical and environmental risks in the supply chain. We strive to work closely with suppliers and partners for compliance with our sustainability principles and also in their businesses. For us, it is essential that our suppliers and business partners have the same sustainability standards that we have established for ourselves.

In terms of product quality, for many years we have developed quality assurance tools, supplier audit systems, and deviation feedback. We organise regular meetings with the main suppliers to guarantee compliance with the established annual indicators, which we also use to expand the culture of Sustainability, ensuring transparency and increasing efficiency in the supply chain.

The objective of Supply Chain Sustainability is the long-term creation, protection and cultivation of: the environment, social and economic value for all stakeholders with which we participate in bringing products and services to the market.

Sustainability requirements for our suppliers

Our sustainability standards have defined the requirements that our suppliers must meet, according to the contractual agreements signed. The most important requirements include the prevention of child labour, establishment of ethical standards and anti-corruption policies, and commitment to environmental protection.

In addition to asking the supplier to present certifications of legal and regulatory compliance, the current contractual agreements include the sustainability terms that appear in the box on the right and that the supplier must guarantee. We are driving our suppliers to meet these sustainability requirements. In order to ensure that they are implemented, the relevant processes shall be established jointly and monitoring shall be performed in regular meetings held with the Supplier.

Supply of cells for batteries

The Irizar Group develops and manufacture the batteries incorporated in plug-in electric and hybrid vehicles of our brand and technology. Supply of cells for batteries As these are materials whose extraction poses a potential risk of human rights violations, we are in constant contact with suppliers to increase the level of transparency in the cell supply chain.

We are aware of our responsibility for ensuring that the components we receive from suppliers are manufactured under sustainability principles, thus counteracting social and environmental risks in the supply chain. We promote compliance in this regard with our cell suppliers and we monitor their progress and audits (their own or through third parties) of their mineral suppliers.



Our cell suppliers have joined the **RMI (Responsible Minerals Initiative)**, which is one of the most widely deployed and respected resources among companies in a range of industries that address responsible mineral purchasing issues (from conflict-affected and high-risk areas) in their supply chains. <http://www.responsiblemineralsinitiative.org/about/>

Our goal for the future is to continue redesigning battery development and manufacturing processes to make them more sustainable.

Human and labour rights

- Respect for the personal dignity, privacy and rights of each individual
- No one on their staff is subject to forced or compulsory labour
- They do not tolerate or use child labour
- They do not tolerate discrimination in employment for any reason: sex, age, race, national origin, religion, disability, sexual orientation, union or political affiliation.
- They do not allow, practise or support acts of physical, verbal, sexual or psychological harassment, abuse or threats in the workplace.
- They do not tolerate human trafficking
- Their workers enjoy decent conditions
- Fair wages and benefits are provided
- They support freedom of association and collective bargaining
- They provide safe and healthy jobs for all employees. The same applies to work that may be performed by third parties or companies in other different facilities.
- They promote active policies in matters of health and safety, to ensure maximum protection against risks.

The Environment

- Prevention or at least minimising environmental risks and excessive resource consumption. This includes, among other things:
 - o energy efficiency of products or services,
 - o criteria in the selection of materials,
 - o prohibitions on specific substances
 - o recovery or reuse of containers or packaging recycling delivered components.
- Operating with an environmental management system certified under ISO 14001, EMAS or other similar standards (or proof that they are working towards such certification).

Anti-Corruption

- Fighting effectively against corruption in all its forms, including extortion and bribery

Forms of corruption: Money laundering, insider dealing, falsification of documents, fraud, payment of commissions or bribery, embezzlement, tax fraud, influence peddling, abuse of power, conflict of interest, obstruction of justice, etc.

We are pushing our suppliers to meet these sustainability requirements. In order to ensure that the sustainability policy is implemented, the relevant processes shall be established jointly and monitoring shall be performed in regular meetings held with the Supplier.

5.4 Purchases committed to the social surroundings

We can emphasise our firm commitment to the environment, since our **purchases from companies in our province** (Gipuzkoa) of materials and services have continued to increase, reaching 16% in 2019.

We maintain excellent **stable relationships with suppliers** that are organizations for social purposes::

- **KATEA:** An organisation aimed at work and social integration for disabled people in Gipuzkoa. 51 people worked for Irizar S.Coop. in different activities in 2019, 6.1% of our workforce.
- **IKASLAN:** Foundation whose purpose is education, training and socio-technical development of young people, preferably in the territorial area of the Goierri region. It provides metal pieces and sub-assemblies to Irizar.
- **GUREAK:** An organisation that manages work opportunities for disabled people in Gipuzkoa. They do assembly for lighting devices.
- **HAZLAN:** A social integration company that includes people in the Bidasoa region who have difficulties incorporating themselves into society into its business activities. They do sewing.

5.5 Logistics optimisation at the Group level

The Irizar Group, through its logistics area, is immersed in a project to adapt and reallocate routes with the main objective of optimising the resources dedicated to the transport of goods to improve efficiency and costs, as well as reduce environmental impact.

It is an ambitious project aiming to minimise shipments, to optimise container and trailer content, and seek route synergy. In 2018, we started identifying the routes to be used, as well as the countries and regions involved, dividing them into three categories: sea, air, and ground shipments.

In 2019 we started improving the consolidation and occupancy of containers from Europe to Irizar Brazil, with a minimum of 40% of cargo consolidation. The improvement was 3.19% compared to 2018, which meant a reduction of CO2 emissions of 0.17%.

The level of air transport was also reduced, decreasing urgent air shipments as much as possible, resulting in a 0.12% reduction in emissions due to optimization throughout the air logistics chain.

In 2020 we will continue reducing CO2 emissions, optimizing routes and implementing actions to continue increasing container occupancy to 45-55%, both for Brazil and Mexico (78% of maritime shipments). We also plan to carry out an analysis of the situation in land parcel transport, to take improvement actions.



5.6 Other agreements and alliances

In addition to all the agreements and alliances that we have already addressed, in this or other chapters of the Sustainability Report, we can also highlight:

I+D - Future projects

As we have already seen extensively in the chapter “Customers, Passengers and Citizens”, we are actively engaged, together with large European brands, research and development centres in important European and national projects, in shaping the future of sustainable mobility in cities and public transport.

