GH'NEWS

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20 years in the heart of Europe

POLAND AT THE CROSSROADS IN THE HEART OF EUROPE / THE STORY OF ESTABLISHING A PRESENCE EWELINA KLIZNER Manager of GH POLAND / MARCIN CISZKIEWICZ Production Manager GH POLAND GH REALTIME THE DIGITAL TRANSFORMATION OF INDUSTRIAL MAINTENANCE LATEST PROJECTS / INNOVATION: THE ELECTRIC MARINE BOAT HOIST / IÑAKI MAIZ CEO of Ikusi



INNOVATION, INTERNATIONALISATION AND REAFFIRMATION OF OUR VALUES AS MANUFACTURERS

Jose Antonio Guerra CEO of the GH Group

WE WANT TO DELIVER A

RELIABLE, COMPETITIVE

AND HIGH-PERFORMANCE

PRODUCT TO THE

CUSTOMER.

sit down to calmly reflect and make plans in the medium-long term.

First it was the financial crisis after the fall of Lehman Brothers in 2008, then the Brexit that destabilised Europe.

With hardly any time to digest the maelstrom of events, COVID-19 and the inability to find rational responses to the unknown came as another shock

The blocking of the Suez Canal by a ship highlighted the problems with trade, supply problems following the break in the chain and demonstrating the weakness of our global logistics system.

The silent rise in the prices of raw materials that was already becoming apparent at the beginning of 2022 led to rampant inflation and now, with the war in Ukraine raising further questions, it appears that the outlook could be further complicated by the restriction of credit and the increase in the cost of money.

There is no respite for companies like ours. We have spent twelve years struggling to overcome difficulties.

Given this scenario, what can we do?

We have opted for innovation in the services and products we offer. Innovation travels very well and is a safe asset in the medium and long term.

We have also reaffirmed our commitment to continuous improvement in the products we manufacture. We want to deliver a reliable, competitive and high-performance product to the customer.

And finally, we have redoubled our commitment to internationalisation, consolidating our presence around the world, seeing this as the only way to withstand the threats of such an unstable situation.

It is with this in mind that I present this issue in which we talk about our new service offer GH REALTIME, based on data management,

innovation and the offer of services more in line with the interests of our increasingly globalised customers.

It is also a special issue about Poland and our production subsidiary there, which we established in 2003.

Poland was part of decisions to expand towards the east of Europe at the time of the expansion of the European Union. Now, Poland is the country closest to the Ukraine war that has to deal with the most immediate impacts of the consequences of this tragic conflict in the heart of Europe.

This issue also includes the most important projects we have carried out in recent months, the result of our globalisation.

Finally, in a thought-provoking interview, Iñaki Maiz tells things from the point of view of a company like Ikusi, which has been an example of innovation and adaptation to change.







he Republic of Poland is a country in Central Europe, one of the twenty-seven sovereign states that make up the European Union, a democratic state based on the rule of law whose form of government is the parliamentary republic. Its territory, with its capital in Warsaw, covers an area of 312,696 km² (Spain has an area of 500,000 km²).

It is a unitary state with 16 subdivisions or regions, bordered by the Baltic Sea to the north, with the largest area in the north being part of the great European plain and the southern part of the country encompassing the Sudeten, Carpathian and Holy Cross Mountains. Although the capital and most populous city is Warsaw, the academic-cultural centre is the second largest city, Krakow.

Poland is bordered to the north by the Baltic Sea, with maritime neighbours including Denmark, Sweden and the province of Kaliningrad Oblast (which belongs to Russia but is not connected to it). It borders Lithuania to the north-east, Belarus to the east, Ukraine to the south-east, the Czech Republic and Slovakia to the south, and Germany to the west.







The creation of the nation is frequently identified with the adoption of Catholicism by its monarch Mieszko I in the year 966, when it covered an area similar to that of modern Poland. The Kingdom of Poland was formed in 1025, and in 1569 it cemented a long association with the Grand Duchy of Lithuania by signing the Union of Lublin, which established the Polish-Lithuanian Commonwealth. The Commonwealth collapsed in 1795, and the Polish territory was divided between Russia, Prussia and Austria. Poland regained its independence after World War I as the Second Polish Republic but was occupied by Nazi Germany and the Soviet Union at the outbreak of World War II in September 1939. In 1944, a provisional Polish government was formed, which, after a period of conflicts, referendums and elections, caused it to become a satellite state of the Soviet Union, giving way to the Republic of Poland (Rzeczpospolita Polska) in 1952. During the 1989 revolutions. Poland's Marxist-Leninist government was overthrown, and the country adopted a new constitution establishing itself as a democracy under the name Rzeczpospolita Polska, often referred to as III Rzeczpospolita.

WITH A CULTURE
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POLAND BOASTS
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WORLD HERITAGE SITES
BY UNESCO.

The GH Poland plant (right photo) is located in Klobuck, in Lower Silesia. The capital of the region is Wrocław (left) whose historic city centre has been declared a UNESCO World Heritage Site.

FIFTH LARGEST ECONOMY OF THE EU

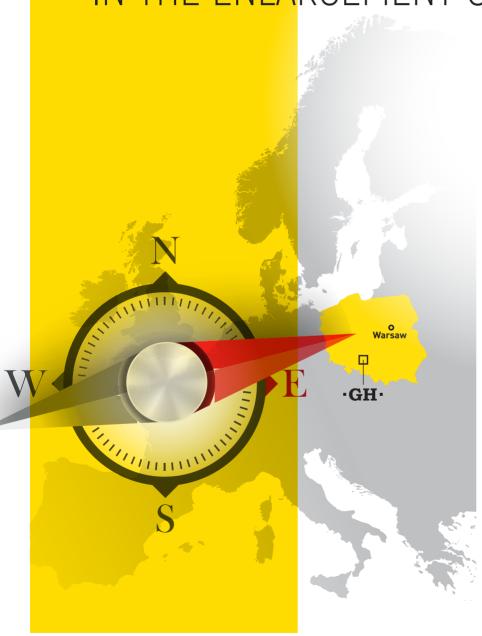
Poland is the fifth largest economy (GDP) and one of the most dynamic in the European Union, also reaching a very high level in the Human Development Index. In addition, the Warsaw Stock Exchange is the largest and most important in Central and Eastern Europe. The country ranks high in education, security and economic freedom. It has a good European educational system and is ranked among the most educated countries. It offers free university education, statefunded social security, and a universal health care system for all citizens. With a culture somewhere between those of Eastern and Western Europe and shaped by a changing history, it boasts numerous historical monuments and 17 UNESCO World Heritage Sites. It is visited by 19.6 million tourists every year (2018), making it the sixteenth most visited country in the world.



