

Industry Outlook

GEMS & JEWELLERY TESTING LABS

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MARCH, 2023

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Industry Outlook

Vol 2 • Issue 10 - 3 • MARCH, 2023

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Magazine Price is Rs. 150 per issue

Printed and Published By Alok Chaturvedi on behalf of Biz Print Media Technologies Pvt. Ltd. and Printed at Precision Fototype Services at Sri Sabari Shopping Complex, 24 Residency Road Bangalore-560025 and Published At No. 124, 2nd Floor, Surya Chambers, Old Airport Road, Murugeshpalya, Bangalore-560017.

Publisher Alok Chaturvedi

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EDITOR'S NOTE

Ensuring the Product Quality

The Indian gems and jewellery industry is one of the largest in the world and is renowned for its quality products. In order to maintain the industry's reputation, it is important to ensure that the products are of high quality and free from defects. Gem and jewellery testing is therefore an important part of the manufacturing process. There are a number of different methods that can be used to test gems and jewellery, and the choice of method depends on the type of product being tested. For example, diamond testing methods include visual inspection, thermal conductivity testing, and X-ray fluorescence. Seeing this burgeoning market with great potential, we have come up with this special issue. The cover story of this issue features Fortune Gems that has been offering a wide range of services pertaining to gems and precious stones. The company also assists customers at their site as per their needs and requirements. It assists them in importing/exporting any kind of gemstones and helps them get their gemstones certified by globally accepted standards such as GIA, GRS, GUBLIN, SSEF and AGS. Also featuring in the issue is Jewelscan HD which offers seamless, in-person testing with high-quality standards performed in the customer's presence for added transparency and peace of mind. As a family-run enterprise, the company strongly emphasizes professionalism and customer satisfaction, incorporating the latest technology and seeking feedback from clients to improve its services.

In addition, the issue also acquaints you with the other top companies in this domain. After studying the industry landscape in-depth, Industry Outlook has zeroed in on the top 10 companies that have excelled in this field with their meticulous approach. Having proven their dedication in order to meet the customer expectations in an end-to-end manner, these companies have stood out from the crowd.

We look forward to receiving your feedback and suggestions.

Sudhakar Singh
Managing Editor
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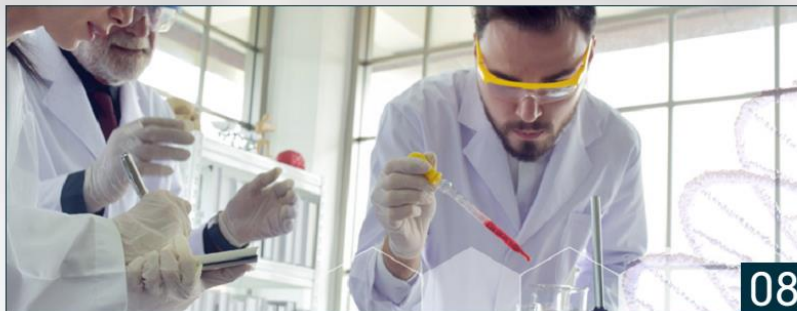


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Three Ways to Utilize Laboratory & Field-Testing Services

THREE WAYS TO UTILIZE LABORATORY & FIELD-TESTING SERVICES



Laboratory and field-testing services are essential to the construction industry. Without them, engineers would not be able to determine whether their designs are feasible and safe for use in real-world situations. While the construction sector continues to be one of the most dangerous industries it is also considered to be one of the most environmentally-friendly industries. This is owing to the lesser resources that are being used by the industry when compared to any other industries. However, it does not mean that there are no risks involved with construction projects, there are numerous types of risks that are required to be evaluated prior to beginning any work on a new building or even a renovation project, and one such risk is whether or not the materials that are being used for construction will hold up under extreme temperatures or weather conditions.

Such issues can be resolved by conducting laboratory tests on samples of concrete before mixing it into the final form so that engineers will be aware of the exact amount and kind of material they are working with before mixing concrete into forms ready for pouring into foundations or walls so. Some of the applications that are used to ensure these include the following - Quality Assurance Testing, Environmental Impact Studies, and Research & Development.

Quality Assurance Testing

Field inspections & materials testing play a vital role in construction, repair & rehabilitation projects. The analyses that are conducted help in determining the conformance of materials in order to not only project specifications but also prevent blunders that result from the use of substandard

materials or even unsatisfactory material installation. Hence, it is imperative for laboratory services providers to provide owners, managers, engineers as well as contractors with critical information from the analysis that is conducted throughout all phases of any given project.

Inspection & Testing of concrete production is highly crucial to ensure high-quality civil engineering structures. One such company offering services in implementing new design and quality assurance procedures for ensuring the quality & durability of new & existing structures is SIMCO. Furthermore, it should also be emphasized that implementing performance-based specifications will not give any results unless diligent quality assurances, as well as control procedures, are used to maintain intended service-life performance. Procedures must also clearly describe various factors such as quality assurance testing methods, how the testing will be used, testing frequency, & ramifications of failing to meet the specific range of results.

Quality means excellence, thus it is of high importance to implement appropriate standards for determining the level of acceptability of any concrete production. SIMCO renders quality control & quality assurance services in concrete production and construction. The team of subject matter experts of the company has extensive experience in conducting several quality control audits on concrete, in every phase of construction, repair as well as rehabilitation projects. The methodologies implemented by the firm are completely based on the comprehensive knowledge of material science, concrete technologies, construction & rehabilitation practices, and the requirements of concrete to meet a wide range of environmental exposure conditions.

Environmental Impact Studies

The construction industry is one of the environmentally-conscious sectors as it is responsible for building & constructing infrastructure projects that are highly essential to the economy. The sector also produces a huge number of waste materials which requires being disposed. Therefore, for the disposal of these materials in the correct manner, there should be an efficient system in place to recycle them. But unfortunately, most construction firms do not hold such a system in place as they do not know how to recycle their waste materials. This is where laboratory testing services come into the picture. The aforementioned problem can be changed by implementing laboratory testing services while working on projects that are related to construction projects where there exist potential environmental concerns like contamination from toxic substances or heavy metals that are found within soil samples which are taken from sites where construction work will take place. One such company

that has delivered many EIAs successfully & issued numerous Environmental Statements for a wide range of projects is Surat-based ETPL. The company offers the development and submission of technical and environmental appraisals report for various plants & construction projects.