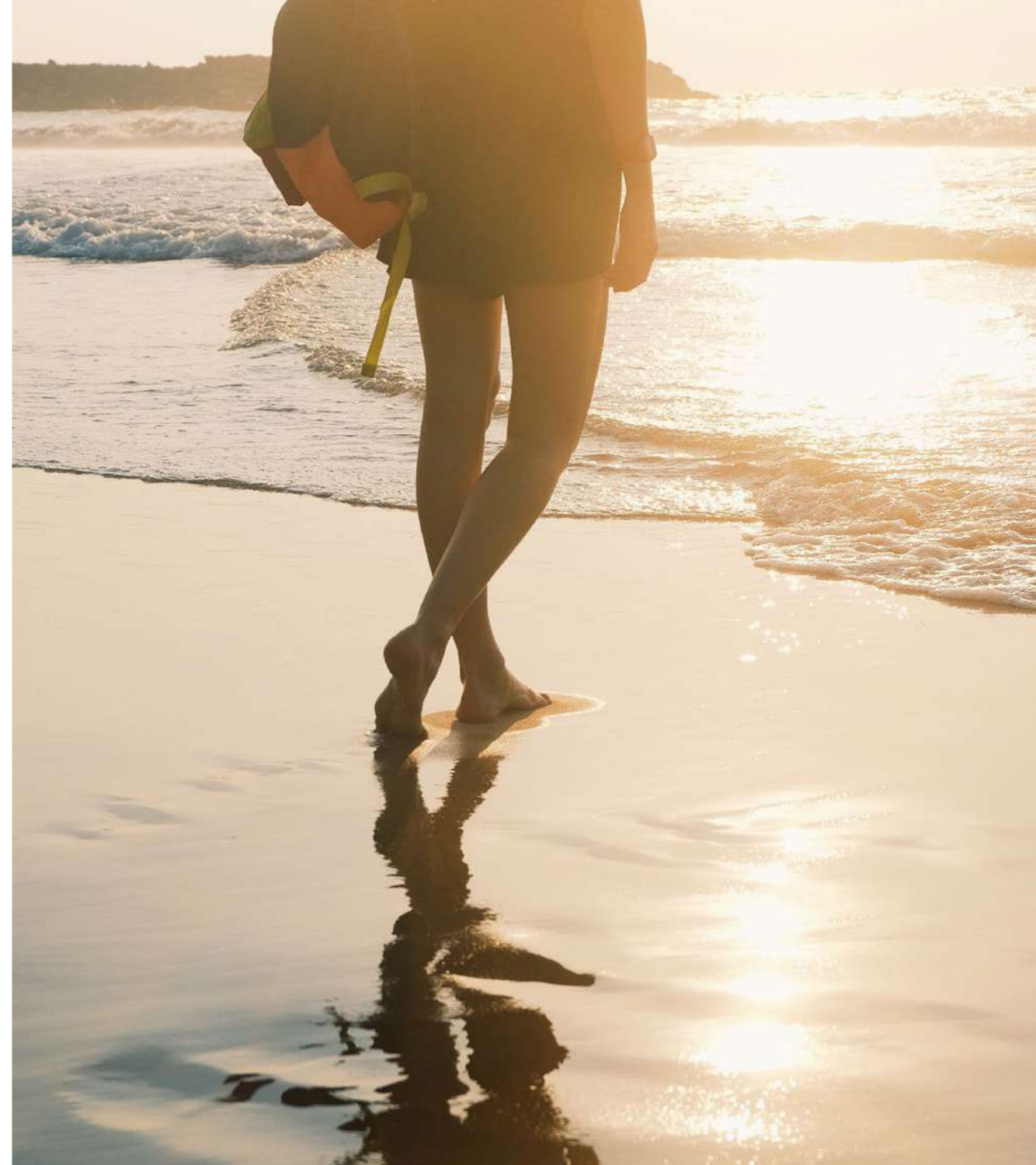
We have the Creatio R&D Centre (Irizar Innovation Centre), located at the Group headquarters, dedicated to enhancing the capabilities of applied research and technological development in cooperation among the different Irizar Group companies, for proprietary products as well as for the main coach components. Projects led by CREATIO also have the collaboration of external partners.



In addition to these activities, within the Group, we collaborate with external technology and research centres to complement our knowledge and technology: CEIT, CIDETEC, CIKATEK, IDEKO, IDIADA, INSIA, IK4-AZTERLAN, IK4-LORTEK, LEARTIKER, TECNALIA, VICOMTECH, etc., continuously striving to strengthen the Group while improving sustainable competitiveness. This cooperative work contributes to the improvement of existing products, development of new products, and cutting-edge solutions in all the business areas in which we are present.

There are notable **Framework Agreements for collaboration** with technology centres:

- **CIDETEC:** in strategic projects on energy storage that enable business development of the Irizar Group
- **TECNALIA:** mainly on power electronics and electric powertrain projects. Both agreements will strengthen Irizar's technological development and promote competitive market advantages.



Alliances and collaboration with the environment

It is worth mentioning that Irizar belongs to:



Clúster de Automoción de Euskadi - ACICAE: is the organisation whose purpose is to dynamise the Basque automotive industry and make cooperation between Basque companies possible in order to provide a group response to the significant challenges facing the sector. It is considered the first automotive cluster created in Europe. Since its inception in 1993, it has evolved rapidly and has contributed to the six fold growth in turnover in the Basque automotive sector over the last twenty-five years, exceeding 19,311 million euros and 100,000 people around the world.



Clúster de Movilidad y Logística MLC ITS Euskadi: is a private not-for-profit association. Its goal is to improve the competitiveness of its members, companies and agents in the Basque country that work in the fields of logistics and supply chain, mobility, and infrastructures for both people and commodities. The companies and bodies doing work in the sector in the Basque country account for 4,882 million euros and 31,309 people.



