



Aarti Industries Limited - CDMO

Aarti: Company Overview



At Aarti, we define our purpose as 'Right Chemistry for a Brighter Tomorrow' where 'Brighter Tomorrow' means products which are needed for society, i.e. products which help the society make their future bright and 'Right Chemistry' means the way in which we manufacture these products..

- Rajendra Gogri



PURPOSE

Right Chemistry for
a Brighter Tomorrow



VISION

To emerge as a Global Partner of
Choice for leading consumers of speciality
chemicals and intermediates



MISSION

Delighted Stakeholders

AIL VALUES



CARE



INTEGRITY



EXCELLENCE

Aarti Industries at a Glance



- Established by first generation technocrats in 1984
- Specialised in Benzene and Toluene based derivatives
- Integrated operations and high-cost optimisation
- Key value chains include Nitro Chloro Benzenes, Di-Chlorobenzenes, Phenylenediamines, Nitro Toluene Value Chain and Sulphuric Acid & downstream
- Strong R&D capabilities
- Strategically located in western India with proximity to ports



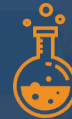
100+
Products



60
Exporting
Countries



11
Zero Liquid
Discharge Plants



2
State-of-the-art
R&D Centers



1100+
Domestic & Global
Customers



16
Manufacturing
Plants



6,000+
Employees



5
Co-generation
Power Plants

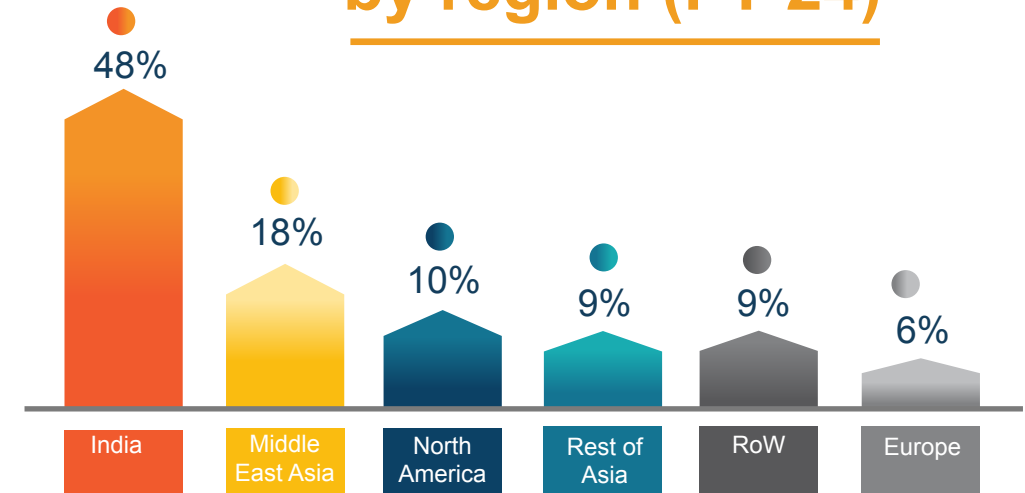
Financial Trends

\$841mn Revenue FY2024

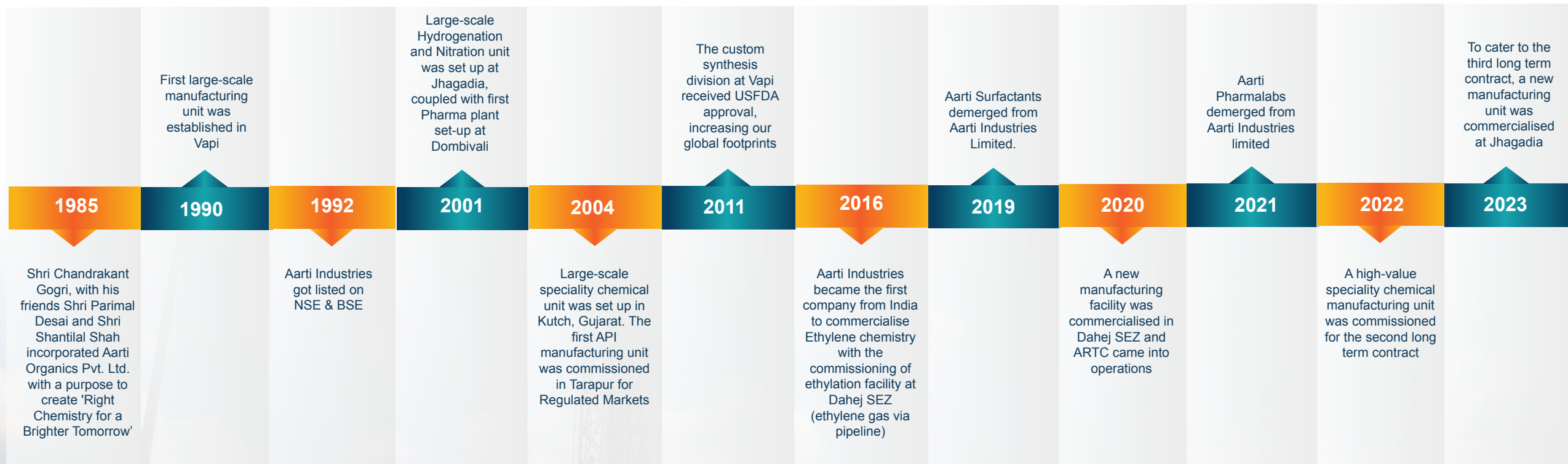
\$119mn EBITDA, FY2024

~\$2.8 bn Market Capitalization, 31st March 2024

Revenue share by region (FY 24)