The analyses that are conducted help in determining the conformance of materials in order to not only project specifications but also prevent blunders that result from the use of substandard materials or even unsatisfactory material installation

Research & Development

The construction industry is a highly competitive one, and to succeed it is highly crucial to have the right tools in your arsenal and one of those is research and development. While R&D plays an integral role in any business, it is highly crucial for companies that rely on construction for their livelihoods. In fact, as per a recent report from the American Institute of Architects, more than half of all new construction projects in the country were built using materials that were not tested before use and this comprises everything right from concrete to steel beams. Hence, the lack of testing led to serious issues for both the end user as well as the company building the structure, and if something goes wrong either with a product or process during construction, there is no way for anyone involved to know about it until after they have already spent thousands of dollars on materials which could have been saved by testing beforehand. Thus, this is one of the most important reasons why companies should ensure that the buildings of clients are built by utilizing only quality materials which meet industry standards for safety & durability.

One such company that stands out in the market in terms of its R&D activities is Staticus. The company is also aiming to have an excellent reputation not just as a manufacturing & installation firm but also as a team that develops smart new solutions and this is because Staticus understands that the onus on the company to develop & implement the technologies which will transform how buildings are constructed & maintained. [In](#)

INDUSTRY INSIGHTS

HOW INDIA CAN BECOME A WORLD LEADER IN SUPPLY OF DOWNSTREAM ALUMINIUM

By Naveen Mehta, President of Operations, Jindal Aluminium



Naveen Mehta
President of Operations

Naveen is a strong professional with demonstrated history of handing complete administration in the Metals & Hospitality industry. He is skilled in Recruiting, HR Policies, Personal Management, Management Information Systems (MIS).

India has in time established itself as a nation that is independent and self-sufficient when it comes to producing quality downstream aluminium. The advent of new aluminium production facilities in India has ensured that both domestic demand and a significant portion of the world market for aluminium can be met with the right policy and direction. According to a sectoral study by NITI Aayog, India is presently home to over 150 firms, including both major and mid-sized producers. In addition, there is a much larger base of smaller and unorganised operators who serve the downstream aluminium industry. Given its strong forward-and-backwards links to the economy, aluminium industry acts as a concrete example of the sector's economic progress. It has 2,500 players and a processing capacity of 3.9 million tonnes annually.

Critical Manufacturing Ingredient

Downstream aluminium products are of particular significance because of their application to a number of industries including aerospace, defence, high-speed rail, electric vehicles and infrastructure projects. Electrical Power transmission, construction, machinery, and equipment continue to benefit from aluminium. As India continues its industrialization process, aluminium has emerged as a critical strategic metal.

As a corrosion-resistant metal and an electrically conductive metal, it is ideal for a wide range of applications.



It is also especially strong and impermeable to air, water, ultraviolet light, and bacteria. Due to the thin layer of aluminium oxide, aluminium is three times lighter than iron while being as strong as steel, offering extreme flexibility, and corrosion resistance. Because of its increasing affordability, superior weight-to-strength ratio, and formability, aluminium is also constantly being sought for developing new applications. Offering the highest rate of growth for any metal, aluminium has provided positive efficiency, safety, and durability. As a critical new-age manufacturing ingredient, it efficiently meets modern needs and challenging engineering specifications with its light weighting capability and strength.

A Global Supplier

India has proven that it is capable of producing superior downstream aluminium products. We excel in both aluminium rolled products as well as extruded aluminium products. Our manufacturing facilities are equipped to produce high-quality goods and are outfitted with furnaces, casters, and captive foundries that can produce items with thicknesses ranging from 0.009 mm to 5.00 mm. According to Volza, a company that collects data on worldwide export-import commerce, India is a world leader in the production of rolled aluminium sheets, which are widely used in the manufacturing of food, packaging, printing, trains, automobiles, and aeroplanes.

Volza says India exports the majority of its aluminium sheets to the United States, the Netherlands, and Saudi Arabia, and as of October 2021, 194 suppliers were responsi-

ble for 1,209 shipments. About extrusions, Volza says that there were over 27,000 export shipments of aluminium extrusion from India, exported by 324 Suppliers. Most of India's aluminium extrusion is exported to Italy, the United Kingdom, and the United States. With 27064 shipments, India is a top exporter of aluminium extrusion.



Our manufacturing facilities are equipped to produce high-quality goods and are outfitted with furnaces, casters, and captive foundries that can produce items with thicknesses ranging from 0.009 mm to 5.00 mm

In conclusion, there are a few drawbacks, including the lack of a policy for the downstream aluminium segment that can unleash India's full potential in becoming a leader in the global supply of downstream products. Given the existing manufacturing capacity, India can be a game-changer if it has the right policy putting the downstream aluminium sector on the fast growth track. In contrast to the average global consumption of 11 kg of aluminium per person, India utilises just 2.5 kg at present. With the right legislative action, domestic downstream aluminium manufacturers can not only increase consumption from 4 million tonnes annually but also catapult India into becoming a global supplier of extrusions, rolled sheets, foils and other products. [In](#)



“

*When a new
production method
/ treatment is
introduced, all the
previous advanced
technology
gemological equipment
fail to identify the
flaw*

Syed Imtiyaz
Founder

IndustryOutlook TOP 10
**GEMS & JEWELLERY
TESTING LABS - 2023**

FORTUNE GEMS

OFFERING END-TO-END GEMOLOGY SERVICES

India is currently the world's leading market for diamond cutting & polishing, and is also the largest consumer of gold in the world. As a result, the gems & jewelry industry in India is currently witnessing a massive growth. This can also be attributed to the improved lifestyle & purchasing capacity of the consumers who now opt for diamonds, gems and other precious stones than gold or silver jewelry. This in-turn has increased the demand for efficient gems & jewelry testing facilities in India. Although there were a mere handful of gemology labs in India, in recent times, things have improved quite drastically. There are now a multitude of gemology labs being established in India, but authenticity with the lab reports & test results is a big challenge in India. Standing-out among the crowd through its highly efficient gemology testing services is Fortune Gems.

