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Shaping the future of **COMPRESSED AIR TECHNOLOGY**

For over six decades, Elgi Equipments has stood as a symbol of engineering excellence — driven by innovation, and an unrelenting focus on customer’s stated needs and unstated wants. Today, the company ranks among the world’s top six air compressor manufacturers and is steadily advancing toward its bold vision of becoming one of the top three global players by 2035–36. In an exclusive interaction with Engineering Review, Dr. Premendra, Chief Strategy Officer at ELGi, shares insights into how the company is blending deep-rooted values with cutting-edge innovation to sustain its growth trajectory. From pioneering transformative technologies like the Demand=Match, to embedding sustainability, digitalization, and customer-centricity into its DNA, Dr. Premendra explains, ELGi’s journey is not just about scale—it’s about building a truly global organization that remains true to its purpose of “Conscience in Action”, while consistently raising the bar on quality, innovation, and excellence. Excerpts from the interview:

Q. How do you envision steering ELGi towards the long-term goal of becoming one of the top three global players by 2035–36, while preserving the agility and culture that brought it here through 65 years of its journey?

We began as a company focused on designing and manufacturing reliable compressors for India. Today, we stand among the world’s top six air compressor manufacturers, a journey built on resilience, agility, and strong values. Our aspiration is to be counted among the top three global players by 2035–36. While there is a revenue target attached to that ambition, for us, it’s not just about the number, it’s about becoming a truly global organization.

Our growth will be driven by three key levers:

- **Market Expansion** – through deeper

penetration in our focus markets of North America, Europe, and India.

- **Innovation** – by continuously developing solutions that meet and exceed customer expectations.
- **Aftermarket Scale** – by strengthening and expanding our service and support ecosystem globally.

These three pillars will define our path forward as we grow in scale while staying true to the culture and agility that have brought us here.

Q. While India remains your home base, much of your growth is coming from overseas markets. How do you balance the demands of a highly competitive domestic market with your strategic push into North America and Europe?

India is our home market and also our proving ground. The domestic market

is intensely competitive and price-conscious, and, in many ways, we face the same global competitors here that we encounter overseas. So, I believe that if we are able to succeed in India, we have a strong foundation to succeed globally.

Having said that, every market has its own nuances. India teaches us invaluable lessons - understanding customer needs, delivering a compelling value proposition, and building strong channel partners network. It’s about becoming a partner of choice for these stakeholders and offering industry-leading service support.

We take these learnings to every market we enter. Our approach is to develop and innovate in India for the world, while simultaneously building a strong local presence in global markets, establishing service networks, and driving customer intimacy.

Q. ELGi is one of the very few companies worldwide to have won the prestigious Deming Prize. In hindsight, how did embracing TQM change the company's DNA, and what cultural transformation did it spark across teams?

For us, the Deming Prize is much more than an award. We have undergone a cultural transformation in how we operate. It has instilled process discipline across the organization, emphasized data-driven decision-making, and fostered a strong sense of ownership at all levels. This shift has reinforced our commitment to quality, and today, every team — from engineering to front-line sales and service — sees itself as responsible for customer success. That is the transformative impact the Deming Prize has brought to ELGi.

Q. ELGi is recognized for its lean, quality-driven manufacturing processes. What are the hallmarks of your manufacturing excellence, and how do you ensure your plants meet — and even exceed the standards of global peers?

Our plants in Coimbatore are truly a source of pride. Customers often remark that our manufacturing facilities are

state-of-the-art. The hallmark of our manufacturing is a relentless focus on quality, which we achieve through backward integration.

We maintain full control over quality from raw materials to the finished product. Our facilities include a state-of-the-art foundry, high-precision machining units, an in-house pressure vessel division, and now even in-house motor manufacturing. This end-to-end control enables us to deliver best-in-class products, leveraging our manufacturing excellence.

