



Aarti Industries Limited

Corporate Presentation - Pharma



1 | **Company Overview**

2 | **Pharma Division**

3 | **Sustainability & Growth**



Company Profile



Aarti Industries Ltd.



- Established in 1984 & listed on Indian stock exchange in 1992
- Five of six Promoter Directors have engineering background. Three of four Founder Promoters are chemical engineers from ICT (formerly known as UDCT)
- Globally ranks at 1st – 4th position for 75% of its portfolio
- Amongst few players to export to China
- Robust SHE standards
- Highly integrated operations & cost-efficient processes

Business Segments

Chemicals

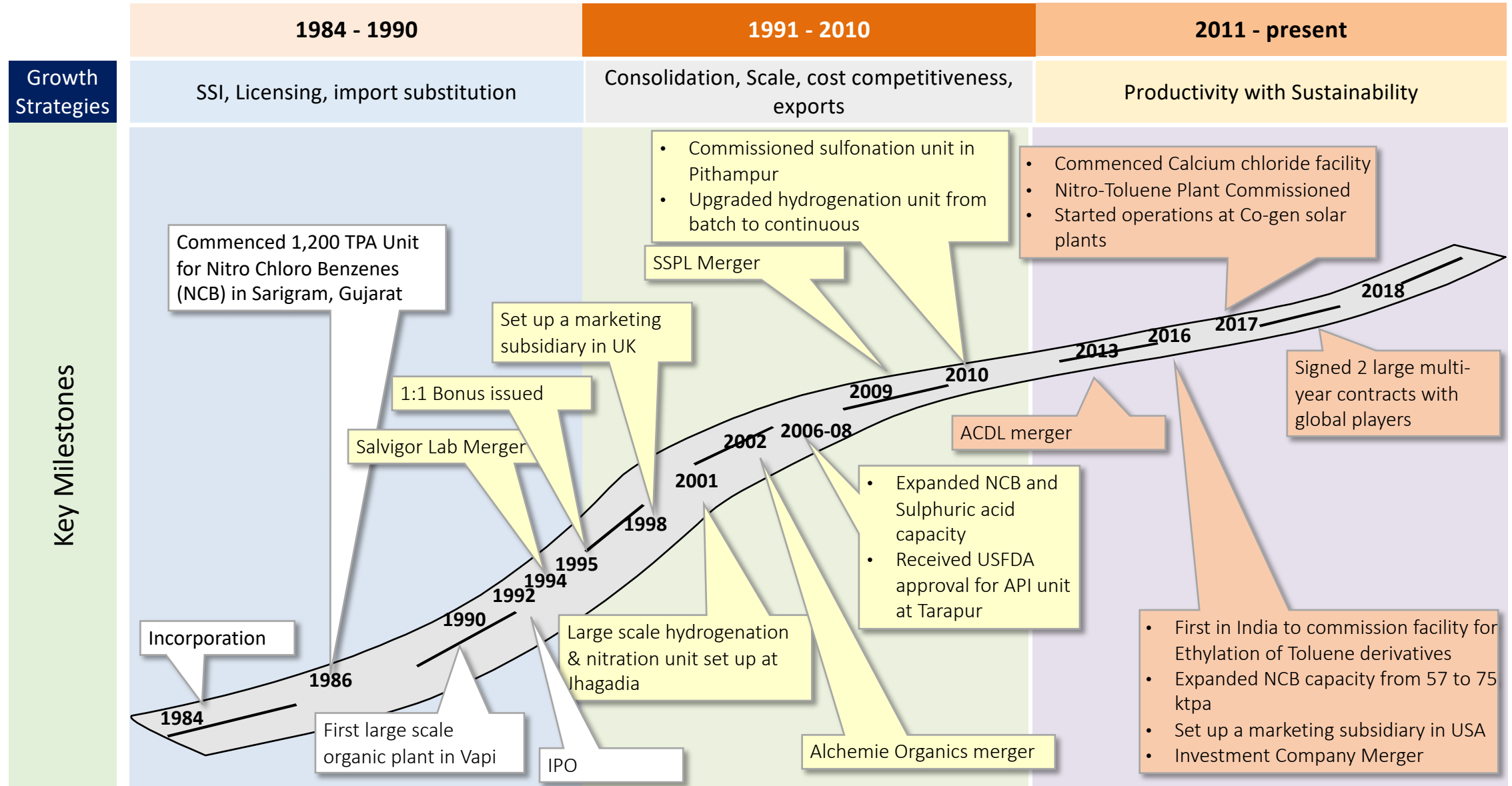
- Polymer & additives
- Agrochemicals & intermediates
- Dyes, Pigments, Paints & Printing Inks
- Pharma Intermediates
- Fuel Additives, Rubber chemicals, Resins, etc.
- Fertilizer & Nutrients

Pharmaceuticals

- Active Pharmaceutical Ingredients (API)
- Intermediates for Innovators & Generic Companies



