## Robur

Corporate profile









## Sustainable technology for the future. Our warmest welcome.

Robur is an all-Italian idea. Since our father, Benito Guerra, founded a mechanical workshop for the production of gas nozzles for water heaters and boilers, the aim has remained the same: to conceive, design and manufacture beautiful, well-made products, with a special ecological awareness. A story that began more than 65 years ago and continues to this day with the same passion for excellence.

We are proud designers and manufacturers of sustainable Heating and Cooling Technologies using rational amounts of energy.

A company oriented towards the well-being of people, employees, partners and customers. The aspiration to create a place where everyone can give meaning and dynamism to their work and their dreams has been guided and supported by our mother Luisella Traversi Guerra from the beginning.

With the spirit of those who are always looking for new goals, we look to the future, investing 7% of our turnover every year in Research and Development. A choice devoted to innovation, for the future of the planet.

Welcome to Robur.

*Leonardo Guerra* President *Elena Guerra* Vice-president *Linda Guerra* Board member





### Born from a big idea – to make history.

Transforming talent and passion into useful objects for human beings and their community. The 'D. Guerra' company was founded in 1956 by Benito Guerra with a pioneering spirit dedicated to creativity, research, development and production of ever-newer solutions and a commitment to continuous improvement.

An idea summed up in the strength of one word: Robur. Not just a word - a winning idea. The production of gas nozzles for water heaters and boilers within the panorama of expansion of the use of natural gas in Northern Italy quickly transformed the company into a market leader.

In 1967, the Robur laboratory was founded. Its task was to guarantee product development and anticipate market needs. This enlightened choice produced the multi gas atmospheric burner in 1969, and in 1973 the patent for a high-efficiency and low-emissions burner.

The search for efficiency and simplicity and the desire to have a product of one's own created in 1976 the idea of 'space heating that can be switched on and off like a light', with Robur gas unit heaters. A product that immediately became a success. In 1982, the production grew larger, with individual radiators integrating the heating of civil and commercial spaces.

In the '90s, innovation revolutionised the international market. In 1991, Robur acquired absorption technology from Dometic, a company from the Electrolux group in Evansville, Indiana, USA. This technology came from the studies of one of the most brilliant minds of the last century, Albert Einstein. These studies were developed and implemented in the following years until 2004, when Robur introduced the GAHP, a natural gas and renewable energy absorption heat pump to the market as a world first.

GAHP introduces a new concept to the market – the highest thermal efficiency through a single natural gas unit for heating and air conditioning, able to use more than 50% renewable energy. It was an epoch-making achievement. Added to it was the natural gas and renewable energy absorption heat pump for the residential sector: K18.

In 2019 Robur implemented some reorganisation, with a new Board of Directors and a new president. In 2021, it has celebrated its 65th anniversary with important news on the horizon. Ready to face the new challenges of the future.

A love big like this.

| 1956        | Robur is born  | Benito Guerra founds the gas nozzle<br>company for the production of<br>components in the heating sector.   |
|-------------|--|---|
| 1967        | Looking straight<br>toward the future                            | The R&D laboratory dedicated to technological development opens.  |
| 1969        | Innovation drives<br>the next steps                              | The multi-gas atmospheric burner is produced.   |
| 1973        | A patent that<br>made history                                    | With the high-performance, low-emission burner, efficiency and ecology meet.  |
| 1976        | Space heating that<br>can be switched on<br>and off like a light | The first finished product for industrial space heating is produced: the gas unit heater.   |
| <b>1982</b> | The individual gas-fired convector                               | It was specifically designed for domestic<br>environments and any environment that<br>needs heating, even in the absence of<br>power supply.  |
| 1991        | The Robur Corporation is born                                    | Robur creates the gas air conditioning<br>business by way of the acquisition of GA<br>gas absorption chiller technology from the<br>Electrolux Group.   |
| 2004        | GAHP, gas absorption<br>heat pumps                               | With the development of gas absorption<br>heat pump technology, the company<br>entered the heating and air conditioning<br>sector with the use of renewable energy<br>and rational use of energy. |
| 2016        | K18, the residential gas<br>absorption heat pump                 | The gas absorption and aerothermal renewable<br>energy heat pump is also available for the<br>residential sector.   |
| 2019        | The second<br>generation   | Appointment of the new Board of Directors<br>with Leonardo Guerra as Chairman.  |
| 2021        | 65 years of Robur,<br>looking beyond                             | Robur turns 65 and is ready for new<br>challenges using the best strategy ever:<br>looking beyond.  |

Distinguished research creates objects that look like art.







