



# SUSTAINABILITY REPORT 2020



Let's take care of the environment. Print this document only if necessary.

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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.

# 1. Letter of engagement of the CEO of the Irizar Group



When I took on the role of CEO of the Irizar Group in September 2019, there was no hint of this unprecedented crisis. 2020 has been a complicated year, of great uncertainty and, personally, a year of great challenges and opportunities that we have been able to face with the collaboration and major effort of all those who are part of Irizar.

2020 will go down in history as the year of Covid-19, a period of inaction that marks a change in the upward trend in the productive and economic activity of the Irizar Group. Tight restrictions on public transport and general mobility to control the spread of the virus have hit this sector hard, especially medium- and long-distance passenger transport, as well as international tourism.

Covid-19 has imposed a very complex management environment on us; it requires us to balance different needs: in the short term, to protect the health and safety of people and their families, in the medium and

long term, to guarantee the sustainability of the business and the continuous generation of value for all our stakeholders.

Through this report, once again I want to confirm our unwavering commitment to moving forward in the implementation of the **10 Principles** (relating to Human Rights, Labour Standards, the Environment and the fight against Corruption) and to increasing our ambition to contribute to the Sustainable Development Goals of the **2030 Agenda**. In the report, we transparently present the main initiatives and progress in the actions that we are carrying out with our stakeholders. We are therefore ratifying our adherence to the **Global Compact** and our commitment to this initiative, with which we are fully identified. This is the framework that gives us the opportunity to reinvent ourselves, emerge stronger and generate positive impact for our stakeholders, by integrating the three dimensions of sustainability: economic-governance, social and environmental.

**We have stayed very close to our customers and have supported them where necessary.** We have developed significant innovations, directed towards the reactivation and recovery of the sector. More than 10,000 buses and coaches are already fitted with these Irizar Innovations that meet with the necessary safety and hygiene standards and thus help to prevent the spread of the virus.

**Our greatest source of pride and the best evidence of our real commitment to Sustainable Competitiveness, in line with our Mission, is to have maintained employment even in the greatest difficulties with sharp drops in sales suffered by the Irizar Group.** In the economic crises of both 2009 and 2020, we have protected the employment of the people who make up the Irizar Group. We have done this by acting collaboratively and being more supportive than ever. We have also improved communication and training with the aim of continuing to prepare ourselves for the challenges of the future.

We want Irizar to become a global player in urban, medium- and long-distance sustainable mobility, which is why we continue to include sustainability as a key value for the future in our strategic plans. We seek out solutions with high technological content that allow our customers, who undoubtedly guide the targets that we set ourselves, to operate the services they provide more efficiently and sustainably. We have no

doubt that the future will involve smart and sustainable public transport, as a fundamental solution for the sustainability of the planet. Reducing the impact of our vehicles, eliminating emissions of greenhouse gases (GHG) 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 approach, we are focusing on the entire life cycle of our vehicles, from development, starting with the extraction of raw materials, their production and use, to the end of their service life.

**Overall, I am very proud of the robust way in which all those of us who are Irizar people have acted.** Our goal is to continue being an attractive company for talent - to generate quality jobs. All within a culture and business approach of integrity that is governed by Ethical Principles.

We are also facing a difficult 2021, but with the progress in vaccinations it seems that we are starting to see signs of recovery. We have no doubt that the future will involve smart and sustainable public transport.

**At Irizar we are optimistic and we are prepared to resume our objectives with vigour and return to the path of growth,** always providing the appropriate technology, the value of a solid brand, agility and adaptability, closeness to customers, collaboration with suppliers, and with the incredible commitment of the people who make up the Irizar family.

We are excited to be able to contribute our grain of sand to the construction of a more sustainable World, and to do so in the good company of all our stakeholders. It is time for companies, governments and society to join forces and continue working towards a sustainable reconstruction for the good of all of us. An opportunity to open the way to change and lead it together.

Let's go for it!

A handwritten signature in black ink, appearing to read 'Rafael Sterling', written over a light blue horizontal line.

# 2. Irizar and Sustainable Competitiveness

Contributing to the SDGs and the UN's 2030 Agenda:  
Priority SDGs



- 8.1. Maintenance of economic growth
- 8.2. Raising productivity through diversification, technology and innovation
- 8.5. Achieving full employment and decent work
- 8.7. Eradication of slavery, trafficking and child labour
- 8.8. Protection of labour rights and safe work



- 9.2. Promotion of inclusive and sustainable industry
- 9.4. Infrastructure modernisation, clean technology
- 9.5. Increase in scientific research, technological capacity
- 9.B. Development of national technology and research in developing countries.



- 11.2. Providing access to public transport
- 11.6. Reduction of environmental impact in cities



- 12.2. Achieving the efficient use of natural resources
- 12.4. Management of waste and chemicals
- 12.5. Prevention, reduction, recycling and reuse of waste
- 12.6. Adoption of sustainable practices in businesses
- 12.8. Ensuring education for Sustainable Development
- 12.B. Achieving sustainable tourism



- 13.1. Strengthening resilience and adaptation
- 13.3. Improving environmental education and awareness

## Cross-cutting SDGs



- 5.1. Ending discrimination
- 5.5. Ensuring the full participation of women and equal opportunities in leadership



- 16.2. Eradication of child abuse, exploitation, trafficking and exploitation
- 16.5. Reducing corruption and bribery
- 16.7. Promoting citizen participation
- 16.10. Access to information and fundamental freedoms
- 16.11. Promotion and application of laws and policies (HR)

## 2.1. About us

- Irizar S.Coop. and its business Group
- Strategic thoughts: Mission, Vision and Commitments
- Brand, technology and sustainability

## 2.2. Our Sustainable Competitiveness

- 2.2.1. Sustainability as a strategic priority
- 2.2.2. Our global reference frameworks
  - o 10 Principles of the United Nations Global Compact
  - o The 2030 Agenda and the 17 United Nations SDGs
- 2.2.3. We are a responsible organisation
  - o We include sustainability in our strategy and management
  - o Moving Forward in Transparency, Good Governance and Integrity.
  - o We establish alliances and partnerships to promote sustainability

## 2.3. Committed to the Principles of the Global Compact

## 2.4. Committed to the SDGs of the UN's 2030 Agenda

## 2.1. About us

### **Irizar S.Coop. and its business Group**

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

The Group consists 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, Irizar today is a well-established Group made up of more than 2866 people in 2020, 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 of 433 million euros in 2020, due to the effect of Covid-19 (766 million euros in 2019, a record year), the Group has a commercial presence on five continents and has 22 of its own companies.

Most of the Irizar Group's turnover, despite its growing diversification, is fundamentally based on the manufacture and sale of buses, coaches and components.

**Irizar, S. Coop (Irizar)** 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.

2020 will go down in history as the year of Covid-19, a period of inaction that marks a change in the upward trend in the productive and economic activity of the Irizar Group, as reflected in the charts in section "2.2. Our Sustainable Competitiveness".

Although this Sustainability Report has been produced by 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 Mexico

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 road transport and passenger companies. Its market share has grown and now stands at 66%.



### 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 and for the main coachwork components.

### Irizar

Wide range of biodiesel, natural gas (CNG and LNG) 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

Air conditioning systems for buses, coaches, and railway vehicles.



### Irizar Brasil

In 1998, Irizar Brasil was created, in the town of Botucatu, with the objective of breaking into 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 international level, and is a 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 services to New Zealand and Australia.

### Datik México

The Datik branch in Mexico responds to the huge 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 France

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

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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 full-day meeting is held with all the people of Irizar dedicated to reinforcing 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. We create value for our People". The in-depth review of Irizar's strategic thoughts was planned for 2020 but had to be postponed due to the pandemic. **Sustainability will be one of the key issues in accordance with our strategic lines and commitment to sustainability mobility.**

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

### Mission

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Our mission is to 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 and offering them the guarantee of a sound 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 differentiates us from our competitors and enables us to earn their loyalty.

What's more, we strive to maximise satisfaction among Irizar Group employees, our external partners, and for society as a whole.

We work and will continue working in Irizar S. Coop's cooperative framework and in a framework of communication and participation in the management and results of the other group companies.

### Vision

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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.

### Commitment

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

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."





## Brand, technology, and sustainability

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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 chapters "3. customers, passengers and citizens" and "5. external partners, supply chain and alliances", we will now briefly summarise what we understand by **brand and technology**:

- Our strategic lines include the development of Irizar branding 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 the knowledge of the entire group, aimed at the Premium segment. We offer turnkey solutions for sustainable, efficient, smart, accessible, safe and connected public transport. Design and innovation are part of Irizar's DNA.
- We have become an important benchmark in coaches and buses and have established ourselves in markets where we currently operate. And we are continuing to develop and deploy a wide range of products and technological solutions to suit all needs: 100% electric buses, diesel coaches, biogas, natural gas, HVO, hybrids, biodiesel and B100. An extensive range of options covering all market segments, urban and suburban buses and medium- and long-distance coaches for both regular and discretionary and premium; in an integral Irizar brand version or in a combination of the body with chassis available on the market. We are continually expanding our range of products, such as the future coaches that we are developing based on hydrogen and an energy vector or in new renewable fuels.
- Creatio, the Irizar Group's Research and Development Centre enhances the Group's capacity for applied research and technological development for its products and systems. It brings together the synergies and technological capabilities of the Group companies and is the result of the constant commitment to industrial innovation as a key part of the Irizar Group's strategy.

- Innovation is one of the hallmarks of our corporate identity. It is part of our culture and extends to products, management, service, image, sustainability and technology. We encourage innovation and creativity not only in what we do, but also in how we do it. So we are constantly progressing, at Group level and in each of the Group's individual organisations. We are not only increasingly 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 and apart from being a strategic priority, as we will see, it influences the focus and management of the other two.



## 2.2 Our 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. We are convinced that in the long term companies can no longer choose between profitability or sustainability, there is no profitability without sustainability.

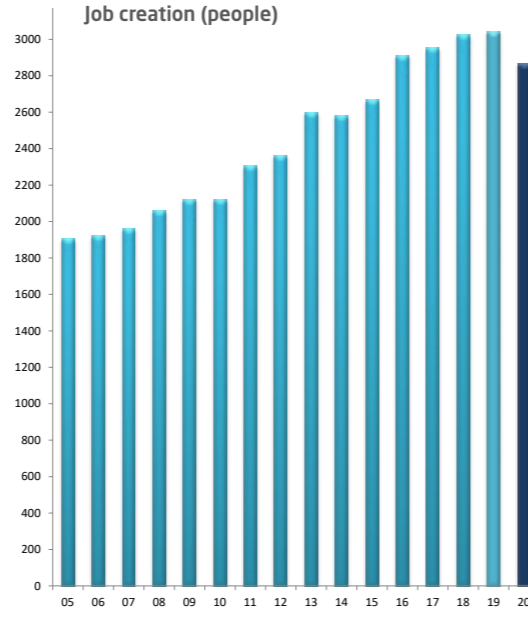
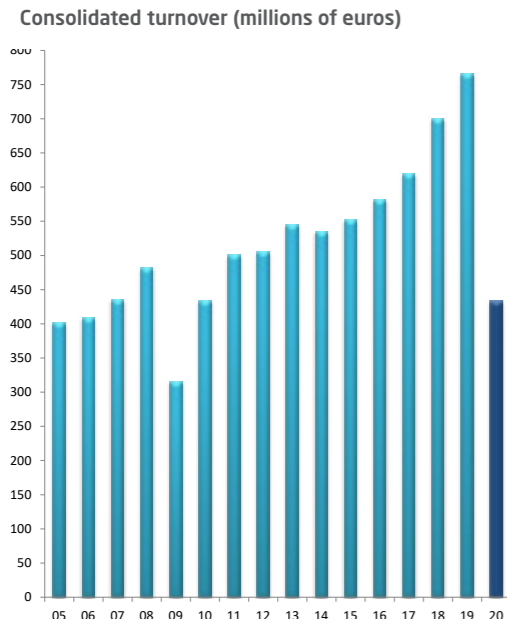
Sustainability has been one of the three fundamental priorities of our Group's future strategy for many years, and it drives us forward and commits us to working by contributing to the construction of a better and more sustainable World. Because we understand that the future is must be sustainable or there will be no future.

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. Our actions seek to promote it and integrate it into our strategy and operations in all the Group's production plants and companies at international level.

**Sustainability is required as an important competitiveness factor for sustainable growth and an essential competitiveness advantage for the future of Irizar.**

The following graph is the best **evidence of our real commitment to Sustainable Competitiveness** (economic/governance, social and environmental) and reflects consistency with our Mission.

Evolution of turnover and employment in the Irizar Group



**Despite the sharp drops in sales experienced by the Irizar Group, in the economic crises of both 2009 and 2020, we have practically maintained the employment of the Irizar Group's people, and we have improved communication and training with the aim of continuing to prepare ourselves for the new challenges of the future.** We understand that economic development and job creation are fundamental in our commitment to sustainability, even in the greatest difficulties.

The main focus of the Irizar Group, despite its growing diversification, is based on the manufacture and sale of buses, coaches and components. So, although in 2020 there has been a 56% drop in consolidated turnover compared to 2019 (a record year), it has also been a year of opportunities and advances at the level of strategic positioning, in which we have also reaffirmed our focus on sustainable mobility as the guideline for our future growth.

2020 will go down in history as the year of Covid-19, a period of inaction that marks a change in the upward trend in the productive and economic activity of the Irizar Group. Tight restrictions on public transport and general mobility to control the spread of the virus have hit this sector hard, especially medium- and long-distance passenger transport, as well as international tourism.

The fall in passenger volumes had an uneven effect in the different market segments: practically 100% of discretionary transport, except for school and personal transport; around 60% in interprovincial transport and 40% in urban and commuter transport. Consequently, there has been a collapse in bus and coach registrations in Europe, over 60% in discretionary and medium- and long-distance regular lines and 30% in intercity-school. In the specific case of Spain, the decreases are 90% in discretionary transport (disappeared except for school), 70% in regular lines and 50% in commuter lines, an average fall of 54%.

In this context, at Irizar we have continued to reinforce the three strategic lines for the future. Our motto **"Moving Forward"** continues to inspire us and reflects the spirit of those of us who make up the Irizar Group. We have therefore taken advantage of this period of inaction to further consolidate our position, customer proximity strategy and our brand, always with an eye to the future. We have redoubled efforts to create even greater customer proximity and adapt to their new situations, by committing to more sustainable and efficient solutions.

**At the Irizar Group, we are prepared to come back strongly to target our objectives and return to the path of growth.**

## 2.2. 1 Sustainability as a strategic priority

We want Irizar to become a **global player in urban, medium- and long-distance mobility**, which is why we continue to include **sustainability as a key value for the future in our strategic plans**. We also seek out solutions with high technological content that allow our customers, who undoubtedly guide the targets that we set ourselves, to operate the services they provide more efficiently and sustainably.

We have no doubt that the future will involve public transport, **as a fundamental solution for the achievement of sustainability**.

Reducing the impact of our vehicles, eliminating emissions of greenhouse gases (GHG) 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 approach, we are focusing on the entire life cycle of our vehicles, from development, starting with the extraction of raw materials, their production and use, to the end of their service life.

Along these lines, we are continuing to collaborate with our **stakeholders** in the generation of shared and sustainable long-term value, by including the three dimensions of sustainability: **economic (and governance), social and environmental**:

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



A process aimed at **integrating their concerns (in our strategy and operations)**: social, environmental and ethical, respect for human rights (in all links of our supply chain), in order to:

- Maximise the **creation of shared value** for all the aforementioned stakeholders;
- identify, prevent and mitigate their possible adverse consequences and risks.

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. All within a culture and business approach of integrity that is governed by Ethical Principles.

We are convinced that our sustainable action inspires confidence in both leaders and stakeholders and generates a competitive advantage in times of change and uncertainty and, at the same time, allows us to address the economic, social and environmental challenges faced by Humanity and the Planet.

In the following chapters (3. to 7.) we see in detail how we generate value for each of our stakeholders.

## 2.2.2. Our global reference frameworks

Our sustainable business model is inspired by the largest voluntary World Reference Frameworks in corporate Sustainability: the 10 Principles of the United Nations Global Compact and the 17 SDGs of the United Nations 2030 Agenda. Both help us focus on **"HOW" to operate Sustainably**.

**At Irizar S.Coop. we have been signed up to the United Nations Global Compact since 2013** and we annually produce a **Sustainability Report**, renewing our firm commitment to moving to the implementation of the 10 Principles and contributing to the Sustainable Development Goals; and drawing together the main initiatives and progress on the actions that we are engaged in with our stakeholders.



This Report is a reflection of our Transparency and we are publishing it on different internal and external media through our website and the United Nations website.

<https://www.unglobalcompact.org/what-is-gc/participants/19510#cop>

### 10 Principles of the United Nations Global Compact

The 10 Principles of the Global Compact are the essential values since the birth of this United Nations initiative in 2000.

## LOS DIEZ PRINCIPIOS del Pacto Mundial de Naciones Unidas



**DERECHOS HUMANOS**



**NORMAS LABORALES**



**MEDIOAMBIENTE**



**ANTICORRUPCIÓN**

<ul style="list-style-type: none"> <li><span style="background-color: #ff9900; padding: 2px;">1</span> Apoyar y respetar la protección de los derechos humanos.</li> <li><span style="background-color: #ff9900; padding: 2px;">2</span> No ser cómplices en la vulneración de los derechos humanos.</li> <li><span style="background-color: #ff9900; padding: 2px;">3</span> Apoyar la libertad de afiliación y la negociación colectiva.</li> <li><span style="background-color: #ff9900; padding: 2px;">4</span> Apoyar la eliminación de toda forma de trabajo forzoso o realizado bajo coacción.</li> <li><span style="background-color: #ff9900; padding: 2px;">5</span> Apoyar la erradicación del trabajo infantil.</li> </ul>	<ul style="list-style-type: none"> <li><span style="background-color: #0099cc; padding: 2px;">6</span> Apoyar la abolición de las prácticas de discriminación.</li> <li><span style="background-color: #0099cc; padding: 2px;">7</span> Mantener un enfoque preventivo que favorezca el medioambiente.</li> <li><span style="background-color: #0099cc; padding: 2px;">8</span> Fomentar las iniciativas que promuevan una mayor responsabilidad ambiental.</li> <li><span style="background-color: #0099cc; padding: 2px;">9</span> Favorecer el desarrollo y la difusión de las tecnologías respetuosas con el medioambiente.</li> <li><span style="background-color: #cc3333; padding: 2px;">10</span> Trabajar contra la corrupción en todas sus formas.</li> </ul>
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These 10 Principles are the reference framework for advancing in our responsible action. They undoubtedly mark the way for us to manage risks better and avoid any negative impacts in the 4 main focus areas, with the aim of ensuring that our operations are conducted in a way that benefits both economies and societies worldwide.

The Ten Principles of the Global Compact are based on Universal Declarations and Conventions and enjoy universal consensus: They are articulated in four main areas:

**Human Rights:** Principles 1 and 2 are derived from the Universal Declaration of Human Rights.

**Labour regulations:** 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 are based on 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.

For further information on the Principles: <https://www.unglobalcompact.org/what-is-gc/mission/principles>.

Although reflecting our commitment to the 10 Principles is the main objective of this Report, in section "2.3. Committed 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 2030 Agenda and the 17 United Nations SDGs

In 2015, the Member States of the United Nations General Assembly approved **the 2030 Agenda on Sustainable Development**, consisting of 17 Sustainable Development Goals (SDGs) and different targets, to “eradicate poverty, protect the planet and ensure prosperity”. It addresses the three dimensions of sustainability: economic, social and environmental. Its goal is to make the world a more sustainable and prosperous place. The United Nations assigns a leading role to companies in its implementation. A new way to improve everyone’s life, without leaving anyone behind.

Five years later, the UN, in its Annual Report on the status of the SDGs, confirmed that progress had been made, but not fast enough to meet the targets on time. Covid-19 has only increased inequalities in the world, further highlighting the need to apply the 2030 Agenda to enable a sustainable and inclusive recovery.

For the next few years, the SDGs will stimulate action in the following **areas of critical importance for humanity and the planet**.

- **PEOPLE:** End poverty and hunger in all their forms and guarantee dignity and equality.
- **PEACE:** Promote peace, justice and inclusive societies.
- **ALLIANCES:** Implement the Agenda through a strong global partnership
- **PLANET:** Protect our planet’s natural resources and the climate for future generations.
- **PROSPERITY:** Ensure prosperous and satisfying lives in harmony with nature.

The 2030 Agenda 2030 involves **17 Sustainable Development goals and 169 targets** to be met in 2030. The SDGs focus on us creating positive impacts, contributing contributing to sustainable development and finding business opportunities.

The SDGs are the reference framework for **WHAT** to do, and they encourage us to conclude that it is not enough to do what we already do, but that we also have to change **HOW** we do it. **We need to transform, not just rebuild what was not working.**



Our progress in our commitment to the SDGs is set out in Section “2.4 Committed to the SDGs of the UN’s 2030 Agenda”. At the beginning of each chapter dedicated to a stakeholder group, the SDGs and goals with which its content is related are indicated.

Further information on the SDGs:

- <https://www.pactomundial.org/ods/>
- <https://www.unglobalcompact.org/sdgs/about>

## 2.2.3. We are a responsible organisation

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).

### We include sustainability in our strategy and management

- **Sustainability is present in strategic decision-making and daily management**, in line with the **10 Principles** of the Global Compact (see previous and next sections, as well as the remaining chapters).
- In 2018 we began our approach to the United Nations 2030 Agenda and we recognise the opportunity presented by the Sustainable Development Goals (SDGs).
- In 2020 we continued **to make progress in integrating them** (in our strategy and operations) **to contribute to the achievement of the SDGs** as a roadmap to boost the prosperity of people and the planet. We have **prioritised and are working on 8 SDGs and targets** with special impact on our activity and extensive value chain. Further details about our commitment to the SDGs can be found in section 2.4.
- In the 2020 **Annual Assemblies** where all Irizar, S. Coop people participate, we addressed sustainability within the company's overall strategy and progress (its dynamics are shown in detail in chapter 4, dedicated to People):
  - o Sustainability is an essential **key competitiveness factor** of the Irizar Group
  - o The new version of the **Code of Ethics** was presented for approval by all partners.
  - o Our **Priority and Cross-cutting SDGs** of the 2030 Agenda were presented.
- We continue to make clear progress in **training and raising awareness of people in sustainability**.
  - o Details of actions in 2020 can be seen in chapter "4. We create value for our People".
  - o We will continue promoting training in **Sustainability and SDG / Agenda 2030** (see section above) started with the Management Team, and subsequently rolled out to leaders and the other people of the organisation. The commitment to the achievement of the future objectives set is important.