COVER
FEATURE



Founded in 2018 by Syed Imtiyaz, Fortune Gems has been offering a wide range of services pertaining to gems & precious stones that include Laboratory Services (verbal opinion on gemstones, gemstones identification and lab reports for the gemstones). The company also assists customers at their site as per their needs and requirements. “We ensure to give much attendance to every customer and try to keep them satisfied. We assist them in importing/exporting any kind of gemstones and help them get their gemstones certified by globally accepted standards such as GIA, GRS, GUBLIN, SSEF and AGS. We also search the market on their behalf if they require any kind of very rare gemstones like Kashmir Sapphire, Burmese Rubies, Columbian Emeralds, and Alexandrite. Additionally, we also give them a Validation Report of the gemstone if it is found to be rare and authentic. This way, we ensure that much attendance is given to each customer and they are satisfied”, explains Syed, who has close to a decade experience the gemstones industry. Additionally, he has done his Graduate Gemology and Pearl Grading course from International Gemological Institute, Mumbai, and possesses the ‘The Big Three’ certification from Gublin Gem Lab, Switzerland.

Dealing majorly with gemstones and diamonds, Fortune Gems offers a wide portfolio of services which includes sale, identification, certification, assessment, reporting, and all other services pertaining to gems and diamonds. Despite facing difficulties in sourcing advanced gemology

equipment and high costs involved in their repair and maintenance, the company boasts of having high quality gemology equipment for grading and sorting. “When a new production method is introduced, all the previous advanced technology gemological equipment fail to identify the flaw. This is the major lapse our industry is currently facing now. Despite these challenges, we try to give our customers the best service we can give”, adds Syed.

A majority of customers in India face problems with the resale value of gemstones & diamonds. While a few major players are offering resale value only in terms of next purchase rather than exchange for cash, Fortune Gems checks the gemstones for any damages or changes in proportion and condition, quotes the depreciation value for wear & tear, and even gives appreciation value if it is found to be a rare specimen.

An ISO 900: 2015 certified company, Fortune Gems is an account holder of GIA & IGI, and a member of the Gem & Jewellery Export Promotion Council (GJEPC) and Madras Jewellers & Diamond Traders Association. Speaking about the future roadmap of the company, the founder says, “We want to relocate to a major city and establish a new branch abroad. We are in plans to launch a Designer Gemstone Jewelry brand across the world and give-out the franchises of our company. We are also looking for investors and VCs who can support us in our growth journey and grow together”. [li](#)



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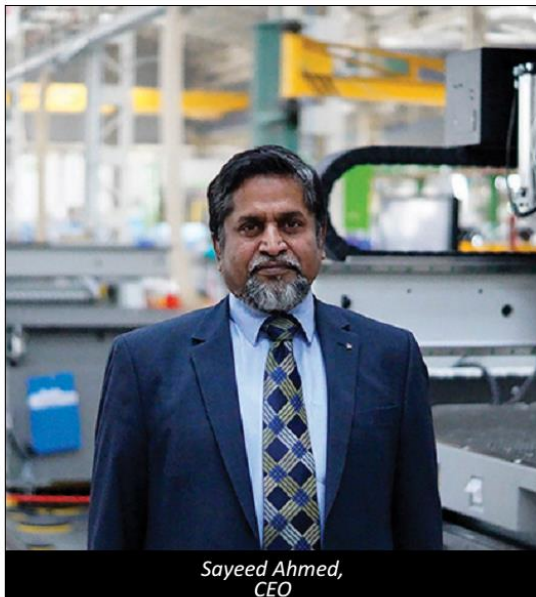
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INDUSTRY INSIGHTS

WOODWORKING: THE SMART FACTORY WAY

● By Sayeed Ahmed, CEO, Biesse India



Sayeed Ahmed,
CEO

Sayeed is responsible for implementing strategies to develop BSM as the leading manufacturing hub in the Asia-Pacific Region and sustain its growth for the Global market with over 35 years of experience in the manufacturing industry, both in Engineering and FMCG.

Woodworking Industry in India is one of the fastest growing industries in India's economy. It is predominantly in the unorganized sector with basic production setup equipped with outdated equipment. This has a direct impact on productivity, efficiency, and quality of products. The loss is in opportunity of a fast growing & demanding market within the country to imports and with the lucrative export markets. India needs to build ecosystem required for a thriving woodworking industry by having more medium and large companies which can have competitive advantage from economies of scale, standardization in home/office furniture, availability of raw material through additional panel manufacturing companies, efficient logistics, testing and certification and skill development. Advanced production technologies and management systems are available now in India that also augurs well with Industry 4.0 requirements. Steadily woodworking and furniture industries are embracing these technologies to gain the competitive advantage.

The Smart Factory

Compact, connected, and accessible, Biesse's Smart Action concept offers companies looking to increase efficiency a straightforward route to transform their operations into a real 'Smart Factory'. To enable this, machines are connected in real time to deliver optimised production, making manufacturers more efficient, and therefore more competitive. The key connect here is the 'software' that leads the way to enable integrated production management. With the complete digitalisation of processes, products can be produced quickly and flexibly, with scope for customisation.



Smart Factories are not only in the domain of big factories and large-scale production sites. SME'S and smaller factories can equally benefit by exploiting all the power and effectiveness of highly integrated solutions, including:

- Reduced space with reduced labour
- Integrated and optimised production management
- Easy management and learning, even for less-experienced operators
- Reduced resource consumption
- Minimal investment

Smart action technologies makes it possible for tailor made furniture or continuous production even in limited working spaces and with reduced labour force. SmartConnection is a software package for managing job orders within the company - from the generation phase to scheduling and actual production startup - in just a few simple, intuitive steps. For the small production site, the smart factory exploits all the power and effectiveness of highly integrated solutions to ensure processes that are standardised yet don't forgo customization.

- Reduced overall dimensions
- Solutions for every space requirement, with reduced labour
- Integrated management
- Optimisation of the production process
- Minimum investment
- Easy management and learning, even for less experienced operators
- Reduced consumption and Eco Saving

The machines are all connected in real time and guarantee fast, optimised production, making the whole company more competitive. Smart action provides solutions where it's the software that leads integrated production management.