Goierri Valley: We are a tractor company of this alliance for the industrial transformation of the Goierri region of Gipuzkoa (where Irizar S. Coop. is located), through the real and active collaboration of the member companies, sharing knowledge and innovating to guarantee industrial competitiveness and future sustainability for our local area. The companies included in this alliance are made up of 7,500 workers in the fittings, mobility, lifting, energy, electric motor, transport, machine tool, and other sectors.

UTE for the Intelligent Electric Bus (BEI) of Vitoria

In 2019 Irizar e-mobility was awarded the Vitoria Intelligent Electric Bus (BEI) project contract. The project includes the deployment of the first 100% zero-emission electric line in the city, for which the UTE (Temporary Business Union) was established. In the UTE Irizar is collaborating with the construction company Yarritu and LKS, which will carry out the engineering works, civil works, signalling, communications, etc.

AERCE (Association of purchasing, contracting and supply professionals)

Since purchasing management is a fundamental element to guarantee profitability and sustainable competitiveness. Irizar belongs to AERCE (Association of Purchasing, Procurement and Procurement Professionals in Spain). AERCE is a professional association that brings together purchasing managers for medium and large companies, and whose purpose is the promotion, dissemination, and training of techniques and the application of appropriate methodologies for proper and effective management of company purchasing, contracting and procurement.



6. 6. Responsible with the Environment

- 6.1. Environmental framework and priorities
- 6.2. Sustainable Products + Eco-innovation
- 6.3. Environmentally Sustainable Production
 - 6.3.1 Resource consumption efficiency
 - Consumption of Natural Resources
 - • Consumption of Chemical Resources
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- 6.4. Sustainable supplier management
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 - 6.5.1 Air Quality and Maximum Energy Efficiency
 - First fully sustainable energy electromobility factory in Europe
 - 6.5.2 Promoting sustainable mobility
- 6.6. Contribution to environmental sustainability
 - 6.6.1 Environmental training and awareness raising - people, customers and suppliers
 - 6.6.2 Waste minimization campaigns
 - 6.6.3 Participation in Events with external collaborators on the environment



6.1 Environmental framework and priorities

Our commitment to the environment dates back to 1998 when Irizar became the **first European coach manufacturer to obtain ISO14001 certification**. In 2000 we were the first major Spanish company to win the **European Quality Prize** (awarded by EFQM), whose evaluation also took into account environmental criteria (use and consumption of resources, conservation, emissions into the atmosphere, waste and recycling, recyclability of coaches, etc.).

Irizar e-mobility is also demonstrating its environmental commitment by moving towards ISO14001 certification in 2020, and is focusing its efforts on minimizing polluting substances and the impact of its vehicles on the environment.

From those first steps in which we brought environmental aspects into our activity to the present day, Irizar has evolved and increased its commitment to protecting the environment and achieving more sustainable and efficient ways of working and products. Our continuous progress, as environmental pioneers, is reflected in this and in previous Sustainability Reports.

The most significant **principles governing Irizar's environmental policy include the gradual reduction of CO2 emissions and contaminating substances**, as well as the introduction of environmental criteria in the design of its products, encouraging a spirit of respect towards the environment among its people, employees and partners.



Irizar environmental policy

- The generation and use of more and more renewable energy in our plants.
- The incorporation of Best Available Technologies (BAT) in our manufacturing processes.
- The constant search for the best solutions for achieving the maximum reduction of VOC emissions. We can highlight our firm commitment to incorporating water-based paint into all our painting processes and recycling 100% of the solvents used in the painting process.
- Eco-efficiency and Eco-innovation - The implementation of measures for progressively reducing the environmental impact of the product.
- Responsible energy consumption and reduction of consumption, minimizing the emission of CO2 into the atmosphere.
- The promotion of the commitment of the people and deployment of the environmental management system in all the plants.
- Promotion, transparency and efficiency of resources throughout the supply chain, directly influencing suppliers.
- Support initiatives and campaigns with special emphasis on meeting the sustainability criteria in the extraction and processing of raw materials.
- Circular economy projects, focused on optimizing consumption and minimizing waste with landfill disposal, maximizing reuse or recycling.

6.2 Sustainable Products + **Eco-innovation**

As explained in chapter “3. Responsible with our Customers, Passengers and Citizens”, we develop and manufacture proprietary premium brand and technology products with a holistic approach to protect the environment. All our efforts are aimed at minimising the emission of pollutants and the impact of our vehicles on the environment. Among other aspects we address:

- Reduction of fuel consumption and TCO (total operating cost) for the customer, thus reducing environmental impact.
- We are advancing in offering pioneering solutions to the different mobility needs of the future around the world. Reducing the impact of our vehicles and eliminating greenhouse gasses and noise emissions is our priority. All this in line with the Paris Agreement and the European Green Agreement.
- First company in the sector worldwide to achieve the Environmental Product Declaration (The International EDP System) certification. This represents an unmistakable step in our advancement towards being a European benchmark and a leader in eco-innovation and eco-design throughout the Product Life Cycle.
- Sharing opinions, experiences and discussing the customer’s sustainability concerns (economic-governance, social and environmental).
- Eco-driving courses and efficient driving manuals for our customers.
- Second life and recycling of batteries
- Careful management of resources and recyclability
- Safety
- Etc.

All our efforts are aimed at minimizing the emission of pollutants and noise and the impact of our vehicles on the environment