- As we will explain also in the dedicated chapter "4 We create value for our People", we will conduct in-depth reviews of the **Strategic Thoughts** every three or four years, with SWOT analyses that take account of economic, social governance and environmental issues. This serves to establish priorities and define actions with the objective that the Group's strategy is aligned with everyone's expectations and thus guarantees their needs, sustainable growth of the business, and generation of value, wealth, and employment, as it reflects 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.

As we have mentioned, the next in-depth review of Irizar strategic thoughts, scheduled for 2020, has had to be postponed. **Sustainability has a fundamental role, based on our strategic lines for the future.**

- 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 all of the challenges we face. Discussions take place through regular meetings and different communication channels.
- In 2020 we maintained jobs despite the drop in our sales, due to the enormous difficulties that our sector went through.
- We continue to promote and oversee, from senior management (in collaboration with the other corporate governance bodies), **to ensure that this commitment and sustainable action**, is extended beyond the people that work at Irizar **to the rest of the stakeholders** (clients, suppliers, donors, external partners, government agencies, etc.). Because risk reduction is vital in order to guarantee our reputation and the success of the long-term corporate strategy.

## We are moving Forward in Transparency, Good Governance and Integrity.

- We continue to make progress in **Transparency, Good Governance and Integrity**. We rely on our open culture and our firm conviction that business activities that respect corporate ethics and sustainability are the only possible foundation for achieving sustained business success beyond compliance with internal regulations and applicable legislation (local, regional, national, foreign, and international).
- Throughout this chapter, we address in particular our common tools to facilitate our **Good Governance**.
- The improved version of our **Code of Ethics**, drawn up by the Governing Council together with the Executive Team, was approved in 2020 by all members of the General Assembly. The new Code of Ethics represents a further review of our Ethical Principles and Guidelines of Conduct. It is the road map and guide to daily action based on the fundamental principles (Human Rights, Labour Regulations, Environment and the Fight Against Corruption).

- **Transparency** contributes to improving our credibility, our reputation and our brand, which increases the confidence of all our stakeholders. We therefore provide them all with the information necessary for them to acquire in-depth knowledge of Irizar.

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



## We establish alliances and partnerships 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 our double link with the United Nations Global Compact: world-wide and Spanish.



At Irizar S.Coop, since 2013 we have been firmly committed to the **United Nations Global Compact**, the largest voluntary initiative for Corporate Sustainability in the world. It serves as a reference framework for all our strategic progress in Sustainability and strengthens our clear commitment to Transparency through our 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.

- Irizar S.Coop., as a partner of the Spanish Global Compact Network, **interacts with other organisations and agents (Spanish or international)**, with the purpose of generating shared competitive value and strengthening relationships with stakeholders. It participates in different activities such as: workshops organised by the Global Compact and the Government of Spain; open doors workshops at Irizar sharing experiences with companies, educational centres and universities; and benchmarking in SDGs to learn with other companies. In 2020 all these sessions had to be carried out electronically.
- At the end of 2020 Irizar S. Coop. joined the **SDG Ambition Accelerator Programme** of the United Nations Global Compact, in which we were among more than 700 participating international companies during six months. A pioneering programme with a new methodology to help set ambitious targets in SDGs (Sustainable Development Goals), integrate them into the core of our strategy and operations, and measure our progress. So that we can definitely contribute to the prosperity of people and the planet.

In addition to the active participation of Irizar representatives in the SDG Ambition programme, the CEO of the Irizar Group has reaffirmed our commitment as a high-level “Ambassador”, in monitoring our progress on the SDG Ambition. Further information on SDG Ambition can be found at: <https://unglobalcompact.org/news/4593-09-21-2020>

- Also in 2020, the CEO of the Irizar Group (together with more than 1,000 business leaders from more than 100 countries) has made visible his support for the United Nations and inclusive multilateralism by signing an ambitious **“Declaration in favour of renewed global cooperation”** to mark the 75th anniversary of the UN. The United Nations website provides an updated list of signatories: [https://ungc-communications-assets.s3.amazonaws.com/docs/publications/UN75\\_UnitingBusinessStatement.pdf](https://ungc-communications-assets.s3.amazonaws.com/docs/publications/UN75_UnitingBusinessStatement.pdf)



United Nations  
Global Compact | 20 años  
Uniendo empresas por un mundo mejor

UN75  
MÁS ALLÁ DE 2020 | FORJANDO NUESTRO FUTURO JUNTOS

## UNIDOS EN EL NEGOCIO DE HACER UN MUNDO MEJOR

### Declaración de los líderes empresariales para una cooperación internacional renovada

El 75º aniversario de las Naciones Unidas se celebra en un momento de disrupción y de transformación mundial sin precedentes, lo que constituye un claro recordatorio de que la cooperación internacional debe movilizarse a través de las fronteras, los sectores y las generaciones para adaptarse a las circunstancias cambiantes. Este mensaje surgió alto y claro de los cientos de miles de personas que participaron en los diálogos mundiales iniciados por las Naciones Unidas este año.

Frente a la pandemia de LA COVID-19 y a la situación de crisis global – que incluye el cambio climático, la incertidumbre económica, las desigualdades sociales y el auge de la desinformación- las instituciones públicas y privadas deben demostrar que son responsables, éticas, inclusivas y transparentes. Esta es la única manera de fortalecer la confianza pública y lograr un futuro más sostenible para todos.

A lo largo del tiempo, las Naciones Unidas han tratado de unir a actores de todo el mundo para hacer frente a los desafíos globales de mayor magnitud. Sin embargo, nuestro sistema multilateral se ve amenazado por aquellos que quieren actuar solos en lugar de trabajar juntos por el interés común.

Nosotros, los empresarios, reconocemos que la paz, la justicia y las instituciones sólidas son beneficiosas para la viabilidad a largo plazo de nuestras organizaciones y son fundamentales para defender los Diez Principios del Pacto Mundial de las Naciones Unidas y alcanzar los Objetivos de Desarrollo Sostenible (ODS).

En el espíritu de una renovada cooperación internacional, nos comprometemos a:

- Demostrar liderazgo ético y buena gobernanza mediante la implementación de estrategias, políticas, operaciones y relaciones basadas en los valores cuando interactuemos con todos los grupos de interés.
- Invertir en la lucha contra las desigualdades e injusticias sistémicas mediante la adopción de decisiones inclusivas, participativas y representativas en todos los niveles de nuestro negocio.
- Trabajar en alianza junto con las Naciones Unidas, los gobiernos y la sociedad civil para fortalecer el acceso a la justicia, garantizar la rendición de cuentas y la transparencia, proporcionar seguridad jurídica, promover la igualdad y el respeto a los derechos humanos

Al contraer ese compromiso, también llamamos a los gobiernos a:

- Proteger los derechos humanos, garantizar la paz y la seguridad y defender el estado de derecho para que las empresas, los individuos y las sociedades puedan prosperar
- Crear un entorno favorable para servir a los intereses de las personas y el planeta, la prosperidad y el propósito, mediante el fortalecimiento de la cooperación internacional y los marcos jurídicos nacionales
- Mejorar el multilateralismo y la gobernanza mundial para combatir la corrupción, aumentar la resiliencia y lograr los Objetivos de Desarrollo Sostenible





Tenemos la oportunidad de aprender de nuestras experiencias colectivas para **realignarnos de acuerdo con la misión de las Naciones Unidas** y dirigir nuestro mundo hacia un camino más equitativo, inclusivo y sostenible.

Estamos juntos en esto y estamos unidos en el negocio de un mundo mejor.



## 2.3. Commitment to the Principles of the Global Compact

Although in this 2020 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	WE CREATE VALUE FOR
 <b>DERECHOS HUMANOS</b>	<b>Principle 1</b> Businesses should support and respect the protection of internationally proclaimed fundamental human rights within their sphere of influence	2. Sustainable Competitiveness - Our sustainable competitiveness 4. <b>We create value for our people</b> 7. We create value for Society
	<b>Principle 2</b> Businesses should ensure that their companies are not complicit in human rights abuses	2. Sustainable Competitiveness - Our sustainable competitiveness 5. <b>We create value for our external partners, supply chain and alliances</b>
 <b>NORMAS LABORALES</b>	<b>Principle 3</b> Businesses should uphold freedom of association and the effective recognition of the right to collective bargaining	4. <b>We create value for our People</b> - Company Board, any Regulation of Internal Arrangements and Collective Agreement 5. We create value for our external partners, supply chain and alliances - Sustainability requirements for our suppliers
	<b>Principle 4</b> Businesses should support the elimination of all forms of forced or compulsory labour	2. Sustainable Competitiveness - Our sustainable competitiveness 4. <b>We create value for our People</b> - People. Key Actors in Sustainable Competitiveness - Commitment to Quality Employment 5. We create value for our external partners, supply chain and alliances - Sustainability requirements for our suppliers
	<b>Principle 5</b> Businesses should support the abolition of child labour	2. Sustainable Competitiveness - Our sustainable competitiveness 4. <b>We create value for our People</b> - People. Key Actors in Sustainable Competitiveness - Commitment to quality employment 5. We create value for our external partners, supply chain and alliances - Sustainability requirements for our suppliers
	<b>Principle 6</b> Businesses should support the elimination of discrimination in respect of employment and occupation	2. Sustainable Competitiveness - Our sustainable competitiveness 4. <b>We create value for our People</b> - People. Key actors in sustainable competitiveness - Gender equality, diversity and social inclusion 5. We create value for our External Partners, Supply Chain and Alliances - Sustainability requirements for our suppliers
 <b>MEDIOAMBIENTE</b>	<b>Principle 7</b> Businesses should maintain a preventive approach to environmental challenges	2. Sustainable Competitiveness - Our sustainable competitiveness 3. <b>We create value for our customers, passengers and citizens</b> - European benchmark in Eco innovation - Reduction of emissions, electrification and alternative energy sources 5. We create value for our External Partners, Supply Chain and Alliances - Sustainability requirements for our suppliers 6. <b>We create value for the Environment</b>
	<b>Principle 8</b> Businesses should undertake initiatives to promote greater environmental responsibility	2. Sustainable Competitiveness - Our sustainable competitiveness 3. <b>We create value for our Customers, Passengers and Citizens</b> - reduction in emissions, electrification and alternative energy sources 5. We create value for our external partners, supply chain and alliances - Sustainability requirements for our suppliers 6. <b>We create value for the Environment</b>
	<b>Principle 9</b> Businesses should encourage the development and dissemination of environmentally friendly technologies	3. <b>We create value for our Customers, Passengers and Citizens</b> - Reduction in emissions, electrification and alternative energy sources 6. <b>We create value for the Environment</b>
 <b>ANTICORUPCIÓN</b>	<b>Principle 10</b> Businesses should work against corruption in all its forms, including extortion and bribery	2. Sustainable Competitiveness - Our sustainable competitiveness 4. <b>We create value for our People</b> - People. Key actors in sustainable competitiveness - Communication, transparency and participation 5. We create value for our External Partners, Supply Chain and Alliances - Sustainability requirements for our suppliers

## 2.4. Committed to the **SDGs of the UN's 2030 Agenda**



**OBJETIVOS  
DE DESARROLLO  
SOSTENIBLE**

Irizar supports the Sustainable Development Goals

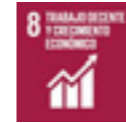
Summarising what we have already addressed earlier in this chapter regarding our Commitment to the SDGs of the 2030 Agenda:

- In 2018 **we began our approach to the United Nations' 2030 Agenda** and published our **commitment to contributing to the SDGs**.
- In 2020 we **made progress in integrating the achievement of the SDGs** in our strategy and management as they are the roadmap for boosting the prosperity of people and the planet.
  - o Although our objective is to contribute to achieving the 17 SDGs, evaluating our strategy of creating value for our shareholders, we believe that Irizar, due to the nature of our activity and extensive value chain **has greater capacity to influence the SDGs**, as explained below.
  - o At the 2020 Summer Assembly (where we addressed the global strategy and advancement of the company, open to the participation of all Irizar S.Coop people), **the CEO presented the 7 Sustainable Development Goals (SDGs) of the 2030 Agenda** that we have chosen as cross-cutting priorities.
  - o **At the end of 2020, we signed up to the SDG Ambition Accelerator Programme of the United Nations Global Compact**, in which we were among more than 700 participating international companies during six months. A pioneering programme with a new methodology to help us set ambitious targets in SDGs (Sustainable Development Goals), bring them into the heart of our strategy and operations, measuring our progress, to contribute to the prosperity of people and the planet.

As we declared previously, starting in 2021, we plan **to promote training in Sustainability and the SDG / 2030 Agenda** first for 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 as a cross-cutting facet of everyone's commitment, operations and future strategy.

### Priority SDGs

We make a direct impact through our operations



Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all people equally.



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



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



Guarantee sustainable consumption and production patterns.



Adopt urgent measures to combat Climate Change and its effects.

### Cross-cutting SDGs

These are the foundations of our commitment (with Ethics, Law and Human Rights), cutting across all internal areas and all stakeholder groups.



Achieve gender equality and empower all women and girls.



Promote just, peaceful and inclusive societies.

The **7 priority and cross-cutting SDGs** are those that, due to their importance and impact, we are going to pursue with the greatest ambition to work on Irizar's commitment to achieving the 2030 Agenda. We have therefore selected the goals of each one in order to set the most ambitious **objectives** possible, aligned with the 2030 Agenda so that we can gradually move towards achieving them.

## SDG goals to be addressed

### Priority SDGs



- 8.1. Maintenance of economic growth
- 8.2 Raising productivity through diversification, technology and innovation
- 8.5 Achieving full employment and decent work
- 8.7. Eradication of slavery, trafficking and child labour
- 8.8 Protection of labour rights and safe work



- 9.2. Promotion of inclusive and sustainable industry
- 9.4 Infrastructure modernisation, clean technology
- 9.5 Increase in scientific research, technological capacity.
- 9.B. Development of national technology and research in developing countries.



- 11.2. Providing access to public transport
- 11.6 Reduction of environmental impact in cities



- 12.2. Achieving the efficient use of natural resources
- 12.4 Management of waste and chemicals
- 12.5 Prevention, reduction, recycling and reuse of waste
- 12.6 Adoption of sustainable practices in businesses
- 12.8 Ensuring education for Sustainable Development
- 12.B. Achieving sustainable tourism



- 13.1. Strengthening resilience and adaptation
- 13.3 Improving environmental education and awareness

### Cross-cutting SDGs



- 5.1. Ending discrimination
- 5.5 Ensuring the full participation of women and equal opportunities in leadership



- 16.2. Eradication of child abuse, exploitation, trafficking and exploitation
- 16.5 Reducing corruption and bribery
- 16.7 Promoting citizen participation
- 16.10 Access to information and fundamental freedoms
- 16.11 Promotion and application of laws and policies (HR)








We plan to progressively integrate the establishment of objectives for the Priority and Cross-cutting SDGs into the strategic planning process for 2022, which will take place at the end of 2021. This is a process in which both the Management Team and key people from all areas participate.











For Sustainability at Irizar to be a strategic priority, it aims to **instil responsible behaviour** at all levels of the organisation, ensuring that the SDGs are gradually included in all areas of the company.

These commitments are what will allow us to achieve a greater positive impact on all our stakeholders.

The SDGs are interrelated, so by acting on the priority and cross-cutting SDGs, we will also impact on the others, that we call **secondary SDGs**: indirectly through our operations (to a greater or lesser extent), or because their essence is contained in other SDGs already addressed.

The following table shows how the SDGs relate (to a greater or lesser extent) to the chapters of this report.

SDGs	Sustainable competitiveness	WE CREATE VALUE FOR				
		Customers, passengers and citizens	People	External partners, supply chain, and alliances	Environment	Society
<b>Priority</b>						
						
						
						
						
						
<b>Cross-cutting</b>						
						
						

SDGs	Sustainable competitiveness:	WE CREATE VALUE FOR				
		Customers, passengers and citizens	People	External partners, supply chain, and alliances	Environment	Society
<b>Secondary</b>						
						
						
						
	Addressed in SDG 8, 12 and 13					
	Addressed in SDG 12					
	Addressed in SDG 13					
	Addressed in SDG 5, 8 and 16					
						
						
						

# 3. We create value for our Customers, Passengers and Citizens

Contributing to the SDGs and the UN's 2030 Agenda:

## Priority SDGs



- 8.1. Maintenance of economic growth
- 8.2. Raising productivity through diversification, technology and innovation



- 9.2. Promotion of inclusive and sustainable industry
- 9.4. Infrastructure modernisation, clean technology
- 9.5. Increase in scientific research, technological capacity



- 11.2. Providing access to public transport
- 11.6. Reduction of environmental impact in cities



- 12.6. Adoption of sustainable practices in businesses
- 12.8. Ensuring education for Sustainable Development
- 12.B. Achieving sustainable tourism



- 13.1. Strengthening resilience and adaptation
- 13.3. Improving environmental education and awareness

## Cross-cutting SDGs



- 16.5. Reducing corruption and bribery
- 16.10. Access to information and fundamental freedoms



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

- Irizar is customer-oriented
- Supporting them from start to finish
- Facing the impact of Covid-19 together
- Their opinion and expectations are fundamental
  - o The customer, the key factor in our future plans
  - o The customer, at the heart of our internal processes
  - o Always informed
  - o Quality and after-sales forums. Satisfaction Surveys
  - o Driver training
- Meeting us at international fairs

## 3.2. Towards more sustainable transport

- Global forces shaping the sustainable transportation revolution
- Sustainable transport technologies
- European benchmark in Eco-innovation

## 3.3. Reduction in emissions, Electrification and alternative energy sources

- 3.3.1. Irizar brand integral coaches
- 3.3.2. Hybrid Coaches
  - o Irizar brand
  - o Hybrids on chassis
- 3.3.3. Natural gas (CNG and LNG) coaches
- 3.3.4. Future innovations in our coaches

- 3.3.5. Irizar Group electromobility, zero emissions
  - o Integral electromobility solutions
  - o Range of electric vehicles
  - o The Irizar ie truck, the star of the European Business Awards for the Environment
  - o Irizar batteries
  - o Second life and recycling of batteries
  - o Careful management of resources
  - o Charging infrastructures

## 3.4. Safety and Driverless Vehicles

- 3.4.1. Safety is first
  - o SAFERIDE Project
  - o New assisted driving systems
- 3.4.2. Towards autonomous driving
  - o The first Irizar Group driverless bus in Malaga (AutoMOST)
  - o AUTODRIVE
- 3.4.3. Irizar solutions for preventing the spread of the virus on public transport
  - o Smart camera for access control
  - o Automatic vehicle disinfection without passengers on board
  - o Separation screens in the cockpit and dividing panels in passenger seats
  - o Eco3 air purifier

## 3.5. Connectivity - Big Data

- 3.5.1. Fleet manager
- 3.5.2. Maintenance

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

### **Irizar customer-oriented**

We are a well-established industrial project, with great challenges ahead. A project based on ethics, transparency and integrity, made up of people with a firm customer commitment, innovation being our sign of identity. From the conviction that the future depends on providing sustainable solutions and a commitment to the talent of people, we dedicate all our efforts to **becoming the ideal partner that will accompany** transport operators in the future.

**Public road transport is and will be key to guaranteeing mobility services and sustainability objectives**, so we continue to bet on public mobility, reducing the level of polluting and noise emissions, allowing the connectivity of means of transport for better fleet management, improving information to users and introducing new technological developments with the aim of increasing passenger safety. We judge this to be the foundation on which to build all the future projects that operators and society demand of us.

We are positioned in all sectors of public passenger transport, from occasional services to regular public commuter services, encompassing urban, medium- and long-distance and Premium routes, whilst being a leader in the sustainable mobility sector. Our commitment to providing high added value to our customers, passengers and citizens is clear in such important aspects as: design, customisation, 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 in gaining their loyalty.

The **impact of Covid-19** has been enormous on companies in the sector. We are trying to adapt to the new reality with a significant decrease in coach registrations, in orders and consequently in our production cycle. However, despite the difficulty, we are still investing in new technology projects and making sustainability an indispensable value for transport in present and future mobility. We remain committed to innovation projects that allow the development of new technologies that guarantee a future where public transport travel continues to be safe, efficient and free of emissions (pollutants and noise).



## Supporting customers from start to finish

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At Irizar we offer **personalised solutions**, designed and created to offer the best service: financing, repair and maintenance contracts and pick-up of your used vehicle. We have a help desk in each European country and a central help desk with 24h support, 365 days of the year. Customers can therefore enjoy close follow-up and advice that translate into optimisation of vehicle reliability and availability. Our integrated electronic management solutions, Irizar connectivity, fleet management and remote diagnosis result in a considerable reduction of consumption and emissions.

The coaches are fitted with **remote diagnostic systems** to anticipate and plan the management of spare parts and repairs. Likewise, they monitor the driving style of the vehicles, helping our customers to define good practice patterns 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 all TCO** (total cost of operation). Also, the residual value of our vehicles is very high, which also reduces their financing cost.

We continue to maintain a direct and close relationship with our customers through **repair-maintenance programmes** and original spare parts that contribute to improving vehicle efficiency, reducing vehicle stoppages, TCO and increasing life cycle.

## Facing the impact of Covid-19 together

Since March 2020, we have wanted to be close to our customers and to support them in whatever is necessary. We have developed significant innovations, directed towards the reactivation and recovery of the sector. The reduction in activity caused by the mobility restrictions of the Covid-19 pandemic has severely affected the discretionary, tourism and long-haul sectors.

The innovations that we have contributed include anti-Covid screens (for the driver and between passengers), Eco3 interior air purifiers, foggers for passenger compartment disinfection, smart cameras for access control (measurement of facial temperature and placement of masks). These solutions are addressed in greater detail in the section on Safety (3.4.3. Irizar solutions for preventing the spread of the virus on public transport).

From March 2020 more than 10,000 Irizar buses and coaches have been offering these innovations that meet with the necessary safety and hygiene standards and thus help to prevent the spread of the virus.

In all these solutions, Irizar has adapted to the specific needs of the different fleets through flexible fleet programmes, and with favourable conditions.



## Customer opinion and expectations are fundamental

### The customer, the key factor in our future developments

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.



### The customer, integrated in internal processes

At Irizar, we have Customer Relationship Teams deployed all over the world and Customer 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.

The **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 organisation through different channels and processes.

The dynamics of the **Customer Line Team** (ELC) 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. **The Covid-19 restrictions and people protection measures have not prevented the Customer Line Teams from meeting.**

### 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.

## Quality and after-sales forums. Satisfaction Surveys

The **monthly quality forum**, which addresses product quality, consists of the senior managers of the organisation (General Director, Industrial Director, Production Director, Commercial Directors, Purchasing Manager, Product Innovation Manager, Engineering Manager, After Sales Manager, Quality Manager, and other Commercial Equipment and Industrial Department personnel). This is an open forum, to which all Irizar personnel 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 assessment in the **after-sales forum**, the most significant incidents are transferred to the quality forum. The conclusions and decisions taken at these meetings are shared with the commercial teams, after-sales team and Quality Managers of the other Irizar Group external plants in a constant search to share learning and synergies.