Our Journey



Geographic Footprint

Manufacturing Units	Location
Zone 1	<ul style="list-style-type: none">● Vapi, Gujarat● Tarapur, Maharashtra
Zone 2	<ul style="list-style-type: none">● Jhagadia, Gujarat
Zone 3	<ul style="list-style-type: none">● Bhachau, Gujarat● Dahej, Gujarat
Other Set-ups	Location
Research and Development Centers & Pilot Plant	<ul style="list-style-type: none">★ Vapi, Gujarat★ Navi Mumbai, Maharashtra
Corporate & Head Office	■ Mumbai, Maharashtra
Project and Engineering Office	■ Vadodara, Gujarat



New plants at Jhagadia: New plants with new chemistries and products are under construction at the upcoming Zone IV

Exemplary Leadership



Mr. Rajendra Gogri
Chairman and MD



Mr. Rashesh Gogri
Vice Chairman & MD



Mr. Renil Gogri
Vice Chairman



Mr. Suyog Kotecha
CEO and Executive
Director



Mr. Parimal Desai
Executive Director



Mrs. Hetal Gogri Gala
Non-Executive Director



Mr. Manoj Chheda
Executive Director



Mr. Ajay Kumar Gupta
Executive Director

Senior Management Team



Chetan Gandhi
Chief Financial Officer



Raj Sarraf
Company Secretary



Pankaj Mehta
Head-Corporate
Relations & Strategy



Prashant Potnis
Chief Scientific Officer



Manoj Sharma
Chief Human
Resource Officer



Harendra Pandya
Chief Projects &
Procurement Officer

Org. Structure-Sales, Marketing & CDMO

Suyog Kotecha
CEO and Executive Director

**Life Science
(Agro/Pharma)**

Hrisheekesh Sabnis
Life Sciences Global
Marketing and BD Head

Harsh Kedia
Lead-Domestic Sales

Vishal Solanki
Lead-International Sales

**Energy &
Partnerships**

Bhautik Mehta
Energy Global Marketing,
Partnerships and BD Head

Darshan Choksi
Head-International Sales (Oil
& Gas)

Sushil Rajpurohit
Head-BD,
Partnerships

**Specialties
(Colorants, Polymers
& Additives),
Fertilizers**

Mitesh Gangar
Specialties Global Marketing
Head

Chetan Shah
Head-International Sales
(Basic & Specialty)

Mukesh Thakur
Lead-Domestic Sales
(Specialty)

Sunil Patil
Lead-Domestic Sales
(Fertilizers))

**Basic Chemicals
(Including Acid)**

Prakash Patil
Basic Chemicals Global
Marketing Head

Vijay Mamania
Head-Domestic Sales (Bulk
Chemicals)

Chetan Gala
Lead-Domestic Sales (Acid &
Allied Products)

**CDMO
Agro, Electronic,
Energy-battery,
Sustainability,
Circularit, Polymers
etc**

Dr. Prashant Potnis
Chief Scientific Officer

Vinod Honmute
CDMO-Head

Priyanka Gajbhiye
Manager-CDMO



Mr. Suyog Kotecha
CEO & Executive
Director



Dr. Sowbna P R
Process Safety Head



Ankit Mittal
Strategic Technology
Head



Dr. Praveen Goyal
Synthesis Group Lead



**Mirik Rajendra
Gogri**
Corporate Strategy



**Bhaskaran
Rajagopalan**
Chief Technology Officer



Dr. Nitin Kamble
Analytical Head &
Factory Manager



**Dr. Prashant
Potnis**
Chief Scientific
Officer



D Radhakrishnan
Technology
Development Head



Vinod Honmote
CDMO- Head



**Dr. Yashwant
Tambe**
Synthesis Group Lead

Global Customer Base

BASF
We create chemistry

syngenta

DUPONT



سابک
sebic

sojitz



UPL

EASTMAN

ARCHROMA
LIFE ENHANCED

colourtex®
The Dyestuff Company

CLARIANT



'TORAY'
Innovation by Chemistry



arxada

TEIJIN

Nouryon



FMC

SYENSQO
ADVANCING HUMANITY

SunChemical

farmson
Pharmaceutical Gujarat Pvt. Ltd.

