

# Innovation and technology to spur greater breakthrough

We have been at the forefront in terms of leveraging technology for product innovation, creating new efficiencies and driving business growth sustainably. This year, too, we continued to invest in digital technologies, security systems and advanced analytics to create immersive customer experiences, add to our operational excellence and facilitate decision-making.

### Strategic focus areas

Automation and digital interventions  
Product diversity and environment friendly products and processes

### Key material issues

Technology, innovation and digitalisation

### SDGs impacted



### FY 2021-22 key highlights

**29**  
New products launched

**22**  
Patents filed

**₹ 92.5 Crores**  
Spent on Research and Development

**₹ 67.5 Crores**  
Investment in Information Technology

### Interlinkages to other capital



## Research and Development

Asian Paints' Research & Technology is a purpose-driven team bringing about consistent breakthroughs in product innovation besides strongly partnering with all other internal stakeholders to create value for the overall organisation. We continue to make investments in modern instrumentation pertaining to analysis and characterisation of raw materials and finished products, enabling innovation of unique solutions for consumers and development of cutting-edge technologies.

### Innovation Journey

We have a Technology Council comprising eminent external experts with diverse backgrounds which advises our Research & Technology function on long-term capability development and the creation of futuristic platforms. During the year, we associated with two eminent scientists in the Technology Council. The focus has been to develop differentiated products which are new to the industry in India / world to maintain our innovation quotient and technological edge in the market. While developing new products, R&T considers the ESG framework adopted by the Company.

This year, R&T undertook 16 innovative projects across various product lines by adopting the breakthrough project methodology, which enables us to work backwards, first visualising and finalising the expected outcome at the end of a definite period. This is followed by defining the intermittent milestones required to achieve the same. This has led to reduction in lead time required from ideation to launch new products in the market. In FY 2021-22, we continued the initiatives by taking up new projects under 'Dhoomketu', whereby we developed six products under various product categories viz. water proofing, textured coating, exterior coating, premium interior finish and floor coating. We continue to focus on reducing our carbon footprint through design optimisation and process efficiency with no compromise on performance properties. We have also initiated a new project, termed 'Srijan', consisting of six breakthrough products.

Over the years, we have built a strong framework and processes around it to ensure that the new decorative products developed are in compliance with constituents notified in the Rotterdam and Stockholm convention. We have also adopted the Globally Harmonised System of Classification and Labelling of Chemicals for generating safety data sheets of products manufactured by us. These are being done with advanced and well-established IT enabled platforms. All the new products developed this year went through these stringent impact assessment processes, ensuring that the impact on human health and environment are minimal.

### New Products

During the current year, a major focus on developing new products was to meet evolving customer needs, reduce environmental impact and create differentiated products through enhancing durability and aesthetics. 29 new products were developed for architectural paints, construction chemicals and adhesives business during FY 2021-22.

**We continue to focus on reducing our carbon footprint through design optimisation and process efficiency with no compromise on performance properties.**

**16**

Innovative projects undertaken by R&T function

**200+**

Scientists driving innovation



Intellectual Capital

**Intellectual Property**

With a focus on Intellectual property (IP), we continue to look at opportunities to create patents on critical technologies, many of them exploited for commercial benefit. As many as 96 patents were filed out of which 39 patents have been granted. Three of them were granted in foreign jurisdictions, namely the US and Europe. In FY 2021-22, 22 patents were filed and 17 patents were granted.

We are expanding our innovation footprint by participating in national and international technology competitions. During the year, three papers were published in international journals and four papers were published in National Journals.

**17** Patents granted during the year

**7** Papers published during the year

**Product Certifications**

We launched three new products under the 'Green Assure' voluntary green standard viz. AP Ultratex, AP Flextex and Royale Glitz. With these additions, the 'Green Assure' promise now includes 30 products, three of which are certified by US Green Seal.

We have also taken the initiative to get Greenpro certification, the national green standard developed by CII encompassing multiple environmental indicators, for the majority of the architectural paints. Certification process has been completed for 187 decorative paints as at 31<sup>st</sup> March 2022.

The National Accreditation Board for Testing and Calibration Laboratories continue to accredit the R&T Centre.



Asian Paints R&T Centre at Turbhe, near Mumbai, Maharashtra (India)

**Product Safety**

The R&T Team and Corporate Quality and Safety (CQS) Team are constantly in touch with regulatory bodies such as European Chemicals Agency (ECHA), US Environmental Protection Agency (EPA), Ministry of Environment and Forests (MoEF), Bureau of Indian Standards (BIS) and Building Performance Database (BPD) to get a first-hand information on upcoming regulations and restrictions on usage of chemicals or change in classification of chemical substances. Following the reclassification of styrene, we have taken steps to control the free styrene content in emulsion polymers that are produced in-house. According to internal guidelines, there is a restriction on the usage of any material classified as Class 1A or 1B carcinogen, mutagen or reprotoxin or composition containing the above with >= 0.1%. Styrene, which was not in this category for many years, has recently been classified as Carcinogen 1B. As a risk mitigation measure, we are ensuring that free styrene in our in-house polymer is < 0.1%. For all purchased styrene-based emulsion polymer, free styrene content is made part of the specification with an upper limit of 0.1%. Appropriate controls to keep this under check has also been put in place while purchasing emulsion polymers from other sources. Each new and alternate raw material introduced is thoroughly screened for its impact on employee and consumer safety and well-being, as well as its impact on the environment.