There has been a clear **improvement** in product quality, which we have gradually been observing in recent years and was reflected also in 2020.

- In the management of the communication channels / analysis of warranties of Irizar's technical services.
- In the management of supplier guarantees, in their complaints, documentation, support and communication with the Industrial area.

We conduct **customer surveys** for continuous improvement: we want to check if we are meeting their expectations in terms of products and services, in order to improve those aspects that customers consider weaker and to promote those aspects they judge to be most important for the future.

**2020 has been marked by Covid-19** and strict restrictions on public transport and general mobility, which has hit this sector hard, especially medium- and long-distance passenger transport, as well as international tourism. We have redoubled our efforts to move closer than ever to our customers, to understand their situation and needs, to adapt ourselves to their new circumstances.

## Driver training

We have face-to-face **after sales** training for Irizar vehicle Drivers and repair / maintenance technicians. This training is also complemented by online 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 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. With the continuous technological advances that Irizar is implementing in its vehicles and its influence on the safety - comfort - efficiency of the vehicle, training is highly valued by the operating companies and their drivers.

In addition to training, since 2019 **"efficient driving manuals"** have been included in all coaches along with vehicle documentation.



## Meeting us at international fairs

### UMA 2020 – Nashville (USA) – January 2020

Irizar attended the United Motorcoach America (UMA) fair, held in January 2020 in Nashville, Tennessee, showing American operators the values that define the brand and the products and technology developed and customised to their needs. Nothing at that time foreshadowed the great health crisis that was coming.

### IBE 2020 Trade Fair – Rimini (Italy) – October 2020

In a situation of crisis and major uncertainty for the mobility sector generally and public transport in particular, at Irizar we decided to attend the IBE trade fair, held in Rimini, with a 650 m<sup>2</sup> stand, with the main aim of standing side-by-side with our customers and giving greater visibility to the high added value of this sector for the economy and society. The chosen motto was: *“Always by your side For a safer, more efficient and sustainable future”*.

Our stand showcased the latest generation of efficient and smart buses, represented by the 12-metre Irizar i8 integral bus, the 12-metre Irizar i6S integral bus with a wheelchair lift platform for people with reduced mobility, a 12-metre Irizar i6 on a Scania chassis, and the first e-bus, a 100% electric zero-emission bus with the Irizar brand that is arriving in Italy. A wide range of solutions adapted for the Italian market.

## 3.2. Towards more sustainable transport

Irizar has become a major benchmark in coaches and buses and has established itself in markets where it is currently present. Unsurprisingly, it continues to develop and deploy its wide range of products and technological solutions that adapt to every need: zero-emission electric buses, diesel coaches, biogas, natural gas, HVO, hybrids, biodiesel and B100. An extensive range of options covering all market segments, urban and suburban buses and medium- and long-distance coaches for both regular and discretionary services and Premium.

This coach manufacturing 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.

ECOSYSTEM OF FUTURE TRANSPORT	
Overall strengths	Transport technologies
Sustainability / Decarbonisation  Urbanisation Digitisation	Reduction in emissions, Electrification, Renewable fuels and Hydrogen as an energy vector Autonomous vehicles Connectivity

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.

The following is an in-depth review of the strengths and technologies of the transport ecosystem that we are approaching. In the following sections we explain how we are facing the three major trends in the sector at Irizar.



## The overall strengths that give shape to sustainable transport

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A climate crisis, urban population growth, and technological disruption - three of the global forces shaping a sustainable transportation revolution.

We live in a period of unprecedented change. **The turmoil caused by Covid-19 is just one example of the many challenges facing the world**, from growing social inequality to the threat of climate change. The political landscape is equally volatile. Meanwhile, global initiatives such as the European Commission's Green Deal are accelerating the transition to a sustainable low-carbon economy.

### Decarbonisation

The escalating climate crisis is a major threat to the ecosystem and society of our planet. The transport sector is one of the world's highest energy consumers and it contributes 23% of energy-related greenhouse gas emissions and 18% of all anthropogenic emissions in the world economy.

To achieve the goal of the Paris Agreement and avoid catastrophic increases in global temperatures, radical action is required from both government and business to decarbonise the transportation sector.

The European Green Deal places the energy and green transition at the heart of political action. The objectives of the programme include achieving an EU free CO2 emissions in 2050 and the development of clean, reliable and affordable energy. To achieve this, it establishes a wide package of measures that enable, among other things, advances in transport sustainability. Currently, transport consumes a third of all

final energy in the EU, with most coming from oil. Accordingly, it is responsible for a quarter of greenhouse gas emissions. The objective is, therefore, to reduce the emissions of cars, trains, boats and aeroplanes by promoting the use of cleaner, more efficient and healthy public and private transport.

At the same time, the world must guarantee that this transition is managed in a way that benefits all of society so that no one is left behind, in line with the UN 2030 Agenda for sustainable development to which Irizar is committed.

As public awareness increases and carbon legislation and policies evolve, demand from transport service providers and users for cleaner and fossil-free forms of transport grows.



## Urbanisation

The world is experiencing the largest wave of urban growth in history, and 2.5 billion people are expected to live in cities by 2050.

This population growth is far outpacing the growth of public transport services. As cities grow and become more populated, so does the pressure on urban transport infrastructure, thus increasing the risk of air pollution and other major health and environmental impacts, such as traffic noise and an increased risk of traffic accidents. There is also the risk that access to transport services will become more limited, disproportionately affecting people from vulnerable groups.

The challenges of urbanisation demand resilient transportation infrastructure and solutions that keep people and goods moving, and ensure that the cities of the future are healthy, safe, inclusive, and liveable.



## Digitisation

We are living through the fourth industrial revolution, an era of radical and disruptive technological change, in which digital trends such as the Internet of Things, robotics, virtual reality and artificial intelligence are transforming the way we live and work.

Digitisation is impacting business models within the transport sector, so that products, production processes and supply chains have to be more interconnected. Emerging technologies drive innovation and create new opportunities and risks, such as challenges to personal integrity and ethical dilemmas along the value chain.



# Sustainable transport technologies

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These global forces are creating an **urgent need for sustainable transport**: clean, safe, efficient, inclusive and resilient.

They are also shaping the tools and technologies that the transportation industry is using to respond to this demand. There are new technologies that, together, are accelerating the shift towards a sustainable transportation system: electrified, use of renewable fuels, use of hydrogen as an autonomous and connected energy vector.

## Electrified

Electrification is essential in a sustainable and decarbonised transportation system. Electric vehicles run cleanly and quietly, with zero particulate and NOx (nitrogen oxides) emissions and a very low total carbon footprint (electricity from fossil-free energy sources). Battery technology is improving rapidly and other solutions, such as fuel cell technology, are being developed.

While electrification has significant benefits for our climate and air quality, it also brings new sustainability challenges. It puts increasing pressure on the battery raw material supply chain, creating environmental and human rights risks. To be truly sustainable, these risks must be managed carefully.

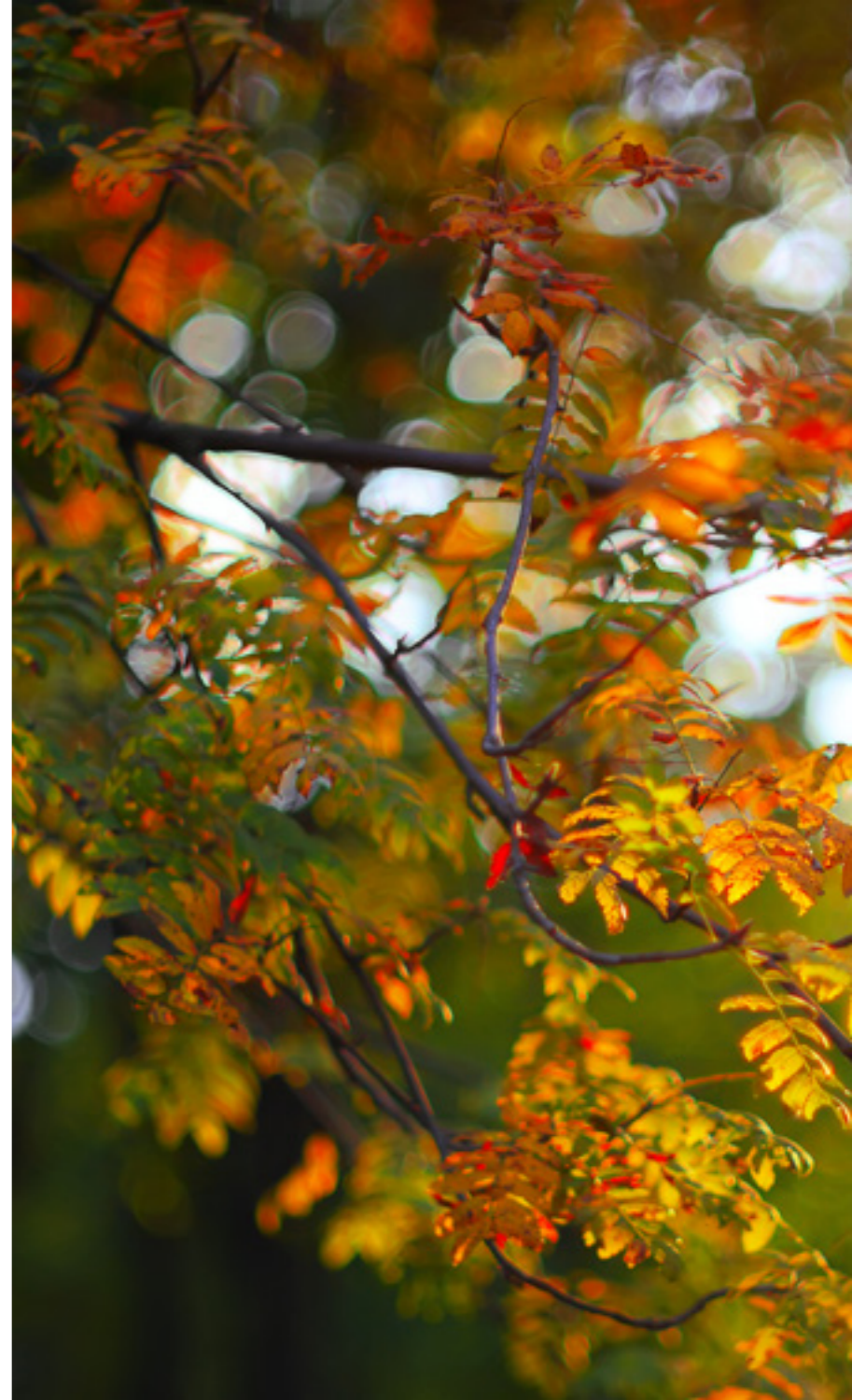
The mass adoption of electric vehicles depends on an infrastructure with widely available charging solutions. The transportation industry must play an active part in the development of this infrastructure, working in partnership with infrastructure providers, electricity producers and governments.

## Renewable fuels

Sustainable transport depends on sustainable energy. While electrification is playing an important role in meeting this need, several studies show that renewable fuels are key to decarbonising in the here and now, at the pace required to meet the goals of the Paris Agreement.

Renewable fuels such as biogas, biodiesel and HVO (Hydrotreated Vegetable Oils = diesel from hydrotreated vegetable oils that eliminate sulphide emissions), in combination with energy efficient combustion propulsion systems, or used in conjunction with electricity in hybrid propulsion systems, can reduce a vehicle's total well-to-wheel carbon emissions by up to 90%, compared to fossil diesel. As biofuels can be derived from organic material such as agricultural waste, they also support circular models of energy supply.

Rapidly increasing the use of renewable fuels is key to achieving the carbon reductions we need to see in the short term. As almost all vehicles on the road today can already run on renewable fuels, the potential reduction in emissions is enormous, and it also provides the profitability of sustainable solutions for transport providers.



## Hydrogen as an energy vector

With regard to heavy transport in urban areas (where our buses are operating), clear electrification through batteries is expected. In inter-city and long-distance transport (where our coaches operate), Hydrogen is expected to compete strongly with the aforementioned technologies.

Hydrogen was identified as a potential solution for a clean fuel for the future decades ago. Previous attempts were thwarted by abundant oil reserves, low fossil fuel prices, and the advancement of battery-powered light electric vehicles, which, among other issues, dampened expectations of hydrogen deployment.

We are experiencing a transition towards an era of sustainable energy gases, and it is expected that during the second half of the 21st century their consumption will exceed both coal and oil and, by the end of the 21st century, energy gases - methane and hydrogen - will have consolidated, like coal at its peak, more than 75% of the world energy market.

Among the sectors with the greatest potential for using hydrogen is mobility (as an alternative to electric batteries). The main advantages of hydrogen are low emissions, driverless operation and recharging speed, as well as efficiency and cost of maintenance.

Generally speaking, to date we have used energy very inefficiently, especially in the transport sector. Today's internal combustion vehicles only use 20-25% of the total energy consumed for mobility - the rest is dissipated as heat. The efficiency of internal combustion engines can be increased up to 30% with hybrid technology, but to exceed this threshold, alternative technologies must be chosen. In hydrogen fuel cell vehicles, this efficiency is around 30-35% from generation to consumption.

Two of the important points for the incorporation of hydrogen as a relevant agent in the energy transition will be the transformation of the production model to processes based on renewable energy that generate so-called **"green hydrogen"** and **"blue hydrogen"**.

The hydrogen market is still being defined today, with different players in its value chain. At Irizar we are already actors in the hydrogen market

## Driverless

The rapid evolution of artificial intelligence and other technologies has paved the way for driverless transportation. Automation has great potential to transform mobility.

Safety is also an important factor. Additionally, highly automated vehicles could revolutionise public transport services, by reducing congestion, improving access to mobility and making our cities safer and more liveable.

This change is already taking place. Vehicles with high levels of automation are being tested and automated buses are operating in urban or suburban settings in several European cities.

## Connected

Digitisation is bringing tremendous growth in vehicle connectivity, with vehicles continually producing and sharing data. Connectivity can be a key enabler of driverless transportation, enabling vehicles to communicate with each other and with the surrounding road infrastructure, making transportation smarter and more efficient.

Connectivity also brings significant benefits to transportation logistics, with real-time data allowing users and manufacturers to track how vehicles are being used and operated with much greater precision, enabling more efficient flows. Connectivity also enables maintenance times to be optimised, maximising uptime, reducing fuel consumption and improving overall efficiency.



## 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 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, in 2019 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.

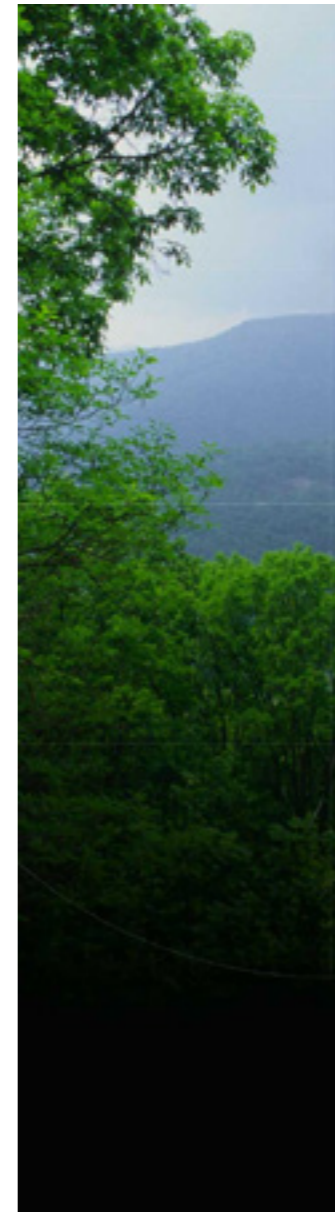
Environmental Product Declarations (EPD) have been developed in accordance with ISO 14025 and they add a new dimension in the market, given that they enable information to be provided on the environmental performance or scope of products and services. They are created and registered in the context of the Type III Eco-Labeling Programme under the International EPD System, based on the following reference standards: UNE-EN ISO 14040:2006 (Environmental management. Life cycle analysis. Principles and reference framework), 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. Principles and procedures. and Product Category Rules for preparing Environmental Product Declarations for Public and private buses and coaches (PCR 2016-04).

This Product Environmental Declarations project has been carried out on the **Irizar integral i4** model, at 13 metres in length, 55 seats, DAF MX 11 E6 diesel engine and ZF robotised seat.

In this sense, in addition to the carbon footprint of this coach, we have made a map of its constituent materials (which including, among others, the recyclability and impact on CO2 emissions of each one).

EPD declarations provide competitive advantages to customers and markets as they scientifically and independently evaluate the coach 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, based on the use of materials that are more respectful of the environment, weight reduction, and fuel consumption. Efficient and sustainable driving habits also result in the achievement of these objectives.

2020 saw the beginning of the Life Cycle Analysis (LCA) of another of our products, **the iebus NG electric bus**. Flagship product for the electromobility plant. Which was performed based on the following reference standards: UNE-EN ISO 14040:2006 (Environmental management. Life cycle analysis. Principles and reference framework) and UNE-EN ISO 14044: 2006 (Environmental management. Life cycle analysis. Requirements and regulations). In 2021 we will continue to develop the Environmental Product Declaration (EPD) for this bus and our goal is to extend it to the rest of the Irizar Group range of vehicles.



### 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 Tecnia 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](http://www.environdec.com).

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



### 3.3. Reduction in emissions, Electrification and alternative energy sources

The impact that CO2 emissions from transport is having 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 Deal.

**VECTO** is the new standard simulation tool developed by the European Commission. It will be required use in determining CO2 emissions and fuel consumption in the use phase of heavy vehicles (trucks, buses and coaches). At Irizar we have collaborated since 2019 with the European Commission in the development of the VECTO pilot phase. Irizar is already investing significantly in a new generation of hybrid, diesel and

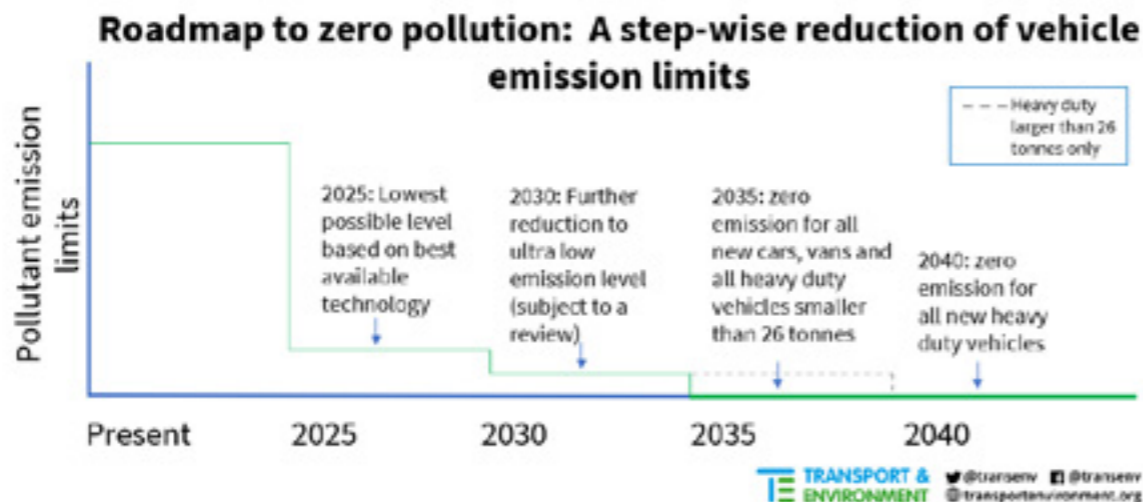
renewable fuel vehicles to reduce the level of CO2 emissions (fuel consumption), in anticipation of future regulations. It will come into force soon and we will be prepared for the required certifications.

**Road to Zero** - The latest EU emissions standard for cars, vans, buses and trucks. The future "post Euro-6 / VI" standard gives the European Union the opportunity to eradicate pollution from road transport, regain technological and regulatory leadership, and align standards with its new "Zero Pollution Ambition" with zero emissions of net greenhouse gases by 2050.

In this area, Irizar participates with major European brands **in several 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; incorporation of new technologies and materials, HVAC systems; efficiency of the kinematic chain; and electrification, renewable fuels, control, and efficiency of all auxiliary components.

**H2020-LONGRUN** is another project in which Irizar is participating. It started in early 2020, in a consortium of 30 organisations 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.

European timeline for phasing out polluting vehicles with internal combustion engines



We currently offer a **COMPLETE RANGE** of integrated, 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 engines powered by renewable fuels: HVO (Hydrotreated Vegetable Oils = gasoil from hydrotreated vegetable oils that eliminate the emission of sulphides), B100 (100% bio-diesel), Biogas, compressed natural gas (CNG) or liquefied (LNG).

### 3.3.1. Irizar brand integral coaches

The best representation of the Irizar brand is our integral coaches and buses and we only offer engines that comply with Euro6E emissions. Supplier tests of the power train in these vehicles show very competitive results in performance, efficiency and sustainability.

The latest generation of integral coaches from Euro6 onwards represents a substantial improvement that translates into:

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

And as a consequence of all this: it increases the residual value of the vehicles and improves **the Total Operational Cost (TCO) by 5%**.

### 3.3.2. Hybrid Coaches

#### The Irizar brand

In 2016, we launched the Irizar hybrid line to the market, becoming **the first European company to launch an inter-city class II hybrid coach**.

This is a parallel hybrid technology. It combines a propulsion engine 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.

Today we have a complete range of hybrids with 6.7l Euro6E combustion engines, approved to run on fossil diesel or HVO (diesel of plant origin). These coaches offer a reduction in consumption of around 25% compared to a conventional diesel coach, thus providing our customers with significant fuel savings and a proportional reduction in CO2 emissions (around 25%).

#### Hybrids on chassis

In 2020, as a result of our collaboration alliance with the different chassis brands, we launched new hybrids onto the market for our i3 and i4 models.

Thus, we are expanding the range of ecologically and economically sustainable solutions for our clients. They reduce fuel consumption by 25% compared to Euro6 diesel equivalent coaches, and therefore CO2 emissions are reduced by 25%, improving TCO.



### 3.3.3. Natural gas (CNG and LNG) coaches

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In 2020 Irizar, as a result of its effort to offer innovative and sustainable mobility solutions, incorporated compressed natural gas (CNG) and liquefied natural gas (LNG) into its range of renewable fuels.

The environmental benefits offered by coaches with this technology reduce CO2 emissions by about 25%, NOx by up to 60% and emissions of particulate matter by over 98%. In addition to higher thermal performance than diesel, vibrations and noise emissions are also minimised by between 4-5 dB. In relation to operating cost, it is estimated that the reduction may be as high as 35%, depending on the differential between the cost of gas and diesel. The maintenance cost remains similar to that of a conventional diesel vehicle.

