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**insecticides**  
(INDIA) LIMITED



Ref: IIL/SE/2019/1812/1  
December 18, 2019

**The Manager**

<b>Listing Compliance Department</b> BSE Limited (Through BSE Listing Centre)	<b>Listing Compliance Department</b> National Stock Exchange of India Limited (Through NEAPS)
<b>Scrip Code: 532851</b>	<b>Symbol: INSECTICID</b>

**Sub: Submission of Investors Presentation under the SEBI (Listing Obligations and Disclosures Requirements) Regulations, 2015**

With reference to our letter No. IIL/SE/2019/1612/1 dated December 16, 2019 wherein we have informed the exchange having Investor Meet on December 18, 2019 at Grand Hyatt, Santacruz, Mumbai, in this regard we wish to submit the Investors Presentation pursuant to Regulation 30 of SEBI (Listing Obligation and Disclosure Requirements) Regulations, 2015.

Kindly take the above information on record.

Thanking You,  
Yours Truly,  
**For Insecticides (India) Limited**

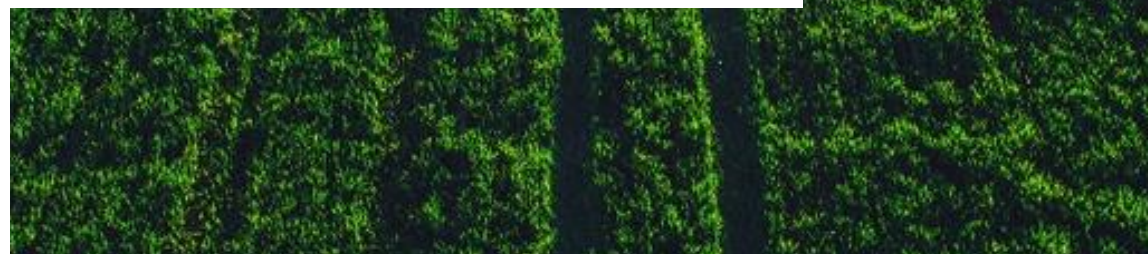
*Sandeep Kumar*  
Sandeep Kumar  
Company Secretary



*Encl: As Above*



BRINGING  
WORLD CLASS TECHNOLOGY  
TO  
**INDIAN FARMERS**



# Capital Markets Day Presentation 2019

This presentation contains statements that contain “forward looking statements” including, but without limitation, statements relating to the implementation of strategic initiatives, and other statements relating to Insecticides (India) Limited (“Insecticides India” or the Company) future business developments and economic performance.

While these forward looking statements indicate our assessment and future expectations concerning the development of our business, a number of risks, uncertainties and other unknown factors could cause actual developments and results to differ materially from our expectations.

These factors include, but are not limited to, general market, macro-economic, governmental and regulatory trends, movements in currency exchange and interest rates, competitive pressures, technological developments, changes in the financial conditions of third parties dealing with us, legislative developments, and other key factors that could affect our business and financial performance.

Insecticides (India) undertakes no obligation to publicly revise any forward looking statements to reflect future / likely events or circumstances.

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# 1. Business Overview



**Mr. Rajesh Aggarwal**  
Managing Director

## Mission

Our purpose, what we are

We work to make agriculture sustainable and profitable for our farmers, ensuring food security for all living beings on earth, using simple and effective technologies

## Vision

Our dream, our big contribution to this planet earth

We will make this earth greener and cleaner through our work and our various product portfolio that will become the first choice for all farmers worldwide

# Business Overview

Engaged in the manufacturing and marketing of crop-protection products

Four product categories:  
Insecticides, Herbicides,  
Fungicides,  
Biologicals and Plant Growth  
Regulators (PGRs)

5 R&D centers – Developing a  
comprehensive range of  
agro chemical products

State-of-the-art manufacturing  
facilities in Chopanki  
(Rajasthan), Samba &  
Udhampur (Jammu & Kashmir)  
and Dahej (Gujarat)

100+ Branded products  
20+ Technical  
375+ SKUs

60,000+ retail outlets  
5,000 Distributors  
28 depots/branches  
500+ sales team



Headquarters - Delhi,  
started operations  
in 2001-02



Nation-wide strong customer  
reach under umbrella brand  
'Tractor Brand'



## Our Business

Domestic

International

Brand

Institutional

Maharatna

Other Brand

Formulations

Technicals

Agrochemicals

Biological Products

Household Products





# Agriculture Sector in India

- ❖ With a population of 1.27 billion India is the world's second most populous country
- ❖ India is the world's largest producer of milk, pulses and jute, and ranks as the second largest producer of rice, wheat, sugarcane, groundnut, vegetables, fruit and cotton



## Growth Drivers

- ❖ **Government Policy Support:** Increasing MSP, Exports facilitation and Promotion Schemes
- ❖ **Innovation:** Hybrid and genetically modified seeds, mechanization and irrigation system development
- ❖ **Market Demand:** Increasing population and disposable income
- ❖ **Infrastructure:** Large proportion of agricultural land and increasing storage capacity

“To bring synergetic benefits to farmers by providing a comprehensive range of agro chemical product mix.”



Continuously adopting innovative measures

Always evolving in best interest of farmers



Eco-friendly production

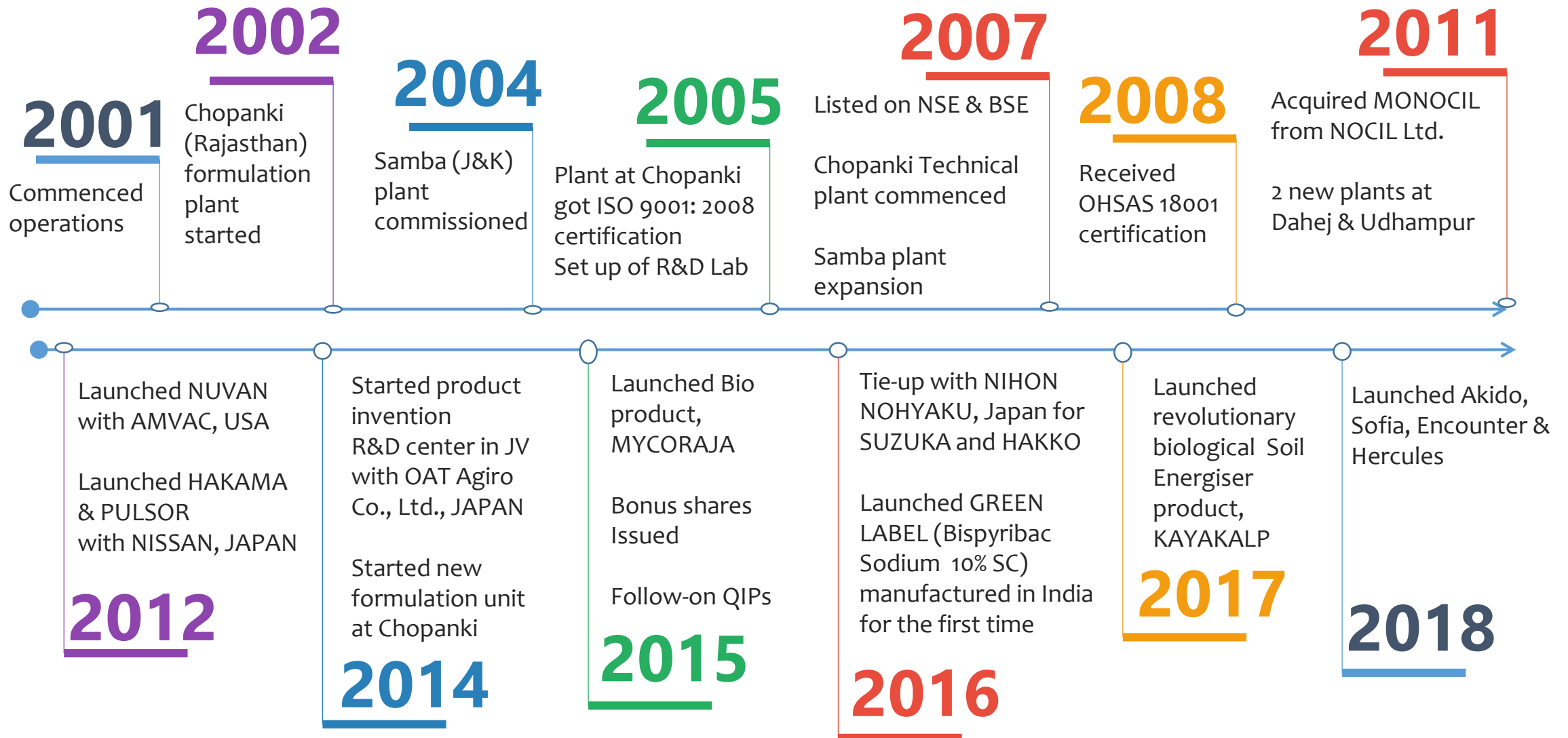


Advancing towards sustainable agricultural practices



Ultra-modern automated manufacturing for consistent quality and safety.

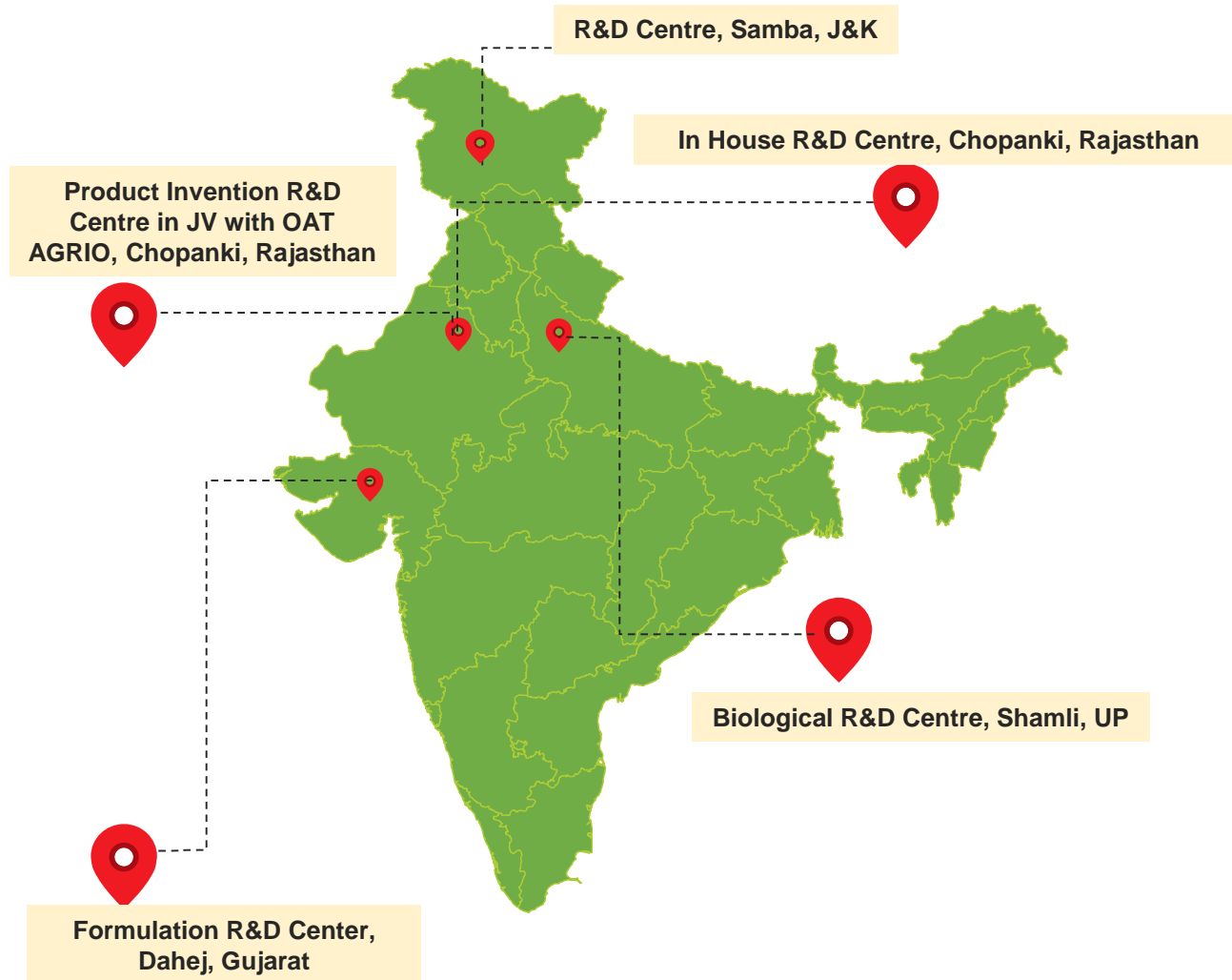
# IIL Evolution



## Innovate, Integrate and Lead



\*under toll arrangement



- There is definite need to innovate and focus on new products / molecules to stay relevant in the competitive and dynamic landscape
- Chopanki was the IIL's first R&D centre established in 2004 and as of today we have, 5 R&D centres with 75+ well experienced scientists
- IIL has built State-of-the-art R&D centre for Technicals, Formulations, Reverse Engineering and Biologicals
- R&D centres have delivered many successful product such as Green Label, Hercules, Encounter, Sofia
- Many products are in pipeline, our R&D remains fully committed and working on the products to be launched in the medium term and long term
- Investing in R&D today for a better tomorrow and this will allow IIL to stay ahead of its competition in the long run

**R & D has played a pivotal role in transforming IIL business and will continue to drive future growth**



## 2. Research and Development



**Dr. Mukesh Kumar**  
GM – R&D



**Mr. Shailesh Patel**  
DGM –R&D



**Dr. LC Rohela**  
Sr. GM - QA



**Mr. Kazuya Kishimoto**  
MD & CEO  
OAT & IIL India Laboratories



**Dr. Kallolmay Biswas**  
GM – R&D  
OAT & IIL India Laboratories



## 2.1 R&D - Chopanki



**Dr. Mukesh Kumar**  
GM – R&D

# Vision of R&D Centre - Chopanki

- Chopanki was the IIL's first R&D centre and was established in 2004
- Focus on reverse engineering of off patented products
- Development of New Formulations; ecofriendly & ready-mix solutions for farmers
- Development of New Technicals (Active Ingredients)
- Optimizing parameters for process of technicals for cost reduction
- Work on effluent treatment to minimize cost for it
- Replacement of toxic solvent
- To work with DSIR, Ministry of Science and Technology to contribute towards the growth of Indian agriculture
- Contribute towards the growth of Indian agriculture
- Process development for import substitution
- Registration of the products

**2004  
Established**

**Chopanki,  
Rajasthan  
Location**

**In-House R&D Centre  
recognized by DSIR,  
Ministry of Science and  
Technology, New Delhi**



## R&D Equivalent to International Standards

- Well-designed instrument and process lab
- International exposure to R&D scientists
  - Participation in National and International conference
- Patent granted for import substitute products like Imidacloprid and Acetamiprid, MNIO and PMIDA
- All lab procedures are carried out as per GLP guidelines
- Pre-inspection audit for GLP recognition done

## Team




- Experienced and dedicated scientist in R&D
- Team of 12 employees at Chopanki R&D centre
  - Doctorate – 2
  - Post Graduate – 6
  - Graduates - 4

## R&D Equipment

- Well furnished and best- equipped R&D laboratory with all safety measures
- LC-MS: 1, HPLC: 3, GC –MS : 1, GLC :3 , Prep-HPLC : 1, FTIR: 1, UV-visible spectrophotometer: 1
- R&D is well equipped with all utilities. We have 6 fumehoods where 12 reactions can be carried out simultaneously



# Certifications and Recognitions – Chopanki

	Certification	Framework
	ISO 9001:2015	Quality Management System
	ISO 14001:2015	Environment Management System
	ISO 45001: 2018	Occupational Health & Safety Management System