-GHPOLAND

THE EXPANSION TO THE EAST

LOOKING FOR NEW OPPORTUNITIES IN THE ENLARGEMENT OF EUROPE.



GH's adventure in the nation hardest hit by recent history began in 2003.

In 2003, GH had already taken its first steps in its international expansion. The company's initial incursions into France, Portugal, Mexico and Brazil were just beginning to shape the design of a new company aware that the national market could not be relied on to support future development.

There were commercial structures in many countries that had been established in the 1990s. They were companies that represented GH in export markets and the relationships were beginning to bear fruit.

That was what happened in Poland. We had a company there representing us: INTERTECH.

The company was led by a rather special Pole but a person who perfectly combined the values of the old Poland: sobriety, a spirit of sacrifice, discretion and mistrust (we must not forget that Poland has been the nation hardest hit by the conflicts of war and a country razed first by the Germans and then by Russia on two occasions).



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EXPANDING EUROPEAN
MARKET



2003

2006

THE OLD EUROPE EXPANDS TO THE EAST AND GH HAD TO BE THERE

All this coincided with the construction of the dream of the old, united Europe, which also very much gained in importance with the integration into the Common Market of the Eastern European countries which for five decades had been under the dominion of the former Soviet Union.

GH's needs, as perceived by the managers in Beasain, were matched by a general economic environment in which there was a degree of euphoria due to the incorporation of new countries into a growing and expanding European market.

The investment of European funds in the new countries was promised to modernise their infrastructures and accelerate their growth to meet European standards. The same thing happened in Spain in the eighties with the huge influx of European funds (cohesion funds), which gave a decisive boost to the modernisation of its economy.

And there was GH, as always, ready and waiting.

INTERTECH PART ONE

The first steps in this GH strategy were taken by a youthful **Lander Gibelalde**, who was then beginning his career in the business world, accompanied by one of those consultants at GH who seems to have been ever-present.

In the summer of 2003, an agreement was reached whereby GH acquired 51% of the company, a trading company based in a small but beautiful little town at the eastern end of the Lower Silesian corridor, Olesno.

Its headquarters was in a manor house in the middle of town, in a calm and almost bucolic setting.

GH had taken the first step and the project began to take shape as we waited for the European funds to really get things moving.

But the finance did not arrive as smoothly as expected and Poland enjoyed a first level of integration in Europe, one that was associated with the rules of the common market but maintaining its own currency and its own central bank.

The GH penetration in the market continued slowly but steadily, although our presence was only commercial and we could not access large customers or projects.

INTERTECH PART TWO

In 2004, GH decided that this was still insufficient and that the establishment of a proper production facility had to be considered if the market was to be addressed seriously. **Irek**, as Ireneusz Niedzielski, the owner of INTERTECH, was known, was tasked with finding various alternatives for us to be able to produce in Poland.

Poland's once great tradition in the metallurgical and steel industry (when it belonged to the Soviet bloc) had left many abandoned and disused facilities, following the bankruptcy of their companies and the cessation of their activity.

At that time, **Vicente Guerra** was in charge of assessing and auditing the potential opportunities that Irek presented to us. The one he liked the most was a five-hectare piece of land where a metallurgical furnace company had been working for the German market before going bankrupt. The location was very good, parallel to the Klobuck exit road, close to the most Catholic city in Europe, Czestochowa, and one of the most industrialised cities in the country: Katowice.

The land had two industrial buildings, one made of concrete and another that ran parallel to the road and had a large window and a lightweight structure. It was clear that the plot was suitable and that the concrete building met our minimum requirements to start our production of beams.



We had to wait for the bankruptcy process to be completed and for the land to be free and clear of all encumbrances for GH to make the investment and this was done with the invaluable help of **Mrs.**Danuta, who was the previous manager of the company that had been based on the plot.

Vicente did a special "audit", with his particular methods and his "in situ" calculations of the factories capabilities and its characteristics. Suffice to say that none of the Poles who observed his auditing methods had ever seen a gentleman of his age so courageous, daring and stubborn as he climbed on the rails and cranes as if he were a trapeze artist without a net.

Vicente approved the operation and thus began the second stage of INTERTECH.

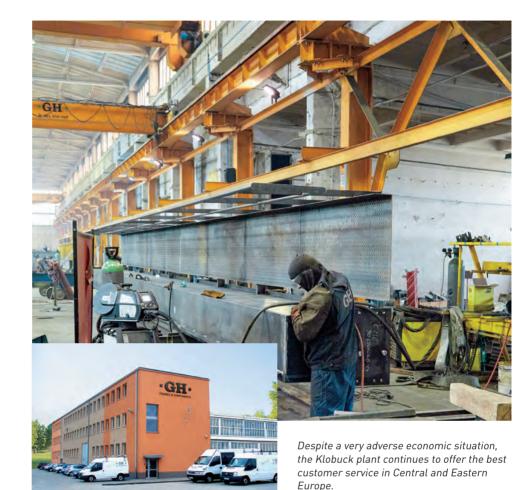
But this investment brought with it problems in the relationship with our partner, because they couldn't afford the investment but didn't want to reduce their stake in the company either, so we entered a turbulent stage that tested Polish resilience, fuelled by the old mistrust that seems to be part of their DNA.

In 2005, everything almost ended in court, but finally, at the limits of endurance on both sides, an "in extremis" agreement was reached whereby GH took over 100% ownership of the company.

They were moments that put everyone's resilience to the test, but at GH we were clear about what we had to do: keep going. It is the spirit that has brought us here.

Anna Maciejewska (with a scholarship from the Basque Government), gave us exceptional help at this stage, being a key person in our efforts to save the situation.

To the credit of our temporary partner, we have to say that when we took possession of the company, and in an unprecedented exercise of honesty, Irek had left the INTERTECH accounts with everything balancing.