Atul

heubach

SUDARSHAN

Celanese



SUMITOMO CHEMICAL



HALLIBURTON

أدنوك
ADNOC

↳ Sustainability Is At The Core Of What We Do

Environment

- **11 sites** are Zero Liquid Discharge (ZLD)
- Total water recycled **~44%** of the total water withdrawal in FY 24
- More than **8200 KL** water harvested through rainwater in FY 24
- Recycled **92%** waste, remaining 8% is responsibly disposed

Social

- Incorporated requirements of UN Global Compact, International Labour Organisation's (ILO) Declaration and Sexual Harassment of Women at Workplace Act, 2013, etc.
- Locally Sourced over 75% of raw materials and 98% engineering goods.
- **1.5 lakh+** lives benefited through our CSR initiatives
- Implementation of Best in Class Safety Practices

Governance

- Robust Compliance framework covering **78 acts, 101 rules** and **10000 compliance provisions**
- Cloud first approach for scalability and reliability to enable future growth
- Robust Information Security Practices and Technology Centre and R&D are **ISO 27001 certified**



Certifications



The certifications listed above may be applicable to only some manufacturing units of Aarti Industries

↙ Diverse Range of End-use Products

100+
Products

Aarti Industries Limited has a diverse portfolio of basic chemicals, agrochemicals, speciality chemicals and intermediates, which are extensively used in manufacturing pharmaceuticals, agri-products, polymers, additives, pigments and dyes.