Equally important are our people, who are central to manufacturing excellence. We invest in skill and value development through programs such as ELGi's Vocational Training School, ensuring employees enter the facility with the right skills and values to uphold our high standards.

Q. Compressors often face the paradox of cost sensitivity and the need for cutting edge innovation. How do you, as a leader, navigate this duality and decide where to place the long-term R&D bets?

You are right! Air compressors exist in a paradoxical space. Our approach is

to develop a deep understanding of our customers' needs- both the stated needs and the unstated wants and then work to meet and exceed them. Different customers have different priorities. Some focus on total cost of ownership or lifecycle cost, others value a balance of price and performance, while some are extremely price sensitive. This means one size does not fit all, and we must tailor the right offering to the right customer segment.

We invest in technologies that directly enhance customer productivity or address critical pain points. At the same time, we design innovations so that they are scalable and cost-effective, ensuring that cutting-edge solutions are accessible across our product range rather than being exclusive.

Q. Now, with the increasing global emphasis on carbon neutrality and circular economy, how is ELGi integrating sustainability not only into the product design, such as its oil-free compressors and the heat recovery systems, but also across operations, supply chains and long-term strategy?

For us, sustainability is not just a



responsibility — it's also a growth opportunity. On the product side, we are continuously innovating to improve energy efficiency and reduce carbon footprint. Examples include oil-free compressors, heat recovery systems, IoT-enabled devices, and our recent breakthrough, the Demand=Match system.

On the operations side, our plants are steadily increasing the share of renewable energy in our overall energy consumption and driving zero-waste production lines. We are also working closely with suppliers to embed circular economy practices across the value chain, ensuring sustainability is integrated throughout our ecosystem.

Q. You have often spoken about the values like empathy, ownership and speed being non-negotiable. How do these principles influence your relative decisions, especially in times of uncertainty or crisis?

Regardless of the times, whether during uncertainty or a crisis, we are guided by our purpose: "Conscience in Action." This serves as our compass, ensuring that our decisions are fair, and we do what is right.

As Dr. Jay, our MD, has often



emphasized, our purpose is crystal clear: be and do to others, what you'd like others to be and do to you. This principle forms the foundation of all our actions. To ensure we stay true to this purpose, we have a renewed set of ELGi values that guide every decision. There are seven core values: Be Sensitive, Be Thorough, Collaborate, Trust Stakeholders, Own Outcomes, Respond Quickly, Keep Raising the Bar. These

values are deeply embedded in our culture and shape the way we navigate challenges, make decisions, and maintain our commitment to integrity, even in difficult times.

In any company, there is often a tension between purpose, profit, and risk — what we refer to as the "tension triangle." When conflicts arise among these three elements, purpose always takes precedence, guiding us to make



the right decisions. Competing in global markets requires more than just technology; it also demands brand trust, which is built by consistently aligning actions with our purpose and values.

Q. What has been your biggest learning in positioning ELGi as a credible global alternative to long established players?

One of the key learnings has been that brand trust must be earned consistently, one customer at a time. This takes time, especially in a B2B business, where a typical customer changeover cycle for compressors can be ten years. Competing with century-old incumbents in the global market reinforces that credibility comes from actions. It starts with doing the basics right: fulfilling commitments, restoring supply as promised, honouring warranties without hesitation, and delivering consistent quality across every job. Over time, these experiences build brand trust, and

this is how ELGi is steadily emerging as a global alternative.

Q. ELGi is known for putting customer trust above transactional gain - for example, prioritizing restoring air supply before billing. How do you institutionalize such values at scale across diverse geographies and teams?

This is a great question, and it ties directly to the purpose and values we discussed earlier. Saying we put customers first is one thing, but making it happen consistently at a global scale requires deliberate systems. We institutionalize this through clear policies that drive the right behaviour. For example, our warranty, uptime, and parts policies ensure consistent service standards. Coupled with training, performance reviews, and well-defined KPIs, these measures allow us to deliver a uniform, high-quality experience to customers, worldwide.