FROM INTERTECH TO GH POLAND

It was a good start for **Carlos Aguirre** as the plant's first expatriate manager. It was June 2006.

But the surprise regarding the accounts was almost the only good news for Carlos when he took on the challenge of making GH in Poland meet both internal expectations (growth of our operations with Spanish customers that came to the local market, and with Polish customers) and deal with external expectations (the arrival of funds that never materialised).

Carlos had to reorganise production capacities and adapt them to GH methods. In addition, he had to develop a commercial network to cover all the most industrial parts of the country and finally he had to fight against the Polish idiosyncrasies that on many occasions were almost the one and only problem.

Carlos completed the first stage and steadied the ship, obtaining new orders and carrying out very complex projects.

Later he was replaced by **Aloña Barrutia**, who continued to face the problems endemic in our entire history, but she put GH on the map and turned our brand into one with recognised prestige in the lifting sector as a whole.

Aloña also began the expansion of our activities to neighbouring countries to give more stability to the production facility, which we had established in the country almost 20 years ago with the purchase of 51% of a small crane and lifting components marketing company in Olesno called INTERTECH.





And now, **Ewelina Klizner-Ciszkiewicz**, who received her training during the actual development of GH in Poland, has been managing the company since November 2015, reinforcing all the points that her predecessors identified and defined.

Ewelina now has a nice challenge ahead of her. European funds never arrived in the quantities that were promised. Poland is still something of a "rogue" partner in terms of complying with the demands of the European club and this is compounded by its tortuous history of suffering from the warfare of the 20th century, to which is now added the concern of being the country with a cruel war on its doorstep.

But, as we have already said, the reputation that the Polish people have for resilience is entirely justified.



-GHPOLAND

Ewelina Klizner

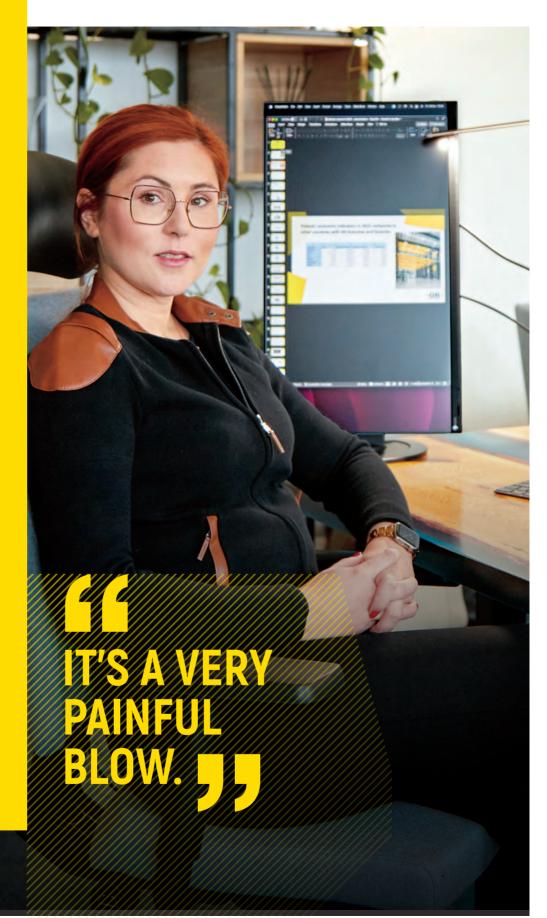
Manager of GH POLAND

She has been the manager of GH Poland since November 2015 and is convinced of the GH Group's ability to adapt to the challenges posed, despite the war being so close.

aving the war so near the borders of Poland is taking its toll on Ewelina, and she is one of the most courageous people we know when it comes to facing the difficulties of the working day, to proposing solutions to problems and to always finding a creative way out of every situation that arises.

However, this war so close to "her home", one of the toughest situations of her life, is really putting her resilience to the test. "Hopefully we can soon return to the visits to the head office and the subsidiary because nothing unites us better than direct communication and trips together."

Her contributions in this interview show us Ewelina at her most thoughtful, but also portray the manager of GH Poland as someone who has never shied away from any challenge.





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Ewelina Klizner-Ciszkiewicz has been manager of the GH plant in Poland since 2015.

First of all, Ewelina, what is the situation in the country with a war in Ukraine that is right on your border?

The current situation is pretty tense. During the first weeks of the attack, Poland gave refuge to more than 4,000,000 displaced people, giving them a safe place to stay for the first 4 months. Now, from July onwards, we have seen the movement in the other direction of those who want to return to their homes. We have also noted the first steps on the path towards the reconstruction of Ukraine. The situation itself caused a lot of uncertainty at the beginning and is exacerbating problems of access to the material supply chains. The long-term consequences are not easy to calculate. but they will have an impact, not only in Poland, but also in other Central and Eastern European countries. They will suffer the difficulty of access to and the rise in price of raw materials. It's a painful blow.

CONCERN FOR THE FUTURE

- Is this conflict affecting you on a personal level, and your frame of mind in general, seeing the fighting so close to your day-today lives? This situation has had and continues to have an influence on everyone's feeling of personal safety. It's not very easy to sleep when close to the borders of your country you can see the fighting. The possession of nuclear weapons, in the hands of the aggressors, doesn't help either. But in order not to dwell on this too much, we focus on the work we want to continue doing to the best of our ability. Life goes on, although there is a lot of concern about our future.

- How is the war affecting the economy of Poland and neighbouring countries?

The consequences of the Covid-19 pandemic were already quite apparent and for Poland and its neighbours this war is causing an even bigger avalanche of problems. Runaway inflation, serious supply problems and limited access to raw materials are some of the consequences we are facing on a day-to-basis. The situation is tense, and conflicts arise at the level of communication between people, also affecting the "partnerships" in our business and the businesses of our customers. This crisis shows us the true

"WE WANT TO RESUME THE PLANS WE HAD BEFORE THE PANDEMIC"





"IT'S A TIME FOR SOWING SEEDS IN THE COUNTRIES OF THE REGION"

"WE HAVE 2,000 CRANES INSTALLED IN POLAND, RUNNING VERY WELL AND IN GOOD CONDITION" nature of human beings and teaches us how we are capable of adapting to the conditions we live in.