#### Beautiful and well-made. Our values.

The guide for our actions and the orientation of our successful choices has always been:

**Innovation in researching, designing and developing** technologically advanced products and in offering qualified services aimed at total customer satisfaction.

**The value of human resources** through the conscious and responsible involvement of all employees.

**Social responsibility and industrial vocation** by developing and manufacturing safe, environmentally friendly and energy efficient products.

**The choice to be in Italy**. We were born here. Today, we choose it once again. The technical and creative skills that our country can express, the high competence in mechanics, the preparation and reliability of the workforce, make Italy a unique place in which to manufacture high quality products which are up to the challenges of our world.

These fundamental and shared values have found a choral expression in the Robur Mission and Vision, which are now the lighthouse and guide for the strategic choices of the company.

#### Vision

Robur turns the love for beauty and well-made things into innovative heating and cooling systems that are especially designed and developed to answer the specific needs of Man

Mission

Robur is dedicated to dynamic progression in research, development and promotion of safe, environmentally-friendly, and energy-efficient products, through the commitment and caring of its employees and partners



## Our thought in two words: Ecological Conscience.

Two words that speak to the spirit of Robur. A strength that translates into concrete facts. The Robur Ecological Conscience was born in the 70s – three decades before it became part of the public consciousness. For us, it is the driving force behind the company's strategic choices, one of the parameters according to which we decide on our product portfolio.

Today, we strongly believe in the efficient use of gas to cover the global energy needs of our country and the whole of Europe. Thanks to the use of gas, gas unit heaters were the first innovation in a sector dominated by the use of diesel.

Over the years, ecological awareness has further evolved. This is demonstrated by our GAHP. It already performs very well in its use of gas, and is able to use important shares of renewable energy from air, water and ground, allowing us to reach a thermal efficiency up to 174%. Efficiency that translates into savings for our customers of up to 50% compared to boilers. This commitment to efficiency also translates into respect for nature, as demonstrated by the results produced by one year of using a GAHP heat pump.

An ecological commitment that goes even further. GAHPs do not use synthetic fluids which are harmful to the ozone layer, but an ecological and natural refrigerant, ammonia. This represents the solution to the problem of HFC climate-altering gases. Moreover, heat pump technology has the lowest environmental impact in terms of emissions that are harmful to human health (NOx, PM, OCG, COx), as corroborated by the study of the Joint Research Centre – European Commission <sup>(1)</sup>.

<sup>(1)</sup> JRC - Development of European Ecolabel Criteria for Water based Heaters (pp. 98-103).

## Every year, the more than 20,000 Robur heat pumps installed



## Use 227,770,000 kWh of renewable energy (air, land, water)



Save 34,559 Tons of Oil Equivalent



Which corresponds to 42,530,830 m<sup>3</sup> of gas



Avoid emitting 77,164 tonnes of CO<sub>2</sub> and 207,869 kg of NO<sub>x</sub>



Equivalent to 11,023,436 new trees planted



Equal to 230,965 fewer cars on the road



## The 7 pillars on which our work is based

## Sharing

All of Robur's activities are based on communication and sharing of dreams, strategies and objectives that embody the spirit of the company.

## Quality

The Total Quality philosophy is based on the belief in the great potential of the individual person: it expresses both the way in which the person relates in his or her own life and the way in which this is reflected in the organisation.

## Service

The word 'Service' for us means developing environmentally-friendly technologies, contributing to the growth and development of our internal and external employees' personal skills, and receiving a Total Active Reference from all our customers.

## **Testimony**

Robur wants to be a workplace stimulated by Progress, sustained by Passion, vitalised by Humanity, guided by Justice, guaranteed by Quality, inspired by Beauty.

## Training

It is the basis of the evolution of the structure. Those who do not have the curiosity to engage in self-education risk going extinct.

## Innovation

Technological innovation is the strategic key to the company's competitive advantage.

