

CASE STUDY

# Granules India Ltd.



**IFC**

**International  
Finance Corporation**  
WORLD BANK GROUP

*Creating Markets, Creating Opportunities*

## ABOUT IFC

IFC—a member of the World Bank Group—is the largest global development institution focused on the private sector in emerging markets. We work in more than 100 countries, using our capital, expertise, and influence to create markets and opportunities in developing countries. In fiscal year 2020, we invested \$22 billion in private companies and financial institutions in developing countries, leveraging the power of the private sector to end extreme poverty and boost shared prosperity. For more information, visit [www.ifc.org](http://www.ifc.org).

## WRITTEN BY

The case study was authored by [Juliette Powell](#) and [Art Kleiner of Kleiner Powell International \(KPI\)](#).

## ACKNOWLEDGMENTS

The case study was supported by Aliza Marcus, IFC Senior Communications Officer, and Brian Beary, IFC consultant, and designed by Scholastica Graphic Design.

## DISCLAIMER

The findings, interpretations, views and conclusions expressed herein are those of the author and do not necessarily reflect the views of the Executive Directors of IFC or of the World Bank or the governments they represent. While IFC believes that the information provided is accurate, the information is provided on a strictly “as-is” basis, without assurance or representation of any kind. IFC may not require all or any of the described practices in its own investments, and in its sole discretion may not agree to finance or assist companies or projects that adhere to those practices. Any such practices or proposed practices would be evaluated by IFC on a case-by-case basis with due regard for the particular circumstances of the project.

## RIGHTS AND PERMISSIONS

© International Finance Corporation 2020. All rights reserved. The material in this work is copyrighted. Copying and/or transmitting portions or all of this work without permission may be a violation of applicable law.




# Introduction

Granules is a middle-market company that has used investment and loans to fuel a major strategic expansion. While based in India, it has always been primarily oriented toward global customers, producing pharmaceutical formulation intermediates and tablets for pharmaceutical companies in the United States, Europe, and elsewhere in the world.

Granules has distinguished itself through two focuses: its creative process innovation and its operational effectiveness and continuous improvement. In many companies, there is a perceived tradeoff between these two practices. Granules sees them as reinforcing each other. It has also adapted team-based disruptive innovation models that are usually found in technology companies. These approaches have contributed to its success. Granules holds about 50 percent market share in the United States and a significant global market share for its top products: ibuprofen, acetaminophen, metformin and their combinations: products with a consumer need that will not go away.

The Granules story makes the case that middle-market, middle-sized scale-up companies can be an essential driving force in bringing prosperity to emerging economies. These companies are the providers of goods and services from which innovation comes, often targeted to industrial or commercial niches that larger enterprises overlook. They may provide opportunities for employment that are well-suited to their locales. They are often flexible and resilient, and they have distinctive business personalities that reflect the attitudes and predispositions of their founding families. They may also be audacious enough to take on a global customer base and purpose. In short, they may be like the Granules India Ltd.

In this case study, we look at the factors that have led to Granules' successes. We also explore the ambitions and context that have led its leaders to position themselves for rapid global expansion, after 30 years of steady growth.



“We are not looking at treating pollution.  
We are looking at creating no pollution.”

—Krishna Prasad Chigurupati

## We Interviewed Six Leaders Associated with Granules



**Krishna Prasad Chigurupati** is chairman and managing director of Granules, which he co-founded in 1984 as a paracetamol manufacturing facility. He is a co-founder of KRSMA Estates, one of India's premier boutique wineries.



**Uma Devi Chigurupati** is executive director of Granules, and a cofounder with Mr. Chigurupati. She oversees the company's corporate social responsibility and human resources activities. She is also the director of KRSMA Estates.



**Priyanka Chigurupati** is executive director of Granules Pharmaceuticals Inc., overseeing the U.S. generics business. She plays a variety of roles in the United States and in India, including investor relations.



**GSR Prasad** is chief operating officer for Granules global business. He has more than 30 years of experience in pharmaceutical operations, including two terms at Granules—one in the 1980s at the start of his career, and one as a senior executive starting in 2017.



