

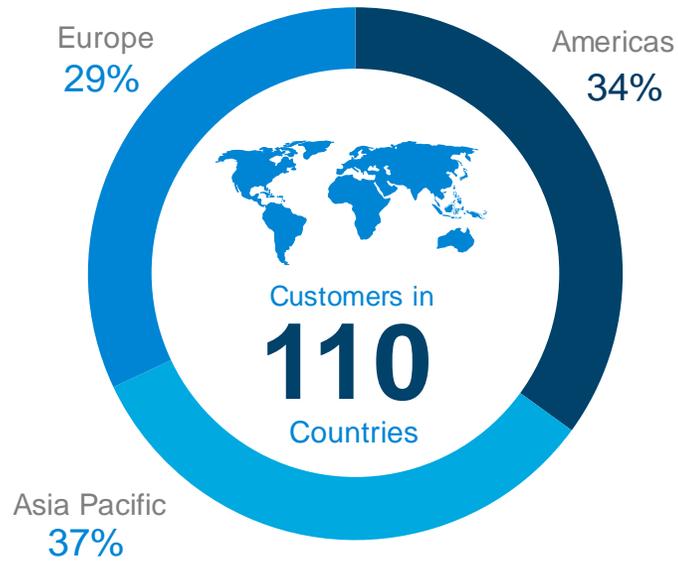
# Role of Agilent Technologies to Serve Indian Chemical Market

*Praveen Arya*  
*Application Specialist - GCMS*

*praveen\_arya@agilent.com*



# Agilent Technologies :



**265,000**   
Customer Labs



**>16,000**  
Employees

 **3600**  
Service Engineers

 **1320**  
Remote Support

 **900**  
Applications Support

 **50**  
Technology Platforms

 **8%**  
R&D Spend vs. Revenue

 **1,000,000**  
Customer Interactions Per Year



## Sustainability

DOW JONES SUSTAINABILITY RANKINGS 2019 – Science Tools and Services  
BARRON'S 100 MOST SUSTAINABLE 2020

