

## **Irizar in the XII Edition of the FIAA Exhibition**

Madrid, 28 October 2014

Once again, we are at Madrid's International Bus and Coach Fair with a stand measuring more than 2,000 square metres that will become the setting to mark our 125th anniversary with customers, the media, partners and attendees.

The event will also host the presentation of the new Irizar i2e city bus, the new 100% electric, zero emissions bus that has been completely developed using the Irizar Group's technology.

The stand will also house the entire range of coaches that comprise the Irizar family, including various lengths and versions built on different chassis brands.

### **125 years of history**

At a time of great strength and strong growth, Irizar celebrates its 125 years of history today.

Irizar was created in 1889, and its founder, a Gipuzkoan entrepreneur named José Antonio Irizar, decided to evolve the company from manufacturing iron fittings for carriages to the world of passenger transport. At the end of the 19th century, the family company sealed its perfectionist stamp and focused on manufacturing elegant carriages and stagecoaches, an activity that it carried out for almost three decades.

Those who built the first power driven Irizar coach never considered that their small company would become a global reference in the production of coaches for road passenger transport. They faced this challenge with the innovative spirit that defined them and that they would convey to future generations, becoming the Irizar brand's identifying symbol.

In 1948, metal was incorporated in the vehicles and the first semi-metallic vehicle built by hand was launched to the market. Fully metallic coaches would arrive five years later.

In 1963, Irizar became a Cooperative Company.



Its internationalisation process began in 1995 as a result of the bodywork technology transfer strategy. This process was implemented by opening production plants in China, Morocco, Brazil, Mexico, India and South Africa. Hispacold and Masats were also added to the group.

Irizar has experienced 14 years of strong economic growth as well as strong growth in Ormaiztegi, building 1500 bodywork elements each year.

In 2009, in the midst of the crisis, Irizar carried out a strategic revolution that strengthened it and allowed it to reach new historical records.

It focused on the brand, decided to become a coach manufacturer, and made a strong commitment to industrial diversification and technology.

At the same time, the company's products were given a strong boost in terms of their quality and reliability.

Efforts were also made to build closer relationships with customers throughout the world by adapting and personalising all the company's products and services to individual needs, resulting in exceptional growth, especially in Mexico and Brazil.

The industrial diversification strategy was a key factor in strengthening the group. Between 2009 and 2013, Jema Energy, Datik and Alconza were added, focusing on power electronics, ITS solutions for transport management, and rotating electrical machinery, respectively.

In 2011, the Irizar brand's range of complete buses was launched to the market, transforming the company from a bodywork firm to a coach manufacturer.

2011 also marked the launch of the project for sustainable mobility in cities by developing a 100% electric bus with zero emissions.

Creatio, Irizar's Research and Development Centre, was established in 2012 to promote the Group's applied research and technological development for the brand's complete products as well as the main bodywork components it provides. It also launched a Trainee Programme for hiring highly qualified individuals that would progressively form part of the centre, in accordance with its needs.

The Irizar Group's first electric bus based on 100% Group technology was presented in San Sebastian in 2014 with the Irizar i2e.

Stronger and younger than ever, Irizar is a currently solid group with geographic and industrial diversification and continuous growth. The Group is firmly committed to the brand, technology and sustainability as well as to its coach and electric coach products and the products for the other sectors in which it is present.



The Irizar Group is currently made up of 11 companies; five coach plants located throughout the world, five additional companies resulting from its industrial certification, and a research centre.

It has over 2,500 employees, of which 750 belong to the parent company that has a turnover of more than €500 million.

### **We continue growing**

We are experiencing a moment of great strength, energy and motivation, working with passion on the most ambitious projects that have ever been carried out in the Group and whose results will become visible throughout the next three years.

### **New facilities**

In light of this anniversary, in July of this year we inaugurated the new, modern facilities that have been created primarily by and for customers.

A second 1200 m<sup>2</sup> plant has been built to house a modern and innovative space for defining coaches, meeting with customers and developing the brand, along with the Creatio R&D centre and a modern corporate area.

The showroom includes physical and virtual versions of all the upholstery and lining options to design each customer's coach in an exclusive and personalised manner. The new building and the new reception area plan to welcome visitors and transfer them to the world of Irizar, a solid brand that is continuously growing, where the future and technology are especially important.

In addition, a new and modern building has been built to deliver coaches to customers. In light of the company's anniversary, it has been transformed into a temporary historical museum of the most emblematic Irizar coaches

## **The Irizar Group's 100% city bus is now a reality**

Irizar has fulfilled the major challenge of delivering the three 100% electric buses, two in Barcelona and the first in San Sebastian.

The official presentation on a national level of the new Irizar i2e electric city bus for the cities will take place today.