6.3 Environmentally Sustainable Production

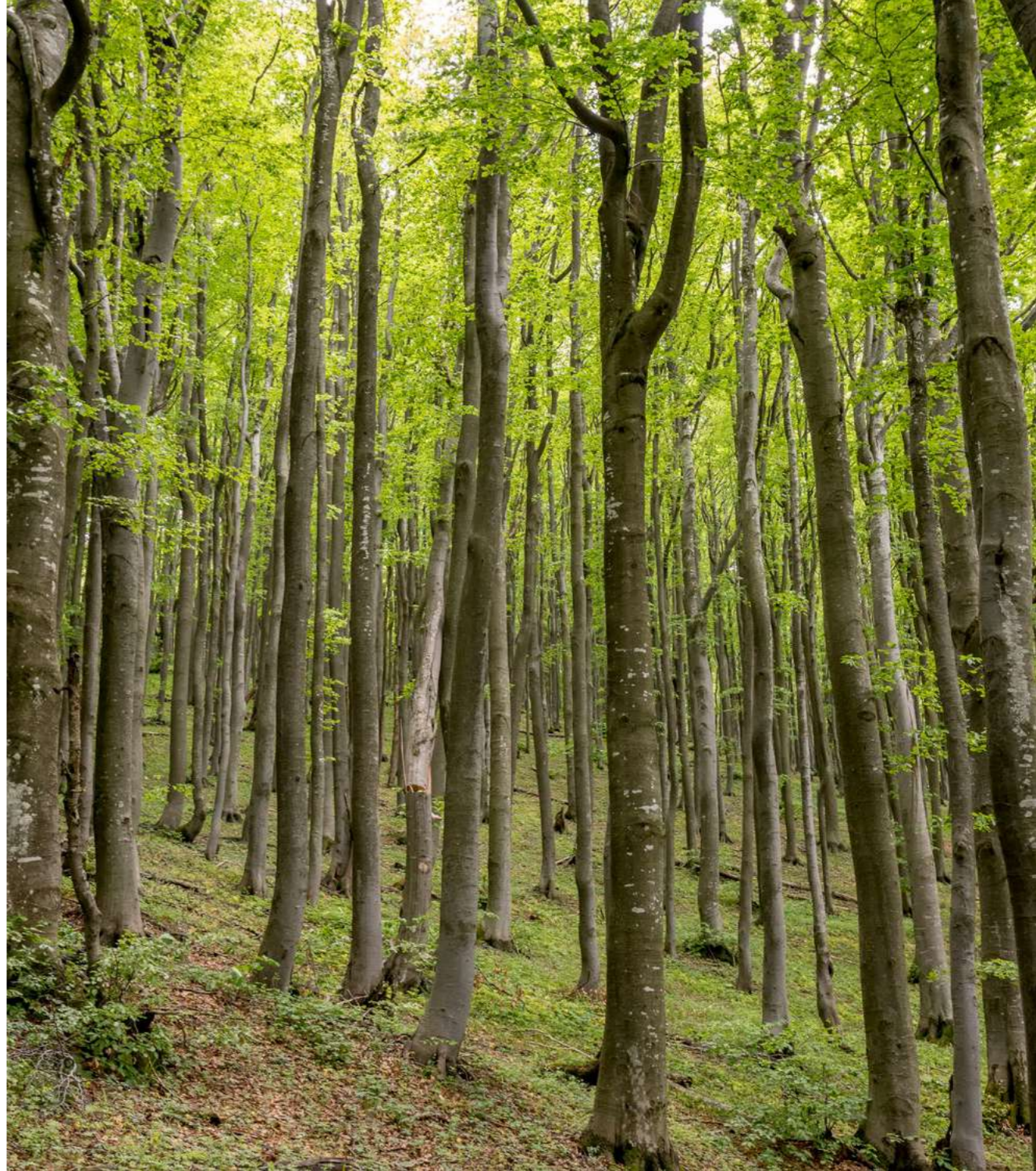
At Irizar we consider that integrating sustainability principles into our own way of working is just as important as responding to the demand for more sustainable buses and coaches. We measure the continuous progress of our environmental commitment by monitoring and controlling management indicators related to consumption of materials, waste generation, etc., maintaining our final objective of optimizing the resources we use, seeking to be efficient and reduce the generation of waste and discharges.

The **Image Project** is contributing positively to environmentally sustainable production. Since 2007, it has established order and cleanliness criteria for different work areas in our facilities, with continuous analysis and monitoring of what happens on a daily basis. The scope of this Project includes actions to identify operational improvement measures, good practices, awareness, etc. The objective is to work in a different, safe, efficient, effective and environmentally responsible way, always guaranteeing quality of work. In addition, it involves the participation of all Irizar people.

Another of the measures that we already started in 2016 focuses on the preparation of specific and detailed **Good Practice Manuals** for each work area, prioritizing those processes or operations considered critical, among which are those with the greatest environmental impact.

We research possible improvements **to reduce environmental impacts** associated with production, through studies aimed at understanding the environmental impact of our facilities: reduction of emissions, waste, competitive advantage, etc.

Along these lines, at Irizar we believe that we must continue to advance in the management model of the Circular Economy (one of the seven emblematic initiatives that are part of the Europe 2020 strategy) as a system for the use of resources where reduction, reuse and recycling of the elements are priorities.



6.3.1 Resource consumption efficiency

We pursue the reduction of **materials in the value chain** based on materials control measures. Thus, the components used in each work station can be understood and monitored, by adjusting needs to orders as much as possible and minimizing excess materials that may remain in the production line.

We carry out exhaustive management and monitoring of the consumption of natural resources and of the chemical products used.

Consumption of Natural Resources

Consumption of Resources			
Year	Water (m3/bus produced)	Electrical power (kWh/bus produced)	Natural Gas (kWh/bus produced)
2013	9,29	6292,81	9090,48
2014	9,72	5655,24	7914,71
2015	10,68	5240,75	8201,92
2016	8,98	4832,85	8184,06
2017	9,60	4810,74	8207,32
2018	8,84	4682,95	8618,53
2019	9,87	4698,32	8341,00

Water consumption

In 2019 it increased due to the change in one of the painting processes that led to a more thorough cleaning of the structures prior to painting.

Electricity consumption

There has been a gradual decrease in electricity consumption since 2013, thus confirming the effectiveness of the Energy Efficiency Measures Plan launched in 2013.

Natural gas consumption

In 2019 there was a decrease of 3.22% in consumption compared to the previous year, due, to a large extent, to the measures applied during the last year in relation to the improvement of our energy efficiency.

Consumption of chemical resources

Consumption resources

Year	Paint consumption /m2 treated surface (kg/m2)	Solvent consumption /(m2 treated surface (kg/m2)
2013	0,404	0,231
2014	0,347	0,196
2015	0,493	0,163
2016	0,450	0,163
2017	0,479	0,139
2018	0,510	0,158
2019	0,461	0,131



Paint consumption

In 2019, the consumption of paint per square metre of surface treated was also reduced, specifically by 9.61%. This reflects that the work carried out in the implementation of the paint management plan and the different productivity factors (decrease of high-end coaches mainly, decrease of integrals, etc.), have led to a general decrease in consumption of products and resources, including paint consumption.