**Top 100**

Best Places to Work  
China, US, Germany

Employer of Women in China  
Great Places to work (GPW) Institute

Employer of Women  
FORBES 2019

# Our Presence and Collaboration

A global, collaborative team, serving vital industries



Pharma



Chemical and energy



Food



Environmental  
and forensics



Diagnostics



Research

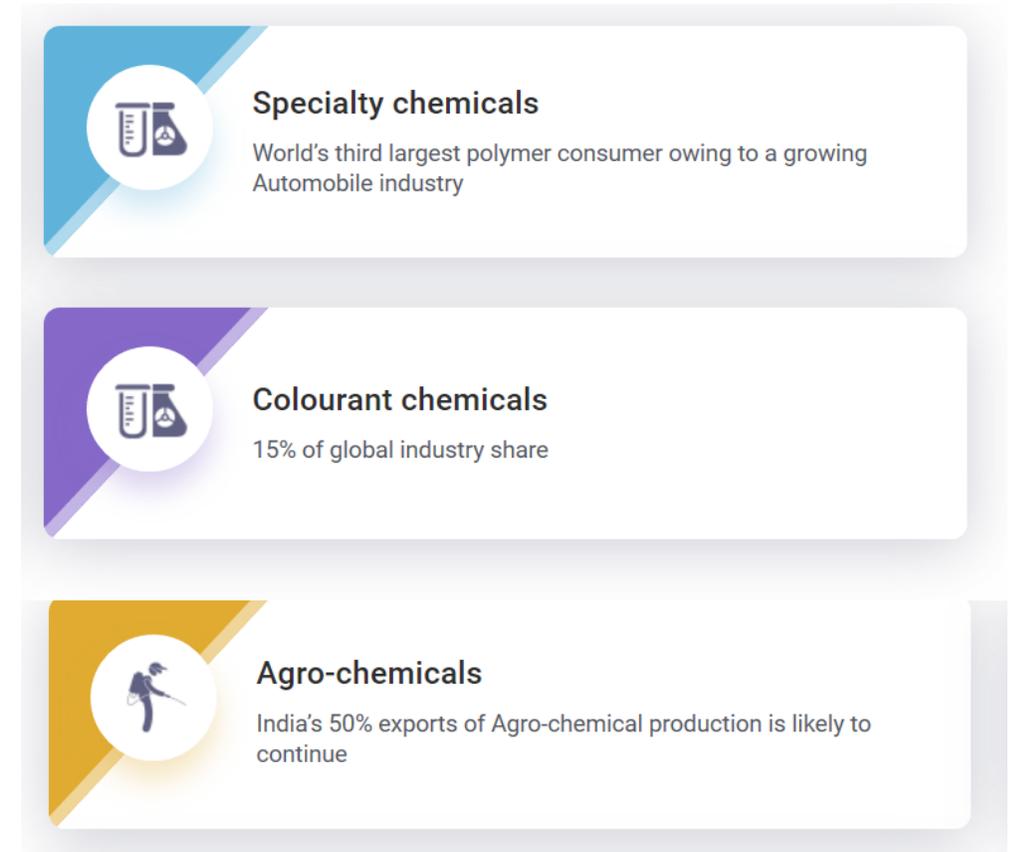
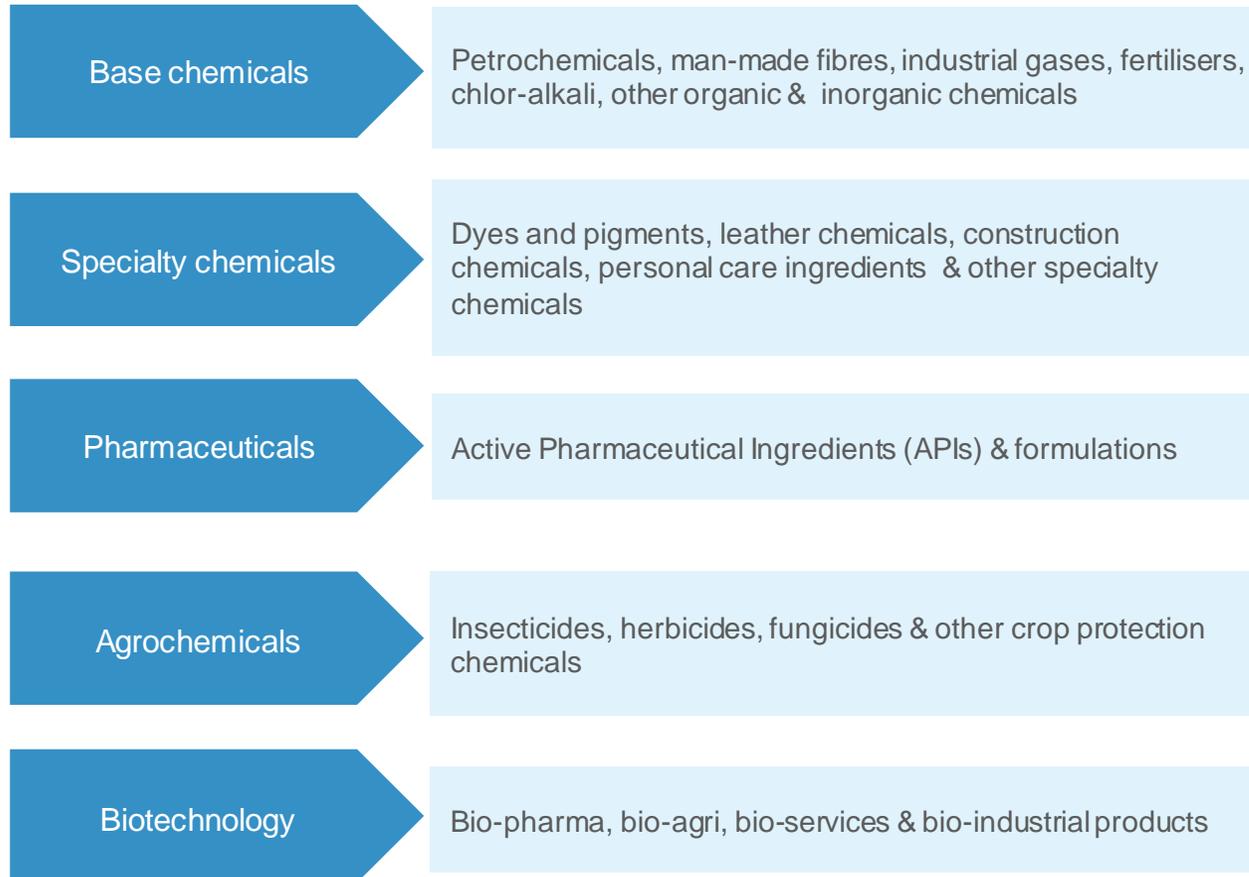
## Committed to