The vehicles have a range of up to 500 km in the CNG version and twice as long in the LNG technology. The driver has a gas control screen to comply with all safety protocols. This is used to detect leaks and monitor the start-up of the water additive aerosol fire extinguishing system. These vehicles comply with Regulation R66.02 even with 700 kg of extra weight on the roof and with the thermal safety and mechanical safety protocols, in accordance with Regulation 110.

### 3.3.4. Future innovations in our coaches

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Innovation is in our DNA **and we continue to develop new generations of coaches** with cutting-edge technical solutions to provide maximum energy efficiency and performance, allowing operators to reduce fuel costs and CO2 emissions. Other attributes such as the safety, availability and reliability of the vehicle, as well as comfort, accessibility and connectivity for passengers are also important.

In this context, in addition to continuing **to promote and strengthen the electromobility division**, we have started a **project for long-distance electric coaches based on green hydrogen fuel cell technology**, which:

- Guarantees zero carbon dioxide (CO2) emissions
- Offers a range of 500 km.
- Refuels in a maximum of 10 min.
- The forecast increase in weight must not compromise the attributes of a combustion engine vehicle (number of passengers and storage capacity).

These projects are strategic priorities for Irizar, which is firmly committed to becoming a benchmark in sustainable mobility and promoting the energy transition and decarbonisation to achieve a climate-neutral society.

To date, there is no Class II or Class III coach powered by fuel cell on the market; therefore, obtaining a vehicle prototype of this type would represent the competitive advantage of being able to offer zero-emission long-haul vehicles.



### 3.3.5. The electromobility of The Irizar Group, zero emissions

#### Integral electromobility solutions

In 2011, we started our electromobility business line, under which, we combined the knowledge and experience of the entire Irizar 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 **integrated personalised electric mobility solutions** for cities, both in terms of manufacturing zero emissions electric buses and trucks, and in terms of manufacturing and installing the major infrastructure systems necessary for charging, drive systems and energy storage. All designed and manufactured using Group technology, with the Irizar guarantee and service quality.

We offer totally customised **turnkey projects**, designed and created to meet customer needs. The operator, therefore, has the competitive 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.



We conduct advisory studies and 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 optimisation strategy, power parameters, solutions and charging times and battery life. We also offer the option of 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 so, in essence, by using tools that are capable of monitoring the vehicle (doors, batteries, air conditioning and heating, pantograph, power train...) and which provide bus availability and reliability statistics, optimise maintenance time and carry out real-time monitoring of the system.

**Ecoassist** reports system data that allow consumption to be reduced, thus 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.

Among the most global projects in which we participated in 2020, in consortium with other companies or research centres, to improve mobility in cities, and funded by the SPRI, are **e-WASTE**: To offer cities an innovative, environmentally sustainable waste collection service based on research into new electromobility techniques that will result in a new hybrid truck that uses intelligent algorithms to guarantee its 100% electric operation in urban centres. In addition, the necessary knowledge will be obtained for the deployment of charging points for heavy industrial vehicles both nationally and internationally.

## Range of electric vehicles

The product range includes the Irizar ie bus and Irizar ie tram city buses, which have been in operation in different European cities since 2014, as well as other electric vehicles for city service, such as the Irizar ie truck, all of which are zero emissions.



The Irizar ie bus offers a sustainable and eco-efficient urban mobility solution for the current and future needs of city transport. The versions developed so far are the 10.6 m, 12 m, 15 m and 18 m 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.



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 emission of 120 tonnes of CO<sub>2</sub> into the atmosphere every year.**



Noise

The electric bus has a very low carbon footprint - estimated at **8.45 g CO<sub>2</sub> eq./km.p (per passenger kilometre)**. Compared to a conventional fossil fuel powered bus, around 800 tonnes of CO<sub>2</sub> 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 fuels.

**86% reduction in the carbon footprint** compared to a conventional diesel bus.

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 emission is reduced by 20%**.

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%.

Irizar is participating in the EBSF2 (**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 organised way with the objective of reducing the energy consumption of electric buses.

## The Irizar ie urban truck the star of the European Business Awards for the Environment

The 100% electric Irizar ie urban truck, developed together with FCC Medio Ambiente, received the award in the 2019-2020 of the European Business Awards for the Environment (EBAE) in the Product and / or Service category for the project "Development of High Efficiency, Modular and Self-supporting Electric Traction Vehicular Platforms for Urban Services.

The Irizar ie urban truck is a 100% electric truck which responds to different market needs and can move around cities and urban environments without atmospheric or acoustic pollution. **This first truck, equipped with a side-loading body for waste collection,** is the result of a joint R&D project of the Irizar Group and FCC Medio Ambiente.

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. It includes a cooling system that enables optimisation 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.v5 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 Km and complete the operation with just one charge per day
- **Nano pack for fast charging.** The perfect symmetry of range and charging capacity, ideal for mixed operations where the vehicle has sufficient range to operate at peak times. Charging 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. All of its components are treated through a controlled process and the possibility of using it in other types of applications is 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 the 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 stabilise energy demand when charging electric vehicles with high power levels.

In this area, Irizar offers a second life for batteries thanks to a **collaboration agreement signed with Ibil**, enabling the reuse of batteries installed in its electric buses, once they complete their service life in the buses, as an element of energy storage, as well as the power electronics associated with this application, in the recharging infrastructures that Ibil is developing and deploying for, among others, Repsol service stations.



## 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 focus 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 chemicals and their possible impacts on both human health and the environment.

We have also modified our method of manufacturing buses, prioritising the ability for components to be removed and recycled, changing the traditional weld system with a new method based on modular screw-in of the aluminium structure, 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.
- **In-depot pantograph.** This solution offers the possibility of complete automation of slow in-depot charging through the commissioning of pantographs installed above the parking spaces, replacing the outlet solution through a manual connection by the operator. Contact automation enables instant vehicle charging. This alternative solution reduces the presence of cables on the floor and, therefore, improves the safety of the operators.
- **Smart charging system.** This is a custom solution that efficiently manages all the charging conditions/restrictions in the depot. The system identifies the different charging requirements of each bus in order to optimise the total power required.
- **Opportunity charging.** Recommended when the vehicle has a reduced range and needs to charge during journeys and can be operational 24/7. Charging takes place during journeys, as well as in the garage. 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. The power of the chargers varies between 450 kW and 600 kW.
  - o **Roof-mounted pantograph.** It is an articulated mechanism installed on the roof of the vehicle and a vault connected to the charger and located in a structure or adapted pole. When the vehicle needs its batteries charging, the pantograph arm extends and establishes timely connections. Its modern and minimalist design offers easy integration into the urban landscape.
  - o **Inverted pantograph.** In this case, the mobile part of the pantograph is integrated into the pole of the charging infrastructure. The vehicle only requires a complementary part to be able to charge. The vehicle is charged in a few minutes.

Irizar is participating in **the ASSURED project: (fast and smart vehicle charging infrastructure for large vehicles)**. This 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. Safety and Driverless Vehicles

### 3.4.1. Safety first

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

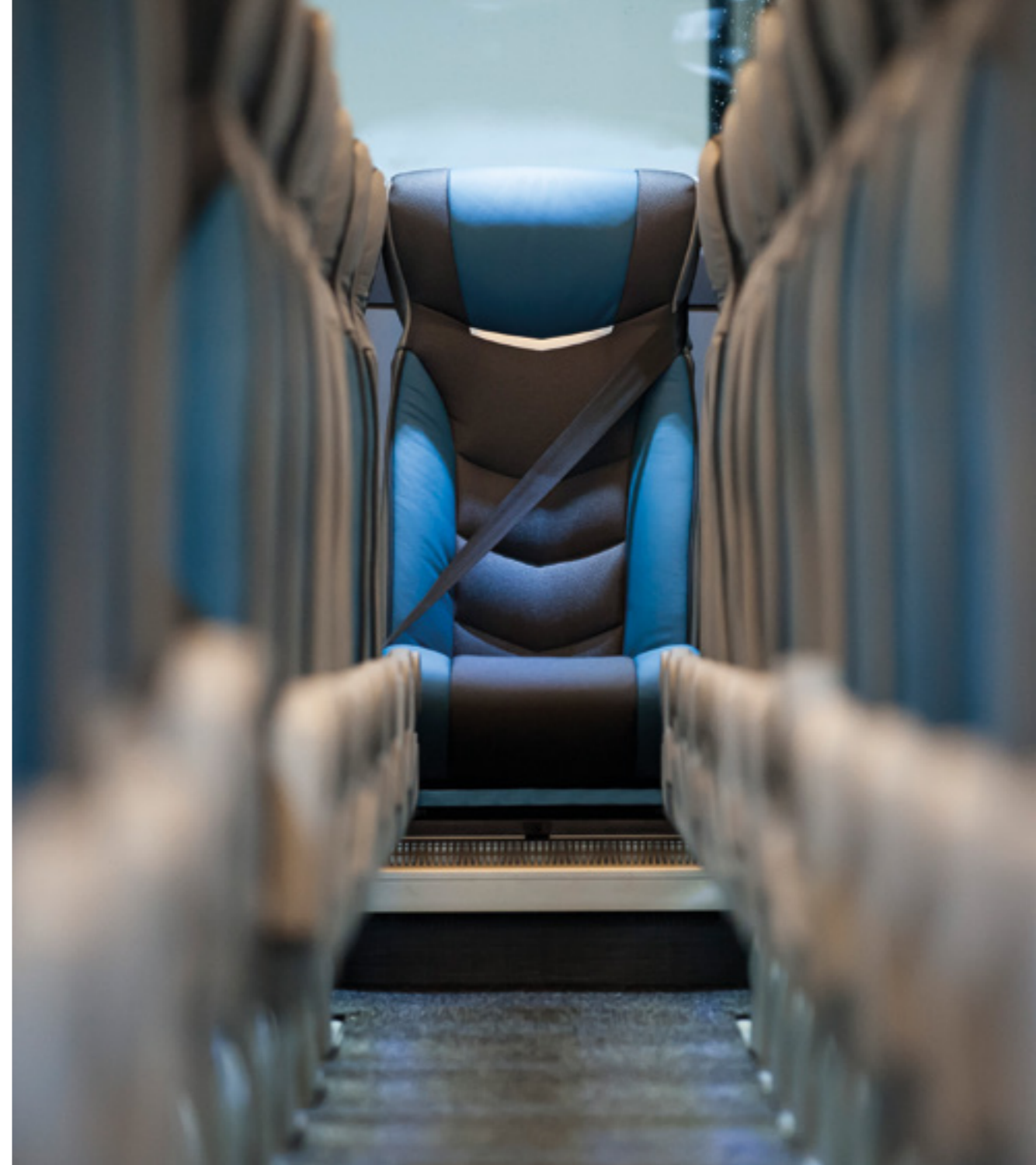
Avoiding safety problems on the road is a requirement for our vehicles, **and active and passive safety** are strategic aspects for new product and service developments. From the design phase, we invest adequately in technology and innovation to be leaders in this field and to guarantee the highest levels 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), lane departure warning (LDW), tyre pressure monitoring system (TPMS), full LED headlights, driver fatigue detector (DFD) and optional predictive shifting (PS), as well as video surveillance for image recording and anti-theft device. The electric buses are fitted with the AVAS (Acoustic Vehicle Alerting System) safety system, an acoustic warning system.

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 roll-overs and head-on collisions by optimising weight distribution and meet safety standard R.66.02.

For all Development projects we are adopting the ISO 26262 Functional Safety standards, which are required for solutions involving assisted driving and higher levels of driving automation. We are also developing the technical solutions that the GSR (General Safety Regulation) will require, thus anticipating this European regulation that will be mandatory in the near future.



## SAFERIDE Project

We remain involved in the SAFERIDE project, which was launched in 2019, 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 coach 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 / Signs).

SAFERIDE's main R&D lines are:

- Adaptive headlights,
- New driver / vehicle interfaces,
- ADAS - Advanced Driver Assistant System, and
- Design for Active Safety.

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 assisted driving systems

Irizar, in line 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 those functionalities is the accident prevention system that identifies potentially dangerous situations and gives visual and acoustic signals to help the driver avoid or mitigate a collision. It acts like a "third eye that is constantly watching the road in front 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 involuntary departure from the driving lane. It recognises 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.

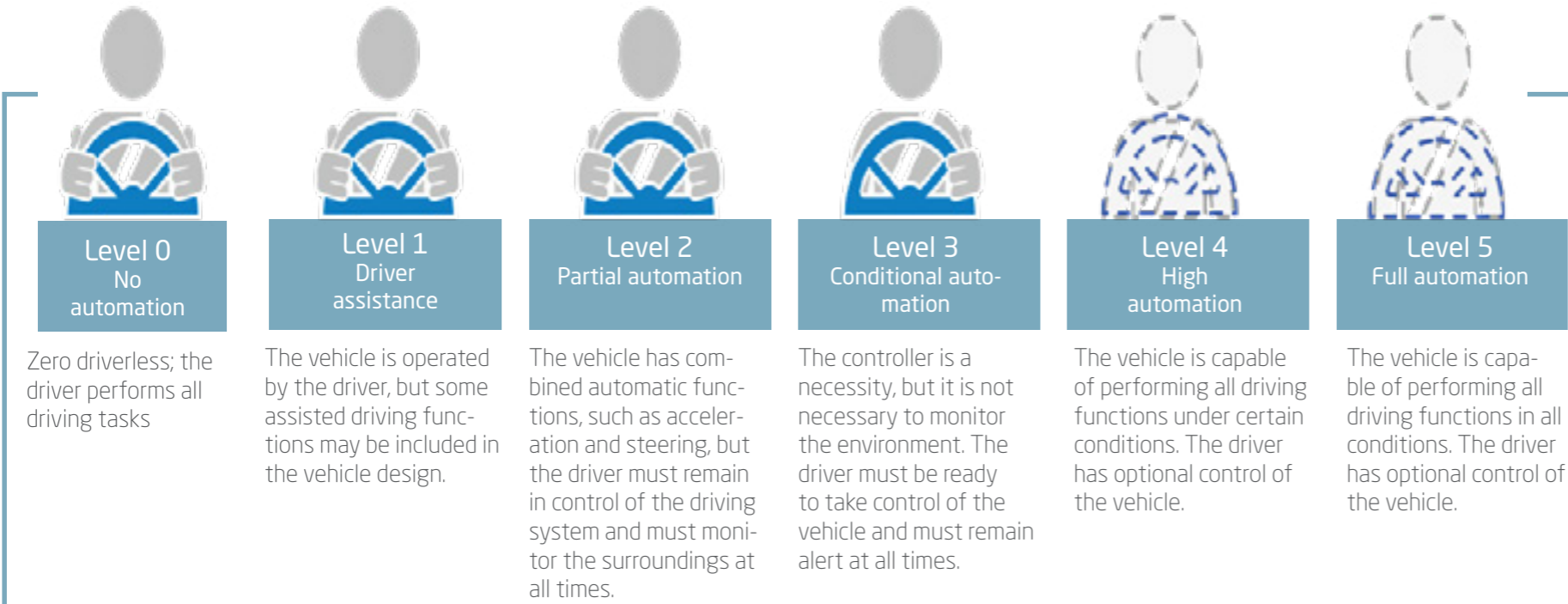
As a result of this agreement, all Irizar integral vehicles will be equipped with these systems starting October 2019.



### 3.4.2. Towards autonomous driving

Connectivity and digitisation 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.

#### AUTOMATION LEVELS - SAE (Society of Automotive Engineers)



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 Autonomous Driving 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 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 have been 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.

### First Irizar Group driverless bus in Malaga (AutoMOST)

The first Irizar Group driverless bus was presented in Malaga in February 2020. It is a 12 metre long Irizar ie bus model 100% electric zero emissions bus. It was a pioneering mobility project that involves putting a standard size vehicle on the road in real traffic situations in a city.

This first autonomous bus is the outcome of the AutoMOST Project financed by CDTI through the CIEN programme. Avanza participates as an operator alongside 11 partners, which included the Irizar Group through Irizar e-mobility and Datik. The project also has the participation of the Polytechnic University of Madrid, Inisia, CEIT-IK4 and the University of Vigo.

The pioneering project has two characteristics that make it a breakthrough, which are its capacity to transport passengers and its interaction with vehicles, pedestrians and infrastructure under real conditions in the city of Malaga.



## AUTODRIVE

The main objectives of the AUTODRIVE project are the design of electronic components that are: (i) self-aware against failures (self-diagnosis), (ii) fail-safe, (iii) operational against failures (redundancy of HW and SW) and system architectures that allow the introduction of automated driving in all vehicle categories.

The results of AUTODRIVE will significantly contribute to safer and more efficient mobility. The project will increase end-user acceptance and comfort by supporting driving in highly demanding situations, as well as in normal driving situations. The combination of both will reduce accidents especially in rural environments and under adverse weather conditions.

AUTODRIVE will contribute to Vision Zero for Europe and increased efficiency. This will reinforce the leadership and increase the market positioning of all AUTODRIVE members.

### 3.4.3. Solutions for preventing the spread of the virus on public transport

As we mentioned at the start of this chapter, the Irizar Group keeps accelerating its capacity for innovation with the goal of contributing to the reactivation of the public transport sector and promoting safe and sustainable collective mobility. It is not without need that they are providing solutions developed for buses and coaches to fulfil the safety and hygiene measures for preventing the spread of the virus on public transport.

#### Smart camera for access control

The access control camera is a smart system located at the vehicle's entrance. Its goal is to keep passengers who show symptoms or who do not follow the Covid-19 protocols from boarding the vehicle. It is equipped with a body temperature sensor that measures the temperature of the passengers and signals when it is above 37°. It also has artificial vision cameras that can be used to detect whether passengers are wearing masks. The complete process is done automatically and in real time.

When a passenger has a fever or is not wearing a mask the system will make a signal alerting them that they may not board the vehicle and the driver can act

proactively without needing supervision to follow the established health protocol.

These cameras do not record the personal data of passengers in order to comply with privacy requirements.

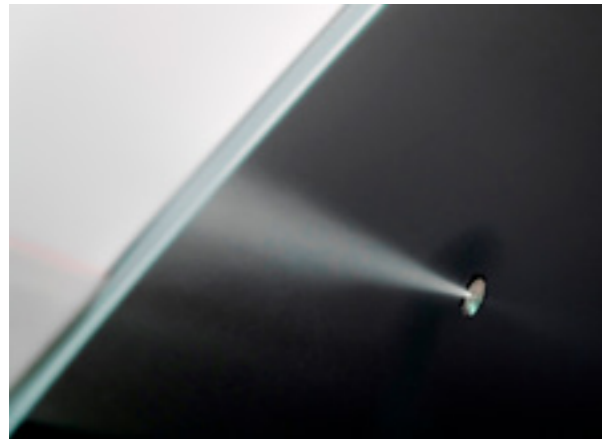
The device provides the option for integration with the fleet manager provided by Irizar in its product catalogue for the purpose of doing monitoring and managing the recorded Covid-19 incidents quickly and easily.



## Automatic vehicle disinfection without passengers on board

This consists of installing a fixed outlet on the vehicle that connects to an external device through nozzles and, with a pneumatic nebulizer system, it can completely disinfect the vehicle through the air automatically without any passengers present in 30 minutes. Some of its specific characteristics that should be mentioned are its ease of use, wide versatility and adaptability to the needs of every vehicle.

This technological solution, approved by the Ministry of Health, can be controlled through industrial or programmable interfaces and it is activated from outside the vehicle with minimal handling and without requiring access to the cockpit. The nebulising process lasts between 15 and 30 min and requires a 3 to 4 hour wait before the coach can be accessed.



## Eco3 air purifier

The Eco3 air purifier is a device that drastically reduces fungus, bacteria, viruses, volatile organic compounds, allergens, etc. and removes bad odours. It works by generating negative ions and ozone in the appropriate proportions, increases the concentration of oxygen, thus eliminating odours, maintains healthy levels and prevents the interior air of the vehicle from becoming dirty.

It is installed in the return of the climate control system of any new or currently in use bus or coach regardless of the manufacturer. The turbines in the device are what distributes the ozone through the interior of the vehicle to contribute to disinfection.

In contrast to other cleaning and disinfection systems, Eco3 is designed to do its job with passengers on board and when the vehicle is moving. This solution has been widely tested on the market and its efficiency has been endorsed by SGS, a global leader in inspection, verification, testing and certification.

## Purificador de aire eco<sub>3</sub>



## Separation screens in the cockpit and dividing panels in passenger seats

Irizar is providing operators with separation screens for cockpits and easy to instal dividing panels for seating to provide protection for both drivers and passengers.

Both solutions have been developed and manufactured with materials that comply with the regulations of the current legislation regarding indirect vision (R. 46), interior conditioning (R. 107), fire performance (R. 118) and energy absorption (R. 80).



It should also be mentioned that the use of **air conditioning systems** installed in buses and coaches **also contributes** to preventing the transmission of infections through bioaerosols, since they have air renewal systems that guarantee full interior air renewal every 3 to 6 minutes. This renewal speed can be increased if the renewal gates are kept fully open. With open nozzles there is a vertical air flow from top to bottom at a speed that makes cross contagion between passengers difficult and with closed nozzles, the design of the nozzles generates a "bubble" or "bell" effect around the passenger that creates a barrier to bioaerosols generated around it.

## 3.4. Connectivity - Big Data

The Irizar Group offers intelligent driver assistance systems with a range of optional equipment to provide drivers and passengers with an optimal form of mobility. Extensive experience in artificial intelligence and deep-learning enables Datik to offer fleet management, preventive and predictive maintenance. This is all housed in iPanel, hosted in our Cloud.

**iPanel®** is a system designed and intended for the owners of bus fleets, to help them resolve daily incidents quickly and to reduce maintenance and fuel costs. A system that alerts the driver about bad driving habits, informs the fleet manager about any relevant incident in real time and constantly analyses the behaviour of vehicles in terms of consumption and maintenance.

It is a perfect management tool to achieve the highest fleet profitability, as:

- 1. It increases productivity:** The system offers capacity for control and reaction valued by passengers and drivers. This capacity translates into guarantees and quality of the Service, a condition that translates directly into an increase in production.
- 2. It reduces fuel costs:** iPanel offers the ideal scenario for achieving savings objectives: data analysis, classifications, periodic comparisons, and control measures for manoeuvres that involve high consumption of fuel.
- 3. It controls maintenance:** The data accuracy and mapping of active fleet alarms that only our iPanel can offer is an inestimable advantage of control, prevention and proactivity.