Smart Factory for Modular Furniture

The digital revolution has led to a momentous change based on the technological innovation that involves production systems, businesses, the market, and the relations between these areas and humans. In addition to the above machining solutions, fully featured CAD/CAM software takes care of the production, right from design to final installation. It helps the

manufacturer in every design stage from creating solutions to the final render plan that gives a detailed preview of the solutions which have been specially designed. The Indian modular furniture manufacturer needs software that can curb the complex task of programming and using machines, simplifying everyday work while guaranteeing the benefits offered by current technological advances. Thanks to cutting-edge application software that is intuitive, with user friendly machine interface which is easily adaptable for smart factory. There's a host of features this software provides:

- Design Freedom
- Default Hardware Models
- Inventory Supplier Module
- Costing & Quotation
- Machine Integration
- Compatibility with 3rd Party Software
- Planning & Assembly Process

Every manufacturer's space and production process may differ, it is SmartConnect software central to a Smart Factory being able to run effectively and efficiently. It helps manufacturers manage production from the 3D design phase through to production flow monitoring, by providing:

- Easy management of work phases – cutting, nesting, edge banding, drilling, assembly, packaging
- Dedicated environment for real-time production monitoring, providing order status control
- Management and distribution of all data required to run the process, without further manual intervention
- Visualisation of production status
- Progress of each component
- Optimisation of the production process including simulation tools

To complement the Smart Factory, machine and service information is monitored and collated to help customers optimize their assets through an IoT platform 'SOPHIA'. SOPHIA supports increased productivity by providing users with access to machine information, helping to optimise performance and monitor quality. It also helps to deliver improved service levels by utilising a SCADA system to collect machine data and by performing test cycles to help anticipate potential future faults and to provide notification of a machine-down status. Proactive support is extended to customers to help resolve issues faster. Overall, SOPHIA helps to reduce machine stoppages, increase machine availability and consequently output.

The Way Ahead

Intelligent systems are connecting the world. This allows businesses to adapt more quickly. It is about improving machine availability, performance and quality via physical automation, software and connected machines or facilities.

This means a leaner process is required if one wants to compete, let alone just protect the business. Advanced technologies help customers to transform their operations, to achieve greater efficiency, and therefore derive better value from their machines. The combination of automation and digitalisation can provide real value to customers by helping to improve Overall Equipment Efficiency (OEE), the measure of how well a machine works.



Advanced production technologies and management systems are available now in India that also augurs well with Industry 4.0 requirements

Government consideration of PLI scheme for the furniture industry as a sunrise sector is a welcome initiative to make the domestic manufacturing globally competitive. This will boost the confidence of market in investing in smart technologies for meeting the demand not only from the local market but also for increasing the exports too. According to estimates, furniture export, at present, is about \$400 million per year. Global furniture exports currently stand at \$264 billion; a great opportunity in export markets exists for the Smarts. [li](#)



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NEWS

GREEN ENERGY OBLIGATION FOR COAL-BASED PLANTS FACILITIES

The power ministry has notified that coal-based plants that will start commercial operations between April 2023 and March 2025 must have a minimum forty percent of its generating capacity through renewable energy sources. Such plants could also procure and supply renewable energy equivalent to such capacity if not able to set it up, a notification from the ministry said. "It has been decided that any generating company establishing a coal/lignite-based thermal generating station and having the COD of the project on or after 1st April 2023 shall be required to establish renewable energy generating capacity of a minimum of forty percent of the capacity of a coal/lignite-based thermal generating station", the notification read.

A coal or lignite based thermal generating station that starts operations will have to comply with the renewable generation obligation of forty percent by April 2025. Any other coal or lignite based thermal plant that may start after April 2025 will be required to comply with the obligation of 40 percent when operationalized. The move is aimed at faster energy transition. [ln](#)

GENESIS, IGL TO INVEST RS.110 CRORE TO BUILD METER MANUFACTURING PLANT

Genesis, a division of Vikas Life care (VLF), and Indraprastha Gas (IGL) have signed a contract to establish a metre manufacturing facility at a cost of around 110 crore. From VLF, the unit would be established through a joint venture business. Genesis Gas Solutions (Genesis) has entered into a JV agreement with IGL to set up a smart meter manufacturing plant with a capex of Rs.110 crore, it added. The unit will manufacture diaphragm gas meters equipped with IOT technologies like LoRa, LoRaWAN, Bluetooth, NFC, NB-IoT etc., the statement said. Initially, the smart meter plant will have an installed capacity to manufacture one million meters annually.

In the JV, IGL and Genesis will have equity participation in the ratio of 51:49. The unit is expected to be operational by April 2024. Vikas Garg, Chairman of Vikas Group & Director Genesis, said the JV will be a game changer. It will also aim to tap the demand in the international market, besides catering to domestic consumers. [ln](#)

NEWS

ATLAS ENERGY AIMS TO RAISE \$324 MILLION IN RARE OILFIELD SERVICES IPO

Atlas Energy Solutions Inc. said on it raised \$324 million in the first initial public offering by a U.S. fracking sand provider since 2016. Atlas priced 18 million shares at \$18 apiece, compared with its prior estimate of \$20 to \$23. Atlas' offering marks a bright spot at a challenging time for IPOs, after Russia's invasion of Ukraine in February 2022 sparked persistent market volatility that has dissuaded many stock market hopefuls from going public. A rally in energy prices has favored companies in the sector such as Atlas. The IPO shows that Wall Street's appetite for fossil fuel assets remains strong even as investors grow more concerned about environmental, social and corporate governance (ESG). A busy IPO week in February offered hope to companies planning to go public, as solar tech firm Nextracker Inc. raised \$638 million in this year's largest U.S. deal. But advisors remain cautious after stocks sold off in recent weeks.

Nextracker, founded by entrepreneur Brigham Ben ("Bud") Brigham in 2017, mines, refines and transports sand used by shale drillers to help break apart rock and release hydrocarbons, a process known as hydraulic fracturing or fracking. Last year that Atlas was preparing for an IPO which could value the company at \$2 billion to \$3 billion. The New York Stock Exchange will begin accepting orders for Atlas shares under the ticker "AESI". The principal underwriters for the IPO are Piper Sandler, BofA Securities, and Goldman Sachs & Co. [lu](#)

ABB INDIA INAUGURATES A NEW GAS INSULATED SWITCHGEAR PRODUCTION UNIT

ABB India inaugurated a new factory in Nashik with an aim to double its gas insulated switchgear (GIS) production capacity. The factory will produce primary and secondary GIS and provide services to clients in a variety of sectors, including electricity distribution, smart cities, data centres, transportation (metro, railroads), tunnels, ports, highways, and other infrastructure improvements. The facility will supply robust and smart grids, as well as the rising need for power equipment. The facility is 78,000 square feet in size and has cutting-edge industrial robotics installed. These robotic systems connect people, processes, assets and are able to transmit real-time data for increased production". ABB is dedicated to developing a future that is more sustainable and resource-efficient. We act as a catalyst for the market introduction of greener alternatives by combining global technology with local engineering.