## Social Responsibility

Awareness and Social Responsibility are an important step in the human development of an entrepreneur and their company.



Even the smallest part contributes to big results. Human Resources / GAHP Heat Pump Heat recovery exchanger



Solid construction mirrors a solid organisation. GAHP Heat Pump Pre-Absorber/Commercial

# 88 marker demands



## Unique around the World. International in attitude.



# Innovation for Europe and the World.

We cover 81 countries commercially, with a continuous process of internationalisation initiated also by the presence of Robur Corporation's headquarters in Evansville, Indiana, USA. A market that covers the industrial, light commercial and residential gas heating sectors.

Our production also satisfies the needs of the OEM market, creating products on request of the main brands operating in the sector.

The skills acquired by the company, recognised by the main market players on 5 continents have allowed Robur to be involved in the energy world's global strategies.



An ambitious and international project: the pavilion of the new Museum aan de Stroom (River Museum) in Antwerp, heated and conditioned with Robur technology. Credits: MAS – City of Antwerp, Sarah Blee



#### Robur Corporation: An All-Italian, American dream.

From 1926 to 1930 Einstein and Szilárd collaborate on a patent for a new refrigerator, safer and with no moving parts to improve home refrigeration technology. The Servel Corporation, founded in 1923 and located in Evansville (Indiana), begins production of this new model of refrigerator that will reach over 2,000,000 American homes throughout its history. The next technological step will be the development and production of the gas absorption chiller, which will meet with great success in the U.S. market.

What does the Evansville-based company, which later became Electrolux Servel, and Robur have in common? In May 1991, Robur took over Servel's gas air conditioning division. Thus, Robur Corporation was born. With this move, Robur acquired gas-fired absorption air conditioning technology.

It was a bold step which opened up additional markets for Robur to grow and secured future distribution of its products in the North American market. In 1999, Robur introduced the GAX-absorption chillers in Europe. And after 15 years of research and development it launched the first reversible gas absorption heat pump on the world market, a decisive leap forward for the heating sector.

Today, Robur Corporation represents an important commercial hub for the diffusion of the brand's products throughout North, Central and South America. For more information, visit www.roburcorp.com

THE ART OF ABSORPTION REFRIGERATION WAS ENRICHED BY THE PRESTIGIOUS STUDY OF ALBERT EINSTEIN

1,781,541



UNITED STATES PATENT OFFICE

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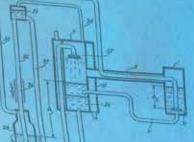
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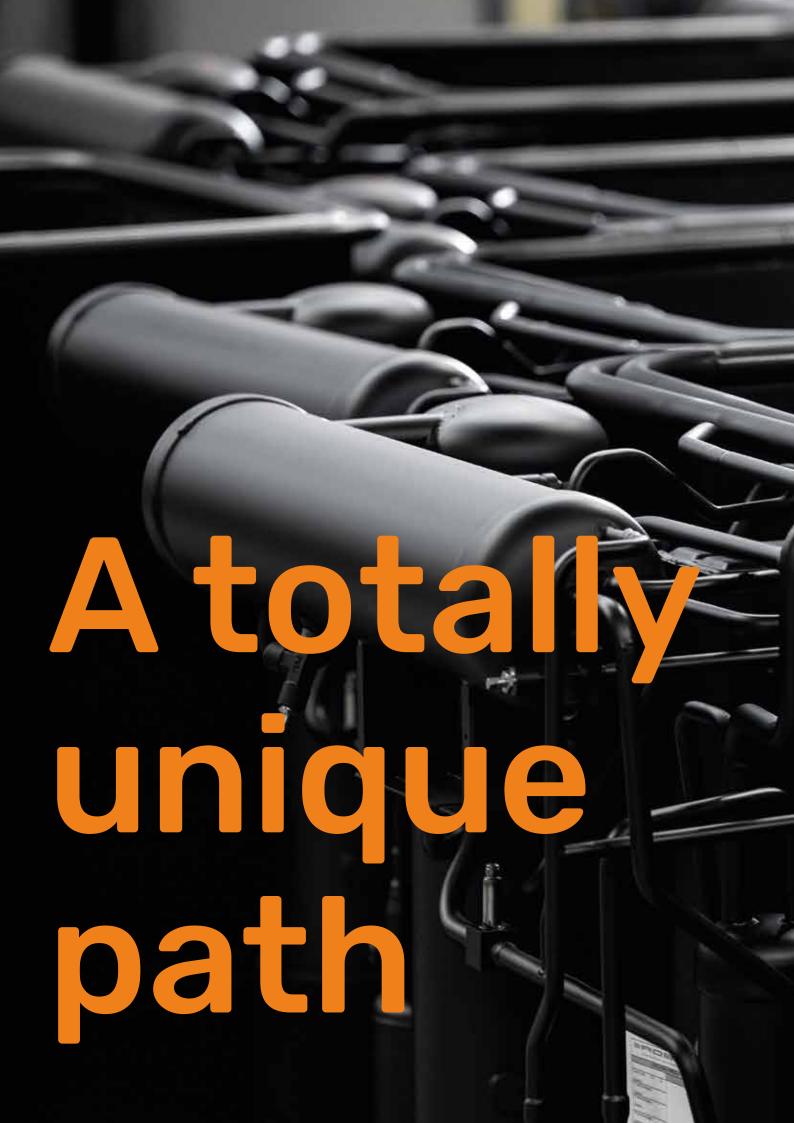
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### The evolution of a brilliant idea continues.