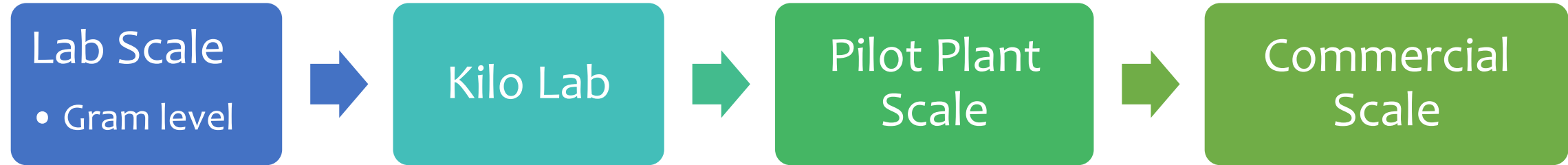
## Recognitions

- Recognized by DSIR: Since 2005
  - IIL In-House R&D Centre recognized by DSIR, Ministry of Science and Technology, New Delhi
- NABL Accreditation of QC Labs at Chopanki



# Process of Scaling Up from Lab to Commercial

In House R&D Labs for Testing and Commercializing Potential Products  
at a Low Cost and Shorter Turnaround Time



## Achievements

	Products Developed	Commercialized
Insecticides	26	17
Herbicides	16	11
Fungicides	9	3
<b>Total</b>	<b>51</b>	<b>31</b>

## Key Technical Products Developed Contributing to Maharatna

Technical	Chlorpyrifos	Thiamethoxam	Diafenthiuron	Acetamiprid
Brands	Lethal Range of Products	Bheema	Hercules	Hercules
		Bheema Super	Logo/ Gama	Sharp
		Arrow		

## Strategy for Process Improvement

1. Quality Improvement
2. Remove Cumbersome Process
3. Removal of Multiple Solvents
4. Make Processes - Simple, Shorter and Cost-Effective

## Way Forward

Identified new products to meet farmer requirements and 15 products are under development



## 2.2 R&D - Dahej



**Mr. Shailesh Patel**  
DGM –R&D

## Key Objectives

- Process improvement of existing products with respect to cost
- To develop the process for new products /intermediates in terms of competitive cost, energy efficient and environmental friendly to stay ahead of farmer's requirement and market competition
- Formulation development
- Backward integration
- Contribute for safe and eco friendly practices in agriculture
- Adopt and implement new research technology

## Capabilities

- Design and Development
- Project approval to commercialization
- Product registration (CIB/Export)

## Unit Process



## Dahej R&D Overview

- Established in 2014
- Well equipped with latest technology and facility
- New molecules development, process scale up and technology transfer to plant
- Impurities synthesis and characterization
- Plant trouble shooting/support
- Five batch analysis as per GLP guidelines

## Team

- Team of 10 employees at Dahej R&D centre
- Doctorate – 1
- Post Graduate – 7
- Others - 2

## R&D Equipment

- 2 Labs with fume hoods and all required facilities.
- Separate dedicated ADL facility with GC, HPLC etc.



## Objectives:

1. Independency of the key raw materials procurement
2. Cost benefits: Reduce the cost of purchasing the raw materials. Will also result in reduction of wastages, transport costs and other costs
3. Increased control: Control the supply chain process in a more efficient manner

**Six intermediaries developed to get independency of the key raw materials and realize cost benefits**



## Technicals

	Products Developed	Commercialized
Insecticides	4	2
Herbicides	7	4
Fungicides	2	2
<b>Total</b>	<b>13</b>	<b>8</b>

## Formulations for Exports

	Products Developed	Commercialized
Insecticides	11	8
Herbicides	5	4
<b>Total</b>	<b>16</b>	<b>12</b>

## Key Products Developed Contributing to Maharatna

Technicals	Imazethapyr	Bispyribac Sodium	Glyphosate	Pretilachlor
Brands	Selector	Green Label	Hijack	Racer
			Hijack Super	Super Racer
			Flight 71	



## 2.3 R&D - Biological and Patents



**Dr. LC Rohela**  
Sr. GM - QA

# Why Biologicals?

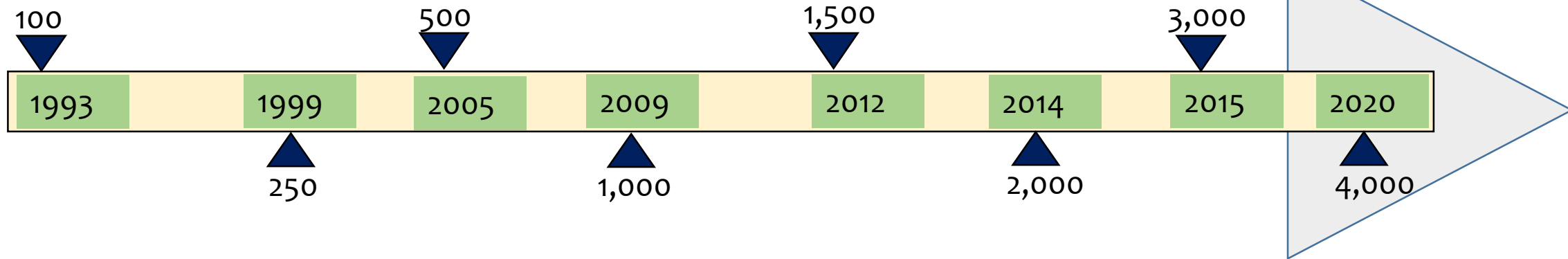
- Modern science is **200 years** old while nature science is **3 billion years** old
- Nature science wonders- Sequoia tree 100ft wide, 100ft tall withstand 100 tons of load in structure made of cellulose - strength is more than steel
- Integrated Crop Management (ICM) and Soil health - **Low toxicity to humans and nontarget insects**

## Modern science following nature science path:

Material science	<ul style="list-style-type: none"><li>• Biopolymers</li></ul>
Medicine	<ul style="list-style-type: none"><li>• Penicillin to cefixime etc., Taxol to Docetaxil, Neutraceuticals- Plant Derived</li></ul>
Cosmetics	<ul style="list-style-type: none"><li>• Herbal blends</li></ul>
Agriculture	<ul style="list-style-type: none"><li>• Pyrethin to synthetic pyrethroids</li><li>• Nerotoxins to insecticides</li></ul>

**Recent trends** – Biosimilar molecules in medicines, biosimilar peptides derived from spider venom as effective as agrochemicals with zero harvest waiting period **Is On A Rising Trend**

## Global Market Potential – USD millions



### Future Market Drivers

- Fewer new synthetic crop protection active ingredients will emerge - too expensive
- Improved market access for bio pesticides and bio stimulants
- Federal registration guideline for bio stimulants in EU & USA will make market more attractive
- ICM + Soil health
- MNC's in last 4 years have acquired Agri biological products manufacturing companies

# Biological Facility Overview

**Lab Facility:** Aseptic lab, autoclaves , microscopes, laminar air flow, incubator, cryo centrifuge

**Location:** Shamli, Uttar Pradesh

**Biological Team:** Doctorate – 4 , Post Graduate - 1 , Graduate - 3

## Total Product range

- Biofertilizer, Organic Manure, Soil Enrichment and Biostimulants
- Projected reduction in chemical fertilizers by 25%

## Business Potential

- Current CAGR 10-15% in global Agri bio business

33 Cr  
Biological Revenue  
FY2019



## Products Commercialized

### MYCORAJA

- Vascular Arbuscular Mycorrhizae based fungal formulation

### PRIME GOLD

- A biologically fortified PGR

### MILSTIM

- A liquid organic manure

### ROOT BEAD

- For increasing root nodule formulation in pulses

### KAYAKALP

- A consortia of micro organisms for soil enrichment . It has potential for rejuvenating soil and has the capacity to protect plants from soil borne pathogens

## Products in Pipeline

1. **Kayakalp PRO:** Kayakalp application was on farm fermentation for 6 days. Kayakalp Pro designed to 12 hrs on farm fermentation. Capacity for soil rejuvenation and controlling soil borne pathogens
2. **Zinc Solubilising Bacteria:** Under launching, capable of fortifying produce with Zinc and will support combating diabetes
3. **Glomus Arbuscular Mycorrhizae:** Production by root organ culture technique. Developing roots in jars in asptic conditions with mycorrhizae. Very good activity for transfer of nutrients to roots. Good export potential to USA, EU, Australia

- **Design Of Formulation**
  - Activity by contact, systemic or stomach
  - Single or multiple activities
- **Threats**
  - Hydrophobic agrochemical, 50-250g to spread over 1 acre in terms of land and 20-30 acres when calculated on leaf area in 1 acre
  - Uniform distribution up to target
  - Synergism establishment in case of combinations
- **Solutions** – Micronization, surface chemistry aided by suitably designed surfactants. Tank mix adjuvants
- **Types Of Formulations-** EC/SC/WP/WG/CGR/SC/CS/EW/SE/ ME

## No. Of Formulations

	Commercialized	Under Development
<b>Single AI</b>	11	1
<b>Combinations</b>	4	19
<b>Tank Mix Adjuvants</b>	3	2

### Development Support

- Developing synergistic combination formulations performing multiple actions through different modes of action with increased bio efficacy duly supported by bio- efficacy team
- New generation formulation in SC/SE/CS/SG/ME form which are farmer friendly

Intellectual property of developed innovative products / process preserved through patents



**7**  
Patents Granted

**22**  
Patents Pending

	Biotech	Formulation	Synthesis	New A.I.
<b>Patents Granted</b>	-	3	4	-
<b>Patents due for Grant</b>	1	12	1	8





**Aim –** 

**Target –** Adherence to quality policy

**Advantage –** Farmer's satisfaction and brand development

## Evaluation Criteria

- ✓ Standard operating procedure
- ✓ QC-RM/PM/FG
- ✓ Market complaints
- ✓ Corrective Action Preventive Action (CAPA)

## Well Defined Process





## 2.4 R&D - OAT & IIL India



**Mr. Kazuya Kishimoto**  
MD & CEO  
OAT & IIL India Laboratories

## Indian Experience on R&D

- ❖ India is suitable for R&D with nearly all crops and seasons
- ❖ Man-power is good and available reasonably
- ❖ Efficacy testing is possible round the year
- ❖ Easy to do field trails due to IIL's pan-India presence

## Relationship with IIL and Experience

- ❖ IIL's long term vision for Research is a major reason for association
- ❖ OAT and IIL will bring the new chemistry with least possible cost
- ❖ Relationship with IIL has been great in these years and look forward to work on many more ventures
- ❖ Management is aggressive and fast decision is one of core strength's

## Vision

- ❖ Becoming a first-class research & development centre, which continuously invent/develop new molecules to contribute to the world crop protection markets (including India & Japan)
- ❖ Will target to be a first company to invent an "Invent in India" first pesticide

## History

- ❖ Established on 6th March, 2013 with approximately 50 employees, consisting of chemists/biologists and supporting staffs.
- ❖ 4 chemistry laboratories
- ❖ Total number is increased to 60 as on Nov, 2019

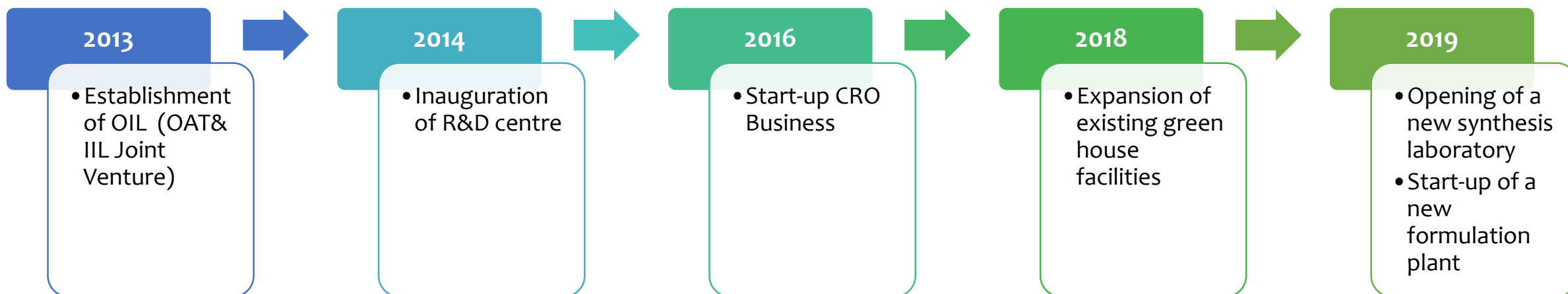




## 2.5 R&D - OAT & IIL India



**Dr. Kallolmay Biswas**  
GM – R&D  
OAT & IIL India  
Laboratories



## Mission

- ❖ Contribute to sound crop production through novel sophisticated crop protection agents and support the rich diet and health of people
- ❖ Creation of new agrochemicals with high safety to mammals, animals and non-target organisms and no impact to environment
- ❖ The residue of this product will be insignificant so that the crop can be used for consumption even after one day of spray

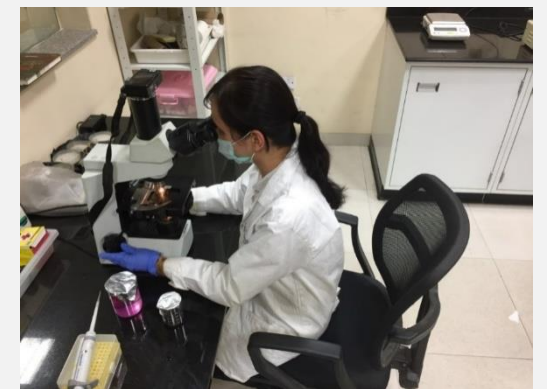
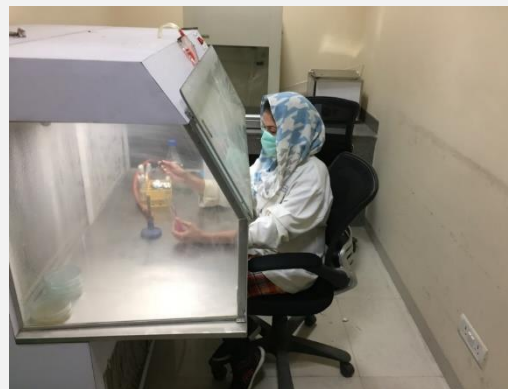
## Invention at R&D Centre

- ❖ First time, a Japanese company established such facility in the field of agro-chemicals in India
- ❖ Approved by DSIR, Ministry of Science and Technology
- ❖ 45+ scientists are conducting research
- ❖ Lead by renowned scientist with more than 20 year of experiences in the field of agrochemicals
- ❖ We have 5 Japanese leading the R&D centre

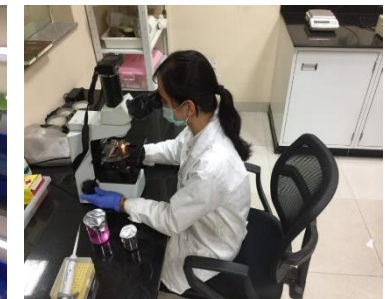
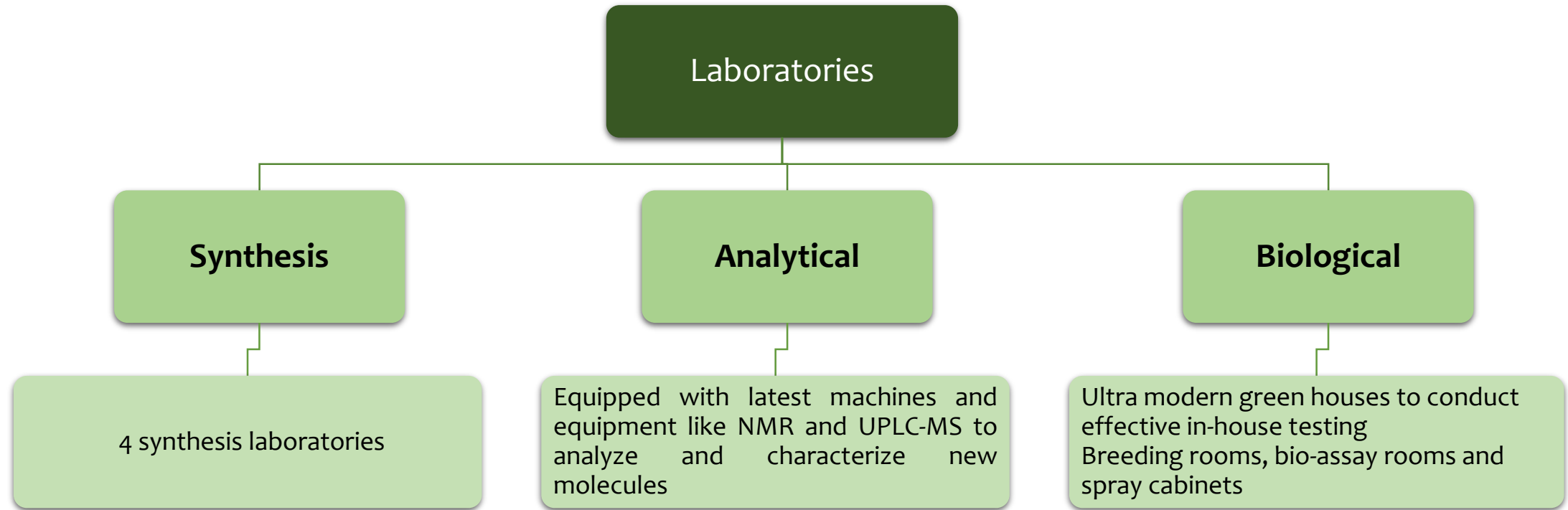
## West Building - Synthesis Lab