In the textiles and the fabrics



In the paints that colour your home/cars



In the medicines that keep you healthy



In the air fresheners that tickle your senses



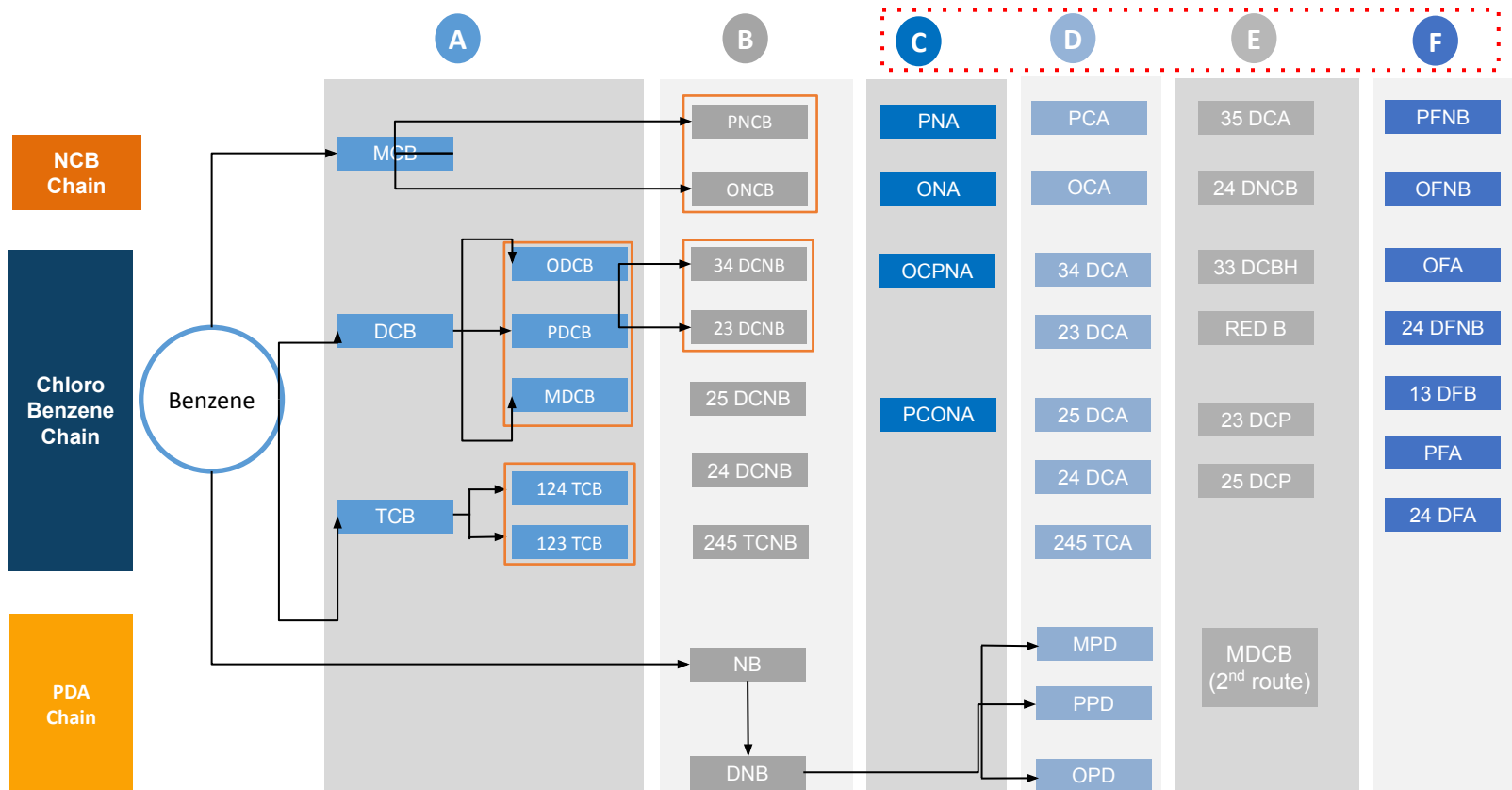
In every farmer's toolkit



In the aeroplanes that help you touch the skies



In the oil refineries



- A- Chlorination
- B-Nitration
- C-Ammonolysis
- D-Hydrogenation
- E-Others
- F-Halex

- Integrated operations across product chain of Benzene and Toluene
- Co-products/Isomer balancing
- Optimizing product mix
- Ability to meet stringent specifications
- Supply chain not linked with China
- “A” and “B” account for 20% of the speciality chemicals revenue
- Focus on growth oriented products
- Diversified end uses