Solvent Consumption

During 2019, solvent consumption fell considerably, with a decrease of 17.72%, to the lowest figure in recent years. This shows that the Solvent Reduction Plans put in place since 2007 are having a remarkable and positive effect, and we are contributing **directly to reducing emissions of volatile organic compounds**, such as:

- o Formulation and development of **new water-based technologies**
- o Establishment of a product control methodology
- o Continuous audits by the supplier and Irizar
- o Continuous training of workers
- o Investments to improve storage facilities
- o Renewal of work equipment for more efficient equipment, etc.


6.3.2 Reducing the production of waste and discharges

Applying measures that guarantee more efficient consumption also enables us to act in reducing waste. To achieve this, we consider it essential to understand the materials used in each process of the manufacturing chain and, thus, to adjust the quantities of materials that we use during the production processes. In addition, the environment area works with purchases, supplies and warehouse, to reduce the amount of packaging or commit to returnable materials.

The Image Project also manages surplus production and surplus or obsolete materials, by reintroducing them into the process or looking for another alternative way out, through exhaustive control of all the material found in the production lines. To achieve this, periodic audits are carried out for critical materials, reallocation of surplus materials in cars on each line, etc.

Waste generation

Waste Generation (kgr/coach)		
Year	Hazardous waste	Non-hazardous waste
2013	241,40	1191,07
2014	234,68	1184,57
2015	286,37	1236,19
2016	285,30	1211,22
2017	306,75	1157,06
2018	320,52	1020,62
2019	352,36	998,90



Generation of hazardous waste

The rate of generation of hazardous waste per bus has been increasing in recent years, including in 2019, with an increase of 9.93% compared to 2018. This increase is due to the new preventive maintenance measures implemented, mainly the inclusion of a new evaporative device considered a BAT (Best available technology) for the treatment of process water.

Generation of non-hazardous waste

In 2018, there was a decrease of 2.16% compared to 2018. The decrease is mainly associated with the environmental management plan and the implementation of different circular economy projects and partnerships with organizations, in which the objective of optimizing the supply, storage and use of materials in production, seeking alternatives to the landfill disposal of discarded materials, and improvement in the sorting of hazardous and non-hazardous waste directly generated and collected in the plant.

Improvements in discharges

Irizar has invested to equip itself with the Best Technologies available for water treatment, prior to its discharge. It also carries out continuous awareness campaigns to reduce consumption and discharges.



6.3.3 Minimizing soil contamination

Irizar has identified all the points of its production that risk soil contamination, with specific control and prevention measures to minimize and even eliminate the risk.

Likewise, in accordance with the commitment to continuous improvement, innovations and alternatives offered by the market for the inclusion of new measures in the annual action plan are reviewed and studied annually.

Among the most notable measures is the application of a superfloor treatment to the floor. This treatment closes pores in the floor surface, by means of mechanical treatment, thus reducing its permeability and minimizing the risk of contamination associated with production.

6.3.4 Promoting the Circular Economy

The Circular Economy is a model that prioritizes the use of resources and the reduction of raw materials. This system thus becomes an alternative to the current extraction, production, consumption and disposal model – the linear economic model. It proposes a paradigm shift in the use of resources and in relation to the environment: maintaining the life cycle of products and materials for as long as possible; reducing waste to a minimum; and reintroducing resources into the production cycle, seeking a second life for waste and surplus production.

To do this, the 7Rs concept is necessary – in which products are designed to be reused.

ECONOMÍA LINEAL



ECONOMÍA CIRCULAR



In the previous sections we have addressed eco-innovation (redesign) and reduction of consumption and waste. In chapter “3. Responsible with our Customers, Passengers and Citizens”, we talk in more detail about: eco-innovation (we consider environmental factors as a further criterion when making decisions in the design process of our products), reducing, recovering and recycling batteries. In chapter “5. Responsible with our External Contractors, Supply Chain and Alliances” we also discussed repairing.

We highlight other lines of work in this section:

Re-use

We try to find a second life in the plant itself for waste that cannot be reintroduced into the production chain. We have reused products such as leftover LED strips that cannot be used in new coaches for LED lighting in new rooms; and we have used discarded seats to create new seats in meeting rooms.

Recycling

In 2019, sorted collections of **new waste fractions were implemented**. An example is the collection of the WEEE fraction (Waste from electrical and electronic equipment), installing different collection points for electrical material throughout the production plant. This waste is delivered to an authorized manager who recycles them to provide them with a second life.

Likewise, continuous contact is maintained with suppliers to allow traditional materials to be replaced with others with a more sustainable end of life. An example of this is our replacement of plastic cups in all vending coffee machines with compostable cups, which also includes the “no cup” option to prevent the generation of the corresponding waste.

At the Irizar Group we are convinced of the benefits of knowing how to integrate the **Circular Economy concept internally and in close collaboration with other organizations**. We are therefore looking for ways to reuse, including externally, surplus production and waste. This has led us to undertake various projects in collaboration with other associations and organizations:

- **Creation of Izir - Irizar's Circular Economy brand:** At the end of 2019, Irizar's own brand, Izir, was created, for products created from surplus production.

Its innovative nature lies in the incorporation of social commitment into this project. In collaboration with the **EMAUS** foundation, a non-profit organization dedicated to various social and environmental projects, a line of merchandising products is being created from textile waste from the factory. The surplus fabrics from seats, interior linings, etc., are collected separately, and sent to the **Eko-Centre**, a textile workshop that employs people at risk of social exclusion, where merchandise is created with the Izir brand.

The creation of the first deliveries of "Izir" products has allowed us to reduce 1500 kg of waste. We estimate that annually we could avoid the generation of 3,000 kg of waste, in addition to the economic and environmental costs associated with its management and treatment.

We are continuing to work to make new merchandising products with the brand.

- **Collaboration with UGLE** (Alto Urola Vocational Training School), a post-compulsory social initiative education centre. Irizar has donated materials for reuse by students at the UGLE facilities: different work tables and shelves, which are no longer used by Irizar and go to UGLE for a second life.