IT IS A TEST OF OUR STRENGTH.

How would you classify the situation of GH within this very complicated context?

GH is a group with a solid structure based on the strength of its workers and relationships with its customers. We live in times of crisis and these relationships value this solid structure much more because it helps to carry the work forward and seek common solutions to all the problems we encounter. It is a test of our strength. It will depend on our ability to adapt if we are to emerge from the crisis stronger.

How do you see the future of our project looking forward five years from now?

The GH project in Central and Eastern Europe has a track record of development. Every year more cranes enter the market, making for a continuously growing fleet. After a presence of 19 years in the market, GH has installed almost 2,000 cranes. All these cranes are still working and in good condition. The plan for the next

5 years is to continue delivering more standard and special equipment to the market and, above all, to strengthen our presence in machine services at our customers' places of work. The general objective is to build the confidence of our customers in the manufacturer's service. especially in times of digitisation. The form of service in the future is based more on the analysis of big data and the ability to improve prevention. Having these tools in our hands increases our ability to better relate to our customers and provide an adequate and preventive service. This will help develop the customer's business and build trust in our organisation at a level appropriate to the 21st century.

EVERY TWELVE WEEKS IT SEEMS LIKE WE'RE LIVING IN A DIFFERENT WORLD

- What main challenges do you face in the subsidiary in the short and medium term?

The most important thing is to continue focusing on the organisation itself and flexibility regarding changes in our environment. During the last three years the scenario has been changing at such a rate that every twelve weeks it seems like we're living in a different world. This requires a dynamic of having to make decisions on the spur of the moment. In order for all managers at all organisational levels to keep up with this pace, we create a training plan supported by appropriate computer tools. Our long-term strategic plan is to continue developing the company by growing by 25%. We aim to carry out this plan by adopting a number of annual challenges that we want to achieve. So, for the year 2022 our aim was to strengthen our presence in the bids, improve the conversion of quotes into orders and set up a good service sales team to get closer to customers. We are measuring our progress in terms of the realisation of these objectives. Let's see what the results are at the end of 2022 ... crossing our fingers.

- How do you see GH in the market in which you work: Poland, the Czech Republic, Hungary, etc.?

GH is considered a reliable and stable business partner. The customers who have bought our machines have a high



Gestamp plant in Poland, one of GH's first projects in the country.



opinion of the quality of our equipment, but also of the organisation and the service we provide. The most important recommendations we receive in the market come from our customers. Our presence is well recognised, especially in the local market, here in Poland. In the Czech Republic, Slovakia and Hungary we have installed equipment, but we are still at the initial phase in these markets. At the moment we are focusing there on leaving information about GH, specific commercial actions, and visits to potential customers in different market segments. It's the time of sowing the seeds.

PROJECT WITH THE INCINERATORS

- What are the main success stories that you could briefly mention from the last two years, complicated first by the pandemic and then by the war over the last year?

A very significant success was finishing the installation in the fifth incinerator that GH has carried out in this part of Europe and signing the contract for the sixth. The incinerator project was started in 2012 by Aloña Barrutia (Manager of GH Poland in the years 2010 -2015) and our sales representative Jacek Januszkiewicz. During these 10 years we have acquired important experience in adapting the product to the needs of different technologies in different incinerators and this has led to contracts with Budimex, POSCO, Termomecánica, Mostostal Warszawa, which are the biggest companies in our market.

 Do you consider that the subsidiary is sufficiently established to undertake new projects or development within the Polish market?

From the point of view of the capacity of the organisation, hired staff, and the qualifications of the workers, yes.

From a production point of view, we have fully exploited the technological line that is available to us. In reality, if

production capabilities, we have to invest in the factory itself. In 2019 we had a plan drawn up for investment in technological improvements and in a new factory. The pandemic complicated these plans. After all the changes that the market has undergone, we have verified the 2019 plan and we have updated the factors that related to 2019. Now, during the period 2022-2023, is the appropriate time to make a decision together with the Board of the GH Group regarding the way in which we develop our presence here.

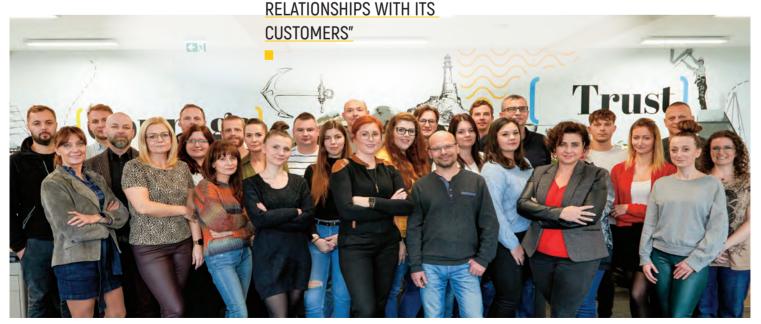
we want to continue developing our own

- What would you propose to improve relations between the subsidiary and the head office?

I would like to return to some good habits that we had before Covid-19 and that have been lost over the last 3 years. We should maintain the teleconferences that we regularly have, but we should also return to the visits to the head office and the subsidiary because nothing unites us better than direct communication and trips together.

Understanding the local challenges is not easy from a distance and it is essential that all of us in the GH Group row in the same direction.

"GH IS A GROUP WITH
A SOLID STRUCTURE
BASED ON THE STRENGTH
OF ITS WORKERS AND







- How would you classify the production plant in Poland?

Over the last few years, we have observed an increase in the share of special cranes in our order portfolio. These are cranes for the energy sector as well as the steel processing industry and incineration plants, both from local government and private investments. In addition, we have been equipping these cranes this year with open winches, built here in Poland in cooperation with steel processing plants. We also managed to complete several orders for gantry cranes of various sizes (the largest with a span of over 44m using the technology of divided girders) and several transfer carts with electric GH drives. Steel beams have a significant share in the production tonnage, the production of which will amount to approximately 1000 m [40%] of the total processing of steel tonnage).

- Are the production facilities in Poland at the gh plant in Klobuck appropriate for the current market situation?