## Certified talent. The Research and Development department.

Human passion drives innovation, innovation drives productivity and productivity allows to invest in new knowledge. For this reason, Robur employs 7% of its turnover in Research and Development, with a dedicated internal laboratory.

#### Research and development recognised by third parties and super partes.

Robur's research and development laboratory is the place where creativity meets technical expertise to give life to unique, efficient and high-quality products.



The thinking behind solutions that revolutionises the world of heat pumps. Research and Development / 14-way reversible heat pump GAHP inversion valve.

The final objective of the studies produced by our research and development is the certification of absolute quality produced by third and super partes bodies, such as Cetiat, CEC - California Energy Commission, DVGW-Forschungsstelle and VDE.

#### Research that produces concrete solutions.

This focus on innovation has already produced many success stories. The more than 200,000 Robur gas unit heaters installed testify the satisfaction of our customers for this historical product. In recent years it has been further improved technically and aesthetically. Today, Robur gas unit heaters heat industrial spaces simply, economically and efficiently. They guarantee rapid heating, thermal efficiencies of over 105%, with savings of up to 30% compared to traditional systems. Our continuous improvement is the result of Robur's research.

The thousands of GAHPs installed are capable of recovering renewable energy from air, water and ground through unique technology. The efficiency reaches values up to 174%. These results are the fruit of more than 20 years of investment and continuous improvement which does not stop and always has an eye toward the future.

#### Attention is rewarded. Even by international commissions.

The European Commission recognizes the GAHP absorption heat pump technology as one of the most promising in the heating sector, so much so that is has funded it within the Seventh Framework Programme for Research and Technological Development.

#### 7% turnover in R&D each year. Investing in the future is in our DNA.



#### Production with heart. Quality that exceeds expectations.

Conceived, designed and built in Italy. One headquarters and two production sites are responsible for the totality of Robur products for the national and international markets.