According to Sanjeev Sharma, Country Head and Managing Director, ABB India, "this new GIS factory is a testament to ABB's dedication towards establishing a self-reliant India in manufacturing and aiding the country's net-zero journeys. "The business also introduced Prime Gear TM ZX0, an eco-friendly switchgear that produces twenty percent less heat while reducing energy use and enhancing safety. [lu](#)



Industry Outlook TOP 10 GEMS & JEWELLERY TESTING LABS - 2023

Jwell-Making- An Art

Gold and gold jewellery have always been intrinsic to our culture and our ideas of financial assets. But even the sector that is as old as one is moving quick to adapt to the technological trend and to thrive and prosper. Augmenting traditional skills and archival designs with modern methods of manufacture and certification, the sector has been a quick adapter of technology. Today with the help of technology designer could give forms to new shapes and geometries that were not possible earlier. New manufacturing methods like 3D printing, new materials, and techniques like lasers and much more, have made this possible.

Reviving old is a norm trend in fashion as well as in jewellery industry. Priceless heritage pieces that never see the light of day due to their large or intricate forms, and thus stay as buried treasures only for sentimental reasons, are increasingly being repurposed at the behest of the customer. Repurposing or remodelling jewellery has become trend during last two years.

The gems and jewellery market is estimated to grow at a CAGR of 7.55 percent between 2022 and 2027. The size of the market is forecast to increase by \$137.48 billion. The growth of the market depends on several factors, including innovation in terms of design and manufacturing technology, the growing demand for wedding jewellery, and the increase in international tourist expenditure.

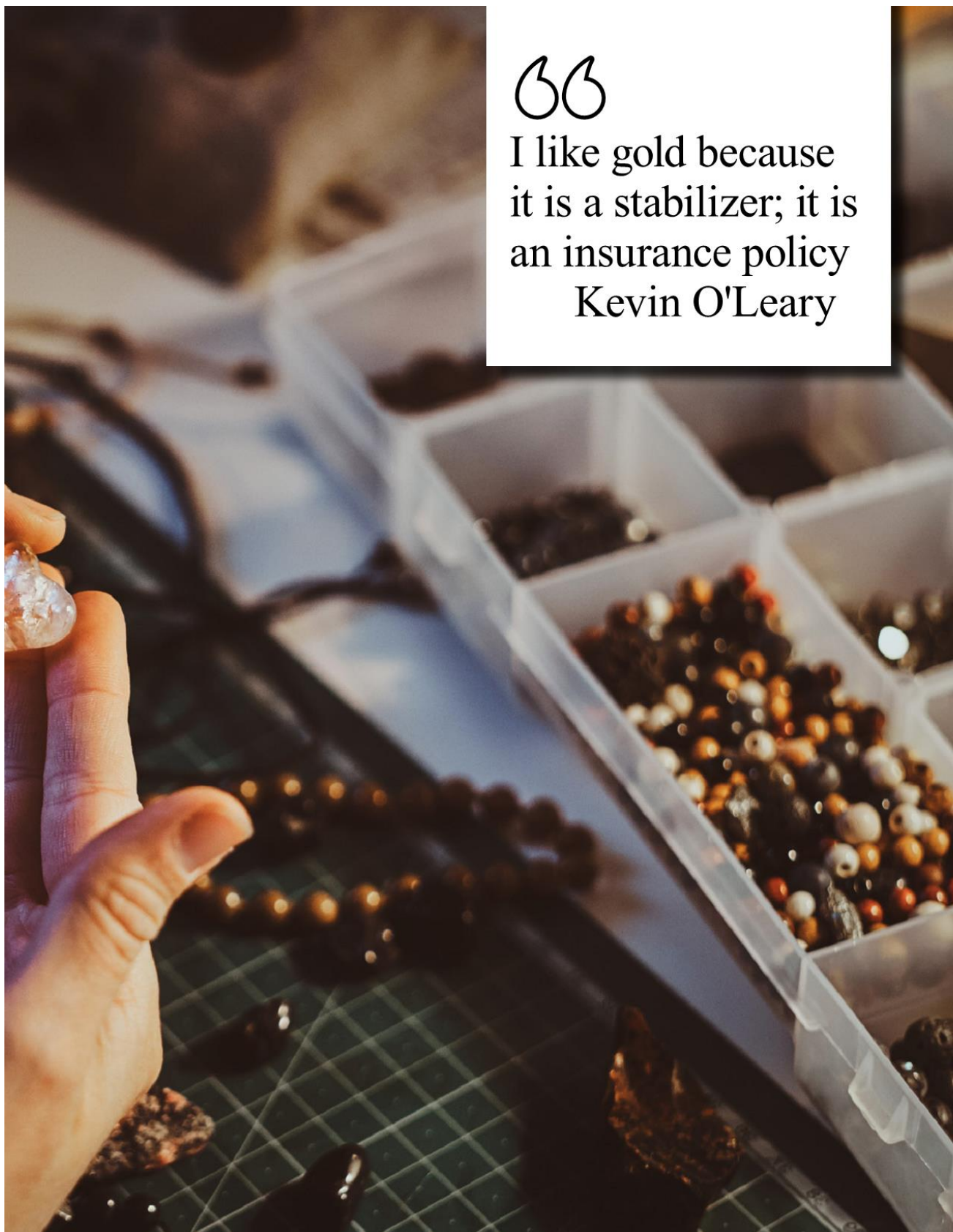
Credibility has Become Important

Today, Lab Grown Diamonds (LGD) are part of the future of gem and jewellery consumption. But customers today find it difficult to differentiate between natural and synthetic at certain occasions and hence credibility is at stake. Hence today, most of the manufacturers use infrared absorption technique, colour grading and other cutting-edge technologies to differentiate original from man-made diamond.