Our Journey



Locations

Global Locations & Export Share



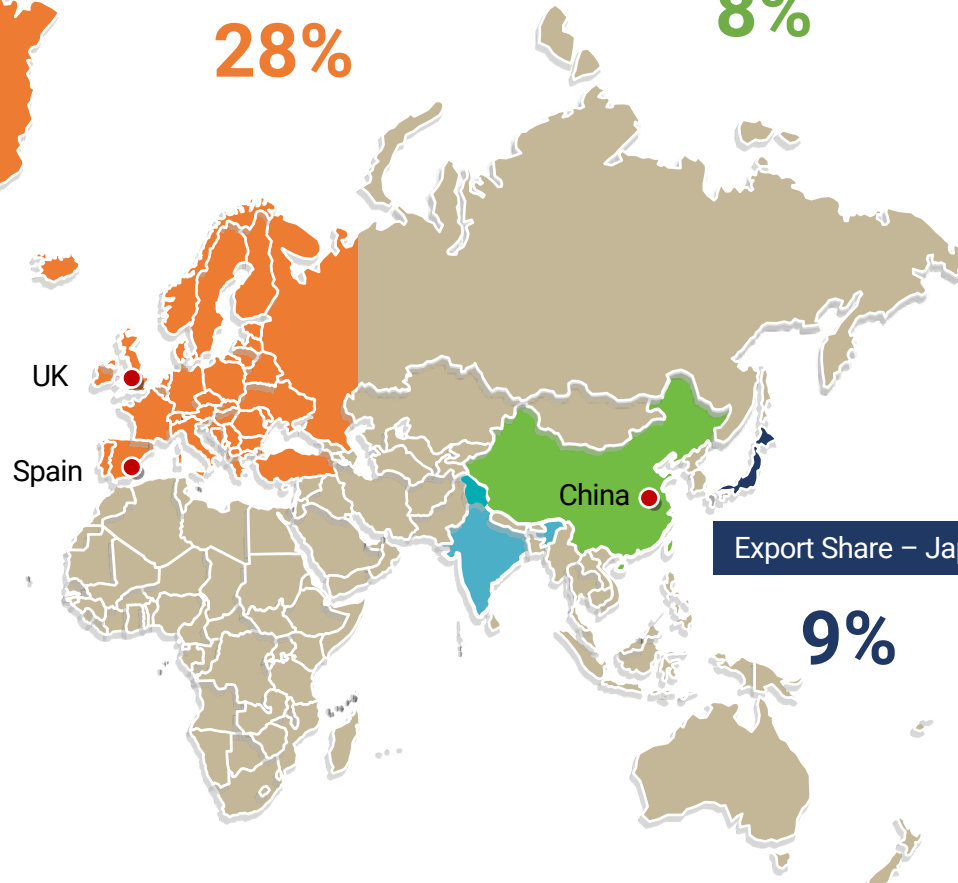
Export Share – North America

26%



Export Share – Europe

28%



Export Share – China

8%

Export Share – Japan

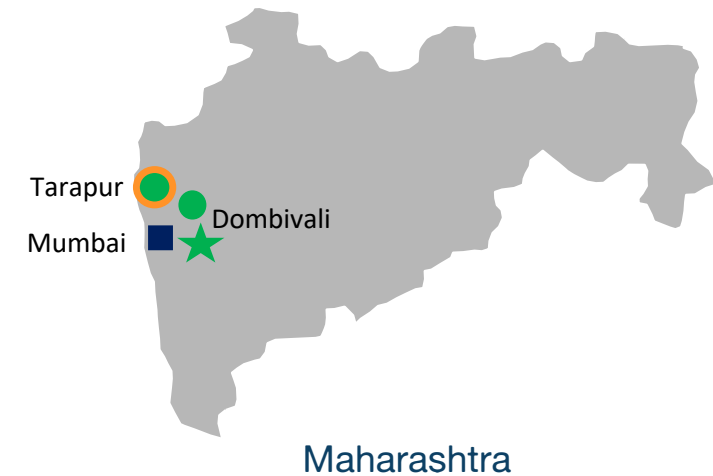
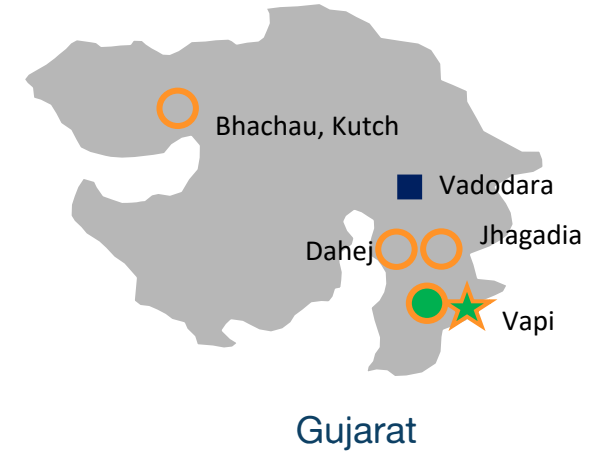
9%

Export Share – ROW

29%

 Sales Office

Locations in India





Care

We care for our people, our customers, our suppliers, and our community. Care for our people is reflected in our people policies, programs and developmental efforts



Integrity

We strive to maintain the highest ethical and moral standards. We honour our commitments towards our people, co-workers, partners, community and society



Excellence

We continuously raise the bar for our performance standards in safety, productivity and employee & customer satisfaction, We encourage innovative ideas & creativity by promoting a learning culture

Cultural Attributes



Proactive Approach



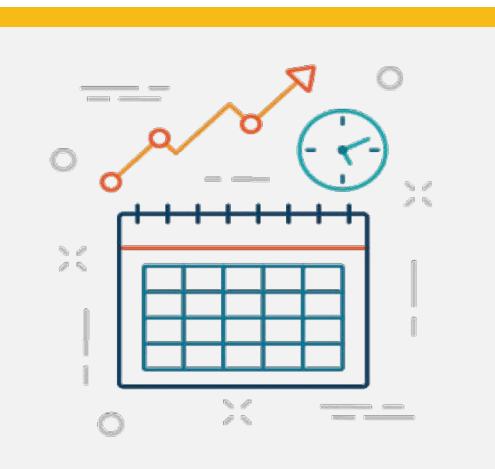
Ownership & Accountability



Nurturing Talent



Customer Centricity



Continuous Improvement



Collaborative Behaviour



Transparency



Adaptability

Management Team

Richly experienced with diverse background



Rajendra Gogri
Chairman & Managing Director

Masters – Chemical Engineer
(IOWA State USA)

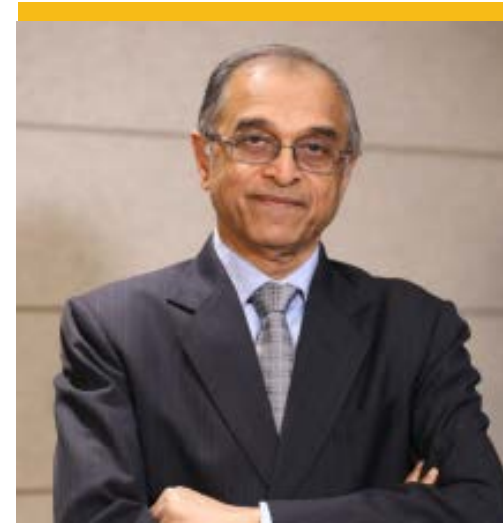
Portfolios – Strategic Planning,
New Business, Development,
Financial Management



Rashesh Gogri
Vice Chairman & Managing Director

Masters – Production Engineer

Portfolios – Chemicals &
Pharma (Head Commercial)



Parimal Desai
Whole Time Director

Founder Director
Chemical Engineer from UDCT

Portfolios – Technical



Manoj Chheda
Whole Time Director

Commerce Graduate

Portfolios – Marketing

Management Team

Richly experienced with diverse background



Renil Gogri
Whole Time Director

Mechanical Engineer from IIT,
Bombay

Portfolios – Projects, Operations,
Information Technology



Hetal Gogri Gala
Whole Time Director

Electronics Engineer and MDP
from IIM – Ahmedabad

Portfolios – Pharma, HR & Admin



Kirit Mehta
Whole Time Director

Commerce Graduate

Portfolios – Factory
Administration



Narendra Salvi
Whole Time Director

Portfolios – Quality Systems,
Pharma Manufacturing

Our Strategy

Growth with sustainability for a sustainable growth



We believe in growing sustainably while ensuring focus on sustainability



Commitment to Health & Safety

- Process Safety Audits and Inspections from External Experts
- DCS Control Systems and Process Automation
- Concept of Zero Tolerance, Management of Change (MOC), 5 Why Analysis, Regular Employee Training on Process and Behaviour Based Safety (BBS).



Commitment to Environment

- 3R Principle: Reduce – Recover – Reuse
- Swiss Loop Reactor Technology for Hydrogenation (1st in India).
- Zero Liquid Discharge Plants: Installation of Bioreactors, Chemical RO's, Multiple Effect Evaporator and Incinerator drastically minimized Water Consumption.



Commitment to Energy Efficiency

- Chilling Water Generation from Chlorine tonners for Chilling Applications
- USD 1mn+ invested in solar energy in 2016.
- Three coal fired co-generation power plants at Vapi, Kutch and Jhagadia to generate MP and LP Steam used for heating applications