Currently on the market, the following are connected to this Irizar Group monitoring system:

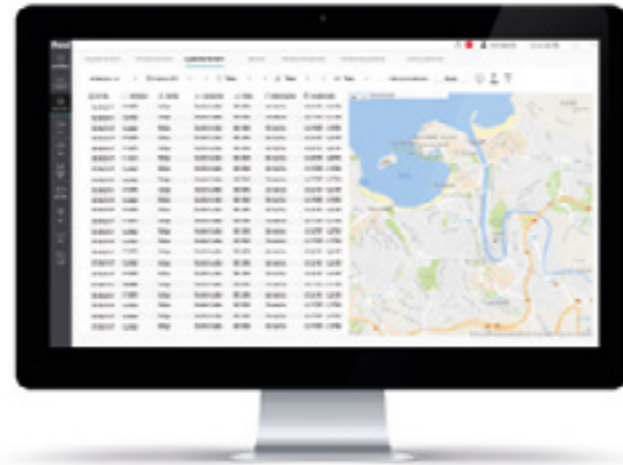
- 1,335 coaches,
- 171 electric buses and 114 charging stations.



## 3.5.1. Fleet manager

iPanel offers operators a context for fleet monitoring. The attached data on incidents, alerts, conditions and position of the entire fleet outline a scenario that guarantees a quality service.

- **Real-time monitoring:** Geolocated fleet with detailed information in real time to make decisions that increase productivity.
- **Reduction of consumption:** Advanced consumption analysis, aimed at improvements in driving and cost reductions. Identification of the appropriate vehicle model for daily operations.
- **Incident management:** All information in the hands of the fleet manager to act effectively through the incident manager.



**Big Data applied to transport** provides appropriate information at the right time. This means that the operator can evaluate the historical availability of each vehicle, together with the energy consumption reports. Thus, the fleet management process can be optimised by increasing productivity and achieving a more profitable business.

## 3.5.2. Maintenance

It allows our customers to configure maintenance plans for their fleet. Vehicles are grouped together and assigned a specific plan of inspections and stops determined by time, mileage or technical suggestions. A fundamental tool for the management and availability of the fleet thanks also to the receipt of prior notifications.

However, fleet optimisation begins with a **Preventive Maintenance Plan** that maximises vehicle availability. For this reason, your Irizar will have an optimal plan loaded, a unique plan in iPanel.

- **Maintenance plan design:** Configuration of a plan with the stops and services necessary to guarantee fleet availability. This plan enables you to coordinate preventive and corrective stops and to keep track of all actions on the fleet.
- **Record of actions:** The actions are the specific workshop actions that have been carried out in each service. Every time a vehicle is serviced, the user can eliminate or include actions from the plan depending on what was actually inspected or repaired.

**What happens if an alert is activated in the vehicle?** iPanel receives the DTC (Diagnostic Trouble Codes) of the vehicles in real time. Depending on its type, the repair urgency is suggested together with the instructions for the actions in the workshop, to minimise the downtime required for the vehicle.

If more information is needed, remote telemetry download allows detailed analysis of alarms. This analysis makes it possible to diagnose the condition of the vehicle.

- **Active alerts (DTC):** Real-time reception of alerts that the driver displays on his control panel. Display and classification of Active Alerts for maintenance recorded in all fleet vehicles.
- **Troubleshooting:** Suggested specific corrective maintenance actions to accelerate the recovery of vehicle operability. In the event of a stoppage, the customer can optimise it by performing preventive maintenance tasks for the next service.
- **Remote Black Box:** The incident manager allows remote downloading of telemetry data with an accuracy of 1s. Detailed information for understanding the behaviour of the vehicle and the driver.

# 4. We create value for our people

Contributing to the SDGs and the UN's 2030 Agenda:

## Priority SDGs



- 8.1. Maintenance of economic growth
- 8.2. Raising productivity through diversification, technology and innovation
- 8.5. Achieving full employment and decent work
- 8.7. Eradication of slavery, trafficking and child labour
- 8.8. Protection of labour rights and safe work



- 12.6. Adoption of sustainable practices in businesses
- 12.8. Ensuring education for Sustainable Development

## Cross-cutting SDGs



- 5.1. Ending discrimination
- 5.5. Ensuring the full participation of women and equal opportunities in leadership



- 16.2. Eradication of child abuse, exploitation, trafficking and exploitation
- 16.5. Reducing corruption and bribery
- 16.7. Promoting citizen participation
- 16.10. Access to information and fundamental freedoms
- 16.11. Promotion and application of laws and policies (HR)





## 4.1. People, key actors in Sustainable Competitiveness

- o Social Innovation for Equal Opportunities

## 4.2. Commitment to quality employment

- 4.2.1. Job creation and evolution of workforce
  - o Job Creation
  - o Workforce distribution by gender, category and age
  - o Quality of recruitment, remuneration and salary gap
  - o Rotation, entries and exits (by sex and age) and dismissals
- 4.2.2. Organisation of work and commitment to work-life balance
- 4.2.3. Participation in the management and economic results
  - o Profit sharing
  - o Participation in management
  - o Participation in Strategic Thoughts
- 4.2.4. Job creation

## 4.3. Communication, transparency and participation

- 4.3.1. Leadership and teamwork
- 4.3.2. Communication and transparency
  - o Forums at the highest level where all personnel participate.
  - o Company Board, Regulation of Internal Arrangements and Collective Agreement
  - o Other communication channels

## 4.4. Strengthening talent: Education and training

## 4.5. Gender equality, diversity and social inclusion

## 4.6. Health and Safety

- 4.6.1. Occupational Hazard Prevention System
  - o Frequency and incident indices
  - o Incident rate and accidents at work with sick leave
- 4.6.2. Ergonomics-Comfort Programmes
  - o Regular activities and measures taken in recent years
  - o Future plans 2021
- 4.6.3. Other health and well-being services

## 4.7. Shared leisure activities

## 4.1. People: **key actors** in Sustainable Competitiveness

Our People are undoubtedly the key players in achieving sustainable medium- and long-term results. **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 realising 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 Organisational Culture based on shared ethical values and assumed by all the people in Irizar, as it constitutes the best element for preventing bad practice**, illegal or even criminal behaviours.

Therefore, **starting with the example of the CEO and the executive team, 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 state that our philosophy towards new hires in the Irizar Group is aimed at permanence and stability.
- b) Long-term investment in 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 and personal life, to enhance the capabilities of all, in the belief that all personnel and their talents are paramount. Training, adaptive capacity and flexibility are the keys for responding to change, uncertainty and new future challenges. Digitisation and automation are, without doubt, 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 every person to fulfil their part of the process responsibly, professionally and rigorously and, above all, to have people who are committed (to the Project, the mission, the vision, the common keys and values) to meet the goals that have been set.
- e) Protecting equality, non-discrimination, and respect for diversity.
- f) Facilitation of co-responsibility and work/life balance creating flexibility of working hours, reduced work hours, and the possibility of work leave.
- g) Maintenance of long-term health and safety.
- h) Encouraging every individual to contribute actively to the environmental balance, working to minimise any impact arising from our activities, and to preserve the natural environment.
- i) Encouraging 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 profits, 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.

We are proud that we have given the best of ourselves, of our great effort, flexibility and the commitment of all our people in the face of the unexpected situation that we have had to go through in 2020. We have been able to adapt to the new situation, to health protocols, to changes in productive activity and remote working.

Our goal is to continue to cultivate talent - to generate quality jobs. All within a culture and business approach of integrity that is governed by Ethical Principles.

## Social Innovation for Equal Opportunities

In 2019 we started a Social Innovation Project for Equal Opportunities. 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 has been conducted, launching a community listening process. Within this process, various activities have been organised, such as open discussion sessions, interviews and collective interpretation, surveys, among others. This listening process mainly involves Irizar people, but also some representatives of government agencies and social organisations 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
- Contributing to Sustainable Competitiveness.
- Enhancing dialogue with our stakeholder groups

To promote this Project vigorously, **a multidisciplinary Social Innovation Team has been created** in which, together with an external partner, people from the different bodies of the cooperative participate and the executive team, as well as other people from the organisation 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.

During 2020, a listening exercise was conducted through interviews (50) and questionnaires (404 answered) to collect impressions on the four priorities defined in the Social Innovation Project: Gender equality, Work-Life Balance, Diversity and Social Inclusion. The main conclusions were shared with everyone in the assembly held in December, where the general lines of the project for 2021 were also shared.

Questionnaires sent	855	68 women (8%) and 787 men (92%)
Responses received	404	787 men (92%)
Women	49	72% of all women
Men	354	45% of all men
Other genders	1	

2020 also saw the start of data collection for a **Gender Equality Diagnosis**, on which we will continue to make progress in 2021.



## 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.

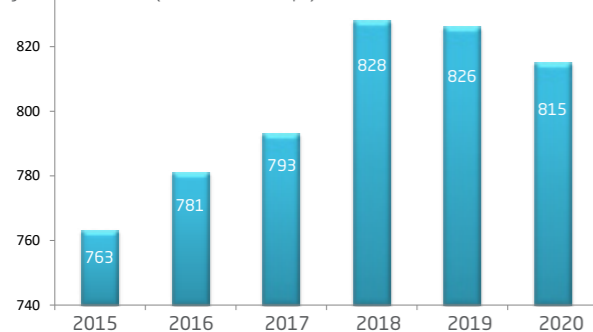
People who start working at Irizar do so as employees with an employment contract, and after several years of positive evaluations of their professional performance, they have the option of becoming partner-workers (cooperative members), with the economic advantages, investment and job security that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

### 4.2.1 Job creation and evolution of workforce

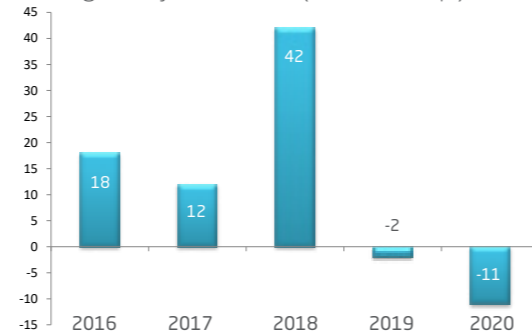
The mission of the Irizar Group has the ultimate goal of generating wealth and employment in its own surroundings, wherever it operates. In line with this, and as can be seen in detail in chapter "2. Irizar and Sustainable Competitiveness" the graph of employment evolution in the Irizar Group is the 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 Covid-19 crisis.

#### Job Creation

Job creation (Irizar S. Coop.)



Average net job creation (Irizar S. Coop.)



Employment growth has been 6.4% in five years (since 2015). Which has resulted in the creation of net employment for 52 people. Most new recruits have been at higher-levels of qualifications and engineers from industrial branches.

In 2020, despite the major negative impact that Covid-19 had **on our turnover, with a drop of 56%**, we have practically maintained jobs, which is a source of pride for everyone.

#### Workforce distribution by gender, category and age

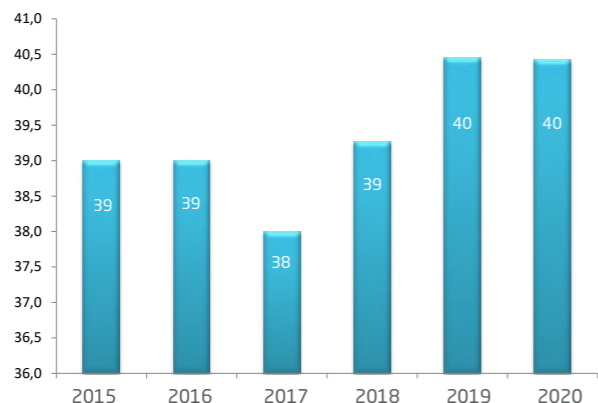
Workforce distribution by gender and category									
	Men			Women			Total workforce		
Irizar S. Coop.	MOI	MOD	TOTAL	MOI	MOD	TOTAL	MOI	MOD	TOTAL
2018	162	602	764	44	20	64	206	622	828
2019	166	597	763	43	20	63	209	617	826
2020	171	584	754	42	19	61	213	602	815

**Distribution by sex** of the workforce: in 2020 7.48% were women and 92.52% men, the same as 2019 levels.

While it is true that we continue to promote gender equality in new recruitments, the vast majority of applications are from men, due to the type of industrial profile demanded. We hope that the Social Innovation project, discussed at the beginning of the chapter, will contribute to improving the ratios in this area.

**Distribution by professional category:** in 2020 73.9% are MOD (with higher level qualifications) and 26.1% MOI (mainly with qualifications in engineering, business administration and management or administrative), which is a slight indirect staff increase (0.6%) compared to 2019.

## Average age of workforce (Irizar S. Coop.)



Workforce distribution by age					
Irizar S. Coop.	Under 30	Between 30 and 39	Between 40 and 49	Over 50	Average age
2018.	153	266	313	101	39.27
2019	134	258	341	93	40.45
2020	116	258	344	97	40.22

**Age distribution:** In recent years there has been a significant drop in the average age, due, on the one hand, to a significant number of recruitments and the departure of several workers of retirement age. Previously the average age was well over 40 years old.

## Quality of recruitment, remuneration and salary gap

Distribution by contract type							
Irizar	Worker-partners			Employees recruited	Total workforce		
	Duration	Permanent	Total		Temporary	Members	Employees
2019	157	569	726	100	726	100	826
2020	171	572	743	72	743	72	815

As shown by our indicators, we promote the incorporation of people to Irizar dedicated to permanence and stability. We prioritise the quality of recruitment, in such a way that 91% of Irizar workers are members of the cooperative compared to 9% of employees with an employment contract.

## Employment opportunities at Irizar:

- We have launched **the Irizar Trainee Programme (ITP)**, a training and development programme, in order to recruit new professionals in technical areas and in production and marketing, and who, following a process of training and continuous evaluation, understand our strategy, develop as professionals with us and finally join the company. It is geared towards mechanical, electrical and organisational industrial engineers with no experience or less than a year's experience and high level qualifications.
- We also offer grants for different specialities and the option for students to carry out their final university project with us. In collaboration with local vocational training schools, we offer students the opportunity to do their **advanced training cycle practice internships** with us. These are 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 periodic 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:

- We pay the work of personnel with the same principles in all countries where we are present. Salaries are determined based on qualifications and responsibilities. When we set pay, we are not guided by gender or place of origin, but exclusively by the work and responsibility fulfilled, as well as by the surrounding conditions. The general level of **remuneration is highly competitive** and above the sectoral agreements of the local environment.
- 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.
- However, what truly distinguishes Irizar is that, as a Cooperative Society, it offers **the opportunity 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. This period lasts a maximum of four years, and they then become a permanent member, subject to periodic evaluations (job profiles) to be decided.

## 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.

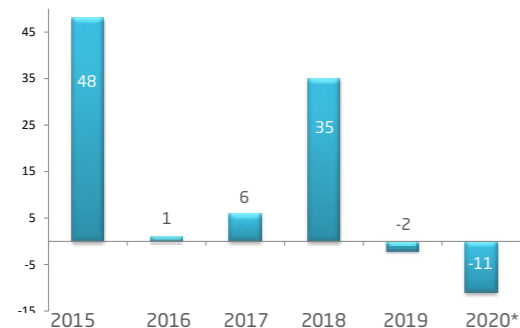
Wage gap									
Irizar S. Coop.	Indirect Labour (MOI)			Direct Labour (MOD)			Total workforce		
	Male	Women	Average MOI	Male	Women	Average MOD	Male	Women	Average workforce
2018.	104.8%	82.1%	100%	100.4%	86.0%	100%	100.4%	95.0%	100%
2019	104.0%	82.5%	100%	100.3%	91.1%	100%	100.2%	96.8%	100%
2020	104.1%	83.4%	100%	100.2%	93.7%	100%	100.1%	99.2%	100%

In 2020, the average salary at Irizar for men was 100.1% of the average, while the average salary of women was 99.2% of the average.

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 essentially 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



(\*) Among other reasons, it is possible that the effect that Covid-19 has had on the economic performance of the company has influenced the decision by some people to leave the company.

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. The firm commitment to enhance the capacity and talent to adopt a long-term vision when addressing 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 prioritising 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
2020	30	8	3 CAN J1939	0	34	7	41

Departures by sex and age							
Irizar S. Coop.	Under 30	Between 30 and 39	Between 40 and 49	Over 50	Total departures		
					Men	Women	Total
2018	15	8	0	11	25	9	34
2019	8	2	2	9	16	5	21
2020	34	10	5	25	62	12	74

## Dismissals by sex

Dismissals by sex			
Irizar S. Coop.	Male	Women	Total dismissals
2018.	1	0	1
2019	1	0	1
2020*	3	3 CAN J1939	6

(\*) Given the exceptional situation in 2020 we have been forced to terminate the annual temporary contracts of 6 people.

## 4.2.2. Work organisation and commitment to work-life balance

Since 1995, we have promoted 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.

In 2020, the pandemic contributed to further promoting **remote working** in all posts where it is possible. Also, given the circumstances, the intensive working day has been encouraged to limit and reduce physical contact.

Work-life balance is one of the target areas of the ongoing **Social Innovation Project**. As we mentioned in the first section, in 2020 a diagnosis of the current situation was conducted. Among the first conclusions regarding work-life balance, it is clear that there is room for improvement: *"In some sections there are no problems with work-life balance, but in others the working days are reduced to achieve the balance"*. For this reason, we must continue to make decisive progress in the approach and the work life balance opportunities for Irizar people.

People with reduced hours			
Irizar S. Coop.	Male	Women	Total
2018	15	9	24
2019	12	9	21
2020*	21	15	36

(\* ) It is impossible to know how many reductions in working hours would not have occurred without the Covid-19 pandemic.

Of the total of the 36 workers on reduced working hours in 2020, 15 are women and 21 are men. There is an increase of 15 people compared to last year.

Work absenteeism		
Irizar S. Coop.	Lost days rate (T. D. P.)	Absenteeism Rate (T.A.L)
2018.	7.32	6.08
2019	7.10	5.72
2020	9.12	7.36
2020 no Covid19	7.24	5.48
2020 Covid19	1.88	1.88

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).

As can be seen from the break-down of indicators, without the impact of Covid-19 on sick leave, we would have improved total absenteeism and practically maintained total days lost.



## 4.2.3. Participation in the management and economic results

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### 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.

The next in-depth review of Irizar strategic thoughts, scheduled for 2020, has had to be postponed. Sustainability will play a fundamental role, based on our strategic lines and commitment to the search for sustainable mobility.

## 4.2.4. Job creation

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### 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 have close links with the Universities in Basque Country (UPV, MU, Deusto, Tecnun, etc.) through their various 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 Programme (ITP).
- Scholarships for different university specialities,
- Option to carry out the final project,
- Possibility of internships for advanced training cycles.

In 2020, given the health emergency, some presentations and collaborations with training centres and universities were limited.

### 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.

In 2020, of the five positions created, we filled one with a person from the organisation.



## 4.3. Communication, transparency and participation

### 4.3.1. Leadership and teamwork

Starting from the CEO and the rest of the Executive Team and reaching all levels of management, 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 the motivation of people.

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 economic 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.

The continuous **two-way communication dynamics** are part of our management model based on **self-managed multifunctional teams** to address both Irizar's strategy and daily operations.

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 Executive Team and where the most relevant information is posted for all Irizar personnel. The following take place annually:

- **Two 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 2020, as we saw in chapter 2, on "Sustainable Competitiveness", we addressed issues of our Sustainability **strategy:**

- o **Sustainability** is an essential key competitiveness factor of the Irizar Group **The new version of the Irizar Ethics Code** was presented for approval by all partners. It represents an in-depth review of our Ethical Principles and Guidelines of Conduct. Subsequently, it will serve as a reference for the deployment of more ambitious sustainability standards for our main external stakeholder groups participating in the value chain.
- o **The Sustainable Development Goals (SDG)** of the 2030 Agenda that we have chosen at Irizar as **Priority and Cross-Cutting** were presented to increase our future commitment with them strategically and operationally.
- **Meetings of the Customer Line Team**, basically for quarterly follow-up of daily activity in reference to the annual objectives set, presented by members of the Executive Team and other managers of different groups or functional areas. In these meetings, the CEO the opportunity of being in the presence of all the people in the organisation, who have the option 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.

The pandemic has highlighted, even more if possible, the importance of communication and transparency in organisations. This situation did not prevent Irizar from holding two Customer Line Team meetings, to explain in detail the new decisions taken, the market and company situation.

## Company Board, Regulation of Internal Arrangements and Collective Agreement

- The **Social Council** is the internal representative body of worker-members in matters affecting employment relations. Its functions are:
  - o To inform, advise and provide consultation for the Governing Council in matters affecting employment relations.
  - o To inform those it represents, and to canvass their opinions and contributions on employment functions and matters.
  - o To record, in its minutes, in addition to issues of daily activity and monthly economic situation, decisions taken in Governing Council meetings, Health and Safety and environmental issues and social questions.
  - o To make available to all workers, through monthly publications, the **Meeting Minutes of the Social Council**.

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 **Employment Arrangements to non-member employees**, in relation to:
  - Labour organisation
  - Working time (working 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 coverage: 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.
- **Information centres and electronic panels.** Communication centres and electronic panels at access and general visibility points of the installation where issues are posted about quality, internal communications, plant image, safety and health and the environment.
- **Irinet.** Irizar's Intranet as a tool for compiling and centralising all the information posted at Irizar. It 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 the families and retired personnel for the purpose of creating a vehicle for informing about aspects that are purely related with external communication with customers and issues of interest to the general public. The magazine is published semi-annually or annually in bilingual format.
- **Direct emails.** The use of direct mails has made it possible to make all relevant information available to the group

The impossibility of using the usual communication tools in rest areas has led to the search for new internal communication formulas with the aim of improving direct relationships with people and their integration. In addition to the meetings by video call and telephone, the relevant information has been displayed through more direct channels with all personnel and the intranet.



## 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 increasingly high technological demands, 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 adapt to changes and new challenges and to anticipate the future, demands more and more specialised training. Accordingly, Irizar works constantly in favour of quality education to empower talent.

Innovation is part of our culture and we want to expand the limits of knowledge, discover new ways of creating truly competitive 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 are implementing **multidisciplinary training plans** suitable for people who are especially keen to attend to and improve their qualifications, their profile and versatility, on the understanding that all this undoubtedly results in the benefit of increased knowledge of the quality of our products-services and improvements in our sustainable competitiveness.

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

- **Welcome Plan for new recruits**, which includes educational-training seminars to promote more effective integration in the company: knowledge of Irizar's culture and strategy, Integrated Systems for Quality and Environment, Occupational Health and Safety, as well as other internal policies and regulations.
- **Training in versatility of direct personnel**. This means increasing their theoretical and practical knowledge so that they can deal with a job in other functions. 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 personnel among production plants in different countries and companies of the Irizar Group** 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. 2020 has been marked by strict restrictions on public transport on international mobility, which has meant that moving people around between plants has not been possible.