Global Ranking

NCB

Among Top 3 Globally

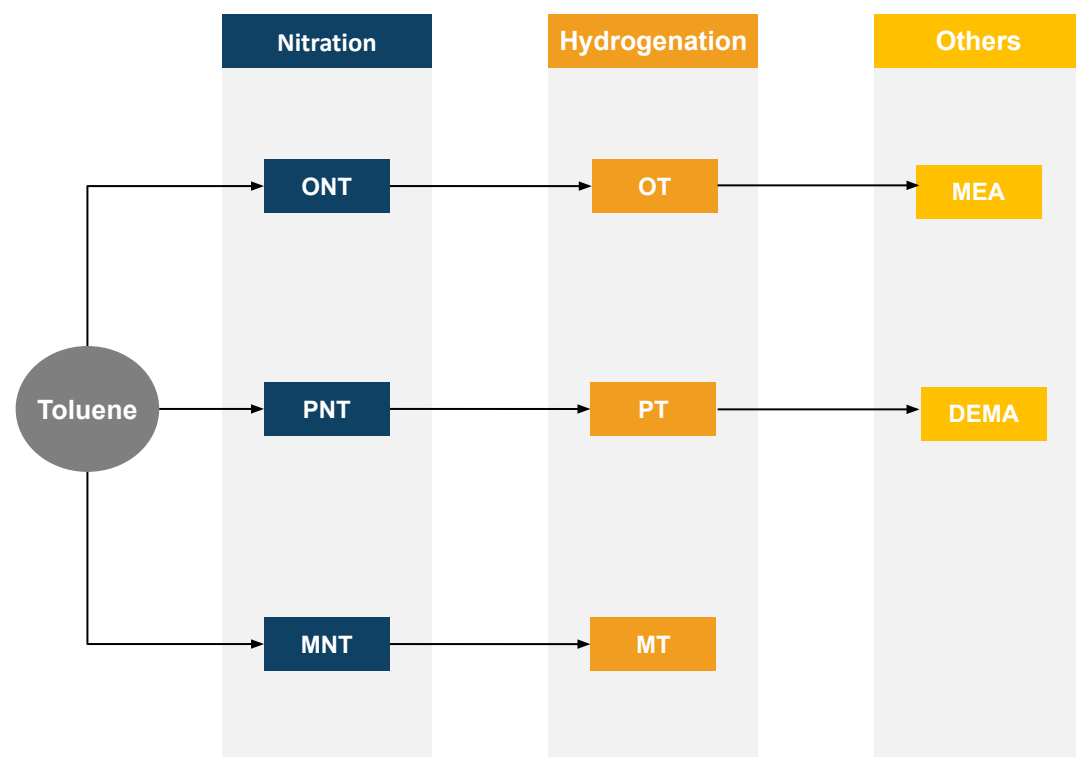
DCB

#1 Globally

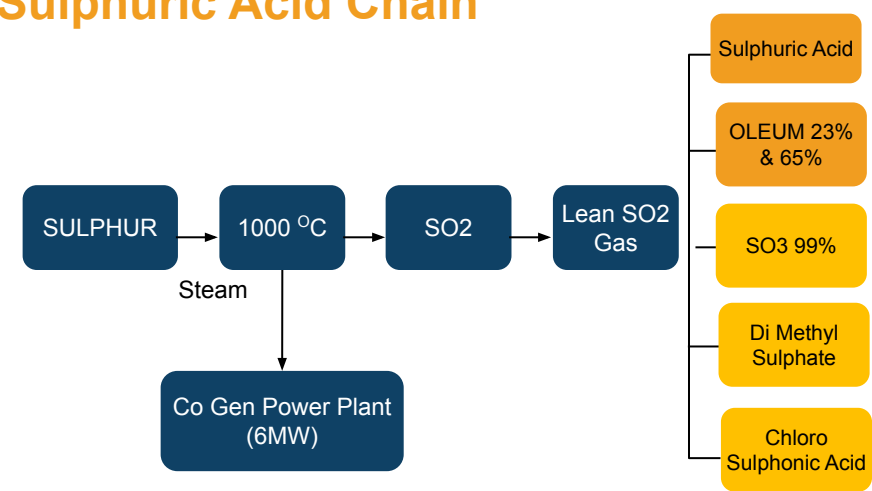
Domestic Ranking

Leading manufacturer for Nitro Fluoro Aromatics (via Halex chemistry) & PDA

Toluene Value Chain



Sulphuric Acid Chain



Other Speciality Chemical products

- Single Super Phosphate (SSP)
- Export Grade Calcium Chloride Granules (for Oil exploration & De-icing)
- Fuel Additives
- Phthalates

Current Key Chemistries at Aarti Industries

Sr. No.	Chemistry	Number of Key Products	Capacity MTA	Mode of Operation
1	Hydrogenation	14	88000	Semi-Batch/Continuous/Batch
2	Nitration	17	200000	Continuous/Semi-Batch
3	Chlorination	8	220000	Continuous/Semi-Batch
4	Ethylation	3	10000	Batch
5	Ammonolysis	4	32000	Batch
6	Esterification	4	30000	Continuous Packed Bed Reactor
7	Diazotization	3	10000	Semi-Batch /Continuous/Batch
8	Halex chemistry	3	30000	Batch

Key Raw Material

Our key raw materials are benzene, toluene, chlorine, hydrogen, nitric acid, ethylene, methanol, etc.

Effluent Handling

We have different technologies to handle our effluents. For example, Bioreactor, Fenton Process, Reverse Osmosis, Multi Effect Evaporator, Agitated Thin Film Evaporator, etc.

Global SCM Expertise

Chlorine, HF, DMS, Ethylene

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

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

Own Customs Agent

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

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



60

Countries around the world import from Aarti at 120 ports



21

States in India receive domestic dispatches from Aarti



800

Tanks/containers exported to various countries every month



8,000

Metric Tons of material moves across Aarti locations daily



320

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



Aarti has a **successful track record** of Long Term Partnerships **With Chemical Majors** across sectors



Manufacturing Outsourcing

Sector: Polymers

- **20-year supply contract** for a high value speciality chemical intermediate for a global conglomerate
- Total contract value of **\$1,540 million**
- Capital Outlay of **\$42 mn** fully funded by the customer
- **Proprietary technology** being shared by the partner



Product Co- development

Sector: Polymers

- **10-year supply contract** for a new specialty chemical intermediate for a global chemical major
- Total contract value of **\$125 million** with a capital outlay of **\$18 million**
- Product was co-developed by Aarti with the customer over **4 years** from lab to commercial scale



Long Term Supply

Sector: Agchem

- Long-term supply contract with a Global Agrochem major for a niche agrochemical intermediate
- Revenue potential of over **\$364 mn** over **9 years**
- Existing product for AIL; product supplied to the said customer for past few years
- Aarti has incurred capex to meet the contractual volumes



Long Term Supply

Sector: Energy

- **4-year** supply contract worth over **\$727 mn** with a MNC conglomerate
- Product already a part of existing product basket of AIL
- Supplying this product for the past few years with consistent annual increase in volumes
- Aarti's existing capex plans were sufficient to cover the requirements of this contract



Long Term Supply

Sector: Agchem

- **10-year** supply contract with a leading MNC for a key herbicide intermediate
- Total contract value of **\$620 million**
- Capital Outlay of **\$62m** jointly funded by Aarti and customer
- Contract was **cancelled** due to market conditions but the relationship has expanded in volume as well as breadth



Joint Venture

Sector: Multiple

- **50:50 Joint venture** with UPL for phosgenated derivatives
- First of its kind partnership between two large Indian chemical companies
- Each partner to provide **one key raw material**
- Capital Investment of **\$35m**

Pioneering R&D Excellence



2

State-of-the-art R&D centres at Navi Mumbai & Vapi

40+

Planned product introductions, more than 50% products will be launched first time in India

19

PhDs and 220+ scientists

50,000
Sq. Ft.

Covered by an ultra-modern laboratory

16

Patents filed

Fully Digitised Paperless Laboratory with ISO 27001: 2022 Accreditation

- Developed various products and processes in-house throughout AIL's journey
- Expertise in diverse chemistries at plant and lab scale, including: Photochlorination, Nitrilation, AHF, Grignard, Diazotization and more
- Built a state-of-the-art 12,000 sq. ft. analytical and 8000 sq. ft. process safety laboratory with experienced and qualified scientists
- Has a dedicated team of scientists who develop strategic chemistries for multiple growth projects, such as:
 - Photochemistry
 - Vapour Phase Technology
 - Flow Chemistry Technology
 - Isomerization



ARTC's Advanced Infrastructure: **Enabling Innovation**



Synthesis Lab

- 4 digitized labs (~12,000 sq. ft) with 32+11 fume hoods.
- High-pressure systems and scale-up facilities.
- Advanced equipment and software.
- Expertise in all chemistries except cyanation.