## East Building - Biology Lab







## Chaperone

### Sodium Para - Nitrophenolate 0.3% SL

- Plant Growth Regulator (PGR) which effects various stages of development of plants
- Stimulation of activity of enzymes resulting in faster cytoplasmic streaming, more efficient photosynthesis and mineral uptake

#### Advantages:

- Enhances germination and rooting
- Stimulates Vegetative growth and Flower bud development
- Accelerates Pollen germination
- Improves health as well as quality of crops
- Resulting in higher yield which gives more profit to farmers

## Formulation Plant



## Way Forward

- Develop new generation products and new generation formulations
- The flexible business model has enabled us to deliver good outcomes in a relatively short period of time
- The team is now concentrating on cost reduction, customer friendly and environment safe products



# 3. Regulatory, Market Development and Manufacturing



**Mr. Sanjay Vats**  
Vice President



**Mr. Sanjay Singh**  
GM – Market Development



**Mr. Bhupendra Tiwari**  
Head Manufacturing



# 3.1 Regulatory



**Mr. Sanjay Vats**  
Vice President

## Regulatory Environment in India

- ❖ India is one of the most dynamic generic pesticide manufacturers in world and is fourth largest pesticide manufacturer after China, USA and Japan
- ❖ Use of pesticides in India is regulated by the Insecticides Act, 1968 and Rules, 1971
- ❖ All pesticides (Insecticides, Fungicides, Herbicides, Public Health insecticides) must be registered with Insecticides Board & Registration Committee (CIB & RC)

## Registration Process

1

Registration is done under various sections of Insecticides Act, 1968

2

Application for the registration is prepared in Form-I and submitted online

- All requisite data (Chemistry, Toxicology, Bio-efficacy and Packaging) as per approved latest guidelines of CIB & RC is submitted

3

Scrutiny of submitted data by concerned scientists/technical officers to check data conformity

4

Registration approval by the Registration Committee

## Registration Categories and Timeframe

<b>9 (3)</b>	First-time manufactured/imported in India	<b>Original Registration</b>	<b>5-6 Years</b>	Data generation: 2.5 - 3 Years CIB & RC: 2-3 Years
<b>9 (4)</b>	Already registered pesticides	<b>Me-too Registration</b>	<b>2.5-3 Years</b>	Technical: 2.5 – 3 Years Formulations: 1-1.5 Years

## Registration Process Challenges

- ❖ Immense data requirement for registering new product in India
- ❖ Slow process to scrutinise the application resulting delay in registration approval

## Dedicated Team to Speed Up the Process

### Team

- 6 experienced members specialized in different streams and following up with regulatory departments:
  - Toxicology
  - Chemistry
  - Bio Efficacy
  - Packaging

## IIL 9(3) Registrations

Technicals	Formulations
2	10

Name of the Product	Product Category	Brand Name
Bispyribac Sodium Technical 95% Min.	Technical	-
Bispyribac Sodium 10% SC	Formulation	Green Label
Imazethapyr Technical 93% Min	Technical	-
Bifenthrin 8%SC	Formulation	To be launched
Metsulfuron Methyl 20%WG	Formulation	To be launched
Diafenthiuron 40.1% + Acetamiprid 3.9%WP	Formulation	Hercules
Emamectin Benzoate 3% + Thiamethoxam 12%WG	Formulation	Encounter
Hexaconazole 4% + Carbandazim 16%SC	Formulation	Sofia
Buprofezin 22% + Fipronil 3%SC	Formulation	Aikido
Bifenthrin 3% + Chlorpyriphos 30%EC	Formulation	Lethal Gold
Bifenthrin 8.8%CS	Formulation	Rockstar
Cyenopyrafen 30%SC	Formulation	Kunoichi

# IIL Number of Registrations

- ❖ **Category 9(3) : 12** registration certificates approved by CIB & RC
- ❖ **Category 9(4) : 47** technical and **225** of formulation registration certificates approved by CIB & RC

## Year-wise Registration

Year	9(3) Registrations	9(4) Registrations
2019-20	02	12
2018-19	05	29
2017-18	02	30
2016-17	02	26
2015-16	-	35
Upto 2014	01	140

## Registration Pipeline

9(3) Registrations	9(4) Registrations
22	06

IIL strategic focus on developing newer technicals and products which can be registered under 9 (3) category and can contribute towards growth of Maharatna Products





## 3.2 Market Development



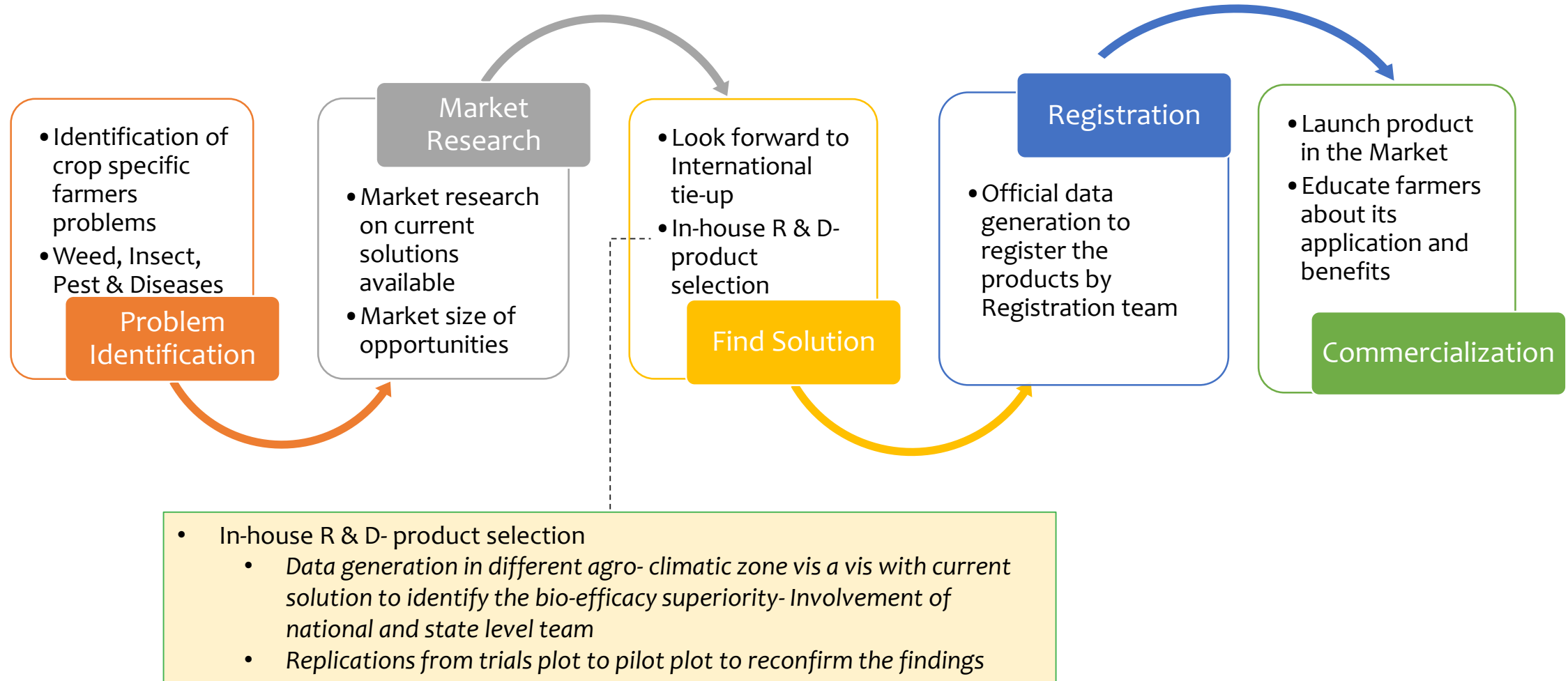
**Mr. Sanjay Singh**  
GM – Market  
Development

# Tractor Brand – Farmer’s Choice



- ✦ A trust of decades
- ✦ Umbrella Brand for end to end solutions
- ✦ Farmers’ first choice pan India
- ✦ Symbol of Confidence


Continuous process from product identification to commercialization and offer complete solution to farmers



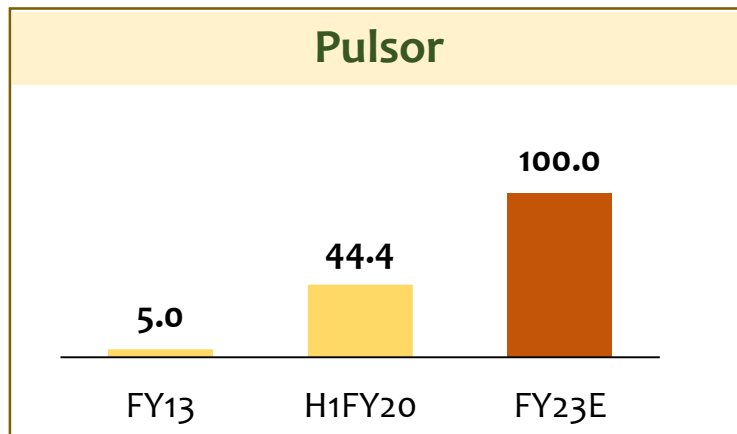
### Nissan, Japan



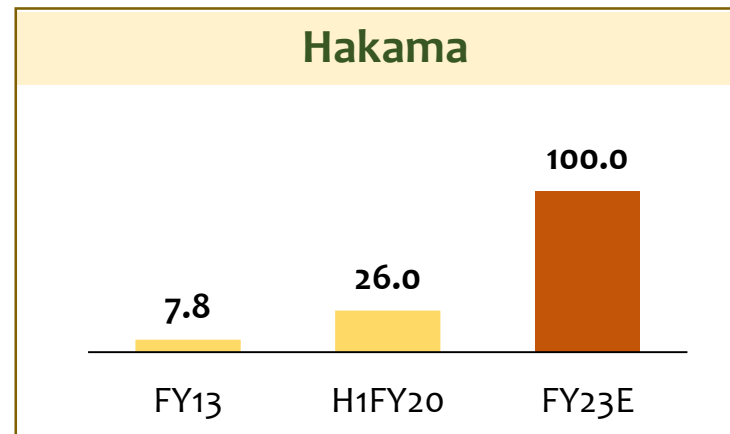
Marketing Tie up for specialty products Fungicide **PULSOR** (2012), Selective Herbicide **HAKAMA** (2012) and Miticide **KUNOICHI** (Oct 2019)

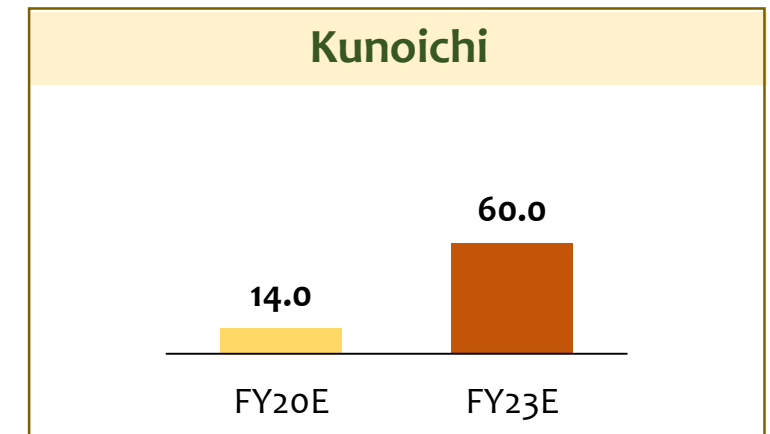

(All figures in Rs. Crore)



**1 New combination to be launched**



**1 New variant and 3 New combinations to be launched**



## OAT Agrio, Japan



JV to set up a dedicated R&D Centre in India to invent new agrochemical molecules.  
PGR **ROOT BEAD** (2017)  
PGR **CHAPERONE** (Dec 2019)

## Nihon, Japan



Tie up for **SUZUKA** (Flubendiamide) (2016) **AIKIDO** (2018) & **HAKKO** (Buprofezin) (2016)

## Momentive, USA



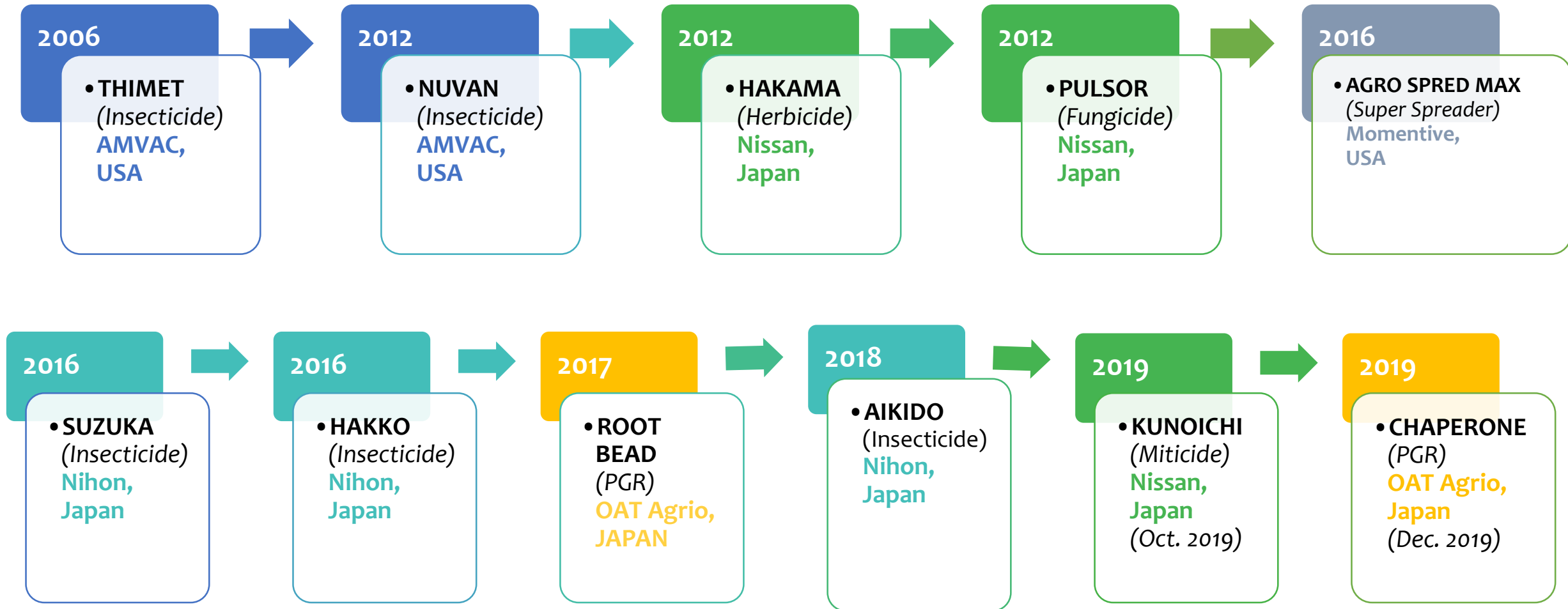
Tie up with MOMENTIVE Performance Material INC, USA for **AGRO SPRED MAX** (2016) for silicone based super spreader

