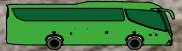




SUSTAINABILITY REPORT 2021



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1. Letter of engagement of the President



Another difficult pandemic year is over and we've once again adapted to ongoing changes with a positive attitude and a lot of hard work from the entire Irizar team. Tight restrictions on public transport, and transport in general, to mitigate the spread of the virus kept having a strong negative impact on the sector. And in 2021, only domestically, bus transport lost more than 1 billion travellers in regards to 2019. It's a complex management situation that has demanded balancing short-term needs (protecting people's health and safety) with medium and long-term needs like ensuring the sustainability of the business and creating value for our stakeholders.

Our convictions are clear. These uncertain times have not stopped us. On the contrary, they've driven us to make progress towards competitive sustainability. We know sustainability is the strongest force for change in our generation. It will transform the way we live and work. It will create new sources of value and extraordinary growth and it will be present in everything we do. Since we started manufacturing our first animal

powered carts 133 years ago, in addition to continuously evolving, Irizar has gone through several strategic transformations.

Now, once again we're reinventing Irizar to focus on smart and sustainable mobility through innovating our business, product and services.

We don't have the slightest doubt about the future of collective public transport as a fundamental solution for achieving sustainability, because a bus can transport the same number of people as 50 cars.

We stayed very close to our clients in 2021, giving them necessary support. We also took the opportunity to take up alternatives for reducing emissions with clients, public institutions and associations of bus and coach manufacturers. We've also gone back to participating in international fairs.

We're proud of the strength shown by all the people who make up Irizar, who have behaved in a flexible and resilient way. Our goal is to continue being an attractive company for talent - to generate quality jobs. All of that happens with a company culture and behaviour with integrity that is governed by ethical principles in relationships both internally and with stakeholders.

The best evidence of our real commitment to sustainable competitiveness, which is coherent with our mission, is having maintained our employment levels even faced with great difficulties with steep falls in sales for the Irizar Group. During the 2009 economic crisis and the 2020 and 2021 crisis we've protected the jobs of the people who make up the Irizar Group. We understand that economic development and job creation are fundamental in our commitment to sustainability, even in the greatest difficulties.

The best forecasts for 2022 in regards to the two previous years suggest cautious optimism. The strain of the pandemic alongside the armed conflict in Ukraine and subsequent increase in the cost of materials and disruptions in supply and production chains means we have to navigate a VUCA environment (volatile, uncertain, complex and ambiguous) and move with caution towards normalising sustainable mobility. At Irizar we're optimistic and prepared to get back on track for growth, always providing the maximum added values with the right technology, the value of a solid brand, agility and adaptability, closeness to clients, collaboration with suppliers and strategic alliances and incredible committed people in the Irizar family.

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. The chance to make a true impact on a company like ours and reinvent ourselves and promote fulfilment of the ten principles of the Global Compact and Sustainable Development Goals of the United Nations is immense in the three aspects of sustainability: Economic-governance, social and environmental.

To those ends, one more year, we're reaffirming our firm commitment to the 10 principles of the United Nations Global Compact (regarding human rights, labour standards, the environment and the fight against corruption), because it helps us with HOW to progress with responsible behaviour. We likewise reaffirm our commitment to keep increasing our contribution to the 2030 Agenda and, especially, the 7 Sustainable Development Goals that we have prioritised, because they're not extras, they are our business. The SDGs are the reference framework for focusing WHAT to do in our transformation to become a global actor in urban and medium and long distance sustainable mobility. To those ends we continue to integrate sustainability into our strategic plans as an indispensable value for the future. At the same time, we keep seeking innovative solutions with a high technological content that will let our clients, who without a doubt guide the goals we set for ourselves, operate their services more efficiently and sustainably.

For all those reasons, but also because it's the right thing to do, at Irizar we're making sustainability one of our highest priorities. I invite you to read more deeply about how we're turning our convictions into a reality. The primary initiatives and progress in the sustainability activities we've been undertaking with our stakeholders are presented transparently below. Thanks to everyone who make it possible!

Koldo Mendizabal, President of Irizar



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 modernization, 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
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 (HHRR) |

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 organization

- o We integrate 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

- More progress in integrating our contribution to the SDGs
- Irizar disseminates and supports the SDGs in a campaign promoted by the Spanish United Nations Global Compact

2.1, About us

Irizar S.Coop. and its business group

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

The Irizar Group is comprised of seven brands that have production operations in 13 plants spread across Spain, Morocco, Brazil, Mexico and South Africa. In addition, it has its own R&D centre, which looks at the applied research process and technological development of its own products and systems in the long-term.

Founded in 1889, Irizar today is a well-established Group made up of more than 2743 people in 2021, 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 456 million Euros of billing in 2021, slightly higher than the 433 million Euros in 2020 due the effects of Covid-19 (766 million in 2019, a historic year), it has a commercial presence on five continents and 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 Ormaiztegi (Gipuzkoa, Spain) where Creatio, the Group's Research and Development Centre, is also located.

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 coach work 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 the international level, being market leader in the luxury coach segment.



Irizar Southern Africa

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

Own delegations

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.



Birth of Irizar.

1889



1928



First vehicle with mechanical traction, 22-seater bodied from a chassis acquired by a customer in France.



Irizar becomes a cooperative.

1963



Constant innovation and is positioned as one of the best companies in the sector in the State.



The Century: A symbol of design

1970
1980

Strong growth and start of the internationalization process. Irizar Mexico, Irizar Brazil, Irizar Maroc, Irizar Asia Pacific and Irizar Southern Africa are created.

1995

European Quality Prize for Business Excellence (EFQM)

2000



In the midst of the crisis, a strategic revolution was carried out at Irizar and it became an integral coach manufacturer with a sustainable vision.

2009

Industrial and technological diversification strategy. Jema Energy, Datik and Alconza joined the Group.



Creatio founded: The Group's Research and Development Centre

2011



Launch of the full range of Irizar brand Integral coaches and creation of the electromobility division.

2012

First 100% electric zero emission bus



2014



125th anniversary



2017



The full range of sustainable mobility solutions is presented. International award for Best Coach of the year. Named coach manufacturer of the year in Europe. Bus of the Year and Environmentally Friendly Industrial Vehicle of the Year

2018



Irizar e-mobility was inaugurated, the first factory entirely dedicated to electromobility solutions in Europe.

2019

Moving forward
130 years

2020

A year marked by the Covid 19 health and economic crisis.

2021



Together for a safer and more sustainable future.

2020 and 2021 will go down in history as the years 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".

Strategic thoughts: Mission, Vision and Commitments

Our Strategic Thoughts are the fundamental principles that guide both the strategic decisions and the organisational culture of the Group. Strategic Thoughts are reviewed periodically (taking into account aspects of the economic and social environment, the sector, market, competition, and the other internal and external stakeholders) and defined and shared by all the people in the organisation. There is a specific day long meeting with everyone at Irizar in every review to reinforce awareness of the strategic thoughts.

In the reviews done every three of four years an in depth SWOT analysis of the strategic thoughts is done, taking into account issues from the economic-governance, social and environmental area. That is done to set priorities and define actions with the goal of making the strategy be aligned with the expectations of all the stakeholders and thus guarantee their needs, sustainable growth for the business and creating value, wealth and employment, as our mission states. Those strategic priorities and activities are derived from the participation of all the people and work teams (management team, board members, direct and indirect staff) and they are translated into plans of action 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 following in depth review of Irizar's strategic thoughts, which was expected for 2020, had to be postponed because of the pandemic and it is now expected to be held in 2023. 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

To continuously strengthen our enterprise and our brand in order to grow and generate wealth and employment in our surrounding area.

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 seek to achieve the maximum degree of satisfaction for the employees that make up the Irizar Group, for our external partners and for society as a whole.

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

Vision

Our vision is to provide buses and coaches with a marked difference in safety, reliability, comfort and profitability for our customers, passengers and to society and set the standard in service, design, innovation, technology and sustainability. To also be a benchmark in providing value to customers in the group's other businesses.

Commitment

We work hard every day to reach a position of leadership that benefits our customers. We work as a team and have employees who are committed to the customer and the Group's strategy. We promote efficiency, communication, participation, self-management and excellence in management.

We create environments in which all the people who are part of our projects can give their best according to their talent, abilities and dreams. This is key to our future success.

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.

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



Brand, technology, and sustainability

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

Although we will deal with it in detail in chapter “3. Customers, Passengers and Citizens” and “5, External Partners, Supply Chain and Alliances”, we'll 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 more and more sustainable products and technological solutions to suit all needs. We have a wide range of solutions that include zero-emissions urban buses and trucks and hybrid, diesel, biodiesel, HVO, biofuel and natural gas (CNG and LNG) coaches. It's a wide range of options that spans all segments of the market, including urban buses, medium and long distance suburban coaches for regular and discretionary and premium services in either a wholly Irizar branded version or in a combination of bodywork with chassis available on the market.
- We keep expanding the product line with the future buses we're developing based on hydrogen as an energy vector or 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's part of our culture and it extends to management, products and services as well as sustainability, technology and image. We encourage innovation and creativity not only in what we do, but also in how we do it. Accordingly, we are constantly progressing, at Group level and in each of the Group's individual organisations. We are not only increasingly more agile, flexible, and adaptable but better able to anticipate future challenges while adding value to our brand and stakeholders.

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

For a number of years, sustainability has been one of the three key priorities of our Group's future strategy, and it drives us forward and commits us to working by contributing to the construction of a better World for everyone. Because we understand the future must be sustainable or there will be no future.

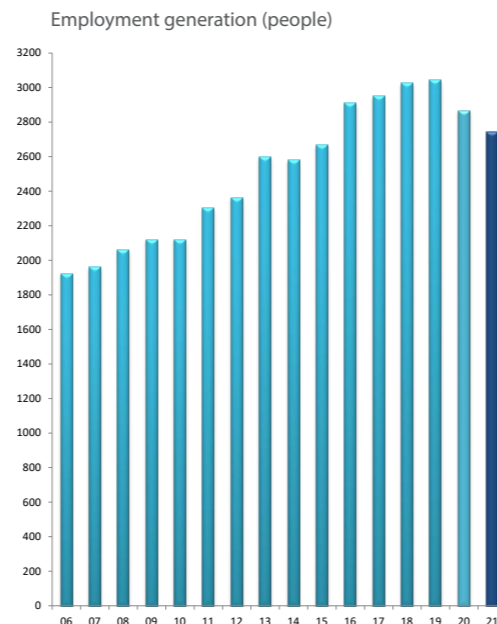
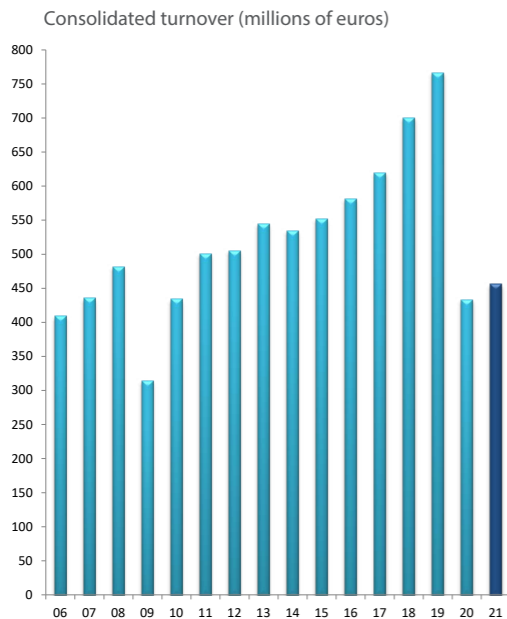
For years this commitment has been part of the culture of the people who make up the Irizar Group

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 sales and employment at the Irizar Group



Despite the sharp drop in sales at the Irizar Group during both the 2009 economic crisis and in 2020 and 2021, we have maintained employment of the people who make up the Irizar Group practically the same. The reduction in employment was not very significant in comparison with the drop in sales. And we've strengthened communication and training with the goal 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.

Despite its growing diversification, the majority volume of the Irizar Group is fundamentally based in manufacturing and commercialising buses, coaches and components. So, even though in 2021 there was only a slight increase in consolidated billing of 5.3% over 2020 (2019 was a record year), it was also a year of opportunities and progress in terms of strategic positioning in which we've also kept reaffirming our focus on sustainable mobility as the guide for our future growth.

As we anticipated at the beginning of this chapter, 2020 and 2021 will go down in history as the Covid-19 years, a parenthesis that represented a change in the upward trend of the Irizar Group's production and economic activity. 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 drop in passenger volume affected different segments of the markets differently in 2020 and 2021. The fall in bus and coach registrations in Europe was greatest for discretionary transport, followed by long distance, medium distance, urban and intercity. The chart below shows data for Spain, but the other European countries behaved in a similar way.

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.

Registrations of buses and coaches relative to 2019		
	2020	2021
Discretionary transport	-76%	-67%
Long distance	-62%	-51%
Medium distance	-50%	-34%
Urban	-45%	-26%
Intercity	-43%	-22%

2.2.1 Sustainability as a strategic priority

We keep focusing our efforts so Irizar can become a global actor in sustainable mobility for urban and medium and long distance transport, which is why we keep integrating sustainability as an indispensable value for the future into our strategic plans. At the same time we keep searching for innovative solutions with a high technological content that lets our clients, who without a doubt guide the goals we set for ourself, operate their services in a more efficient and sustainable way.

We don't have the slightest doubt that the future will include collective public transport as a fundamental solution for achieving 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. Accordingly, we're focusing on the entire life cycle of our vehicles, from their development, starting with extracting the raw materials, to production and use, up to the end of their life.

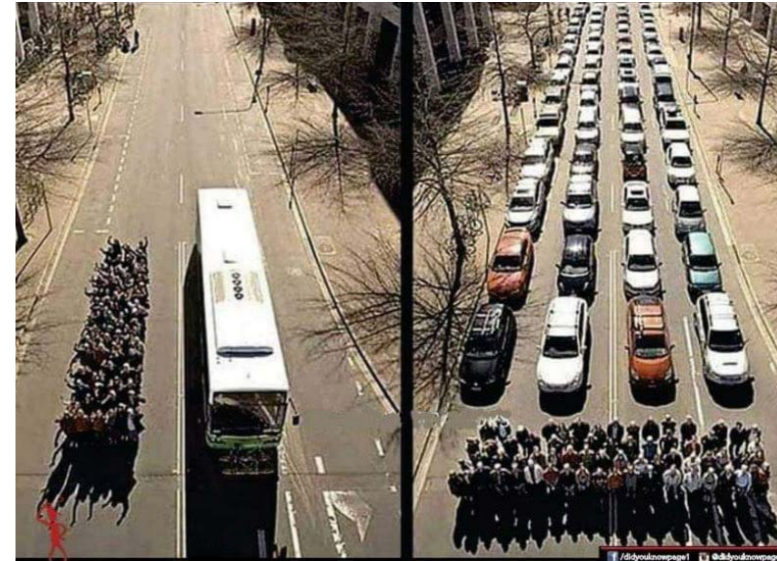
Along these lines, we are continuing to collaborate with our stakeholders in the generation of shared and sustainable long-term value, by including the three dimensions of sustainability: economic (and governance), social and environmental:

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

It's a process geared towards including their concerns into our strategy and operations: social, environmental and ethical, respect for human rights (in all links of our supply chain), in order to:

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

Business sustainability is the future, not just for the well-being of the company and the planet, but also for the economic stability of the market. Our future success depends on us going far beyond the search for economic profitability and compliance with applicable legislation (local, regional, national, foreign, and



A bus can transport as many people as 50 cars.

international laws) and internal regulations. All within a culture and business approach of integrity that is governed by Ethical Principles.

Our firm commitment to sustainability is led by the CEO, because they're the highest ranking company leader who guides the rudder of the organisation and, consequently, they're the one who can make the change of course towards more sustainable models happen. Furthermore, we understand that sustainability management should not wait. We must make progress to achieve it transversally, not secondarily, and it must be led by the rest of the members of the management team to expand throughout the global management of the company into all the departments, areas and people involved. It means not just showing leadership inside the company but extending it to the value chain and, to the extent possible, throughout the industry and the entire business ecosystem.

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 (from 3 to 7) we'll see in detail how we generate value for each one of our stakeholders.

2.2.2 Our global reference frameworks

Our business 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. Respectively, they both help us focus HOW to operate in a sustainable way and WHAT to do.

At Irizar S. Coop. we've been members of the United Nations Global Compact since 2013 and every year we create a sustainability report renewing our firm commitment to moving towards 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 is our **Communication on Progress** in implementing the principles of the **United Nations Global Compact** and supporting broader UN goals.

We welcome feedback on its contents.

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.

Basing businesses on those principles means more than mere standards compliance.

THE TEN PRINCIPLES OF THE UNITED NATIONS GLOBAL COMPACT

HUMAN RIGHTS	LABOUR	ENVIRONMENT	ANTI-CORRUPTION
1. Businesses should support and respect the protection of internationally proclaimed human rights; and	3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	7. Businesses should support a precautionary approach to environmental challenges;	10. Businesses should work against corruption in all its forms, including extortion and bribery.
2. make sure that they are not complicit in human rights abuses.	4. the elimination of all forms of forced and compulsory labour;	8. undertake initiatives to promote greater environmental responsibility; and	
	5. the effective abolition of child labour; and	9. encourage the development and diffusion of environmentally friendly technologies.	
	6. the elimination of discrimination in respect of employment and occupation.		

These 10 Principles are the reference framework for HOW to make progress in acting responsibly. 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: 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 more information about the principles see:

<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 encompasses all three dimensions of sustainability: economic/governance, 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 to sustainable development and finding business opportunities.

Now is the time we need to move from economic value to shared value and align the success of the company with the success of the community. It's not philanthropy, but rather business intelligence because there won't be prosperous businesses without prosperous environments. That spirit of shared value is, in fact, what the 2030 Agenda (the United Nations plan for humanity) propagates. The UN gives companies a leading role in sustainable development because they believe that, as motors of the economy, companies have their hands on the lever to bring about systemic change through rethinking products and services or reorienting business, among other things. The 2030 Agenda is currently the framework for

business sustainability. When its term expires, of which there are only eight years left, sustainable management that provides business benefits will continue. It's entirely extendible into the future.

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 organization

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 integrate 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 recognize the opportunity presented by the Sustainable Development Goals (SDGs).
- In 2020 we made progress with including them into 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 prioritised and started working on seven SDGs and goals that have a special impact on our activities and extensive value chain. You can find more details about our commitment to the SDGs in section 2.4.
- In the annual assemblies, where everybody at Irizar S. Coop. participates, sustainability is always addressed within the global strategy and progress of the company (its dynamics may be seen in detail in chapter 4 about people). For example:
 - 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 the members in 2020.
 - o Our high priority and transversal SDGs from the 2030 Agenda were presented in 2020.
 - o In 2020 and 2021 sustainability was addressed as an axis upon which the rest of Irizar's strategies, especially sustainable mobility are based.
- We continue to make clear progress in training and raising awareness of people in sustainability.
 - o Details of actions in 2021 can be seen in chapter "4. We create value for our People".
 - o In 2021 we can highlight the training in sustainability and SDGs/2030 Agenda begun by the management team. The involvement and leadership of the management team is fundamental for making progress towards putting sustainability in practice transversally not just secondarily.

- o We'll subsequently keep promoting training for them and also deploying it for leaders and the rest of the people in 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 do 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 mentioned previously, the next in depth review of Irizar's strategic thoughts that was planned for 2020 had to be postponed because of the pandemic and it is now planned for 2023. Sustainability plays a fundamental role, in accordance with our future strategic lines.

- 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.
- Despite the serious impact Covid-19 had on our business in 2020 and 2021 the decrease in employment wasn't very significant.
- 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, beyond the people who work at Irizar, spreads among the rest of the stakeholders (clients, suppliers, external collaborators, 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 keep making progress in transparency, good governance and integrity. Therefore, we rely on our open culture and our firm conviction that only business activities that respect corporate ethics and sustainability constitute the only possible foundation for achieving sustained business success beyond compliance with internal regulations and applicable legislation (local, regional, national, foreign, and international).

- Throughout this chapter, we address in particular our common tools to facilitate our good governance.
- Along those lines, a first draft of the code of ethics was created in 2017 that we have kept developing and putting into practice subsequently. The improved version of our code of ethics, created by the governing council in conjunction with the management team, was approved in 2020 by all the members in a general assembly. The new code of ethics is new version of our ethical principles and behaviour guidelines. It's the road map for everyday behaviour based on the fundamental principles of human rights, labour standards, the environment and the fight against corruption.
- In developing the code of ethics a crime prevention programme is set forth that includes a detailed analysis of the criminal risks that could hypothetically arise in different business areas and companies that make up Irizar and potential violations of regulations that could occur in them.
- Likewise, insofar as issued that may affect employees, like situations of discrimination,

harassment, bullying or workplace safety, among others, specific channels are being created for communicating and handling any inappropriate behaviour that may occur.

- In 2021, work was done on the protocol for sexual harassment gender based harassment in the workplace, which we expect to be approved by the organisation's upper management and put into practice in 2022.
- The ethics and compliance committee will analyse all notifications it receives in a reasonable length of time. If the notification is deemed to deserve closer attention, the committee will send the documentation to the relevant department in order to jointly evaluate the facts and determine the measures to be taken.
- In the future we expect to improve the ethics and compliance system (common corporate values, code of ethics, crime prevention system, channels of communication, channels for reporting, notifying about incidents and actions) and the system for protecting personal data and guaranteeing digital rights. With the goal of taking into consideration the evolution of patterns of sustainability, legal changes or new risks not previously addressed.

Transparency contributes to improving our credibility, reputation and brand, which increases the confidence our stakeholders have in us. To those ends, we're making public all the information you need to know more about Irizar.

As we will see in the following chapters, we have multiple channels of communication with stakeholders, including our Sustainability Reports discussed in the previous section "2.2.2. Our global 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: worldwide 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 (multi-stakeholder 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 organizations and agents (Spanish or international), with the purpose of generating shared competitive value and strengthening relationships with stakeholders. It participates in several activities like workshops organised by the Global Compact and the Spanish government, open-doors days at Irizar to share experiences with companies, educational institutions and SDG benchmarking to learn alongside other companies. In 2020, all the sessions had to be held remotely.
 - o In 2019, we celebrated their 15 years of leadership in sustainability with the Global Compact Spanish Network, because it's the local network with the most signers of the UN Global Compact and it's positioned as a worldwide leader because of its noteworthy operability and stability. One highlight of the event was the participation of Cristina Gallach, High Commissioner for the 2030 Agenda for the Spanish government, with whom we had the privilege of exchanging opinion about the 2030 Agenda and the need to alliances between the public and private sectors to reach the SDGs.
 - o In 2020 and 2021, all the sessions had to be held remotely.

- In 2020, the CEO of the Irizar Group (along with 1000 business leaders from more than 100 countries) made their support for the United Nations and multilateralism visible and even signed an ambitious “declaration in favour of renewed global cooperation” as part of the commemoration of the 75th anniversary of the UN. The declaration maintains its relevance given the state of the world in 2021. On the website of the United Nations there is an updated list of signers.

https://ungc-communications-assets.s3.amazonaws.com/docs/publications/UN75_UnitingBusinessStatement.pdf



UNITED IN THE BUSINESS OF A BETTER WORLD A Statement from Business Leaders for Renewed Global Cooperation

The 75th anniversary of the United Nations comes at a time of **unprecedented disruption and global transformation**, serving as a stark reminder that international cooperation must be mobilized across borders, sectors and generations to adapt to changing circumstances. This message emerged loud and clear from the hundreds of thousands of people who participated in global dialogues initiated by the UN this year.

In the face of the COVID-19 pandemic and converging crises — including climate change, economic uncertainty, social inequality and rising disinformation — **public and private institutions** need to show they are accountable, ethical, inclusive and transparent. This is the only way to strengthen public trust and achieve a more sustainable future for all.

Over time, the **UN has sought to unite stakeholders everywhere** to tackle the world's greatest challenges. Yet our multilateral system is being threatened by those who want to go it alone rather than work together.

We, the business peoples, recognize that **peace, justice and strong institutions** are beneficial to the long-term viability of our organizations and are foundational for upholding the Ten Principles of the UN Global Compact and achieving the Sustainable Development Goals (SDGs).

In the spirit of renewed global cooperation, we commit to:

- Demonstrate ethical leadership and good governance through values-based strategies, policies, operations and relationships when engaging with all stakeholders
- Invest in addressing systemic inequalities and injustices through inclusive, participatory and representative decision-making at all levels of our business
- Partner with the UN, Government and civil society to strengthen access to justice, ensure accountability and transparency, provide legal certainty, promote equality and respect human rights

In making that commitment, we also call on Governments to:

- Protect human rights, ensure peace and security, and uphold the rule of law so that businesses, individuals and societies can flourish
- Create an enabling environment to serve the interests of people and planet, prosperity and purpose, through strengthened international cooperation and national legal frameworks
- Enhance multilateralism and global governance to combat corruption, build resilience and achieve the SDGs

Now is our opportunity to learn from our collective experiences to **realign behind the mission of the UN** and steer our world onto a more equitable, inclusive and sustainable path. We are in this together — and we are united in the business of a better world.



- In late 2020 we joined the SDG Ambition accelerator programme from the United Nations Global Compact, in which more than 700 companies participated over six months. It is pioneering training programme with a new methodology to help set ambitious SDGs (sustainable development goals), integrate them into the centre of our strategy and operations and measure our progress. So we can definitively contribute to the prosperity of people and the planet.