**Jaiashokan (Jai) Velusamy** is chief operating officer for Granules Pharmaceuticals Inc, based at its Chantilly, Virginia, location.



**Pushpinder Bindra** is a life sciences specialist with the International Finance Corporation (IFC). He is also the CEO of Zenith and Beyond, an advisory firm to the pharmaceutical and API industries.

# Lessons from the Granules Story

1

**Foster an Innovative Culture:** Granules has introduced some of the most influential manufacturing and operational innovations in the generics pharmaceutical industry. It excels in adapting ideas from other large-scale manufacturing industries to expand and enhance its pharmaceutical operations, while maintaining regulatory compliance.

2

**Practice Rigorous Operational Discipline:** Like the Japanese auto industry in the 1970s, Granules has turned efficiency and operational effectiveness into a baseline for growth. For innovative companies, especially those with variable margins, frugality of this sort provides a safety net: it makes large investments less risky.

3

**Expand Strategically: Find Your Niche and Take it to Global Scale:**

Granules is a global company, serving mainstream or generic pharma brands in the U.S. and Europe. To avoid overreach, it has operated within deliberately chosen constraints. At first, Granules limited its growth to a few well-established compounds, and then, it scaled operations through a carefully delineated series of manufacturing innovations

4

**Promote Your Workforce as Learners:** Granules takes care to help its employees raise their quality of life. When it hires engineers, it trains them in the entire manufacturing life cycle, making them much more versatile, employable, and committed to quality than they would otherwise be. And for the factory floor, it has pioneered an extensive life-skills program that helps high school graduates in rural India build a career path to a middle-class life.

5

**Lean into a Crisis:** The Granules response to the COVID-19 crisis was immediate. It took steps to protect the workplace environment, guarding employees against contagion and it ramped up manufacturing activity, so that it could help its customers meet the rising demand for pharmaceuticals during the pandemic.



## Granules at a Glance

<b>Years in Business</b>	36 (founded in 1984 as Triton Laboratories in Hyderabad)
<b>Revenues</b> (Year Ending FY 2020)	INR2600 crores (US\$356 million)
<b>Profitability</b>	20 percent EBITDA margin (FY 2020)
<b>Websites</b>	<a href="http://Granules India">Granules India</a>
<b>Corporate Governance</b>	Granules India Ltd. is a publicly traded company
<b>Investment History</b>	US\$20 million in IFC-originated loans before 2011 (repaid by 2020); \$6 million in equity investment (exited 2014); 2017 investment \$2 million; Euro 47 million in 2017
<b>Social and Environmental Results</b>	Granules continually seeks a zero-waste environmental footprint, and has graduated about 450 youths through its Self-Development Teams life skills recruitment-and-learning program.
<b>Workforce</b>	Granules employs 2,165 people at 8 manufacturing sites
<b>Geographic Footprint</b>	Production in India and the United States (Chantilly, VA); sales in more than 75 countries
<b>Business Model</b>	A vertically integrated pharmaceutical company, headquartered in Hyderabad, India. Granules manufactures active pharmaceutical ingredients (APIs), pharmaceutical formulation intermediates (PFIs) and finished dosages (FDs), distributed to quality conscious customers in both regulated and semi-regulated markets. It has three main businesses: the core business of basic ingredients and PFIs: paracetamol, ibuprofen, metformin, guaifenesin and methocarbamol; the emerging business that focuses on manufacturing APIs for customers with vertical integration; and a contract research and manufacturing business. As of December 2020, Granules had a total of 35 Abbreviated New Drug Application approvals from the United States Food and Drug Administration; the latest, on Dec. 3, was for penicillamine capsules.

# Lesson 1: Foster an Innovative Culture

Granules is one of the most consistently innovative companies in the generic pharmaceutical industry. It has built its business and reputation around developing new ways to manufacture pharmaceuticals and related products. Most tablets and other pharmaceuticals are made from a mix of APIs, or active pharmaceutical ingredients. These are the materials, some with therapeutic value and others used to stabilize the mixture, that are combined into powders and then processed into tablets.