\$35m Amount invested in EHS initiatives in the last 5 years

697 kW Installed solar power generation capacity across units

Global Customer Base





Dyes & Pigments



BASF
We create chemistry



Apollo Colors Inc



SUDARSHAN



HUNTSMAN



Atul



CLARIANT



SunChemical
a member of the DIC group
Color & Comfort



Polymer & Additives



BASF
We create chemistry



DU PONT



sojitz



TEIJIN




سابک
sabic




SOLVAY
asking more from chemistry®




'TORAY'
Innovation by Chemistry




Agrochemicals




BASF
We create chemistry




syngenta




UPL
OpenAg™




GHARDA CHEMICALS LIMITED



BAYER



Coromandel
FUTURE POSITIVE



FMC
An Agricultural Sciences Company



Pharmaceuticals



SANOFI



TEVA
TEVA PHARMACEUTICALS LTD



Cipla



Dr.Reddy's



SUN PHARMA



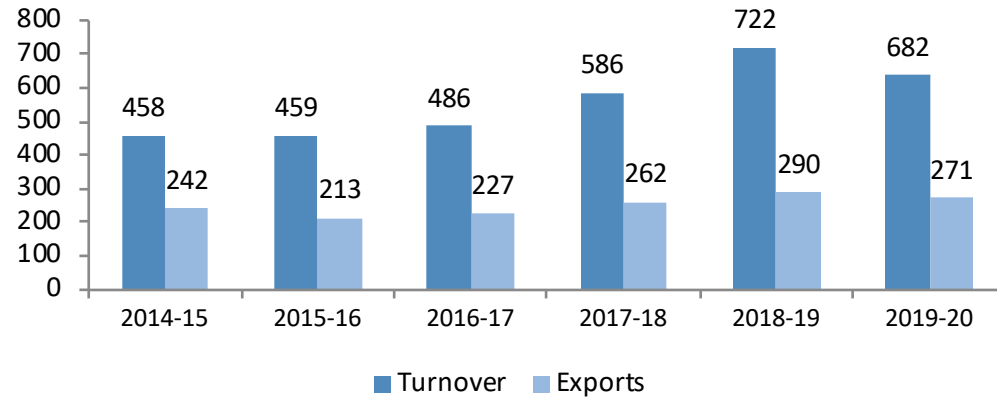
Zydus
dedicated to life



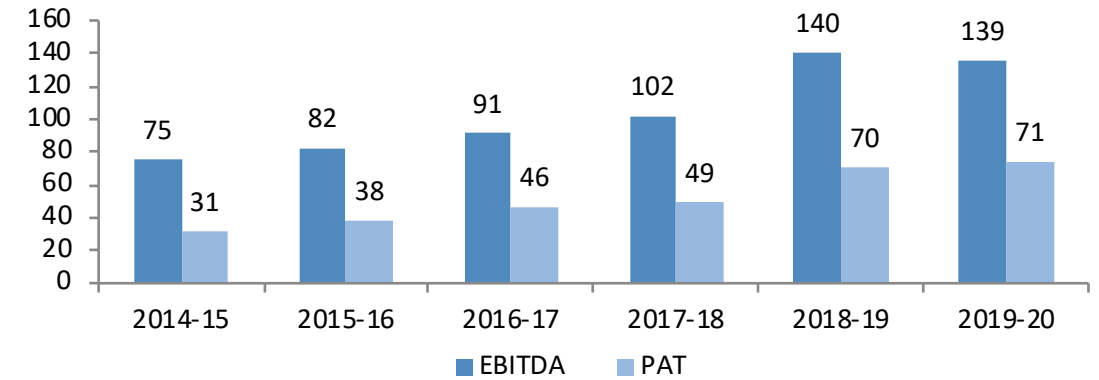
SANDOZ
a Novartis company

2X increase in profits & an 8X increase in market cap over last 5 years

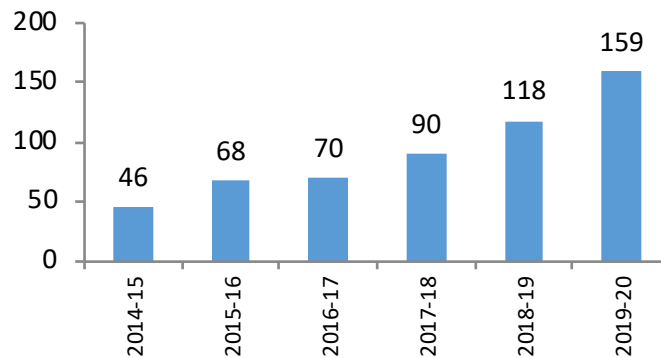
Turnover & Exports



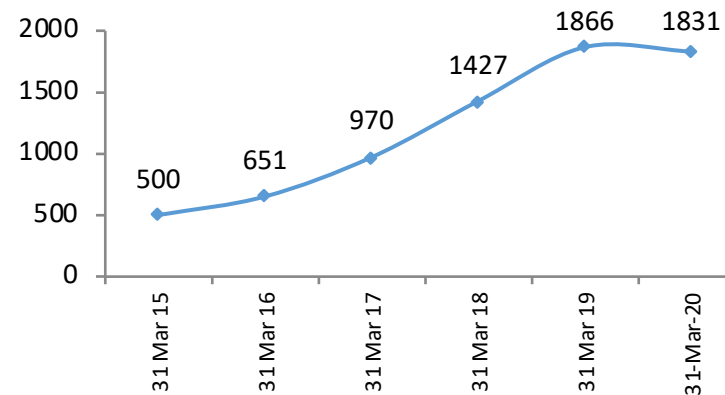
Profitability



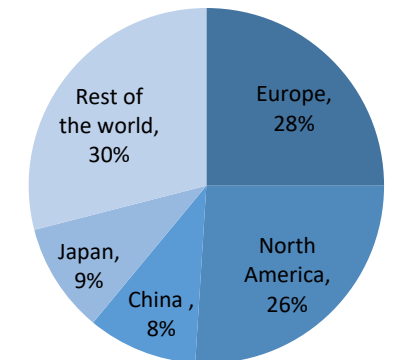
Capital Expenditure



Market Capitalization



Export share by region (FY20)



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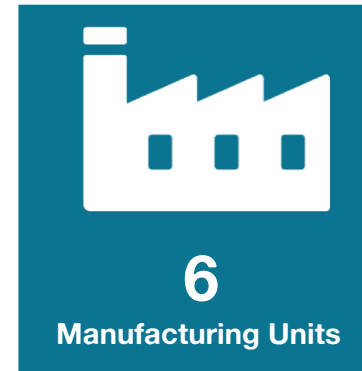
Brief Profile