Strategic Technology Lab

- Dedicated lab with 5 + 2 Fume Hoods
- Expertise in Photochlorination, Amoxidation, Kolbe Schmidt, Nitrilation, Hydrolysis etc.
- Sophisticated equipments like –Fixed Bed Reactors (Liquid and Vapor Phase), Photoreactors etc.

ARTC's Infrastructure: Enabling Innovation



Analytical Lab

- State FDA & NABL approved analytical facility spread across 4 labs (~12,000 Sq.ft.)
- Method development, validation & calibration, Structural elucidation, Impurity characterisation & isolation
- ICP-MS / IC, GPC, LCMS/GCMS, PSD (wet/dry), FT-IR, etc.

Process Safety Lab

- Dedicated lab (~4000 sq ft) with sophisticated infra.
- RC1e, TSU, DSC, MIE, ARC to assess process hazards
- Desktop screening, HAZOP, packaging safety study
- Process and Product Life Cycle Assessment
- SDS generation

ARTC's Infrastructure: **Enabling Innovation**



- **Process Intensification Lab**
 - Dedicated lab (~3000 sq ft) for scale-up data generation, design of unit operations and optimization/ What if studies
 - VLE, ANFD, packed bed reactor, CSTR, L-L extraction, loop reactor, micro reactor, fractional & short path distillation setup

Knowledge Management

- ISO 27001:2013 accreditation & IS Management System
- FTO evaluation, IP protection, technology landscapes
- Artificial Intelligence for route scouting
- Tacit Knowledge Digitization
- Scifinder, Reaxys and

Strategizing Emerging Chemistry Applications



Electronic Chemicals

- PPM/PPB scale Metal control
- High purity demand
- Nano filtration, Sublimation etc – Product colour improvement
- Exploration of different resins
- Catalyst and high grade solvent evaluations
- Specialized techniques and analytical method developments



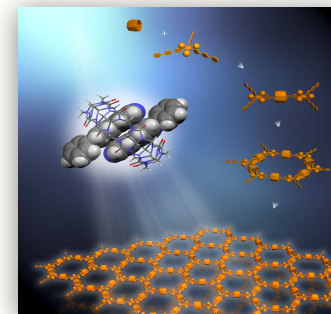
Fuel Cells and Battery Chemicals

- Membrane development technology exploration (partnership model))
- Understanding quaternization, cross linking, N-capping etc.
- Special analytical method developments
- Pilot scale sample generation



Sustainability Chemicals

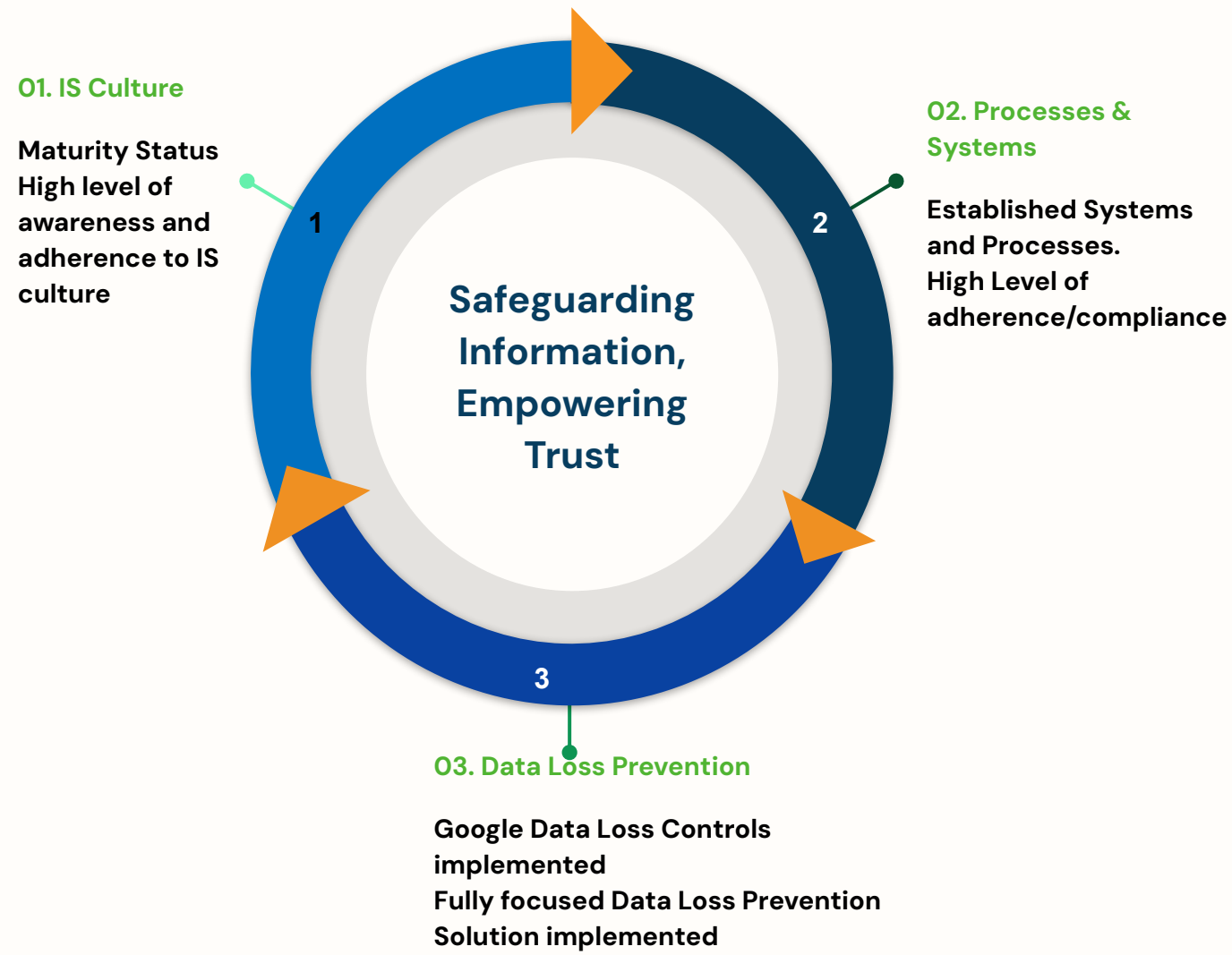
- Polymer additive invention: For high performance and recyclability
- Development of HVO and SAF from renewable feedstocks: used cooking oil
- Feasibility evaluation to utilize end-of-life plastic waste for petrochemical feedstocks
- Carbon capture exploration