In July of this year Irizar delivered the first unit in San Sebastian, taking a new step in the development of its brand strategy by presenting its first 100% electric city bus to customers.

The next two were delivered in Barcelona in August and October to become the first European company to deliver coaches within the European ZeEUS project.

Innovation in the area of sustainability and the brand's positioning on the technological cutting edge of the European market have resulted in these first Irizar electric vehicles for city settings of the future.

The Irizar i2eis now a reality as well as a reference in sustainability and eco-efficiency aimed at urban mobility and it addresses the current and future needs of city transport.

### **Proprietor technology – European Know How**

The Irizar i2e is the first urban bus fully developed with our own technology in line with the company's strategy that focuses on close customer relationships and strengthening the brand by building complete Irizar buses.

The product is the result of the continuous work of the Group companies together with the technological centres of the Basque Technology Network.

In addition to Irizar, the other companies of the Group have joined their efforts to promote the Irizar i2e. Hispacold, manufacturer of acclimatisation equipment; Jema, specialised in electronics; Datik, technological company developing intelligent transport solutions; Masats, manufacturer of accessibility systems, and Creatio, R&D centre of the Group. Following the endurance tests that were performed on the product, the Irizar i2e is presented as a reliable bus with European technology that is ready to circulate in our cities with the bonus of zero emissions.

In addition, its endurance and profitability improve operating costs.

### **Innovation in sustainability**

The i2e is the fruit of the strategic commitment for innovation in sustainable mobility of the group and has arrived with the intention of being positioned as leader in urban mobility with this firm commitment of contributing to sustainability and environmental improvement in cities.



The Irizar i2e is already available for the clients and it is now a reference for sustainability and eco efficiency aimed at urban mobility, responding to current and future city transport needs.

Since 60% of the population in the European Union live in cities, the elimination of contamination is one of the great challenges facing urban centres. Circulation of fuel vehicles is the cause of 40% of the emissions of CO2 and of 70% of other contaminants. Each electric bus will reduce the annual emissions of CO2 by 88 tons and it saves 33,000 litres of fuel.

There are increasing levels of acoustic contamination, and today, more than ever, we need efficient means of transportation that are ecological, silent, environmentally friendly, and help improve the quality of life of people in cities.

The Group understands that the no-contamination decision of cities cannot be reversed, which is why four years ago it decided to enter the world of urban buses directly with zero-emission electric buses. For this reason, and because it does not contribute to acoustic contamination, we are certain that the Irizar i2e is the ideal transportation alternative for cities and their residents.

Another feature is the recyclability of its components. It has been developed according to the principles of ecodesign, applying environmental criteria to the design of the bus. Its batteries are also 99% recyclable.

## **Long range**

The Irizar i2e has been designed to offer autonomy between 200 and 250 km with a single charge at the end of the day. Just five hours of charging guarantees between 14 and 16 hours of driving in dense urban and interurban working conditions, with an average speed of 17 km/h.

The data recorded in the case of the first bus delivered in July to San Sebastian and the first to Barcelona in August guarantee these ranges:

In order to optimise energy consumption, it incorporates pioneer technologies created by Irizar. Eco Assist is a system that helps the driver in real time and contributes to optimising the vehicle energy consumption and increasing its range.



## **Irizar safety and reliability**

The Irizar i2e has been designed to meet the most demanding active and passive safety requirements. It is the first electric bus on the market that complies with the R.66 rollover safety norm. Its rigid and robust structure has been designed to withstand side or front collisions.

The bus is as robust and reliable as the rest of coaches with the Irizar brand. It has undergone tough accelerated fatigue and reliability tests in one of the most prestigious applied automotive research institutes with excellent results. In addition to introducing the most advanced technologies in design, materials, components, and production processes, the bus has maximum quality finishes.

## **Optimal profitability**

The Irizar i2e offers maximum profitability due to its electrical consumption by incorporating the most innovative energy technologies. With a nominal power of 230 kW, the onboard energy in the vehicle is 376 kWh, providing a range between 200 and 250 km depending on the driving cycle and weather conditions.

The energy storage management system, developed by Jema Energy, manages the relation between battery and super condensers to maintain the charge status of both components within an optimal range as well as extending the useful life of the components, resulting in improved operational costs.

The batteries of the Irizar i2e have operated as power systems for ten years and they are 99% recyclable. This is a tested and reliable technology.

Furthermore, the design of the bus has taken into account the weight distribution and maximum accessibility to the components for easy maintenance.

The battery charger manufactured by Jema, has a combo II type cable and allows fully charging the batteries in five hours.

The first orders are now in our portfolio and we are in contact with a number of European cities that are interested in promoting the use of this type of bus, and we are ready to fulfil the personalised needs of each customer.

The delivery in sustainable mobility markets is a great challenge that will mark a before and after in the Group.