- **Constant training and qualification** in critical manufacturing processes (welding, gluing and painting) of direct personnel, with the collaboration of our integrated suppliers and / or specialised external companies.
- In 2020, we can highlight the training received by all people, in the **Ten Commandments for Covid-19 action**: aspects related to the protocols established for workplace prevention of Covid-19 contagion.



Internal training plans are complemented by continuous training programmes delivered 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. Their quantitative evolution is shown in the following table.

External training								
Irizar S. Coop.	2013	2014	2015	2016	2017	2018	2019	2020*
Hours dedicated to training	5779.	6551	4701	4546	4119	3122	3066	1075
No. of personnel	210	264	166	222	236	135	161	143

\* The usual face-to-face external training has also been restricted by what it could only be delivered in the first months of 2020.

We have also continued with on-line training in sustainability delivered by the United Nations Global Compact or other organisations (2030 Agenda and SDG, Ethics and good governance, Supply chain and decent work, trends, Climate Change, etc.).

Beyond professional level training, we carry out initiatives for awareness and training in sustainability. Among the courses and awareness campaigns 2020 we can highlight:

- **What is the Irizar you want to work for like?** Session promoted by the Social Innovation Team with lunch-talk by a subject expert. To begin the social transformation of Irizar, knowing what is done in other companies and to start thinking about what we want to do.
- International women's day **event**.
- Graphic communiqué on World Day Against **Child Labour**
- Communiqué celebrating **Oceans Week**.
- International Environment **Day**:
  - o United Nations communiqué with video: Join the call **#PorLaNaturaleza** on World Environment Day.
  - o Everybody sent a presentation on the different projects that we are implementing in the Circular Economy at Irizar. This is addressed in detail in the chapter on the environment.

2020 has, without doubt, been a year of opportunities. We have reinforced training, versatility, communication and flexibility for the customer or capability to adapt to change. We do not want to lose sight of the extraordinary year the Irizar Group closed in 2019. It is that vision that should be our guiding light to come back even stronger as soon as the recovery is under way.



## 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, S. Coop."

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 the **Social Innovation Project** for Equal Opportunities for people, focusing, among other areas, on managing: **gender** (reinforcing the Equality Plan), **diversity** (Race, Nationality, Religion, Sexual Orientation, etc.) **and social inclusion**. Among the conclusions of the diagnosis (addressed in the first section of this chapter) the following are of note:

- Gender: *"there is a limited presence of women in general and this is reflected in the management bodies of the cooperative"*.
- Diversity: *"there is no discrimination against LGBTI people or people of different socio-cultural backgrounds. But there are comments."*
- Social inclusion: *"People with functional diversity can carry out their jobs without problems, but their presence is limited in Irizar"*.

As already mentioned, the objective of the aforementioned project is to continue making decisive progress in improving these aspects.

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 people from our team assigned to the different production plants in the world, who interact with the Irizar Group's central office and are nearer to customers at international level. In this way, we have strengthened the Irizar brand worldwide and made foreign projects more competitive.
- We have a 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 with external partners that welcome or recruit people with disabilities (as we saw in chapter 5 on External Partners).

## 4.6. Health and Safety

This last section of the chapter, on responsibility to our personnel, is undoubtedly very important.

**In terms of hygiene and ergonomic-comfort measures, at Irizar, we are at maximum levels, above the legal requirements and other cooperatives and companies in the local sector.**

In 2020 we focused great efforts on ensuring that the people of the Group can safely follow their activities by establishing very rigid internal security protocols, sometimes exceeding those set by the Government and Institutions and providing all the Group's people with the PPE necessary for their protection. In addition, we established flexi-time and remote working to improve work-life balance.

The measures adopted include:

- Time protocols for entrances and exits, and loading and unloading for suppliers
- Shifts to avoid people gathering
- Protection measures for people and temperature checks
- Personal hygiene measures
- Frequent cleaning and disinfection of production facilities and vehicles
- Respecting the recommended safety distances
- Ozone showers are available
- Systems for verifying compliance with these measures
- Dissemination of the measures through different sessions where the required means were provided.

All these measures required the dedication of people and considerable economic investment in 2020 (around € 500 / person, which adds up to € 400,000).

The reduction in production activity, as a consequence of this pandemic, has caused variations in the different health and safety rates with which we have been working.



## 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 treatment 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 Health and Safety Committee monitoring of all accidents, incidents, the results of audits (internal and external) and inspections (health and safety, industrial safety of all facilities) and proposals for improvement affecting 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 and 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.
- 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 and the necessary investments have been made in 2020. This has **increased safety**, in particular by reducing risks that may have severe 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 Prevención in the speciality area of preventive medicine.

The Health and Safety Team provides personnel with **essential 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 the

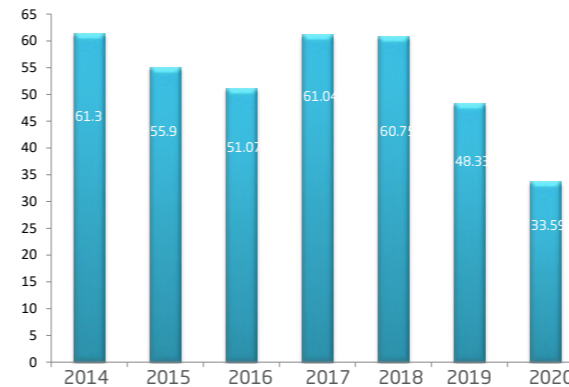
measures. Personnel may access this information through various means, including computers available in all production areas.

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.

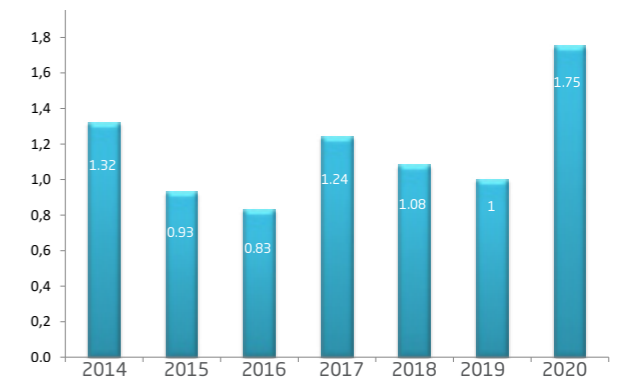
**Irizar e-mobility** also demonstrates its commitment to the health and safety of people along the same lines, and 2020 managed to obtain ISO45001: 2018 certification.

### Frequency and severity rates

**Frequency rate**  
(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)

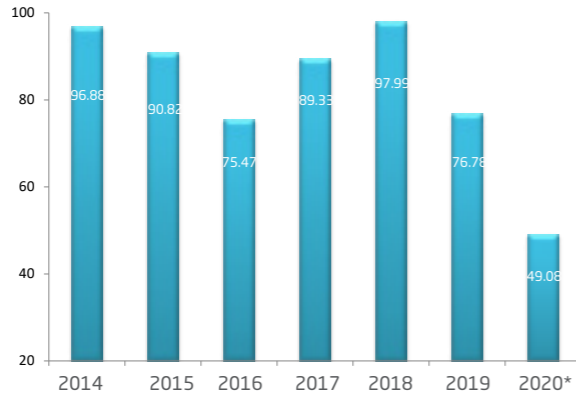


The frequency index (number of accidents per hours worked) improved compared to 2019, essentially as a consequence of: investments, monitoring of accidents and incidents, improvements in personal protective equipment and awareness campaigns to increase use of PPE.

However, the severity index (the result of the number of hours lost per thousand hours worked) has increased compared to 2019, with fewer absences due to accidents, but of longer duration.

## Incident rate and accidents at work with sick leave

Incidence rate (number of accidents per number of employees)



Accidents with absence from work						
Irizar S. Coop.	2015	2016	2017	2018	2019	2020*
Workers	786	778	791	836	826	815
Accidents resulting in absence	70.	67	77	82	64	40
People absence per accident	-	-	-	-	61	39*
Women absence per accident	-	-	-	-	3	1*

(\*) In 2020, essentially as a consequence of working fewer working hours than in 2019, both the Incidence Rate (number of accidents per number of employees) and accidents with sick leave, decreased in 2020. If not for the effect of Covid-19, they would not have improved so much and we estimate that the values would still be equivalent to those of 2019 (76.78 and 40 respectively).

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 which will be delivered in 2020 and 2021 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 Programmes

Personal **ergonomics is an unwavering principle** 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. Irizar is a benchmark in ergonomics and comfort.

The Irizar ergonomics programme 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:

#### 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.
- Application of corrective maintenance on the Intranet-iweb.
- New project for registration and grouping of all climate control equipment in the existing industry procedures.

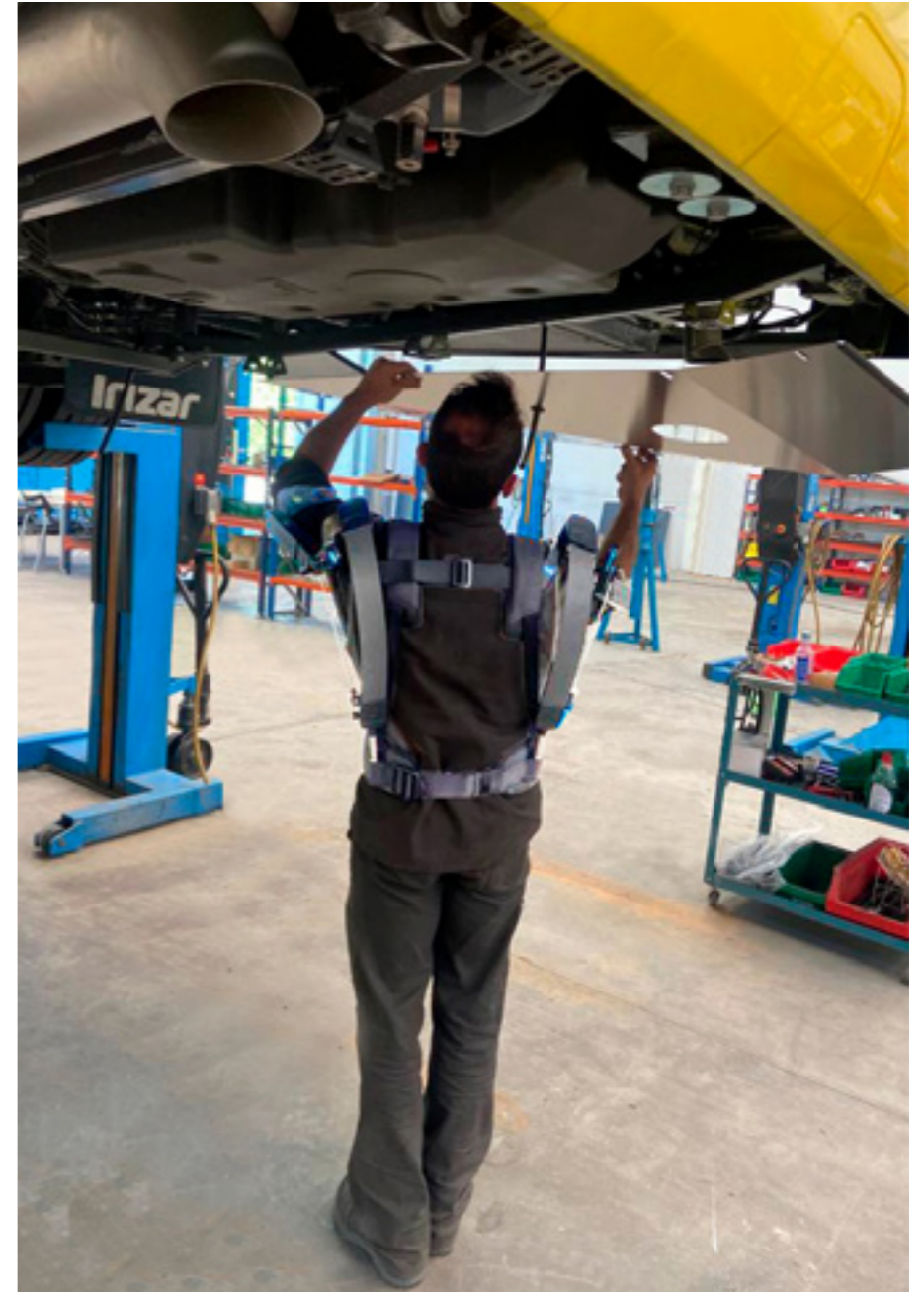


### Ergonomics:

- Work platforms for sheet metal roof shapers.
- Turners for the manufacture of roofs and roof duct handlers.
- Installation of elevators and adaptation of their regulation systems for postural improvement in structural welding work 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.
- We have recently incorporated several **exoskeletons** with the aim of integrating them into our production process in the plant where the final assembly of the integral coaches takes place. Ekso and Noonee. This latest generation technology helps to reduce the physical demands on people and helps prevent occupational injuries and ergonomic risks.
- Work on the Omer elevator, to expand the gap between platforms for better accessibility.

### Hygiene:

- Investments in the manufacturing and roof assembly area aimed at thermal comfort by installing evaporative coolers.
- Storage of all APQ10 chemicals.
- Replacement 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.
- 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 optimise resources: SAT, Parts Booth 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.



### Safety:

- Installation of collective protections for cabin maintenance.
- 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

### 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 of work stations.
- 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 negligible 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. PPE is managed using dispensing equipment that is always connected with the supplier, thus providing an unlimited System for ordering PPE with full traceability.

### Digital transformation or industry 4.0:

We are continuing with the steps started in 2018 towards digital transformation, or industry 4.0, with the incorporation of:

- Communication of equipment or critical processes to areas involved, paint booths for: painting of structures, SAT and parts.

## Future plans 2021

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 2021** to improve working conditions and facilities, we highlight:

- Continuing 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 in 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 well-being services

- **Medical attention for persons** (occupational and emergency). Irizar provides all its personnel with comprehensive medical 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.

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

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

- 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.

For all those on an employment contract with more than one year's service, until they become members, Irizar also takes out comprehensive private medical insurance.

- 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. Irizar's other initiatives to facilitate these healthy habits, including providing workers with fruit in rest areas.

- **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. Improvements to the menu and cooking methods (reduced salt, oil, fried dishes, etc.) in the company dining area. This has been extremely popular and the number of people served in the dining area has increased significantly.

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

- **Physical activity** is encouraged, sponsoring people participating: representing Irizar in Enpresen Lasterketa (companies race in Donostia) or in other sporting events (Zegama Aizkorri, Ehun Milak, etc.).

In 2020 it was not possible to enjoy the services of the rest, dining and physical activity areas.

## 4.7. Shared leisure activities

Irizar encourages recreational activities outside the workplace for workers, to facilitate closeness to their families and enhance their sense of belonging.

As an example, those that took place in 2019: Photography competition, Korrika (a march held in Euskadi in support of the native language, Euskera), and the Exit to Ondarre (a hamlet for learning about the rural way of life that we have very close).

Also, we have taken the opportunity for new activities, coinciding with the first months of the pandemic, to be united with families:

- A **drawing competition** on the theme "Irizar and buses", with prizes in three categories (age up to 8, 9 to 13 and 14 to 18).
- An **Irizar logo creation competition**, for the families of all the Irizar Group companies, with three prizes.



**Bidali zure sorkuntza ekainaren 20a baino lehen!**  
¡Envía tu creación antes del 20 de junio!  
Al email [bpk@irizar.com](mailto:bpk@irizar.com) helbidera

Jarri martxan zure sormena eta sortu Irizar logoa zuk nahi dituzun material eta elementuekin.  
**Ez dago testura eta kolore mugarik!**

Pon en marcha tu creatividad y crea el logo Irizar con los materiales y elementos que quieras.  
**¡No hay límite de texturas y colores!**

#### SARIA / PREMIO

Familia osoarentzat egurpasa bat, Irizarren bisita gidatua, bazkaria eta zuzki aukeratzeko duzuen aukerabilitate batetik

Excursión de un día para toda la familia con visita guiada a Irizar, comida y la actividad que elijas

Irizar Taldeko lantegi guztietako familientzat zuzendua. Denera, hiru sari banatuko dira. Dirigido a las familias de todas las plantas y empresas del Grupo Irizar. En total, se entregarán tres premios



# 5. We create value for our External partners, Supply chain, Supply and Alliances

Contributing to the SDGs and the UN's 2030 Agenda:

## Priority SDGs



- 8.1. Maintenance of economic growth
- 8.2 Raising productivity through diversification, technology and innovation
- 8.5 Achieving full employment and decent work
- 8.7 Eradication of slavery, trafficking and child labour
- 8.8 Protection of labour rights and safe work



- 9.2. Promotion of inclusive and sustainable industry
- 9.4 Infrastructure modernisation, clean technology
- 9.5 Increase in scientific research, technological capacity



- 11.2. Providing access to public transport
- 11.6 Reduction of environmental impact in cities



- 12.6. Adoption of sustainable practices in businesses
- 12.8 Ensuring education for Sustainable Development
- 12.B. Achieving sustainable tourism



- 13.1. Strengthening resilience and adaptation
- 13.3 Improving environmental education and awareness

## Cross-cutting SDGs



- 5.1. Ending discrimination
- 5.5 Ensuring the full participation of women and equal opportunities in leadership



- 16.2. Eradication of child abuse, exploitation, trafficking and exploitation
- 16.5 Reducing corruption and bribery
- 16.10 Access to information and fundamental freedoms
- 16.11 Promotion and application of laws and policies (HR)



## 5.1. Our value chain

## 5.2. Sales, distribution and after-sales network

## 5.3. Sustainable Supply Chain

- Sustainability requirements for our suppliers
- Supply of cells for batteries

## 5.4. Purchases committed to the social surroundings

## 5.5. Logistics optimisation at the Group level

## 5.6. More agreements and strategic alliances

- R&D - Future projects
- Basque hydrogen corridor: BH2C
- UITP (International Union of Public Transport)
- Alliances and collaboration with the environment
- AERCE  
(Association of purchasing, contracting and supply professionals)

## 5.1. Our value chain

As we saw in the chapter on “Sustainable Competitiveness” our entire value chain is focused on creating value for our customers and other stakeholders, raising awareness and encouraging everyone to share our commitment to sustainability, to increase the positive impact that together we can have on people and the Planet.

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, supply chain and alliances 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, consortia and agreements with other European organisations 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 summarise our agreements with universities and training centres.
- **“Environment”**: foundations and organisations 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 summarise 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).

Therefore, in addition to our internal sustainability actions, with customers and society in general, we have the objective of raising **the ambition of our commitment to guarantee a SUSTAINABLE SUPPLY CHAIN** that includes: in the first place, suppliers, companies of sale and distribution, as well as after-sales workshops.



## 5.2. Sales, **distribution and** after-sales network

As we saw in section 3.1. of chapter “3. We create value for our customers, passengers and citizens”, we remain close to our customers throughout the value chain and we include them in our internal processes.

We have our **own sales and after-sales teams**. And we are continuously expanding our sales, distribution and after-sales network worldwide, based on **collaborations and alliances with distributors and business partners**, which facilitate our distribution and close customer service in more than 90 countries where we operate throughout the world. Visit <https://www.irizar.com/mapa/> to see our wide network in detail. During 2020 all Irizar services have been operational to meet all the demands that may arise.

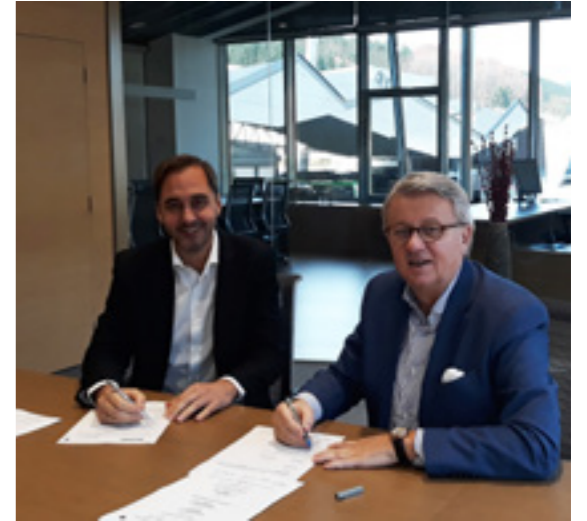
In Europe, which is the area of greatest influence of Irizar S.Coop., we operate in all countries and, where we do not have our own network, we have commercial alliances with partners based on trust, ethics and the search for sustainable shared competitiveness. The after-sales network, in the EU alone, has coverage of more than 300 workshops, our own or by agreement, and they are supported by mobile units.



In 2020, we have:

- **Strengthened our subsidiary Irizar Luxembourg** with coverage in Belgium.

- And in March we signed **an Irizar collaboration agreement with Scania Deutschland** to offer our range of Irizar-Scania coaches to the German market. Through this partnership, Irizar intends to achieve a stronger position in the intercity bus and coach sectors, to make available a wide range of products for the premium segment. The marketing and after-sales service of Irizar coaches in Germany is delivered exclusively through the extensive Scania distribution network in Germany. In the words of Rafael Sterling, CEO of the Irizar Group “We are focusing our efforts on making our European position increasingly strong in the near future. Germany has always been a strategic market for Irizar and we have no doubt that this **Irizar-Scania collaboration** will offer high value in terms of products and services to German customers”.



We regularly run **training courses** to keep technicians from our **extensive network of after-sales workshops** up to date with 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 **itraining**, 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. Especially in 2020, this tool has been highly valued for the training of our repair technicians.

We are implementing exclusive after-sales and warranty services in the cities where electromobility **and hybrid 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 continuing to develop **monitoring and remote diagnosis solutions for Irizar vehicles**, through the iPanel platform. This platform is designed to carry out preventive maintenance plans that maximise vehicle availability, and is discussed in detail in section “3.5. Connectivity-Big data” in chapter 3, on Customers, Passengers and Citizens

## 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 become manufacturers of complete coaches 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 may be 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.

We are working for a sustainable management of the supply chain which allows us to:

- Establish **good business practices** in the worldwide markets in which we operate, and thus make our contribution to respect for and defence of Human Rights, protection of the environment and climate, etc. ; and
- Increase **the confidence of our stakeholders** in Irizar as a responsible and sustainable partner, improving our **reputation and brand image**.

At Irizar we promote and support responsible processes for acquiring raw materials and services. We are committed to reducing social, ethical, and environmental risks in the supply chain.

In general, and before any agreement is signed, **new** suppliers undergo analyses and certification to assess their sustainability performance. The objective is simply 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 **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.





## 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, and unlawful employment, the establishment of ethical standards and anti-corruption policies, and commitment to environmental protection and selection of raw materials.

In addition to asking the supplier to present certifications of legal and regulatory compliance, the **current contractual agreements** include the following sustainability terms that the supplier must guarantee.

### 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 and jobs 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.