## AMVAC, USA



Technical Collaboration for manufacturing and marketing of **THIMET** (2006) & **NUVAN** (2012)

# International Tie-ups and Timeline



# Innovative Technology – Select Success Stories

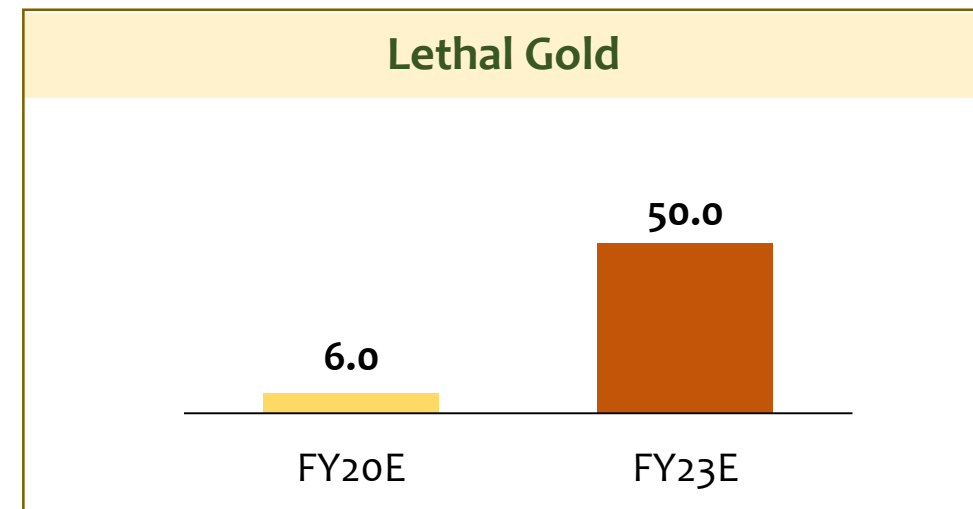
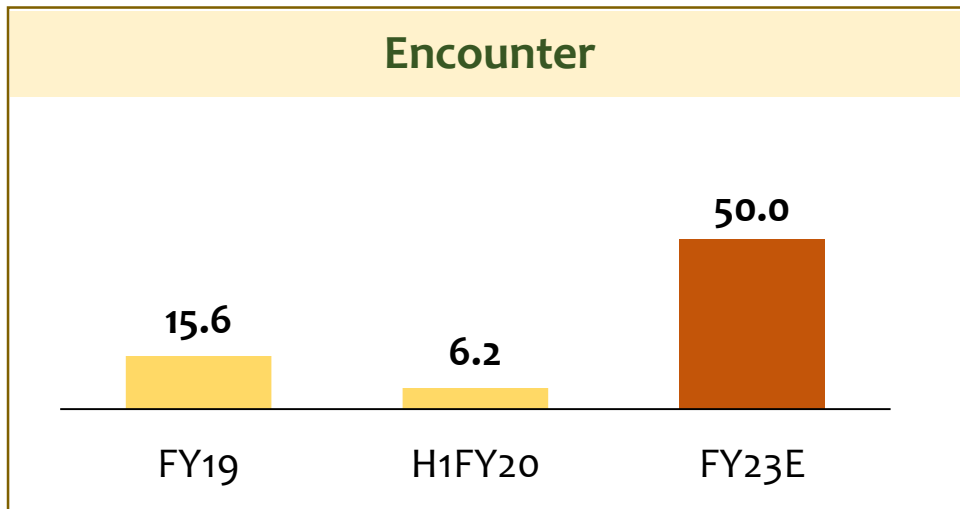
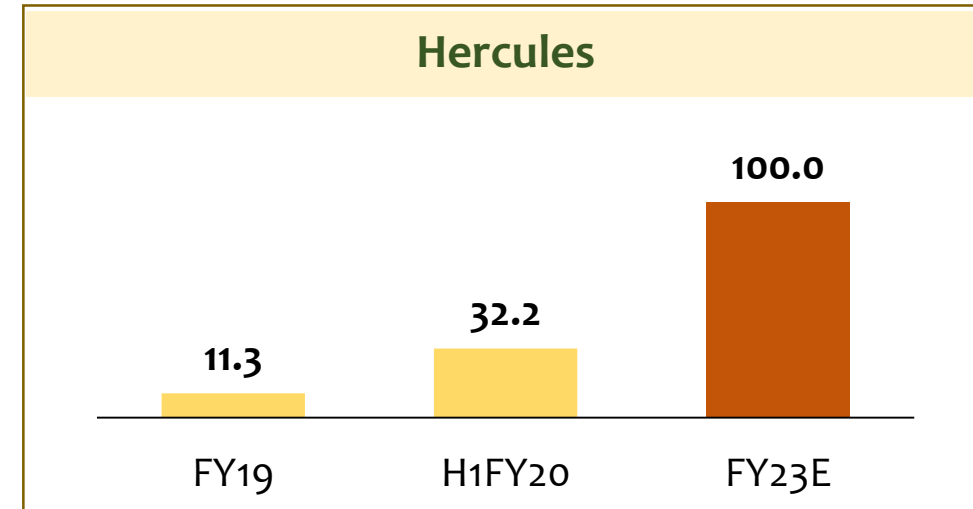
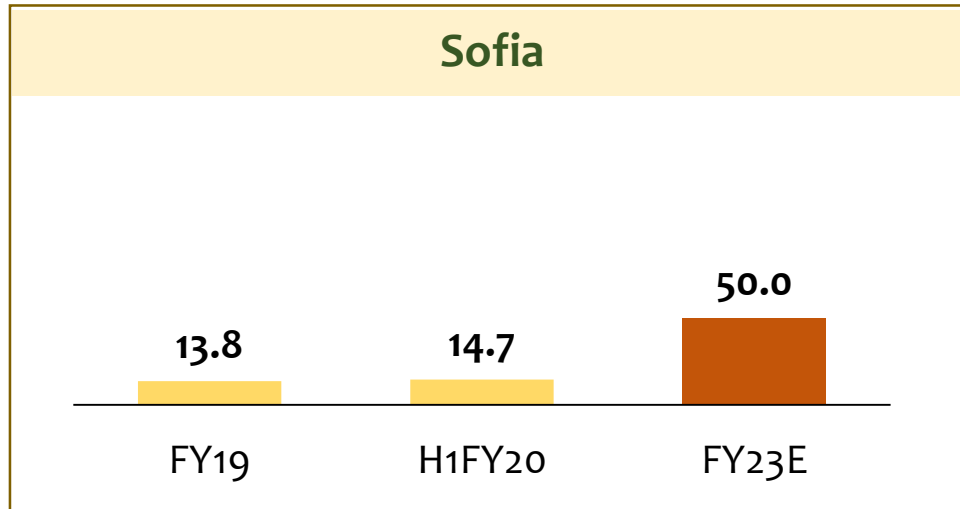
<b>Root bead</b>	: Nodule enhancer in pulse crops
<b>Pulsor</b>	: A unique product for rice sheath blight-Best solution available in India
<b>Hakama</b>	: Strong graminicide
<b>Agrospred Max</b>	: A silicon based spreading agent- need for the farmers
<b>Kunoichi</b>	: A strongest miticide from Nissan kills all the stages of mites including eggs.
<b>Hercules</b>	: A promising product for cotton to control white fly- most damaging pest
<b>Encounter</b>	: A perfect product for simultaneous solution of Loopers and Tea Mosquito bug in tea
<b>Sofia</b>	: Established as the first spray of crop protection against various diseases



*Many more examples are the success stories of IIL and the journey continues...*

# Key Products – Sales and Forecasts

(All figures in Rs. Crore)





## Team

- Head Office - Delhi
- H.O. Market Development Team - 5
- Network Distributed in Zones:
  - North, East, South, West
- Market Development Team:
  - Pay Roll: 72
  - Third Party Roll: 600-850

## West Zone

Pay Roll : 21  
TPR : 150-200

## North Zone

Pay Roll : 18  
TPR : 100-150

## East Zone

Pay Roll : 10  
TPR : 150-200

## South Zone

Pay Roll : 23  
TPR : 200-300

## Demonstrations: Crops vs Pest Specific



## Field Days : Seeing & Believing



## Farmer Meetings: Solution for specific problems



## Mega Farmer Meetings: Crop solution



## Intensive Consumer Awareness Program



## Dealers Training Program



## Market Development Activities & Large Farmer Contact

	Mega Meeting	Farmer Meetings	Group Meetings	A V Van Campaign	Demo	Field Days	Balloon Show	Total Farmers contact
<b>Total</b>	<b>750+</b>	<b>1,000+</b>	<b>20,000+</b>	<b>6,500+</b>	<b>5,000+</b>	<b>2,500+</b>	<b>250+</b>	<b>20+ Lakhs</b>

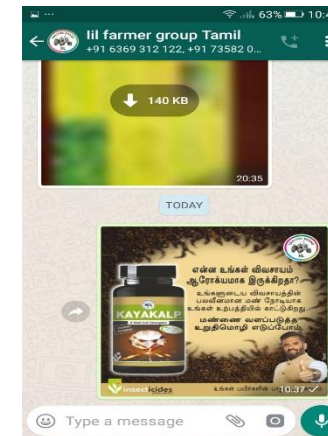
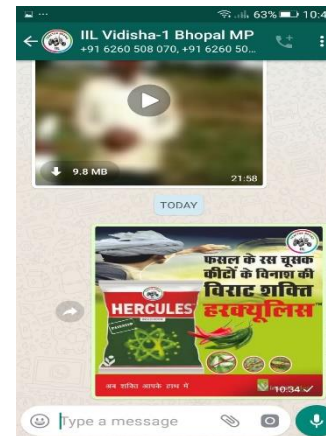
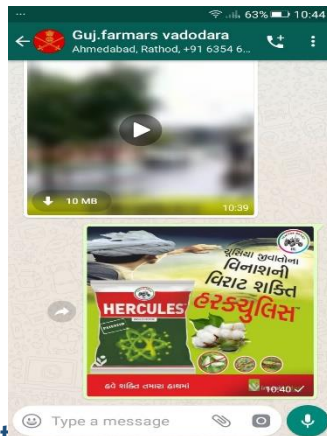
Engaged with 20+ lakh farmers through Market Development Activities & Farmer Contact Initiative

## Mass Media Campaign: News Paper, Radio and TV campaign



## Social Media: WhatsApp groups of Farmers across country

Android App and WhatsApp Group for Farmers and Dealers for product information





## 3.3 Manufacturing



**Mr. Bhupendra Tiwari**  
Head Manufacturing

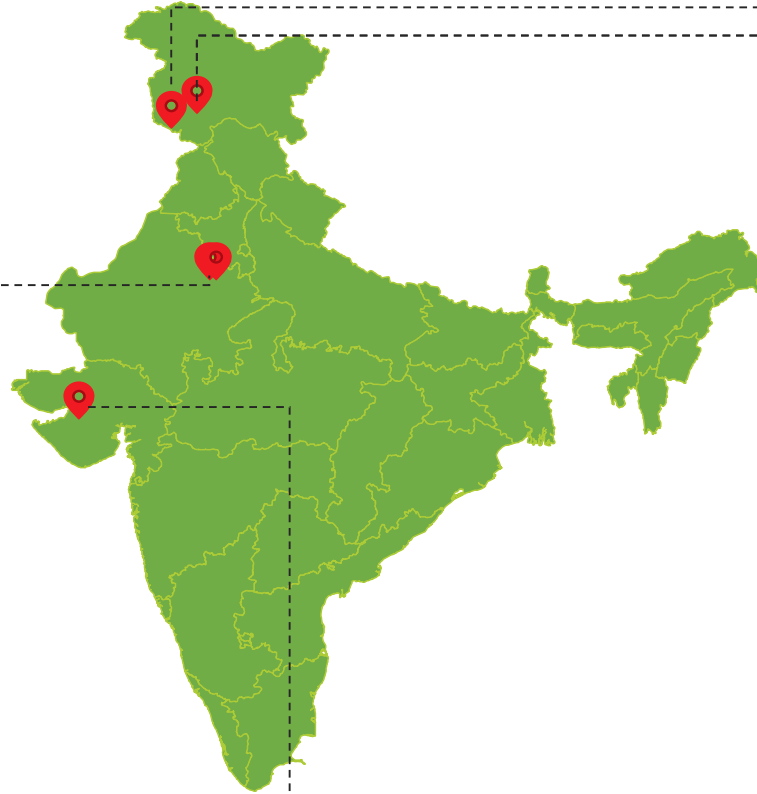
# Manufacturing Sites – Formulations



Unit 1: Chopanki, Rajasthan



Unit 2: Chopanki, Rajasthan



Unit 4: Samba, J&K



Unit 5: Udhampur, J&K



Unit 3: Dahej, Gujarat

## Aggregate Installed Capacity

**19,400** KLPA  
Liquid Formulation

**75,750** MTPA  
Granules Formulation

**18,770** MTPA  
Powder Formulation

**13,800** MTPA  
Technical Garde

## New Generation Formulations

- ❖ New generation formulations are effective, safer, easier to handle and environment friendly

Water Dispersible Granules  
(WG)

Suspension Concentrate  
(SC)

Concentrated Emulsion (CE)

Microemulsion  
(ME)

Controlled Release  
Formulation  
(CR)

Suspo-emulsion Formulation  
(SE)

## Automation

- ❖ Most of the plants are having automation in formulation and packaging

Automatic formulation and packing lines for powder, granules and liquid products



## Quality Check Laboratory

- ❖ All factory sites are having well established test lab with ultra modern facilities and experienced chemists to check
  - ❖ Raw materials
  - ❖ Intermediates
  - ❖ Finish goods
  - ❖ Packing materials
  - ❖ Environmental samples
- ❖ **NABL Accreditation at Chopanki**

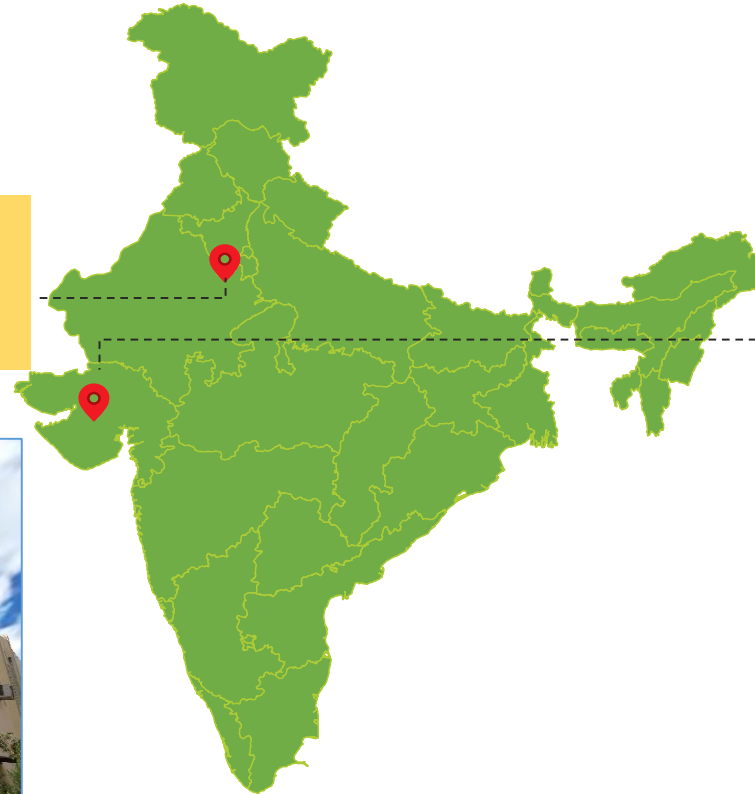
**ZERO  
DEFECT**  
Aim





# Manufacturing Sites – Technicals

**Unit 1:**  
Chopanki, Rajasthan  
(Technical Production started in 2007)



**Unit 2:**  
Dahej, Gujarat  
(Technical Production started in 2011)



**Aggregate Installed Capacity**

**13,800 MTPA**  
Technical Garde

## Characteristics

- Multi-products plant and multipurpose lines
- Self dependent in utilities
- Backward integration for products
- Independent quality control
- Remarkable R&D support for process improvement, validation of new products & innovative ideas
- Adaptability of latest technology in term of cost & environment friendliness
- State of art Effluent Treatment facility
- Trained safety team with training facility
- Higher capacity utilization
- Efficient regulatory and technical team
- Due to backward integration less dependency on suppliers
- Low site operating cost due to expansion on same site