Our plant is one of the oldest in the GH group and requires increasing production capacity, adapting to larger products, special projects related to long-term production and the need to have storage zones for surface treatment, milling or edge spinning. Investors also demand more control over production and expect high-quality C4, C5 in terms of construction, where the shot-blasting and varnishing process is also a problem. Our possibilities in terms of beam height, length and tonnage are also limited. We entrust the settlement of such beams to trusted cooperators who are under our supervision.

What is the production capacity in number of cranes/year of the current facilities in Poland?

We achieved the greatest production before the Pandemic in 2019 - a total of 196 cranes, 40 of which were made in cooperation. This year, due to the enormous commitment to special projects (6 cranes with winches produced by us + 400m of beams and platforms), we will achieve a result of 120 cranes.



"THIS YEAR, DUE TO THE ENORMOUS COMMITMENT TO SPECIAL PROJECTS, WE WILL ACHIEVE A RESULT OF 120 CRANES.

- Could the production structure of Poland absorb a higher workload than the current one?

For several weeks we have been working in three shifts, plus additionally on Saturdays due to the high quality requirements of C4-C5 special cranes for incineration plants in Warsaw. We could definitely make more cranes, standard girders with a smaller share of special cranes in the production process. An ideal solution would be to invest in a new, additional building with a second bed for the production of cranes, which would avoid a blockage in the section of assembly of girders with end carriages.

- Do you think that the production equipment in Poland should be upgraded or could we continue for a while longer with the current resources?

As mentioned, our plant is one of the oldest in the GH group. The infrastructure is divided into 2 buildings a considerable distance apart. The process of putting together the structure requires going

outside to a separate section and then returning to the paint shop. Currently, we also have an external steel warehouse located 2 km from the main building. In the next few months we will be forced to switch to production only from cut material for production in cooperation, which will limit our production flexibility. I believe that investments in Poland are necessary in order not to lose competitiveness and be able to achieve results similar to those in 2019.

- What is the interaction between those responsible for the Klobuck plant and headquarters like?

Organizational cells in Poland have their counterparts at the Headquarters in Spain. Managers and employees of departments communicate with each other in the assessment and implementation of projects, while special projects are assigned to Managers who distribute knowledge in the departments and coordinate the work of teams. I personally work with the Production Department at the Head Office through Lierni Campos and consult with Jose Zapata on construction processes. Shortly after the outbreak of the war in Ukraine, our branch supplied itself with steel unavailable in Poland thanks to the contacts of GH Spain, which brokered purchases in Spain and Portugal.

- In your opinion, what are the points for improvement that we should address in order to be more competitive in the production section?

We notice that more and more customers expect comprehensive order fulfilment, from design to assembly and certification. In uncertain times, they prefer to outsource the delivery of cranes and beams to one supplier, negotiating hard on the price and supervising the production processes. In order to reconcile all these factors, an efficient, well-equipped plant is necessary, which will be able to largely carry out processes in house, without succumbing to attempts to raise prices through suspended distribution of goods or rising prices of services. A strong supplier must have a lot of production autonomy, which is what we strive for.



CHRealtime THE DIGITAL TRANSFORMATION OF INDUSTRIAL MAINTENANCE.

Manu **Vázquez** Torío

International Service
Development Manager &
Digital Transformation at
GH Global Service

As we can all appreciate in either our work or social environments, machines in general have evolved substantially in recent years, not in their basic principles, but in relation to the control provided by electronics, applied software and communications. In addition, the environment where they operate has undergone ever increasing automation over the last 20 years. All these changes greatly affect the principles of

maintenance, which, as we all know, are based on guaranteeing correct operation and high availability of the equipment.

In order to contextualise this very simple initial deliberation, we could summarise the technological changes in various evolutionary phases. Also, if we adopt an overall vision, we will be able to discern new concepts that are emerging as a result of the digital transformations that we are observing day by day in the world of industrial maintenance.

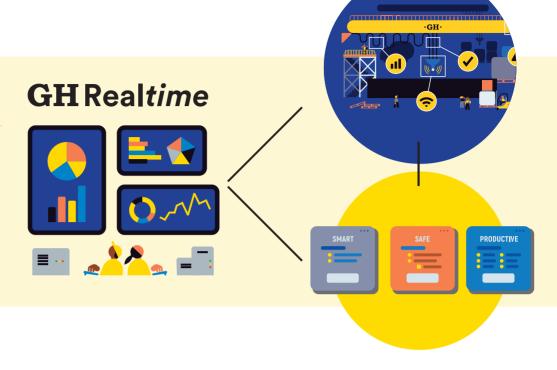
The first phase would be the democratisation of electronics for control and automation in all kinds of industrial machinery, with PLCs, Variable Frequency Drives and Sensor Systems at the forefront of this change. In addition, during this period, there was growing awareness of the importance of the field of management, the first CAMM (Computer-Assisted Maintenance Management) systems appeared to help companies in the governance of maintenance, and concepts such as "intelligent asset management" that aim to carry out a smart stewardship of people, maintenance operations, and the costs of the asset on which they work became steadily accepted. Another phase of these changes has occurred over the last 10-15 years, with the appearance of the first ICTs and the improvement and integration of Telecommunications in the industrial field.

Lastly, and most recently, bringing us up to date, we have huge advances in fields



SMART - SAFE - PRODUCTIVE:

IN THESE DIGITAL PLANS, WE OFFER HIGH-LEVEL ANALYTICS AND CONTROL SERVICES, APPLYING A LAYER OF MANUFACTURER KNOWLEDGE TO THE DATA CAPTURED ON SERVICE, OPERATION AND CONDITION, USING OUR OWN PREDICTIVE ALGORITHM WITH WHICH WE CAN CALCULATE THE LIFE CYCLE OF THE CRANE COMPONENTS, AS WELL AS ADJUSTING THE MAINTENANCE STRATEGIES TO THE ACTUAL USE OF THE CRANE.



such as Robotics, Artificial Intelligence, Quantum Computing, Big Data, Internet of Things (IoT), 3D Printing, Virtual Reality, Augmented Reality, Cloud & Edge Computing, Digital Twins, and Blockchain, etc

All these phases and advances have been grouped together in what is seen as another industrial revolution, the latest of the great industrial revolutions that have occurred throughout history. We can therefore say that we are in the midst of the fourth industrial revolution, or Industry 4.0, which is characterised by a fusion of technologies where the lines between the physical, the digital and the biological are blurred.