Accelerating the  
**advancement of science**

Providing **complete,  
integrated solutions**

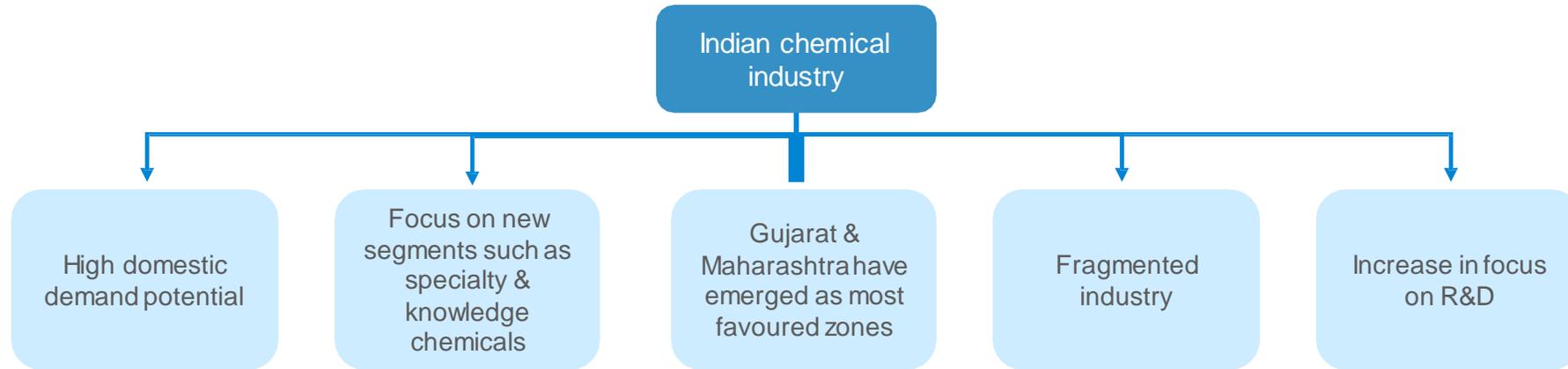
Championing  
**your success**

# Major Segment of Indian Chemical Industry



Source: TATA Strategic Management Group, TechSci Research  
[www.investindia.gov.in/sector/chemicals#](http://www.investindia.gov.in/sector/chemicals#)

# Growth Drivers of Indian Chemical Industry



## Key Drivers

### Green China (Migration of paint/textile business)

- India export business grew by exponentially

### Robust demand

- Large population base coupled with strong export demand

### Chemical manufacturing hub

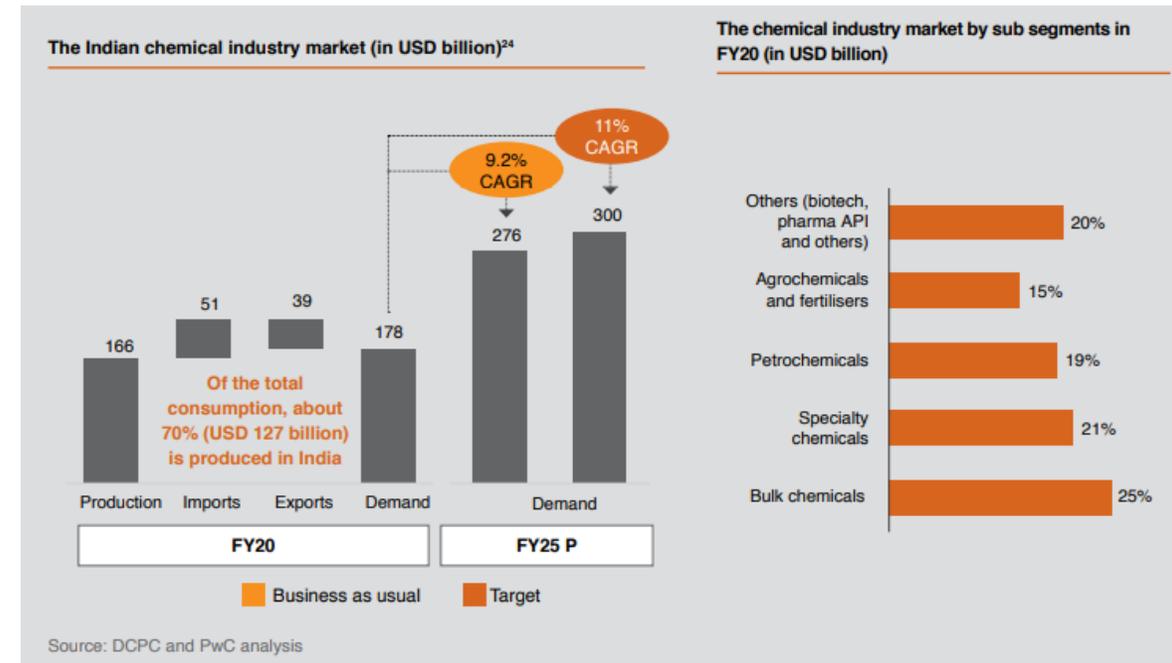
- The global shift towards Asia as the world's chemicals manufacturing hub