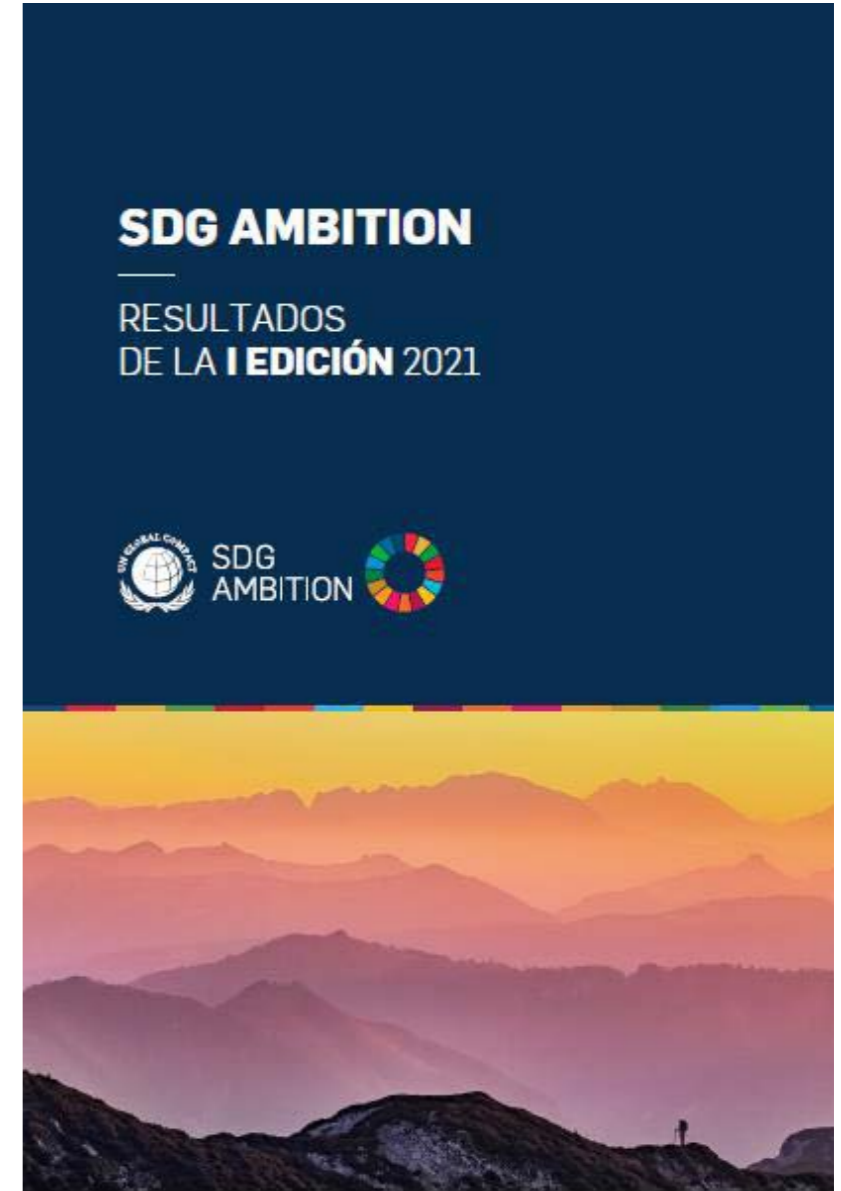
In addition to Irizar representatives actively participating, until June 2021 in the SDG Ambition programme, the CEO of the Irizar Group has reaffirmed our commitment as a high level ambassador in following our progress in the SDG Ambition.

Further information on SDG Ambition can be found at:

<https://unglobalcompact.org/news/4593-09-21-2020>





You can see the dossier created by the Spanish Global Compact Network after the SDG Ambition training work in 2021 at:

<https://www.pactomundial.org/biblioteca/sdg-ambition-resultados-i-edicion/>



2.3. Commitment to the Principles of the Global Compact

Although in this 2021 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
 HUMAN RIGHTS	Principle 1 Businesses should support and respect the protection of internationally proclaimed fundamental human rights within their sphere of influence	2. Irizar and Sustainable Competitiveness 4 We create value for our people 7. We create value for Society
	Principle 2 Businesses should ensure that their companies are not complicit in human rights abuses	5 Irizar and Sustainable Competitiveness 6. We create value for our external partners, supply chain and alliances
 LABOUR	Principle 3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	4 We create value for our People - 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
	Principle 4 Businesses should support the elimination of all forms of forced or compulsory labour	4 Irizar and Sustainable Competitiveness 5 We create value for our People - People. Key Actors in Sustainable Competitiveness - Commitment to Quality Employment 6. We create value for our external partners, supply chain and alliances - Sustainability requirements for our suppliers
	Principle 5 Businesses should support the abolition of child labour	4 Irizar and Sustainable Competitiveness 5 We create value for our People - People. Key Actors in Sustainable Competitiveness - Commitment to quality employment 6. We create value for our external partners, supply chain and alliances - Sustainability requirements for our suppliers
	Principle 6 Businesses should support the elimination of discrimination in respect of employment and occupation	4 Irizar and Sustainable Competitiveness 5 We create value for our People - People. Key actors in sustainable competitiveness - Gender equality, diversity and social inclusion 6. We create value for our External Partners, Supply Chain and Alliances - Sustainability requirements for our suppliers
 ENVIRONMENT	Principle 7 Businesses should maintain a preventive approach to environmental challenges	2. Irizar and Sustainable Competitiveness 3. We create value for our clients, passengers and society - Race to Zero – a European leader in eco-innovation – Decarbonisation: in internal combustion vehicles with hybridisation, zero-emissions electromobility and green hydrogen as an energy vector. 5 We create value for our External Partners, Supply Chain and Alliances - Sustainability requirements for our suppliers 6. We create value for the Environment
	Principle 8 Businesses should undertake initiatives to promote greater environmental responsibility	2. Irizar and Sustainable Competitiveness 3. We create value for our clients, passengers and society - Decarbonisation: in internal combustion vehicles with hybridisation, zero-emissions electromobility and green hydrogen as an energy vector. 5 We create value for our external partners, supply chain and alliances - Sustainability requirements for our suppliers 6. We create value for the Environment
	Principle 9 Businesses should encourage the development and dissemination of environmentally friendly technologies	3. We create value for our clients, passengers and society - Decarbonisation: in internal combustion vehicles with hybridisation, zero-emissions electromobility and green hydrogen as an energy vector. 6. We create value for the Environment
 ANTI-CORRUPTION	Principle 10 Businesses should work against corruption in all its forms, including extortion and bribery	2. Sustainable Competitiveness - Our sustainable competitiveness 4 We create value for our People - 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

Summarizing 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 strategy 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 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've chosen at Irizar to be high priority and transversal.
 - o The SDGs are interrelated, so by acting on the high priority and transversal SDGs we're also making an impact on what we call secondary SDGs in an indirect way through our operations (to a greater or lesser extent), or because their essence is contained in other SDGs that have already been dealt with.
 - o At the end of 2020, we signed up to the SDG Ambition Accelerator Program of the United Nations Global Compact, as we mentioned in section "2.2.3 We're a Responsible Organisation", in which we participate with more than 700 companies internationally for six months to be better prepared for setting ambitious SDG goals and integrate them into our strategy and operations, measuring our progress, to contribute to prosperity for people and the planet.
- In 2021 we can highlight the training in sustainability and SDGs/2030 Agenda begun by the management team. The involvement and leadership of the management team is fundamental for making progress towards putting sustainability in practice transversally not just secondarily.

- We'll subsequently keep promoting training for them and also deploying it for leaders and the rest of the people in the organisation. The commitment is important for achieving the goals set for the future.

Priority SDGs

We make a direct impact through our operations

 <p>Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all people equally.</p>	 <p>Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.</p>	 <p>Make cities and human settlements inclusive, safe, resilient and sustainable.</p>	 <p>Guarantee sustainable consumption and production patterns.</p>	 <p>Adopt urgent measures to combat Climate Change and its effects.</p>
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Cross-cutting SDGs

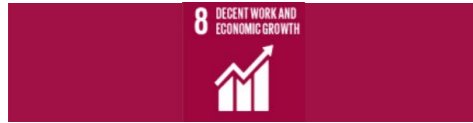
These are the foundations of our commitment (with Ethics, Law and Human Rights), cutting across all internal areas and all stakeholder groups.

 <p>Achieve gender equality and empower all women and girls.</p>	 <p>Promote just, peaceful and inclusive societies.</p>
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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. To those ends, we chose the goals for each one in order to set the most ambitious objectives and indicators possible aligned with the 2030 Agenda and make progress 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 modernization, 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 (HHRR)

More progress with integrating our contribution into the SDGs

- In the first quarter of 2021 we did an exhaustive analysis of possible indicators we could use to make progress in integrating the SDGs into our 2030 IRIZAR AGENDA. It's a BASE document in a table format to facilitate setting SDG GOALS and high priority + transversal goals, including possible indicators, data up to the present, and goals/commitments. It makes it easier to understand the scope of each SDG and focus the hard work they require, because the 2030 Agenda is an action plan in favour of people, the planet, prosperity, peace and teamwork. The draft of the table includes contributions by the CEO, Environment and External Communications, in addition to the sustainability manager.

It's centred on our high priority (8, 9, 11, 12 and 13) and transversal (5 and 16) SDGs, including their relationship with the PRINCIPLES of the Global Compact and an inventory of possible qualitative or quantitative contributions/INDICATORS for each GOAL.

- Some indicators will only be for tracking progress.
- However, the ones we deem to be the most relevant/indispensable should have a realistic but ambitious GOAL. We can think about what are called "SMART goals" (specific, measurable, achievable, relevant and time-related).
- And with a time limit: DATE and taking the base line of the commitment into account (a specific point or period in time to measure from).
- There are also columns for showing data from recent years that can be used to help see the progress and set a goal.

The SDG indicators and goals are not an annual management plan (IH) and, even though we can set annual goals, the idea is to set long-term milestones and intermediate goals/deadlines to show our commitment with the 2030 Agenda.

- At the end of 2021, with the active involvement of the CEO, we defined actions to start our contribution to the high priority and transversal SDGs. It will be started after 2022: setting related goals, indicators, objectives and deployment with various managers and teams of the affected areas: Product Development (innovation and engineering), the Environment, Purchasing and relationships with Suppliers, Production, People-HR, CEO and other entities in the cooperative, etc.
- We expect to progressively integrate setting goals for the high priority and transversal SDGs into the annual strategic planning process that will be done at the end of 2022. We will review our actions, indicators and goals to align them with the 2023 (and beyond) Irizar strategy and involve more people. The management team and key people in all areas will participate in the process.

The goal of making sustainability a strategic pillar at Irizar is to inculcate responsible behaviour at all levels of the organisation and ensure that the SDGs are progressively integrated into all areas of the company.

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

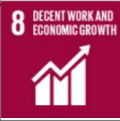






Irizar disseminates and supports the SDGs in a campaign promoted by the Spanish United Nations Global Compact




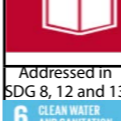




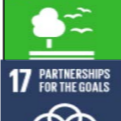

With the intention to contribute and promote mobility for society in the Decade of Action, Irizar has joined the #apoyamoslosODS launched by the Spanish United Nations Global Compact for working on spreading the United Nations' goals. The goal is to act, out of its own commitment to the SDGs, as a spokesperson and obtain a multiplier effect to raise awareness and work on the goals of the 2030 Agenda. Corporate management based on the SDGs creates new business opportunities, improves relationships with stakeholders and promotes innovation.



We disseminated information about the campaign on our website, where you can see all the details. <https://www.irizar.com/irizar-se-suma-a-la-campana-apoyamoslosods-promovida-por-el-pacto-mundial-de-naciones-unidas-espana/>, and on social networks with short messages.

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

SDGs	Sustainable competitive-ness:	WE CREATE VALUE FOR				
		Customers, Passengers and Citizens	People	External partners, supply chain, and alliances	Environ-ment	Society
Priority						
						
						
						
						
						
Cross-cutting						
						
						

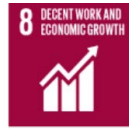
SDGs	Sustainable competitive-ness:	WE CREATE VALUE FOR				
		Customers, Passengers and Citizens	People	External partners, supply chain, and alliances	Environ-ment	Society
Secondary						
						
						
						
						
Addressed in SDG 8, 12 and 13						
						
Addressed in SDG 12						
						
Addressed in SDG 13						
						
Addressed in SDG 5, 8 and 16						
						
						
						

Addressed in High Priority SDGs

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 modernization, 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. A Key Actor in Intelligent and Sustainable Mobility

- Global forces that are revolutionising sustainable transport
- Sustainable transport technologies
- Our vision of intelligent and sustainable mobility
- Innovation, it's in our DNA
- Race to Zero
- European benchmark in Eco-innovation

3.2. 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
- Premium coaches where everything is possible
- Meeting us at international fairs

3.3. Decarbonization: in combustion vehicles

- 3.3.1. Irizar brand integral coaches
- 3.3.2. Natural gas (CNG and LNG) coaches
- 3.3.3. More efficient, sustainable and profitable next generations
 - o The lightened Irizar i4
 - o The Irizar i6S efficient: the most efficient coach in Irizar's history

3.4. Decarbonization: with hybridization

- 3.4.1. Irizar Brand Hybrid Coaches
- 3.4.2. Hybrid Coaches on Chassis

3.5. Decarbonization: Electromobility at the Irizar Group, zero-emissions

- 3.5.1. Integral electromobility solutions

- 3.5.2. Range of electric vehicles
- 3.5.3. Prizes for our Electric Vehicles
- 3.5.4. Irizar batteries
- 3.5.5. Second life and recycling of batteries
- 3.5.6. Careful management of resources
- 3.5.7. Charging infrastructures

3.6. Decarbonization: Green hydrogen as an energy vector

3.7. Safety and Driverless Vehicles

3.7.1. Passenger safety comes first

- o Active safety
- o Passive safety
- o Rescue safety
- o New assisted driving systems

3.7.2. Towards autonomous driving

- o The World Economic Forum highlights the first European autonomous bus on the road: 100% electric from Irizar
- o AutoMOST has won the ITS Award for autonomous and connected vehicles by ITS Spain
- o AUTODRIVE
- o INPERCEPT Project

3.7.3. 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

3.8. Connectivity - Big Data

- 3.8.1. Fleet manager
- 3.8.2. Maintenance

3.1. A Key Actor in Mobility Sustainable and Intelligent

Buses and coaches play a crucial role in achieving the sustainability goals of the European Green Deal, and in the efficient transition towards decarbonisation and climate neutrality by 2050. The bus is the means of transport that generates the least greenhouse gas emissions compared to other modes of transport: 3.7 times less than an aeroplane, 5.5 times less than a car and 13% less than a train. In terms of CO2 emissions, the bus generates fewer emissions per passenger/kilometre than any other mode of land transport, except rail. In fact, figures from the European Environment Agency show that almost all CO2 emissions associated with road transport are not produced by bus transport.

Sustainable mobility has become one of the transport priorities of the future, a motto that we make our own and that is an element of the strategic decisions that we are adopting in the Irizar Group.

Today, after 137 years, we understand our ability to respond and adapt successfully to different challenges, by making a continuous effort to position ourselves at the forefront and improve the experience, safety and sustainability of public transport and by offering a customised service and quality. We also understand our flexibility in meeting the needs of our customers and our commitment to remaining closer than ever to everyone, to offer the best of ourselves.

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

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

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

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 global forces that are revolutionising sustainable transport.

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 a CO₂ emissions free EU 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 from road transport, 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. And it will grow more and more because, while not everything is urgent, taking care of our planet is.



Urbanization

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.

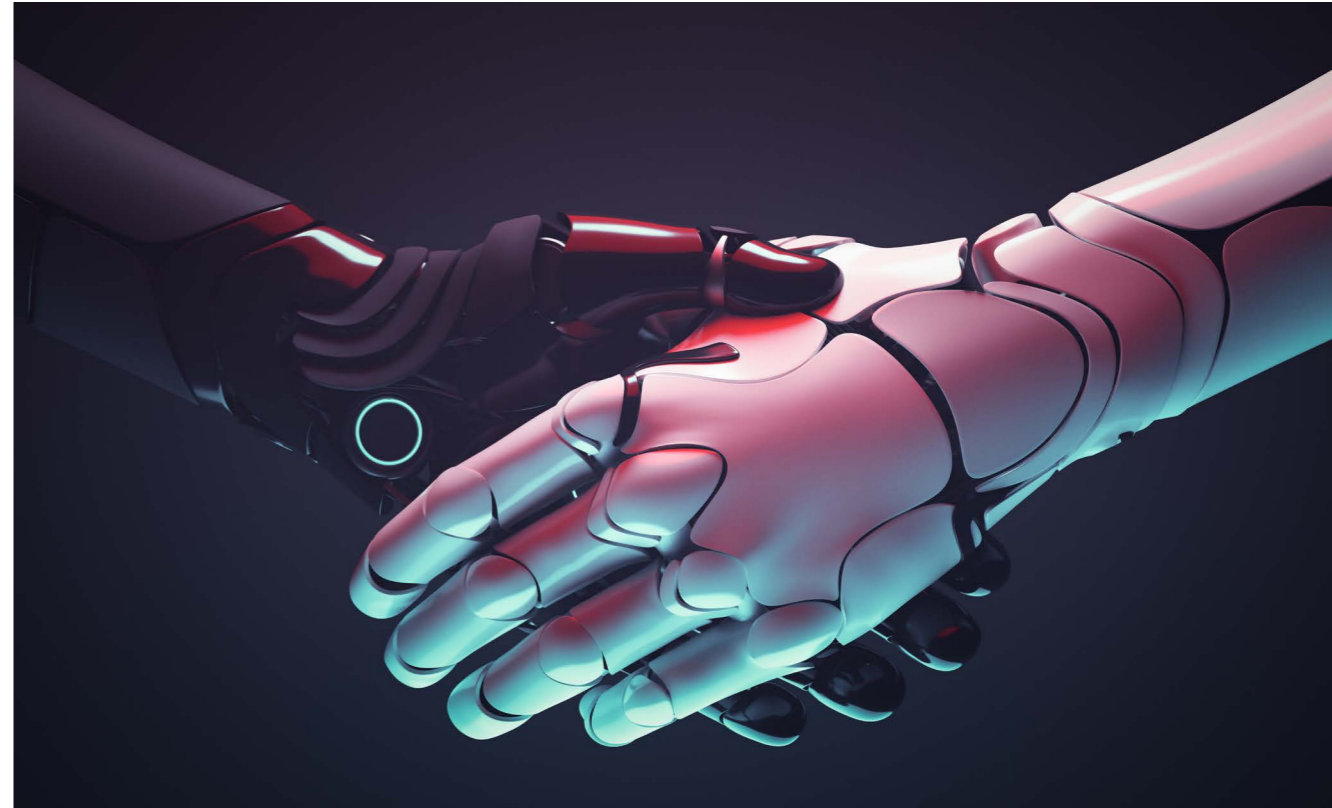
The challenges of urbanization demand resilient transportation infrastructure and solutions that keep people and goods moving, and ensure that the cities of the future are healthy, safe, inclusive, and liveable.



Digitization

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.

Digitization 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

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 that is electrified, uses alternative fuels and hydrogen as an energy vector, is autonomous and connected.

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.

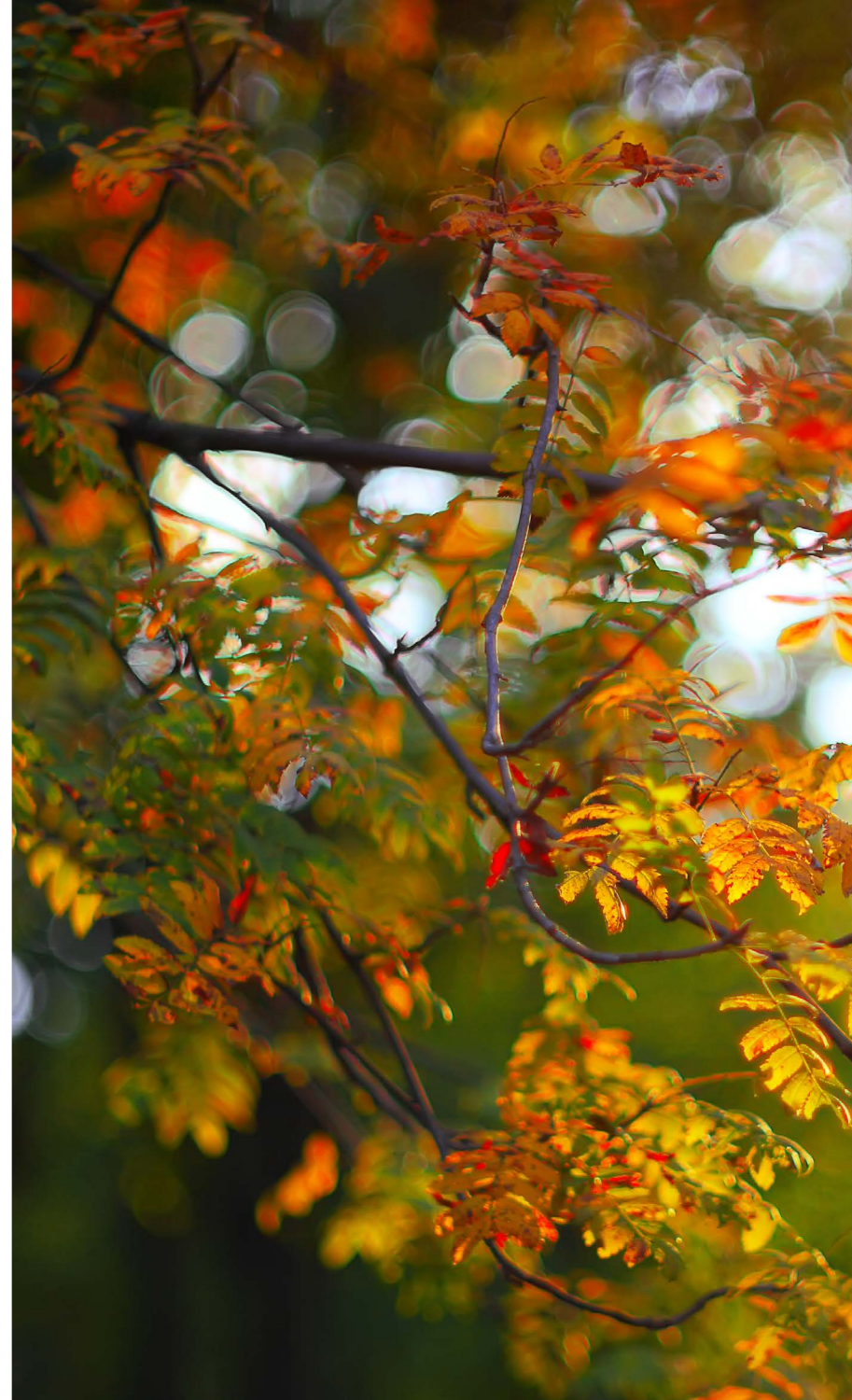
Renewable fuels

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 the emission of sulphides), 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 using hydrogen as a relevant agent in the energy transition will be transforming the production model to use processes based on renewable energy that create what is 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 revolutionize 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

Digitization is bringing tremendous growth in vehicle connectivity, with vehicles continually producing and sharing data. Connectivity can be a key enabler for driverless transportation, allowing 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 optimized, maximizing uptime, reducing fuel consumption and improving overall efficiency.



Our vision of intelligent and sustainable mobility

The mobility of the future will be different to what we are used to. Technology at the service of public needs and sustainability goals will undoubtedly bring about disruptive changes, some of which can be predicted while others are yet to be discovered.

Our current vision sees the mobility of the future as sustainable, safe, smart and connected, with the presence of vehicles powered by different energy sources, increasingly efficient and with different levels of range and services that will improve people's experience.

At the Irizar Group we aim to become a key player in facing these challenges, putting our capacity and technology at the service of society, forging alliances (suppliers, network of local technology centres, institutions, universities, training schools, etc.) and seeking out partners.

We are committed to mass public mobility, to reducing the level of polluting emissions, connecting means of transport for better fleet management, improving information to users and introducing new technological developments to enhance the safety and experience of passengers.

In this context, technology is key and our Group positioning strategy is to promote innovation and the creation of our own high technology in strategic sectors with the aim of providing pioneering solutions so that we can anticipate successfully future challenges and positively impact on wealth creation and employment and the development of society and the economy.

All of that will demand great flexibility and a high capacity for adaptation. Our current and future development hinge on the following keys:

Sustainable Mobility

Change is coming in urban environments towards smart cities that are more liveable and sustainable and where mobility and transport play a crucial role.

In the markets we operate in we're working with our clients and other partners to make collective passenger transport a sustainable reality. Irizar has become an important reference in coaches and buses and has established itself in markets where it is currently present.

Passenger transport will be emission-free and there will be a combination of technologies, ranging from electric-powered propulsion, or propulsion by natural gas or hydrogen. The latter, alternative and green, source of energy is mostly for long distance vehicles.

In this sense, Irizar is continuing to make progress in offering alternatives that reaffirm our commitment to sustainability that began years ago. We have a wide range of solutions that include zero-emissions urban buses and trucks and hybrid, diesel, biodiesel, HVO, biofuel and natural gas (CNG and LNG) coaches. 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. Furthermore, we have several mobility projects under way with electric vehicles that have hydrogen fuel cells.

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.



Another of the great challenges of the future is the generation of clean, inexhaustible energy, without radioactive waste or the use of non-renewable fuels. At the Irizar Group, we're positioned in three business areas: nuclear fusion, renewable energies and energy storage and management, which is indispensable for reaching the zero-emission goals.

Shared and Collective Mobility

Promoting the use of public transport and researching and improving alternative fuels are the main challenges that we chose to prioritise some time ago. Public transport is a fundamental economic sector, both for the contribution of the wealth and employment it generates, and for its dynamic nature in society, facilitating the mobility required by daily life. It has a beneficial impact on the health system, due to better air quality and reduced noise emissions.

Innovation, it's in our DNA

That strategy based in developing new ideas, that entrepreneurial attitude backed with tool that made us more and more competitive, that boldness in taking on risks or the capacity to learn from mistakes were nothing other than manifestations of the innovative gene that, for the 137 years of Irizar Group history, have defined our brand, culture and identity.

For us innovation means investing in knowledge, talent and new products and services, new processes, new sustainable technologies and new developments. But it's also the key instrument that lets us make progress in our organisational culture and day to day management and it makes us not only more agile, flexible and adaptable, but also more capable of overcoming future challenges in a way that will make us always be the preferred choice of our clients.

New times have also made us innovate, because the social-health and economic crisis made us provide short-term responses to protect the health and safety of people and their families and guarantee the sustainability of the business and creation on value in the medium and long-term. But it also offers us an opportunity to re-focus and redefine our strategic plans, putting our sights on the major challenges that the energy transformation and new sustainable and intelligent mobility bring us. And, in that scenario, innovation once again becomes key.

From our position at the centre of the energy and sustainability transition, two ideas should be made very clear. People are the linchpin on which our energy strategy hinges. And the innovation we advocate calls for strengthening ties and creating a collaborative fabric among suppliers, local technology centres, institutions, universities and training schools that we can provide pioneering solutions that positively impact the development of society and the economy with.

In that context, the Irizar Group's strategy to drive innovation and create our own technology in future strategic sectors in which we can provide pioneering solutions that positively impact the creation of wealth and employment and develop an industrial fabric in the long-term takes on special importance. The well-known Next Generation funds are a major opportunity to bring European industry back into the technological vanguard.

One of the strategic decisions we've made in the Irizar Group has to do with the role buses and coaches play in achieving the sustainability goals of the European Green Deal and the efficient transition towards decarbonisation and climate neutrality by 2050. We strive to become a key player that provides solutions by putting our capacities and technology at the service of society and build alliances that ratify our commitment to the environment and people's health and well-being and create one of the best urban environments.

We are committed to mass public mobility, to reducing the level of polluting and noise emissions, connecting means of transport for better fleet management, improving information to users and introducing new technological developments to enhance the safety and experience of passengers.

In short, Irizar lives and breathes innovation, it's in the environment, it's in our DNA, and it's in our commitment to clients, society and to the people that make up the Irizar Group.