The Industry 4.0 term was coined for the first time at the Hanover Fair in 2011. More than a decade has passed since then and the advances made in the aforementioned fields, as well as the disruption caused by the results obtained, have demonstrated the appropriateness of the I-4.0 "revolution" concept.

One of the concepts that has recently come out of I-4.0 is "technological commoditisation". This is a process by which all products tend to become equal in the competitive market environment. In other words, most manufacturers are equipping their machines with all kinds of technological gadgets oriented towards

digital transformation, incorporating them in serial production of the machine itself as part of the standard equipment. The machine is therefore provided with new digital functionalities, human-machine communications are improved, and the acquisition of valuable data that is put at the service of the manufacturer and the end user is made possible. It is also worth noting that incorporating into serial manufacture leads to the production of data on a massive scale.

We are, therefore, witnessing the widespread deployment of technology related to I-4.0 by most of the manufacturers. Digitisation in all its variants and Data Analytics are becoming widely available thanks to new technological devices that manufacturers are developing with greater or lesser degrees of success, thus demonstrating that after a decade of I-4.0 the application of technology related to this concept has become widespread in practically all industrial disciplines. As a result, the manufacturing sector today has at its disposal a seemingly endless number of machines with embedded devices, which monitor data relating to operation and condition, in Edge or Cloud locations, and the end users themselves, through their maintenance teams, are engaged in the titanic task of trying to turn this data into

knowledge. And it is precisely at this point where the current challenge lies, since as we have said, technology is now a commodity of the machine, but the "transformation of data into knowledge" is not.

In our sector (crane manufacturing), in the most advanced cases of this data transformation, we find cases of customers promoting predictive algorithms based on the condition of the equipment (CBM), also supported by descriptive statistics or probabilistic analysis, but these projects are few and far between and always implemented by large corporations with significant budgets.

The current technology has brought with it "knowledge management", and the effort being put into data transformation is allowing some maintenance and production staff, for example, to implement a series of methodologies and indicators that would have been difficult to apply years ago. These include Prognostic and Health Management (PHM), Condition-based monitoring (CBM), Remaining Useful Life (RUL), Reliability, Availability and Maintainability (RAMS), Life cycle cost (LCC), and Reliability-centred maintenance (RCM), to mention a few.

Analysing all this together and from the point of view of the crane manufacturer and maintainer, I have been able to observe that these three factors – "technological commoditisation", the "transformation of



data into knowledge" and the "management of that knowledge" – make **Industrial Maintenance** one of the activities where the **DIGITAL TRANSFORMATION*** has the greatest impact.

But in any approach to this transformation, the end user who acquires a 4.0 machine must **ALWAYS** ask the manufacturer for the digital services that accompany the technology. If this turns out to be non-existent, the user will be left alone with the data provided by the machine, and will have to convert the data into knowledge, with the mental effort and economic cost that doing this themselves represents.

All of this demonstrates that a crane manufacturer must not only sell highly sophisticated machines in the technical sense, but is also obliged to create the corresponding VALUE SERVICES. These services must be associated with the 4.0 technology that the machine incorporates and with the data that is created, since the real knowledge of the machine belongs to whoever builds it, and the Holy Grail sought by the end users is the SERVITISATION* of the data, which makes it possible to achieve the "eternal youth of their machines" and therefore ensure that their availability is high.

But let us not forget that we, the manufacturers, are the custodians of the precious cup, and we must democratise its content so that all companies can enjoy these Value Services, without, of course, entailing a heavy burden of spending and investment for the end users.

The reflection that I am sharing here is what has led **GH Cranes and Components** to address this new industrial paradigm, a new challenge that we have overcome thanks to the technological development work carried out by our **IT** and **R&D** management units, added to the knowledge provided by the **GH Global Service** business unit in the field of predictive maintenance innovation and their cutting-edge project to provide new digital services associated with technology and data.

THE SOLUTION: **GH REALTIME.**

What is GH REALTIME? It is a Value Driven Maintenance, VDM, methodology

Through this methodology, **GH Global Service** generates patterns of behaviour for the machine, and configures and adapts the maintenance ranges to the actual use that is being made of the crane. It also calculates the life cycle of each component and delivers a report on the health status of the equipment. These actions help our customers to make decisions in real time. *GH REALTIME* provides true value (VDM), which results in **improving the safety of people and increasing the productivity of the plant**.

It is a solution that turns Data into Knowledge, which we "servitise" and make available to our customers through three digital maintenance plans:

SMART - SAFE - PRODUCTIVE:

In these digital plans, we offer high-level analytics and control services, applying a layer of manufacturer knowledge to the data captured on service, operation and condition, using our own predictive algorithm with which we can calculate the LIFE CYCLE of the crane components, as well as adjusting the maintenance strategies to the actual use of the crane.

In short, we carry out the digital transformation of our product and service, we accompany our customers throughout the equipment's life cycle, and we avoid large investments and expenses trying to do something that, in reality, is much easier for the manufacturer of the equipment.

- * TECHNOLOGICAL COMMODITISATION is the process by which all products tend to become equal or substitutable in the competitive market environment.
- * DIGITAL TRANSFORMATION is the change associated with the application of digital technologies in all aspects of human society.
- * SERVITISATION is a paradigm associated with Industry 4.0 that is based on the possibility of offering added services to customers, thanks to the information provided by the product sold or other types of data linked to their business model.



GHRealtime



IMPROVED AVAILABILITY

Minimise the risk of breakdowns and reduce the number of unscheduled stoppages.



IMPROVED SAFETY

Anticipate critical situations with real-time alarms and programmable crane data.



IMPROVED PROFITABILITY

Monetise the total cost of assets



INCREASED KNOWLEDGE

Make decisions with maximum objectivity thanks to the information extracted from the data.





Ruben González

GRI TOWERS GALICIA maintenance manager

GH REALTIME IS ALREADY A
REALITY IN THE HANDS OF
THE CUSTOMERS. TO BETTER
UNDERSTAND THE PERCEPTION
PEOPLE HAVE OF OUR NEW
STRATEGIC LINE, WE INCLUDE THIS
INTERVIEW WITH OUR CUSTOMER
GRI TOWERS GALICIA S.L.