Pharma Division

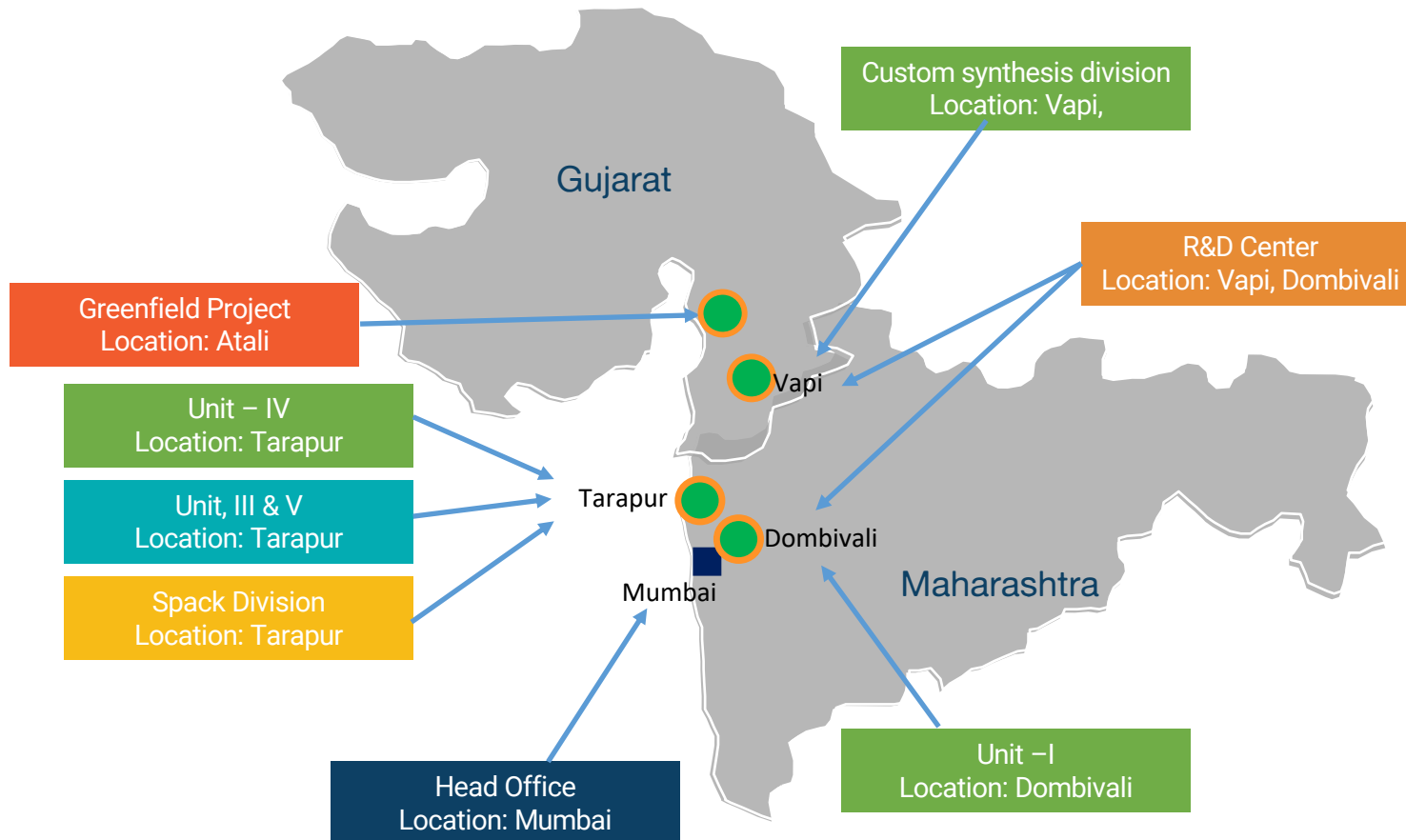


Key Highlights

- Active Pharmaceutical Ingredients (APIs) manufacturer for various Therapeutic Categories catering to Lifestyle Diseases like Cardiovascular, Cancer, Central Nervous System, Asthma & Skin Care which is supported by backward integration & robust R&D.
- Largest INDIAN Manufacturer for Xanthine Derivatives
- Globally preferred partner for Beverages and Nutraceuticals Industries
- Intermediates for Innovators & Generic Companies
- Globally tagged as “Partner of Choice ” by various Major Global & Domestic Customers.



Manufacturing Locations



Sr	Manufacturing Unit	No of Reactors	Total Capacity (KL)
1	Dombivali	24	31
2	CSD Vapi	129	551
3	Tarapur - Unit IV	52	107
4	Tarapur – Unit IV (Under Commissioning)	24	117
5	Tarapur – Unit III	57	470
6	Tarapur – Unit V	10	69
	Total	296	1345


Product development & Technology Transfer

Head Office

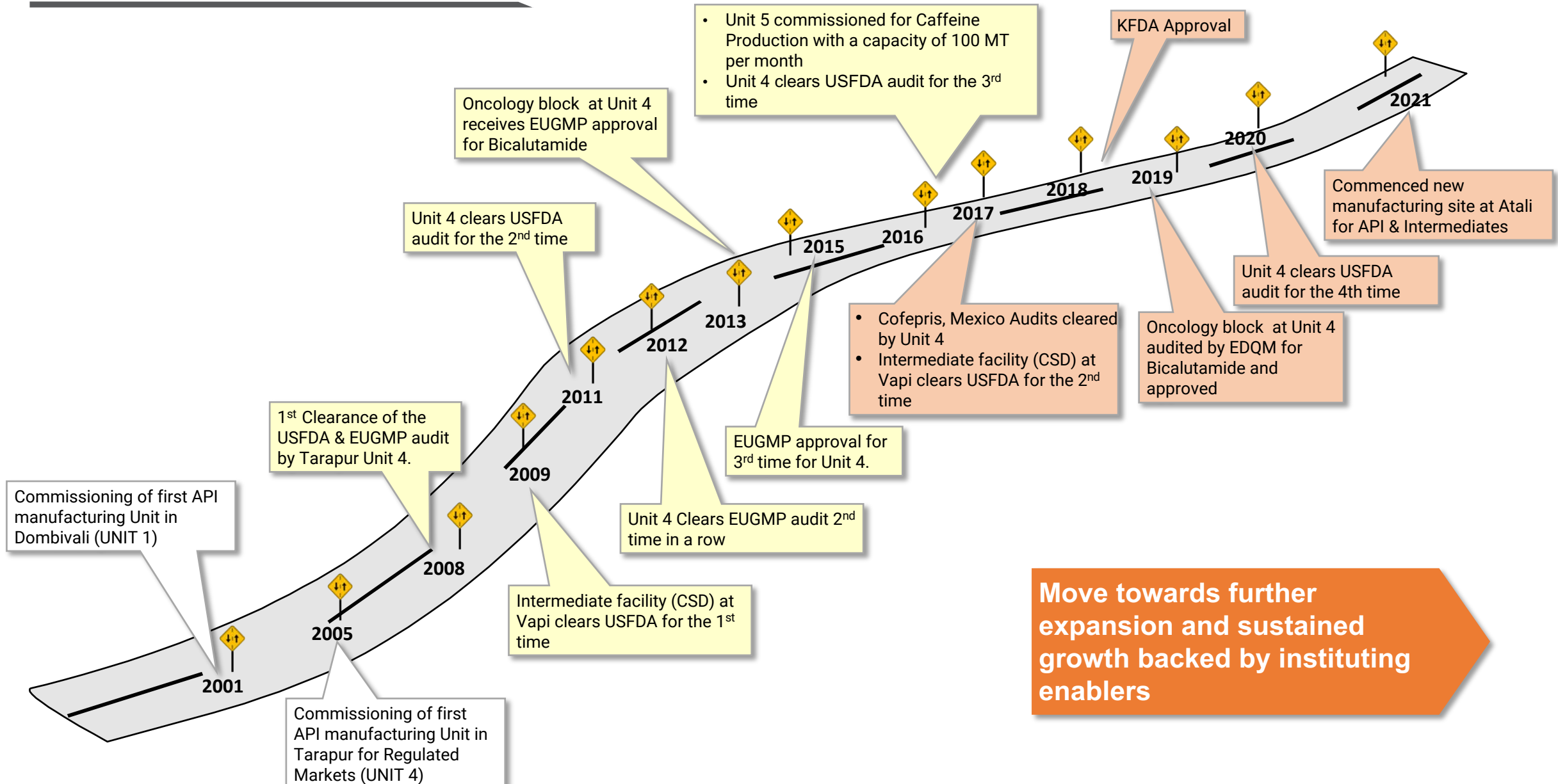
API & Intermediates Manufacturing Facility