Race to Zero

The impact of CO₂ emissions from transport on global warming is a proven 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. We're making significant investments in a new generation of hybrid, diesel and renewable fuel vehicles to reduce the level of CO₂ emissions (fuel consumption) to stay a step ahead of future regulations that will come into force soon and be ready 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

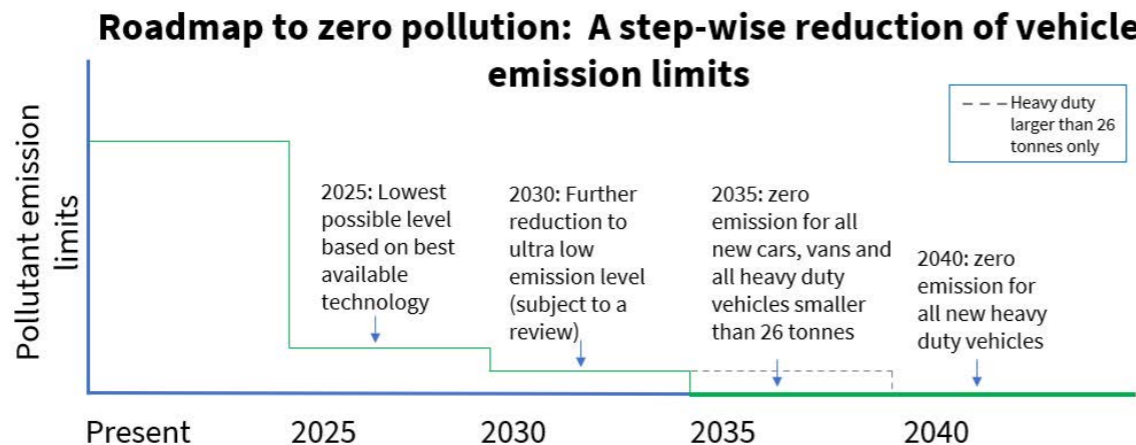
Union the opportunity to eradicate pollution from road transport, regain technological and regulatory leadership, and align standards with its new "Zero Pollution Ambition" with zero emissions of net greenhouse gas by 2050.

In this area, alongside large European brands Irizar participates in several domestic and European research and development projects for a new generation of vehicles that pollute less. 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.

Irizar participates in the LONGRUN project that is centred on long-distance coaches and lorries. The innovations are developed in the areas of electric-hybrid drive, motors and after-treatment systems for alternative and renewable fuels, electric motors, smart auxiliary systems, generating and storing energy with a renewable origin and power electronics.

- It started in early 2020 within a consortium of 30 organisations from 13 European Union Countries (constituted in 2019) for developing efficient and environmentally friendly long distance power train systems for heavy lorries and coaches.
- Irizar will provide a demonstration vehicle whose goal is to show the viability of different technologies and reduce diesel consumption and CO₂ emissions around 10% for long distance applications.
- The project is subsidised by the Marco Programme Horizonte 2020 (H2020) from the European Union is geared towards research and innovation. The primary mission of LONGRUN is to reduce CO₂ emissions in the heavy transport sector and, with tangible results, contribute to updating the CE for CO₂ emissions standards in the sector starting in 2022.

European timetable for gradually eliminating polluting vehicles with internal combustion engines



As we mentioned previously, we currently offer a COMPLETE RANGE OF integral, conventional, electric and hybrid VEHICLES, always meeting the needs of each customer and we are continuing to invest in alternative technology for the future, such as hybrid technologies with electric autonomy and alternative combustion engines, like biodiesel, HVO, biofuel and natural gas (CNG and LNG).

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.

Furthermore, we have several mobility projects under way with electric vehicles that have hydrogen fuel cells.

Range of Irizar Vehicles

		Long distance → Urban										
DRIVE Technology		Can be INTEGRAL	i8	i6S	i6S efficient (2022)	i6	i4	i4 Lightened (2022)	I31e	ie tram	ie bus	ie truck
More GHG emissions ↓	COMBUSTION	Diesel										
		Biodiesel										
		HVO (hydrogenated vegetable oil)										
		Compressed natural gas / biofuel (CNG)										
		Liquid natural gas / biofuel (LNG)										
WITH HYBRIDISATION	Hybrids Parallel integral											
	Hybrid on chassis											
Zero GHG emissions	ELECTRIC	Zero emissions electrics										
		Hydrogen with fuel cell (FUTURE)		(to be specified in the FUTURE)								

In addition to working on lowering the fuel consumption and GHG emissions of our vehicles through using alternative fuel and drive technology, we also innovate constantly in aerodynamics and chassis weights, depending on the functionality the vehicle will have.

- On long distance coaches the proportion is: 70% aerodynamics and 30% weight
- On short distance or intercity coaches the proportion is: 40% aerodynamics and 60% weight, because it increases braking

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.

Environmental Product Declaration (EPD) for the Irizar i4 integral coach

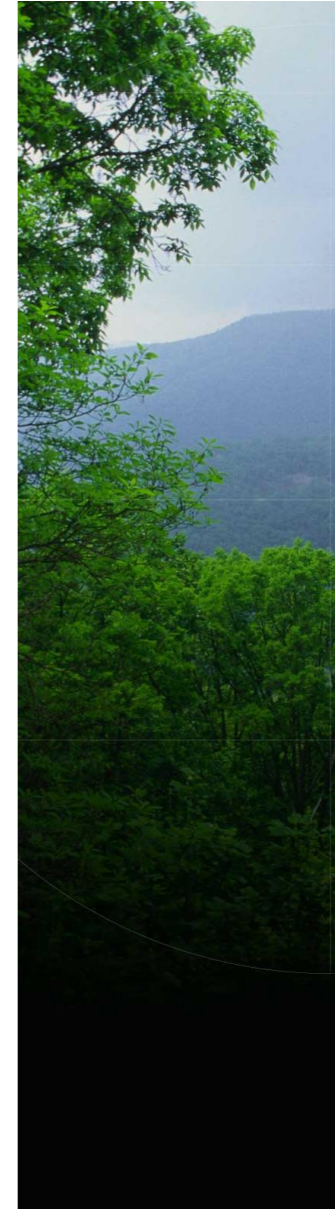
After more than 4 years applying life cycle analysis (LCA) methodologies and establishing Product Category Rules (PCR) to assess the environmental profile of combustion and hybrid and electric buses, in 2019 Irizar was awarded the First Environmental Product Declaration (The International EDP System), 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 robotized 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 the CO₂ emissions of each one).

EPD declarations provide differentiating 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.



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.

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

Environmental Product Declaration (EPD) for the ie bus NG electric bus

The life cycle analysis (LCA) of another one of our products, the 12m ie bus NG electric bus, was begun in 2020. 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 kept working until we obtained the environmental product declaration (EPD) for the bus, which included calculating the main environmental impacts our product creates during its lifetime, as well as recyclability and recoverability rates for the bus when the end of its useful life arrives.



Our goal is to expand the EPDs to the rest of the Irizar Group's range of vehicles.

tecnalia
certificación

EPD[®]

VERIFICATION STATEMENT CERTIFICATE
CERTIFICADO DE DECLARACIÓN DE VERIFICACIÓN

Certificate No. / Certificado nº: EPD05601

TECNALIA R&I CERTIFICACION S.L., confirms that independent third-party verification has been conducted of the Environmental Product Declaration (EPD) on behalf of:
TECNALIA R&I CERTIFICACION S.L., confirma que se ha realizado verificación de tercera parte independiente de la Declaración Ambiental de Producto (DAP) en nombre de:

IRIZAR E-MOBILITY
Erribera Industria Gunea, 1,
20150 - ADUNA (Gipuzkoa) (ESPAÑA)

for the following product(s):
para el siguiente(s)
producto(s):

IE BUS ELÉCTRICO IRIZAR
AUTOBUS ELETRICO IRIZAR IEBUS

with registration number S-P-04314 in the International EPD[®] System (www.environdec.com)
con número de registro S-P-04314 en el Sistema Internacional EPD[®] (www.environdec.com)

it's in conformity with:
es conforme con:

- ISO 14025:2010 Declaraciones y etiquetas medioambientales. Declaraciones ambientales de tipo III.
- Instrucciones generales del programa para International EPD[®] System v.3.01.
- PCR 2016:04 Autobuses y autocares publicos y privados. Ver 2.0.
- Código UN CPC: 49112 Vehículos a motor de pasajeros de tipo transporte público.

Issued date / fecha de emisión: 27/07/2021
Fecha de actualización: 27/07/2021
Válido hasta: 25-07-2026
N.º Serie: EPD0560100-C

Carlos Nazabal Alsua
Gerente

ENAC
CERTIFICACIÓN
N.º 125C-PR283

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3.2. The customer at the heart of our strategy

Irizar customer-oriented

We're a consolidated industrial project with enormous challenges ahead. The project is based in ethics, transparency and integrity. It's made up of people deeply committed to the clients and innovation is our badge 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 transport by road is, and will be, key to guaranteeing mobility services and meeting sustainability goals. Consequently, 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're positioned in all segments of passenger transport, including occasional transport and urban, medium and long distance inter-urban and premium transport. And we're leaders in the sustainable mobility sector. Our commitment to providing high added value to its customers, passengers and citizens is clear in such important aspects as: design, customization, safety, operating cost, technology and sustainability.

Our main strategy is customer satisfaction and loyalty. Consequently, Irizar means, above all, closeness. We work alongside our clients from defining the product and service they need until the product end of life, providing the guarantee of a robust project they can trust. The flexibility to adapt to their needs and personalisation without limit are factors that set us apart to obtain loyalty.

The impact of Covid-19 on companies in the sector is still enormous. We've tried to adapt to the new situation that entails a significant decrease in bus registrations, orders and, consequently, our pace of production. 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).

In 2021 we took the opportunity to be with institutional entities to explain different alternatives for reducing emissions in the future to them. We met with: Transportation directors from several autonomous communities, directors of provincial institutions, regional and city governments and, at a national level, the Ministers of Industry and Transport. We showed them the technologies available so they could learn about them and take them into account when they launch public tenders.

At ASCABUS, the Spanish Association of Bus and Coach Body Manufacturers (Asociación española de fabricantes de carrocerías de Autobuses y Autocares), which we're a member of, we shared:

- An analysis of the current fleet of coaches owned by the state
- Its evolution during the pandemic
- The situation of all of its associates
- The actions we've done with institutions to apply for direct and indirect aid for the sector, and medium and long-term perspectives





Accongraying them from start to finish

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 every European country and another central one that answers calls 24h a day 365 days a year. Customers can therefore enjoy close follow-up and advice that translate into optimization of vehicle reliability and availability. Our integral electronic management solutions, Irizar connectivity, fleet management and remote diagnostics lead to a considerable reduction in consumption and pollution.

The coaches have remote diagnostic systems to anticipate and plan management of spares and repairs. Likewise, they monitor the driving style of the vehicles, helping our clients 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 programs and original spare parts that contribute to improving vehicle efficiency, reducing vehicle stoppages, TCO and increasing life cycle.

We launched a website for second hand vehicles in 2021 so the vehicles our clients want to renew can have a second use through reuse.

- Facing the impact of Covid-19 together

We stayed close to our clients since March 2020 and supported them with whatever was needed. 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). Those solutions are described in greater detail in section 3.4. about safety.

From March 2020 more than 13,000 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.

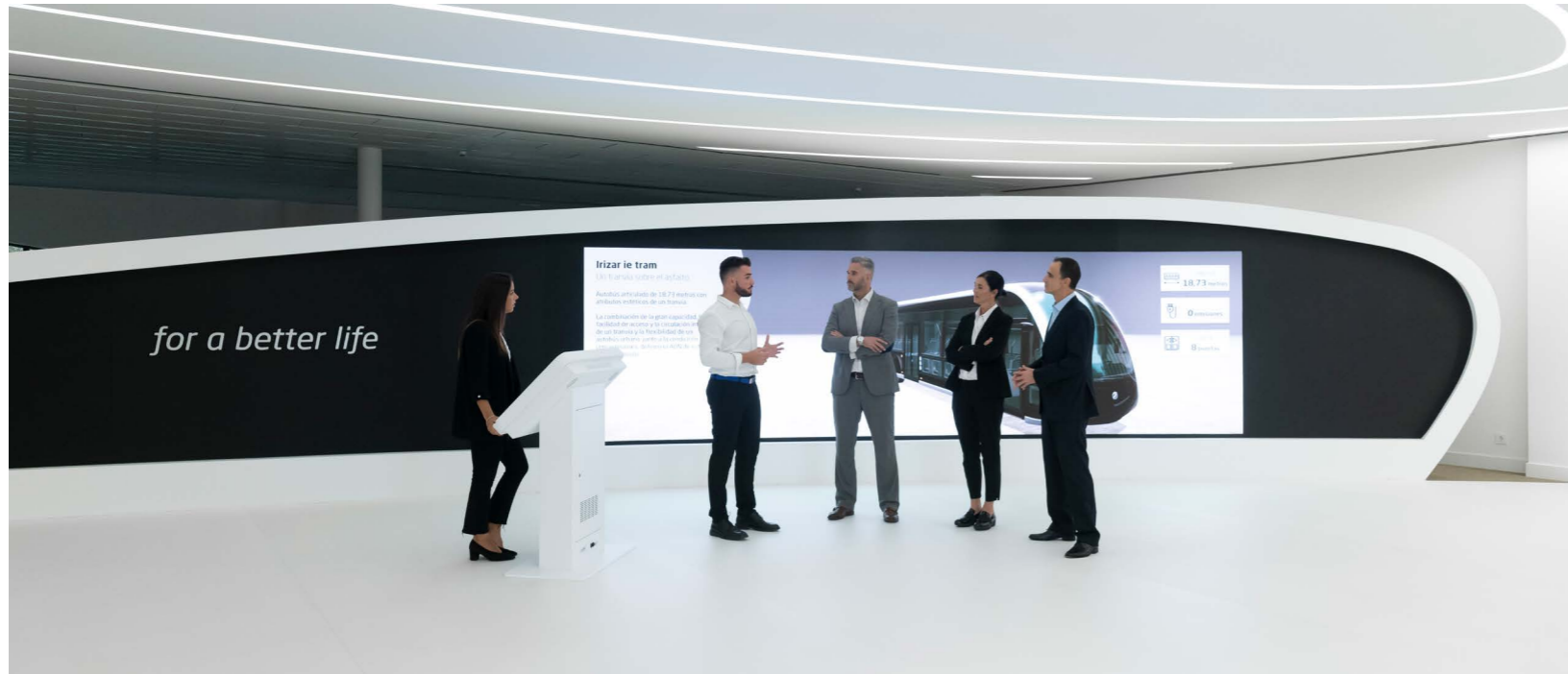
In all these solutions, Irizar has adapted to the specific needs of the different fleets through flexible fleet programs, and with favourable conditions.

Their 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 Customers Line Teams in the internal processes of the organisation. The objective of all this is to channel their needs to guarantee the development of products and services of the future.

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 organization through different channels and processes.

The dynamics of the Customer Line Team (ELC) is one of the most important at Irizar. Every ELC is made up of all the teams of people from Irizar who participate in the operation until the coach is delivered to the client: relationships with clients, purchasing, supplies, product and process engineering, production and quality, etc. Each team is responsible for meeting or exceeding the expectations of customers, who, in turn, are naturally integrated into the 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 personal protection measures and restrictions for Covid-19 didn't stop the ELC meetings from being held in 2021.

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

In addition to exhaustive monitoring of the quality and environmental objectives set out in the annual plans, a review of the corrective actions of the main incidents presented by customers in different markets is also carried out. The most significant incidents are transferred to the quality forum after being evaluated in the after-sales 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 have gradually been observing in recent years and was reflected also in 2021.

- 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.

Except during the pandemic period, we did previous client surveys and we'll consider doing it in the future 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 and 2021 were marked by Covid-19 and the 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 in-person after-sales training systems for drivers and repair/maintenance technicians for Irizar vehicles. The training is also complemented by online training on iService (the Irizar after-sales web 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.



Premium coaches where everything is possible

For decades our flexibility and high capacity for personalisation and adapting to our clients' needs has made it possible for us to offer a large number of choices geared towards converting premium or high end vehicles into multi-use vehicles.

More and more, vehicles are designed that adapt to your space and purposes where everything is possible, like large living rooms, training and meeting rooms, kitchens, dining areas and leisure, entertainment and rest areas, mobile classrooms, exhibitions, massage spaces, health services, ambulances or mobile libraries. The possibilities are endless.

Clients are looking for functionality and comfort because, in many cases, they spend a lot of time travelling and their coach becomes like a second home. For that reason, in addition to maximum safety, reliability, profitability, comfort, luxury and the latest technological advancements, at Irizar we devote a lot of internal and external resources to designing, developing and making the adaptations needed to meet the demands of a more and more demanding market.

We can highlight one in 2021 for the health sector and another one for a sports team.

Premium Coaches for the Health Sector

Two Irizar i6S vehicles are already operating in the Värmland region of Sweden as ambulances equipped with all kinds of medical infrastructure so several patients can be taken to the hospital on stretchers or in wheel chairs. They have several rooms. The front has 21 seats with USB ports and outlets for carrying 18 patients and three health care workers. The central area has restrooms adapted for PRM. And the rear is adapted for patients who need wheelchairs or stretchers and has a total capacity for six stretchers or four wheelchairs or a combination of both.

The vehicles are equipped with all the technical facilities needed to care for patients, some of the notable ones are oxygen and air circuits, room for four oxygen bottles with monitors for health care workers, rear furniture and compartments for storing instruments, medication and clinical samples in addition to independent climate control, Wi-Fi and air purification systems and a specific radio frequency system for ambulances. Responsibility for health care and public transport go hand-in-hand in this region and it's not surprising to

see these buses that transport patients who need to be taken to the hospital on the road every day between Karlstad, Uppsala and Örebro. High quality and sustainable health care that previously required transporting patients in ambulances has been re-established in Uppsala and Örebro. The buses treat patients with health care needs while they're being transported, which certainly results in saving resources that can consequently be used for home care. The staff on board is very satisfied with this new way of working.

Premium Coach for a Sports Team

The Euskaltel-Euskadi cycling team now has an Irizar i6S. The coach is part of a collaboration agreement between Irizar and Fundación Euskadi and it's exclusively designed for the maximum comfort for the athletes. It has individual rotating seats, a restroom, shower, refrigerator, microwave, cooking hob and sink in addition to an area with a sofa at the back of the vehicle.

In 2021 the President of Irizar commented that "It's been an honour for Irizar to collaborate with Fundación Euskadi these last few years. It's an exciting project that goes hand-in-hand with our philosophy of promoting sports and supporting our athletes."



Meeting us at international fairs

UMA 2021 - Florida - April 2021

After a challenging year for the whole industry, activities could be seen to be recovering, bringing new hope and energy. With the hope that the worst part of the situation is behind us, Irizar USA is ready to support the market and restart activities with clients. Alongside that renewed enthusiasm, the team was delighted to participate in the first in-person industry event in the United States with the hope to create cooperation and synergy to adapt to the “new normal”.

For a safer and more sustainable future Irizar is committed to creating and developing new and different solutions in regards to Covid-19. The eCo3 air purifier, a certified solution that eliminates viruses including Sars-Cov-2 in addition to many other micro-organisms, germs and allergens, has been a revelation in the industry because of its 99.7% efficiency. Irizar also has other solutions, like a temperature sensor or seat separator, etc. that have provided a safer way to travel for everyone and they're also delighted to present this revolutionary technology at the expo.

SUM Bilbao - October 2021

Irizar e-mobility once again sponsored the internationally leading SUM Bilbao conference and showed their experience and technological advancements in sustainable and intelligent urban mobility. The goal of the congress, which is organised by the City of Bilbao and Petronor, is to analyse the challenges and opportunities of urban transport and present success cases from cities around the world.

The internationally leading SUM congress is geared towards leaders, institutions and companies. Its goal is based around debating strategic issues, exchanging experiences and solutions and collaborating in building the mobility of the future from a sustainable point of view, which are themes completely aligned with the Irizar Group's strategy.

It brought together more than 90 experts from five continents in 2021 who tackled the most relevant issues related with urban mobility and analysed the challenges and opportunities for cities to consolidate more sustainable mobility and they presented success cases from cities around the world. The event had the institutional presence of King Felipe VI and Raquel Sánchez, Minister of Transport, Mobility and the Urban Agenda.

Irizar e-mobility will be participating in two talks where they will share their experience with implementing

electromobility solutions, among the most important of which are turn key BRT projects in different European cities and getting their autonomous driving project under way. Additionally, the signing of the Bilbao Declaration, which the Companies for Sustainable Mobility platform joined, took place at SUM Bilbao. The document contains the conclusions of the debate held by the main mobility experts in light of the Sustainable Development Goals (SDGs) set by the UN. The primary goal of the Bilbao Declaration is to state the commitments shared by different parties that can make an impact and cause a transformation in favour of building more sustainable models of urban transport.



Solutrans - Lyon, France - November 2021

The Irizar Group presented their innovative electric Irizar ie truck at the Solutrans international fair that was held at Lyon Euro Expo in November 2021.

As we'll see in more detail below, the Irizar ie truck is a zero-emissions sustainable truck that was conceived by the Irizar Group to respond to needs currently expressed by cities and urban environments without creating atmospheric or noise pollution. It's a truck designed for sustainable and intelligent cities because of its excellent energy efficiency and optimal operating costs.

3.3. Decarbonization: in combustion vehicles

3.3.1. Irizar brand integral coaches

The best representation of the Irizar brand are our integral buses and coaches. And we only supply engines that comply with Euro 6E 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 based on the Euro 6 (diesel, biodiesel and HVO) are a significant improvement that brings with it:

- A 6% reduction in fuel consumption and CO₂ emissions
- 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.
- Lower 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.
- Intelligent technology for 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. Natural gas (CNG and LNG) coaches

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 provided by the coaches with this technology include:

- Reducing CO₂ emissions around 25%, NO_x up to 60% and particle pollution by more than 98%
- Better thermal performance than diesel and vibrations and noise emissions between 4-5 Db are minimised
- An estimated 35% reduction of total operating costs (TCO), depending on the differential between the cost of petrol 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 R/66.02 even with 700 kg of extra weight on the roof and with the thermal safety and mechanical safety protocols, in accordance with Regulation 110.



3.3.3. The next more efficient, sustainable and profitable generations

As we said in section 3.1 Race to Zero, in addition to working on lowering the fuel consumption and GHG emissions of our vehicles through using alternative fuel and drive technology, we also innovate constantly in aerodynamics and chassis weights, depending on the functionality the vehicle will have.

- On long distance coaches the proportion is: 70% aerodynamics and 30% weight
- On short distance or intercity coaches the proportion is: 40% aerodynamics and 60% weight, because it increases braking

The innovations in this area that will soon be put on the market in 2022 will be extended to the rest of our range later on.

The lightened Irizar i4

Irizar is putting the finishing touches on a new generation of the more efficient, sustainable and profitable Irizar i4 model coach that will be presented on the market at the beginning of 2022. The Irizar i4 is a versatile vehicle that is also a perfect intercity coach for school or company transport or discretionary use. The different versions of this vehicle (H, M, L) strike a perfect balance between accessibility and luggage compartment capacity, depending on the needs of each operator. It will meet the demands of city and intercity service and school and company transport. It will be available with diesel, HVO, biofuel, hybrid and natural gas (CNG and LNG), depending on whether it's an integral Irizar brand coach or a combination of chassis and bodywork.

The new generation Irizar i4 coach, which was presented for the first time at the Busworld 2019 trade fair, will include significant new features that mainly focus on a major reduction in weight and optimal per axle load distribution. The result will be a lighter weight vehicle with significant fuel savings and, consequently, improvements in CO₂ emissions.

Irizar i6S Efficient

Since the beginning of this impassioned project a few years ago, our goal has been to develop the most efficient coach in Irizar's history to maximise our clients' profitability. This latest generation vehicle is designed to give maximum efficiency for operators and the best experience for passengers. And it emphasizes sustainability, for the good of the whole planet. It will go on the market in May 2022.

With the new Irizar i6S consumption, emissions, weight and the aerodynamic coefficient will be substantially reduced.

As always at Irizar, we adapt to the specific demands of each market and client. And we offer the possibility to personalise vehicles with endless configurations for either right or left hand driving. The Irizar i6S Efficient is prepared for diesel, biodiesel, natural gas and biofuel. And it's designed to adapt to future zero-emissions models.



3.4. Decarbonization: with hybridization

We remain committed to hybridisation for the Irizar brand and with other chassis. We're analysing expanding our range of hybrid vehicles, searching for better performance and being able to run in zero-emissions mode in anticipation of the Zero-Emissions Zone of cities (ODS11) and expand our range of long distance hybrid vehicles.

3.4.1. The Irizar brand

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

This is a parallel hybrid technology. 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 full range of hybrid vehicles with Euro 6E internal combustion engines that are certified to run with fossil diesel, biodiesel and HVO. These coaches offer:

- A 30% reduction in consumption in comparison with a conventional diesel coach
- which lets our clients have significant fuel savings (7000 litres/year) and
- a proportional reduction in CO₂ emissions (up to 30%) An estimated savings in fuel of 25% would mean a reduction of CO₂ emissions equivalent to 304,000 kg during its useful life (70,000 km/year, 15 years).
- Less noise and a great driving capacity

All of that contributes to lowering the TCO.

3.4.2. Hybrids on chassis

We launched new hybrid vehicles onto the market in 2020 that were the fruit of our collaborative alliance with various chassis brands.

Thus, we are expanding the range of ecologically and economically sustainable solutions for our clients. They also reduce fuel consumption and CO₂ in comparison with equivalent Euro 6 diesel coaches, improving the TCO in accordance with the same percentages of improvement as the Irizar brand hybrids.

3.5. Decarbonization Electromobility at the Irizar Group, zero-emissions

3.5.1. Integral Solutions for Electromobility

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

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

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 optimization strategy, power parameters, solutions and charging times and battery life. We also offer the possibility to co-ordinate 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 monitoring 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 allows reducing consumption, helping to identify route sections where more instructions are provided to the drivers. Energy monitoring gathers specific data on the exact energy consumption per route which enables future calculations to be made and issued, plus automatic reports that identify areas of improvement for reducing consumption.

Another global project financed by the SPRI we've been participating in for the last few years to improve mobility in cities, in conjunction with other companies and research centres, is 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 point for heavy industrial vehicles both nationally and internationally. In 2021 we started the DIGIZITY project, which is one of the most ambitious projects in the field of public transport. The goal of the project is to implement a zero-emissions city model and promote sustainable mobility and the modal transition from private vehicles to public transport. It's a pioneering project that will contribute to reducing CO2 and particle emissions into the atmosphere, in addition to lowering energy consumption in the public transport system. It will also contribute to



the circular economy. Digitalising transport services will lower the use of resources through improving the processes and efficiency in the use and handling of materials.

The Irizar Group, which participates through the Irizar companies Jema and Hispacold, is a member of the project led by the Avanza Group, alongside other partners and technology centres including NEXTIUM-IDNE, TELNET, ITAINNOVA, CTAG and TECNALIA, for bus safety and efficiency. The project is financed by the Sustainable Automotive Technology Plan (Plan Tecnológico de la Automoción Sostenible), which is the first component if the PERTE for electric and connected vehicles, and by the Ministry of Science and Innovation (through the CDTI).