- **CIRCULAR MARKET.** In 2019 Irizar, collaborated with TEC NUN-University of Navarra in the development and start-up of this platform for the sale or donation of out of use items. Circular Market is a collaborative platform to connect companies, with the aim of helping them create value in their operations. It allows them to turn waste and by-products from one organization into the raw material of another organization. It also allows users to: connect to make joint purchases, share resources and services. What it offers: reduction in environmental impacts, significant cost and energy savings, and ability to create new jobs and business opportunities. www.circularmarket.es

Irizar collaborates with this new platform by hanging unused products: concrete blocks, rubber cut-outs, carpet remains, polyester scraps, etc.

- One of our last actions was to join **TERRACYCLE**, in 2019, an organization dedicated to the collection of certain materials to give a second use and that rewards those collected with points that we will reinvest in social actions. In our case, we want to shortly launch an action aimed at collecting the used writing materials from our staff: pens, correctors, highlighters, etc.

We are convinced of the benefits of knowing how to integrate the Circular Economy concept internally and in close collaboration with other organizations.



6.4 Sustainable supplier management

The enormous importance that we give in Irizar to the management of sustainable suppliers is already discussed in detail in chapter "5. Responsible with our External Contractors, Supply Chain and Alliances":

- Sustainable Supply Chain
- Sustainability requirements for our suppliers, including environmental requirements
- Supply of cells for batteries

In addition, the environment area participates in environmental audits of suppliers. Note that in 2019 there was a visit to the Hazardous Waste Manager, Ecoiruña, as well as one of the main upholstery suppliers with the aim of: Reviewing and advising on the correct storage and sorting of hazardous and non-hazardous waste management.

6.5 Fight against climate change

Climate change is already a reality and all social, economic and public agents must join forces for its mitigation. We are in a new stage of climate transition in which the Irizar Group, from its sustainability strategy, has also been working to contribute to the fight against Climate Change.



6.5.1 Air Quality and Maximum Energy Efficiency

The limited nature of traditional energy sources, energy dependence on foreign countries and environmental impact are aspects that have made us consider plans aimed at achieving the energy efficiency of our organization. Plans that, in order to be effective and reliable, cannot address reduction alone: they must show a route towards the complete transformation of economies following the Sustainable Development Goals.

Energy efficiency is based on optimizing energy consumption, through the implementation of measures that minimize energy losses and on adjusting energy consumption. In this sense, the new European guidelines have set new goals, focused on the one hand on achieving reductions in energy consumption by promoting energy efficiency and, on the other hand, on reducing greenhouse gas emissions.

At Irizar, we have carried out various actions in recent years focused on transforming conventional forms of energy consumption and commitment to achieving energy efficiency:

- replacement of conventional lighting with low consumption lighting,
- monitoring of our consumption,
- conducting energy audits and
- installing various automation systems and devices to avoid unnecessary consumption in our facilities.
- We carry out various energy studies and analyses that allow us to identify facilities, equipment and processes in which energy consumption can be optimized.

All these improvements in our energy consumption have resulted in a reduction in consumption and also in the CO2 emissions associated with them.

We are firmly committed to investing in the Best Available Technologies that allow us to make our commitment to contributing to the fight against Climate Change into a reality, thus participating actively in the energy transformation.



First fully sustainable energy electromobility factory in Europe

In 2018, Irizar e-mobility was inaugurated, first fully sustainable energy electromobility factory in Europe. It was designed and manufactured based on eco-sustainability concepts with a type A energy efficiency certificate, the highest existing in Europe. It includes a warehouse and domestic water heating system that works by using the surplus steam from a company located in the adjoining plot.

In December 2019 it also became the first fully sustainable energy electromobility factory in Europe, thanks to the commissioning of the largest photovoltaic solar park in the Basque Country (**EKIAN**), where Irizar is one of the largest investors with 3 megawatts purchased. This is one more example of the importance that we give to the establishment of Alliances with other entities, as we have already addressed in other chapters of this Sustainability Report.

The Ekian solar park is a public private initiative promoted by the Basque Energy Agency (EVE) and KREAN and has 22 investor companies. It consists of 66,000 latest generation solar panels, 355 watts each, generating total installed capacity of 24 MW, thus doubling the current solar power of the Basque Country. At full capacity it will produce approximately 40,000 MWh per year, i.e. electricity equivalent to the electrical consumption of 15,000 families in one year and will prevent the emission of about 14,600 tons of CO2 if that energy were produced by other fossil-based energy sources.



6.5.2 Promoting sustainable Mobility

In addition to our commitment to sustainable mobility through our products (as we already saw in chapters “2. Sustainable Competitiveness: Corporate Priority” and “3. Responsible with our Customers, Passengers and Citizens”), we also promote applying these principles in our own organization. We define a Sustainable Mobility Plan to promote best practices in transporting the people who work in Irizar, with the use of public transport and other more sustainable means.

In 2019, agreements with bicycle supply companies were implemented, to make subsidized electric bicycles available to Irizar people at very competitive prices. Also in 2019 we launched the IRIKLETA project, with the adaptation of our parking facilities and charging areas for electric bicycles with photovoltaic energy generation.



6.6 Contribution to **environmental sustainability**

At Irizar we are convinced that the progress that we are all making to achieve a more sustainable and environmentally friendly world, as the main guarantee for future generations, necessarily entails a change of mentality in our current forms of consumption. Hence, in addition to the continuous training of people in the environmental area, we give special importance to the development of training and awareness-raising campaigns, both internally and externally.

6.6.1 Environmental training and awareness raising - people, customers and suppliers

People

- We usually conduct training and awareness sessions aimed at our workers in sustainable mobility, promoted by the EVE (Basque Energy Agency) and focused on efficient driving.
- All new people who join our organization are provided with an Efficient Driving Manual, inviting them to play an active part in our commitment to sustainable mobility.
- In 2019, in meetings of the ELC (Customer Line Team), attended by all the staff, we discussed the "Importance of good waste sorting in industry".
- Also in 2019 training was delivered on Good Practices in the Inspection of the underneath of coaches along with people from a provider.