- What do you think of the incorporation of new industry 4.0 technologies in the GH equipment?

It's a very good initiative to make sure the machines are supervised at all times.

- Does this new *GH REALTIME* project improve your view of GH as a manufacturer of lifting products?

It reinforces the monitoring in order to improve the machines.

- Do you think that the benefits of crane monitoring will have an impact on the competitiveness of your plant and its efficiency?

If the cranes are monitored by the GH team, we will be more efficient and therefore more competitive.



- Regarding this new concept of service based on the application of new technologies, do you think it will modify the content of the traditional service work of the manufacturers of lifting equipment and the maintenance tasks of their customers?

If there is communication between the team that supervises the platform and the team of GH technicians, then yes.

- To what extent do you value the generation of data and its interpretation by critical equipment in your production process?

It's very important, especially to improve the manufacture of new equipment and for the improvement of existing machines.

- Is the industry in a position to understand the application of these new technologies to its products?

Both suppliers and customers need to improve data interpretation and supervision equipment.

- What suggestions for improvement or change would you propose to the GH *REALTIME* project to perfect this new product?

That the technical service goes at the same speed as the *GH REALTIME* project.

THE NEW **GH REALTIME**TEAM IS ALREADY FULLY OPERATIONAL.

The new team that is going to manage the new *GH REALTIME* business line is now ready and perfectly organised to start offering and marketing this new *GH* service based on the application of new information technologies, digitisation and the application of the principles of industry 4.0.

Asier Mujika takes over as leader of the new project. He has spent his entire career in the Technical Service environment through GH Global Service and has extensive technical product experience,

as well as great analytical ability. In addition, he brings the company culture to the project together with a clear customer-focused service approach.

Yosu Ezpeleta has joined the new challenge after his time managing the GH subsidiaries in Colombia and Peru. He now has the job of promoting this new product and training our organisation in its basic parameters.

The *GH REALTIME* team is already fully operational.

Yosu Ezpeleta (left) and Asier Mujika (right) join GH REALTIME to contribute their breadth of experience and knowledge.



LATEST PROJECTS 21-22





U<u>SA</u> **Public works** Virginia 2022









MEXICO Automotive Customer: CIE AUTOMOTIVE 2022





MEXICO Public works Customer: **ACCIONA** 2022

DOMINICAN REPUBLIC Steel Customer: FRAGA INDUSTRIAL 2022





MEXICO Foundry Customer: POK - NUCOR 2021





USA Mexico







BOLIVIA Food Customer: INGENIO SUCRO **ALCOHOLERO AGUAI**



Argentina

BRAZIL Wind power plant Customer: NORDEX 2022





ARGENTINA Agricultural machinery Customer: TANZI 2021



BRAZIL Precast concrete Customer: **NORDEX** 2022







UNITED KINGDOM

Public works

Customer: ALIGN COMPUNT

2021





DENMARK Public Works

Customer: CERTEX

2022

United Kingdom

Denmark

Spain

A TOUR OF

THE EXCITING GH PROJECTS AROUND THE WORLD.

SPAIN

Iron and steel

Customer: ACERINOX





SPAIN







SPAIN

Municipal solid waste

Customer: COMPLEJO MEDIOAMBIENTAL LOECHES

2020





Municipal solid waste

Customer: BEIKONG GROUP



CHINA Crane for stamping (electric car manufacturer) 2021

China

Indonesia





Customer: ANDRITZ
PT RIAU PLANT

2022



THE E-MOTION
LINE OF ELECTRIC
MARINE BOAT
HOISTS IS NOW A
REALITY.

After several years of R&D, at GH we have made the leap to clean energy through the launch of the e-Motion range of electric marine boat hoists, a milestone in the electrification of marine lifting solutions whose benefits include the reduction of the environmental impact and greater safety at work.





"THE ERA OF ELECTRIC MARINE BOAT HOISTS HAS ALREADY BEGUN"

The launch of the e-Motion line of electric marine boat hoists is now a case of before and after in the history of GH, but it is also an event of considerable importance in the field of electrification of marine lifting solutions that, according to Ander Etxebarria, director of the GH e-Motion Business Unit, has been possible thanks to the "effort and work of different GH departments such as R&D, the Technical Office and also the workshop staff whose experience and knowledge has been essential in the carrying out of the project". "The contributions of all the GH staff have been key in making it possible to transfer all the technology and experience that the company has acquired over more than 60 years in the development and manufacture of electrical machines to this new product," he explains.

The main innovations in this new GH product involve the development and implementation of a new power supply technology through a modular battery system that replaces the diesel propulsion

system of conventional automotive gantry cranes and the replacement of the hydraulic circuit to drive the movements with an electric circuit and drives.

The e-Motion line has been launched on the market through the GH70e electric marine boat hoist, which has been installed in the port of Bermeo. With a 65-tonne capacity, it offers the same power and performance as its hydraulic equivalent and is aimed at customers with marinas and dry docks who specialise in bringing boats into dry dock for repairs and winter storage. The new marine boat hoist will offer this type of customer numerous benefits. In the words of Ander Etxebarria: "To begin with, because by removing the diesel engine and eliminating CO2 emissions and high noise levels, we also eliminate oil leaks, a sensitive issue for them since they are companies that work by the sea."

CLIMATE RESPONSIBILITY

"At GH we have been clear about our responsibility as a company for a

considerable number of years, and we continuously work to leave the smallest footprint possible both during the manufacture of our products and throughout their useful life and when they are scrapped," says Ander Etxebarria. In this regard, both the launch of the marine boat hoist itself and the incorporation of solar panels are the result of GH's search "to provide the market with a more sustainable alternative for its products".

In addition to the electric marine boat hoist, GH has an electric automotive gantry crane on the market aimed at the industrial sector that has been installed in Washington State. Both products follow the green line established by the company with the added value that they include all the know-how acquired by GH over more than 60 years manufacturing this type of lifting machinery. "At GH we are convinced that we will continue to take important steps in the development of this line of products in the coming years."

The variable span, which means that the marine boat hoist can reduce span depending on the boat it is handling, allows more boats to be brought into dry dock in the same facility.



The solar panels provide 20% of the daily energy used.







According to the CEO of Ikusi, the capacity for continuous learning will prevail over other factors that are not as important as they used to be.