The bus that will be used for this project will be a 12 metre long Irizar ie tram. It's a cutting edge and 100% electric zero-emissions vehicle that

lets passengers enjoy a quiet, well-lit, safe and pleasant trip. We want to make a technological leap in the field of driving assistance systems to keep improving the safety of our vehicles and keep being a leader in the mobility of the future. That will also let us adapt to the ADAS standards that will come into force in the near future. In the project we'll also be working on the evolution of our thermal management and energy system in an effort to optimise the consumption and thermal management of the vehicle.

We reached an agreement with Iberdrola in July 2021 to accelerate electric mobility through electrifying urban public transport and providing green energy. You can find more details in chapter 5, Alliances.

3.5.2. Range of electric vehicles

Our product range includes 10.6m and 12m city buses, which have been operating since 2014 in various European cities, 15m buses, articulated or bi-articulated buses, and other electric vehicles to serve cities, which are all zero-emissions.

Irizar ie bus - longer range, higher passenger capacity



In addition to its attractive aesthetic design, this new generation, available in 10, 12, 15 and 18 metre versions, incorporates innovations and new batteries. The space has been optimized and there is, therefore, more passenger capacity and greater modularity.

A new generation of more efficient batteries is combined with a regenerative braking system, which reduce consumption and offer greater vehicle range. In urban environments, with a charge of 350kWh and in standard weather conditions, we obtain an approximate autonomy of 250km, which is equivalent to around 17 hours of operation.

In the new Irizar ie bus, we offer up to five interoperable slow charging point positions using a combo 2 connector. The charging time has decreased and the vehicle can be slow charged in three hours. There is also the option of fast charging via pantograph. The charging capacity can vary from 50 kW to 600 kW. The new generation of the Irizar ie bus can be certified in Class 2.

The Irizar ie tram - A tram on the tarmac



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 developed in versions from 12m up to the 18m articulated version and with a maximum capacity of 155 people.

The Irizar ie tram offers a clean, minimalist design and all its features correspond to specific functional aspects allowing it to create an identity and an image that are easily recognisable to its users. Accessibility, safety, passenger flow and passenger comfort are the inspiration behind the interior design architecture, resulting in a bright, comfortable, spacious, pleasant and safe interior.

Irizar ie truck - powerful versatility



The global vision of the electrification of cities and the search for synergies with freight infrastructures together with the technological capability created in the Group has allowed us to extend our range of products to industrial vehicles for cities.

The Irizar ie truck is a 100% electrical truck which responds to different market needs and enables it to move around cities and urban environments without atmospheric or acoustic pollution. The result is a cleaner city and more sustainable environment for citizens.

It will initially be used for collecting municipal waste. The currently existing versions include zero-emissions lorries or ones with a range extender for using outside the city if more range is needed.

The Irizar ieTruck is not a conventional truck. Its aesthetics, which break with the aesthetic concepts of the current trucks, recalls the Irizar brand's product lines. The main attributes of this product, designed to operate in urban environments, are its smooth and innovative aesthetic design, operator safety and ergonomics, technology and flexibility for adaptation to market needs.

18m Articulated Bus – Eliminates 120 tons of CO₂ from the atmosphere every year



Electric buses have an estimated carbon footprint of 8.45 gr CO₂ eq/km.p. (kilometre travelled and passenger). In comparison with a conventional internal combustion bus, 800 tons of CO₂ emissions from use are avoided during its useful 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 socio-economic effects" concludes that replacing 240 conventional buses by electric buses reduces noise pollution by 1.3 dBA, which translates into an annual socio-economic saving of €52,650 per kilometre, with a reduction in costs of 27%.

3.5.3. Prizes for our Electric Vehicles

The Irizar ie truck, 2021 Ecological Industrial Vehicle of the Year

The 100% electric Irizar ie truck has won a new award, becoming the Ecological Industrial Vehicle of the Year 2021 in Spain, an award given by Grupo Editec (the publisher of the magazines Transporte 3 and Viajeros). The jury, fifty business people in the goods and passenger transport sector, decided to award this recognition to the Irizar ie truck. The Ecological Industrial Vehicle of the Year is a mixed category of the National Transport Awards covering both passenger and freight models.

The prize is in addition the ones from 2019 and 2020, where the Irizar ie truck, a versatile electric and multi-purpose chassis-platform developed in conjunction with FCC Medio Ambiente, was the winner of the World Smart City Awards in the Innovative Idea category, as part of the Smart City Expo World Congress 2019 and the European Business Awards for the Environment (EBAE) in the Product and / or Service category.

This is the third time that Irizar e-mobility vehicles have been nominated Ecological Industrial Vehicle of the Year. In 2016, it was the i2e electric bus that won the award. Two years later, in 2018, the Irizar ie tram won the prize and this year the electric truck Irizar ie truck received the award.

In the words of the General Director of Irizar e-mobility, "This award is a recognition of our efforts



towards innovation in electromobility in urban / metropolitan environments. We're very proud of having found a solution that makes it possible to contribute to a drastic reduction in noise, pollution and CO₂ emissions."

Irizar ie bus wins 2021 Bus of the Year award

The new generation 12 metre long Irizar ie bus has been awarded the 2021 Bus of the Year prize in Spain.

This is the third time that the Grupo Editec (the publisher of the magazines Viajeros and Transporte 3) and the jury, representing urban transport operators, have awarded this prize to Irizar e-mobility vehicles. In 2015, the i2e, as it was known at that time, obtained this recognition and three years later, in 2018, the Irizar ie tram won the award.

"Starting the year with getting both prizes fills us with pride and satisfaction," affirms the General Manager of Irizar e-mobility. "This recognition is the result of the commitment we have made in recent years to technology, innovation and sustainability in all kinds of applications."



3.5.4. Irizar batteries

Batteries are the cornerstone of an electric vehicle. The range, price, recharging speed and useful life of the vehicle depend on them.

Our energy management and storage solutions, developed and manufactured in our Aduna, Gipuzkoa plant are designed to cover the needs of today's European market and to offer the best solution for each of the operator's requirements. Our Irizar battery packs are modular and incorporate liquid cooling systems that enable the service life of the batteries to be optimized and make it possible for the vehicles to operate in extreme weather conditions. They meet the latest European regulations on electrical, thermal and mechanical safety: R100.v2, R10.v5 and UN38.3.

We work with customers to study their needs so that we can provide the best solution within our range of different types of pack. We offer different modular solutions, based on Lithium-ion technology:

- **Slow charging (Energy Pack)** Designed so the vehicle can travel the maximum distance of km and finish the operation with just one charge a day. Its design makes it possible to seek a balance between range and number of people.
- **Rapid charging (Nano Pack)** It's the perfect pairing of range and charging power. It's perfect for mixed operations where the vehicles has enough range to operate during peak times. The load can be both slow and fast.
- **Ultra-fast charging or opportunity charging (power pack)** The solution for a 24/7 operation with charging of up to 600 kW.

3.5.5. Second life and recycling of batteries

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.

We offer a second life to batteries under a partnering agreement with Ibil that lets the batteries we install in our electric buses to be reused after their useful life in the buses is over as energy storage devices. The power electronics associated with that use can also be reused in the charging infrastructures Ibil is developing.

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 compa-

nies, to ensure final treatment of each component, controlling each process for safety and environmental aspects.

For urban electric buses, the service life of batteries can reach up to 10-15 years, depending on daily loads and the high powers to which they are subjected. After this time, the batteries must be replaced so that the vehicle maintains its original functionality. The end of that first life, however, does not mean that a battery loses all its charging capacity. So, far from disposing of it, in order to further its environmental and circular economy commitment, sustainable reuse in stationary storage applications is needed to stabilize energy demand when charging electric vehicles with high power levels.

Along those lines, Irizar provides a second life to batteries under a partnering agreement with Ibil that lets the batteries we install in our electric buses to be reused after their useful life in the buses is over as energy storage devices. The power electronics associated with that use can also be reused in the charging infrastructures Ibil is developing and deploying at Repsol service stations, among other places.



The first charging station for electric vehicles with second life batteries from Irizar e-mobility

The charging station for electric vehicles that uses energy storage based in recycled batteries from Irizar e-mobility entered into operation in 2021. This charging point for electric vehicles is the first one that uses energy storage based in second life batteries and it has been developed by Repsol and Ibil. The charging point was installed in a Repsol service station on the N-1 road where it goes through the city of Tolosa in Gipuzkoa.

One of the first results of that collaboration has been installing and commissioning the first 50 kW charging station for electric vehicles with an energy storage system based in second life batteries from Irizar e-mobility. Ingeteam, Cidetec and Gurea also collaborated on the project. The latter company employs people with disabilities from Gipuzkoa and they carried out the entire industrial assembly of the storage module. The project also had support from the Basque government and the Provincial Government of Gipuzkoa through the Hazitek and Smart Mobility Industry R&D programmes, respectively.

This technological and industrial development simplifies and facilitates the installation of 50 kW charging points in locations that do not have enough electrical power or where the cost of investment in the grid makes other alternatives infeasible.

These are the main advantages this project provides:

- o It makes it possible to install quick charging points (50 kW) in places where it would otherwise not be feasible because of a lack of sufficient electrical power or where, even if it is viable, the technical difficulties of connecting to the grid would require an excessive increase in investment.
- o The power of the grid needed to provide services is reduced by 70%. A 50 kW quick charging point can thus be put into operation using only a 15 kW grid connection.
- o It can be installed almost anywhere because of the small footprint of the storage module, which is less than a square metre.
- o Infrastructure operating costs can be lowered significantly, by up to 50%, primarily due to needing less contracted energy.
- o It provides a second life to electric bus batteries and promotes sustainability and the circular economy and sustainability.

The technical difficulties of installations in places where installing electric charging points is ideal in terms of mobility, like service stations, can be overcome with an innovative solution that provides autonomy and efficiency to the charging system and it also integrates with local distributed generation and self-consumption. Installing this charging station is another step forwards in Irizar e-mobility's commitment to the circular economy.



3.5.6. 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 chemical substances and their possible impacts on both human health and the environment.

We have also modified our method of manufacturing buses, prioritizing the ability for components to be removed and recycled, changing the traditional weld system with a new method based on modular screw-in 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).

3.5.7. Charging infrastructures

Our charging solutions are interoperable. They adhere to the interoperability standards set forth in ISO 15118, DIN70121, OCPP 1.6 CE mark, EMC. 61000-6-2, 61000-6-4, IEC 61851, IEC 61000.

We offer a range of smart charging options to provide solutions to the different conditioning factors clients face in terms of power limits, as well as space and operating restrictions.

- **In-depot charging.** This is the easiest method and the most traditional one where a Combo 2 connector is manually or automatically connected to the vehicle using a pantograph. Vehicles can be charged using less power with this method and it's available from 50 kW to 150 kW in indoor and outdoor models. This charging mode also helps batteries, ensuring proper operation in addition to a longer life.
- **Pantograph in depot.** With this solution we offer the ability to completely automate slow charging in the garage by using pantographs (either bottom up or top down) installed above the parking spaces, replacing the electrical outlet solution with a manual connection by an operator. Contact automation makes it possible to charge vehicles instantly. This alternative 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. It identifies the different charging needs of a fleet to optimise the total power required. Our smart charging system solutions are multi-brand.
- **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.
 - **Roof-mounted pantograph.** It's an articulated mechanism installed on the roof of the vehicles and a vault connected to the charger located on an adapted structure or post. When the vehicle needs to charge its batteries the arm of the pantograph

extends and the appropriate connections are made. It modern minimalist design was done to make it easy to integrate into the urban landscape.

- **Inverted pantograph.** In this case, the moving part of the pantograph is integrated into the post of the charging infrastructure. The vehicle only requires a complementary part to be charged. The vehicle is charged in a few minutes.

In conjunction with Jema (an Irizar Group company), Irizar is participating in the ASSURED project (smart and fast 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.

Thanks to the ASSURED project we've already made it possible to charge electric vehicles using the inverted pantograph we mentioned previously.



3.6. Decarbonization: Green hydrogen as an energy vector

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 keeping promoting and strengthening the electromobility division, we're continuing our long distance electric coach project based in green hydrogen fuel cells that:

- Guarantees zero carbon dioxide (CO2) emissions
- Has a minimum autonomy 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.

It's not common for Class II and Class III coaches powered by fuel cells to be on the market. Consequently, having a prototype for this kind of vehicle would be a competitive advantage for providing long distance zero-emissions vehicles.

Strategically, the Irizar Group is committed to battery and fuel cell technologies in order to achieve zero emissions. The customer will be able to choose between the battery or fuel cell technology that best meets their needs. The Irizar Group's short-term technological road map includes the development and manufacture of coaches, especially vehicles that travel long distances between refuelling stops, propelled by hydrogen fuel cells and will gradually extend this technology to the rest of the range of Irizar Group vehicles (buses and trucks for urban applications).

They're already making progress on projects to develop hydrogen powered coaches, one of them in the framework of the Basque Hydrogen Corridor (BH2C), described in chapter 5. Alliances and others in Europe.

In 2021 we also obtained approval for the H2TRUCK project for urban hydrogen vehicles that will start in 2022.



Objetivos:

- Fabricación de un prototipo de recolector compactador de residuos sobre un chasis-plataforma de gran tonelaje con propulsión 100 % eléctrica alimentado por un sistema híbrido de pila de hidrógeno y batería de ion litio
- Respetuoso con el medio ambiente.
- Plataforma chasis híbrida con aplicación futura a cualquier equipo o máquina que preste servicio urbano
- Desarrollo de una estación móvil de compresión y suministro de hidrógeno que permitirá al vehículo prototipo repostar en cualquier localización.



3.7. Safety and Driverless Vehicles

3.7.1. Passenger safety comes first

Avoiding problems on the road is a strategic demand for Irizar vehicles. 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.

<https://www.youtube.com/watch?v=7qf-3CArQ-o>

All Irizar brand models meet passive safety standards and have the most modern active safety systems to ensure stability and minimise risk in unforeseen circumstances.

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

In the most extreme situations where it is not possible to predict the behaviour of other drivers, it is reassuring to know that the structure of the coaches has been designed to withstand roll-overs and head-on collisions, optimising weight distribution.

MagicEye is a technologically advanced assistance system developed by Datik, an Irizar Group company, which helps to minimise the risk of distraction and collision by detecting and anticipating situations through artificial vision technology, thereby contributing to more reliable driving. This system includes:

- o **DFW:** Driver fatigue and distraction warning
- o **FCW:** Forward Collision Warning
- o **SDW:** Sign detection warning

We do awareness raising campaigns at schools so young people can learn better safety habits. And we provide continuing education to fire departments and civil protection groups to instruct them about the best way to sta-

bilise coaches and components with risk so they're able to intervene with the agility necessary to best perform extraction manoeuvres.

For all Development projects we are adopting the ISO 26262 Functional Safety standards, which are the standards required for solutions involved 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.



Active Safety

All our coaches and buses are equipped with the most advanced active safety technologies on the market in order to help, warn and assist drivers and avoid risky situations. We also offer the possibility of training on best driving practices in order to minimise distractions and contribute to safer, more efficient and more reliable driving.

Continuous developments and new active safety systems, specially designed in order to avoid critical situations, making driving increasingly safe.

- o Magic Eye
- o TPMS: Tyre Temperature and Pressure Monitoring System
- o ABS: Anti-lock Braking System
- o ASR: Anti-Slip Regulation - Traction control system
- o EBD: Electronic Brakeforce Distribution
- o EBS: Electronically-controlled Braking System
- o ESC: Electronic Stability Control
- o Roll and stability tests
- o ECAS: Electronically Controlled Air Suspension
- o ACC: Adaptive Cruise Control
- o AEBS: Advanced Emergency Braking System
- o EBA: Extended emergency brake assist EBA
- o Downhill speed control
- o Hill start assist

The driver is the main character. Because driver safety, comfort and ergonomics are important.

- o In the new generation of Irizar coaches driver comfort has been improved with the adaptability of the seat and steering wheel and optimum visibility with the rear view mirrors and being able to adjust the air conditioning vents independently.
- o In short, it's a way to pamper drivers, make their jobs easier and transmit well-being that becomes better safety for all travellers.
- o The dashboard area is especially comfortable and it's been designed with maximum satisfaction in mind. The navigation instruments and screens have been placed strategically to maximise readability. And all the controls are placed using ergonomic principles as a reference so they're easy and intuitive to use.

- o Handling of the systems has been radically improved by means of the swivelling control (joystick), rapid access buttons to menus and a colour touch-screen. The modern functionality of the HMI (optional on the Irizar i8) is especially notable with a simple quick access menu (including cameras, GPS, media, telephone and climate control) that integrates all the electronic systems.
- o The eCo3air ionizer from Hispacold (Irizar Group) purifies air and minimises driver fatigue.

Additional equipment options We also offer a wide range of equipment for the safety of passengers on their trips such as:

- o Sensitive doors and luggage compartment covers to prevent automatic opening and closing.
- o Breathalyser ignition interlock device
- o Closed circuit camera system for detection of incidents
- o Central footboard camera

Flame-retardant Materials Flame-retardant materials are used when manufacturing our coaches. Our coaches are equipped with automatic fire detection and extinguishing systems in the engine area and with smoke detectors in the W.C.

Always the Best Lighting We use the most advanced lighting technologies in order to maximise the visual field and quality both by day and at night and under any climatic situation. Thanks to these systems, we are able to improve visibility and reduce drivers' eye strain, helping them to react quickly in dangerous situations.

- o LED lighting technology (light emitting diodes) Longer life and lower consumption.
- o Automatic light and rain sensor
- o LED daytime running lights with automatic ignition
- o Turn signal This feature is activated when the vehicle is travelling at speeds below 40 km/h. The headlights illuminate the areas on both sides of the coach.
 - o Forwards: side corresponding to the steering wheel
 - o Reverse: the opposite side to the steering wheel (the "sweep" zone)
- o High performance Bi-Xenon lighting for dipped and main beams The range and area of dispersion using the projector lenses is greater, so a wider area of the road can be illuminated.
- o Headlight regulation and automatic washing system

Passive Safety

Our priority is to minimise the consequences for those persons involved in an unavoidable accident. This is the objective of passive safety. To this end:

- o We design the structure of our coaches taking into account resistance to roll-over, front-on collisions and crushing of the passenger compartment.
- o Irizar coaches have complied with the R/66.02 regulations for vehicle superstructure strength in roll-overs since they came into force in 2010.
- o In addition to the two point seat belts, clients can have three point comfort seat belts that are height adjustable for all ages and sizes.
- o We comply with European PRM regulations (people with reduced mobility) regarding lift systems and wheelchair anchor points.

Our seats are developed with the safety and comfort of passengers in mind. Including that of our youngest passengers. Irizar seats are designed to provide safety and comfort to passengers. They undergo stringent resistance testing to reduce injuries and ensure that the minimum residual space is maintained. They comply with the most stringent new regulations, R.14 in Europe, 20G in the USA and ADR80 in Australia.

Rescue safety (post collision)

We also offer ongoing training to fire departments for the purpose of teaching them the best way to stabilise coaches and their risk components so that they can perform the best possible extrication techniques.

New Driving Assistance Systems

In line with their strategy of alliances, Irizar reached a collaboration agreement with Mobileye from the Intel Group. Mobileye is a global leader in developing advanced digital functionalities aimed at tackling different degrees of automation. The objective of the agreement is to improve the safety, efficiency and connectivity (5G) of the Irizar Group buses and coaches.

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

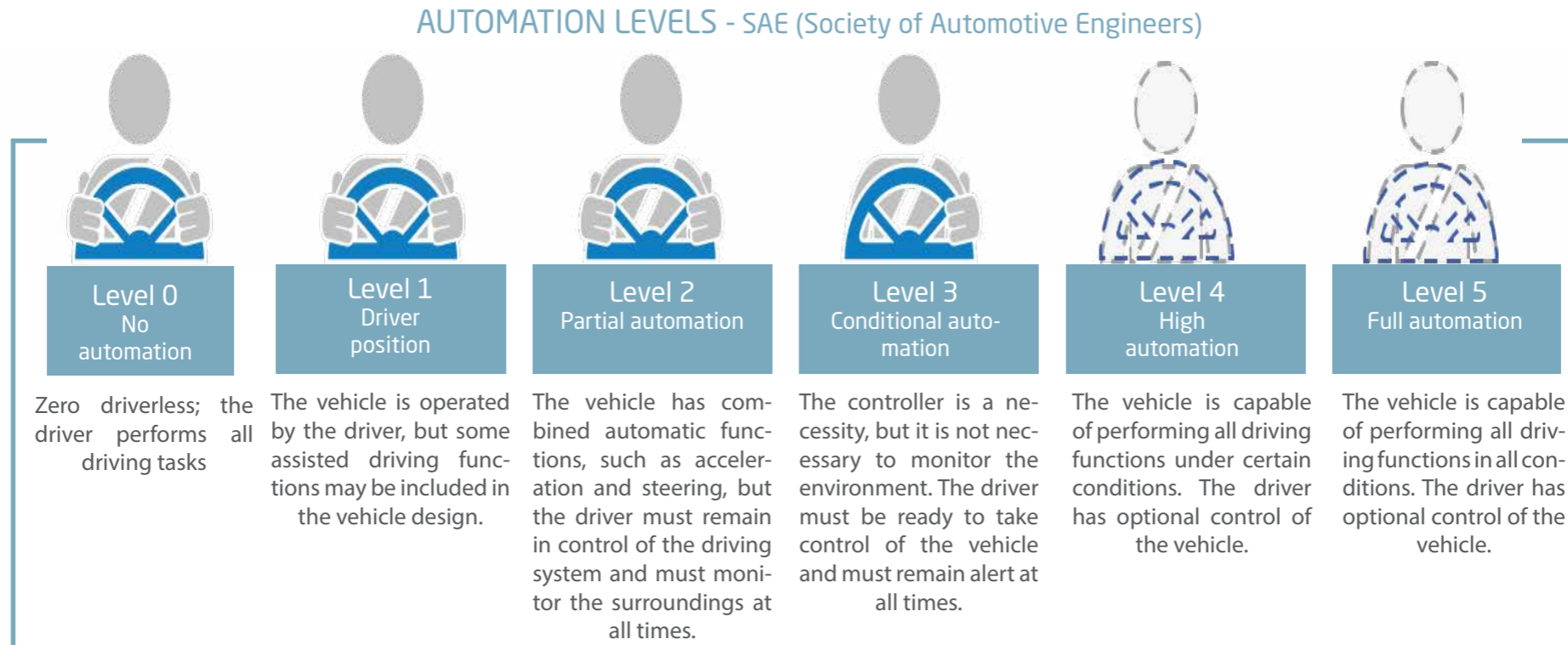
This intelligent system warns of an impending frontal collision with a vehicle, including motorcycles, pedestrians and cyclists, both on the road and in the city, up to 2.7 seconds before it occurs. It helps maintain the correct safety distance with the vehicle in front and activates audible and visual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

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



3.7.2. Towards autonomous driving

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



The Irizar Group is working to introduce different levels of automation for both buses and coaches. Driverless vehicles will progressively become a reality, as the result of a process of gradual transfer of responsibilities from driver to vehicle, until what is known as the 'Virtual Driver' is achieved. The depth of the transformations that will be required for the 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.

The World Economic Forum highlights the first European autonomous bus on the road: 100% electric from Irizar

In March 2021 the World Economic Forum wrote, "This electric bus is driving itself through the Spanish city of Malaga".

<https://www.weforum.org/videos/21830-this-electric-bus-is-driving-itself-through-the-spanish-city-of-malaga-mp4>

It is a 12 metre long Irizar ie bus model 100% electric zero emissions bus. It was a pioneering project that involves putting a standard size vehicle on the road in real traffic situations in a city.

AutoMOST awarded the ITS Prize for Autonomous and Connected Vehicles by ITS Spain

The first autonomous Irizar bus is the cotcome of the AutoMOST project financed by the CDTI through the CIEN programme. Avanza participated in the project as an operator alongside 11 partners, which included the Irizar Group through Irizar e-mobility and Datik.

In February, the City of Malaga and Avanza put the first zero emissions high capacity Irizar brand autonomous bus into service. It is a 12 metre long ie bus model 100% electric zero emissions bus. It was a pioneering project that involves putting a standard size vehicle on the road in real traffic situations in a city.

The project has two characteristics that make it a significant milestone, which are the capacity to transport passengers and interaction with vehicles, pedestrians and infrastructure in real traffic conditions.

The Polytechnic University of Madrid, Insia, CEIT-IK4 and the University of Vigo also participated. It's a pilot R&D+i project that started four years ago and finished this year, in 2021, within the projected deadline.

The prize recognises AutoMOST as the most important project in the country in the field of autonomous and connected vehicles.

This is the second award the AutoMOST project has won. In 2020 it was awarded the Industrial Development Prize from the IEEE-ITSS (Intelligent Transportation Systems Society).

AutoMOST will be an implementation of shared control systems (dual mode) in future autonomous passenger transport vehicles that makes it possible to operate services in a more flexible and efficient way in a context of smart and connected infrastructures.

This project, which is a major challenge for the Irizar Group, is the first solid step towards the transport of the future, which will be sustainable, connected safe and autonomous transport.



AUTODRIVE

We're participating in the AUTODRIVE project whose main goals are to 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 the AUTODRIVE consortium members.

As of 2021, the project has already been useful for Irizar and Irizar e-mobility to gain more knowledge about the critical challenges of autonomous driving. In addition, we've reinforced our relationship with our technological collaborators.

INPERCEPT Project

The project aims to guarantee safety and efficiency through detecting obstacles under adverse conditions. That is what DATIK (an Irizar Group company) has been doing since 2021 with the INPERCEPT project (intelligent perception for connected and autonomous vehicles). Datik centres their plan in making progress in developing key enabling technologies that provide improved capacities for connected vehicles.

INPERCEPT is part of the PTAS tender, backed by the Ministry of Science and Innovation and subsidised by CDTI (Centre for Industrial Technological Development), Datik Intelligent Information is participating and leading the use case for fleet management, with which it expects to obtain advanced new systems that provide high added value. The project will last 26 months and it has a budget of more than 10.9 million Euros. The final demonstration will be done at the end of 2023.