Q. Now, with investments in vocational training, education and capability building, how do you ensure ELGi not only attracts but also nurtures talent capable of leading global operations in the future?

To become a truly global company, we need global talent and leaders. That's why we invest in nurturing talent through multiple initiatives. I previously spoke about the ELGi Vocational Training School, which equips individuals with the right skills and values. In addition, we partner with educational institutes and run leadership development programs.

Our future leaders also gain cross-country exposure, helping them understand cultural nuances in different markets and customer expectations worldwide. The goal is to develop leaders who are globally competent while remaining deeply rooted in ELGi's values.

Q. Well, looking ahead, how do you see IoT, AI and predictive maintenance reshaping the compressed industry and where does ELGi plan to be in the digital transformation curve over the next decade?

IoT, AI, and predictive maintenance are redefining customer expectations around uptime, efficiency, and overall operational performance. For us, digital transformation is about giving customers peace of mind, lowering their total cost of ownership, and optimizing operational costs.

At ELGi, we are embedding connectivity, data analytics, and predictive service capabilities into our products. In fact, our current generation of compressors is already factory-fitted with IoT devices, enabling proactive monitoring and smarter decision-making for our customers.

Q. And finally, how do you merge the strengths of ELGi's legacy and tradition with the bold innovations, new markets and emerging technologies without losing the cultural identity that defines the company?

Our legacy is our foundation, built on customer trust, core values, innovation, quality systems, and an entrepreneurial approach. But this foundation has never become inertia for us.

Our customer-centric approach, whether it's offering lower total cost of ownership or ease of collaboration with channel partners, continually pushes us to embrace bold innovations. These innovations can take the form of new business models, products, services, and more. This mindset has enabled us to enter new markets, drive sustainability, and deliver breakthrough value propositions to our customers.

The balance lies in respecting our roots while continuously pushing

boundaries. We believe this approach defines who we are today and what will carry us forward. We simply need to keep innovating while staying true to our core values.

Q. Can you also tell us something about your R&D setup and the future plans?

All our product development happens at our headquarters in Coimbatore, catering to both Indian and global markets. Our approach to product development revolves around two key aspects:

- **Stated needs** – what the customer explicitly asks for, which we ensure are delivered and often exceeded.
- **Unstated wants** – needs the customer may not directly articulate but are critical for their success. For instance, our recent Demand=Match technology addresses such unstated needs, helping us stay ahead of customers and competitors across markets and product segments.

To achieve this, our R&D team focuses not just on the know-how, but on the know-why of the entire compressed air system. This deep understanding enables the team to deliver innovative products and technologies that support ELGi's global expansion.



Q. Recently you launched an innovative technology. So, how was it received in the market and what next to promote?

We recently launched Demand=Match, a transformative technology that

dynamically manages compressor capacity in line with factory demand. In any factory, demand constantly fluctuates, and Demand=Match ensures that a fixed-speed compressor delivers exactly what is required at any given moment. It achieves this by recirculating excess air that is not immediately needed, hence the name.

This technology is groundbreaking because compressors are a mature product category, and over the past 20–30 years, there have been very few transformative innovations. Developing Demand=Match required not just knowing how a compressor works but understanding why it works - a perspective that enables truly impactful innovation.

Trials have shown that this technology can deliver up to 17% energy cost reduction, offering significant value to customers. Demand=Match is patented, and looking ahead, we are working on several exciting new products, some of which will be patented in the future. Our goal is to continuously develop solutions that alleviate existing customer pain points and shape the future of compressed air technology.

Q. How has the market received this new technology?

Although this is a very recent development, the response has been extremely encouraging. Our pilot products have already generated excitement among the customers, and we are receiving strong interest and inquiries both in India and in international markets.

The initial feedback is very positive, and we are optimistic about the broader market response. Demand=Match represents a truly transformative innovation that is redefining the paradigm of fixed-speed compressors, and we are excited about the impact it will create in the months ahead. ■