Industry Outlook magazine in this issue presents a list of '**Top 10 Gems & Jewellery Testing Labs – 2023**' who have leveraged their extensive industry expertise and experience in bringing innovative solutions in the freight forwarding industry. The following list has been prepared after being closely scrutinized by a distinguished panel of judges including CXOs, analysts and our editorial board.

“

I like gold because
it is a stabilizer; it is
an insurance policy
Kevin O'Leary





Industry Outlook TOP 10
**GEMS & JEWELLERY
 TESTING LABS - 2023**

Fortune Gems
 Kurnool
fortunegems.co.in

Syed Imtiyaz
 Founder

The firm providing a wide range of services pertaining to gems & precious stones that include laboratory services and offering end-to-end gemology services

**Global Identification of Gems
 & Jewellery Laboratories**
 Mumbai
gigj.co.in

suraj agarwal
 Managing Director

An independent gem laboratory that identifies, grades & certifies diamond & gemstone jewellery and provide diamond, gemstones, jewellery certificates, programs & service

**IDT Gemological
 Laboratories Worldwide**
 Delhi
idtworldwide.com

Gaurav S. Issar
 Founder

A premier networks of gemological laboratories, which empowers and enables jewellers, jewellery brands, manufacturers, wholesalers, end use customers and the masses in general to get a third party certification for its loose and studded gemstones, diamonds and jewellery

**IIGJ-Research &
 Laboratories**
 Jaipur
gtljaipur.info

Gagan Choudhary
 Director

A laboratory offers gemological services to both domestic as well as overseas clients along with research & development of techniques for identification of new gem materials, synthetics and treatments

Indian Gemmological Institute – Gem Testing Laboratory (IGI-GTL)New Delhi
igi-gtl.org**Ashok Seth**
Regional Chairman

A testing laboratory rendering its unbiased gemological testing services to general public and gem & jewellery industry

International Gem Institute Testing LabJaipur
igtij.com**Mustaqeem Khan Khan**
Owner

A rapidly developing market of making synthetic and treatment gemstones, identification of these treatments & differentiating the natural from the synthetics

Jewelscan HDJaipur
jewelscanhd.com**Mohit Bhandari**
CEO

The company addresses the growing need for reliable gem and jewellery testing services and offers seamless, in-person testing with high-quality standards

Precious Gem Testing LabsMumbai
pgtlabs.com**Idris Mohideen**
Director

An art gem testing laboratory are equipped with the most advanced gem testing and grading equipment including FTIR, UV-VIS and Raman Spectrometers to test the diamonds and precious gemstones accurately

SGL LabsBangalore
sgl-labs.com**Varun Shetty**
Business Head

An international laboratory networks prioritizing high standards backed up with state-of-the-art technology and skilled professionals

Shine Gem Testing LabHyderabad
shine-gem-testing-lab.business.site**Irfan Hyder**
Managing Partner

A gem testing lab satisfactorily cater the demands of its customer base and strives to make for a positive experience through its offerings

JEWELSCAN HD

EMPOWERING CUSTOMERS THROUGH ACCURATE DIAMOND IDENTIFICATION & GRADING SERVICES



The growth of the gems and jewellery testing industry in India is directly tied to the growth of the gems and jewellery market. India's improved infrastructure, robust domestic demand, and thriving export demand position the country well for growth in the testing industry. The industry faces challenges such as a limited number of scattered, top-quality testing labs, but the rise in alternative materials and the unorganized nature of the jewellery market drive a need for more identification labs. Introducing new technologies, reduced costs, increased customer knowledge, and demand for authentication certificates are also contributing factors to the growth of the gem and jewellery testing industry. JEWELSCAN HD was founded to address the growing need for reliable gem and jewellery testing services in Jaipur. The company was established in 2019 in response to the influx of synthetic and imitation gems in the market and to provide accurate evaluation services to customers.

The central pain point for customers in the gems and jewellery industry is the need for more accuracy in accurately identifying and assessing the quality of their jewellery. Customers seek reliable testing services to determine the intrinsic value of their purchases and avoid being cheated by their source. Standardization of gems like diamonds has helped to differentiate and accurately evaluate the value of jewellery. To address these pain points, JEWELSCAN HD offers seamless, in-person testing with high-quality standards performed in the customer's presence for added transparency and peace of mind. As a family-run enterprise, the company strongly emphasizes professionalism and customer satisfaction, incorporating the latest technology and seeking feedback from clients to improve its services. "Despite the challenges posed by the COVID-19 pandemic, JEWELSCAN HD has succeeded in building a strong

reputation and gaining the trust of its customers", speaks Mohit Bhandari, CEO, JEWELSCAN HD.

Innovative Diamond Testing Solutions

JEWELSCAN HD provides two primary services - Diamond identification and grading and jewellery photography for e-Marketing. The diamond identification process involves a thorough three-stage analysis by experts to determine if a product is a diamond, lab-grown, synthetic, or imitation. For Jewellery photography, it offers ambiance-based high-definition images and 360-degree videos, perfect for e-Marketing purposes. It continuously updates its machines to keep pace with new developments in CVD and imitations. "We use the latest technology and combine it with their expertise to ensure extreme accuracy in their testing", speaks Rohit Bhandari, Proprietor, JEWELSCAN HD.



Despite the challenges posed by the COVID-19 pandemic, JEWELSCAN HD has succeeded in building a strong reputation & gaining the trust of its customers

JEWELSCAN HD is known for its expertise in diamond identification and grading & jewellery photography services. Clients mostly learn about the company through word of mouth or online searches. When clients approach the company, JEWELSCAN HD solves their doubts and identifies their requirements. Testing processes are done before the clients, leading to product identification, education, sealing, and certification. JEWELSCAN HD sets itself apart by offering top-notch diamond identification, grading, and jewellery photography services. It is known for its transparent and customer-focused approach, where clients are kept informed and involved throughout the testing process. The company prioritizes accuracy, affordability, and customer satisfaction, ensuring the secure delivery of diamonds. With a focus on cost-effectiveness and transparency, JEWELSCAN HD's team of experts differentiates itself from its competitors, building customer confidence and earning loyalty through its customer-centric services.

