

# Granules India

A world leader in pharmaceuticals pushes for a sustainable future

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India is the largest provider of generic drugs globally. Indian pharmaceutical sector supplies over 40% of generic demand in the US and 25% of all medicine in the UK. Globally, India ranks 3rd in terms of pharmaceutical production by volume and 14th by value. Indian pharmaceutical exports stood at US\$ 20.70 billion in FY20 and US\$ 24.44 billion in FY21. As per the report published by India Brand Equity Foundation, Indian Pharmaceutical industry is expected to reach US\$ 130 billion by 2030.

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Incorporated in 1984, Granules India Limited is one of the largest integrated pharmaceutical manufacturing companies in India. In the business of manufacturing quality medicines for the last 38 years now, Granules has a strong presence in key markets across the globe, supplying Active Pharmaceutical Ingredient (API), Pharmaceutical Formulation Intermediates (PFI) and Finished Dosage (FD). The companies competitive advantage comes from being vertically integrated, with seven large API & FD manufacturing facilities in both US & India and strong research and development capabilities.

Over the years, Granules has built a strong foundation with API manufacturing and has expanded its portfolio that include PFI and finished dosages. Granules has also successfully widened its global presence in regulated markets around the world.

Started with a single API unit in 1984, to produce Paracetamol, Granules today is amongst the market leaders in each of the medicine it manufacture like Paracetamol, Metformin, Guaifenesin, and Methocarbamol. The company has the world's largest & single site FD facility with industry leading batch size of 6.05 MT.

**DR KRISHNA PRASAD CHIGURUPATI, CHAIRMAN & MANAGING DIRECTOR GRANULES INDIA LTD., PIONEERED THE CONCEPT OF COMMERCIALIZING PHARMACEUTICAL FORMULATION INTERMEDIATES (PFIS) AS A COST-EFFECTIVE PRODUCT FOR GLOBAL FINISHED DOSAGE MANUFACTURERS.**

The manufacturing of PFIs involves taking Active Pharmaceutical Ingredients and adding excipients to make a proper blend for the finished dosage. Even after the demand existing there weren't many manufacturers of high volume PFIs. Dr Krishna Prasad identified the opportunity and with his passion for innovation tried bridging the demand gap.

This global success also led to a product innovation in the industry. He was the first to convert Paracetamol into a pharmaceutical formulation Intermediate. This innovation made tablet manufacturing at a scale far cheaper and over time large pharmaceutical companies in the US and Europe came to appreciate the value in this new approach. He was able to create a new trend in pharma manufacturing and today Granules has extended this idea to other APIs leading to great success.

Pharmaceutical Industry thrives on innovation, entrepreneurship, and unconventional thinking and Dr Krishna Prasad Chigurupati, induced it in Granules DNA. Today, the company's success is based on pillars of Scale, Cost leadership, Innovation, Manufacturing Excellence, and Vertical Integration. This has given Granules the recognition across the world as the most cost-efficient pharmaceutical manufacturer.

The Covid pandemic has impacted the economy, government, and businesses in lasting ways. These changes whether induced by the pandemic, supply disruption and climate change, or induced by advances in Science and Technology, has presented a unique opportunity in this disorder. The

global companies are looking for reliability, robustness, and sustainability in their supply chain, and are seeking alternate options to mitigate the risks from the Pharmaceuticals and Chemical Industry.

Granules will strongly focus on enhancing its sustainability and its green commitments, which are at the very heart of its corporate identity. The company sees sustainability as not only an ethical imperative, but a "strategic lever" for growth going forward.

"We are driven by the objective of delivering quality and affordable medicine by being responsible and adopting measures that can provide sustainable growth," says Dr Krishna Prasad Chigurupati, Chairman & Managing Director Granules India. Commenting on the price rise and shortage in the availability of key starting materials & API, Dr Prasad said, "In the current scenario we need to focus on manufacturing our own low-cost APIs through innovative ways. We are now identifying basic materials that are freely available and want to move all the way to APIs cutting down on the intermediates or minimizing to the extent possible. Use of differentiated technology like flow chemistry, biotransformation, fermentation etc are in use in other industries except pharma. Significant advancements were made in these technologies and can be of use for the pharmaceutical industry to reduce the costs. Going forward Granules will adopt these technologies to minimize the cost and be self-sufficient. We will be coming up with efficient processes using these technologies that can minimize the carbon footprint right from raw materials



**Krishna Prasad Chigurupati**  
Chairman and Managing Director

to the finished dosage. I dream of a day where the product we manufacture will have a carbon score on the label.”

GRANULES HAS INITIATED ITS ENVIRONMENTAL, SOCIAL, AND GOVERNANCE (ESG) JOURNEY BY ADOPTING A LONG-TERM STRATEGIC PLAN, INSPIRED BY THE UN'S SUSTAINABLE DEVELOPMENT GOALS AND INDIA'S NATIONAL GUIDELINES ON RESPONSIBLE BUSINESS CONDUCT. DR PRASAD COMMENTING ON THE COMPANY'S ESG JOURNEY SAID, "THE WORLD IS MOVING TOWARDS SUSTAINABILITY, BEING ENVIRONMENTALLY CONSCIOUS AND DOING BUSINESS IN A RESPONSIBLE MANNER. WE FIRMLY BELIEVE WHAT IS GOOD FOR THE SOCIETY, IS GOOD FOR GRANULES AS WELL. WE ARE IMBIBING SUSTAINABILITY IN OUR DESIGN, AND IT WILL BE REFLECTED IN OUR PROCESSES, PRODUCTS, AND OUR FACILITIES IN THE FUTURE."

Granules strive to reduce the carbon footprint comprehensively across all its activities and aspires to become not just carbon neutral but carbon

negative status in the years to come.

As a first step towards the change, Granules is committed to reduce the use of fossil fuels like coal, petroleum, natural gas and use renewable energy or green energy instead. Cutting down on the energy needs and adopting renewable energy can bring the cost of manufacturing, improve efficiency, and reduce pollution. The aim is to have clean reactions during manufacturing processes that will not pollute the atmosphere, minimize the emission and improve solvent recoveries. Efficient waste management measures will be adopted at the manufacturing facilities such as Carbon sequestration by converting wastelands into carbon capturing sinks. Commenting on use of green energy Dr Prasad said, "The scenario of global warming and water levels raising is scary and this brings a sense of urgency to cut down on the carbon emission. We are making our manufacturing facilities as carbon efficient as possible by brining energy efficiencies. We are working on green energy and will be partnering with companies that will help us providing storage solutions and provides 24hrs energy access to run our plants." With innovation and use of emerging technologies in the areas

of Renewable energy, Heat, Emission, Waste and Water management, Granules will strive to reduce their carbon footprint.

In our journey towards creating a viable future with everyone having an access to affordable medicine, Granules is focused in enchasing the R&D infrastructure and scientific competence. DR Prasad commented on R&D spending and innovation said "We are taking a leap to transform our business to the next level. The new version of Granules will be built with the focus on R&D, Technology and Sustainability, and will be investing in R&D infrastructure, scientific talent, and partnerships in science & technology, which will lead to sustainability, leadership position, and backward integration. The R&D initiatives will broaden its capabilities, leading to increased focus on quality of our portfolio and higher regulatory filings." Granules will be leveraging the advances in the areas of IT and digital tools to bring transformative value by reimagining the business processes through a Digital Transformation Roadmap in its plan.