MOFs

- Controlling hygroscopicity
- Glove Box capability requirement evaluation
- Sample qualification
- Analytical capability building

Information Security (IS) & Effective Data Management



Existing Chemistries

Hydrogenation

Nitration

Chlorination

Ammonolysis

Diazotization

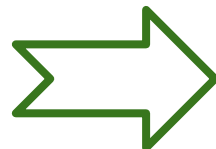
Halex Chemistry

Methylation

Dehalo
Hydrogenation

Ethylation

Esterification

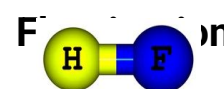


New Chemistries- Under Various Phases of Development

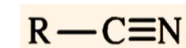
Grignard



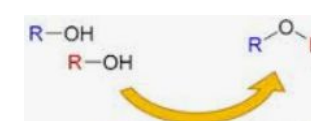
AHF



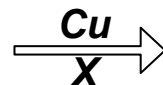
Nitrilation



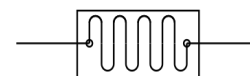
Etherification



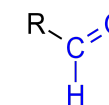
Sandmeyer



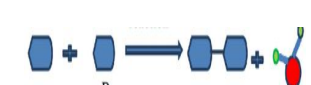
Flow Chemistry



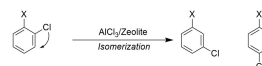
Hydrolysis



Condensation



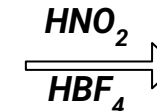
Isomerization



Polymerization



Balz-Schiemann



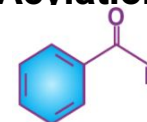
Deamination



Photo
Chlorination



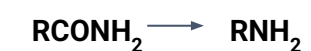
Acylation



Vapor-phase
Nitration



Hofmann
Rearrangement



 Lab scale chemistries (g to kg scale)

 Pilot scale chemistries (10 kg to 1 MT)

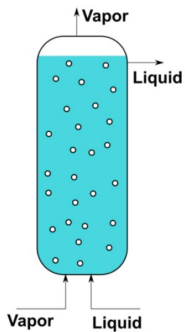
New Pilot Plant Capabilities



- **34 chemistries** can be carried out.
- Inbuilt Analytical lab to carry out Analysis of all pilot samples.
- Inbuilt laboratory set and fume hoods to carry out lab experiments



- MoC of equipments -**SS, Hastelloy, CS-PTFE and MSGL**
- Total Reactor volume of **6500 Litres** in first phase and provision for future expansion
- DCS systems for data monitoring with advanced analytical tools.