## Team and Infrastructure

### Chopanki

- Regular Employee : 100
- Contractual : 150

### Dahej

- Regular Employee : 300
- Contractual : 300
- Total area : 50 Acre

# Products Manufactured

## Insecticide & Fungicide Plant - Dahej

Product	Brand
Chlorpyrifos	Lethal Range of Products
Cartap hydrochloride	Indan
Thiophanate Methyl	Prism
Diafenthiuron	Hercules, Logo/ Gama
Tricyclazole	Force11
Acetamiprid	Hercules, Sharp

## Insecticide & Fungicide Plant - Chopanki

Product	Brand
Lambda Cyhalothrin	Bravo, Metacil
Bifenthrin	Super Star, Lethal Gold
Thiamethoxam	Arrow, Bheema, Bheema Super, Encounter
Coded Fungicide	Fungicide for CRAMs

## Herbicide Plant - Dahej

Product	Brand
Atrazine	Strike
Pretilachlor	Super Racer, Racer
Metribuzin	Anchor
Sulfosulfuron	Kaiser
Imazethapyr	Selector
Bispyribac sodium	Green Label
Diuron	Duron
Clodinafop propargyl	Omega
Cloquintocet-mexyl	-

## Capacity Expansion Plans To Manufacture Technicals

- ❖ Target to add 5 new technical in 2020
- ❖ Target to backward integrate intermediates for three technicals

## Backward Integration Plan at Dahej and Chopanki

- Developed land is readily available for expansion
- Due to geographical location of Dahej, logistics & easy availability of raw material will help in cost reduction as compared to other part of India
- Gearing of ourselves to meet future demands of new customers and enhance overall profitability

### Advantages

- Lower dependency on supplier
- Low manufacturing cost of finished products
- Reduction in overhead cost per tonne
- Optimum utilisation of existing utilities
- Better control on process
- Lower inventory build-up and shorter working capital cycle

## Setting up “SEZ” unit at Dahej

- We are coming with export oriented unit at SEZ Dahej for formulation of Insecticides & herbicides
- Production is expected to commence in February 2020
- This will enable us to multiplying our exports and meet our FY2023 targets

### Advantages

- 10-year tax holiday in a block of the first 20 years
- Exemption from duties on all imports for project development
- Exemption from GST on domestic sourcing of capital goods for project
- Exemption from import duty, GST and other taxes



## 4. Sales & Marketing



**Mr. VK Garg**  
Vice President



**Dr. Arun Kohli**  
Vice President –  
Institutional Sales



**Mr. Shrikant Satwe**  
Head - International  
Business



## 4.1 Sales & Marketing – Domestic Sales



**Mr. VK Garg**  
Vice President

# Agricultural Production vs Pesticides Consumption

“ FARMERS WAS THE FIRST SOCIAL PERSON ON EARTH”

Country	World rank in Agriculture Production	Agriculture Production (\$ bn)	Pesticide Use (tons, 2017)	Number of Pesticide molecules registered
China	1	978	1,763,000	681
India	2	394	52,750	282
EU	3	269	362,421	467
USA	4	164	407,779	481
Brazil	7	81	377,176	477
Japan	9	58	52,248	583
Thailand	13	41	35,287	364
Australia	17	37	63,416	561
Argentina	21	32	196,009	414

## Important Observations:

- India, the second largest agricultural producer, uses much less pesticides both in volume and in variety
- “Indian farmers use excessive pesticides” is a mischievous propaganda by foreign funded environmental activists to malign Indian agriculture in the international trade

Source: Crop Care Federation of India

# Region-wise Pesticides Ratio

REGION	2002	2018	REMARKS
East Zone	13%	20%	Generic dominant and fast-growing market
West Zone	20%	25 %	Combination of Generic & Research and fast-growing Market
North Zone	30 %	25%	Research dominant and growing in Value
South Zone	37 %	30%	Combination of Generic & Research And growing in value

REGION	IIL Share in B2c Sales 2018-19	Market Share 2018-19
East Zone	27%	6%
West Zone	22%	5%
North Zone	23%	6%
South Zone	28%	5%

IIL presence is well diversified across states and zones



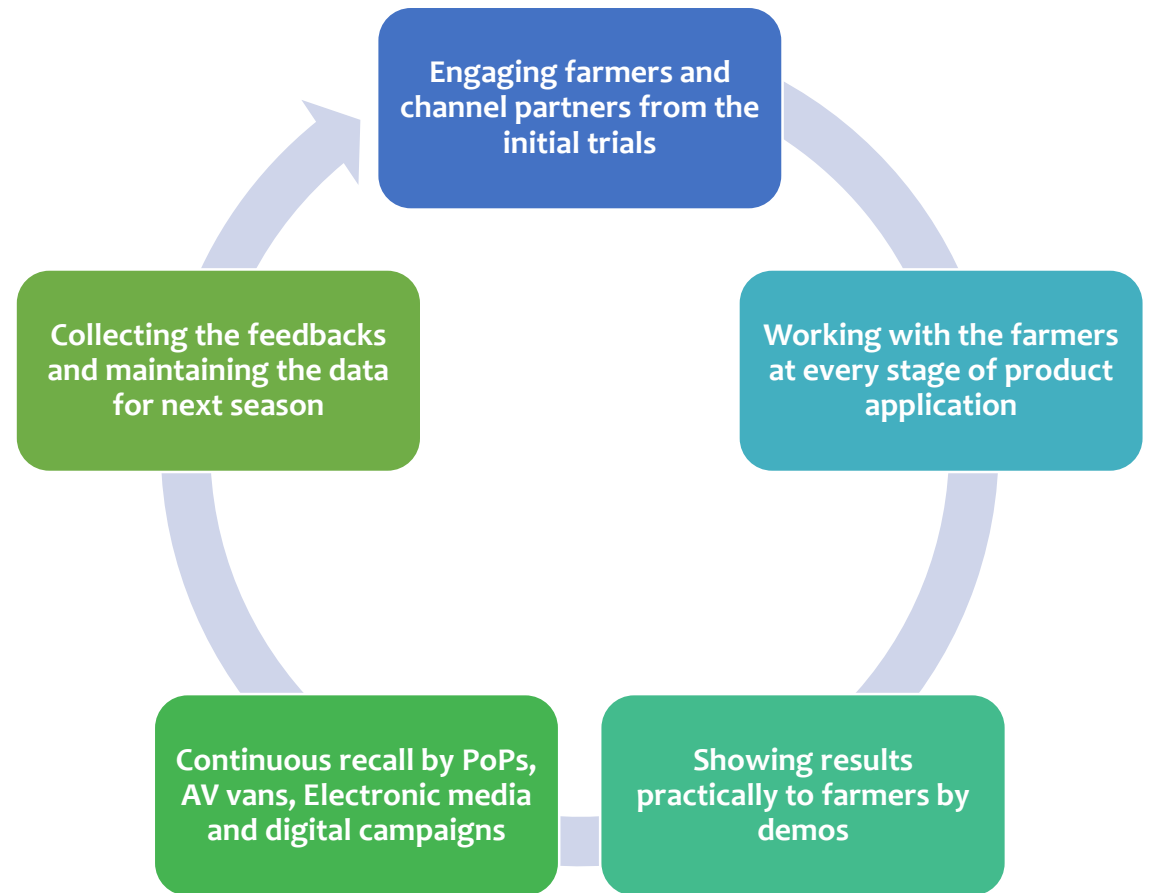
## Strategy to move to Blue Ocean

### Team

Designation	Strength
Vice President	4
Marketing Manager	2
Zonal manager	7
Regional Manager	38
Area Manager	54
Sales Executive	43
Sales Officer	115
Sales Representative	193
Development team	72

500 + Team with 600-850 TPR

### Farmer Engagement for the Product Launch



## ❖ Farmer centric approach

## ❖ Strong Brand Image and Recall

- **Old brands:** Lethal, Lethal Super, Thimet, Monocil, Victor, Sharp, Hijack And Racer
- **New brands:** Pulsor, Xplode, Nuvan, Mycoraja, Green Label, Hijack Super, Hakama, Super Racer, Lethal Gold, Hercules, Sofia, And Kunoichi

## ❖ PAN India Quality & Stable network

- Depots : 28
- Distributors: 5,000
- Dealers: 60,000

## ❖ Strong market development team and robust product identification to commercialization process

Strengthen the team

Strengthen the market

Strengthen the field

Strengthen the product portfolio

Strengthen the system and policy



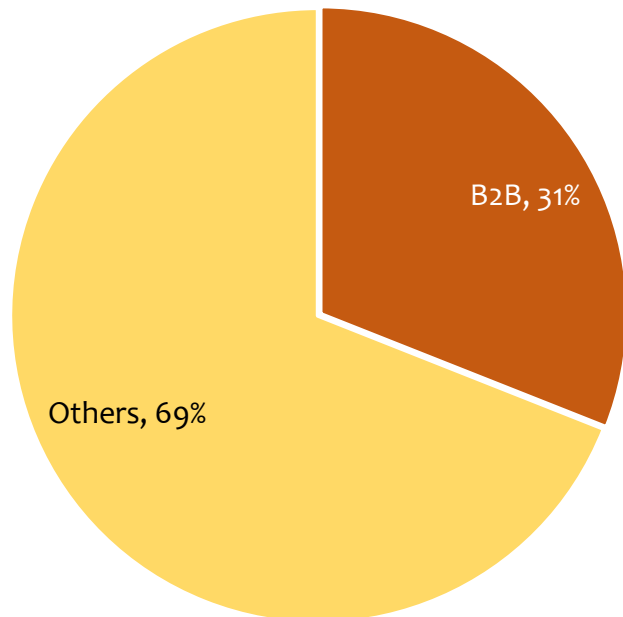
## 4.2 Sales & Marketing – Institutional Sales



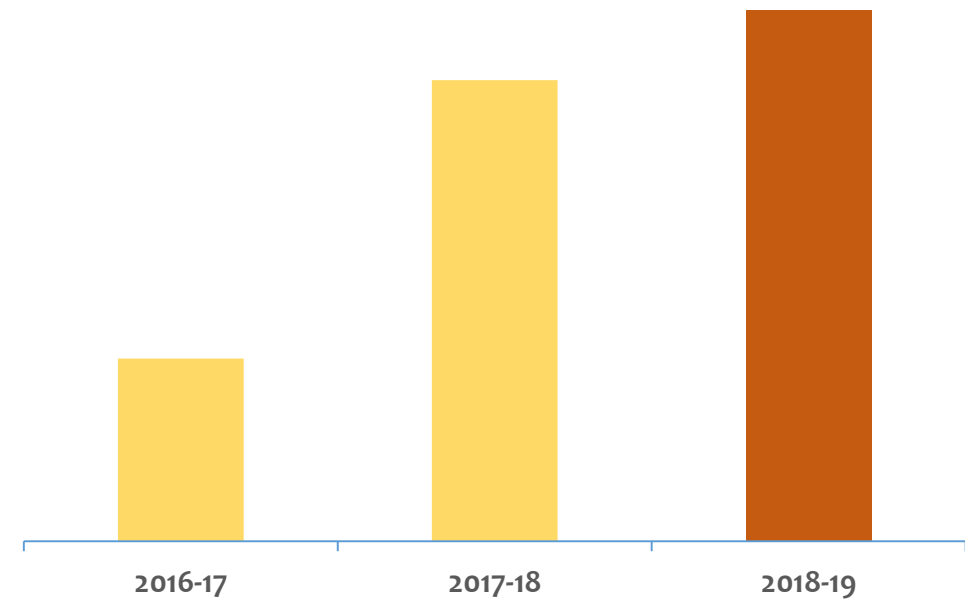
**Dr. Arun Kohli**  
Vice President –  
Institutional Sales

## Institutional Sales Contribution

### FY2019 Revenue



## Institutional Sales Trend



Constant growth in sales over the years

# B2B Capabilities and Key Products

## IIL Capabilities

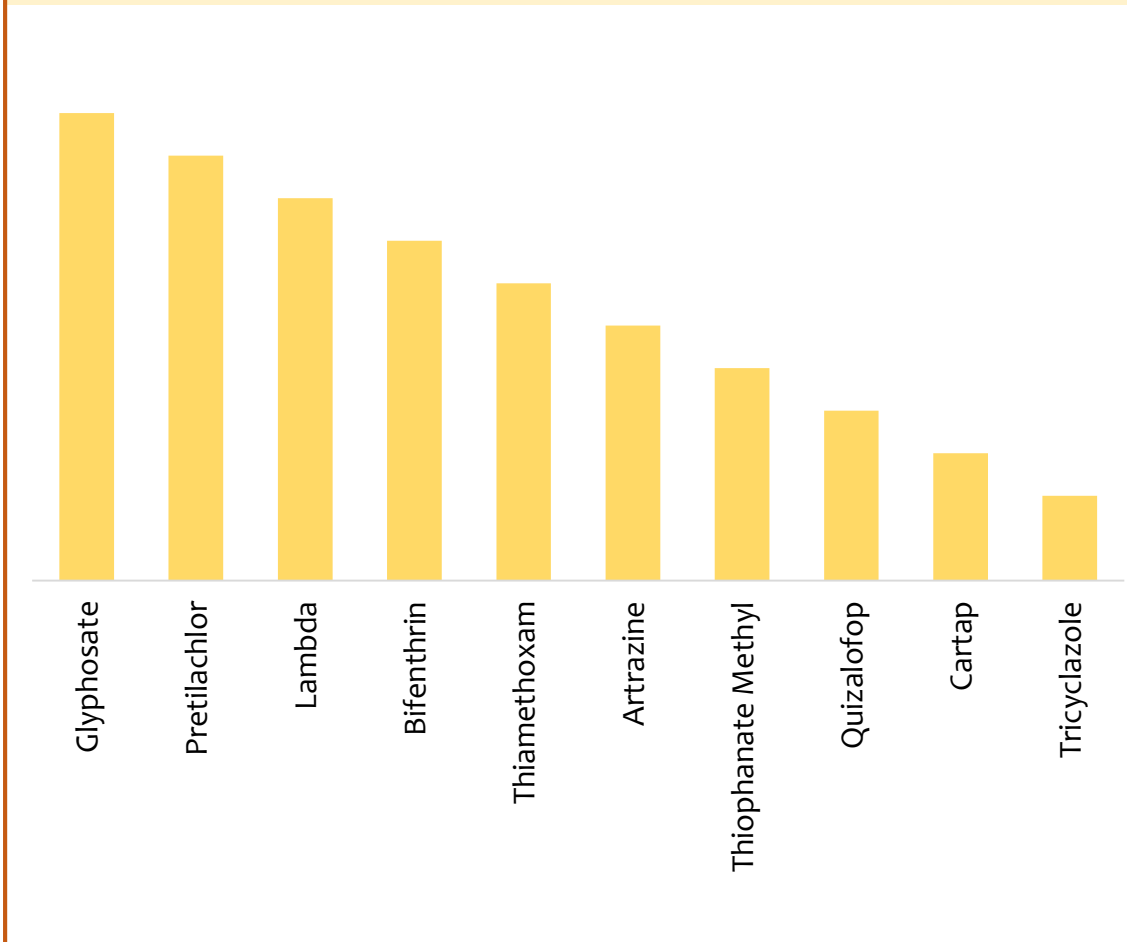
- Two synthesis plants
- Five formulation plants
- Capability to produce complex molecules
- R&D support
- Good brand perception with large customers
- Good quality product
- Timely execution capabilities