JEWELSCAN HD aims to expand its grading capacity, add more identification services, enhance e-Marketing efforts, and open more outlets. As a family-run business, it strives for professionalism and regularly engage with clients for feedback to adopt the latest technology. [ll](#)

INDUSTRY INSIGHTS

PROPELLING THE GROWTH OF GLASS INDUSTRY THROUGH VALUE-ADDED PRODUCTION

Sony Thayil, Business Head, P & L Role, National Head - Consumer Glass Division, Asahi India Glass (AIS), in an interaction with Sudhakar Singh, Editor, Industry Outlook, shares his views on the glass industry. During the conversation, he throws light on the issues pertaining to recycling, increasing cost of raw materials and more.



Sony Thayil
Business Head, P & L Role,
National Head - Consumer Glass Division

Automotive and construction industries are witnessing a sharp rise in the demand for integrated glass and windows solutions. How do you see the current evolution of this market in India?

In the post-COVID era, both the residential and commercial construction domains are witnessing an increased traction. The residential domain in particular is reaching new heights with the demand for luxury as well as affordable properties soaring across all the major metro cities. Moreover, as work-from-office model takes over, the demand for commercial properties are coming back to a full swing. The proactive measures taken by the Government of India as well as the rising FDIs in the industrial segment is keeping the real estate industry buoyant with an expected growth of nine percent CAGR.

Disposal of glass products is an area of major concern. Although some amount of recycled glass is now commonly used in the glass industry, the majority is land-filled. There is a lack of economical technologies that can identify and eliminate non-glass materials. How can the industry improve the cost-effectiveness of the process of collecting & reusing post-consumer glass?

The major glass manufacturers of India are now conscious about the benefits of recycling and are putting in concentrated efforts to organize the recycling of glass products. That being said, glass recycling has not developed in entirety and is still in a nascent stage. Today, all the manufacturers along with other industrial players of the nation are required to take united steps in order to see a sustainable change. We at Asahi India Glass Limited (AIS) are absorbing used glass to be applied in different parts of manufacturing. With combined efforts of all, the glass industry of India is expected to transition towards a circular economy, optimizing the use of post-consumer glass.

One of the biggest challenges for glass industry is the increasing cost of raw materials. The prices of sand, soda ash, and limestone, which are the main raw materials used in the production of glass, have been rising in recent years. This has put pressure on glass manufacturers to increase their prices. How can the industry overcome this predicament?

Although the prices of the raw materials remained stable in between 2010 to 2018, it saw a continued surge in and after 2019, owing to multiple uncontrollable circumstances like logistical challenges, fuel crisis and more. In order to counter



the growing price of raw materials and also the end product, we as a responsible company advanced our manufacturing practices to increase the output and overall productivity of our plant. We also explored the potential of alternative energy sources in our operation to further bring down the overall operational cost. In critical period of the pandemic, not only the glass industry but also the entire building materials segment revamped its manufacturing process to develop efficiency and pass the benefits to the customers.

What are the challenges in shifting from B2B manufacturing to operating on a B2C model? What are the challenges in the way?

Shifting to a B2C space is a natural evolution as it brings an organization nearer to its clients. However, the transition towards B2C model is a complicated and challenging process. Unlike pure manufacturing with limited touch points, in B2C model, organizations are required to develop effective logistics chains, understand the demand of the end-customers and inform them about the usability of different products.

At AIS, we have developed a 4G model, wherein we provide end-to-end service to our clients starting with undertaking a project to designing and finishing the task. This brings us closer to our customers and adds more credibility to our company. The shift to B2C market has also brought up many opportunities in the adjacent market, like — glass windows, glass railing, shower cubicles, and more, while helping us stand apart from other competitors in the market.

Flat glass industry is also facing competition from alternative materials such as plastics and composites. These materials are often lighter and cheaper than glass, making them attractive alternatives for many applications. What is your take on this?

In my perspective, the Indian market has space for every material. Moreover, with usage of glass still being in a nascent stage, the scope for glass manufacturers in the nation is high when compared with other materials. In the coming years, the usage of glass will go up, with its rising implementation both in terms of aesthetics and energy efficiency. Lastly, with growing education and acceptance amongst consumer, there is no foreseeable threat to the industry.

Where do you see this market in the near future? Which new technologies do you expect to be implemented?

A number of factors like green revolution in the building material market, rising FDI in the real estate industry and increasing GDP of India is positively influencing the growth of glass industry. In the future, the sector is expected to evolve and touch new heights.



Today, all the manufacturers along with other industrial players of the nation are required to take united steps in order to see a sustainable change

Although few challenges like interest rate breaches and inflation might deliver a blow to the industry. The positive factors will outweigh the negative ones to provide a healthy growth to the industry over the span of next eight to nine years. In the coming days, the value added glass like the performance glass, energy efficient glass and more will have more traction among the customers and will play a major role in satisfying the need for better product that solve the existing problems, helping the industry grow at a fast pace. [11](#)

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AFTERWORD



Divij Singh
MD & CEO

VOICE BOTS & CHATBOTS: THE KEY TO BUSINESS COMMUNICATION IN 2023

● By Divij Singh, MD & CEO, ICCS

As the Managing Director of ICCS, Divij is expertised in Customer Experience Management, Customer Lifecycle Management and Customer Acquisition.

People's preferred communication methods, as well as the channels they use, are constantly evolving in today's digitally evolved world. Organizations have been compelled to rethink how they communicate with customers as a result of the pandemic. Whether it's video consultations for healthcare, chatbots for banking transactions, more user-centred apps for retail customers, or voice search and voice bot gaining popularity, many of these innovations have resulted in more efficient and productive ways of conducting partnerships. Businesses must keep up with the latest business communication trends in order to be competitive. In 2022, the world's seismic shifts will undoubtedly have a profound impact on how businesses manage their relationships with customers and staff.

Voice Technology for Business Communication in 2023

As the digital revolution unfolds, one key and disruptive sector - voice technology - is reaching a sophisticated new application level, one that is boosting daily life while expanding into new areas of business administration and communications. It has the potential to better educate and elevate the current customer experience as a critical component. It allows users to transform spoken language to text by utilizing a vast array of AI metadata in the development of new languages, as well as better utilizing automated assistants, virtual assistants, and chatbots.