A few years ago, Iñaki participated in an internal meeting and when we asked him about the new management model that he was developing to take Ikusi into this new world, he told us: "I want my team to make decisions and take risks, and when we make a mistake, I'll be there to try to resolve any issues as quickly as possible."

This is a good summary of the new business world in which Ikusi is operating and carrying out its business. Iñaki's reflections work well as a thermometer with which to assess the temperature of our future.

In the definition of the Ikusi of today, you say:

"Ikusi provides efficient and robust communications networks, deploying or offering integration, engineering and technological development services to digitise and modernise companies. We work together with customers in order to understand the peculiarities of their business and thus address the development of their full technological potential."

This is your own definition of your activity. You use words such as development, technology and business etc.

How would you give a traditional definition of Ikusi, taking into account that the word product is not mentioned?

At Ikusi we provide the services that allow companies to manage their communications networks securely: the networks through which the company's information circulates; its IT network. In other words, we make sure that this infrastructure is efficient and, based on that, we work on managing their data centres in the cloud, we provide them with collaboration tools, etc. All from the point of view of a transversal service that has security as the core focus. So, if I had to mention some terms that define us, they might be efficiency, technology, the cloud ... and, at the centre of it all, security.

For Ikusi, to what extent is innovation a tool for the future that defines your DNA?

The technological environment is developing at an extraordinary pace and the Internet is now part of all our daily activities, so managing this extensive network becomes more and more complex. In this context, security is especially important, not only because we live in a more connected way, but also because our vulnerability as individuals or as companies if those technological tools on which we depend are not robust and secure has become critical. In addition, the damage to their reputations to which companies are exposed in the case of an attack can be irreparable.

"BELONGING TO A GROUP
LIKE VELATIA PROVIDES
US WITH THE ADVANTAGE
OF SCALE AND, AT THE
SAME TIME, BEING A
FAMILY BUSINESS GIVES
US FUNDAMENTAL VALUES
BASED ON THE LONG
TERM."



This scenario, marked by the new uses that consumers and companies make of our applications, requires a permanent investment in innovation to keep us up to date in order to support our customers' businesses and prevent attacks. We are all susceptible to them, but with a good design and operation of the network architecture we aim to ensure that nobody can stop our company.

WE RELY ON THE CAPABILITIES, RESPONSIBILITY AND COMMITMENT OF OUR TEAM.

What does the participation of a group like Velatia contribute to the development of your business model?

On the one hand, it provides us with scale, something fundamental at a time like this and in a sector like the one in which we operate; on the other hand, being a family business means that our work is based on values we share, and that we are geared towards generating value and have a mission focused on the long term. Velatia also encourages and supports us in innovation and technological improvement projects, in addition to facilitating our access to different markets.

What does the "accelerated change of the company" mean in the current competitive context in which we have to operate?

The incorporation of the digital world into business management brings with it the need to overcome old fears such as the transition from physical media to the cloud. Ikusi accompanies customers on this journey from the data centres to managing the entire network, the applications installed in the cloud, etc. In addition, now more than ever we must have the ability to adapt to offer a robust network and also be the most agile. Until recently, the most important thing was that the infrastructures were secure, but today this is taken for granted and what is demanded is speed, and if we want to keep up with the pace, we must be 'well trained' because changes are taking place at breakneck speed. That's why we are incorporating new solutions to simplify these technologies and automate processes. In other words, to make the complex simple.

Regarding diversification and open innovation, etc. How have you approached this at Ikusi?

Relying on the capabilities, responsibility and commitment of our team. The



TO ADAPT TO OFFER A ROBUST NETWORK AND ALSO BE THE MOST AGILE."







commitment to continuous training for modernisation makes us the first to achieve the highest certifications of the main technological manufacturers: Cisco, Fortinet, CyberArk, TrendMicro, VMware, F5, Amazon Web Services, Palo Alto Networks, etc.

Another essential factor for us is partnerships. In contrast with a sort of inbreeding that characterised the sector up to now, the value of companies today resides in the goodwill that alliances generate around them. This ecosystem is extremely important because in addition to working so that our own house is in order, we accept that there are others who are specialists in areas that can complement us, and we join together to continue in partnership.

DIGITAL TRANSFORMATION IS NOT AN END, IT IS A PATH.

You insist in all these different ways on the need for the digital transformation of business. Is this a fad or an essential strategy for the survival of companies?

As I was saying, these days it would be impossible to imagine ourselves without the Internet and without the mobile phone, which is now an essential part of our daily lives rather than a mere communication tool. We use it to travel, shop, access our bank, and so on. And getting the customer service we

expect when we use these applications is essential.

In this regard, digital transformation is not an end, it is a path that companies must follow and a tool that supports their strategy. So perhaps what we should ask ourselves is not so much what our digital transformation strategy is but what our business strategy is, in the knowledge that digitisation will be an enabler for this. This does not mean that everything has to be digitised, but we have to integrate it into our roadmap to take advantage of the competitive advantages it offers.

You have about nine hundred staff, and you are in almost all the Latin American countries where GH is present. How do you see the future of your company from the point of view of internationalisation?

Around 80% of our turnover is international and a large part of the workforce works on projects is in Mexico, Colombia, Chile or Peru, so we can say that internationalisation is an integral part of our DNA. It is a process that we started more than two decades ago, and we have a very mature organisation in that sense, but we are also open to learning about new ways of doing things and looking at them in detail to better understand each context, so that we can make the best decision. I would say that, if we are

talking about internationalisation, the challenge for Ikusi is to be able to steadily incorporate and develop new markets in the medium term.

What is the profile of the worker of the future? How are we going to incorporate it and motivate people in the new organisations based on digitisation, innovation and constant intensification of technological development?

What we do now has nothing to do with what we did a few years ago or, possibly, with what we will do, so I believe that the capacity for continuous learning will prevail over other factors that are not as important as they used to be. As a technology services company, this is an inherent characteristic of our identity, because when we hire people, we do it for what they can become. And something that we have achieved at Ikusi seems vital to us in this training process: feeling part of a big family in which there is a commitment to customers, the company, colleagues etc. In addition, we try to get younger people to share in strategic projects from the beginning alongside professionals with more experience, providing added value thanks to the exchange of knowledge between youth and experience.