- Capable to handle varied Unit operations such Reaction,filtration,distillation,drying etc
- Proto type **Environmental Engg Lab**



- Dedicated utilities such as **hot water, cooling water, DM water, hot oil (300 deg C), chilled water (7- 12 deg C), chilled brine (-20 deg C), steam (14 kg/cm2), and N2.**





The Upcoming Multipurpose Plant

Located in Jhagadia, Gujarat. Part of a 100 acre greenfield chemical complex



Reactors

Reactor Volume	400 KL
MOCs	SS316, MSGL, Hastelloy, PFA Lined



Downstream Processing

ANF	SS316L, Hastelloy
Centrifuge	Hastelloy
Dryer	SS316L
Columns	SS316L, MSGL, PTFE Lined
ATFE	SS316L



Utility

- Steam
- Cooling
- Water
- Chilling
- Water
- Chilled Brine
- Hot Oil



Other Infrastructure

- Storage tanks of diverse usage incl.
- PESO Solvents
- 5 Bays for future expansion
- Scrubbers for plant, process pad and tank farm
- Flexible piping for quick product changeover
- Hydrogen, Chlorine via pipeline
- HCL management assets

To be operational by Q3 2025



Speed

Quicker scale-up to commercialization



Flexibility

Greater volume flexibility from 500 kg to 500 tons

BENEFITS



Multitasking

Run upto 4 products or 8 steps in parallel

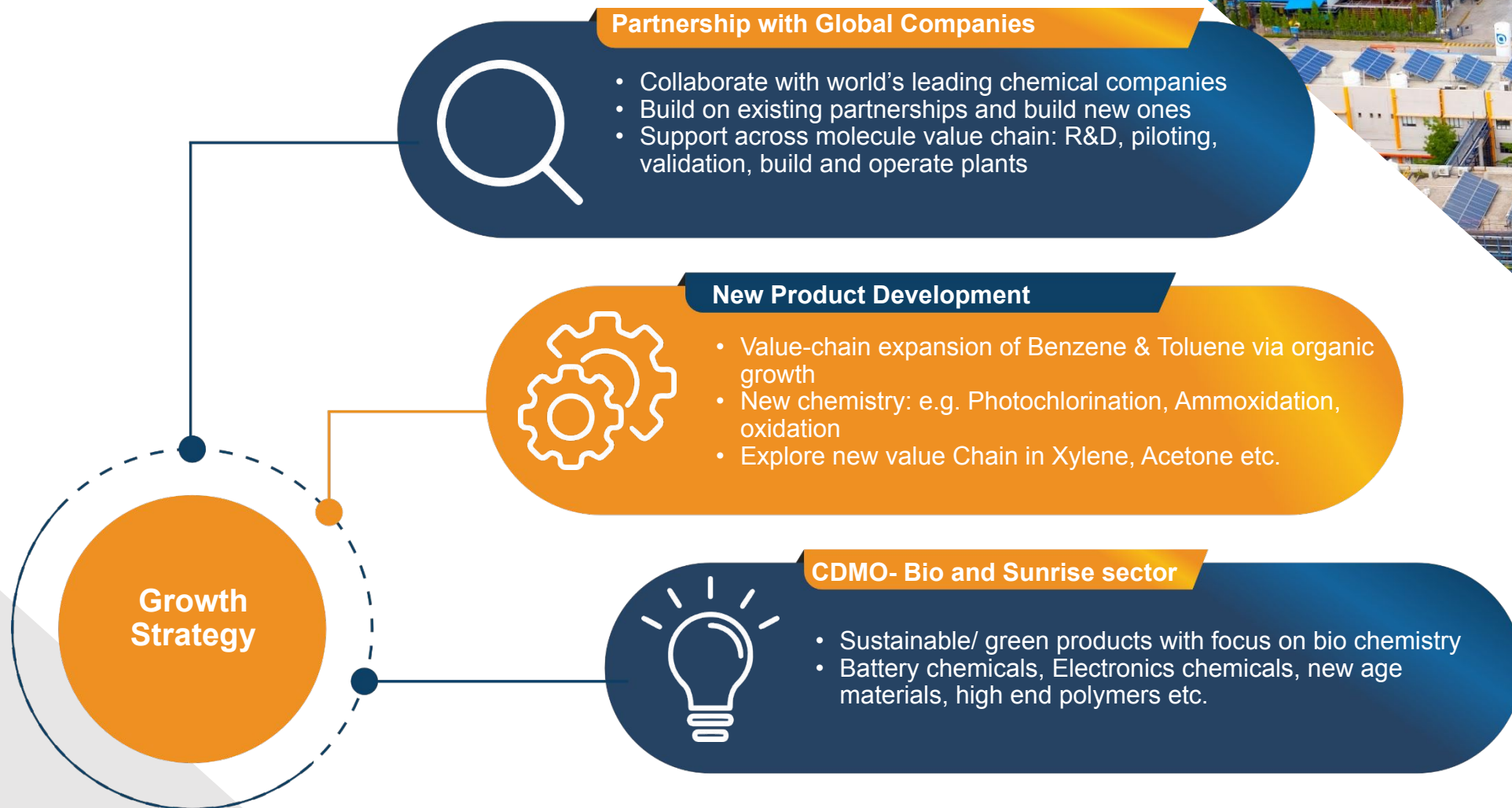


Added Benefits

Campaign plants for multiple chemistries available on site



Future Growth Avenues





Thank You...