Voice bots are gaining mainstream use in every corporate industry and transforming human-machine interaction. AI voice bots have the potential to change the customer service landscape in India. In addition, the new digital assistant will change how individuals interact with mobile devices in

everyday life. As people become more tech-savvy, understanding the depth and breadth of spoken words becomes increasingly important, especially in today's exponentially expanding distant environment. Advanced voice biometrics and speech recognition give the globe modern, ideal commercial toolsets, such as new intent and sentiment analysis, speaker identification, and statistical demographics. Speech is innovating and drastically extending rich relevant metadata for different and growing uses as a result of the increased use of these tools. Businesses are becoming more confident in exploring new ways to leverage speech technology and its data treasure trove as we approach 2023. As voice and speech recognition technology improves, companies are increasingly adopting it. Popular technologies like artificial intelligence (AI) and natural language processing will continue to upgrade speech technology, making it more authentic and approachable to different audiences. Voice biometrics and voice recognition will continue to be embedded in modern digital user experiences in the coming years, with innovative voice technology paving the way for businesses to improve efficiencies, speed up tasks, and increase security while also providing unique and natural personalized user experiences.

Chatbots for Business Communication in 2023

The COVID-19 epidemic has had a significant impact on customer behaviour. Organizations all over the world have quickly implemented chatbots to improve customer self-service, provide information, provide continuous and cost-effective support, and delight customers with personalized experiences in order to adapt to the sudden shift toward interacting with customers on digital channels. The modern service

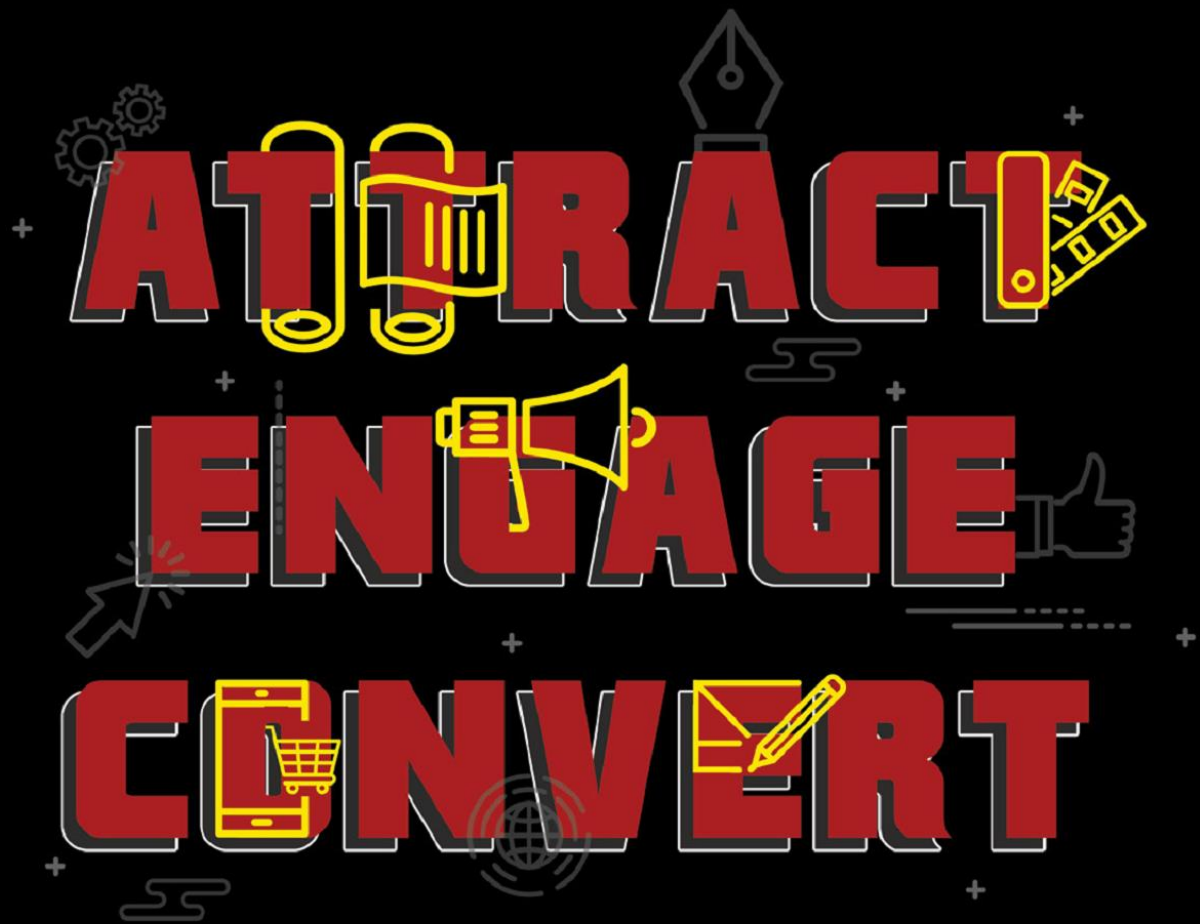
desk evolved significantly in the 2000s. Chatbots played a significant role in this change, particularly with the promise of versatile new technologies like artificial intelligence (AI) and sentiment analysis. The epidemic of COVID-19 has hastened the digitalization process. It is marked by a significant shift in customer expectations toward more personalized experiences, contextual understanding, and behaviour prediction. With this backdrop, 2023 will provide additional opportunity to implement innovative chatbot technology and improve existing ones, allowing businesses to better communicate with current and potential customers. According to Gartner, AI will become a mainstream customer experience investment in the next couple of years as companies migrate from customer-based interactions to more real-time engagements. In fact, chatbots will be used by 47 percent of businesses for customer service, while virtual assistants will be used by 40 percent.



Voice bots are gaining mainstream use in every corporate industry and transforming human-machine interaction

Summing Up

Many firms have adopted the tagline 'reinvent yourself or die'. The epidemic and the integration of new technology into business processes have unmistakably marked the years 2020 and 2021. Business communication has been one of the areas most touched by this trend. Because of the emergence of hybrid working patterns, where we can find both in-office and remote workers, communication has become a critical component of maintaining maximum productivity. Without a doubt, the elements that have produced the difference in recent years will be consolidated in 2023. ■



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