**Information Technology**

We have always been on the forefront in terms of leveraging technology for the business. This year too, we continued to invest in digital technologies such as AI, ML, Robotic Process Automation (RPA), security systems and advanced analytics. They have been used to create immersive customer experiences, improve the operational productivity and aid better decision making.

**Improving IT Resilience**

With ever increasing technological requirements, we constantly are in the process of modernising our infrastructure, and refresh the hardware at our DC & DR setup. One of the key steps undertaken is on enhancing our information security processes through installation of intrusion detection system, segregation of manufacturing plant firewalls, enhancing data security through data leakage protection among others. We have modernised our DevSecOps practices by adopting CI/CD framework for application development. This also includes streamlined application change management and version management process through proprietary tools. The SD-WAN (Software Defined Wide-Area Network), which is used for managing networks across locations, is now cloud managed for increased resilience at the network infrastructure level. External benchmarking has been done on our cyber program maturity, and we are at par as per relevant industry standards. We also plan to improve further on areas based on benchmarking exercises.

**Digital Interventions enabling Business**

We have continued to develop our creative edge in a highly competitive industry by investing in cutting-edge technology in accordance with global trends. We employ design thinking to connect with our consumers' evolving tastes.

At Asian Paints, customer is kept at the heart of everything that is being done. All innovations are conceptualised and implemented with the end goal in mind: a superlative customer experience. With the focus on Décor, we have enabled digital journey for our customers at our new Beautiful Home Stores. We have also enabled Beautiful Home Service (end-to-end Interior Design services) using technologies for digital lead management and 3 D visualisation for interior design consultants and a digital execution platform to enable execution service as well.

One of the projects, TATPAR, undertaken during the year included the launch of an application which modernises customer support, optimises field service operations, and offers seamless customer experiences. Focused projects were undertaken on customer facing areas which included real time visibility on inventory status, enabling front end personnel in lead generation, best-in-class B2B commerce experience for fabric channel partners and so on.

**₹ 67.5 Crores**

Spend on Information Technology

**Case Study**

**Automation to maximise resource utilisation**

We automated the fabrics demand and production planning process. One of the key initiatives that formed part of this drive was the simulation of available production capacities in order to debottleneck machines and thus speed up the planning process. Allocation of the best dyeing jets was also automated, which helped in maximising utilisation, thus ensuring demand coverage.

**Case Study**

**Admixture**

Construction chemical solutions are determined for each project site after multiple iterative experimentation by the technologist, which lengthens the recommendation process and thus impacts consumer delight. After a series of consultations, we leveraged the AI / ML technology basis the database available of the past years to identify the appropriate solution for the composition of recommended chemicals. This has significantly reduced the iterations performed by the technologist and reduced the time taken for recommendation, adding to the delight of the customer.

**Case Study**

**Automation at Shared Services Centre**

To ensure business continuity during the COVID-19 pandemic, digital was embraced in a big way. Taking a step ahead in this journey, we increased digital processing of invoice from 74% to 89% in FY 2021-22 thus reducing paper usage.

Standing true to our Charter promise of vendor payments on time, 64% of invoices are now processed in a touchless manner through system-driven logics and controls. This has led to the dual benefit of vendor delight and upgrading the profile of the workforce from mundane processing to advanced data-based analytics. Further, AI based on the intelligence has been developed to ensure compliances with laws and regulations.

**Strengthening Supply Chain IT infrastructure**

We have been on the path of becoming an insight driven organisation through data intelligence and have undertaken efforts to skill the workforce in this area. Initiatives taken include launching of a supply chain control tower-like capability to make the supply chain agile and responsive for various teams in Manufacturing, Planning & Distribution. At the manufacturing plant locations, the workbench has been reorganised to ensure that the plant's planners have a single view of the production process, thus enabling them to plan and react on time. Also, capabilities have been enhanced, such as incremental planning, deployed at the central supply chain planning processes through the use of a cloud-based new age incremental planning platform. This helps distribution, as we now have the capability of scenario planning, the capacity to anticipate demand fluctuations and better our service levels accordingly. Other benefits include cost saving due to better planning, service improvements, productivity improvement through NVA reduction and manpower optimisation, quicker response time, and system-driven processes and workflows.