Granules founder Krishna Prasad Chigurupati is credited with building a business around new ways of producing pharmaceutical formulation intermediates (PFIs) at large scale and with maximum efficiency. A PFI is a premade mixture of APIs and excipients, which are inactive ingredients such as preservatives and fillers. A PFI is to regular pharmaceutical production what a cake mix is to baking a cake from scratch: a step-change in time savings and consistency. These compounds reduce tablet manufacturing costs by eliminating the time-consuming and energy-intensive early stages of production, allowing pharma manufacturers to save on capital and operating costs, and increase their capacity.

The processes pioneered by Granules enabled PFIs to be produced in much larger batches than before, with several APIs combined in one tablet, and in "ready-to-compress" forms that were easier for manufacturers to work with. In 2006, when the United States Food and Drug Administration approved the first PFI, which was for metformin hydrochloride tablets, prescribed for type 2 diabetes and produced by Granules, one trade publication predicted, accurately, that it would "revolutionize the conventional pharmaceutical manufacturing model."

Because the initial investment required by large-scale PFI manufacturing is high, very few other manufacturers have followed Granules' example. The company's founder, Krishna Prasad Chigurupati, and the company's chief operating officer, GSR Prasad, describe the original innovative leap of faith that led to years of stable, profitable growth:

▶ **Krishna Prasad Chigurupati (CEO):** *We started about 35 years ago as an API manufacturing company. We were manufacturing acetaminophen. Within a year of starting up production, we got our first business from the U.S.*

*Then in 2005 we took a big leap and started a huge granulation facility in Hyderabad. I took the least trodden path, with the concept of PFIs. Customers would travel from the United States to see how we were able to make such big batches. It differentiated us.*

▶ **GSR Prasad (COO):** *I joined Granules in 1998, after working elsewhere in pharma manufacturing. Krishna was already planning to build one of the biggest granulation facilities so that no one could compete with us in pricing. I listened, and said, "Let's go with 3,000 Tons batch size."*

*He said, "No, let's go with 8,000."*

*I nearly fell off my chair. I knew of no other company with a larger blender than 2,000. I asked if it was possible and he said we should find out. We went to a structural design professor at a local university, who helped us design a 16,000-liter blender, which would get us up to 6,000 kilos. We reached out to a small company who built it for us. Then we tested it, and it collapsed after one hour. So, we went back to the professor to rework the specs, redoing the design until it worked. By the year 2000 we had three blenders of that size.*





*This is a classic example of advantage through innovation. With a bigger [batch] size, our customers don't have to [do batch changeovers] as often. They save on [quality testing], because they only have to test each batch once. It makes us very competitive on price.*

As Granules continued to invest in innovation, its leaders developed a reputation for pragmatic solutions to problems others didn't recognize. They borrowed techniques from other industries, as GSR Prasad and Priyanka Chigurupati, the company's executive director, explain:

► **GSR Prasad:** *The conventional granulation process is tricky because it involves multiple steps that cannot be compressed: sifting material, mixing it, adding liquid binders, milling, drying, and then further milling. But in laundry detergent manufacturing, they use a simpler approach called fluid-bed process. It requires much less energy and is lower-cost in general, so we adopted it.*

*We also adopted the continuous coating process that Cadbury uses to create its sugar-coated GEMS chocolates. We adopted the vacuum-based automated handling systems that the chemicals industry uses for handling metals. We brought in gravity-based production lines, so that we don't need individuals to scoop material from one part of the process to another.*

► **Priyanka Chigurupati (Executive Director):** *The rest of the pharma manufacturing industry has not experimented with methods like these. In some cases, we have bought companies with unusual technologies so that we could apply their expertise.*

Since 2017, with the support of IFC, Granules has increased its innovation investment, seeking to take advantage of new technologies and stay ahead of its competitors. Krishna Prasad Chigurupati explains:

► **Krishna Prasad Chigurupati:** *IFC came in at the right time with the right ideas. They even taught us how to structure our balance sheet. Today, we are entering into a new area of the pharmaceutical business. The technology is becoming more specialized and profitability will be different. We need to prepare for this; we are looking at more sophisticated technologies for smaller volumes of more personalized medications, and at new types of pharmaceuticals like injectables. We are also moving forward into manufacturing some of the ingredients we currently purchase, so that we are less dependent on outside suppliers. Even though these are long-term investments, I believe they will pay off.*

Krishna Prasad Chigurupati and the other Granules leaders have cultivated the leadership quality that business author David Epstein calls "Range": these leaders are polymaths, able to delve deep into a subject but also to explore multiple subjects. Krishna and his wife and cofounder Uma Chigurupati, for example, also founded one of India's boutique wineries, KRSMA Estates which was included in the prestigious 2020 World Top 50 list of wineries.

Pushpinder Bindra, IFC's lead life sciences specialist, reflects on Krishna's approach:

► **Pushpinder Bindra:** *The global pharmaceutical industry has traditionally been very conservative. A lot of over-the-counter drug manufacturers don't even think it is worth trying to change. But Krishna is a very passionate man. He is always looking for new ideas.*

Chief Operating Officer GSR Prasad describes how these personal qualities have had an impact throughout the company's culture:

► **GSR Prasad:** *(Krishna) listens closely. He gives people a free hand to do their job. He gets involved in the business day-to-day but he does not do micro level management. His focus is always on bringing the company and people to the next level. And because of this, everyone in the company has the same focus.*



## Lesson 2: Practice Rigorous Operational Discipline

Like the Japanese auto industry in the 1970s, Granules has parleyed efficiency and operational effectiveness into a baseline for growth. It's not just a matter of saving pennies; it's a matter of building market leadership through the frugal use of all resources. For innovative companies, especially those with variable margins, frugality of this sort provides a safety net: it makes large investments less risky.

Jai Velusamy, chief operating officer of the company's US division based in Chantilly, Virginia, describes the culture of operational discipline at Granules:

► **Velusamy:** *Efficiency is in our DNA. It is what Krishna preaches every day. He challenges us to make improvements on a daily basis. We know this will lead us to create our own disruptive technologies. That's what we believe in. And that ethic is very exciting to work with and learn from.*

*The practice of continuous improvement assumes that perfection is not attainable all at once, but that by reducing waste and improving throughout, day after day, a company can reach a level of activity that is close to perfect. Then you improve from there.*

Two operational leaders describe the way Granules brings this concept to life:

► **GSR Prasad:** *We work in a very systematic, organized way, starting with the operators on the factory floor, moving up the hierarchy. There is a weekly review meeting in every department, where people go over the production, shipping, and logistics of the week. There are monthly board meetings where we consider all this data, and plan for improvements for the next month. The board also participates in review meetings that include new product plans and financials.*

► **Priyanka Chigurupati:** *We look at literally every single cent that we save through operational improvement. We know of a couple of companies that tried to follow our practices and didn't have the patience to stay with it. Can it (replication of our innovative processes at scale) be done? Maybe, but not in the short or medium term.*

Operational excellence is also closely tied to environmental practice:

► **Krishna Prasad Chigurupati:** *Whenever we think about a new product, we start by looking at reducing the carbon footprint that it's going to create. This leads us to more efficient technologies: maximum conversion of products, best reactions, and no waste. Hence our costs also go down. We are not looking at treating pollution. We are looking at creating no pollution.*

“Granules hit the jackpot because Krishna just stuck to his knitting.”