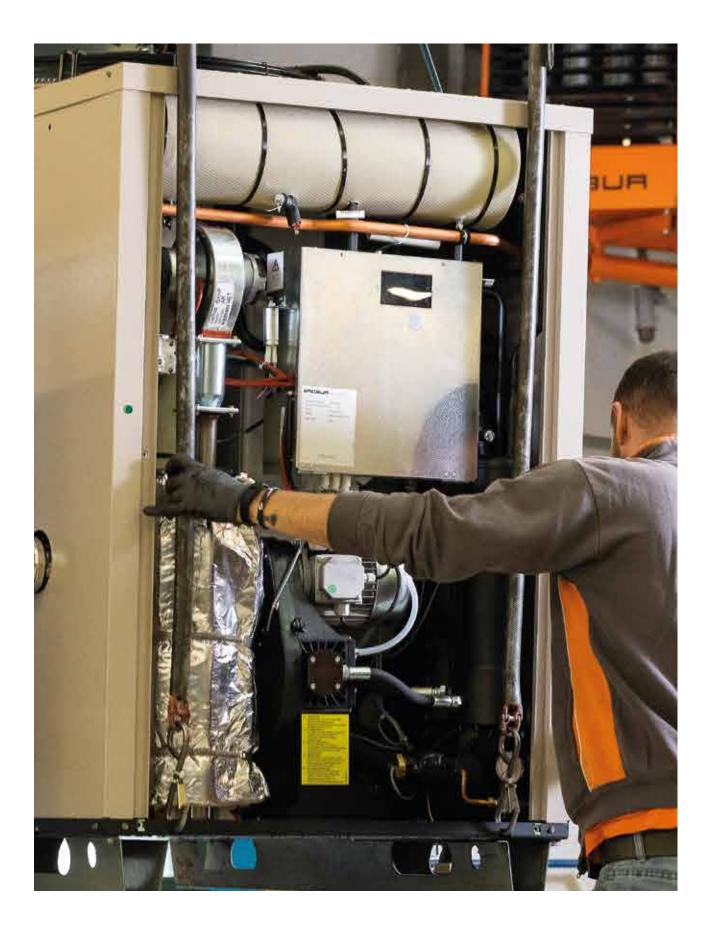
#### Quality, effectiveness and efficiency from Lean Production.

Throughout the whole process, Robur draws inspiration from the principles of Lean Production and Total Quality Management, whose logic has permeated the activities of designing the production process, identifying the Process Owners and verifying the effectiveness of the system. A constant improvement based on the analysis of data and information. An extensive involvement of all partners and suppliers to establish collaborative relationships based on the same objectives of quality, effectiveness and efficiency.

The improvement of quality is evidenced over the years by the achievement, first in Europe in the sector, of ISO 9001:2001 certification, followed by ISO 14001 certification.

#### From the raw material to the finished product. A unique production process.

Our production takes place entirely in Italy. From the raw material to the finished product, everything is done in-house. A unique product in the world implies a unique production process. Technological challenges are the order of the day. Industrialisation of components and processes, maximum customisation of production machinery, and training highly qualified operators able to solve problems creatively are just some of the aspects of our production which make it an important technological barrier to entry for competitors. A meticulous tracking and control system is also the best guarantee of quality for our customers.



## We take manufacturing very seriously. Up to medical and pharmaceutical standards.

The production cycle also uses fundamental processes that qualitatively go well beyond industry standards. Our manufacturing process is comparable to the expertise required in the medical and pharmaceutical fields. Meticulous attention akin to that used to clean valves for human hearts.

Produced, designed and built in Italy. Ready for the world market.



A perfectly functional form is shaped by competent and trained personnel. Production department / Aluminium alloy heat exchanger of the Robur gas unit heater



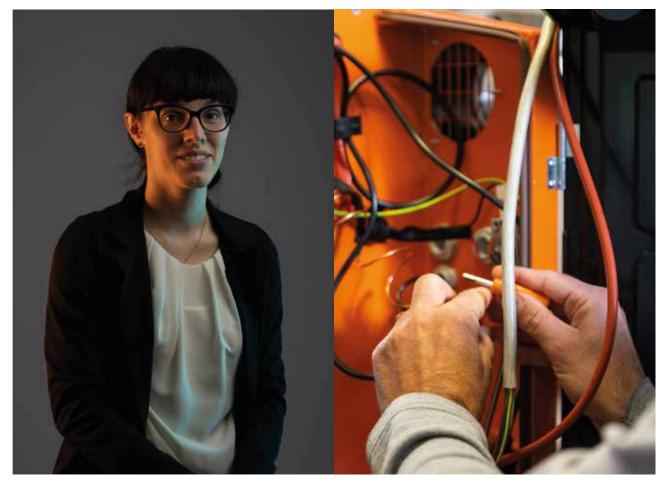


#### Robur with you. Qualified assistance, wherever you are.

## The customer is *value*. The importance of customer satisfaction.

Understanding the needs of and empathizing with our customers is essential to be able to establish a profitable and trust-based relationship which allows us to best meet their needs.

Their satisfaction is our mission. The 'Robur with you' team is always at their disposal, accompanying them transparently throughout the entire life of the products and guaranteeing the highest quality of services. Without anything to worry about.