### New focus segments

- The Specialty Chemicals market is expected to increase at a CAGR of 12.4% from the US \$32 billion in 2019 to an estimated US \$64 billion by 2025

### Cost competitive manufacturing

- Skilled manpower, world-class engineering, and strong R&D



## Application Solution for India Chemical Industry



- ❖ Characterization of raw materials, such as actives, additives, Dyes, and surfactants, to the composition and stability of the formulated product using **8890/60/INTUVO7697 head space**
- ❖ **Hand Sanitizer using 8890/60 GCFID**



## SOLUTIONS FOR SPECIALITY CHEMICALS



- ✚ Accurate and precise Pharma intermediates analysis
  - ✚ Various detectors available like DAD, UV, FLD, ELSD, RID
  - ✚ Highest level of sensitivity
- USP: Smart alert enable, ETC (Electronic temperature control), Smart diagnosis options in software, ALS programming, auto calibration.**

## Basic Chemicals

- **Petrochemicals, man-made fibers,**
- **Industrial gases**
- **Alkali, and other organic and inorganic chemicals**
- **Resins and membrane**

## Specialty chemicals

- **Dyes and pigments, leather chemicals,**
- **Construction chemicals,**
- **Personal care ingredients and**
- **Organic and inorganic catalysts**

## CnE Sub Segments

## Agrochemical

- **Insecticides,**
- **Herbicides,**
- **Fungicides**
- **Other crop protection chemicals**

## Polymers

- **Broad range of polymer for broad market applications**
- **High quality polymers (well characterized)**

## Elemental Solution

- Analysis of inorganic salts & chemicals (Dyes/pigments) using MP-AES & ICP-OES
- Estimation of elemental content & metal impurities in Cement matrix as per IS & CPCB regulations using ICP-OES
- Analysis of fertilizers/bio-fertilizers & fine chemicals using AAS/MP-AES/ICP-OES
- Estimation of migration of toxic metals from Toys as per IS 9873-3 & 5/EN71 regulation using ICP-MS & ICP-OES.



# Centre of Excellence



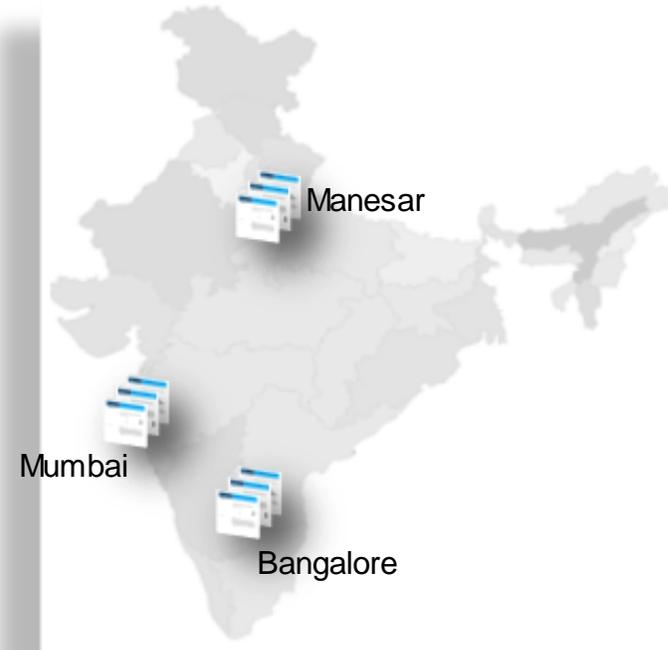
COE, Mumbai



COE, Bangalore



COE, Manesar



- Providing Education
- Technical Assistance
- Demonstration
- Laboratory Solution development
- Collaboration with Industry on Solution Development