## Diversified Range of Products

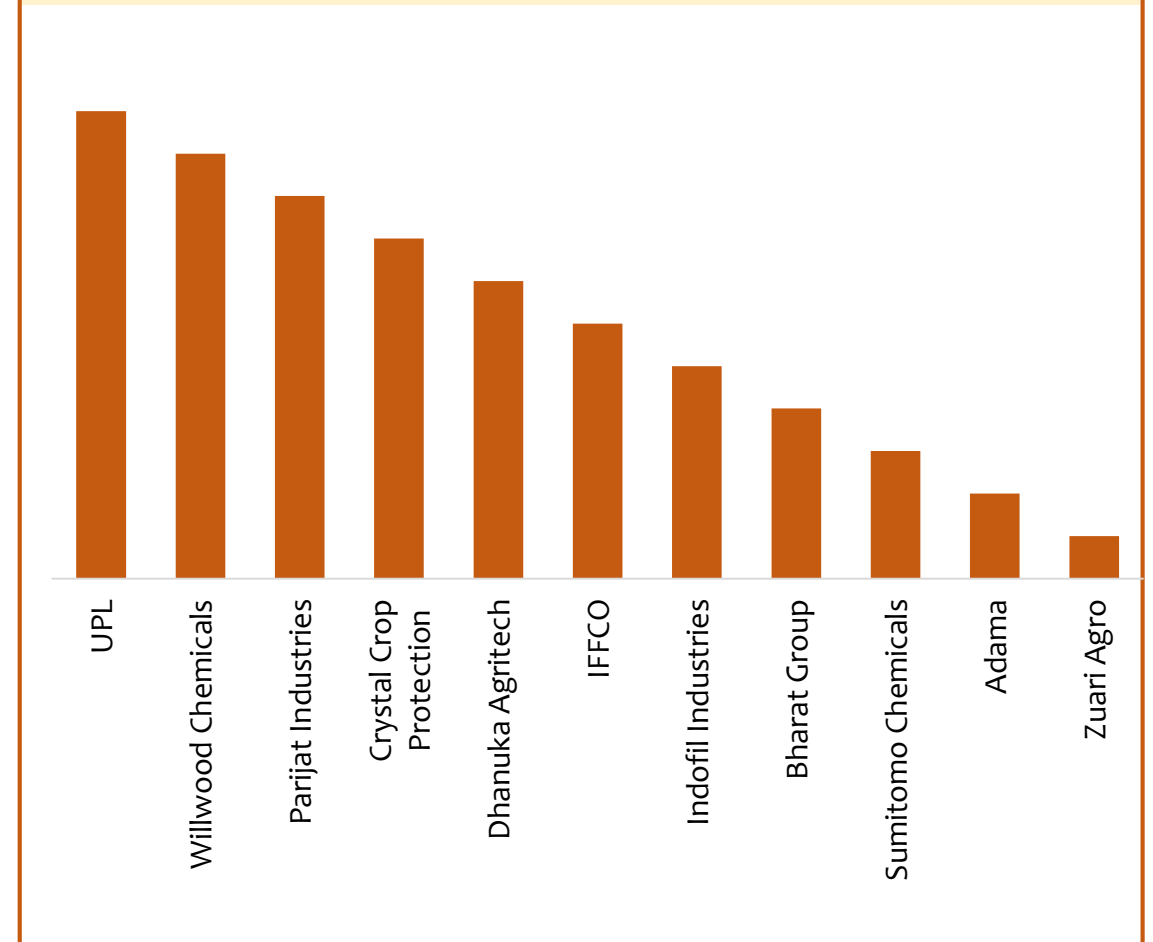
Insecticides	Fungicides	Herbicides	Household Insecticides
ACETAMIPRID	TRICYCLAZOLE	GLYPHOSATE	D-TRANS ALLETHRIN
LAMBDA CYHALOTHRIN	THIOPHANATE	ATRAZINE	
IMIDACLOPRID	METALAXYL	IMAZETHAPYR	
BIFENTHRIN	MYCLOBUTANIL	PRETILACHLOR	
DIAFENTHIURON		BISPYRIBAC SODIUM	
CHLORPYRIFOS		SULFOSULFURON	
CARTAP		CLADINOFOP	
		QUIZALOFOP Bulk	

# Top Products & Customers

## Top 10 Products – FY2019



## Top Customers – FY2019



## Strategy

- Adding new chemistries and molecules
- Focus on complex molecules with low competition
- Identifying the products getting off patented and focus on reverse engineering
- Have large scope for sales to new and existing customers
- Pan India presence already and plan is to go deeper in the market through strong sales and distribution network

## Future Scope

- Agriculture markets to grow by double digit
- Commodity prices are high
- Farmers are prepared to invest in Agri Input/agro chemicals
- The changed product portfolio caters to all segment
- We are future ready to cater to customers
- Our Business relations with our customers
- Dual working on buying and selling
- Technology transfers and sharing





## 4.3 Sales & Marketing – International Sales

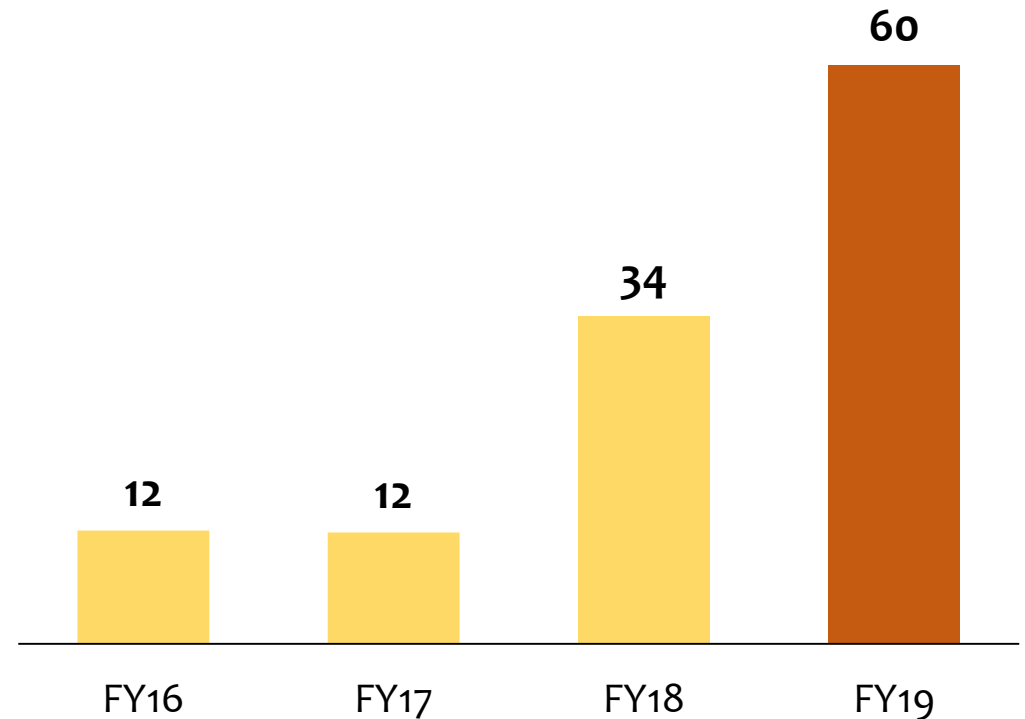


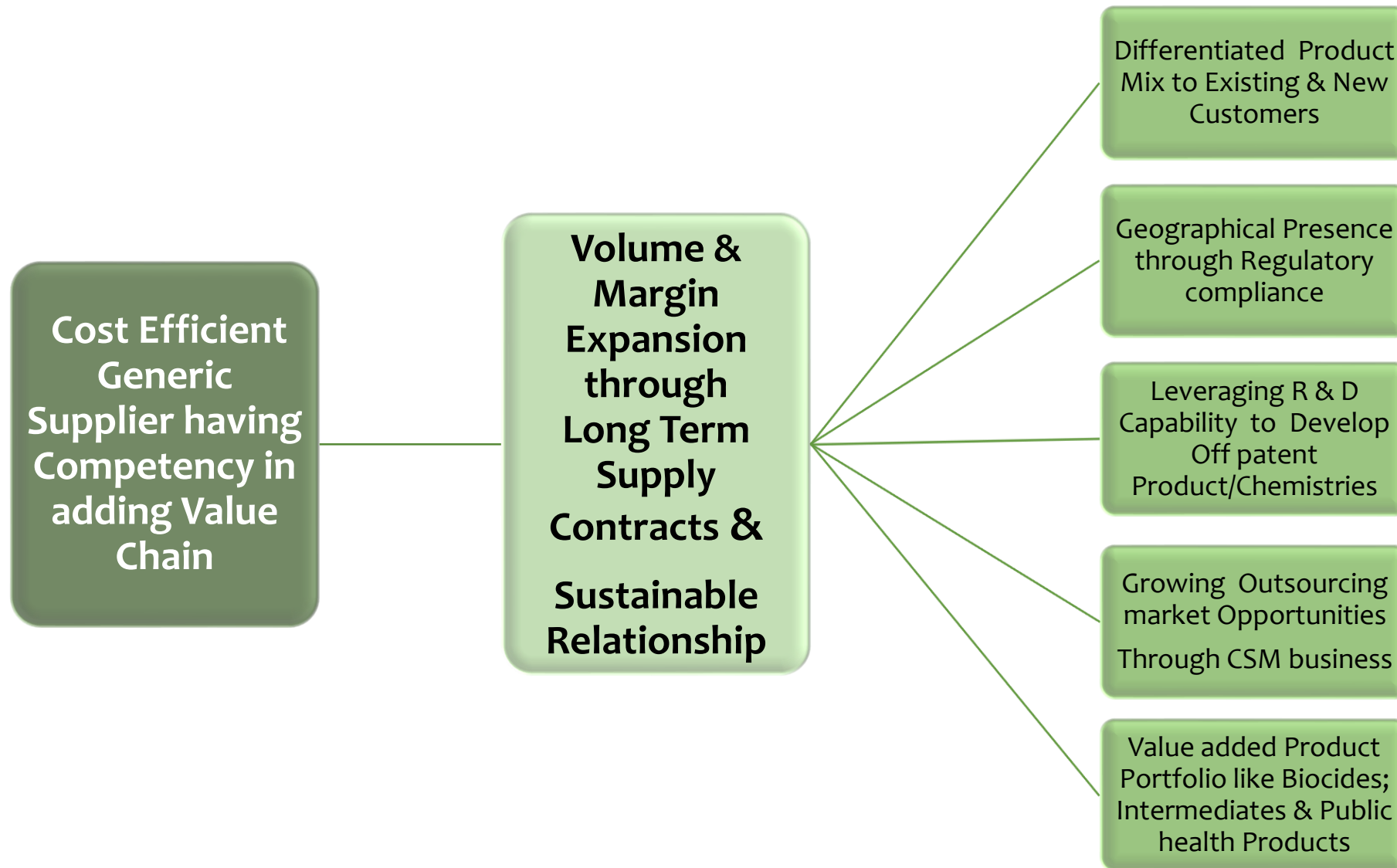
**Mr. Shrikant Satwe**  
Head - International  
Business

## Highlights

- IBD grown at 82% CAGR between FY16-19
- IBD contribute 4 % of total IIL Sales
- Presence in 18 countries with 42 customers
- APAC contributed maximum ( 40%) followed by Africa & ME
- Herbicides Contributed maximum followed by Insecticides & Fungicides
- Formulation contribute > 90% of the business
- WDG ; EC formulations maximum contributed
- 80% business from IIL core products
- “Trading House Status” confirmed in FY18

## International Sales Trend (Rs. Cr.)





## Insecticides

- ❖ Acetamiprid
- ❖ Thiamethoxam
- ❖ Dinotefuran
- ❖ Diafenthiuron
- ❖ Lambda Cyhalothrin
- ❖ Bifenthrin

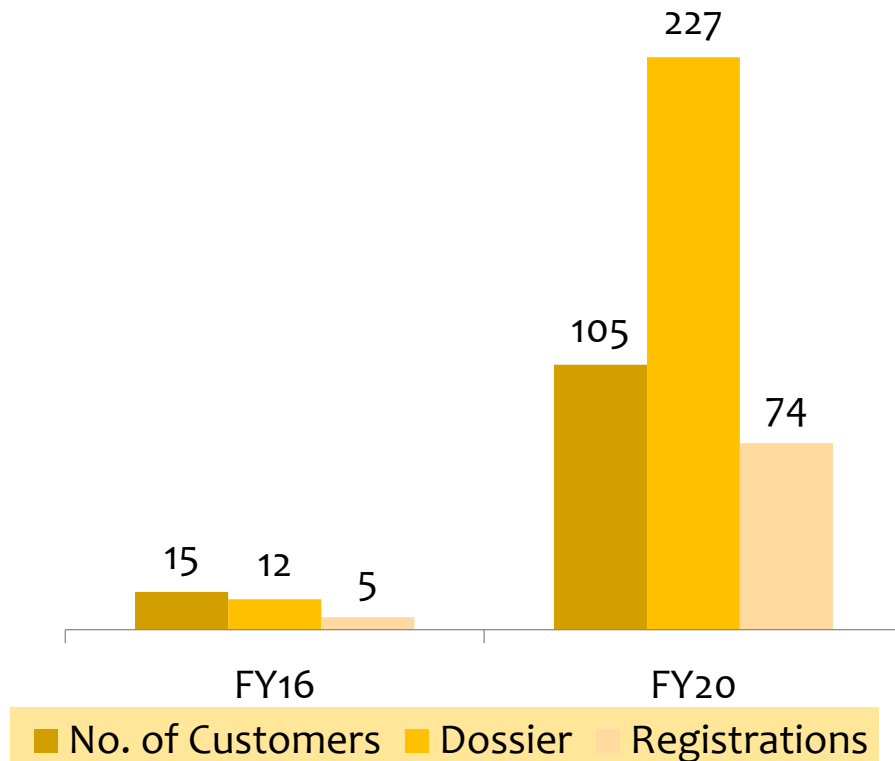
## Herbicides

- ❖ Bispyribac sodium
- ❖ Diuron

## Fungicides

- ❖ Thiophanate Methyl
- ❖ Tricyclazole
- ❖ Myclobutanil

## Regional Alliances



## Highlights

- Presence in 30 countries & > 100 customers through registrations
- Total 227 Dossiers submitted till Nov 2019
- Total 74 Registrations received till Nov 2019

(in USD BN)



## Regulatory

- ❖ Stringent Data Compliance & regulatory guidelines
- ❖ Lead time for Registration
- ❖ Restricted product usage due to resistance issue
- ❖ GM area Expansion
- ❖ OECD registration must for MEENA markets
- ❖ “REACH” & Quality Compliance

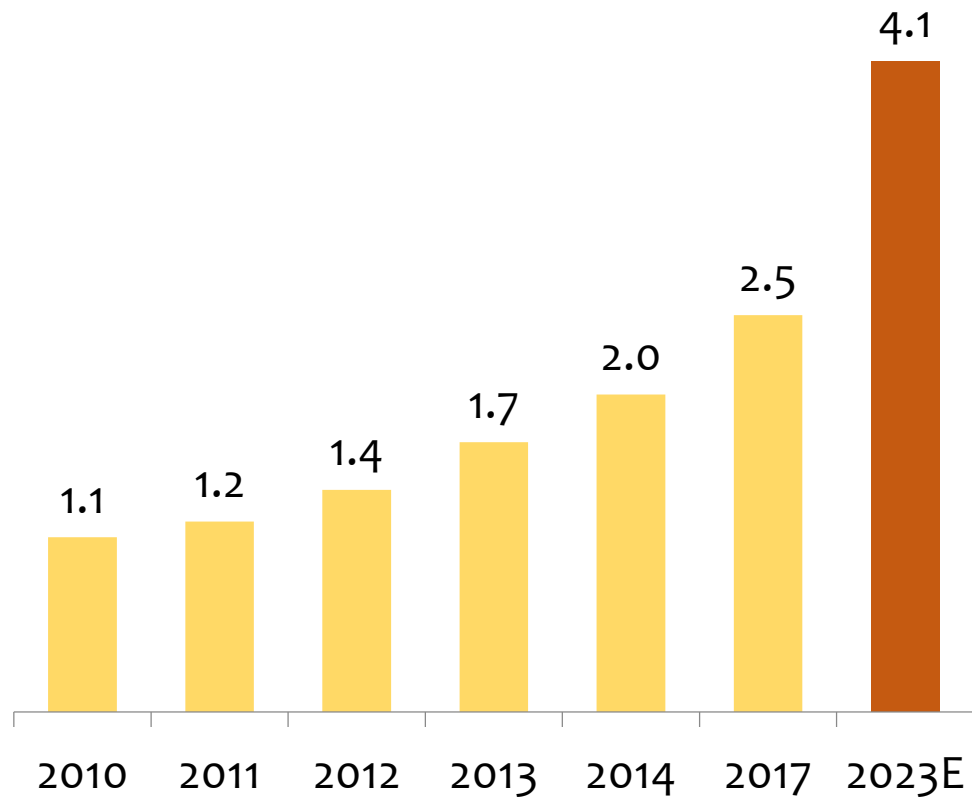
## Government

- ❖ Slow Economy
- ❖ Distressed Farm Commodity prices
- ❖ Stringent ESH norms
- ❖ Trade Sanctions
- ❖ Credit Risk
- ❖ Currency Volatility
- ❖ Trade Blocks & Trade agreements like US-China Trade Agreements; BREXIT