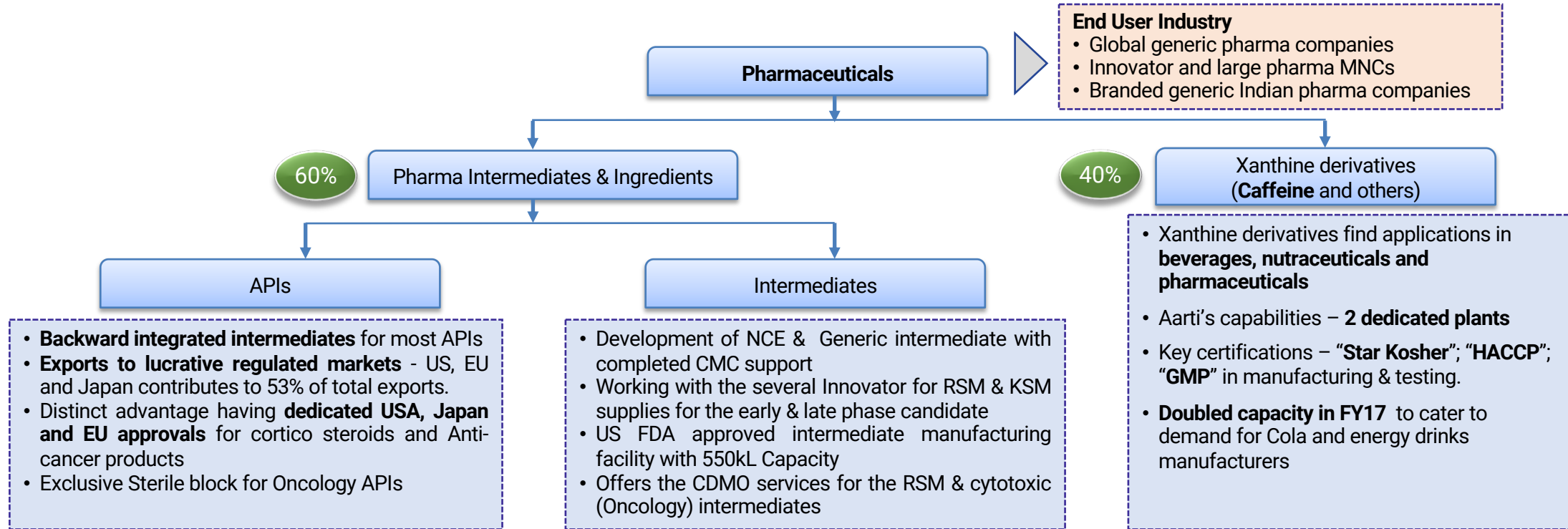
Xanthine Derivatives Manufacturing Facility

Upcoming API & Intermediate Manufacturing Facility

 Manufacturing Site

Our Journey Pharma





**2 USFDA
approved
facilities**

**2 WHO GMP
facilities**

**52 Patents
Filed
(13 granted)**

38 USDMF

20 CEP

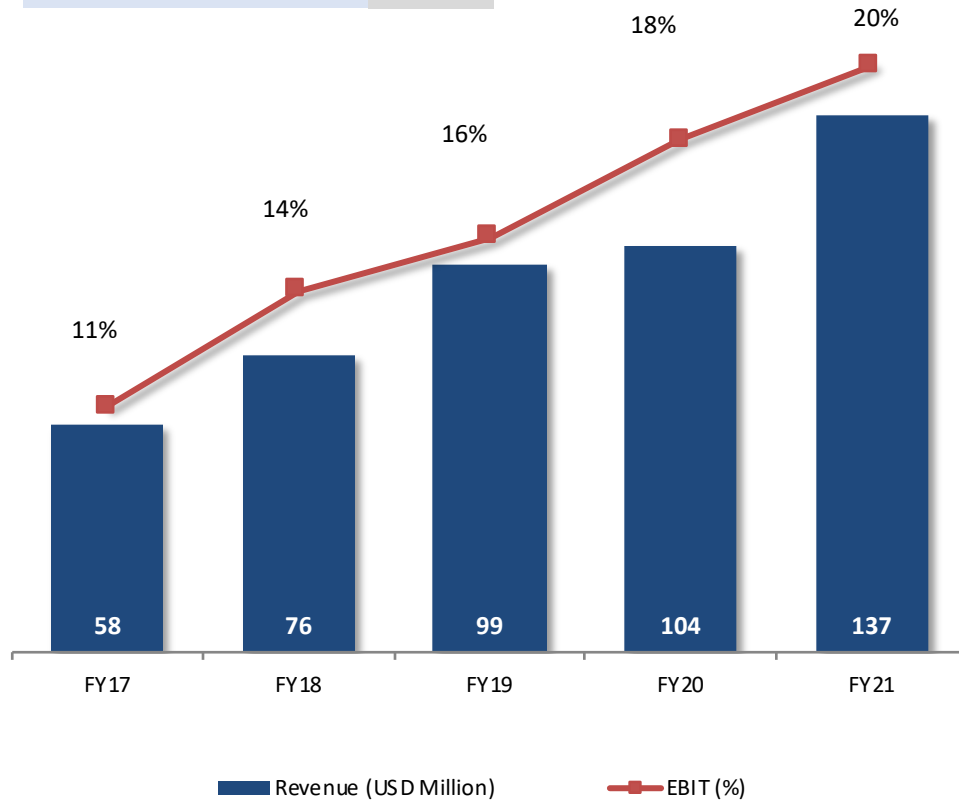
Pharmaceutical Segment

Significant growth with diversification across products and geographies



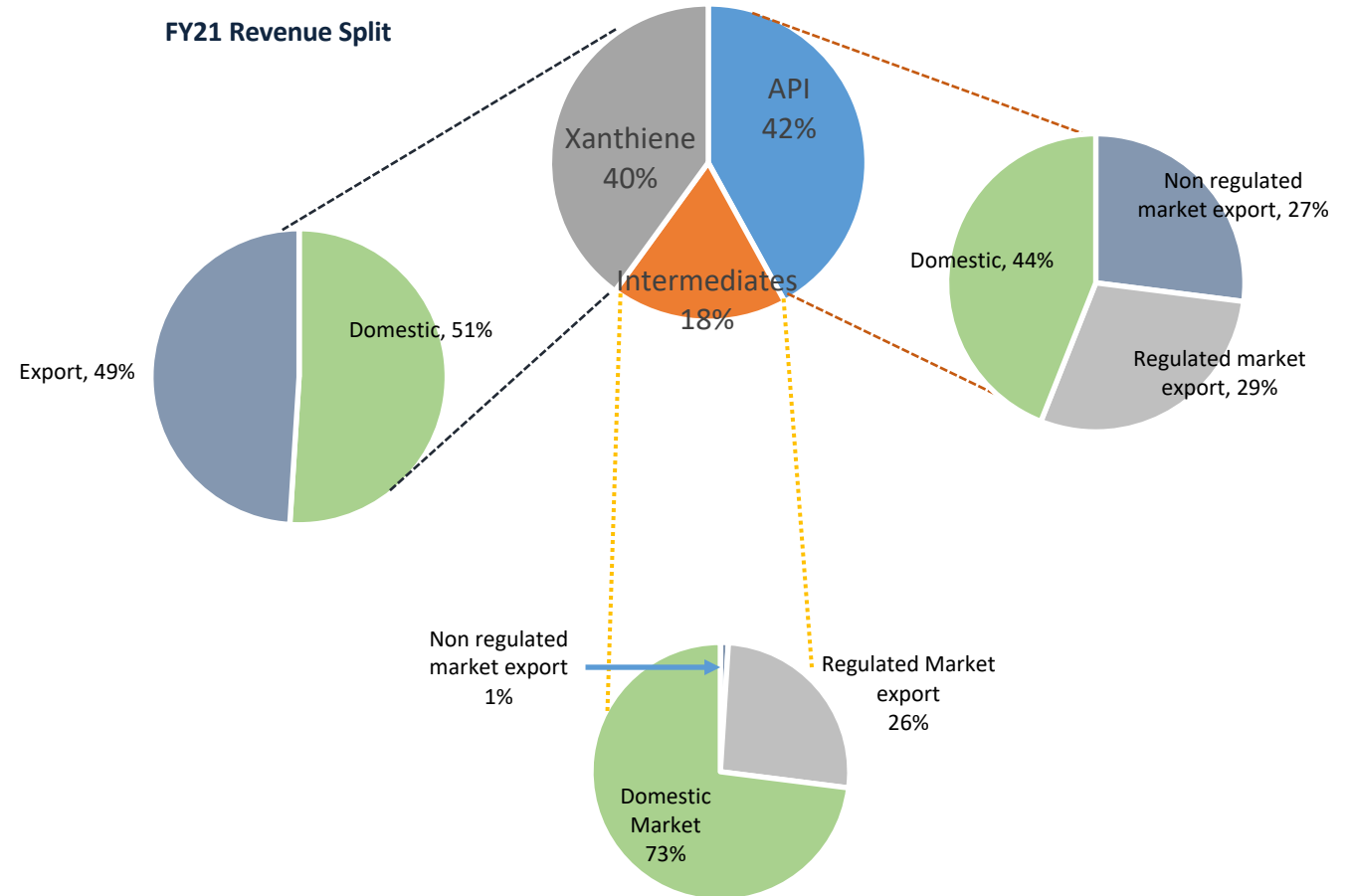
Pharma - significant top line and margin growth...