—Pushpinder Bindra



## Lesson 3: Expand Strategically— Find Your Niche and Take it to Global Scale

Granules has always sold to a global pharmaceutical market: typically, large mainstream drug manufacturers in the U.S. or Europe. Granules has expanded in strategic ways, looking for new products or services that would differentiate it against competitors. Much of this expansion, starting in the mid-2000s, took place with several rounds of debt and equity financing organized by IFC. This established a steady growth trajectory and a close working relationship between the enterprise and IFC. As CEO Krishna Prasad recalls:

► **Krishna Prasad Chigurupati:** *Right from day one, our objective was to be a global company. That's what led us to the U.S. market. But I was not in a rush to grow too quickly. Life was going on. We were not too aggressive.*

*And demand for our products rose after we introduced the PFI process in 2005. IFC offered to give us a loan, but they said that if we wanted to make our business healthy, we needed equity—cash with more liquidity that we could use more easily for expansion. They taught us how to structure our balance sheet, and very quickly, we got into a good investment of \$5 million each from three hedge funds. That was a turning point.*

Granules gained a significant percentage of the global market in three key PFIs: ibuprofen (the anti-inflammatory used in painkillers like Advil), paracetamol (used in Tylenol and similar products), and metformin (a prescription drug that lowers blood sugar and is used to treat type 2 diabetes).

The resulting build-up of Granules' manufacturing capacity put it in a category of company known as "scale-ups": medium-sized enterprises that sustain themselves financially by steadily expanding their business, seeking deliberate, incremental growth.

Because its R&D and operations teams worked closely together, Granules was nimbler than many of its competitors, particularly when it came time to expand the manufacturing portfolio. IFC strategic advisor Pushpinder Bindra explains:

► **Bindra:** *Granules hit the jackpot because Krishna just stuck to his knitting, which is a contrarian strategy for the Indian pharma industry. Most of his competitors diversified—they went to the U.S. or Europe, or they introduced a wide portfolio of formulations. But Granules had a very small portfolio. It had large enough volume in that portfolio that it could control the market. It had clients who had been there for many years; some of them since day one. They listen to each other.*

► **Krishna Prasad Chigurupati:** *But we saw that some companies that started along with us in the 1990s were now maybe 20-50 times our size today. We decided the time had come for us to grow more rapidly.*

Granules' track record in process innovation, combined with changes in pharmaceutical logistics, suggested that the company could embrace a more accelerated strategic focus, following a wider range of opportunity. This would help compensate for the leveling off of the basic compounds business. In 2017, the CEO expressed concerns about becoming stuck as a commodity producer:

► **Bindra:** *On one of my visits, Krishna asked me how much more I thought Granules could grow with its current product line. The average growth per year in the three main products had slowed to less than six percent.*

*I said, "Look, Krishna, you have strength in your top products. They've been top sellers for 50 years and they'll continue for another 50. Why don't you leverage that strength?"*

The resulting growth wave took advantage of Granules' innovative use of manufacturing technologies, its operational skill, and its unusual acumen for combining those two qualities. It also pivoted in recognition of the trend, in the pharma industry, toward more rapidly-changing, smaller-volume, medications.

As part of its strategy, Granules opened a new facility in Chantilly, Virginia to produce higher-margin medication ingredients, especially Extended Release Controlled substances, which cannot be imported into the U.S. These quotes reflect the new strategy that guides Granules:

▶ **Krishna Prasad Chigurupati:** *I personally took some of the risk. I pledged my shares to raise our loan from IFC. I put that money as equity into the company. That really triggered fast-track growth.*

▶ **Priyanka Chigurupati:** *Chantilly is not just a high-end manufacturing site. It mixes production of our high-volume products, as produced in India, and the differentiated higher-margin products for the U.S. market—which we must*

*produce in the U.S. because many of them are prescription drugs or are otherwise subject to stricter regulation.*

*We don't want to be just a large volume player. We need some other differentiated products that also give us a good amount of topline.*

Granule's current wave of expansion, if it continues to be successful, suggests that medium-sized growth companies, scale-ups, play a primary role in the economic development of emerging economies. Support for these kinds of enterprises may be especially critical in a world of video business connections and more diverse enterprises. Priyanka Chigurupati agrees:

▶ **Priyanka Chigurupati:** *It's rapidly-growing medium-sized companies like ours that make an economy strong: especially companies that focus on business niches and become an indomitable force in their field. I think you'll see many Indian companies growing from medium to large size status this way—if not now, then within the next couple of years. I think that will make India a force to reckon with tomorrow.*