## Analysis of Ethanol and Isopropanol in Alcohol-based hand sanitizers by direct injection GC/FID

Vanessa A. Stremple<sup>2</sup>

191 Blue Ridge  
Technology

72850 Central  
Agilent Technologies

### Digital Connect

Digital connect on analyzing alcohol levels in your hand sanitizers and assessing material properties of non-medical masks

18<sup>th</sup> Sept. 5.00 pm IST



### Live Webinar

Agilent Solutions for Chemical and Energy Market

23 July, 3.30pm IST



## Analysis of Alcohol Levels in Hand Sanitizer

Answers in the lab or in the field with Agilent FTIR instrumentation

- Customer based Webinar on Hand Sanitizer using GCFID targeting SMEs and Sanitizer Manufacturers.

- Digital Connect on Analysis of Non-Medical Mask using FTIR CnE

- Webinar based on Application Coded Agilent's Complete Solution to address CnE market

- FTIR based solution to address customer-based Webinar on Hand Sanitizer targeting SMEs and Sanitizer Manufacturers.

# Agilent: A Powerful Combination

## ACCESS

Services and financial options to support a smooth transition to new technology, and faster time to value.

## INSIGHT AND INNOVATION

Continuous R&D investment, advancing technologies in analytical lab instruments, services and software, diagnostics and genomics.



## CAPABILITY

CrossLab, OpenLab, and InfinityLab brands help you get the most from your instrument investment, improve operational efficiency, increase data integrity, and optimize workflow and lab performance.

## THE RIGHT TEAM

We are a global team of experts committed to making you successful.

# Important Update

<https://www.reachlaw.fi/india-reach/>



## WHAT IS INDIA REACH ALL ABOUT?

India has recently circulated Draft – Chemical (Management and Safety) Rules, 20xx, "India- REACH" (or ICMS Rules or CMS Rules) which will replace existing **Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules 1989** and **Chemical Accidents (Emergency Planning, Preparedness and Response) (CAEPPR) Rules 1996**.

These rules are framed in exercise of the powers conferred by Sections 3, 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986).

*India REACH regulatory requirements shall come into force on the date of their publication in the Official Gazette, expected during 2021.*

<https://resource.chemlinked.com.cn/chemical/File/fifth-draft-of-india-reach.pdf>

## WHO NEEDS TO COMPLY WITH INDIA REACH?

Following actors are required to comply with India REACH regulation once it enters into force:

- Indian Manufacturers
- Indian Importers
- Authorised Representative/AR – located in India appointed by Foreign Manufacturers

Like EU REACH regulation, Non-Indian companies can appoint an Authorised Representative in India to prepare and submit their notifications and registrations to the Indian Authority. **At REACHLaw we will be happy to provide you with Authorised Representative services.**

## Few Points of the draft regulation:

- **The Chemical Regulatory Division (CRD) will be established as the competent authority for chemical management in India.**
- **Notification of new chemicals is required before entering the India market.**
- Notification will be required within 180 days from the date of enforcement of the regulations.
- Companies will be required to register Schedule VI listed substances over 1 t/y and will need to follow the requirements set out in Schedule VII. Chemical Safety Reports (CSR) are required for these substances over 10t/y.
- **Companies handling priority and hazardous chemicals are subjected to further regulatory requirements** (e.g. chemical safety report, exposure scenarios, restriction, prohibition)

# Which Techniques are suitable?

## GC/MS Based Screening and Targeted Quantitation



Columns & Accessories



8890 GC/7697A HSS/ 5977B MSD



8890 GC/7693 LS/ 7000D TQ

### Mass Hunter Software

Phthalates PBDEs  
PBB  
PCB  
PAH  
Amide  
Glycols  
Organotins  
Nitroso compounds  
Organosilicon

DB-5ms Ultra Inert  
J&W CP-Sil 8 CB for Amines  
CP-sil 8 CB for PCB  
EU-PAH

# Thank you!

For more information on Agilent's Chemical Analysis solutions please visit

<https://www.agilent.com/en/solutions/energy-chemicals>