## Supply Chain

- ❖ Major Uncertainties in Raw Material availability & Pricing
- ❖ Lead time to register alternative source for major Intermediates

## Exports from India (USD Bn)

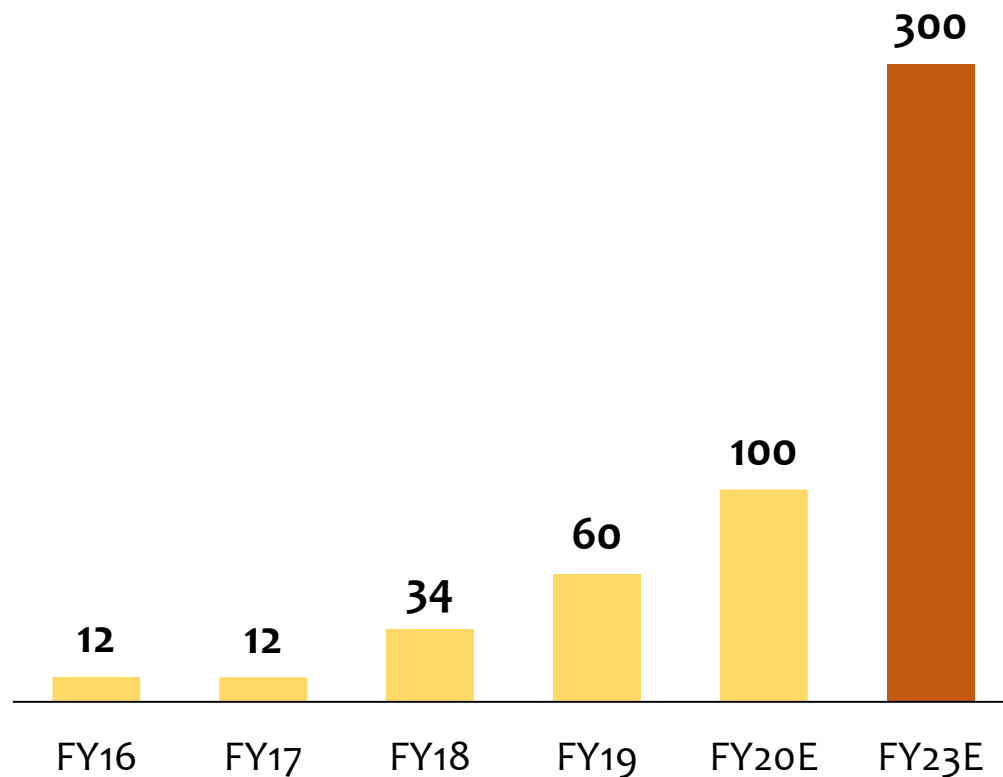


## Highlights

- Exports from India to grow up to 4.10 USD Bn by 2023
- Global players incrementally looking to diversify their sourcing base to India
- Strong Ethanol demand 15% as bio diesel
- Proportion of High Generic molecules in rise leading to lower IP protection concerns
- Demand for Ecofriendly / Innovative product
- Consolidation within industry
- Higher Prices of the Agriculture commodities
- Demand for high Value & Industrial Crops
- Rising Per Capita Income & demand from emergent economies in both Crop & Non crop



## International Sales Trend (Rs. Cr.)



## Growth Outlook

- In FY23 revenue to grow up to Rs 300 crs which is 16.2 % of Total Sales
- Formulation to Tech Sales Ratio 65 to 35
- APAC will contribute (33%) followed by Africa(28%); Middle East (15%); LA (15%) & Europe ( 8%) each & NAFTA( 1.6%)
- Expecting some contribution from CRAM & Biopesticides business
- Insecticides will contribute maximum followed by Herbicides & Fungicides
- Demand for eco-friendly formulation
- Focus on cost effective “ SEZ” based supply
- “2 STAR Trading House” status in FY20