Customers

In chapter "3. Responsible with our Customers, Passengers and Citizens", we already discussed:

- eco-driving courses for our customers, and
- the efficient driving manuals that we include in all coaches.

In addition, in 2019 we prepared a specific briefing Dossier for customers on the certified Environmental Product Declaration (also addressed in Chapter 3).

Suppliers

The environment area has delivered different training sessions to staff from various cleaning providers, those involved in the Image Project (discussed in section 6.3.) Or painting:

- Order and environment
- Management of hazardous waste and goods
- Training in Good Practices in painting of structures, under-carriages and denitrosing



6.6.2 Waste minimization campaigns

As an integral part of our Circular Economy project, internal awareness campaigns are conducted for all Irizar people with the aim of optimizing sorted waste collection as much as possible so that landfill disposal is minimized.

6.6.3 Participation in Events with external collaborators on the environment

We understand that publicizing how we work at Irizar to move towards a more environmentally sustainable world and our own experience in the application of good environmental practices, we can encourage other organizations to join this new stage of ecological transition and a new development model. This is why we also attach importance to our participation in different Fairs and Conferences focused on learning about the experiences of organizations that work in this regard. For example, in 2019 Irizar participated in:

- the conference 'Sharing resources to generate value', organized by TECNUN-University of Navarra, as part of the CIRCULAR MARKET project (discussed previously), in which Irizar participated in the round table sharing the experience in the Circular Economy.
- invited by the Ser channel to recount its Circular Economy success stories in industry.



Responsible with Society in general

- 7.1. Our committed approach to Society
- 7.2 The Irizar Group wins the Prize for Excellence
- 7.3 Annual tribute to retirees.
- 7.4 Activities related with our sector
- 7.5 Educational Activities
- 7.6 Cultural Activities
- 7.7 Sport Activities
- 7.8 Development cooperation Activities



7.1 Our committed approach to **Society**

The Irizar Group ultimate mission is the unequivocal commitment to the growth and creation of wealth and employment, with personnel in the local environments and countries where we are present. Consistent with this, as can be seen in more detail in the chapters dedicated to Sustainable Competitiveness and People, the best reflection of our strategic commitment to Sustainability with Society are the charts on evolution and **job creation** in the environments where we operate.

“Our relationship with society will be respectful, open and participatory, helping to create wealth and employment, culture, education, and sport in our immediate environment, as well carrying out social work in our immediate surroundings and in the world’s most disadvantaged areas.”

Therefore, in keeping with this strategy, we make great efforts, both financially as well as dedicating Irizar personnel, to contribute to building a better socio-economic environment and a better society of which we are an integral part.

Furthermore, as we saw in the chapter on “External Collaborators, Supply Chain and Alliances”, also from the responsible management of our supply chain, we can highlight our high commitment to the immediate environment (Gipuzkoa) through: high volume of purchases in the province and, to facilitate the employment of more disadvantaged people with the collaboration of social support organizations.

In the chapter on People we also saw that we work with training centres and universities in the area.

As part of our commitment to society, we allocate more than 1.5 million euros a year to non-profit activities related to: our industry, education, culture, sport, and primarily domestic and international social cooperation. Not only to boost global development, but also as an avenue for internal growth. The criteria for selecting and specifying the duration of support according to the scope of each collaboration project are determined through the Irizar Company Board, and all employees are informed through the communication channels established for this purpose.

The most significant lines of activity in recent years are listed below, particularly new initiative introduced in 2019.

7.2 The Irizar Group receives the **Excellence Award**

In November, 2019, the Irizar Group was awarded the Prize for Excellence in the Company category at the 2nd edition of the Radio San Sebastian Awards.

The Radio San Sebastian Awards for Excellence are honours that publicly distinguish and recognise people, companies and institutions in Gipuzkoa who excel in their field and are role models in their environments.

This award coincides with the Irizar’s 130th anniversary at a time when they are in a strong and stable financial position that lets them keep advancing and developing new services and solutions to continue guaranteeing a more sustainable future in economic, social and environmental terms.

Gorka Herranz, President of Irizar, proudly accepted this prize: “It’s very important for us that you thought about Irizar when you brought out our evolution and current position at the forefront of the bus and coach sector. This is an award for the perseverance, and I think doing things right, for many years for the people who have been a part of Irizar and those of us who are working here now. After 130 years, we’re still making headway in this more and more competitive world and we’ve got a lot of challenges in front of us.”



7.3 Annual tribute to retirees

In 2019, retirees attended their annual reunion to receive the tribute that Irizar has been paying them for many years. They enjoy a full day with their friends and colleagues and always bring up memories and anecdotes about old times, while still maintaining a bond with people and business knowledge that have been part of their lives for years.

As in every year, retired people that year were presented with a sculpture. Products from the Izir Circular Economy project were distributed to all others.

7.4 Activities related with our sector



Through **APRAT** (Traffic Accident Rescue Professional Association), we participate in activities aimed at improving knowledge about coaches amongst public and emergency service professionals when they must intervene in accidents involving coaches.

We have enabled a coach as a demonstrator that we humbly offer for different social initiatives. In 2019, for the third year in a row, it was used as a mobile classroom for the “**Kultura Digital@**” campaign in 5 towns in Gipuzkoa. It was an educational awareness raising campaign promoted by the Regional Government of Gipuzkoa to foster the creative use of technology through teaching programming at an early age (8-16) and, in this way, foster technological pursuits. Data on the number of participants in the workshops offered, the impact of the programme on the media, as well as the degree of satisfac-

tion continues to be clearly positive, which strengthens our conviction of the relevance and suitability of the programme in the future.

In 2019 (as we already saw in the chapter on external contractors and alliances with the environment) we have continued to collaborate actively with the **Goierri Valley** initiative, an industrial partner in the metal-mechanical sector that is leading the industrial transformation of the Goierri Valley (where Irizar S. Coop. is located).

Every year we also sponsor several sectoral associations: Asetra, Aetram, Atuc, Fecalbus, Fenebus and Consorcio de Madrid for the purpose of promoting and positioning bus and coach as a mode of transportation that is necessary for the future.