### Environment

- Prevention or at least minimising environmental risks and excessive resource consumption. This includes, among other things:
  - energy efficiency of products or services,
  - reduction of GHG emissions,
  - criteria in the selection of materials,
  - prohibitions on specific substances,
  - recovery or reuse of containers or packaging,
  - recycling of 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, financial manipulation, document forgery, Fraud, Payment of commissions or bribes, Embezzlement, Tax fraud, Influence peddling, Abuse of power, Conflicts of interest, Obstruction of justice, etc.*

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.

As we discussed in the first section, our objective is to **raise the ambition of our Commitment to guaranteeing a SUSTAINABLE SUPPLY CHAIN**, starting by enhancing what we already do with Suppliers (mainly from the Purchasing and Industrial areas).

To this end, we will continue to establish priorities and define actions, aware that we still have a long way to go. Our objectives are focused on the establishment of a responsible, solid and rigorous management system to strengthen our involvement in sustainability issues linked to operations, products and services through the supply chain.

## Supply of cells for batteries

The Irizar Group develops and manufactures the batteries incorporated in electric and hybrid vehicles of our brand and technology. We do this by purchasing cells for with different chemicals. 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.

Our responsibility is to ensure 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.

## 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 17% in 2020.

We have continued to reduce **purchases in distant countries**, so our purchases in China were less than 2% in 2020.

During 2020 we have been in close contact with our suppliers to work together to agree on special conditions to deal with the situation generated by Covid-19. We have reached 60 **collaboration agreements**. This has been possible given the good level of relationship and integration that we maintain with our suppliers, and the long-term shared vision that we maintain with them.

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

- **KATEA:** An organisation aimed at work and social integration for disabled people in Gipuzkoa. In spite of Covid-19, 42 people worked for Irizar S.Coop. in different activities in 2020, 5.2 % of our workforce.
- **IKASLAN:** A foundation whose purpose is education, training and social-technical development for young people, with a preference for the Goierri regional territory. It provides metal pieces and sub-assemblies to Irizar.
- **GUREAK:** An organisation that manages work opportunities for disabled people in Gipuzkoa. They do assembly work for batteries.
- **HAZLAN:** A social integration company that includes people in the Bidasoa region who have difficulties incorporating themselves into society into its business activities. They perform sewing work.



## 5.5. Optimising Logistics at Irizar Group level

The Irizar Group, through its logistics area, is involved 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. In 2020 the scope of the study (initially international) was extended to local carriers.

We have taken as a starting point the analysis of the impact on maritime transport, which is the one that is most affected.

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 2020 we maintained continuous improvement in this optimisation.



### Maritime Transport

In 2019 we began to improve the consolidation and occupancy of containers from Europe to Irizar Brasil. In 2020, we also expanded cargo consolidation to Irizar Mexico, with an average occupancy rate of 39% in both cases (39.37% Brazil and 38.68% Mexico). In 2020 we were unable to continue with the improvement plan that began in 2019, but at least we have maintained values similar to those of 2019 (39% average occupancy). Our goal, however, is to continue improving occupancy ratios in 2021 with new measures and stowage plans in the port of Barcelona to prevent containers from leaving with a fill % lower than 40%. Without a doubt this will be reflected in the reduction of CO2 emissions, in accordance with our commitment against Climate Change.

In 2021 we will continue reducing CO2 emissions, optimising routes and implementing actions to continue increasing container occupancy to 45-55%, both for Brazil and Mexico (78% of maritime shipments).

During 2020, the Irizar Group's emission values for maritime exports from Ormaiztegui to the group's plants were analysed. The indicators to be assessed have been and will be the following for the next few years, where the evolution can be seen (taking 2020 as the baseline of the commitment) and improvement actions implemented:

- Co2 total emissions (Kg)
- Average CO2 emissions per Kg

#### Summary of results of Maritime Transport 2020 - Export Irizar to Group companies

Mode of Transport	Number of Shipments	Gross weight (kgs)	CO2 Emission (kg)	Average Gross Weight (kgs) per shipment	Average CO2 Emissions (kgs) Per Shipment	Average CO2 Emissions per Kg
Sea	198	2.489.568	522.005	12.574	2.636	0.21
Sum:	198	2.489.568	522.005	12.574	2.636	0.21

Despite the low number of shipments during 2020, we will use the data as a basis for analysing CO2 emissions per kg and number of shipments. In all cases, it is broken down according to the ports of departure and destination to understand the effect of moving cargo from one port to another, a task that we have been carrying out since the end of 2020.

### Air Transport

Regarding air transport, during 2020 we reduced urgent air shipments to the maximum, leading to a 0.12% reduction in emissions compared to 2019 due to the optimisation of the entire air logistics chain.

## 5.6. More **agreements** and **strategic alliances**

At Irizar we want to play an active role in defending our industry and its high added value, and in promoting the recovery of the economy and the generation of employment. We must continue to innovate, rethink globalisation from the local point of view and face the major challenges that we find ourselves in by strengthening ties and looking for collaborators with the aim of staying at the global forefront.

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:

### R&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 the 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.



TECNALIA is a benchmark Technological Research and Development Centre in Europe, whose mission is to transform technology into GDP to improve people’s quality of life, by creating business opportunities in companies and is part of **BRTA (Basque Research and Technology Alliance)** . It is the first Spanish private organisation in contracting, participation and leadership in the Horizon 2020 programme **of the European Commission** and the second in applications for European patents.

**Irizar became a trustee of TECNALIA in 2020;** this alliance increases the level of collaboration that we had with them years ago towards a more strategic relationship model, based on trust, collaboration and a shared technological strategy, its main areas of action being: digital transformation, advanced manufacturing, energy transition, sustainable mobility, health and the urban ecosystem.



## Basque Hydrogen Corridor: BH2C

In 2020 we joined (together with dozens of public and private organisations and government institutions) the Basque Hydrogen Corridor (BH2C) project that is beginning to take shape. This is a project that will be presented and formalised by the consortium that will form it at the beginning of 2021.

At Irizar we are participating in this initiative that will contribute to changing the energy and economic model by:

- Advancing in the decarbonisation of strategic sectors such as energy, mobility, industry and services, and
- Developing technological-industrial capabilities in the whole value chain of the hydrogen energy vector.

This is a commitment to the industry, which was created in Euskadi by the Petronor company (Repsol Group), and which will mean an economic reactivation. The Basque Government, represented by its Minister of Economic Development, Sustainability and the Environment, describes it as **“key to the sustainable development of the territory”**.

The Basque Hydrogen Corridor initiative has ambitious objectives, with investments of 1,300 million euros from 2021-26, a period in which 1,340 direct jobs and some 6,400 indirect jobs are expected to be created. Hydrogen-related projects have already been presented and will prevent the emission of 1.5 million tons of CO2 per year.



## UITP (International Union of Public Transport)

Since 2020 we have also been members of the UITP (International Union of Public Transport), which is the International Association of Public Transport and a passionate advocate of sustainable urban mobility. Founded in 1885, with more than 135 years of history, **it is the only global network that brings together all stakeholders in public transport and all sustainable modes of transport.**

According to the UITP knowledge base, the bus is the most widely used means of public transport in the world. With millions of daily trips, we know that there really is no sustainable mobility in our cities without getting on the bus. The bus has a long and rich history within the sector, and within the UITP. In the UITP, bus operators work within the relevant Committee on important issues such as maintenance, operation and development. The exchange and generation of knowledge for the entire sector is the main objective.

In Europe, UITP's main activity is to work closely with the institutions of the European Union, bringing together more than 450 urban, suburban and regional public transport operators and authorities from all member states. UITP represents the perspective of local passenger transport services using all sustainable road, rail and water modes.



## Alliances and collaboration with the environment

It is worth mentioning that Irizar belongs to:



### Innobasque, the Basque Innovation Agency

We partnered with Innobasque in 2020 to contribute to the Vision of “Positioning the Basque Country as a leading region in innovation”. That is the objective of Euskadi (the European region in which Irizar S.Coop. is located) for which Innobasque works with a long-term aspiration that it shares with the public and private agents that make up the Basque Innovation System.

Innobasque’s mission is “to promote, in collaboration with other agents, the development of innovation from its position as a singular agent of the Basque Network of Science, Technology and Innovation”. In its role as singular agent, it assists the Basque Government and the organisations of the system in the design, implementation and evaluation of policies related to science, technology and innovation.

The partner organisations are the true key players of the permanent innovation dynamic in the Basque Country. **We establish Alliances and Networks at local, state and international level as a means to share experiences, provide services, and gain influence and positioning at scale.** Due to our diversity and number, Innobasque’s partner entities are a very good representation of the Basque Science, Technology and Innovation System. Its almost 1,000 member entities include: companies (53.7%), associations and foundations (15.1%), educational entities (14.6%), agents of the Basque Network of Science, Technology and Innovation (10, 9%) and public institutions (5.8 %).

Furthermore, **we are part of the Board of Directors of Innobasque, leading the innovation strategies of the Basque Country.**



### Euskadi Automotive Cluster - ACICAE

This is the organisation whose purpose is to energise 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 growth in billing in the Basque automotive sector in the last twenty five years. Its 300 member companies exceed 20,375 million euros and 120,000 people around the world.



### Euskadi Mobility and Logistics Cluster:

This 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 114 associated companies and organisations represent a turnover of 22,383 million euros and 139,096 people in the world.



### Goierri Valley

We are a magnet 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 member companies of this alliance have joint sales of 4,100 million euros and we dedicate 3% of sales to R+D+I and have 7,500 workers dedicated to the sectors of fittings, mobility, lifting, energy, electric motor, transport, machine tool, and other sectors.



### AERCE (Association of purchasing, contracting and supply professionals)

Given that purchasing management is a fundamental element to guarantee profitability and sustainable competitiveness, Irizar belongs to AERCE (Spanish Association of Purchasing, Contracting and Supply Professionals). 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. We create value for the Environment

Contributing to the SDGs and the UN's 2030 Agenda:

## Priority SDGs



**9.4.** Infrastructure modernisation, clean technology



**11.2** Providing access to public transport

**11.6** Reduction of environmental impact in cities



**12.2** Achieving the efficient use of natural resources

**12.4** Management of waste and chemicals

**12.5** Prevention, reduction, recycling and reuse of waste

**12.6** Adoption of sustainable practices in businesses

**12.8** Ensuring education for Sustainable Development

**12.B.** Achieving sustainable tourism



**13.1.** Strengthening resilience and adaptation

**13.3** Improving environmental education and awareness

## 6.1. Environmental framework and priorities

## 6.2. Sustainable products + eco-innovation

## 6.3. Environmentally responsible production

- 6.3.1. Resource consumption efficiency
  - o Consumption of natural resources
  - o Consumption of chemical resources
- 6.3.2. We reduce the generation of waste and discharges
- 6.3.3. We minimise soil contamination
- 6.3.4. Committed to the circular economy
  - o Re-use
  - o Recycling

## 6.4. Sustainable supplier management

## 6.5. Committed to the fight against Climate change

- 6.5.1. Air Quality and Maximum Energy Efficiency
  - o Energy efficiency of the activity
  - o Carbon footprint of the activity
  - o First fully sustainable energy electromobility factory in Europe
- 6.5.2. We promote the sustainable mobility of people

## 6.6. Contribution to environmental sustainability

- 6.6.1. We train and raise awareness among our personnel, customers and suppliers
- 6.6.2. Waste minimisation campaigns
- 6.6.3. We participate in external environmental forums



# 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.).

The Irizar Group's electromobility division is also a clear exponent of our progress in this commitment. Irizar e-mobility has obtained ISO14001 certification in 2020, and is focusing its efforts on minimising polluting substances and the impact of its vehicles on the environment.

At Irizar, we have therefore evolved and increased our commitment to environmental protection and the achievement of 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 roll-out of measures for gradually reducing product environmental impact.
- Responsible energy consumption and its reduction, minimising 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 with initiatives and campaigns with special emphasis on meeting the sustainability criteria in the extraction and processing of raw materials.
- Circular economy projects, focused on optimising consumption and waste minimisation with landfill disposal maximising its reuse or recycling.

## 6.2 Sustainable Products + **Eco-innovation**

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

- The reduction of fuel consumption and TCO (total operating cost) for the customer, thus reducing environmental impact.
- We offer pioneering solutions to the different mobility needs of the future around the world. Reducing the impact of our vehicles and eliminating greenhouse gas emissions and noise pollution is our priority. All this in line with the Paris Agreement and the European Green Agreement.
- We are the first company in the sector worldwide to achieve the Environmental Product Declaration certification (The International EPD System). This is an unequivocal step in our progress to becoming a cutting-edge European benchmark in eco-innovation and eco-design during the entire Life Cycle of the product.
- We share opinions, experiences and discuss the sustainability concerns (economic-governance, social and environmental) of the customer.
- We deliver eco-driving courses and efficient driving manuals for our customers.
- We offer a second life and recycling of batteries.
- We conduct careful management of resources and recyclability.
- Safety is a priority in all our developments.

All our efforts are aimed at minimising the emission of pollutants and the impact of our vehicles on the environment.



## 6.3 Environmentally responsible 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. In this sense, we continue to focus on:

- Recyclability (Life Cycle Analysis) and **eco-innovation**, two aspects integrated in production.
- The application of the circular **economy principles**, seeking a second life for waste and production surpluses.
- Investigation of possible improvements to reduce the environmental impact associated with production, with the development of studies aimed **at understanding the environmental impact of the facilities**: reduction of emissions, waste, competitive advantage, etc.

We measure the continuous progress of our environmental commitment by monitoring **management indicators** related to consumption of materials, waste generation, etc., maintaining our final objective of optimising the resources we use, seeking to be efficient and reduce the generation of waste and discharges.

Since 2007, the **image project** has established criteria for order and cleanliness in our facilities, with continuous analysis and monitoring from day to day, with the aim of identifying operational improvement measures, good practices and awareness. Our challenge is none other than the involvement of all people to guarantee quality and optimisation of work resources.

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, improving and optimising those processes or operations considered critical, among which are those with the greatest environmental impact.

At Irizar we continue to advance in the management **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. All this is aimed **at reducing the environmental impacts associated with production**.

As we will see in more detail in section 6.3.4, the increase in demand for resources worldwide in the last century, due in part to the growth of the world population and emerging economies, has caused a large increase in the consumption of natural resources. This situation makes the current lifestyle, based basically on a linear economy, difficult to sustain. The circular economy 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, creating value when goods reach the end of their service life.



## 6.3.1. Resource consumption efficiency

We pursue the reduction of materials **in the value chain**. We monitor the components used in each work station, by adjusting needs to orders as much as possible and minimising excess materials that may remain in the production line.

Among the main actions that we have implemented during the last decade are those that aim to reduce and optimise the consumption of products and materials used in the vehicle manufacturing process, mainly those that could have the greatest impact on the environment. For materials with the greatest impact, there are specific projects with actions that require detailed monitoring.

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

### Consumption of natural resources

Our management of energy **resources (gas and electricity)**, although here we deal with the evolution of consumption, will be addressed in more detail in section "6.5.1. Air Quality and Maximum Energy Efficiency".

Consumption of Natural Resources (per coach produced)			
Year	Water (m3/coach produced)	Electrical energy (kWh/coach produced)	Natural Gas (kWh/coach produced)
2013	9.29	6,292.81	9,090.48
2014	9.72	5,655.24	7,914.71
2015	10.68	5,240.75	8,201.92
2016	8.98	4,832.85	8,184.06
2017	9.60	4,810.74	8,207.32
2018	8.84	4,682.95	8,618.53
2019	9.87	4,698.32	8,341.00
<b>2020*</b>	<b>14.4</b>	<b>7,568.11</b>	<b>12,243.36</b>

(\* In 2020, unlike previous years when the indicators only showed data from the main production plant (Lezeta), data are provided for all Irizar S.Coop production plants.

ABSOLUTE CONSUMPTION RESOURCES (Lezeta)	2017	2018	2019	2020
Water (m3)	12,716	12,084	13,270	8,351
Electrical power (kWh) (1200kW)	6,431,955	6,401,592	6,319,376	4,111,416
Natural Gas (kWh)	10,866,496	11,781,529	11,218,650	6,420,233

Although in 2020 the absolute data on water and energy consumption (electricity and natural gas) show significant decreases as a consequence of the decrease in the production rate, there was an increase in relative consumption due to the situation caused by the pandemic, which this year has been extended to all production plants.

- Water consumption:** Water is a scarce resource and at Irizar we are aware of this - to preserve it, we implement measures aimed at reducing its consumption. It should be noted that Irizar's production process is low in water consumption compared to other companies in other sectors. The main actions implemented for a more sustainable use of water are divided into two sections:

  - Consumption in the production process itself, consumption that is monitored periodically to analyse its evolution and take the necessary measures to control it. During the last few years, work in this area has been strengthened with new deployments of closed circuits purification systems and water treatment that guarantee good treatment of process water for possible reuse.
  - Internal consumption, consumption by the workers themselves, company canteens, cleaning facilities and similar procedures, Irizar has run staff environmental awareness campaigns to try to reduce this consumptions and minimise its impact.
- Electrical power consumption:** The relative increase in 2020 has been mitigated thanks to the effectiveness of the Energy Efficiency Action Plan launched in 2013, which included new measures for 2020, which are detailed in the energy efficiency section.
- Natural gas consumption:** We should point out that we consider that this relative increase in 2020 has been mitigated thanks, to a large extent, to the measures applied during the last year in relation to improving our energy efficiency.

## Consumption of chemical resources

This consumption is exclusive to the Lezeta plant, which is where the main painting activity associated with this indicator takes place.

### Consumption of chemical resources (per surface are treated)

Year	Paint consumption / m2 treated surface area (kg / m2)	Solvent consumption / m2 treated surface area (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
2020	0.582	0.169

ABSOLUTE CONSUMPTION RESOURC- ES (Lezeta)	2017	2018	2019	2020
Paint (dma, eva) (kg)	385,326	412,298	364,737	215,506

- **Paint consumption:** Although in 2020 the absolute data show a significant decrease in consumption, also due to the pandemic, there was an increase in the consumption of paint per square metre of surface treated, specifically 26.25%. This increase occurred, despite the work in the implementation of the paint management plan, due to the different above-mentioned productivity factors (mainly descent of high-end coaches, descent of integrals, etc.).
- **Solvent consumption:** Similarly, during 2020 solvent consumption per square metre of surface area treated dropped considerably, but as in the other cases, the ratio increased by 29.79%. The Solvent Reduction Plans implemented since 2007 are having a positive and remarkable result, so 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. We reduce the generation 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 this vein, 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.

An example from 2020 is the supply by a vending machine of bits for work tools; this new supply system facilitated a reduction of 30% in consumption of bits, and of the derived waste.

### Waste generation

Waste Generation (kg / coach produced)			
Year	Hazardous waste	Non-hazardous waste	
2013	241.40	1,191.07	
2014	234.68	1,184.57	
2015	286.37	1,236.19	
2016	285.30	1,211.22	
2017	306.75	1,157.06	
2018	320.52	1,020.62	
2019	352.36	998.90	
2020	433.92	1,296.3	

(\* In 2020, unlike previous years when the indicators only showed data from the main production plant (Lezeta), data are provided for all Irizar S.Coop production plants.

ABSOLUTE CONSUMPTION RESOURCES (Lezeta)	2018	2019	2020
Hazardous waste (kg)	438,151.5	473,919.9	264,234.0
Non-hazardous waste (Kg)	1,395,183	1,343,519	713,532

Again, it should be noted that due to the pandemic in 2020 there was a loss of representativeness of both consumption and waste data.

The **absolute data** on the **generation of hazardous and non-hazardous waste** show significant reductions as a consequence of the drop in the rate of production, but an increase in the **relative indicators per coach is observed** due to the situation caused by the pandemic since this year they have been **extended to all production plants**.

- **Generation of hazardous waste:** However, the results were good, with continuous improvement in sorting and in other improvement measures implemented.
- **Generation of non-hazardous waste:** It should be noted that work continues on the environmental management plan and the implementation of different **circular economy projects** and collaborations with other organisations, for optimisation in the supply, storage and use of materials in production, the search for alternatives to land-filling of discarded materials, and in improving the sorting of hazardous and non-hazardous waste directly generated and collected at the plant. In spite of the increase in the ratio of waste generated per the coach, it is worth highlighting the significant decrease recorded in the Rest of Waste destined for landfill. All this has led to the percentage of recovered waste reaching an increase of 1% compared to 2019.
- **Improvements in discharges:** Irizar has invested in the best available technologies (BATs) for the treatment of water prior to its discharge and, periodically monitors the quality of the water through Control Organisations (OCAs). Likewise, it runs continuous awareness campaigns to reduction of consumption and discharges.

### 6.3.3. We minimise soil contamination

At Irizar we have identified the points of production that risk soil contamination, and we adopt specific control and prevention measures to minimise 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 minimising the risk of contamination associated with production.

### 6.3.4. Committed to the circular economy

The Circular Economy is a model that prioritises 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 addressed eco-innovation (redesign) and reduction of consumption and waste. In chapter 3. (dedicated to 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. (dedicated to our external partners, supply chain and alliances) we also discussed repairs.

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.

Following this line of use in 2020, a **“second hand space”** has been created where surplus production materials (fabrics, mats, etc.) are deposited so that workers can use them for other uses outside of Irizar. The aim once again is to reuse materials and minimise waste.

#### Recycling

In 2020, sorted collections of new waste fractions were implemented. As an example, different collection points were installed to collect bits worn by the workshop. This waste is delivered to an authorised 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 the 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 organisations. 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 organisations:

#### 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. The **Izir** project (Irizar Zirkularra) has the main mission of the promotion of the commitment of all Irizar people in aspects of environmental, social and economic sustainability, and specifically, the circular economy.

The innovativeness of the project lies in how it includes the element of social commitment. In collaboration with the **EMAUS** foundation, a non-profit organisation dedicated to various social and environmental projects, a line of merchandising products is being created from textile waste from the factory.

Textile remnants from making the seats or interior linings are collected separately and sent to **Eko-Center**, which is a textiles workshop that employs people at risk of social exclusion where merchandising items are created with the Izir brand.

During 2020 a further step was taken in this area, by designing the catalogue of products for merchandising, as well as another range of products aimed at protecting parts for various production processes. Also to show and share the progress of the circular economy with the citizens of Gipuzkoa, we have given a coach to the Provincial Council of Gipuzkoa (provincial government) to demonstrate its **Trakziona** project carried out in collaboration with different companies, among which Irizar is also present, in an exhibition on the project in different neighbourhoods of the city of San Sebastián.

The success of this Irizar circular economy action was recognised with the **award of the "Itxas Zaindari" prize**. This prize, awarded by the Department of the Environment of the Provincial Council of Gipuzkoa and the Mater Ecoactive Museum Baot, recognised Irizar's commitment to the circular economy, converting waste and surpluses associated with its business activity into a series of finished products.