## Lesson 4: Promote Your Workforce as Learners

Granules does not rely on social responsibility as a major part of its branding. But its leaders have made a strong and direct commitment to helping employees raise their quality of life, in several domains, as part of their culture. Its hiring and development strategy for technologists, for example, has established Granules as a place where people can gain proficiency and versatility throughout their careers, equipping them for broader success at Granules or elsewhere. Velusamy, the COO for Granules in Chantilly, Virginia, explains:

▶ **Velusamy:** *One unique thing that we have done, in India and the U.S., is emphasize practical training for the pharmacologists, chemists, and engineers we hire. Practical training is seriously lacking in this industry. The academic institutions are more focused on clinical knowledge.*

*So for example, after some time in the innovation lab, we might move our R&D recruits to method validation and quality control. This gives them a breadth of understanding of the whole lifecycle, including product design. So when they are*



*developing or validating a method in the lab, they're also conscious that, "OK, this product will be commercially applied on a daily basis."*

Granules has also invested significantly in the future prospects of its employees, many of whom are young secondary school graduates from rural villages in India. Its learning and development program, called the Self Development Teams (SDT) program, is designed to give its factory workers the skills and encouragement they need to make the transition from subsistence to the middle class. As of 2020, about 450 people have gone through the program. India is one of the world's demographically youngest countries, and programs like this are examples of the kind of difference a business can make in a focused way.

Co-founder and board member Uma Chigurupati describes how this program originated and how it works:

▶ **Uma Chigurupati:** *Many of the factory employees are about 18 years old; we hire them from rural areas. They are often working to support their families as well as themselves. They*

*are not always confident in their life skills or English-language proficiency, and they may not have many opportunities for employment later in life. So we decided to create a more dedicated education for them that would serve them while they are working for us and later.*

*When they are first hired, we send them to a four-month residential program with a corporate college near our Hyderabad location. We train them in the practices needed at our factories, in life and computer skills, and in English.*

*When they start working, they join a program called Learn While You Earn, in which they move to on-the-job training. They join teams, and you can see them expand their horizons. We have open houses every three months, when parents come in from rural areas to see what their kids are doing. I often burst into tears when I see how these students are shaping up. Our HR department is then involved in promoting them and bringing them to different levels; for example, many graduates of this program lead teams within a few years of joining us.*

## Lesson 5: Lean in to a Crisis Like COVID-19

When the coronavirus pandemic struck, Granules was affected in several ways. Like all other businesses in India, it had a workforce coping with fear, sudden changes and lockdowns. Through rapid organization and other measures, it was able to maintain operations in India and the U.S., without losing any days of work. These quotes describe how Granules navigated the crisis:

▶ **Krishna Prasad Chigurupati:** *COVID has brought us lots of challenges. We never stopped work, even for a day. We took a lot of precautions. We hired hotels and housed our employees there. We reserved more than 50 beds in local hospitals, so that when our people felt*

*sick there was a place for them to go. Everybody was working 12-hour shifts.*

*The indoor cafeterias had to be dismantled; we served food on the lawns so that people could keep their distance from each other.*

▶ **GSR Prasad:** *We recruited an agency to counsel our employees, and as company leaders, we all came to the factories ourselves and provided the resources that were needed. For example, in Hyderabad, we increased the number of busses from 15 to 40 so that we could maintain social distance. We changed the shifts from 8 to 12 hours and paid double for the overtime. And we*

*started testing the temperatures of each individual, and created an environment where people did not have to work close to each other.*

Granules put some projects on hold, but it maintained its growth trajectory. As a tablet and medication producer, it was called upon by many of its customers to expand operations. For example, sales of Tylenol and other painkillers have gone up.