Control and monitoring have always been part of Robur's history. Customer service / Robur Gas unit heater

#### Higher education and skills at the service of performance.

We have always invested in staff, facilities and services so we can provide the best technical training for our partners. We do this with a qualified team of experts who are competent in the pre- and post-sales phases. Their task is to train and inform in order to respond more effectively and quickly to both customers' requests and those of other professionals in the sector.

We create training courses with a high technical content to accompany the evolution of our products. It's an exhaustive and versatile package of contents, complete with courses which can be held at our premises or at the customer's, directly on the systems or in e-learning mode. It's able to train professionally prepared partners who can be relied on.

## Supporting our customers throughout the product's lifespan.

Getting the best results is a goal that starts before you buy. That's why our services start before the sale, thanks to Robur's pre-sales support service. The correct after-sales maintenance then optimises performance, keeps the investment intact over time and preserves the installed units in perfect efficiency. It acts as a guide and complete support throughout the life of the products, giving partners and customers the certainty of always feeling safe.

#### A network of specialists for customer peace of mind.

An extensive and qualified network of Technical Assistance Partners guarantees customers rapid diagnosis, quick problem solving and maintenance plans designed for total customer peace of mind in case of critical situations.

#### **Products**

# Classic

A line that has become synonymous with natural gas and LPG powered gas-fired unit heaters and a wide range of solutions to meet the needs of heating and cooling environments.

An evolution that has continued for over 65 years, with hundreds of thousands of units installed worldwide.

For more details, explore our Classic Line on robur.com





## **Overview** Classic Line

#### **Gas-fired unit heaters**

A complete range of solutions for heating (including by condensation) artisan, commercial and industrial environments efficiently and modularly.





#### **Wall-mounted Condensing Boilers**

Ideal for heating environments and the production of domestic hot water with the best cost-performance ratio.





#### Legend



Residential (ሰበት) Cooling

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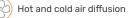


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Domestic hot water



(ðð) Heat recovery



#### **Individual Gas-fired convectors**

A long-standing range created to integrate the heating of environments, even with occasional use, without waiting times and even in the absence of a power supply.





#### **Evaporative Coolers**

Created to improve the summer comfort of working environments, cooling medium to large buildings, and guaranteeing low running costs.





#### **Air curtains**

They have the task of preventing or limiting the entry of cold air into doors and large openings of warehouses, industrial and commercial buildings.







#### **Products**

# Abso

The professional line that has become synonymous with cutting-edge technology for space heating, air conditioning and domestic hot water production. High-value added solutions powered by natural gas and renewable energy, dedicated to condominiums, hotels, companies, offices, public and commercial spaces, with savings of up to 50%, efficiency of up to 174% and a reduction of up to 86% in electricity requirements. Serving the well-being of people and the planet for over 30 years.

For more details, explore our Abso Line on robur.com





## **Overview** Abso Line

#### **GAHP Heat Pumps**

A range of condensing absorption heat pumps for heating, air conditioning and domestic hot water production which uses aerothermal, geothermal and hydrothermal renewable energies.





#### **K18 Heat Pumps**

Condensing absorption heat pumps which use renewable aerothermal energy.

The perfect range for high-efficiency heating and domestic hot water production.





#### Legend Light Industry Office (命) Residential Commercial Domestic Heat \* Process Refrigeration (Ⅲ. Space heating Air conditioning $\triangle$ applications hot water recovery Ð Z Gas Renewable energy Low energy (]4 High-efficiency consumption



#### **GA Chillers**

Chillers and absorption chiller-heaters to simultaneously cool and produce free domestic hot water. This range guarantees a consistent reduction of electricity requirements compared to traditional systems.





#### **GITIÉ Integrated Outdoor Package**

Integrated thermal packages with absorption heat pump or chiller and condensing boiler. A compact system characterized by high efficiency and power in smaller spaces.

Totally integrated, pre-configured, tested and customised for the customer's specific space heating, air conditioning and domestic hot water production needs.





#### **AY Condensing Boilers**

Outdoor condensing boiler for heating and domestic hot water production up to 80 °C. Ideal for integrating absorption solutions.





Est. 1956

Proud Creator and Manufacturer of Sustainable Heating and Cooling Technologies

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Stay in the loop. Get ahead of the curve. Get in touch with us and visit robur.com

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