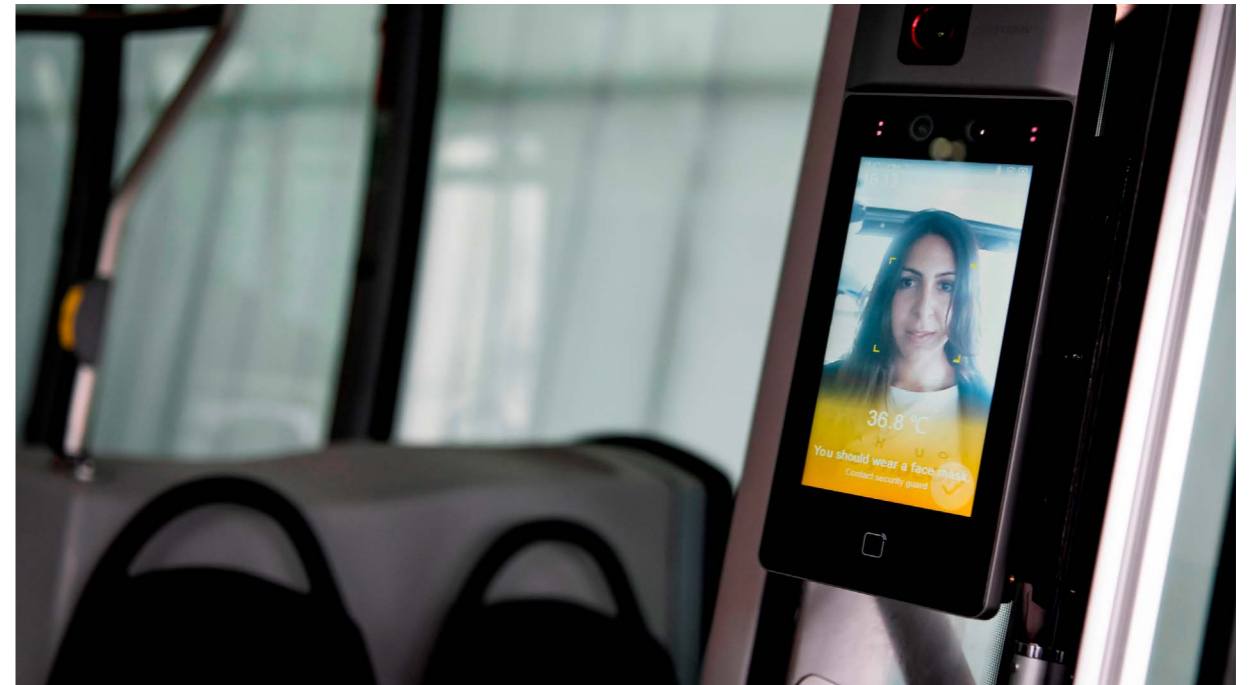
3.7.3. Solutions for preventing the spread of the virus on public transport

As we mentioned at the start of this chapter, the Irizar Group accelerated their capacity for innovation with the goal of contributing to reactivating the public transport sector and promoting safe and sustainable collective mobility. Providing solutions developed for buses and coaches to meet the safety and hygiene measures to prevent the spread of viruses on public transport was not unfounded.

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°. And 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.

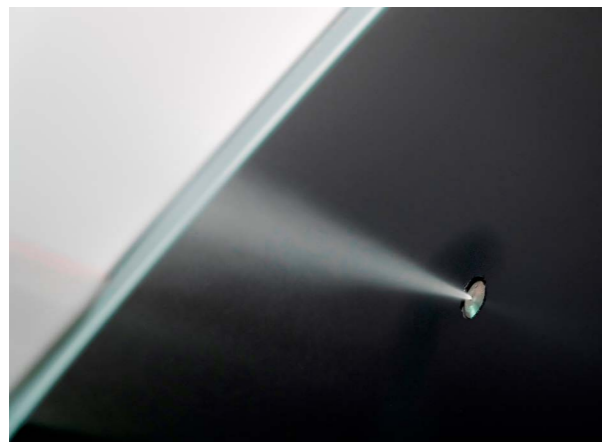
When a passenger has a fever or is not wearing a mask the system will make a signal alerting them that they may not board the vehicle and the driver can act proactively without needing supervision to follow the established health protocol. These cameras do not record the personal data of passengers in order to comply with privacy requirements. The device provides the possibility to be integrated 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 automatically using air 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, homologated 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 nebulizing process lasts between 15 and 30 min and requires a three to four 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.

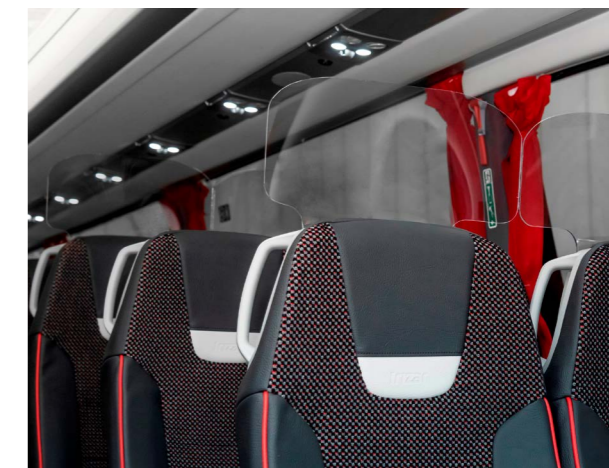
Purificador de aire eco₃



Separation screens in the cockpit and dividing panels in passenger seats

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

Both solutions have been developed and manufactured with materials that meet the requirements of the laws in force regarding indirect vision (R. 46), interior fitting (R. 107), fire performance (R. 118) and energy absorption (R. 80).



On the other hand, it should be noted that using climate control systems from Hispacold (an Irizar Group company) installed on the 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, and this renewal 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.

3.8. Connectivity - Big Data

The Irizar Group offers intelligent driver assistance systems with a range of optional equipment to provide drivers and passengers an optimal form of mobility. Extensive experience in 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.

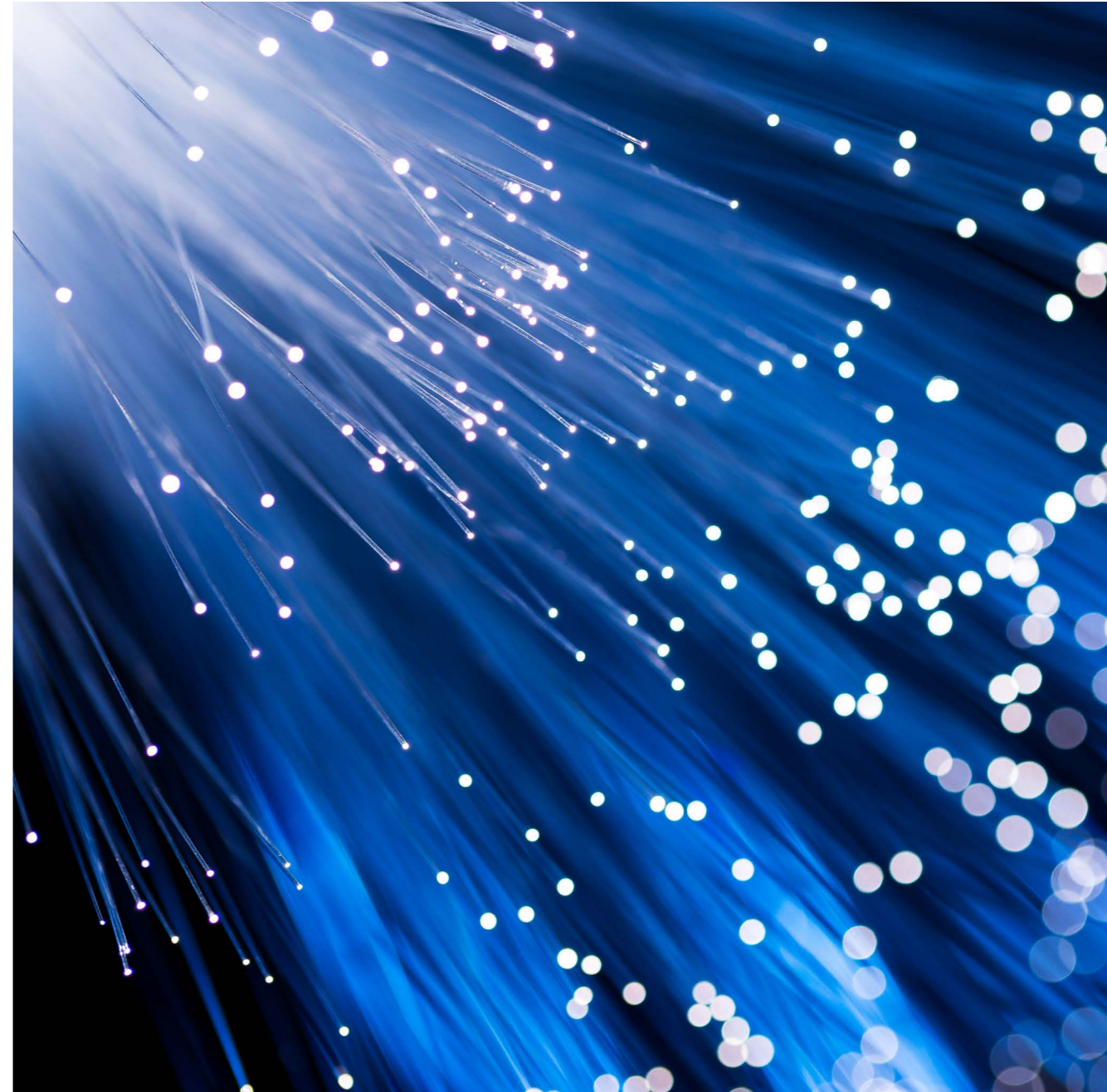
iPanel® is a system designed and intended for the owners of bus fleets, to help them resolve daily incidents quickly and to reduce maintenance and fuel costs. A system that alerts the driver about bad driving habits, informs the fleet manager about any relevant incident in real time and constantly analyses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

On the market currently with this monitoring system from the Irizar Group (Datik) there are:

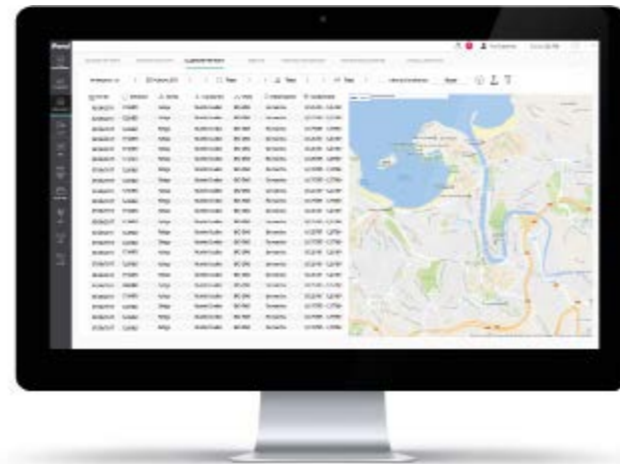
- 1,335 coaches,
- 171 electric buses
- 114 charging points for them



3.8.1. 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 optimized by increasing productivity and achieving a more profitable business.

3.8.2. Maintenance

It allows our clients 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 optimization begins with a Preventive Maintenance Plan that maximizes vehicle availability. For this reason, your Irizar's 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 minimize the downtime required for the vehicle.

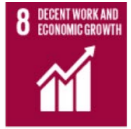
If more information is needed, remote telemetry download allows detailed analysis of alarms. This analysis makes it possible to diagnose the condition of the vehicle.

- 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 optimize 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 (HHRR)



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. Organization 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. Employment promotion

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 Programs
 - o Regular activities and measures taken in recent years
 - o Future plans 2022
- 4.6.3. Other health and wellbeing services

4.7. Shared leisure activities

4.1. People: key actors in Sustainable Competitiveness

The 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 realizing both our Mission and our strategic challenges, as well as our dream of contributing to the construction of a Better and more Sustainable World.

We uphold an open and transparent culture with the firm conviction that business activities with respect for total integrity are the only basis possible for achieving sustainable success. We are convinced that the main instrument for strengthening Integrity is an Organizational Culture based on shared 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. Digitization 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 economic business profits, even for employees who are not members of the Cooperative. We offer significant perks and advantages that set us apart from other companies in the areas where the Irizar Group is present.

During 2021 we kept making a strong effort to be able to progressively overcome the complicated situation caused by the pandemic. In terms of prevention, design, development and manufacturing new models in a short space of time, the progress we made was only possible because of the enormous effort and work done by all the people who make up the project as a whole.

Our goal is to keep cultivating talent and, at the same time, create high quality jobs. Of course, we want to do that within a company culture and approach with integrity that is guided 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 organized, 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 organizations in Gipuzkoa.

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 Corporate Sustainability
- 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 organization who are highly conscious of the project. This team will be enriched with new members interested in promoting the objectives derived from the different surveys that are being carried out.

In 2020, a listening exercise was conducted with 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 2020, 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	

The work from 2020 was used as the basis for the diagnosis of gender equality we did in 2021. Based on that diagnosis, and as we'll see in greater detail in section 4.5, we made progress with improving the equality plan and harassment protocol 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.

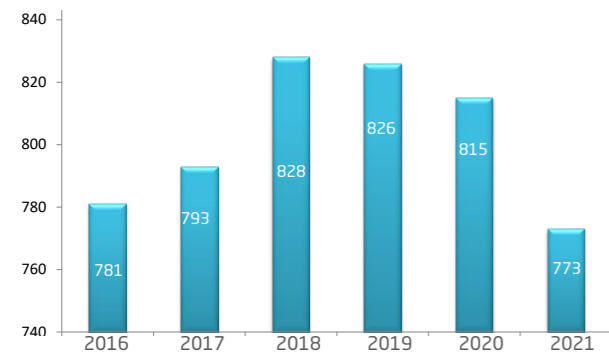
People who start working at Irizar do so as employees with employment contracts. And after several years of evaluating their professional performance, and if the evaluations are favourable, they become member-workers (cooperativists) and have the economic benefits of participation and employment security that involves.

4.2.1 Job creation and evolution of workforce

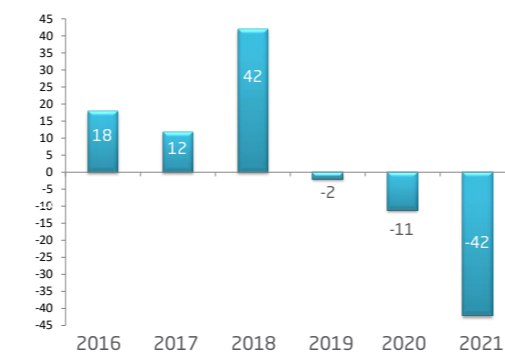
The mission of the Irizar Group has the ultimate goal of generating wealth and employment in its own surroundings, wherever it operates. In line with this, and as can be seen in detail in chapter 2, Irizar and Sustainable Competitiveness" the graph of employment evolution in the Irizar Group is the best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



Despite the serious impact of Covid-19, in 2021 Irizar maintained all its staff and the only people who left did so voluntarily or because they retired. The changes in the staff were mainly due to an increase in people taking leave and including long-term leave (mainly parental leave) into the calculation, which affected the average calculation of the workforce.

Workforce distribution by gender, category and age

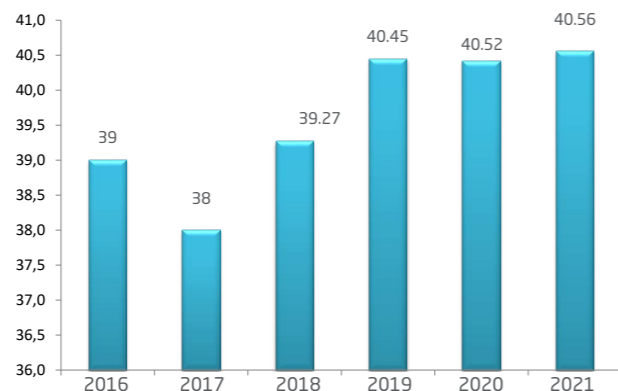
Workforce distribution by gender and category									
	Men			Women			Total workforce		
Irizar S. Coop.	MOI	MOD	TOTAL	MOI	MOD	TOTAL	MOI	MOD	TOTAL
2018.	162	602	764	44	20	64	206	622	828
2019	166	597	763	43	20	63	209	617	826
2020	171	584	754	42	19	61	213	602	815
2021	154	563	717	38	18	56	192	581	773

Distribution by sex of the workforce: in 2021 7.24% were women and 92.75% men, the same as 2021 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 2021, 75.16% were MOD (with higher level training) and 24.84% were MOI (mainly with studies in engineering, business administration and management, or administration).

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
2021	81	253	340	99	40.56

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
2021	141	564	705	68	705	68	773

As shown by our indicators, we promote the incorporation of people to Irizar dedicated to permanence and stability. We prioritize 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 program, in order to hire professionals in both technical and production areas after a process of training and continuous evaluation, have them understand our strategy and develop professionally with us and become permanent members of the company. It's geared towards mechanical, electrical or organisational industrial engineers with less than one year of experience and high level qualifications.
- We also offer grants and scholarships for different specialities and the option to do the final university project with us.
- In collaboration with local vocational training schools, we offer students the opportunity to do their advanced training cycle 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:

1. 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.
2. We offer significant advantages and promotions in areas related with banking, communications, insurance, travel, fuel, spending, etc., which are promoted and negotiated through the Company Board.
3. However, what truly distinguishes Irizar is that, as a Cooperative Society, it offers the opportunity for the people who work in it to join as worker-members, and after a period of three years working as regular employees, they become members 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

We try to have everyone employed by Irizar be assigned a job with remuneration in line with their responsibilities, without any kind of differentiation based on gender. Nor is there discrimination in salary for any other reason: age, race, nationality, religion, disability, sexual orientation, union or political affiliation.

A deep analysis of the salary gap is one item being tackled during the equality plan review that is being done.

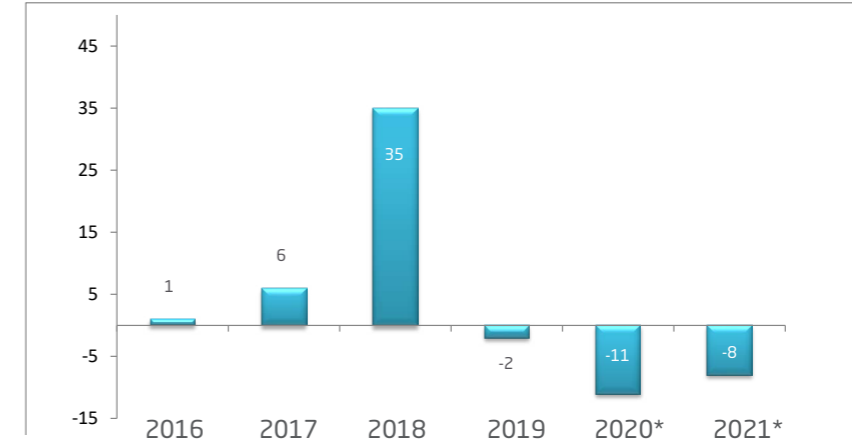
Wage gap									
	Indirect Labour (MOI)			Direct Labour (MOD)			Total workforce		
Irizar S. Coop.	Male	Women	Average MOI	Male	Women	Average MOD	Male	Women	Average workforce
2018.	104.8%	82.1%	100%	100.4%	86.0%	100%	100.4%	95.0%	100%
2019	104.0%	82.5%	100%	100.3%	91.1%	100%	100.2%	96.8%	100%
2020	104.1%	83.4%	100%	100.2%	93.7%	100%	100.1%	99.2%	100%
2021	103.0%	87.6%	100%	100.1%	96.2%	100%	99.6%	104.6%	100%

In 2021, the average salary at Irizar for men was 99.6% of the average, while the average salary of women was 104.6% of the average. The majority of women are indirect employees and, because indirect salaries are above the average, it makes the average salary for women higher.

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 developing capacity and talent to meet challenges we face with a long term sustainability vision, and strengthen R&D (Creatio), new lines of business (electromobility, etc.), increases in demand or new markets, etc.
2. People value the quality of recruitment prioritizing permanent contracts and the possibility of becoming a member of the cooperative

Entries and exits (by sex and age)

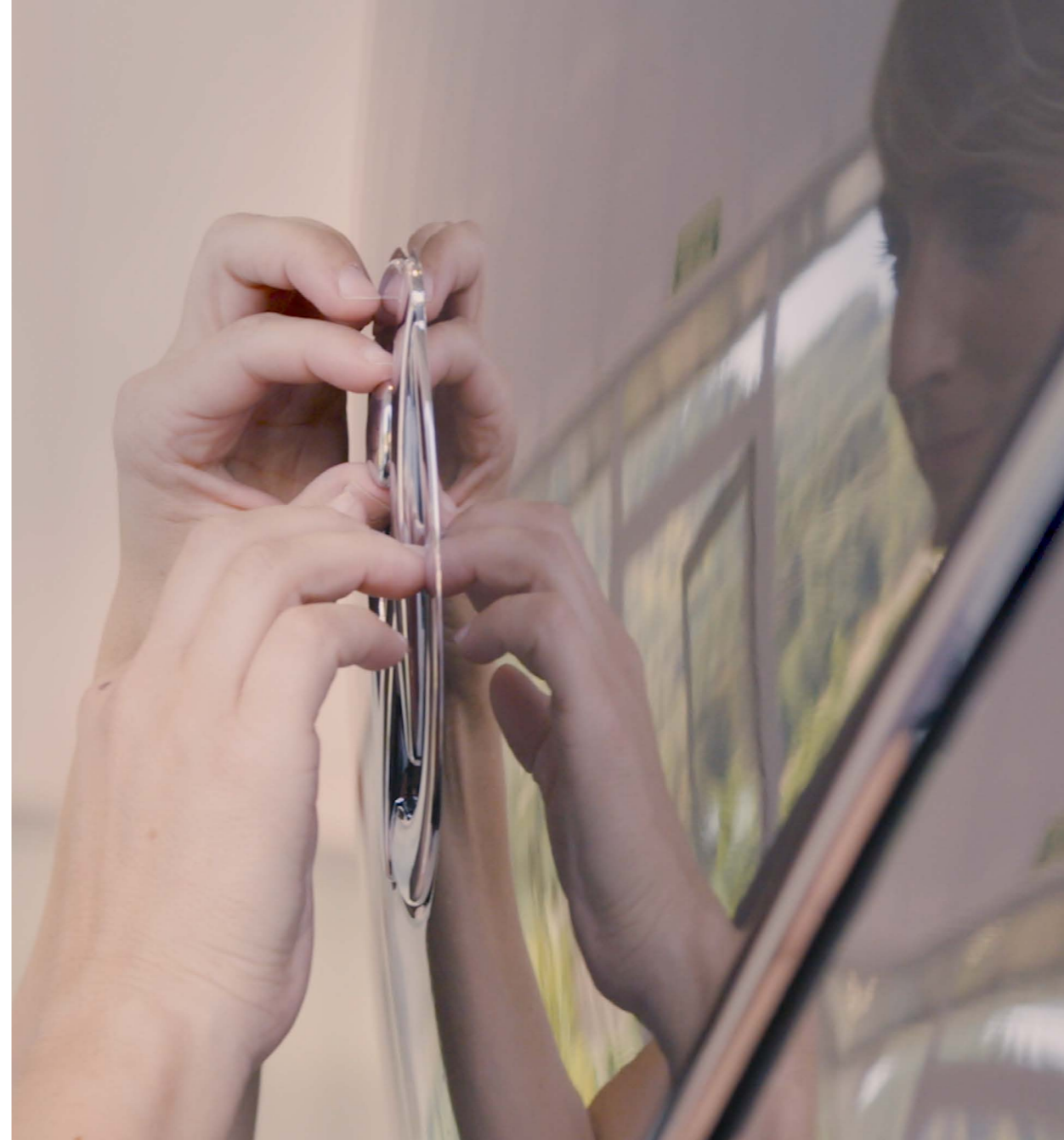
New recruitments by sex and age							
Irizar S. Coop.	Under 30	Between 30 and 39	Between 40 and 49	Over 50	Total		
					Men	Women	Total
2018.	50	19	0	0	64	5	69
2019	15	4	0	0	14	5	19
2020	30	8	3	0	34	7	41
2021	8	1	0	0	7	2	9

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
2021	2	1	9	5	16	1	17

Dismissals by sex

Dismissals by sex			
Irizar S. Coop.	Male	Women	Total dismissals
2018.	1	0	1
2019	1	0	1
2020*	3	3	6
2021	0	0	0

(*) Given the exceptional situation in 2020 we had to terminate the annual temporary contracts of 6 people.



4.2.2. Work organization and commitment to work-life balance

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

Irizar personnel have different alternatives to help find a work-life balance in addition to flexible hours, within limits, shortened work-days, unremunerated break periods, or other kinds of leave. This means offering in many cases a flexibility that goes beyond what is legally established.

The pandemic has contributed to promoting remote work since 2020 for all jobs where it can be done. Also, given the circumstances, the continuous work day was encouraged to limit and reduce physical contact. Work-life balance is one of the target areas of the Social Innovation project that is under way. As we mentioned in the first section, in 2020 a diagnosis of the current situation was done.

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. In November 2021, after analysing the surveys and interviews, new criteria was set for arriving at and leaving work that makes a healthy work-life balance easier to achieve.

1. 60 minutes of flexibility for starting work, which allows leaving before the end of the work day
2. The flexibility is increased to three hours if the person has or is a guardian of a child under 12.
3. Continuous work days are allowed on Fridays and days before bank holidays.
4. Remote work can be allowed one day a week provisionally and for work-life balance.

People with reduced hours			
Irizar S. Coop.	Male	Women	Total
2018.	15	9	24
2019	12	9	21
2020*	21	15	36
2021*	15	9	24

(*) 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 24 workers on reduced working hours in 2021, 15 were women and 9 were men. There was a decrease of 12 people in comparison with the previous year.

Work absenteeism		
Irizar S. Coop.	Rate of missed days (T. D. P.)	Absenteeism Rate (T.A.L)
2018.	7.32	6.08
2019	7.10	5.72
2020	9.12	7.36
w/o Covid effect	7.24	5.48
w/ Covid effect	1.88	1.88
2021	10.03	8.03
w/o Covid effect	8.38	6.70
w/ Covid effect	1.65	2.33

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 you can see in the break-down of the indicators, without the effects of Covid-19 on sick leave we would have had an improvement in total absenteeism in 2020 and decreased a little in 2021. In 2020 we practically maintained the T.D.P. and in 2021 it rose.



4.2.3. Participation in the management and economic results

Participation in economic profits

In addition to the participation in the profit of Irizar S.Coop. for cooperative members, at all the Irizar Group companies, regardless of their business name, all workers participate in 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 following in depth review of Irizar's strategic thoughts, which was expected for 2020, had to be postponed because of the pandemic and it is now expected to be held in 2022. Sustainability will play a fundamental role, based on our strategic lines for the future and commitment to the search for sustainable mobility.

4.2.4. Employment promotion

New hires

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

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

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

- Irizar Trainee Program (ITP).
- Scholarships for different university 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 we think it's possible at Irizar S. Coop. we open internal promotion processes to fill positions with greater responsibility. These are systematic and rigorous processes with a similar or greater level than the processes for new hires.

One position was created in 2021 which was filled by an internal person.

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 is carried out 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.

As we saw in the chapter about sustainable competitiveness, in the assemblies we always discuss sustainability within the global strategy and progress of the company. For example:

- 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 the members in 2020.
 - o The Sustainable Development Goals (SDGs) of the 2030 Agenda were presented in 2020. At Irizar we've chosen them to be high priority and transversal to deepen our commitment to them in the future in a strategic and operative way.
 - o In 2020 and 2021, sustainability as an axis upon which the rest of Irizar's strategies revolve was put forth, especially sustainable mobility.
- 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 organization, 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 made evident, even more if it's possible, the importance of communication and transparency in organisations. That situation did not prevent Irizar from holding several ELC meetings in 2020 and 2021 where new decisions made, the market and the company were presented.