► **Krishna Prasad Chigurupati:** *We actually did well financially and performance-wise. We increased our production capacity by almost 35 percent. We started to build a specialized drug manufacturing facility, which should be complete by mid-2021.*

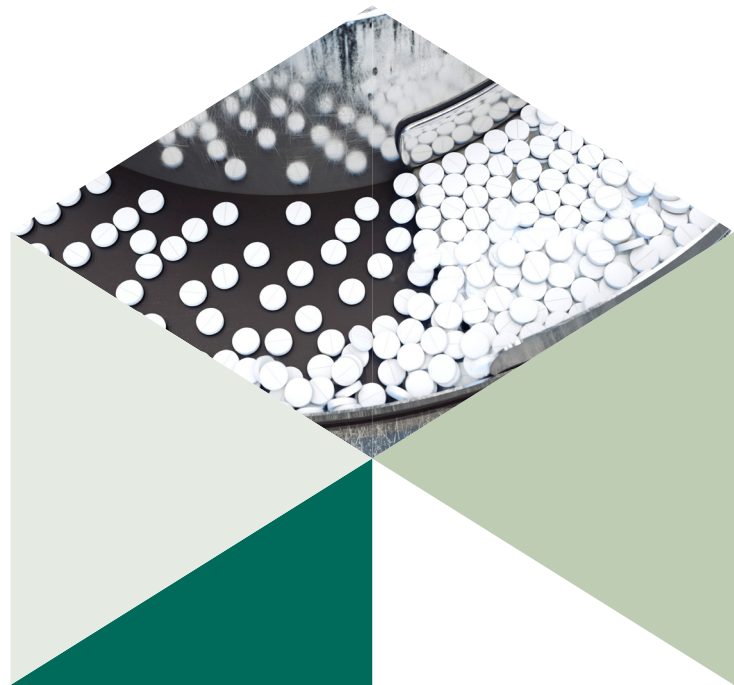
► **GSR Prasad:** *During the COVID time, we did our highest level of production. We saw the*

*increased volumes and could not say no. We rolled out one facility in North America that went from finding the site to being operational in 90 days. Normally, this does not happen. It was as if things were on a war footing basis: very focused, and fast-tracked.*

► **Velusamy:** *We have always planned for worst case scenarios, but with COVID, we learned that we have to plan for many different challenges. There can be materials shortages, or logistics problems, or sudden demand. One surprise was the second bag – a part of the packaging for our material that we usually take for granted. The manufacturer assured us that they would have supplies for us, but they ran short. Luckily, we had anticipated this might happen, and we had found a second supplier.*

“Efficiency is in our DNA.  
It is what Krishna preaches every day.”

—Jai Velusamy



## Conclusion

It's telling that the leaders of Granules see their company as one of many innovative middle-sized companies in India, poised to help take their country into global business leadership. As supply chains around the world decentralize and move away from reliance on any particular country or region, the ability of middle-market enterprises to fill the gap will be all the more important. The Granules example shows how that can be done, through the combination of ingrained innovation and operational excellence.

The culture of the company is at once matter-of-fact and aspirational. The leaders make a commitment to excellence in everything they do—from pharmaceuticals to wine making, and to their employees' learning and development. As a result, they have introduced some of the most influential manufacturing and operational innovations at scale in the generics pharmaceutical industry. Having shown that they could maintain growth during the Covid-19 pandemic, Granules is now potentially positioned as an enterprise of significance in the years that follow, both for their industry and their region.



# STAY CONNECTED

WEB

[www.ifc.org/health](http://www.ifc.org/health)

LINKEDIN

[www.linkedin.com/company/ifc-health](http://www.linkedin.com/company/ifc-health)

TWITTER

**#ifchealth**





*For more information about IFC's  
investments in health please contact:*

**Elena Sterlin**

Global Manager, Health and Education

Email: [esterlin@ifc.org](mailto:esterlin@ifc.org)

Washington, D.C., USA

**Chris McCahan**

Global Lead, Healthcare

E-mail: [cmccahan@ifc.org](mailto:cmccahan@ifc.org)



*Creating Markets, Creating Opportunities*

2121 Pennsylvania Avenue, N.W.

Washington, DC 20433

Tel. 1-202-473-1000