Revenue CAGR FY17-21	19%
EBIT CAGR FY17-21	29%



Note: 1 USD = 73 INR

...with diversification across products and geographies



Strong Presence in API Business



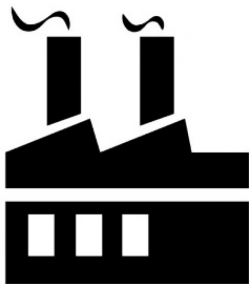
48 APIs have been commercialized by Aarti since it entered the pharma business in year 2000

12 new APIs are under development at Aarti's dedicated R&D facility for pharmaceuticals



38 US DMF approvals obtained across multiple therapeutic areas

20 CEP approvals available for sale in European Union across multiple therapeutic areas



2 Pharma units of Aarti are dedicated to the manufacture of caffeine (1,800 TPA each)

2 Units of Aarti are approved by **US FDA** (Vapi Custom Synthesis and Tarapur Unit IV¹) and contain dedicated blocks for steroidal and anti-cancer drugs



Isolators



Sterile Block

1. Tarapur Unit IV is also approved as per EU GMP standards

Anti Hypertensive

- Ramipril
- Quinapril
- Benazepril
- Perindopril
- Tert-butylamine
- Perindopril Arginine
- Ranolazine

Anti-Cancer

- Bicalutamide
- Ifosfamide
- Ifosfamide Sterile •
- Cyclophosphamide
- Cyclophosphamide Sterile
- Mesna
- Mercaptopurine
- Azathioprine

Decongestant

- Phenylephrine

Anti-asthmatic

- Budesonide
- Bambuterol
- R-Salbutamol Sulphate
- Levalbuterol
- Salmeterol Xinafoate
- Ipratropium Bromide
- Ciclesonide
- Fluticasone Propionate
- Fluticasone Furoate
- Mometasone Furoate
- Monohydrate
- Formoterol Fumarate
- Motelukast Sodium

Anti-thalassaemic

- Deferiprone
- Deferasirox

Analgesic

- Diflusal

Skin Care

- Mometasone Furoate
- Desonide
- Adapalene

Ophthalmologic

- Loteprednol Etabonate
- Olopatadine

Central Nervous System (CNS) Agents

- Venlafaxine
- Quetiapine Fumarate
- Bupropion

Calcimimetic

- Cinacalcet

Product Under Development - API

Anti Diabetic

- Dapagliflozin
- Canagliflozin
- Empagliflozin
- Sitagliptin HCl
- Sitagliptin Phosphate

Anti-Cancer

- Product
- Enzalutamide
- Apalutamide
- Nilotinib
- Ninetedanib
- Ibrutinib
- Palbociclib
- Venetoclax

Anti Coagulant

- Apixaban
- Rivaroxaban

Anti Thrombotic

- Ticagrelor

Arthritis

- Tofacitinib

Endometriosis

- Elagolix

Overactive Bladder

- Mirabegron

Aarti Industries intermediate business operates on the three category

1. Long term project

Focusing on the high volume intermediates with complex chemistry for key generic APIs (active pharmaceutical ingredients) including CNS, asthma, Anti-depressant, anti-daibetic & antihypertensive therapeutic category. It gives early encashment opportunities but lower profits.

2. NCE project

Development & manufacturing of high & low volume intermediates for the Big Pharma, backed by Intellectual property protection. This business offers a higher margin and a higher return, but has a much longer gestation project

3. Upcoming Generic project

Development & manufacturing of high & low volume intermediates for the Big Pharma for first- to- file (ANDA) & DMF filing. Good profits at validation stage and market share but only after product patent expiries.

We manufacture intermediates of the following APIs

- Abemaciclib
- Acalabrutinib
- Afatinib
- Apalutamide
- Apixaban
- Bazedoxifene
- Bosutinib
- Canagliflozin
- Duloxetine
- Eluxadoline
- Enzalutamide
- Epagliflozin
- Ertugliflozin
- Fluoxetine
- Fumarate
- Hydrochloride
- Ibrutinib
- Idelalisib
- Ivabradine
- Lacosamide
- Lumacaftor
- Montelukast
- Moxifloxacin
- Neratinib
- Osimertinib
- Palbociclik
- Perindopril
- Quetiapine
- Quinapril
- Ramipril
- Ranolazine
- Ribociclib
- Rotigotine
- Teneligliptin
- Ter-Butylamine
- Tofacitinib
- Vardenafil
- Venetoclax
- Venlafaxine

Intermediates with US DMF

DMF no.	Status	Date	Product	End API
32379	A	12/21/2017	TERT-BUTYL(4-(2-CHLORO-5- IODOBENZYL)PHENOXY)DIMETHYLSILANE (PR 2016-10)	Empagliflozin
33627	A	3/26/2019	3-NITRO-4-(((TETRAHYDRO-2H-PYRAN-4-YL) METHYL) AMINO) BENZENESULFONAMIDE (VP-02)	Venetoclax
34249	A	1/27/2020	4-FLUORO-2-(1H-PYRROLO[2,3-B]PYRIDIN-5-YLOXY)-BENZOIC ACID METHYL ESTER (PR-2017-015-III)	Venetoclax
34250	A	11/15/2019	1-{{2-(4-Chlorophenyl)-4, 4-dimethylcyclohex-1-enyl}-methyl}- piperazine dihydrochloride (VP-008)	Venetoclax
34512	A	1/27/2020	1-[[2-(4-CHLOROPHENYL)-4, 4-DIMETHYL-CYCLOHEXEN-1-YL]- METHYL]- PIPERAZINE (VP-008 BASE)	Venetoclax
35796	A	04/20/2021	Benzyl (2S)-2-(8-amino-1-bromoimidazo[1,5-a] pyrazin-3-yl) pyrrolidine-1-carboxylate (VP-023)	Acalabrutinib

Pharma Intermediate Division Expert Offerings



Coupling reaction-Pd
Catalyst

Chiral Chemistry

Boron Chemistry

Enzymatic Reaction

Triphosgene Reaction

Carbohydrate Chemistry

Xanthine Derivatives

- Xanthine derivatives are synthetic compounds that resemble natural occurring xanthines such as caffeine etc.
- They are commonly used as mild stimulants & bronchodilates, notably in the treatment of asthma or influenza symptoms.
- Xanthines are also commonly used in various beverages and energy drinks
- Specifications : Food grade, BP, EP, USP
- Customized particle size & dust free granules available.