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:
 - To inform, advise and provide consultation for the Governing Council in matters affecting employment relations.
 - To inform those it represents, and to canvass their opinions and contributions on employment functions and matters.
 - 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.
 - To make available to all workers, through monthly publications, the meeting minutes of the Social Council.

Additionally at Irizar we extend the dynamics of the provisional company board (non-member) meetings to both receive contributions and consultations and make the minutes available on 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 organization
 - 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 the people who are part of it, milestones reached, sustainable culture and strategy, visits to our facilities (by clients, institutions or the media), and collaborations and aid for culture, sport or 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 centralizing all the information posted at Irizar. It also provides services that go beyond the daily management, including cultural activities or dictionaries. It's currently being improved.
- 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. It's a tool that's growing in use. More and more information is being sent through this channel.

The impossibility of using the usual communication tools in rest areas in 2020 and 2021 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 was displayed through more direct channels with everyone individually.



4.4. Strengthening talent: Education and training

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

This growing need to adapt to changes and new challenges and to anticipate the future, demands more and more specialized 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 differentiated and surprising products and services, to go one step ahead, and to be able to respond to the training needs that arise from our strategic reflections (annual and medium/long-term) and the ideas and suggestions of our stakeholders.

We 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 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, improve the quality of our products and services and be able to act preventively in terms of ergonomics by making posture changes easier and using other health and safety measures.
- Continuous flow of personnel among production plants in different countries and companies of the Irizar Group companies to: support, promote and take advantage of synergies in the activities and actions carried out within the strategic and work lines proposed, with the fundamental objective of increasing knowledge and capabilities while maintaining continual training in aspects, innovations, and solutions incorporated in products and services,

management, image, sustainability, and technological implementation. 2020 and part of 2021 were marked by harsh restrictions to mobility around the world, which prevented being able to move people between plants.

- Constant training and qualification in critical manufacturing processes (welding, gluing and painting) of direct personnel, with the collaboration of our integrated suppliers and / or specialized external companies.
- In 2021 we can highlight the training in prevention issues received by everybody. Many hours were invested in general issues in addition to hours spent on issues specific to the post, including the decalogue for handling Covid-19.
- In 2021 we can highlight the training received by everybody in workplace risk prevention. Many hours were invested in general issues in addition to hours spent on issues specific to the post.



The internal training plans were complemented by continuous training programmed done by external staff. The intensity and content of the training has more variation and it's more closely linked to changes in strategic focus, new lines of products and services we're undertaking or new markets, etc. Their qualitative evolution is shown on the table below.

External training								
Irizar S. Coop.	2014	2015	2016	2017	2018.	2019	2020*	2021*
Hours dedicated to training	6551.	4701	4546	4119	3122	3066	1075	12110
No. of personnel	264	166	222	236	135	161	143	999

* The usual face-to-face external training has also been restricted by what it was only possible to deliver in the first months of 2020.

We've also continued with online sustainability training.

- Online given by the United Nations Global Compact or other organizations (2030 Agenda and SDG, Ethics and good governance, supply chain and decent work, trends, Climate Change, etc.).
- In the first half of 2021, Irizar representatives continued doing training in the SDG Ambition accelerator programme of the United Nations Global Compact, which more than 700 international companies participated in. It's a pioneering programme with a new methodology to help us set ambitious SDGs (sustainable development goals) and integrate them into the centre of our strategy and operations so we can contribute to the prosperity of people and the planet.
- We did internal training for the management team in sustainability and SDG/2030 Agenda in 2021. In 2022, every manager is expected to keep deploying people in their area with the following level of responsibility in the organisation. Commitment and involvement are important from the top level managers at Irizar for achieving the goals set for the future.

Beyond professional training, we do awareness raising and training initiatives in sustainability. Among the courses and awareness campaigns 2021 we can highlight:

- International Women's Day
- International Day for the Elimination of Violence against Women
- The SDG Speaker campaign to raise awareness about the issue among our stakeholder groups

2021 was, without a doubt, a year of opportunities. Like in 2020, we continued reinforcing training, versatility, communication and flexibility for clients and the capacity to adapt to change.



4.5. Gender equality, diversity and social inclusion.

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

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

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

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

As we stated at the beginning of the chapter, in 2019 we started 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.

In 2021, work was continued on updating the gender equality plan.

- Because it's a high priority action, work was done on the protocol against sexual and gender based harassment in the workplace, which we expect to be approved by top level management in the organisation and be put into practice in 2022.
- The improved equality plan was being finalised by the social innovation team and it's expected to be presented in 2022 for approval by the organisation's top level management and presented to the entire collective to be circulated at the general assembly.

We are also cooperating with training centres in the local environment to promote and facilitate increased incorporation of university and upper training cycle students 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 that way we can reinforce the Irizar brand worldwide and make the external projects more competitive.
- In addition to the constant flow between coach production plants of people from different countries of the Group for training and to take advantage of synergies, already discussed in the section "Strengthening talent: education and training", and we capitalise on the synergies created by the Irizar experience and the possibilities provided by their presence on international markets with production plants to carry out implementations of the rest of the companies in the Group in countries where it is present. That's how Hispacold and Masats emerged in Mexico, and the Jema operations 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. In a complementary way, our approach is to work with external collaborators who host or hire people with disabilities (as we saw in the corresponding chapter).

4.6. Health and safety

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

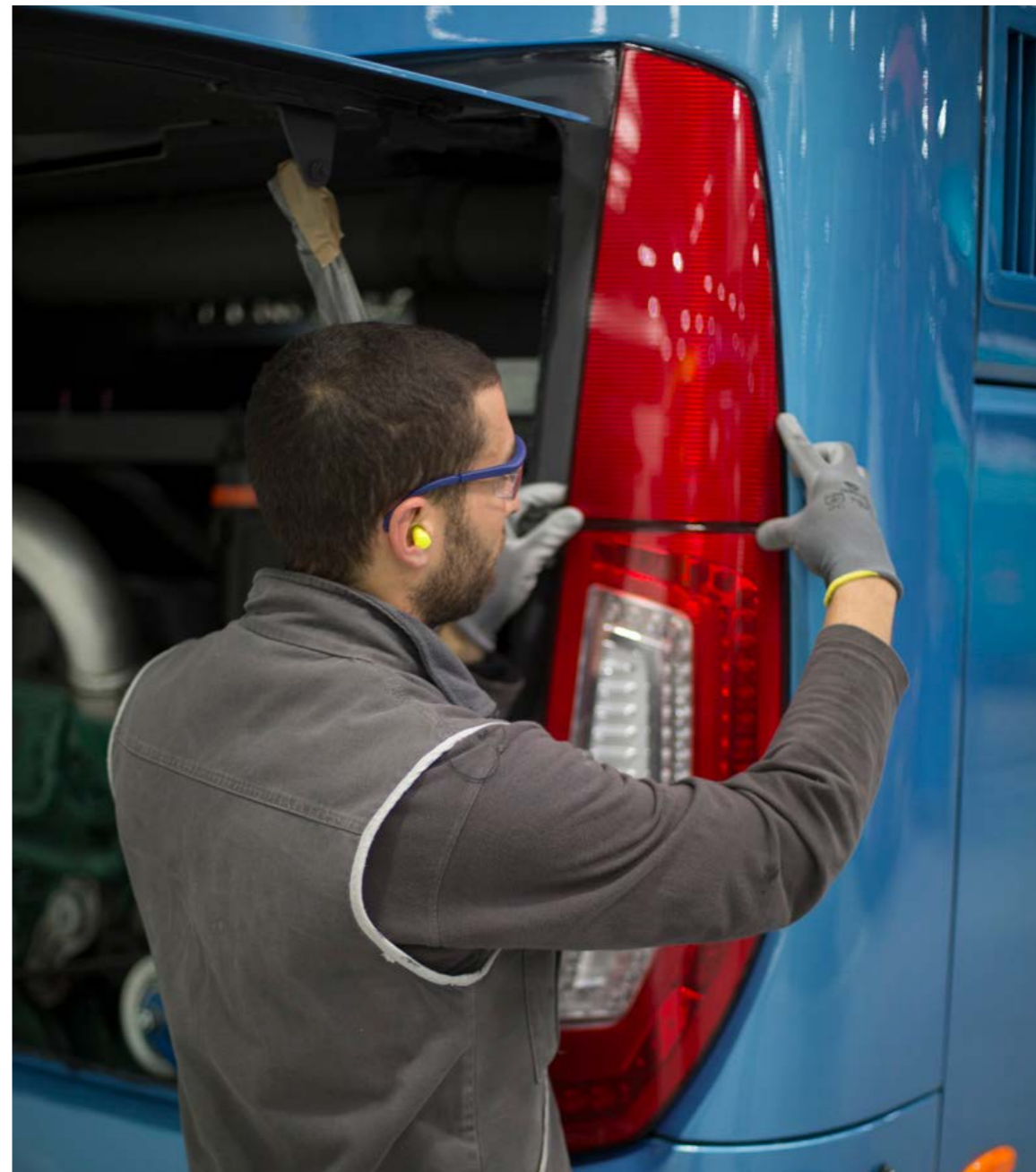
In terms of hygiene and ergonomic-comfort measures, at Irizar, we are at maximum levels, above the legal requirements and other cooperatives and companies in the local sector.

In 2021, we kept focusing 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.

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:

- How it is handled as a high priority in all the assemblies. Data are provided both on the indicators and on the actions and investments made in the year to improve health.
- The dynamics, established for more than 25 years, of monitoring by the Health and Safety Committee of all accidents, incidents, audit results (internal and external), inspections carried out continuously and periodically (safety and health, industrial safety of all facilities), and improvement proposals that affect health.
 - o 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.
 - o The members of the Committee include: the CEO, the Director of Personnel and the President of the Governing Council of the Cooperative, Prevention Representatives who are members of the Social Council, other members from different health and safety related areas.
 - o Also, it is an open committee in which any person from Irizar may participate.
 - o Its goal is to ensure that all guidelines are adhered to, in addition to legal occupational health and safety requirements. And monitor the results regarding those issues.
- Inspections are done periodically Likewise, internal audits are done continuously.
- 100% of all injuries, accidents and incidents are analysed. Within this framework actions were put into practice and the required investments were also made in 2021. This has increased safety, especially for reducing risks that could result in serious consequences.

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

The Health and Safety team makes the following available to staff: key safety plans, instructions and procedures focused on prevention and continuous improvement. These guidelines emphasise the obligation to act responsibly and also underline the fact that each person must actively participate in the measures.

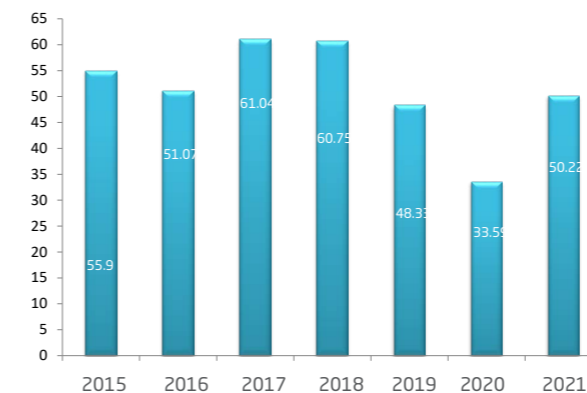
Personnel may access this information through various means, including computers available in all production areas.

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.

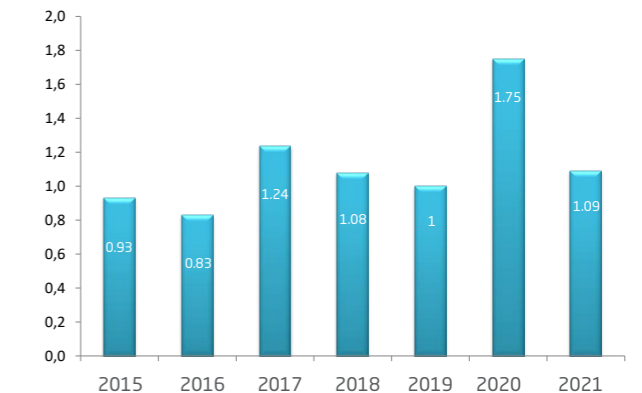
Irizar e-mobility also demonstrates its commitment to the health and safety of people along the same lines, and 2020 managed to obtain ISO45001: 2018 certification.

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)

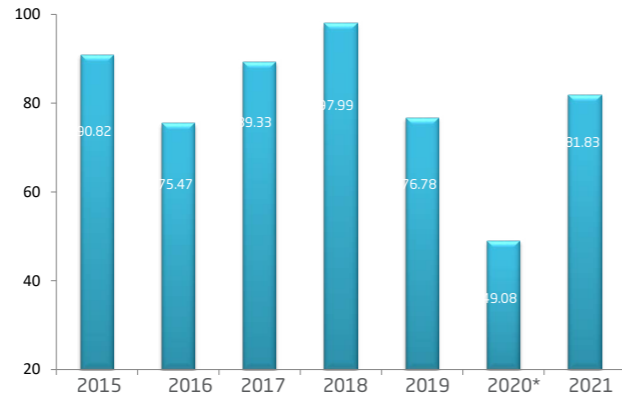


The frequency index (number of accidents per hours worked) has gotten worse in comparison with 2020, fundamentally as a consequence of the increase in hours worked.

The severity index (result of the number of ours lost for every thousand hours worked) has dropped to values more in line with values from the years prior to the pandemic. The sick leave times were shorter.

Incident rate and accidents at work with sick leave

Incidence rate (number of accidents per number of employees)



Workplace accidents with employee down time							
Irizar S. Coop.	2015	2016	2017	2018.	2019	2020*	2021*
Average Workers	786	778	791	836	826	815	789
TOTAL Accidents with Sick Leave	70	67	77	82	64	40	64
People absence per accident	-	-	-	-	61	39*	61
Women absence per accident	-	-	-	-	3	1*	3

(* 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).

(* In 2021, essentially as a consequence of working more hours than in 2020 and the decrease in the average staff, both the incident rate (number of accidents per number of employees) and accidents with sick leave increased in 2021, reaching pre-Covid levels.

After the exhaustive analysis we did in 2018, in which we identified an increase in the number of accidents among new hires in comparison with the previous year, a need for a 2019-20 Health and Safety Training Plan was determined for all new hires. It's a training plan based in the metal agreement, which we started to plan in 2019 and was carried out in 2020 and 2021. It's not just for new hires, but it's been extended to all workers (temporary and members). During 2021, 80% of

people did the training from the metal agreement about preventing risks in the workplace.

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

4.6.2. Ergonomics-Comfort Programs

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

Regular activities and measures taken in recent years

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

Management of prevention of occupational hazards:

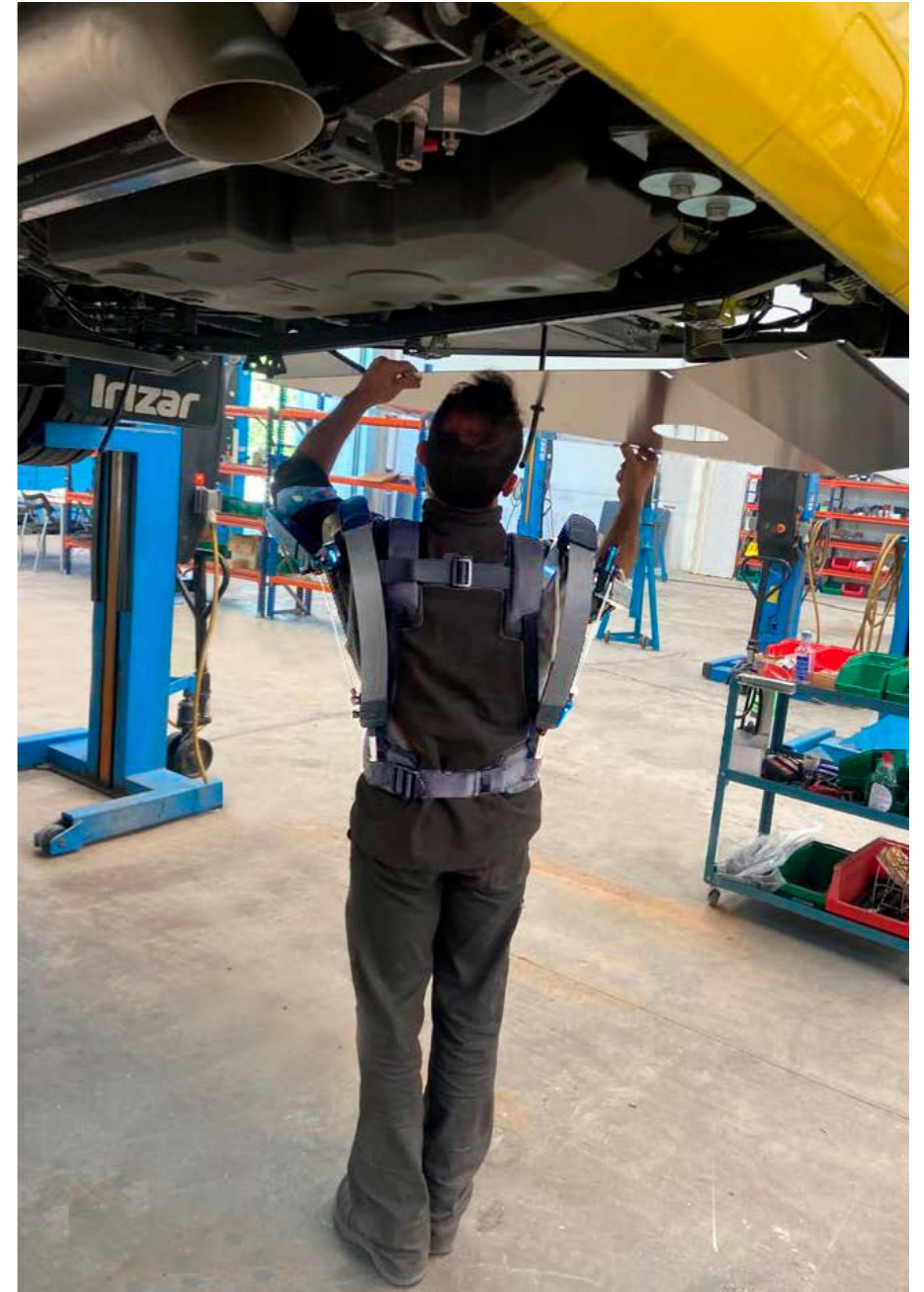
- Start of the multi-year development project of the new OHP management programme and transfer of data from the current system to the new one.
- Application of corrective maintenance in the Intranet-iweb.
- New project for registration and grouping of all climate control equipment in the existing industry 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've recently acquired several exoskeletons with the goal of including 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 reduce the physical demands for people and contributes to preventing injuries and ergonomic risks from work.
- 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.
- Substitution of critical chemicals with non-hazardous chemicals.
- Implementation of motorised breathing equipment for all painting and framing processes with maximum protection.
- Push and pull suction equipment in critical areas with suspended suction equipment for work on vehicles.
- Heavy-duty suction equipment for sanding tasks.
- Automation improvements in cabins to minimise hygiene exposure.
- Status control for filters by automatic notification (4.0).
- Localised suction for dust exposure.
- New air conditioning control system in the production plant and offices on the ground floor. Plant evaporators in the sheet metal area.
- Nederman suction plate installation improvements.
- Automation of paint booths to optimize resources: SAT, Parts 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.



Security:

- Installation of collective protections for cabin maintenance.
- Adapting facilities to new regulations and subsequent industry facilities review of fire protection 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.
- Installation of glue booths for all work with exposure to glue.
- Improvements to hygiene conditions in the painting section by providing all workers with protective equipment that reduces exposure to chemical agents to inappreciable levels.
- Purchase and installation of defibrillators in all areas and facilities of the Irizar headquarters.

Clothing and equipment:

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

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 structures, SAT, parts, retouching, Paint-2 (A, B and C production lines)

Future plans 2022

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 2022 to improve working conditions and facilities, we highlight:

- Continue with the multi-year development project of the new OHP management programme and transfer of data from the current system to the new one.
- Implement a new IT system for OHP-Semantic management
- Analysis of the captures and management of energy consumption
- Conveyor for Maderas car in the Previo plant area
- Pending worker training (metal agreement)
- Training in Health and Safety for all people: new recruits and other people who already work at Irizar (temporary and members).



4.6.3. Other health and wellbeing services

- 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 of seniority and until they become a member, Irizar also takes out full-coverage 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 at work and in people's personal lives. Among other initiatives to make those healthy habits easier, before the pandemic Irizar put fruit in break 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 set menu, as long as the Covid-19 preventive measures allow it.
- Physical activity is encouraged, sponsoring people participating: representing Irizar in Empresen Lasterketa (companies race in Donostia) or in other sporting events (Zegama Aizkorri, Ehun Milak, etc.).

For most of 2021 there were no services in break areas, the dining area or exercise 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 in 2020, to be united with families:

In 2021, promoted by the Euskara group at Irizar S. Coop. (Euskara Taldea), a summer video contest was held that was extended to other Irizar Group coach production companies (Mexico, Brazil, South Africa and Morocco). The goal was to bring attention to the language of every place, so everyone could send a video in Euskara, their native language, or the language they use wherever they are.





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 modernization, 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 (HHRR)



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
- Environmental behaviour questionnaire

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 - Projects for the future
- Basque hydrogen corridor: BH2C
- UITP (The International Association of Public Transport)
- Alliance with Iberdrola to accelerate electric mobility
- Alliances and collaboration with the environment
- AERCE (Association of purchasing, contracting and procurement 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.

Consistent with our business strategy, our alliances with different outside collaborators play an important role in sustainable competitiveness at Irizar.

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, the European Commission and agreements with other organisations and European research centres with whom we share technological innovation projects, collaboration, or agreements with other companies for developing products or functionality together or to give a second life to batteries.

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

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

To those ends, in addition to our sustainability actions internally, with clients and with society in general, our goal is to raise the ambition of our commitment to guarantee a SUSTAINABLE SUPPLY CHAIN that includes suppliers and sales and distribution companies, and after-sales shops.



5.2. Sales, Distribution and After-Sales Network

As we saw in chapter 3 “We create value for our clients, passengers and citizens”, we stay close to our clients through the entire value chain and we integrate them into our internal processes.

We have our own sales and after-sales teams. And we're continuously expanding our sales, distribution and after-sales network around the world through collaborations and alliances with distributors and commercial partners who let us provide service and distribution close to clients in the more than 90 countries around the world where we have a presence. You can see our wide network in detail at <https://www.irizar.com/mapa/>.

In 2021, Irizar kept triumphing in new countries and added Egypt and Libya to their historic presence in the Mediterranean (Italy, Israel, Cyprus and Greece). Irizar signs a distribution agreement with EVO MOTOR in Egypt

In 2021, and after the hard work by all the Irizar services to keep vehicles active for transporting people during the entire pandemic, we took advantage to do technical training courses to keep the staff's technical knowledge up to date. In addition, all the Irizar services remained operational to handle 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. In the EU alone, the after-sales network has coverage greater than 300 shops that it owns or outsources and that is backed up by mobile units. That network is joined to a spare parts distribution network for delivering spares needed for vehicles in the vast majority of European territory in 24 hours so vehicles can get back on the road.

In 2021 we reinforced:

- Our Irizar Luxembourg affiliate to provide services in Belgium for their new maintenance and repair activities, in addition to sales
- Our service network in Cyprus to provide maintenance and repair services for the expanded fleet of urban and suburban Irizar buses
- Our service network with added preparation for hybrid vehicle assistance and repair (diesel - electric) in Spain, France and Poland

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

We also have ittraining, 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. In 2021, new content was added through training courses for new systems/models launched on the market by Irizar so knowledge can be transferred to repair technicians for our vehicles with greater speed and efficiency. The tool has been judged very highly for training our repair technicians.

We are implementing an 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 continue developing monitoring and remote-diagnostics solutions for Irizar vehicles using the iPanel platform where errors displayed on a vehicle's dashboard screen can be monitored remotely. The iPanel platform has also been designed to carry out preventive maintenance plans that maximise the availability of vehicles. It's described in detail in the “Connectivity Big Data” section in chapter 3 about clients, 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.

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 are extended to provide services for clients during the life of their vehicle, both covering the warranty for the elements and providing the after-sales service that is needed. Consequently, 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:

- Define good business practices in the worldwide markets in which we operate and thus make our contribution to respecting human rights, protecting the environment and climate, etc.
- Increase the trust with our stakeholder groups with Irizar as a sustainable and responsible partner, improving our reputation and brand image

At Irizar, we promote and back responsible processes for acquiring services and raw materials at the same that we're 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.

Despite the enormous problems in supply chains around the world and thanks to the high degree of integration and trust with our main suppliers, in 2021 we were able to meet the demands of our clients without undergoing any stoppages on our production lines. It's during the hardest times when the solidity of alliances is most put to the test.



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.

The 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. The goals we set 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 manufacture 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.

Environmental behaviour questionnaire

In 2021 questionnaires about environmental behaviour were sent to the suppliers with the greatest environmental impact, which are the suppliers of chemical products and energy resources.

The indicators on the supplier questionnaire included:

THE SUPPLIER COMPANY'S COMMITMENT AND ENVIRONMENTAL MANAGEMENT	ENVIRONMENTAL ASPECTS OF SUPPLIER ORGANISATIONS
Suppliers with environmental certification	ENERGY CONSUMPTION
Suppliers with SDG contributions	Supplier organisations that consume energy from renewable sources
Suppliers with CSR	Supplier organisations that have specified actions/plans for lowering energy consumption
Suppliers that indicate complete legal compliance	CO2 EMISSIONS
Suppliers that indicate knowledge of IRIZAR's environmental policy and commitments	Supplier organisations that have done a carbon footprint calculation for their business activities
	Supplier organisations that have verified their emissions
	Supplier organisations that have specified actions/plans for reducing CO2 emissions
	Supplier organisations that have specified actions/plans for offsetting CO2 emissions associated with their business activities
	WASTE MANAGEMENT
	Supplier organisations that have protocols for separating, labelling, storing and managing waste
	Supplier organisations that indicate they have documentary registries that prove the dangerous waste they produce is managed properly
	Supplier organisations that consider actions in their business to give a 2nd life to excess materials from their production
	Supplier organisations that apply actions/plans for reducing, reusing and recycling their waste
	MOBILITY
	Supplier organisations that apply sustainable mobility plans for delivering their products
	Supplier organisations that do a CO2 emissions calculation associated with transporting their products
	Supplier organisations that apply some kind of sustainable mobility action/plan for transporting the products they supply to IRIZAR
PRODUCTS SUPPLIED TO IRIZAR	
Products that include an environmental variable	
Products that have some kind of ecological labelling	
Suppliers that supply products in packaging with some kind of environmental criteria	
Suppliers that consider the possibility that the containers/packaging for the products they supply may be returnable (reused)	
Has measures implemented for reducing the environmental impacts related with the end of life of their products	

The analysis of the results tells us:

- The suppliers are barely working on environmental issues. We have to raise awareness and promote progress on the issue in the future.
- We need to make a much simpler questionnaire with basic requirements for NON chemical suppliers.