Irizar was **also recognised in the #ZeroZaborEnpresak** category, where sustainable and innovative proposals for minimising waste in companies were rewarded. The contest, in turn, was part of the **EKOFISH project**, whose main objective is to raise awareness about the problem of marine rubbish and involve citizens in its prevention.



This project is having a great impact on the different communication media, with Irizar being recognised as a benchmark for circularity in the industry.

The creation of the Izir products has allowed us to reduce 3000 kg of waste in 2020. We estimate we can avoid creating more than 5,000 kg of waste annually, in addition to cutting the economic and environmental costs associated with handling and treating it.

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

#### BIRSORTU Project - Collaboration with the EMAUS and HIK-HASI Foundations

In addition to the circular economy own brand, collaboration continues on this project with EMAUS and the HIK-HASI association. Waste derived from production is used and donated to partner educational centres, so that children can experiment and create with them.

The project is in its initial phases and, for now, it is collaborating with pre-school and primary school students, but the objective is also to expand it to secondary education and vocational training. This is where Irizar's waste is considered to have more relevance, especially in subjects related to technology and industry.

So far items such as spotlights, hubcaps, floor mats, LED strips etc. have been donated. and there will be an evaluation of the type of article that is most interesting for each centre.



**EKOIZIR Project - Collaboration with ECO-REC / EKO-MODO** This new collaboration in 2020 between Ekomodo and Irizar arises within the framework of the Izir brand. It has resulted in the production of 3,200 accessories for work, such as computer or notebook covers, which have been generated from 13,500 recycled bottles and 15,000 plastic caps. This project has prevented 1,500 kilos of waste from ending up in nature and has generated 13 jobs in the insertion workshops that have contributed to this work.

In summary:

- o Generation of 13 jobs in social integration workshops.
- o 1,500 kilos of plastic waste from Irizar recycled.
- o Development of 3,200 sustainable work accessories with social impact.

### Collaboration with UGLE

(Alto Urola Vocational Training School), a post-compulsory social initiative education centre. Irizar continues to donate 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.

**Collaboration with TECNUN-University of Navarre**, through two projects:

- o **CIRCULAR MARKET.** Since 2019, we have been collaborating in the development and launch of this platform for the sale or donation of end-of-life items. Circular Market is a collaborative platform to connect companies, with the aim of helping them create value in their operations. It means that the waste and by-products of an organisation can become the raw material of another organisation. It also allows users to connect to make joint purchases, share resources and services. It enables reductions in environmental impacts, significant cost and energy savings, and ability to create new jobs and business opportunities. [www.circularmarket.es](http://www.circularmarket.es)

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

- o **SAREA.** In 2020, continuing our collaboration, we participated in this new project, for the development of a set of strategies that seek to integrate the circular economy into business operations, taking account of the role of all stakeholders in accelerating the transition to this new model, by agreement with the Provincial Council of Gipuzkoa.

As the first action of this project, a participation conference is organised for November, with different public and private entities, called **“Transition towards a circular economy”**. Irizar is participating in the conference on behalf of the industrial sector.

### CircularTrans Project - Collaboration with Mondragon University

Another collaboration project launched in 2020 together with the University of Mondragón is CircularTrans. The main objective of the project is the creation and validation of a digital platform to guide the transition of industrial organisations towards a circular economy model in Gipuzkoa. CircularTrans defines a five-step process: diagnosis, results, selection of opportunities, roadmap and action plan, thus defining a process of continuous improvement.

### TERRACYCLE

Another of the actions we carried out in 2019 was to join TERRACYCL, an organisation 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. We want to shortly launch an action aimed at collecting the used writing materials from our staff: pens, correctors, highlighters, etc.

### Irizar e-mobility

Irizar e-mobility also began its collaboration with **Emaús** Fundación Social in 2020 with the aim of giving a second life to the waste generated during the manufacturing process of its vehicles. The first of the works carried out was the use of excess textile materials for the creation of covers to protect the seats and dashboard during the bus production and assembly process have been made to prevent even the tiniest scratch or defect in the process. After analysing the waste from its production cycle, they decided to use the textile remnants from lining the roof, walls and other items which are sent to the Emaús **SINdesperdicio** social integration company to be transformed. Thus, an interesting circle is closed in which waste becomes a resource and, moreover, the products are produced in solidarity.



## 6.4 Sustainable management of suppliers

The enormous importance that Irizar gives to the management of sustainable suppliers is already reflected in detail in chapter 5. on external partners, supply chain and alliances:

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

The purchasing team is promoting the use of raw materials from sustainable origins, with little environmental impact.

In addition, the environment area participates in **environmental audits of suppliers**. In 2020, it is worth highlighting the visit to the facilities of Urkiondo Ekolor, the non-hazardous waste manager, to learn about its new facilities and processes, as well as to jointly analyse alternatives aimed at minimising the disposal of landfills.



## 6.5. Committed to the fight against Climate Change

The fight against climate change is the greatest challenge of the 21st century **for the health of the Earth**, melting glaciers, devastating forests and destroying the vast diversity of our planet. But this challenge is also the greatest for **people's physical and mental health**, since a quarter of the world's diseases are generated by environment-related risks. And the effects of the changing climate directly threaten the lives and livelihoods of human beings, also causing hunger and malnutrition.

Climate change is 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.

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 organisation. Plans that, in order to be effective and reliable, cannot address reduction alone: they must show a route towards the complete transformation by following the Sustainable Development Goals of the 2030 Agenda, especially **SDG13**.

Our fight against Climate Change, we also address it especially in:

- Section "3.3. reduction of emissions, electrification and alternative energy sources" in chapter 3. dedicated to customers, passengers and citizens: where we see reductions in fuel consumption and GHG emissions in the **use of our vehicles**, depending on the type of propulsion (scope 3 downstream).
- In sections "5.3. sustainable supply chain" and "5.5 logistics optimisation at Irizar group level" in chapter 5. dedicated to external partners, supply chain and alliances: sustainability requirements for **suppliers** and reduction of CO2 emissions in freight **transport** (scope 3 upstream).

In this chapter we will focus on managing energy efficiency and air quality related to:

- Our **activity at our facilities** (scope 1 and 2), and
- **commuting to work** of the organisation's people (scope 3 upstream).

All the actions that we will see here also highlight that the Irizar Group wishes to actively and decisively contribute to a sustainable and low-carbon future.

## 6.5.1. Air quality and maximum energy efficiency

### Energy efficiency of the activity

Energy efficiency is based on optimising energy consumption, through the implementation of measures that minimise 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.

In recent years at Irizar, we have carried out various **actions** focused on transforming conventional forms of energy consumption with a commitment to achieving energy efficiency:

- Replacement of conventional lighting with low consumption lighting,
- monitoring of our consumption,
- conducting energy audits,
- installing various automation systems and devices to avoid unnecessary consumption in our facilities,
- conducting various energy studies and analyses that enable us to identify facilities, equipment and processes in which energy consumption can be optimised.

All these improvements in energy consumption have resulted in **a reduction in total gas and electricity consumption and in the CO2 emissions associated with them**, which we hope will continue in the coming years.

The evolution of electricity and natural gas consumption can be seen in section "6.3.1. Resource consumption efficiency

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.

### Carbon footprint of the activity

In 2020, at Irizar we carried out the calculation and external verification of the Carbon Footprint of the Activity according to **ISO14064**, of our [main production plant](#). Later we recorded our Carbon Footprint at MITECO (Ministry for the Ecological Transition and the Demographic Challenge).

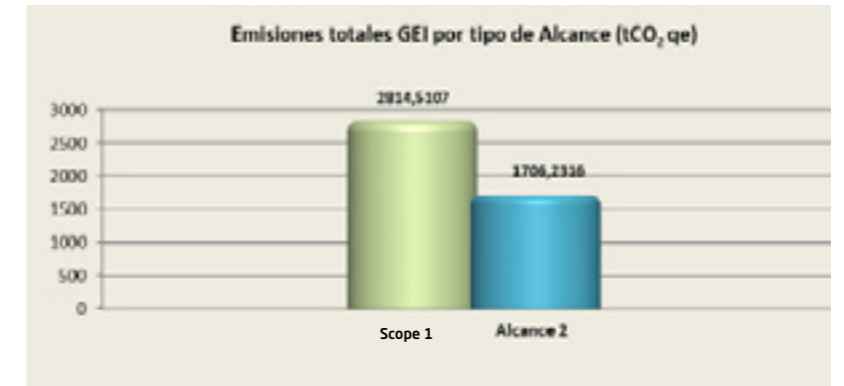


This provides us with information on our GHG emissions (greenhouse gases) under scopes 1 and 2:

- **Scope 1:** direct GHG emissions from sources owned or controlled by the organisation itself.
- **Scope 2:** indirect GHG emissions associated with generation of electricity acquired and consumed by our organisation.



Distribution of emissions (t CO<sub>2</sub> eq) **by coach** for the year 2019 according to scopes



Distribution of **absolute** emissions (t CO<sub>2</sub> eq) for the year 2019 according to scope

With the implementation of this Carbon Footprint certification, and taking 2019 as the base year, in 2020 we designed an ambitious **2020-2023 Action Plan** for the gradual reduction of energy consumption and the reduction of GHG gas emissions, associated with a reduction target for the first period, establishing a series of lines of action that will be fulfilled throughout this cycle.

In 2021 we plan to calculate the carbon footprint of the activity of our Irizar e-mobility facility in the same way.

### First fully sustainable energy electromobility factory in Europe

In 2018, Irizar e-mobility was launched, the first 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 output it will produce about 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 CO<sub>2</sub> if that energy were produced by other fossil-based energy sources.



### 6.5.2. We provide sustainable mobility for people

In addition to our commitment to sustainable mobility through our products (as we already saw in chapters 2. and 3. customers, passengers and citizens), we also promote applying these principles in our own organisation. We are defining 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 (thus reducing GHG emissions in scope 3: upstream).

In 2019, agreements with bicycle supply companies were implemented, to make **subsidised 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.

In 2021 we plan to update and improve the Sustainable Mobility Plan for Irizar's people.

## 6.6. Contribution to environmental sustainability

At Irizar we are convinced that we must continue to advance to achieve a world that is more sustainable and respectful of our environment as the main guarantee for future generations. It necessarily involves 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. We train and raise awareness among our personnel, customers and suppliers in environment.

#### People

- We deliver occasional training and awareness sessions for our workers in sustainable mobility, promoted by the EVE (Basque Energy Agency) and focused on efficient driving.
- Our organisation gives an efficient driving manual to all who join the company, inviting them to play an active role in our commitment to sustainable mobility.

#### Customers

In chapter "3. dedicated to customers, passengers and citizens", we already reflect:

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

#### Suppliers

The environment area delivers different training sessions to staff from various cleaning providers, those involved in the Image Project (see 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 denitrolysing
- Storage of Chemicals.

In 2020 we held training days for cleaning and painting service providers, related to the aforementioned topics.

### 6.6.2. Waste minimisation campaigns

As an integral part of our Circular Economy project, internal awareness campaigns are conducted for all Irizar people with the aim of optimising sorted waste collection as much as possible so that landfill disposal is minimised. In 2020, due to the pandemic situation, these sessions were not held.

### 6.6.3. We participate in external environmental forums

By publicising the work and good practices that we follow at Irizar to move towards a more environmentally sustainable world, we can encourage other organisations 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 organisations that work in this regard. For example, in 2020 Irizar participated in:

- Exhibiting our integral Irizar i4 coach and our environmental product declaration, in the **Basque Ecodesign Meeting 2020**, the largest event on Eco-design and Circular Economy of Southern Europe, held at the Euskalduna Palace in Bilbao.



- At the **"European Environment Awards"** and in the **"101 best initiatives for climate action"** organised by the Biodiversity Foundation and #Por el Clima, respectively.

- Together with **Emaus Fundazioa** and the designer **Fanny Alonso**, in the fifth sustainable fashion show at miramar palace, included in the programme presented by the Department of the Environment of the Provincial Council of Gipuzkoa as **part of 'European Waste Prevention Week'**. The fashion show exhibited several items designed and made with surplus fabrics from coach production.





# 7. We create value for Society

Contributing to the SDGs and the UN's 2030 Agenda:

## Priority SDGs

-  **8.1.** Maintenance of economic growth
- 8.5** Achieving full employment and decent work
- 8.7** Eradication of slavery, trafficking and child labour
-  **9.2.** Promotion of inclusive and sustainable industry
-  **11.2.** Providing access to public transport
- 11.6** Reduction of environmental impact in cities
-  **12.6.** Adoption of sustainable practices in businesses
- 12.8** Ensuring education for Sustainable Development
- 12.B.** Achieving sustainable tourism

## Cross-cutting SDGs

-  **5.1.** Ending discrimination
-  **16.2.** Eradication of child abuse, exploitation, trafficking and exploitation
- 16.11** Promotion and application of laws and policies (HR)

## Secondary SDGs

- 
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## 7.1. Our commitment to society

### 7.2. Irizar received the “Spanish Investment in the UK” Award

### 7.3. Irizar e-mobility received the “Made in Euskadi” Award

### 7.4. Annual tribute to retirees.

### 7.5. We collaborate in activities with our sector

### 7.6. We collaborate in educational activities

### 7.7. We collaborate in cultural activities

### 7.8. We collaborate in sports activities

### 7.9. We collaborate in development cooperation activities

- With organisations in the environment
- With NGOs in international projects

## 7.1. Our **commitment** to society

The **Irizar Group's 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. 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 commitment to employment** 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.”**

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.

In addition **to the commitment to society in general** that we are going to reflect in this section, we have also addressed it in other chapters:

- In chapter 2, dedicated to **Irizar and sustainable competitiveness**, we see our commitments and association with world leading organisations in sustainability.
- In chapter 4, on People, we also saw that **we work with training centres and surrounding universities**.
- In chapter 5, dedicated to external collaborators, supply chain and alliances, also from responsible **management of our supply chain**, we can highlight our high commitment with the immediate environment (Gipuzkoa): high volume of purchases in the province and, the employment of disadvantaged people with the collaboration of social care organisations.
- Also in chapter 6, dedicated to the environment, we saw our **cooperation with other organisations in our surroundings** (mainly non-profit, such as EMAUS) so that, **in line with our circular economy strategy, we can give a second life to surplus production materials**.

As part of our commitment to society, we allocate more than 1.5 million euros a year to non-profit activities (also in 2020) 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 2020.

## 7.2. Irizar received the **“Spanish Investment in the UK” Award**

In 2020 we were awarded the “Spanish Investment in the UK” award in the first edition of the UK-Spain Business Awards.

The British Embassy, the British Chamber of Commerce and the Banco de Santander have rewarded the good commercial relations between Spain and the United Kingdom, in a gala chaired by the British Ambassador.



The UK-Spain Business Awards distinguished companies that, through their activity, have fostered commercial development between the two countries. In total, fifteen awards were presented in eight categories. Irizar was distinguished in the category “Spanish Investment in the UK”, thus recognising the commitment made by the brand in the British market.

The awards ceremony took place in February at the Madrid Stock Exchange Palace and was chaired by the British Ambassador to Spain and the United Kingdom representative for Trade in Europe. In addition to Irizar, other companies that have contributed to consolidating trade between the two countries, Grupo Sagardi, GSK and Consentino, among others, were recognised.



### 7.3. Irizar e-mobility received the “Made in Euskadi” Award

Irizar e-mobility was awarded the “Made in Euskadi” Award at the Gala Night of the Basque Company that took place at the Guggenheim Museum in Bilbao in November 2020. The award, in recognition of the worldwide dissemination of the Basque Industrial seal, was awarded by the Fundación Empresa Vasca y Sociedad with the sponsorship of Kutxabank, in the presence of a limited capacity of 200 representatives between companies and institutions.

Rafael Sterling, CEO of the Irizar Group, expressed our thanks for this prestigious award: *“It fills us with pride and great satisfaction because this award recognises the great strategic and technological leap taken by Irizar in recent years, to position itself among the best independent European manufacturers in the sector. We will continue to generate wealth and employment, placing customers at the heart of our activities, with the necessary flexibility at all times to provide the maximum value and meet their needs, dedicating efforts to innovation, technological development and R & D & I, always under the premise of achieving the highest degree of satisfaction from all the people who work or collaborate with the Irizar Group. Together we will continue to generate and develop new Made in Euskadi projects, spreading the Basque industrial seal worldwide.”*



### 7.4. Annual tribute to retirees

Every year, retirees attend 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.

In 2020, due to the Pandemic, we were unable to celebrate the annual appointment with retired people. Instead, we sent them a small gift.

### 7.5. We collaborate in activities 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 a coach **fitted out as a demonstrator that we offer at no cost for different social initiatives**. Since 2016, it has been 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. The figures for the number of participants on the workshops, the media impact of the programme and the degree of satisfaction remain clearly positive, which reinforces our opinion about the programme’s future relevance and suitability.

In 2020 (as we already saw in chapter 5 on external partners 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).

Unfortunately, in 2020 it was not possible to carry out any of these three initiatives.

Also, every year we 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. All of them have been working and are continuing to work to find solutions and economic support for the survival of public transport operators. A sector that in the first phase of the pandemic suffered greatly and was stigmatised given the campaign to use private vehicles to prevent the spread of the virus. What has become very clear and evident in this crisis is that public transport plays a priority and fundamental role in the energy transition and that the bus is a key element in the new mobility and the achievement of sustainability objectives. 2020 has shown the importance of sticking together and playing an active role in defending our industry and its high added value and driving the recovery of the economy.

## 7.6. We collaborate in 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 there are more and more demands for us **to share how we approach Sustainability** at Irizar.

In 2020, face-to-face open days were suspended, only remote meetings were held.

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.

These courses also had to adapt to the situation caused by Covid-19.



Along with town councils and other companies, we are 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 Ormaiztegi.

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

In 2020 Irizar, for the fifth consecutive year, was a mentor company for the STARTInnova pedagogical programme sponsored by El Diario Vasco and aimed at the entrepreneurial development of young people. The programme targets at youth between 16 - 17 years old who are studying their baccalaureate and/or undertaking vocational training, and encourages entrepreneurial attitudes and promotes greater contact between educational centres and the business community, which was carried out remotely.

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

## 7.7. We collaborate in cultural activities



We support cultural and traditional activities in our immediate environment.

Irizar is actively involved in promoting **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 documentary "Natura Bizia"**, which was released in cinemas.



With the aim of contributing to the dissemination of music, Irizar collaborates with different entities, including the annual sponsorship of **the Orfeón Donostiarra**, with which it has had a relationship for more than a decade. We also collaborated with the Euskadi **Symphony Orchestra** (Euskadiko Orkestra) for the first time.

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

In 2020, for the sixth 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.

The video shows how the whaler San Juan is being reborn: <https://www.youtube.com/watch?v=nBMx-q0mAnM>

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.

**11 / 12 / 18**  
MARTXOA - MARZO

—  
**GEMMA NEW**  
Zuzendaketa / Directora  
**VADIM GLUZMAN**  
Bolina / Violin  
**EUSKADIKO ORKESTRA**


—

EGITARAILIA - PROGRAMA

I

**SERGEI PROKOFIEV (1891-1953)**  
Concierto para violín y orquesta n.º2 en sol menor, Op.63 [26]  
Argitaratzailea: G. Henle / G. Henle, Leipzig  
I. Allegro moderato  
II. Andante assai  
III. Allegro, ben marcato

**ROBERT SCHUMANN (1810-1856)**  
Sinfonia n.º3 en mi bemol mayor, Op.97 'Rhenano' [32]  
I. Lebhaft  
II. Scherzo: Sehr mässig  
III. Nicht schnell  
IV. Feierlich  
V. Lebhaft

## 7.8. We collaborate in sports 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.

**Top-level sport in Gipuzkoa:** football (Real Sociedad), basketball (Gipuzkoa Basket Saskibaloia), rugby (Ordizia Rugby taldea), male handball (Bidasoa) and female handball (Bera-Bera).

**Regional teams, events and tournaments in:** track and field, rural Basque sports, cycling and sports activities and championships taking place in Ormaiztegi.

There is 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. In 2020, we could not sponsor it, because the races were suspended because of Covid-19.

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

**HEGALAK Zabalik Fundazioa:** "Programme to improve the quality of life of dependent people who are disabled and / or sick, through readjustment to physical activity in Gipuzkoa" and "Barrier-free bathing programme on La Concha beach in San Sebastián".

**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".

<https://vimeo.com/574834428/09a124fa3b>

Zuzenak **wheel chair basketball**

Bera Bera. **women's handball club**


The Goierri Gorri Futbol Klub **women's football** initiative that brings together and strengthens these teams in the Goierri regional territory.

## 7.9. We collaborate in **development cooperation activities**

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

### With surrounding organisations

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

- **Large associations** with which we collaborate in specific projects, **such as the Food Bank**. In 2020 we intensified aid to alleviate the effects of Covid-19. Irizar e-mobility also collaborated with the Food Bank, by conducting food collection.
- 
- Provincial associations, **mainly patient and family associations**.
  - From the cancer prevention AECC-**Association to associations for rare diseases**: Piel de Mariposa and Stop San Filipo.
  - Associations **that provide care for the elderly**.
  - In 2020 we began our collaboration with **Bizipoza**, a non-profit association, which brings together 35 groups in the Basque Country. The Bizipoza movement, focused on promoting values such as solidarity teamwork and life in society with Basque as the language of communication. From Irizar we have collaborated with the "Kant ETA Biologicals" project to help different associations.

Along with those already detailed in education and adapted sports, in 2020, we can mention the **disability support projects carried out with Pasteur Dioxane**: "Employability of people with Ruttgerts" and "Ni Au Blas-I am like you" (to demonstrate a positive and active vision of disability to the Gipuzkoan children's population).

### With NGOs in international projects

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 2020:

- **Vicente Ferrer Foundation**: Decent housing project in India.
- **Doctors without Borders**: Yemen Hospital.  
<https://vimeo.com/573853651/56cbc4fea1>
- **UNICEF**: Comprehensive care for separated or unaccompanied children in Nigeria.  
<https://vimeo.com/573854806/5b64e3efa7>

In 2020 we collaborated with many more international projects, among which we can also highlight:

- **Herriak Elkarlanean**: Lasserre eskola berria (new school in Lasserre), they had to suspend the project due to the survival situation, Father Doumond requests help to buy staple foods.
- **Baltistan Dioxane**: Strategic Plan and Disabled Access to Education in Valle Hushé (Baltistan - Pakistan).
- **Ayuda en Acción**: Food security in the Zapotec communities of Sierra Sur Oaxaca.
- **Médicos del Mundo**:
  - o Euskadi immigration 2020.
  - o Improved access to health and protection of the population affected by migration and forced displacement in Mesoamerica.
- **ALBOAN Foundation** Migration and forced displacement in Central America.