Xanthine Derivatives

- Caffeine Anhydrous
- Theophylline
- Aminophylline
- Etophylline

Certifications



End Use



Cola Drinks



Energy Drinks



Pharmaceuticals



Nutraceuticals

Packaging

Packaging	Paper Box	Fibre Drum	Jumbo Bag
Quantity	20 kg	25 Kg	500 kg
FCL Quantity in 20 Ft Container	10 MT	7 MT	10 MT



Fibre Drum & Jumbo Bags

R&D strength & Capabilities

- 2** 2 Research & Development facilities located at Vapi & Dombivali
- 87** R&D scientists for API & Intermediate development (Vapi + Dombivali R&D)
- 10+** Average experience of 10+ years
- 52** 52 Process patents filed
- 150** Process for more than 150 products developed in lab on Kilo Scale in past 5 years
- 75+** More than 75 products already commercialized
- 160** Target to develop 120 new products in next 3 years and another 160 new products in year 2024 and year 2025



Key Reaction Capabilities



Major Reaction Group

Asymmetric Hydrogenation

Butyl Lithium Reaction

Cyclopropane Chemistry

Catalytic Hydrogenation

Nucleoside Chemistry

Suzuki Coupling & Reaction

Darzens Glycidic Ester Condensation

Hetero Diels Alder Reaction

Major Reaction Group

Purine Chemistry

Pyrrole Chemistry

Pyridine Chemistry

Pyrimidine Chemistry

Swern Oxidation

Indole Chemistry

Sandmeyer Reaction

Grignard Reaction

We have state of the art R&D at Vapi and Dombivali & QC centres at all our manufacturing sites

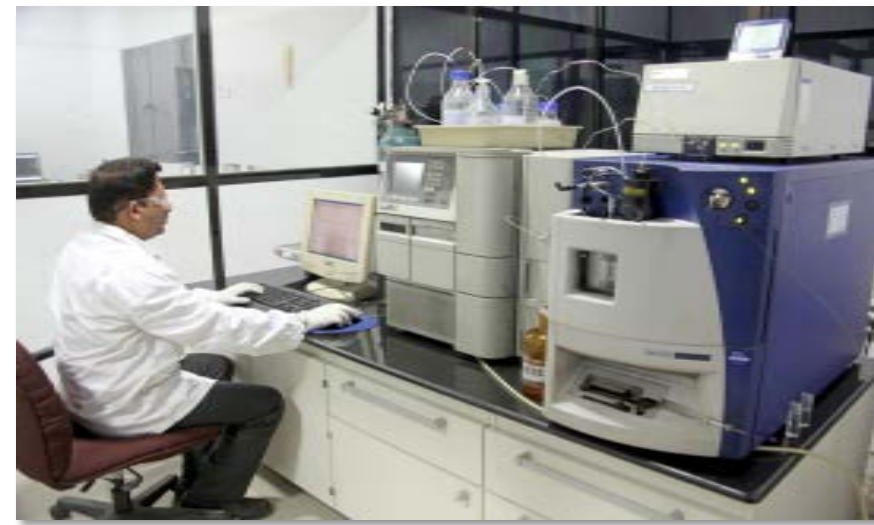
R & D process Equipment

- DSC, TSU & RC1
- Glass Reaction Equipment
- High Pressure Autoclave
- Glass Lined Reactors
- SS 316 Reactors
- Fractional Distillation
- Sparkler Filter, Centrifuges



Key Analytical Instruments

- Gas Chromatograph
- HPLC
- FT IR Spectrophotometer
- UV – Visible Spectrophotometer
- Atomic Absorption Spectrophotometer
- Digital Polar meter
- Digital Melting Point
- L.C.M.S.





The Capacity & Capex push enabling pipeline commercialization

1. Set up of 10 manufacturing blocks including one Oncology block under 15-20 Acres
2. A total of 1200 KL manufacturing capacity with installation of 240 reactors under 10 manufacturing blocks is planned in next 5 years

Year	Blocks	Reactors	volumes
2021	Land + Utility Admin building.		
2022	Block-I,II,III + QC + Warehouse + Pollution Treatment	66-72 Reactors , Avg 5KL	300-360 KL
2023	Block-IV/V	44-48 Reactors , Avg 5KL	200-240 KL
2024	Block-VI/VII	44-48 Reactors , Avg 5KL	200-240 KL
2025	Block-VIII/IX/X + QC + Warehouse expansion	66-72 Reactors , Avg 5KL	300-360 KL

- Increase market share for existing commercial products with competitive pricing enabled by robust and innovative process development.

- Rebranding the outlook of customers, as a supplier for volume products from the enhanced capacities at Tarapur Unit IV and upcoming Atali facility. (e.g Ranolazine, Venlafaxine HCl, Quetiapine, Pregabalin....)

- Build customer confidence in Regulated markets with strong documentation support & Regulatory approvals.

- Maintaining an impeccable audit record with global health Agencies like the EDQM, USFDA, Cofepris, ANVISA, KFDA, PMDA and others.

- Newly commissioned Sterile block for Cytotoxic Anti-Cancer APIs enables us to venture into a new dimension for supplies of injectables for globally reputed Pharma companies.

- Collaborating with Originators for outsourcing their captive requirements for APIs and intermediates.

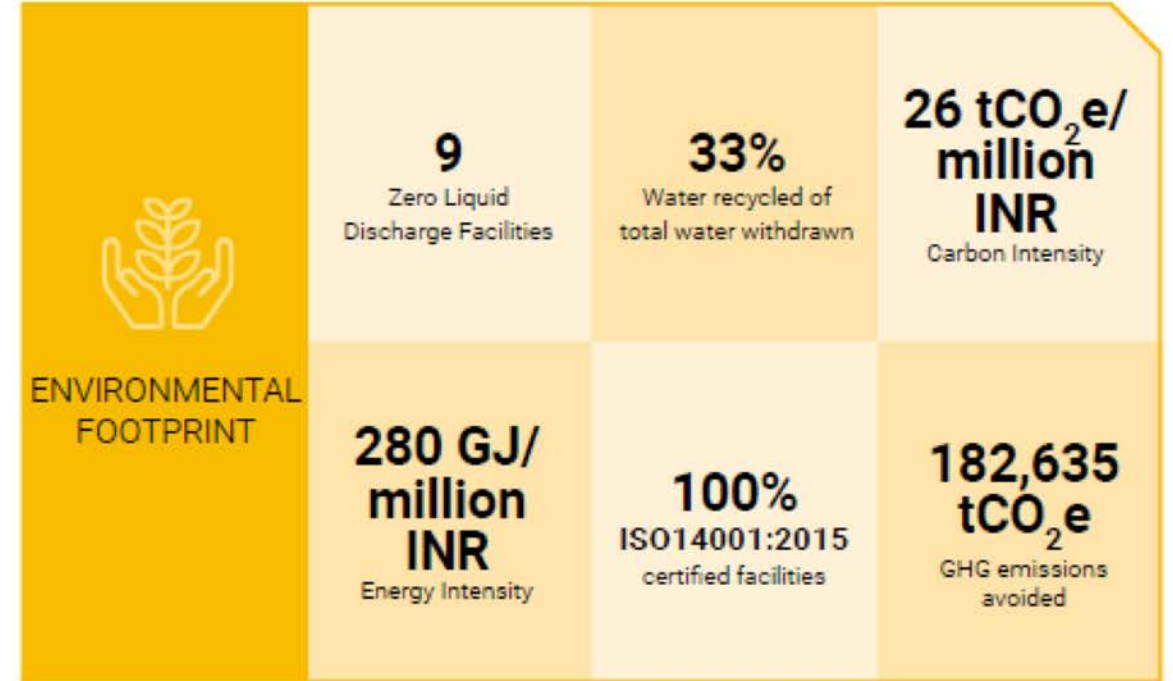
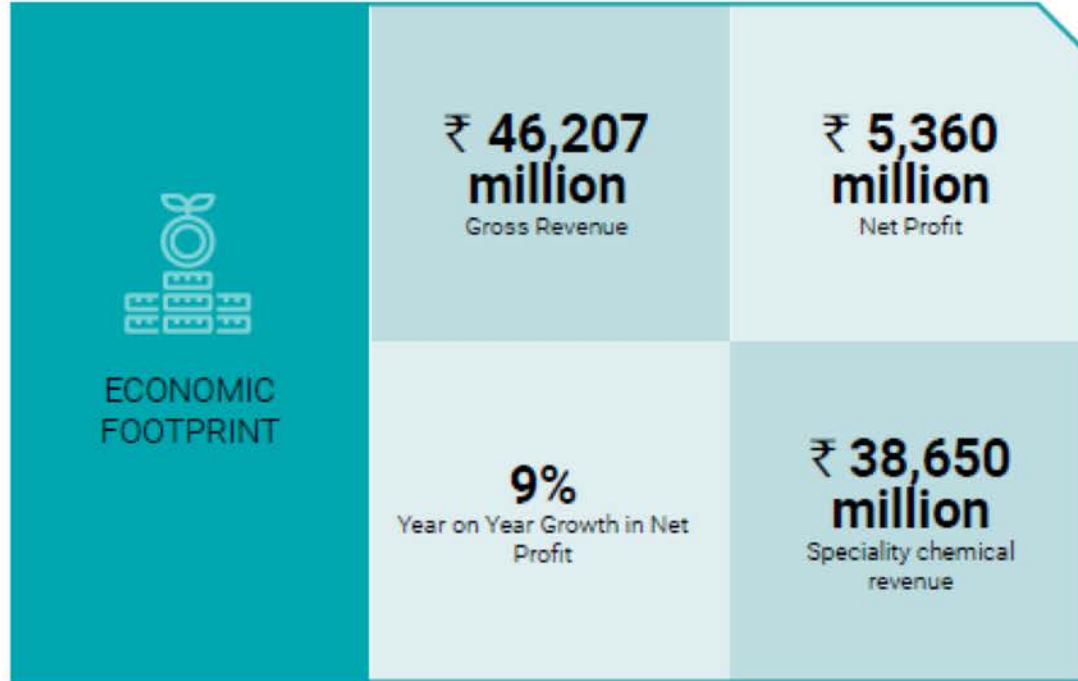