5.4. Purchases committed to the social surroundings

We can highlight our high commitment to our environment, because our purchases of materials and services from companies in our province (Gipuzkoa) has increased in recent years and, in 2021 and 2020, it accounted for 17% of our total purchases.

We've continued to reduce purchases in distant countries. Consequently, our purchases in China were under 2% in 2021, the same as 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, making 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 have significant stable relationships with suppliers who are social purpose organisations.

- **Katea:** An organisation aimed at work and social integration for disabled people in Gipuzkoa. Even though Covid-19 caused a sharp drop due to our low volume, 20 people worked for Irizar S.Coop. in different activities in 2021.
- **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 assemble batteries.
- **Hazlan:** A social integration company that includes people in the Bidasoa region with social integration issues into its business activities. They perform sewing work..



5.5 Optimising Logistics at Irizar Group level

The Irizar Group, through its logistics area, is immersed in a project to adapt and reallocate routes with the main objective of optimising the resources dedicated to the transport of goods to improve efficiency and costs, as well as reduce environmental impact. The impact of Irizar logistics was already being noted in 2020 and in 2021 the scope of the analysis was expanded.

Taking the impact analysis on maritime transport as a starting point, in 2021 the studies were expanded to all three modes of freight transport: maritime, air and ground.

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. Consequently, in 2021 improvements were undertaken in all modes of transport to continue with the continuous improvement of the optimisation.

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). Progress was made in this direction in 2021, reaching average values of 40.2% of filled containers for the Mexican routes and 42.3% for the routes to Brazil. The epicentre for all the actions was our consolidation warehouse in Barcelona, where the average fill percentages increased by 6 points in comparison with 2020.

In 2021, the Irizar S.Coop. emissions values were analysed for maritime, ground and air transport. The indicators being evaluated were set in 2020 and kept in 2021, so we could create a stable base for the analysis from which we could evaluate our environmental impact and put more consequential actions into practice.

- 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

Summary of Transport Results for Irizar S.Coop. 2021

Mode of Transport	Number of Shipments	Gross weight (kgs)	Emission: Air: CO2e Well-to-Wheels/Sea,Road: CO2 (kg) Total	Average Gross Weight (kgs) per shipment	Average Emissions (kgs) Per Shipment	Average Emissions (kgs) per Kg
Air	534.00	29736.00	45813.00	308.52	475.34	3.08
Road	23771.00	18505382.00	1361030.00	17146.23	9425.74	2.07
Sea	125.00	1542577.00	100618.00	12340.62	804.94	0.07
Sum:	24430.00	20077695.00	1507461.00	29795.37	10706.02	5.22

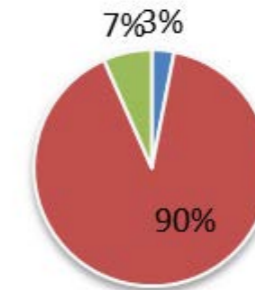
The global supply problems stemming from the supply chain being broken, primarily due to Covid-19, had a negative impact on the entire value chain. Shipments have doubled, and inefficiencies in shipments and ports have only increased the environmental impact of all imports and exports.

Despite that, the reduction in average CO₂ emissions per kg of maritime transport was 0.21 in 2020 and 0.07 in 2021. The reduction in emissions to a third is a consequence of:

1. Our firm commitment to improving the consolidation and capacity use of containers
2. Applying the new IMO2020 law for shipping companies, which obligates them to:
 - o Use ships with lower fuel consumption (engines and catalytic converters)
 - o Use less polluting fuel (VLSFO: very low sulphur fuel oil)

Emissions (%)

- TOTAL Kg CO2 AIR
- TOTAL Kg CO2 ROAD
- TOTAL Kg CO2 SEA



With those figures, 90% of the impact of imports and exports of the freight transport of materials needed to produce coaches at Irizar S.Coop. (including maritime freight exports to the Irizar Group plants in Mexico and Brazil).

This base table will be used in the future to obtain relevant data to establish improvement actions for reducing CO₂ emissions from logistics.

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 to promote the recovery of the economy and the generation of employment. We must continue to innovate, rethink globalization 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 - Projects for the future

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 Creation R&D centre (Irizar Innovation Centre) at our central headquarters that is focused on enhancing applied research and technological development capabilities in cooperation with different companies in the Irizar Group for products with its own brand as well as the main components for coaches. 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, Ididia, Insia, IK4-Azterlan, IK4-Lortek, Leartiker, Tecnalia, Vicomtech, etc. We're always striving to strengthen the Group and improve its 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 top European technological research and development centre whose mission is to transform technology into GDP to improve people's quality of life by creating business opportunities for companies. It's part of the BRTA (Basque Research and Technology Alliance). It is the first Spanish private organization 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 sponsor of Tecnalia in 2020, increasing the level of collaboration we had with them for several years to make it a more strategic model based in trust, collaboration and a shared technological strategy. Tecnalia's primary areas of work are the digital transformation, advanced manufacturing, the energy transition, sustainable mobility, health and the urban ecosystem.



Basque Hydrogen Corridor: BH2C

In 2020 Irizar joined the initiative that will contribute to changing the economic and energy model to make progress towards decarbonising strategic sectors like energy, mobility, industry and services. It's a commitment to industry in the entire value chain of the hydrogen energy vector that was created in Euskadi by Petronor (Repsol Group) that will lead to an economic reactivation. The Basque government represented by Arantxa Tapia, councilperson for Economic Development, Sustainability and the Environment, considers it "key to the sustainable development of the territory".

The Basque Hydrogen Corridor initiative has ambitious goals, including investments of 1300 million Euros between 2021-26, a period in which it is forecast that 1340 direct and 6700 induced employment jobs will be created. In February 2021, 34 projects related with hydrogen that will prevent 1.5 million tons of CO₂ a year had already been presented.

The presentation took place in February 2021 in Bilbao with the signatures of 78 participating organisations, including Irizar. The councilperson for Economic Development, Sustainability and the Environment, Arantxa Tapia, the Deputy General of Bizkaia Unai Rementeria, the Mayor of Bilbao Juan Mari Aburto, the president of the Bilbao Port Authority Ricardo Barkala, the president of Petronor Emiliano López Atxurra, and the project coordinator Jose Ignacio Zudaire, among many others, attended the event.



UITP (The International Association of Public Transport)

Since 2020 we have also been members of the UITP, 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 mode 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.



Alliance with Iberdrola to accelerate electric mobility



In July 2021 both companies reached an agreement to accelerate electric mobility through electrifying urban transport and the green energy supply. To do this:

- We'll work on projects associated with electrifying the fleets of urban buses, recycling and reusing bus batteries and deploying intelligent charging infrastructure.
- The alliance will also explore R&D programmes, demonstration projects and develop new technologies in the area.
- Irizar e-mobility, part of the Irizar Group, manufactures and commercialises electric buses in the framework of its commitment to sustainability and the environment.
- Iberdrola deploys a sustainable mobility plan with 150,000 charging points and works with manufacturers on decarbonising the production process for electric vehicles and their life cycle based on renewable energy.

The alliance kicked off with Iberdrola being chosen to supply renewable energy with a guarantee of origin (GdOs) in Irizar's factories in an effort to contribute to decarbonising the life cycles of their buses. Furthermore, the energy company will provide consulting to Irizar in all the areas that contribute to the sustainability of the group, including energy efficiency projects and self-consumption, etc.

The alliance unites the capabilities and strategies of both companies. As a driving force, Iberdrola leads in electrifying transport to make a decarbonised economy, while Irizar manufactures and commercialises buses and industrial vehicles in addition to charging systems and infrastructures aimed at urban electromobility.

In addition to exploring joint opportunities in electric mobility, the two-year agreement includes formulas for collaboration involving decarbonising the manufacturing group's network of collaborators.

Alliances and collaboration with the environment

It is worth mentioning that Irizar belongs to:



Berrikuntzaren Euskal Agentzia
Agencia Vasca de la Innovación

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 organizations of the system in the design, implementation and evaluation of policies related to science, technology and innovation.

The partner organizations are the true key players of the permanent innovation dynamic in the Basque Country. We make local, national and international alliances and networks as a way to share experiences, provide services and gain influence and positioning at scale. Because of their diversity and number, the member entities of Innobasque are a good representation of the Basque Science, Technology and Innovation System and they account for 62% of Basque R&D+i investment. Among Innobasque's nearly 1000 members are entities associated with companies (51%), government (12%), education (11%), scientific-technological actors (9%), intermediaries (7%), social entities (6%) and associated people (5%). It's notable that 91% of the Innobasque member companies are SMEs and 89% operate in strategic RIS3 sectors.

Irizar is also on the Innobasque board of directors and leads innovation strategies for the Basque Country.



Euskadi Automotive Cluster – ACICAE

This is the organisation whose purpose is to dynamise the Basque automotive industry and make cooperation between Basque companies possible in order to provide a group response to the significant challenges facing the sector. It is considered the first automotive cluster created in Europe. Since its inception in 1993, it has evolved rapidly and it has contributed to the growth in billing in the Basque automotive sector in the last twenty five years. It's made up of 300 companies that bill more than 20 billion and employ more than 120,000 people around the world, of which 40,000 are in the Basque Country.



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 companies included in this alliance have joint sales of 4,100 million Euros and we dedicate 3% of sales to R+D+I, have production plants in 19 countries and employ 7,500 workers dedicated to the sectors of fittings, mobility, lifting, energy, electric motor, transport, machine tool, and other sectors.



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 111 associated companies and organizations represent a turnover of 10,750 million Euros and 57,629 people around the world and allocate 356 million Euros for R&D+i.

As part of their ongoing collaboration with the cluster, we can highlight that in June 2021 Irizar was a speaker at the University of the Basque Country summer course organised by the cluster. The Green Hydrogen Corridor: The new energy vector got mobility. In it we highlighted that “We're at the gates of a second inflection point in mobility”, and that “hydrogen is one of the keys to this new model of sustainable mobility. And renewable hydrogen is positioned as one of the main energy vectors”. With our sights set on the challenges of the future, at Irizar we're convinced that “buses are being called upon to lead the change towards sustainable mobility”.



AERCE (Association of purchasing, contracting and procurement 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 modernization, 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 and 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 Activity carbon footprint - Irizar S. Coop.
 - o Activity carbon footprint - Irizar e-mobility
 - 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 minimization 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 minimizing 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 of Irizar's environmental policy are the progressive 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 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 measure for gradually reducing product environmental impact.
- Responsible energy consumption and its reduction, minimising the emission 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 optimizing consumption and waste minimization with landfill disposal maximizing its reuse or recycling.

6.2 Sustainable Products and Eco-innovation

As shown in detail in chapter 3 about "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 minimizing 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 were the first company in the sector worldwide to achieve the Environmental Product Declaration (the International EPD System) in 2019, which was an unambiguous step in our progress to being a European leader and in the vanguard of eco-innovation and eco-design for the entire product life cycle. We obtained the Environmental Product Declaration (EPD) for the ie bus NG electric bus in 2021.
- We share opinions, experiences and discuss the sustainability concerns (economic-governance, social and environmental) of the client.
- We deliver eco-driving courses and efficient driving manuals for our customers.
- We recycle the batteries from our electric vehicles and give them a second life
- We conduct careful management of resources and recyclability.
- Safety is a priority in all our developments.

All our efforts are aimed at minimizing 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, which are two intertwined aspects of 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 and controlling management indicators related to consumption of materials, waste generation, etc., maintaining our final objective of optimizing the resources we use, seeking to be efficient and reduce the generation of waste and discharges.

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 from the involvement of all people to guarantee quality and optimization of work resources.

Another measure we put into practice in 2016 was centred on creating specific and detailed best-practices manuals for every work area, improving and optimising the processes or operations we deemed critical, which included the ones with the greatest environmental impact.

At Irizar, we keep making progress in the circular economy management model as a system for using resources where reducing, reusing and recycling is primary. All of that is geared towards 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 the orders as much as possible and minimizing 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 optimize 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".

Year	Water (m ³ /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
2020*	14.4	7568.11	12243.36
2021*	12.81	8749.7	14415.75

(*) In 2020 and 2021, 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	2021
Water (m ³)	12,084	13,270	8,351	5,845
Electrical power (kWh) (1200 kW)	6,401,592	6,319,376	4,111,416	4,013,918
Natural Gas (kWh)	11,781,529	11,218,650	6,420,233	6,511,621

Although in 2020 and 2021 the absolute data on water and energy consumption (electricity and natural gas) show significant decreases compared with 2019 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 that was extended to all production plants in 2020.

- **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 reduction in consumption is due exclusively to the drop in production: less water for cleaning structures, lower sanitary water use (showers) and for cooking.

The main actions implemented for a more sustainable use of water are divided into two sections.

1. **Consumption in the Production Process** This is 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.
 2. **Internal Consumption** This is consumption by the workers themselves, company dining areas, cleaning facilities and similar procedures. Irizar has run staff environmental awareness campaigns to try to reduce that consumption and minimize its impact.
- **Electrical power consumption:** The relative increase in 2020 and 2021 diminished because of the effectiveness of the energy efficiency action plan put into practice in March 2013 that included new measures for 2020 and 2021, which are described in detail in the energy efficiency section.
 - **Natural gas consumption:** We should indicate that we believe the relative increase in 2020 and 2021 was diminished thanks, in large part, to the measures put into practice last year related with improving our energy efficiency and with the measures mentioned in the previous section, which affect gas and electricity together.

It can be seen that in 2021 there was a 23.7% increase in consumption per coach produced relative to the previous year due to the drop in production of manufactured cars and to including the compressed natural gas (CNG) and liquid natural gas (LNG) coaches in the range of products, which are filled using natural gas from the network.

Actions carried out that affect electricity and natural gas:

- Energy assessment studies were done for the offices in all the plants in 2021, likewise we've been monitoring energy consumption in all the main facilities since the beginning of 2021.
- In 2021 we analysed and corrected the operation of the readings and installed metres in areas where we saw a need for them.
- A control and detection panel will be put into operation in 2022 in the entrance hall of our facilities, which we hope will let us detect and correct deviations in gas and electricity consumption early.

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.

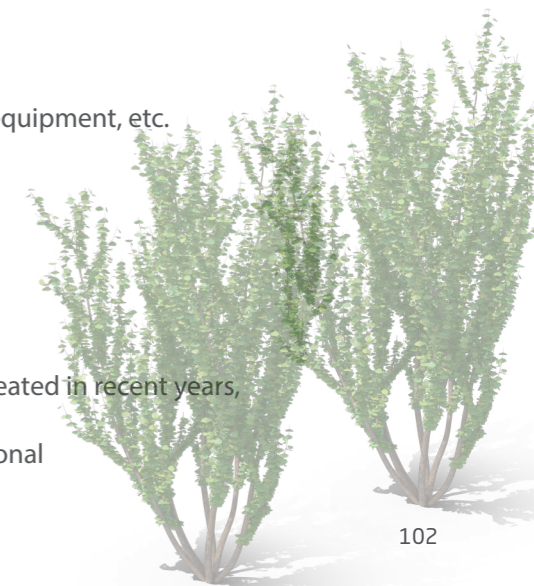
Consumption of chemical resources (per surface are treated)

Year	Paint consumption / m ² Surface area treated (kg / m ²)	Solvent consumption / m ² Surface area treated (kg/m ²)
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
2021	0.571	0.152

ABSOLUTE CONSUMPTION RESOURCES (Lezeta)	2018.	2019	2020	2021
Paint (DMA, EVA) (kg)	412,298	364,737	215,506	151,500

- **Paint consumption:** Even though the absolute figures for 2020 show a significant decrease in consumption, also due to the effect of the pandemic, there was an increase in paint consumption per square metre of surface treated, specifically 26.25%. The increase occurred despite the work done on implementing the paint management plan and several production factors mentioned previously (mainly a decrease in high-end and integral coaches, etc.).
- **Solvent consumption:** In a similar way, in 2020 solvent consumption per square metre of surface area treated fell considerably, but as in the other cases, the ratio increased 29.79%. The Solvent Reduction Plans implemented since 2007 are having positive and remarkable results and, with the plans, we're directly contributing to reducing the 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.

With both paint and solvent, despite returning to a downward trend in 2021 for the consumption of both categories per m² of surface area treated in recent years, it is largely associated with changing the short distance product commercialised and low specifications derived from the exceptional situation of the pandemic.



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.

As an example, in 2020 we started supplying bits for work tools with a vending machine. That supply system still lets us reduce annual consumption of bits and 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	1296.3
2021	361.11	1,369.99

(*) 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 WASTE GENERATION (Lezeta)	2018.	2019	2020	2021
Hazardous waste (kg)	438,151.5	473,919.9	264,234.0	198,970.76
Non-hazardous waste (Kg)	1,395,183	1,343,519	713,532	281,616.7

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

The absolute figures for hazardous and non-hazardous waste generation fell significantly as a consequence of a slower pace of production. However, an increase can be seen in the relative indicators per coach due to the situation caused by the pandemic and that has extended to all the production plants during those years.

- **Generation of hazardous waste:** Nevertheless, it does show a good outcome with continuous improvement in separation, as well as other improvement measures implemented.

In absolute numbers, the generation of hazardous waste fell 28.9% in 2021. Taking into account the ratio of hazardous waste generation per coach, there was also a decrease, it went from 433.92 kg of hazardous waste/coach in 2020 to 361.11 kg of hazardous waste/coach in 2021.

At Irizar we keep implementing improvement actions that let us be more efficient in the area of waste generation. Nevertheless, we believe the exceptional situation of the pandemic and the drastic drop in production, the details of which were explained in the beginning of this report, are the cause of the reduction in the kg of waste/coach indicator.

The exceptional nature of those factors which have been affecting the data since 2020 do not make it possible to show a trend of continuity in waste generation that, nevertheless, show good results with continuous improvement in separation as well as 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 organizations, for optimization 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 waste recovered to increase by 10% annually.

The same as in the hazardous waste section, in 2021 the absolute figures show a reduction in the amount of non-hazardous waste generated. Nevertheless, taking into account the ratio of non-hazardous waste generated per coach, there was an increase of 5.97%, going from 1296.3 kg/coach in 2020, to 1369.99 kg/coach in 2021, which was an increase in generating this kind of waste.

It should be highlighted that we keep working on the environmental management plan and doing various circular economy projects and collaborations with other organisations to optimise the supply, storage and use of materials in production, find alternatives to dumping waste materials in a landfill, and improve the separation of hazardous and non-hazardous waste that is generated and collected directly in the plant. Despite the increase in the ratio of waste generated per coach, the significant decrease in type II inert waste destined for the landfill should be highlighted. All of that has made the percentage of waste recovered reach its highest figure yet at 59.93%, with an increase of 5.31% in comparison with 2020.

Among the actions put into place, we can highlight the second separation done through the intermediate handler Urkiondo, and the countless circular economy projects out into practice at Irizar to recover waste (described below) that have received several acknowledgements.

We're also constantly promoting the circular economy through collaborations with chassis manufacturing brands (Mercedes, Scania, MAN, etc.). We return disassembled chassis parts to them so they can be reused. It's very notable for the high volume of parts, the complexity of production and its high value. And because it's a clear example of how we participate in the circular economy in the supply chain.

- **Improvements in discharges:** Irizar has invested in the best technologies available (MTDs) for treating water prior to being dumped and we do periodic quality monitoring of it through Control Organizations (OCAs). Likewise, it runs continuous awareness campaigns to reduction of consumption and discharges.



6.3.3. We minimize soil contamination

At Irizar we have identified the points of production that risk soil contamination, and we adopt specific control and prevention measures to minimize and even eliminate the risk.

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

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

6.3.4. Committed to the circular economy

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

The 7Rs concept where products are designed to be reused is needed for that.

ECONOMÍA LINEAL



ECONOMÍA CIRCULAR



In the previous sections we have 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 minimize waste.

Recycling

Differentiated collection for new waste categories was implemented in 2020. As an example, different collection points have been installed to collect bits worn by the workshop. This waste is delivered to an authorized manager who recycles them to provide them with a second life.

Likewise, we stay in continuous contact with suppliers that make it possible to replace traditional materials with others so the end-of-life is more sustainable. 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 organizations. We are therefore looking for ways to reuse, including externally, surplus production and waste. This has led us to undertake various projects in collaboration with other associations and organizations:

Creation of Izir – Irizar’s Circular Economy brand:

At the end of 2019, Irizar’s own brand, Izir, was created, for products created from surplus production. 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 organization 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.



Ondarreta eta Concha-ko toldo eta karpén olandekin eta gure besauletakako larru gorriarekin egindako osagarri txuriurdinak

Complementos txuriurdin elaborados con las lonas de toldos y carpas de Ondarreta y la Concha y cuero rojo de nuestras butacas

Irizarren beste urrats bat eman dugu jasagarritasunaren eta ekonomia zirkulararen aldeko konpromisoarekin. Emausek sortutako eta Gipuzkoako kostaldean inspiratutako moda jasagarriko bilduma berria hartuz.

En Irizar damos un paso más con nuestro compromiso por la sostenibilidad y la Economía Circular participando en la nueva colección de moda sostenible creada por Emaus e inspirada en las costas de Gipuzkoa.

Gure Izir proiektuaren barruan, gure besauletatik soberan daogen materiala ekarri dugu Tela Marinera izeneko bilduma honetarako. Poltsak, motxilak, diru-zorroak eta nezeserak sortzen dira, Ondarretako eta Kontxako hondartzako oianak eta karpak aprobetsatuz.

Enmarcado dentro de nuestro proyecto Izir, hemos aportado material excedente de nuestras butacas para esta colección llamada Tela Marinera, que crea bolsos, mochilas, monederos, neceseres... aprovechando las lonas de toldos y carpas de la playa de Ondarreta y La Concha.

Lankidetzaz haur eskertzeko, bilduma osoa eskuragarri daukagu. %10eko deskontuarekin. Produktuaren bat erosi nahi baduzu, sar zaitzite www.zir-desperdicio.es webgunean eta erabili gure **deskontu kodea: Irizar10**

Como agradecimiento a esta colaboración toda la colección está disponible con un 10% de descuento para todos nosotros. Si quienes adquirir algún producto entra en www.sindesperdicio.es e introduce nuestro **código de descuento: Irizar10**




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

In addition to the circular economy brand itself, we also continue our collaboration 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.



In June 2021 we joined the CIPF Don Bosco LHII project for experimentation in the education community, and that also promotes the circular economy, where material discarded by the company is made available to students.

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.



Botellas para hacer cuadernos

Sostenibilidad. Eko-Rec e Irizar colaboran en la fabricación de 3.200 productos de oficina a partir de desperdicios industriales

PROYECTO DE SUS PRODUCTOS EKORRE.

na 'startup' del Grupo Eko-Rec que se dedica a crear productos «únicos, sostenibles y a medida para distintas organizaciones, ayudándolas a poner en valor y comunicar su compromiso medioambiental». Y es que, Eko-Rec es «la única empresa de Europa que recicla botellas de plástico PET y, en las mismas instalaciones, las transforma en una lámina reciclada –para hacer empaques– y en una fibra textil –para la automoción y la moda», lo que la convierte en referente internacional en el ámbito del reciclaje y la economía circular. David Zabala, de Eko-Rec, señala que «Nuestro objetivo era convertir esos desperdicios que reciclamos en Eko-Rec en productos de oficina para las personas de Irizar, combinando el diseño, materiales 100% reciclados y el impacto social que supone».

Un lado más social

Si bien el objetivo principal es promover la sostenibilidad, los colaboradores no se han olvidado del aspecto social. «Desde Irizar entendemos la sostenibilidad desde su vertiente social y medioambiental, y es por ello que, además de dar una nueva



Collaboration with Fanny Alonso, the sustainable fashion designer and creator of cultural projects, since 2020. The waste donated by Irizar becomes raw material.

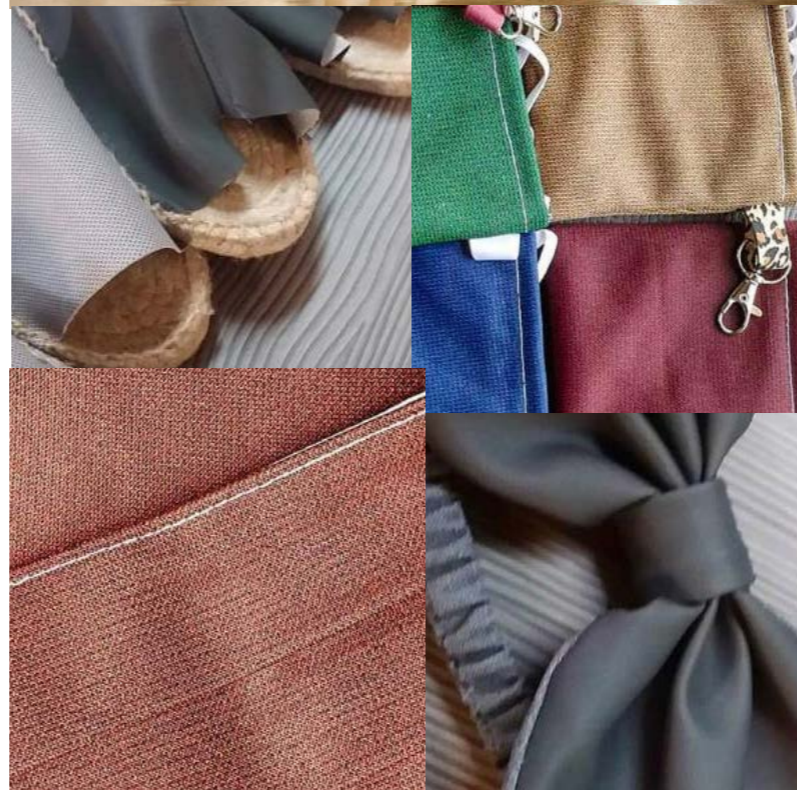
- Scrap cloth from roofs, bus parts, seats, etc.
- LED strips discarded due to defects
- Scraps of smooth wood and wood covered in scrap cloth from cuts

Two projects were put into practice in 2021.

- a. The “Women of Cotton” exhibition project which paid tribute and gave visibility to the women who worked in the textile industry in Euskadi over the years.



- b. The clothing collection project A collection of six different styles was presented at the autumn-winter #gkgreenfashion fashion show at the Palace of Miramar organised by the department of the Environment of the Gipuzkoa Regional Government.



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

- o CIRCULAR MARKET We've collaborated on developing and running this platform for selling or donating unused objects since 2019. Circular Market is a collaborative platform for connecting companies with the goal of helping them create value in their operations. It lets the waste and by-products of an organisation be turned into raw material for another organisation. It also lets users connect with each other to make group purchases or share resources and services. It enables people to reduce their environmental impact, save a lot of money and energy, and be able to create new jobs and business opportunities.

www.circularmarket.es

Irizar collaborates with this new platform by posting unused products like blocks of concrete, scraps of rubber, carpet scraps or polyester scraps, etc.