7.5 Educational Activities



Irizar collaborates in various ways within the field of education.

We actively engage in activities with the objective of sharing our experience with society and generating concerns that may be reflected in the progress of other organisations, educational centres, and people. We do this through the organisation of open days at our facilities and through participation in external conferences (in universities and business schools) and discussion forums among various national and international organisations. In all these forums, it is becoming increasingly relevant and more demanded that we share how we approach Sustainability at Irizar.

Each year, we continue to sponsor the “**Journey of Life**” cycle for the summer courses at the University of the Basque Country. The event is a continued learning and open training cycle, as well as a reflection on the world in which we live with the aim of contributing as much as possible towards shaping a better and desirable future.

Along with town councils and other companies, Irizar is a member of the **Goierri Foundation**, whose social purpose is the technical, economic and social training and development of the Goierriarra region, which is home to the town of Ormaiztegui.

Irizar participates in the **Goieki Business Incubator**, whose objective is to support and promote the emergence of new business initiatives in the Goierri region.

In 2019 Irizar, for the fifth consecutive year, was a mentor company for the **STAR-Tinnova** pedagogical programme sponsored by El Diario Vasco and aimed at the entrepreneurial development of young people. Aimed at youth between 16 - 17 years old who are studying their baccalaureate and/or undertaking vocational training, the programme encourages entrepreneurial attitudes and promotes greater contact between educational centres and the business community.

A year on, we are still collaborating in the “**Universal design for learning in complementary schooling programs**”, through two projects with UGLE-Urola Garaiko Lanbide Eskola and Peñasal S.Coop. intended for students aged 14 to 16, who have specific educational support needs due to their personal conditions or school history.

7.6 Cultural activities



We support cultural and traditional activities in our immediate environment.

Irizar is actively involved in promoting the use of **Euskera (Basque)**, to increase its use and standardisation, both internally through the Basque Language Plan as well as socially by sponsoring different organisations and activities, including: Kontseilua, Kilometroak, Nafarroa Oinez, Ibilaldia, Araba euskaraz, etc.

In addition to our annual sponsorship of the **Irizar Basque Film Award** at the **San Sebastian International Film Festival**, we also sponsored the shooting of the film “Lur eta Amets”.

With the aim of contributing to the dissemination of **Music**, Irizar collaborates with different entities, among which is the annual sponsorship of the Orfeón Donostiarra, with which it has had a relationship for more than a decade.

There are also collaborations with traditional **Basque music and dance** through Euskadiko Dantza Txapelketa.

In 2019, for the fifth year in a row, Irizar collaborated with the **Albaola Basque Maritime Factory**, to build historical ships in an innovative space where artisanal ship building techniques are revived and appreciated.

We are continuing our collaboration with the **Museo Zumalakarregi** of Ormaiztegi, a service of the Provincial Council of Gipuzkoa, whose purpose is to bring the general and specialised public closer to the 19th century in the Basque Country, a period of great social, cultural, economic, and political changes, and the beginning of the contemporary world.

7.7 Sport Activities



We maintain several types of **annual sponsorships**, including:

Kirolgi Foundation. A non-profit organisation for the promotion and development of Gipuzkoan sport, focused on performance sport.

Guipuzcoan sport at the highest level in: football (Real Sociedad), basketball (Gipuzkoa Basket Saskibaloia), rugby (Ordizia Rugby taldea), men’s handball (Bidasoa) and women’s handball (Bera-Bera).

Teams, competitions, and regional tournaments in: athletics, Basque rural sports, mountain sports, cycling, as well as sports activities and championships carried out in the local area of Ormaiztegi.

They put a lot of emphasis on **traditional Basque sports**, including collaboration with Xistera – Association of Basque Jai Alai Clubs,

Lasarte Racecourse, annual sponsorship of the Irizar Award for the winner of the horse race of the inaugural session.

Increasing presence in **adapted sports and women’s sports**. Where we can highlight collaborations with:

HEGALAK Zabalik Fundazioa: “Programme for improving the quality of life for dependent people who are disabled and/or have an illness, through re-adapting physical activity in Gipuzkoa” and the “Programme for swimming without barriers on the Concha beach in San Sebastian”.

Adapted Sports Federation of Gipuzkoa. Through the “Comprehensive project of adaptive and inclusive physical activity aimed at children and young people with physical disabilities in Urola Garaia and Goierri”.

Wheel chair basketball “Zuzenak”.

Women’s handball club **Bera Bera**.

The **futbol femenino Goierri Gorri Futbol Klub**, women’s football initiative that brings together and strengthens these teams in the Goierri region.

7.8 Development cooperation Activities



We place a high priority and make the largest economic contribution to sponsoring various not-for-profit social and assistance entities.

We collaborate with around **30 associations that work locally and throughout the province**, including:

- **Large associations** that we collaborate with on specific projects, such as the Food Bank.
- Provincial associations, mainly **patient and family associations**
- From the cancer prevention AECC-Association to **associations for rare diseases**: Butterfly Skin and Stop Sanfilippo.
- Associations that care for the **elderly**.

Along with those already detail in education and adapted sports, in 2019, are the **disability support projects** carried out with Gureak Fundazioa: “Employability of people with Asperger” and “Ni Zu Bezala-I am like you” (to demonstrate a positive and active vision of disability to the Gipuzkoan children’s population).

We cooperate internationally through projects with **25 NGOs** in order to contribute to the promotion of education, health, and gender equality, as well as the eradication of poverty, hunger, and inequality.

In addition to continuing with projects already mentioned in previous Sustainability Reports, we would like to present the most significant projects in which we continued to collaborate in 2019:

- **Fundación Vicente Ferrer**: Quality inclusive education programme for girls and boys with disabilities in the states of Andhra Pradesh and Telangana (India)



[Vicente Ferrer Foundation Acknowledgement Video](#)

- **Médicos Sin Fronteras**: Goyalmara Maternity and Child Hospital (Myanmar)



[Doctors without Borders Acknowledgement Video](#)

- **UNICEF**: Nutrition and necessary services for the most vulnerable children and women (Central African Republic).



[UNICEF Acknowledgement Video](#)