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PERFORMANCE HIGHLIGHTS OF FY 2019-20



BE SAFE – Our Flagship Safety Initiative

We launched By Employees Sustainability Assurance for Employees (BE SAFE), a mega initiative in April 2019 to assure the management regarding the complete health check of the plants. We intend to ingrain safety as a cultural attribute in our organisation and foster a culture of zero harm among our employees.

Our Achievements through BE SAFE

Employee engagement and motivation	Knowledge and proficiency enhancement
Strengthening of the work place safety	Teamwork and collaborative engagement

0.25

LTIFR in FY 2019-20 compared to 1.10 in FY 2018-19

We have undertaken the following initiatives to provide a safe and healthy work environment for our employees

- Regular monitoring of our plants and facilities using a checklist system and taking the support of our shop floor employees
- Mandatory 2-day safety induction training and trade tests for all new employees
- Classroom and on-the-job trainings for all employees
- Safe transportation of chemicals
- Various safe assessments such as Hazard Identification and Risk Assessment (HIRA), Hazardous Area Classification (HAC) and Hazard and Operability Study (HAZOP) at our plants
- Mandatory safety training on behaviour-based safety, first-aid application, safety inspection procedures and defensive driving to all employees
- Periodic mock drills to strengthen our emergency preparedness

Environment Management System

- ISO 14001 : 2015 certification
- Zero Liquid Discharge (ZLD) plants - 5 No.
- Approx. 50 % Water of total water consumption is recycled
- Green chemistry principles incorporated during product development stage
- Recycle & reuse of solvents and safe disposal of Hazardous waste
- Regulatory compliance monitoring through Compliance Mgt. System (CMS)

EMS
**Environment
Management
System**

Process Safety Management

- Inhouse Process Safety Laboratory - RC1 and TSU studies for all processes
- Designed inherently safe processes
- Powder safety studies conducted & applied in commercial scale.
- Hazop studies at various stages & Implementation of recommendations at sites
- Management of Change (MOC) through Change control
- Pre Startup Safety Review (PSSR) at various stages
- EHS aspects checklist for New Technology Transfers & product development

PSM
**Process
Safety
Management**

Safety & Health Management System

- Hazard Identification and Risk Assessment (HIRA), Hazardous Area Classification (HAC) and work permit system in place
- Safety Trainings - Induction, On the job, Classroom, Demos
- Incident management - "Safety Alert", Learning from Incidents, Root cause analysis and Global CAPA Implementation
- Safety Thought For The Day- One slide tool circulated
- Industrial Hygiene study conducted
- COVID 19 Protocol followed at all sites

SHMS
**Safety & Health
Management
System**

Aarti Pharma Management System

- APMS at par with DUPONT, CCPS & OHSAS
- Guidelines released by corporate then site SOPs initiated
- Training & Development of EHS coordinators
- Behaviour Based safety
- Near Miss reporting
- Reward & Recognition
- EHS cultural transformation

APMS
**Aarti Pharma
Management
System**

Hazardous Chemicals¹ Handled

- **Health Hazards:** Chlorine, HF, DMS, Ethylene, Nitric Acid, etc.
- **Chemical Instability:** p-nitrochloro benzene, sulphur trioxide, etc.
- **Flammability:** Hydrogen, Benzene, etc.

Own Customs Agent

- No dependence on external agencies for customs clearances
- Can supply from FOB to DDP basis
- Improved service & lower cost

Gaseous Materials Handling

- Aarti handles several hundred tons of gaseous materials like chlorine, ammonia and ethylene
- Specially designed tankers to handle hazards of specific chemicals

Supply Chain Planning

- Supply chain from refinery materials to products in niche end applications
- Rolling 3 months forecast on production, supply and inventory
- Dedicated inventory held for specific customers as per requirement



46

Countries around the world import from Aarti at 120 ports



21

States in India receive domestic dispatches from Aarti



230

Daily vehicle movements at Aarti locations with a dedicated fleet of 325 vehicles



390

Tanks/containers exported to various countries every month



4,500

Metric Tons of material moves across Aarti locations daily



CHEMEXCIL – Trishul Award

CHEMEXCIL presented the Company 'Trishul Award' for outstanding export performance for FY14-15 and 'Award of Excellency' for the consistency in export performance for FY13-14, FY15 - 19



Lifetime Achievement Award

Our Chairman Emeritus Shri. Chandrakant Gogri was awarded with the D.M Trivedi lifetime achievement award 2018 by Indian Chemical Council (ICC) for his contribution towards Indian Chemical Industry.



Company of the Year Award

Aarti Industries has been conferred with the prestigious "Company of the Year" award at the FICCI Chemicals and Petrochemicals Awards 2021 for its sustained efforts in the Indian chemical industry



Entrepreneur of the Year

Huran Reports India awarded Our Chairman & MD Shri. Rajendra Gogri with Entrepreneur of the Year 2019, for his contribution in the Indian Chemical Industry.

Commitment towards Society



Cluster & Rural
Development



Education & Skill
Development



Childcare &
Healthcare Facilities



Women Empowerment &
Livelihood Opportunities



Disaster Relief &
Rehabilitation



Water Conservation &
Environment



Research & Development
for Upliftment of Society



Commitment towards Society





Thank you



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