- o SAREA See details in section 6.6.3.

CircularTrans Project - Collaboration with Mondragon University

Another collaboration project launched in 2020 together with the University of Mondragón was CircularTrans. The main objective of the project is the creation and validation of a digital platform to guide the transition of industrial organizations 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 Terracycle, an organization dedicated to the collection of certain materials to give a second use and that rewards those collected with points that we will reinvest in social actions. We got an action running, which continued in 2021, aimed at gathering used writing materials from our staff, including pens, correction pens, highlighters, etc.

FOOTPLASTIC Project

In 2021 Irizar joined this project along with Sarenet, Kaytek, Birziplastic and MIK-Mondragon for developing an IOT and blockchain platform for monitoring, evaluating and predicting plastic leaks in corporate value chains. The goal is to develop a technological solution to monitor, calculate, analyse and predict micro and macro plastic leaks in product life cycles or at a corporate level. We think this is highly relevant for plastic managers/vaporizers.

Biziberritu Proiektua /Resuscitation Project

Irizar launched this project in 2021 under the leadership of Hik and Mondragon Unibertsitatea. Its main goal is to carry through the idea of the book "Go deep into experimentation, revitalize" and provide opportunities to go deep into experimentation and make different materials available to people and focus on experiences. For the project they will:

- a. Contact companies to talk about waste materials and organisation
- b. Collect surplus materials, make them attractive and make them available to people/ schools
- c. Provide training, consulting, ideas, experiences and research about experiment proposals
- d. Try to see needs and respond to the needs of the schools
- e. Set up a space for doing personal projects and gather material, etc.

<https://www.youtube.com/watch?v=W-3IQNSewP8>

Irizar e-mobility

- a. Irizar e-mobility started collaborating with the social foundation Emaús with the goal of giving a second life to waste generated during the process of manufacturing their vehicles. The first task completed was using surplus textile materials to create covers that protect the dashboard and seats during the production and assembly process of the buses to prevent any scratches during the process. After analysing the waste from their production cycle it was decided to use scraps of textiles from the linings of the roof and walls. They are sent to be reused to the Emaús social insertion company SINdesperdicio. An interesting circle is thus closed where waste becomes a resource and, furthermore, it is socially conscious production.
- b. Collaboration with Ekomodo. In 2021 Irizar e-mobility joined the project Irizar S. Coop. was already doing with Ekomodo to transform 1500 kg of office waste materials for their workers.

<https://www.linkedin.com/feed/update/urn:li:activity:6772803502046539776/>
- c. With Sutargi (an organisation whose social purpose is workplace insertion, social integration, training for work, social services for people with psychological, physical or sensory disabilities and people at risk of social exclusion), in 2021 they used surplus wood to build a parking area for bicycles at our facilities as a way to promote sustainable mobility.



6.4 Sustainable management of suppliers

The enormous importance we give to managing sustainable suppliers at Irizar has already been shown in detail in chapter 5 about external collaborators, the supply chain and alliances - Sustainable Supply Chain:

- Sustainability requirements for our suppliers, including environmental requirements
- Supply of cells for batteries.
- Environmental behaviour questionnaire

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.

- The 2020 visit to the Urkiondo facilities in 2020 by the non-hazardous waste handler Ekolor to see their new facilities and processes and jointly analyse alternatives aimed at minimising dumping waste in landfills was notable.
- Due to restrictions related with Covid-19 there were no visits to handlers, but visits are expected to be restarted as the situation returns to normal.



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; glaciers are melting and forests are being depleted and the biodiversity of our planet is being destroyed. But the challenge is even greater for people's physical and mental health, given that one quarter of illnesses in the world are caused by risks related with the environment. 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 organization. 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:

- In the sections of chapter 3 about clients, passengers and citizens related with decarbonisation (3.3., 3.4., 3.5. and 3.6), where we see the reductions in fuel consumption and GHG emissions from using our vehicles depending on the kind of drive system. (scope 3 downstream).
- In sections "5.3 sustainable supply chain" and "5.5 group level logistics optimisation at the Irizar Group" in chapter 5 about external collaborators, the supply chain and alliances: sustainability requirements for suppliers and reducing CO₂ emissions for 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 organization'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 optimizing energy consumption, through the implementation of measures that minimize energy losses and on adjusting energy consumption. In this sense, the new European guidelines have set new goals, focused on the one hand on achieving reductions in energy consumption by promoting energy efficiency and, on the other hand, on reducing greenhouse gas emissions.

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:

- replacing 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 optimized.

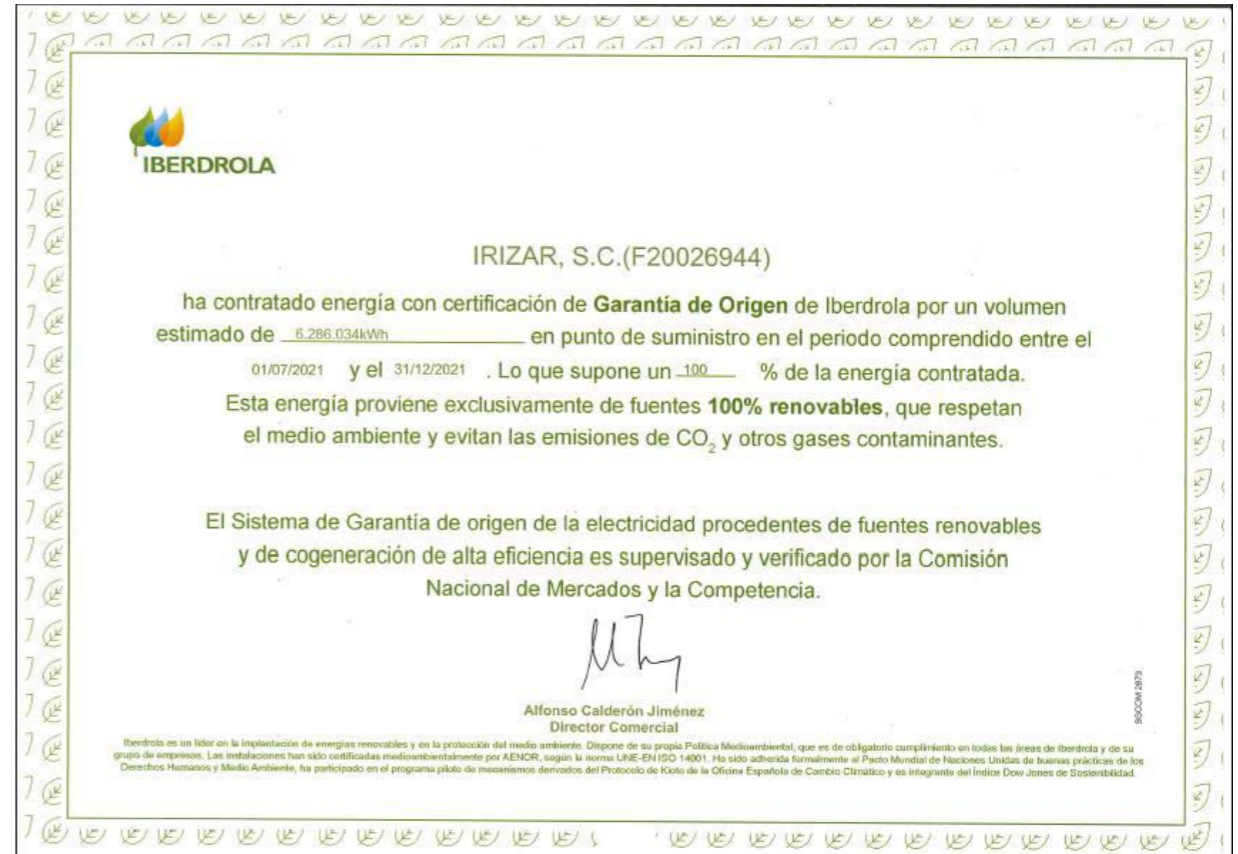
With the goal of grouping together all the actions aligned with energy efficiency, with an external energy manager in 2021 Irizar started implementing an uncertified Energy Management System that lets them monitor consumption in detail, minimise inefficient use and implement improvement actions. All the information related with energy management and the actions carried out or planned are centralised with the system.

All the improvements in energy consumption have led to a reduction in total gas and electricity consumption and, consequently, the CO₂ emissions associated with them, which we expect to continue in coming years.

The evolution of gas and electricity 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.

An important point to highlight is that, since June 2021, the origin of the electrical energy supplied to all Irizar S.Coop. and Irizar e-mobility centres is 100% renewable. The impact of that measure on CO₂ emissions will be seen in the carbon footprints for 2021 and 2022, which will be calculated in 2022 and 2023 respectively.



Activity carbon footprint - Irizar S. Coop.

For the second consecutive year, in 2021 we did the calculation and external verification of the carbon footprint for Irizar S.Coop. activities following the ISO14064 standard in our main production plant in Lezeta. 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 organization itself.
- Scope 2: indirect GHG emissions associated with generating electricity acquired and consumed by our organization.

With 2019 being determined as the base year for making the plan, the charts showing the evolution of the data are below.

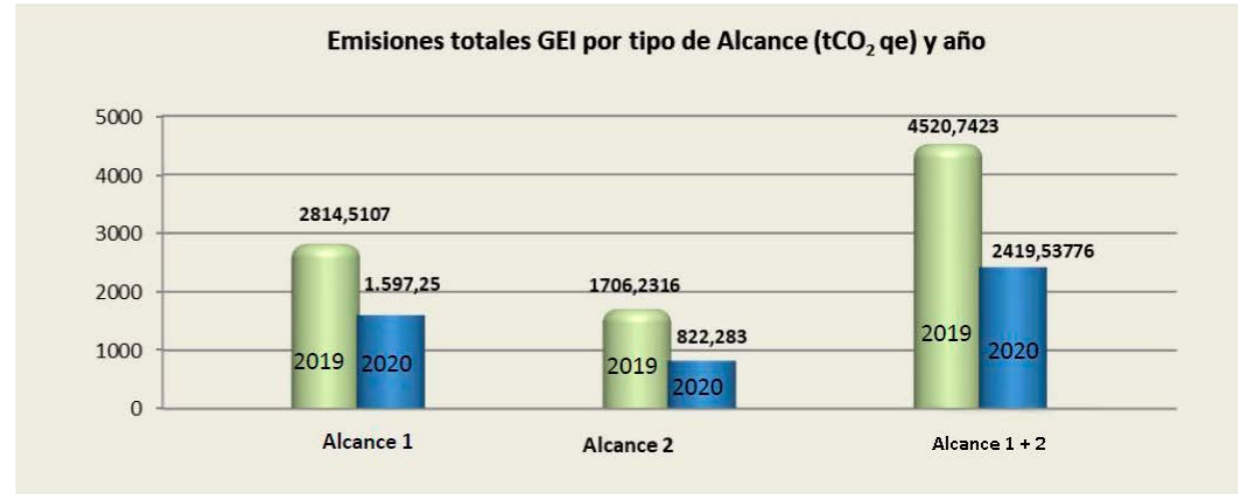


Chart 1 Distribution of emissions (t CO₂ eq) by scope for 2019 and 2020

2019



2020



Chart 2 Distribution of emissions by scope (t CO₂ eq) per coach for 2019 and 2020

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.

Activity carbon footprint - Irizar e-mobility

At the end of 2021 at Irizar we did the calculation and external verification of the carbon footprint for Irizar S.Coop. activities following the ISO14064 standard in our Irizar e-mobility facilities. 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 organization itself.
- Scope 2: indirect GHG emissions associated with generating electricity acquired and consumed by our organization.

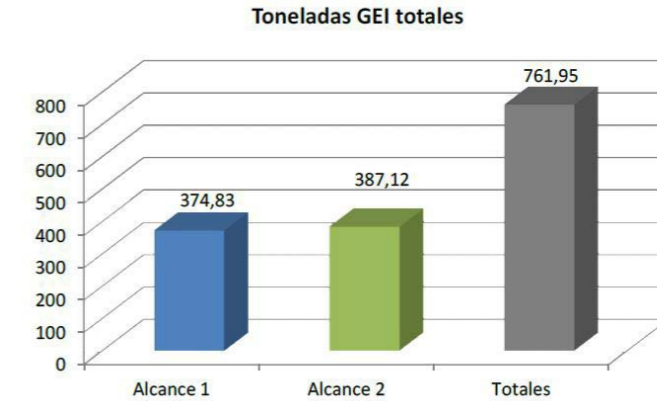


Chart 1 Distribution of absolute emissions (t CO₂ eq) by scope for 2020

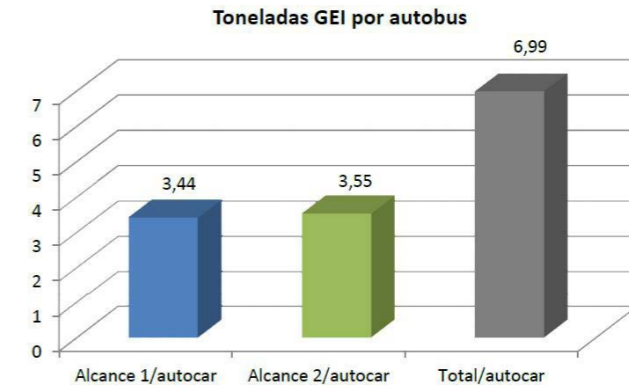


Chart 2 Distribution of emissions by scope (t CO₂ eq) per bus for 2020

With the implementation of this Carbon Footprint certification, and taking 2020 as the base year, in 2021 we designed an ambitious 2021-2024 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.

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 CO₂ 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 organization. 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 subsidized electric bicycles available to Irizar people at very competitive prices. Also in 2019 we launched the IRIKLETA project, with the adaptation of our parking facilities and charging areas for electric bicycles with photovoltaic energy generation.

In 2021, we participated in several sessions of the Mobility and Logistics Cluster of Euskadi about "Workplace Commuting Plans". We also contacted other local companies to learn how they were tackling their mobility plans so we could improve our own sustainable mobility plan for Irizar people and put it into practice in 2022.

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.

Employees

- 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 organization gives an efficient driving manual to all who join the company, inviting them to play an active role in our commitment to sustainable mobility.
- In 2021 we held training workshops in the commercial area related to new laws and to inform about some main lines of action in the environment area, which will make for a better transfer of environmental information from Irizar to our clients.

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 different production areas
- Storage of Chemicals.

6.6.2. Waste minimization campaigns

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

Campaigns for collecting work clothing were done in 2021.

6.6.3. We participate in external environmental forums

By publicizing the work and good practices that we follow at Irizar to move towards a more environmentally sustainable world, we can encourage other organizations to join this new stage of ecological transition and a new development model. This is why we also attach importance to our participation in different Fairs and Conferences focused on learning about the experiences of organizations that work in this regard. For example, in 2021 Irizar participated in:

- Collaboration with TECNUN-Universidad de Navarra, SAREA project In 2020 we started participating to develop a set of strategies that seek to integrate the circular economy into business operations, taking the roles of all the relevant actors into account to accelerate the transition to the new model, with an agreement with the Regional Government of Gipuzkoa. The first action of this project was organising a workshop in November with various public and private entities called "Transitioning to a Circular Economy". In March 2021, Irizar collaborated on interviews done with people who are pioneers in the circular economy, with the goal of obtaining information that helps prioritise, mobilise and measure implementation actions under certain circular economy strategies that help accelerate the transition in the short term. In October and in collaboration with the Regional Government of Gipuzkoa, Tecnun published the report titled "Initiatives and Actors in Implementing the Circular Economy" that states the conclusions.

Etorbizuna Eraikiz Project-Collaboration with the University of the Basque Country UPV/EHU

Sustainability research project carried out by the UPV/EHU in conjunction with the Regional Government of Gipuzkoa Etorbizuna Eraikiz is a model with the end goal of creating a public agenda using public policy derived from projects for previous spaces and the society of Gipuzkoa to create an open and collaborative form of governance.

Irizar shared ideas and concepts in the Focus Group created in November 2020 in conjunction with several representatives from the automotive sector in Gipuzkoa. In May 2021, they once again participated in a round of interviews to discuss the circular economy and mobility sector in depth.

INFORME RESUMEN DE ENTREVISTAS A LOS
STAKEHOLDERS DEL SECTOR DE LA AUTOMOCIÓN DE
GIPUZKOA EN TORNO A LA ECONOMÍA CIRCULAR



Universidad del País Vasco Euskal Herriko Unibertsitatea



7. We create value for Society

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

Priority SDGs

8 DECENT WORK AND ECONOMIC GROWTH
8.1. Maintenance of economic growth
8.5. Achieving full employment and decent work
8.7. Eradication of slavery, trafficking and child labour

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
9.2. Promotion of inclusive and sustainable industry

11 SUSTAINABLE CITIES AND COMMUNITIES
11.2. Providing access to public transport
11.6. Reduction of environmental impact in cities

12 RESPONSIBLE CONSUMPTION AND PRODUCTION
12.6. Adoption of sustainable practices in businesses
12.8. Ensuring education for Sustainable Development
12.B. Achieving sustainable tourism

Cross-cutting SDGs

5 GENDER EQUALITY
5.1. Ending discrimination

16 PEACE, JUSTICE AND STRONG INSTITUTIONS
16.2. Eradication of child abuse, exploitation, trafficking and exploitation
16.11. Promotion and application of laws and policies (HHRR)

Secondary SDGs

1 NO POVERTY **2 ZERO HUNGER** **3 GOOD HEALTH AND WELL-BEING** **4 QUALITY EDUCATION** **5 GENDER EQUALITY** **6 CLEAN WATER AND SANITATION** **10 REDUCED INEQUALITIES**



7.1. Our commitment to society

7.2. Annual tribute to retirees

7.3. We collaborate in activities with our sector and the local socio-economic area

- With local business organisations
- With industry associations

7.4. We collaborate in educational activities

7.5. We collaborate in cultural activities

7.6. We collaborate in sports activities

7.7. We collaborate on cooperation activities for development

- With organizations in the environment
- With NGOs on 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. In addition, as you can see in more detail in the chapters about sustainable competitiveness and people, the best reflection of our strategic commitment in sustainability with society are the charts of the evolution and commitment to employment in the local areas 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 organizations 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 organizations.
- Also in chapter 6, dedicated to the environment, we saw our cooperation with other local organisations (primarily non-profits like the EMAUS foundation) in order to be able to give a second life to surplus production materials, in line with our circular economy strategy.

Under the umbrella of our commitment to society, we typically allocate a significant sum of money every year to non-profit activities related with our sector, education, culture, sport and mainly national 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.

We didn't stop doing it despite the 2020 and 2021 pandemic. The amount allocated in 2021 was around 1.2 million Euros.

The most significant lines of activity in recent years are listed below, particularly new initiative introduced in 2021.



7.2. Annual Tribute to Retirees

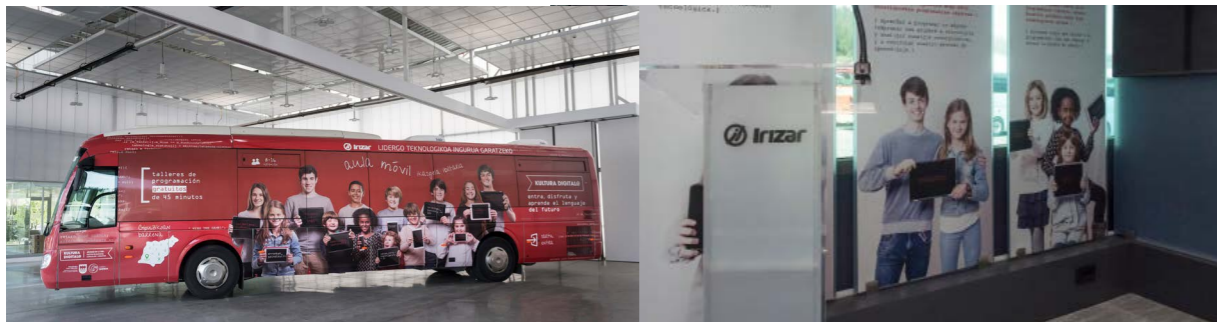
Every year, retirees attend their annual reunion to receive the tribute that Irizar has been paying them for many years. They can enjoy a full day in company of their friends and peers and always bring up memories and anecdotes about old times, while they continue to have a bond with the persons and knowledge of the activities that for years have been part of their lives.

In 2021, like in 2020, due to the Pandemic, we were unable to celebrate the annual appointment with retired people.

7.3. We collaborate on activities with our sector and the local socio-economic area

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've kept collaborating with them.

We have a bus fitted out for exhibition that we altruistically loan to various 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. Unfortunately, it was also impossible to do the initiative in 2021.



With local business organisations

In addition to all the organisations and clusters we have alliances or collaboration agreements with (as seen in the chapter about external collaborators and local alliances), we can highlight these two that we collaborate with to contribute to the positive socio-economic impact at a very local level.

- In 2021 we kept actively collaborating with the Goierri Valley initiative, which is an industrial partner from the metal-mechanical sector that is a leader in the industrial transformation of the Goierri valley (where Irizar S. Coop. is located).
- For several years we've been collaborating with the Gipuzkoa Chamber of Commerce, financing their activities related with SDG8 - "Promote sustained, inclusive and sustainable economic growth, full productive employment and decent jobs for everyone".
 - Employment and social insertion
 - Business creation
 - Business continuity
 - Sharing knowledge and business experience

With organisations from the sector

Also, every year we sponsor several sectoral associations: Asetra, Aetram, Atuc, Fecalbus, Fenebus and Consorcio de Madrid for the purpose of promoting and positioning buses and coaches 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 stigmatized 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 and 2021 have 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.

7.4. 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 and 2021, face-to-face open days were suspended, only remote meetings were held.

Rafael Sterling, CEO of the Irizar Group, participated in the awards ceremony for the Talgo Prize for Excellence for Women in Engineer-

ing that, in this second edition, was conferred on Asunción Cámara Obregón, Director of the Mieres Polytechnic School at the University of Oviedo, for her research into stopping rural depopulation using completely sustainable forest management systems. Rafael Sterling noted, "I think it's extremely important to instil the value of engineering as a formative element from a young age to increase the percentage of women who choose to study engineering. It's very important for there to be real life examples of women engineers to open the way for present and future generations.", in the talk about how to make progress towards a decarbonised economy in a more fair and sustainable world and about the role of female talent and innovation when shaping that future.

We continue our yearly sponsorship of the "voyage of life" cycle of 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. In 2021 those courses kept being adapted to the situation caused by Covid-19 but, in contrast to 2020, there were in-person, remote and mixed courses.

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 Ormaiztegui.

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

For the seventh consecutive year in 2021 Irizar was a mentor company for the STARTInnova teaching programme promoted by El Diario Vasco geared towards developing the entrepreneurial spirit among young people. Aimed at youth between 16 - 17 years old who are studying their baccalaureate and/or undertaking vocational training, the programme encourages entrepreneurial attitudes and promotes greater contact between educational centres and the business community, which was carried out remotely.



For another year we continued collaborating on "Universal design for learning in complementary school programmes" on two projects with GLE-Urola Garaiko Lanbide Eskola and Peñasca S.Coop. aimed at students from 14 to 16 who have special educational support needs because of their personal condition or school history.

7.5. 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.

We're annual sponsors of the Irizar Prize for Basque Film at the San Sebastian International Film Festival. The film Maixabel by Icíar Bollain won the prize in 2021. The prize, accepted by Koldo Zuazua, was awarded at the closing gala of the 69th edition of the San Sebastian

Film Festival. The jury also awarded a special mention to "Kuartk Valley" by Maider Oleaga, which is about the madcap epic that involved an entire village to film the first Basque western.

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 Basque National Orchestra (Euskadiko Orkestra) in 2021 for the second consecutive year, which contributed to later concerts.

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

For the seventh consecutive year in 2021 we collaborated with the Vasca Albaola Maritime Foundation to build historic ships in an innovative space that brings value to and revives artisanal maritime technology.

In the video you can watch how they're making the San Juan whaler be reborn. <https://www.youtube.com/watch?v=nBMx-q0mAnM>

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



7/9 OTSAILA FEBRERO

Ree the ven + Bartok Mèrah

Mei-Ann Chen
Zuzendaria * Directora

Varvara
Pianoa * Piano

Christina Daletska
Sopranoa * Soprano

EGITARAUA ^ PROGRAMA

I
JOËL MÉRAH (1969)
Jakinduriaren usaina, for soprano and orchestra [17']
Argitaletxea / Edita: Tabula Compositoria, éditions Musicales

ELKAN Ekano: Mundubira musika bidelaguri proiektuaren baitako enkargutza obraren estreinaldia / Estreina de la obra en cargo del proyecto 'Ekano: Mundubira musika bidelaguri'

BELA BARTOK (1881-1945)
Concierto para piano y orquesta n°3 [23']
Argitaletxea / Edita: Boosey & Hawkes, Inc.
I. Allegretto
II. Adagio religioso
III. Allegro vivace

II
LUDWIG VAN BEETHOVEN (1770-1827)
Sinfonia n°7 en la mayor, Op.92 [36']
I. Poco sostenuto - Vivace
II. Allegretto
III. Presto
IV. Allegro con brio

7.6. 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).

Teams, contests and comarque 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. We collaborated again in 2021 after the stoppage in 2020 when we couldn't because races were suspended due to Covid-19.

We have a greater and greater 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 adapted and inclusive physical project aimed at functionally diverse children and young people 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 the previous teams from the Goierri.

IDK-Euskotren - **Ibaeta women's basketball club**

EIBAR **nesken errugbi taldea** (women's rugby team)

Donostiako **emakumezkoen klasika** (women's cycling race)

ART errugbi kluba - Arrasate - **Emakumezko errugbia eta errugbi inklusiboa** bultzatzeko (women's rugby team and inclusive rugby team)

LIMOUSIN women's cycling team

**LIMOUSIN
KARTOIAK**



7.7. 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 organizations

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 in 2021 we also collaborated with the “Kant ETA Bideoklipak” project to help different associations.



Alongside the projects already mentioned in education and adapted sports, we can highlight that our annual support for disability support projects carried out with GUREAK Fundazioa continued in 2021. “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 2021:

- 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 2021, we collaborated with many more international projects, among which we can also highlight:

- Herriak Elkarlanean: Lasserre eskola berria, due to the survival situation they are in, Father Doumond has asked for help to buy basic food items.
- 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.
- Medecins du Monde
 - o Euskadi immigration 2021.
 - 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.

An aerial photograph showing a stark contrast between a parched, cracked earth and resilient green life. The ground is a dark, almost blackish-brown, with a network of irregular, deep cracks that create a mosaic of polygonal shapes. In the center and scattered throughout the cracks, there are dense, vibrant green patches of low-growing vegetation, possibly clover or similar hardy plants, which stand out sharply against the desolate, cracked soil.

“You can be the change you wish to see
in the world”

Mahatma Gandhi