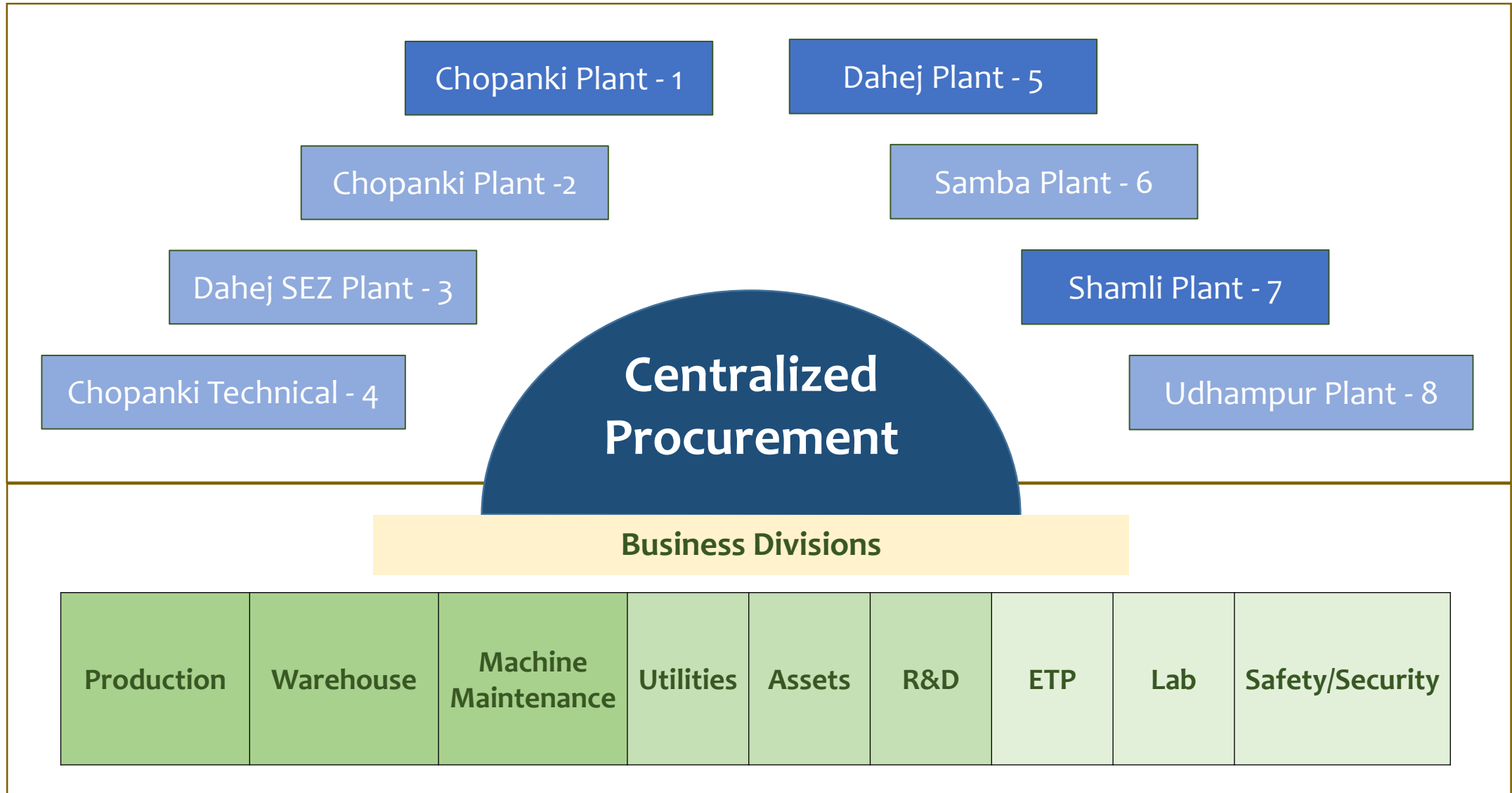


# 5. Procurement

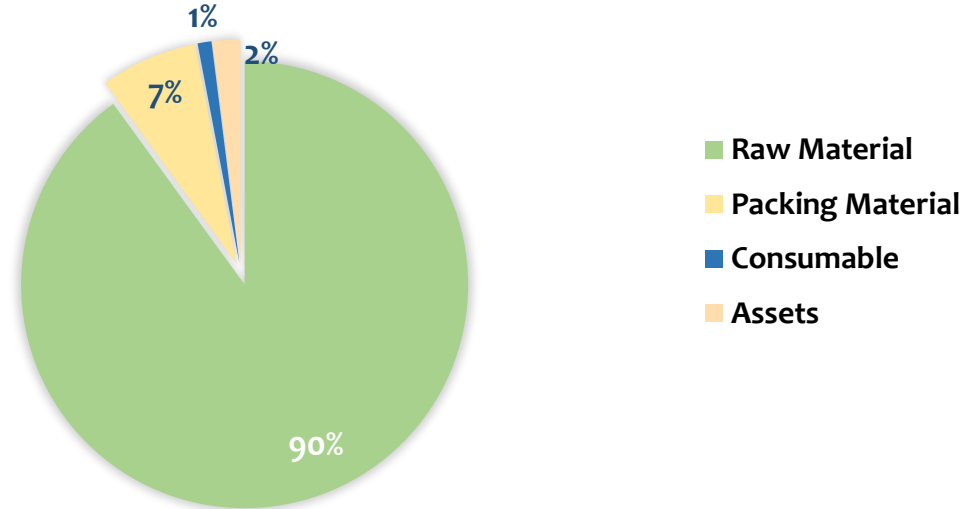


**Mr. Sunil Wason**  
Vice President  
Procurement

# Centralized Procurement

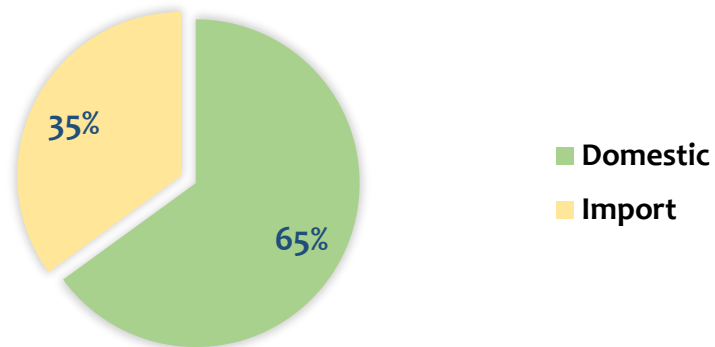


## Procurement Expenses – Category Wise

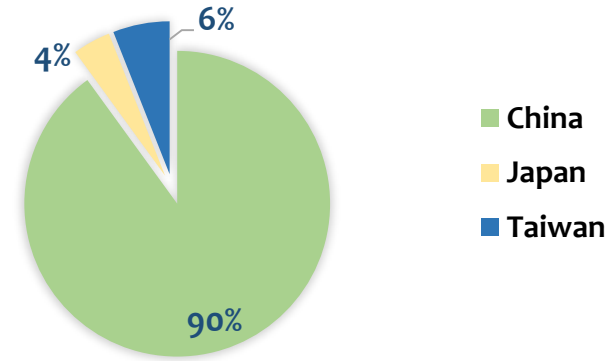


## Raw Material

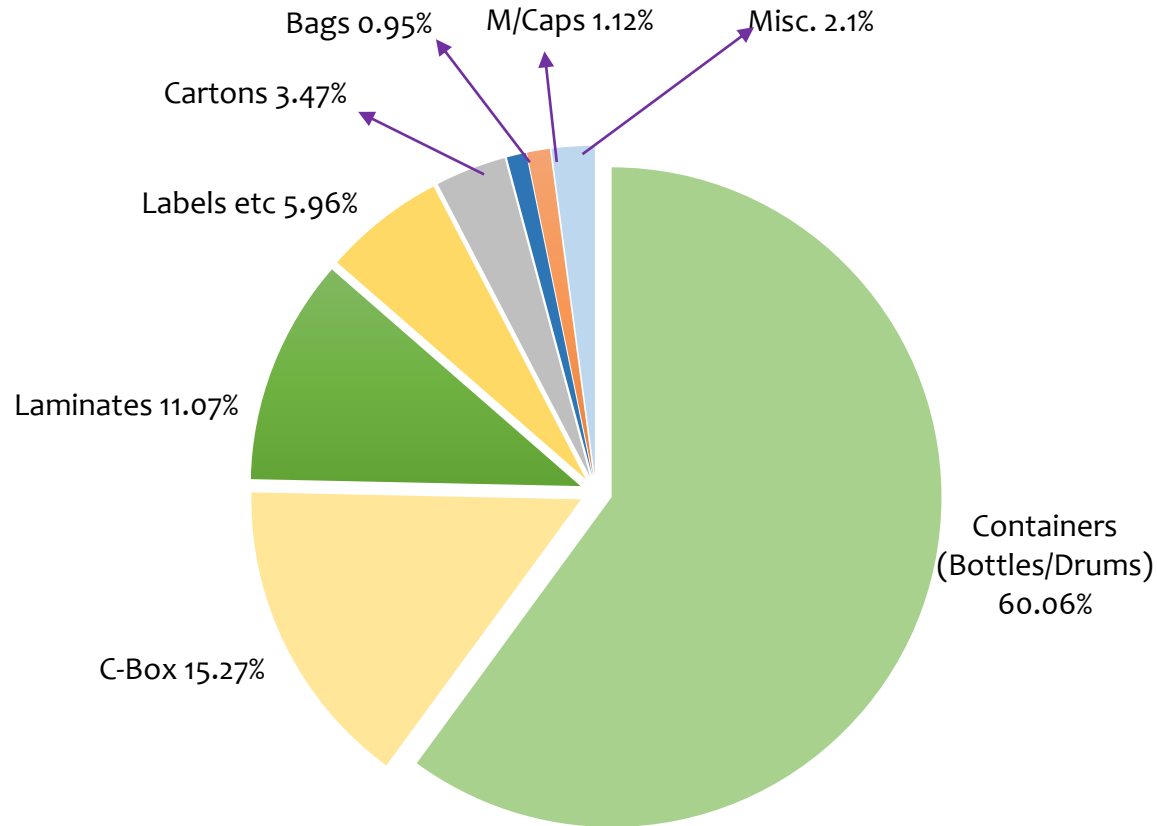
### Domestic vs Import



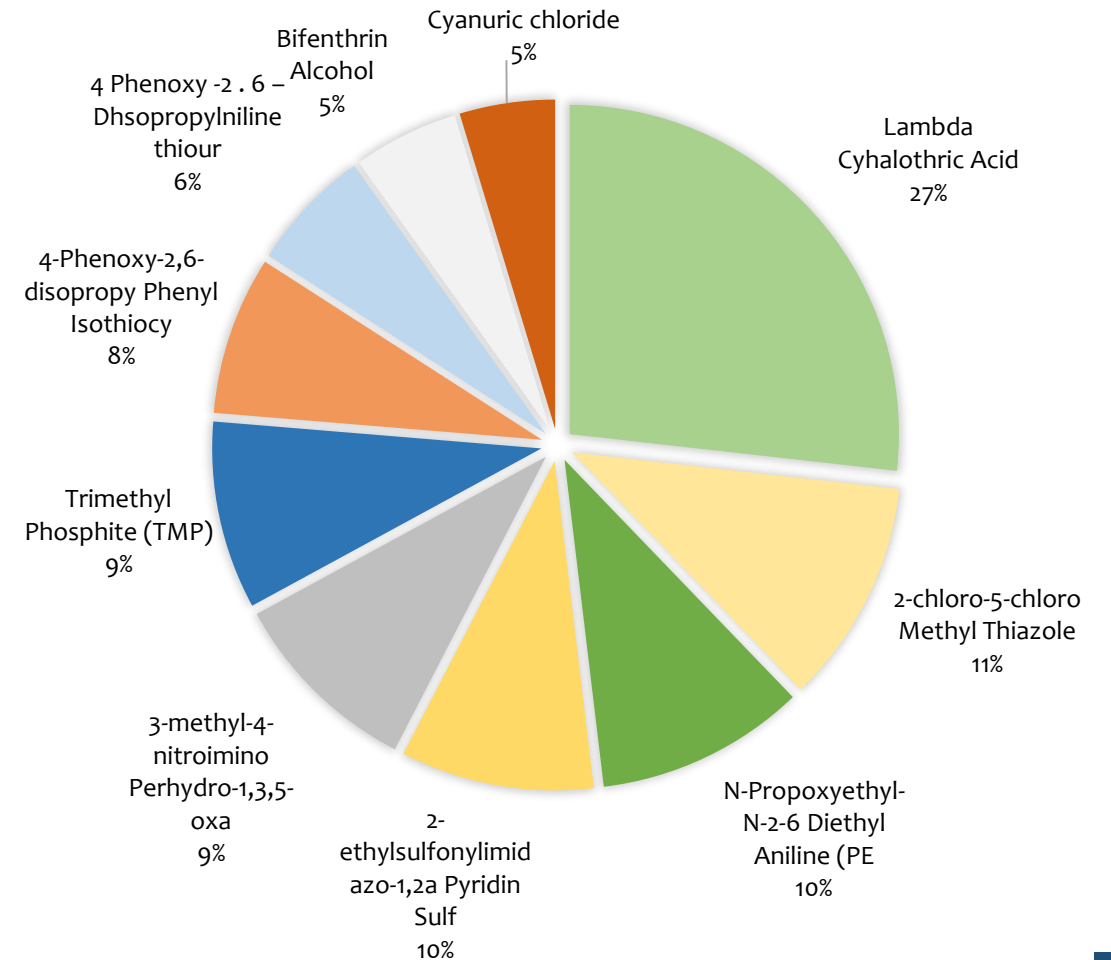
### Geography



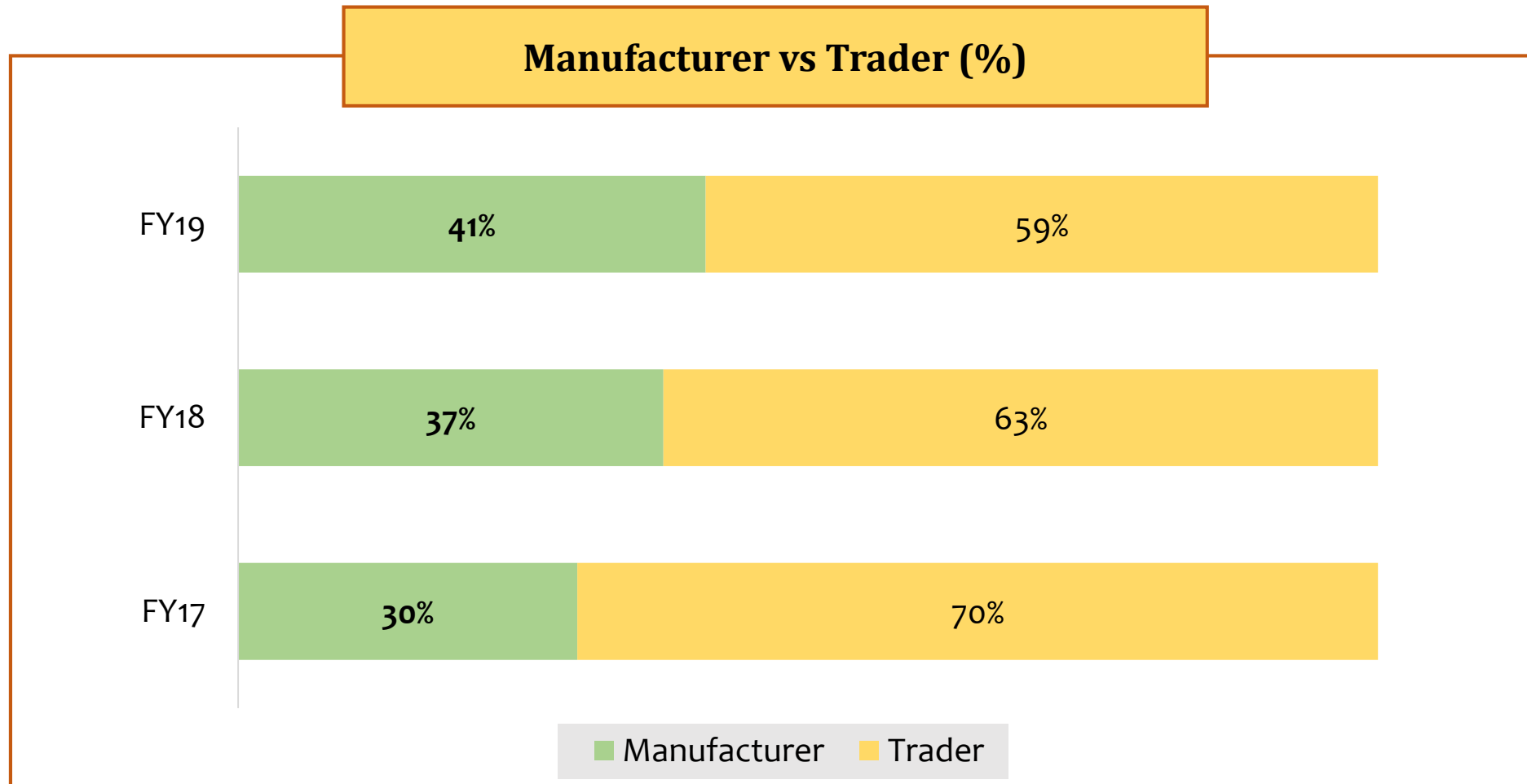
## PM Procurement Bifurcation FY 2019



## Top 10 spends CHINA FY 2019



## Moving from Traders to Manufacturers in China



## Challenges

- ❖ High dependency on China
- ❖ Supply commitment from China
- ❖ Price volatility
- ❖ Consistent quality
- ❖ Strong influence of mediators/Traders
- ❖ Disruptive new process/Technology
- ❖ Compete and maintain China bench marking prices

## Strengths

- ❖ In-house R & D to support process improvement issue / new technology adoption
- ❖ IIL is one of the top reputed company – Gets priority supplies and pricing
- ❖ Clear vision helps in long term planning
- ❖ Clear-cut strategy to shift from Traders to Manufactures
- ❖ Multiple sources for each item ensuring risk minimization
- ❖ Stringent In-house quality assurance system for vendor selection
- ❖ Setting up backward integration plant at Dahej



## 6. Financial Performance

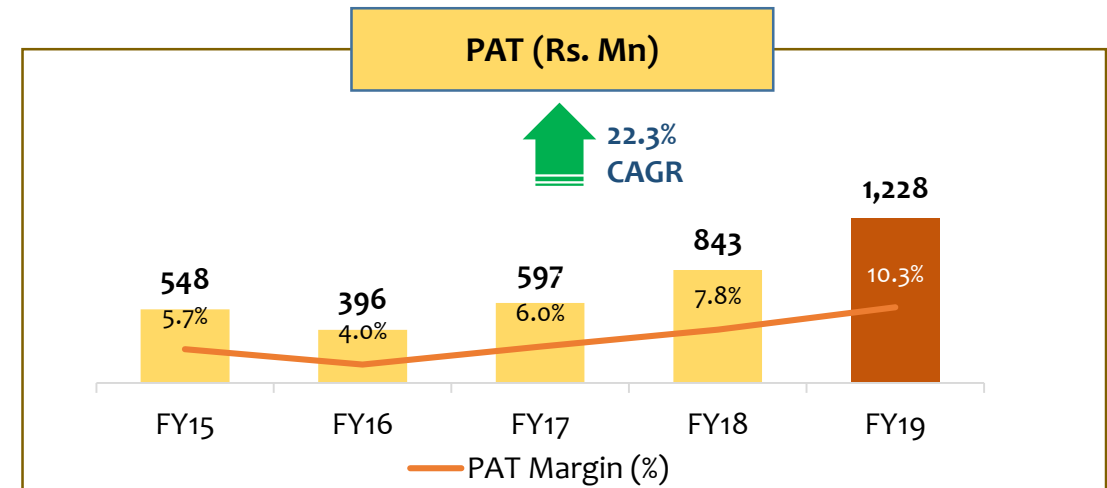
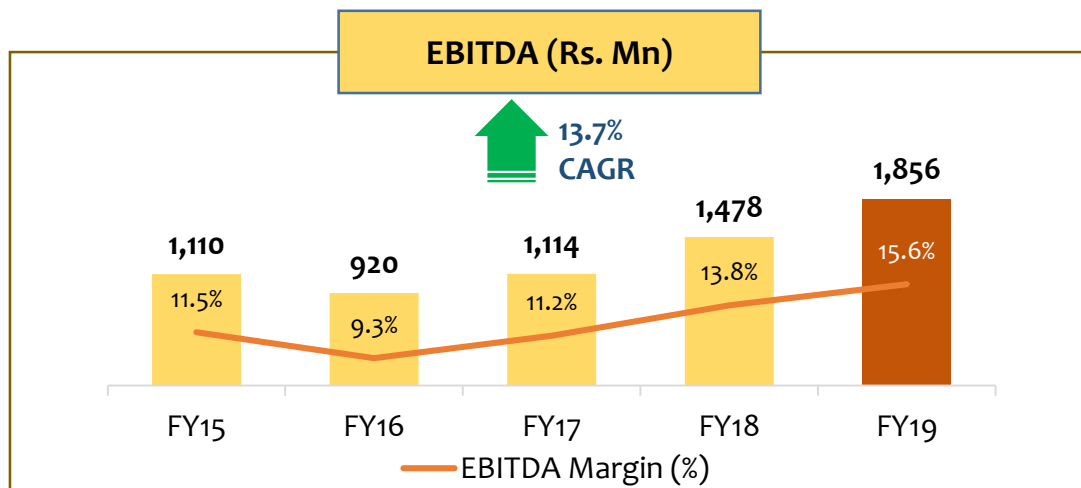
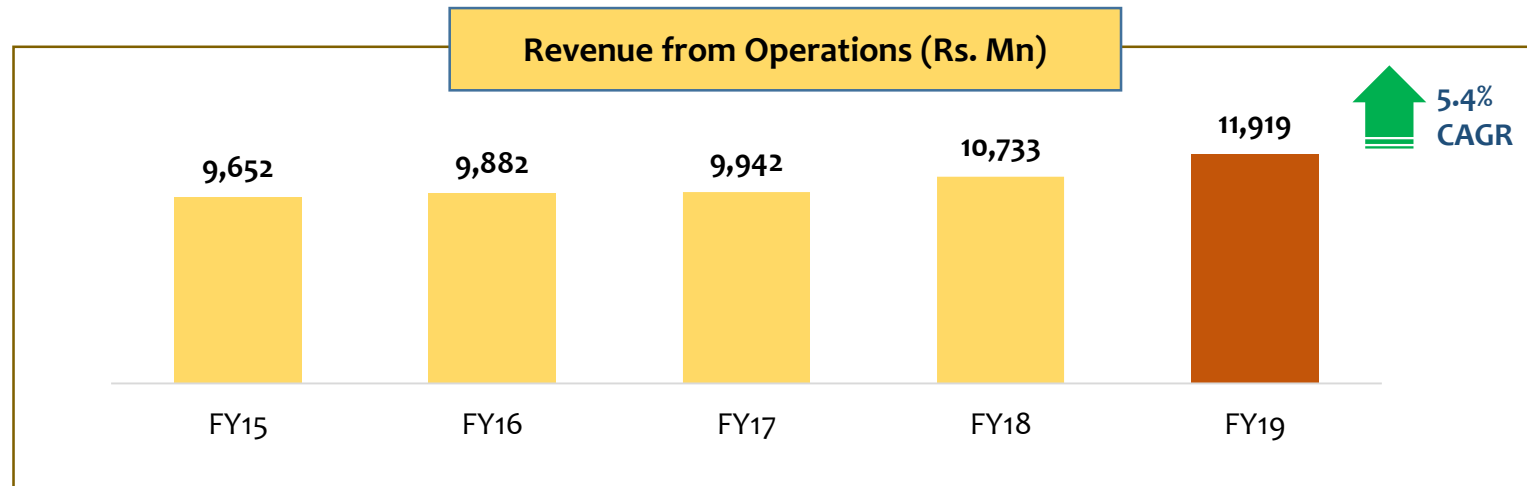


**Mr. Sandeep Aggarwal**  
Chief Financial Officer

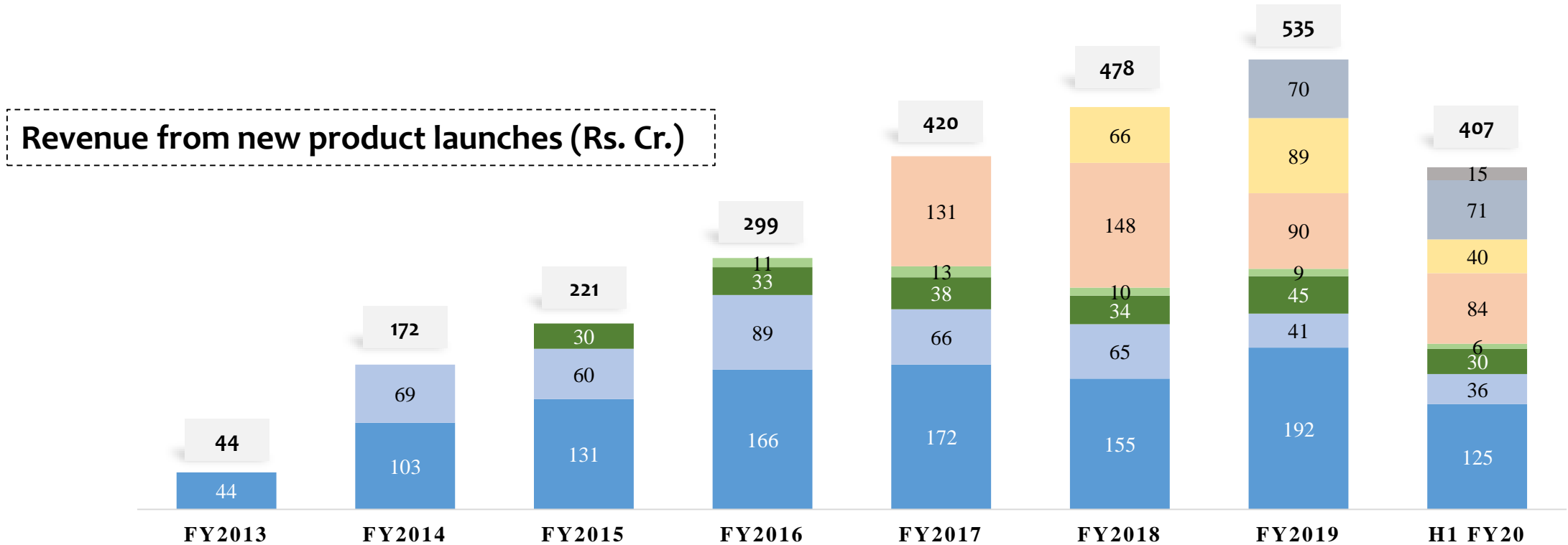


# Financial Performance – Last 5 years

Strong EBITDA and PAT growth with margin improvements every successive years

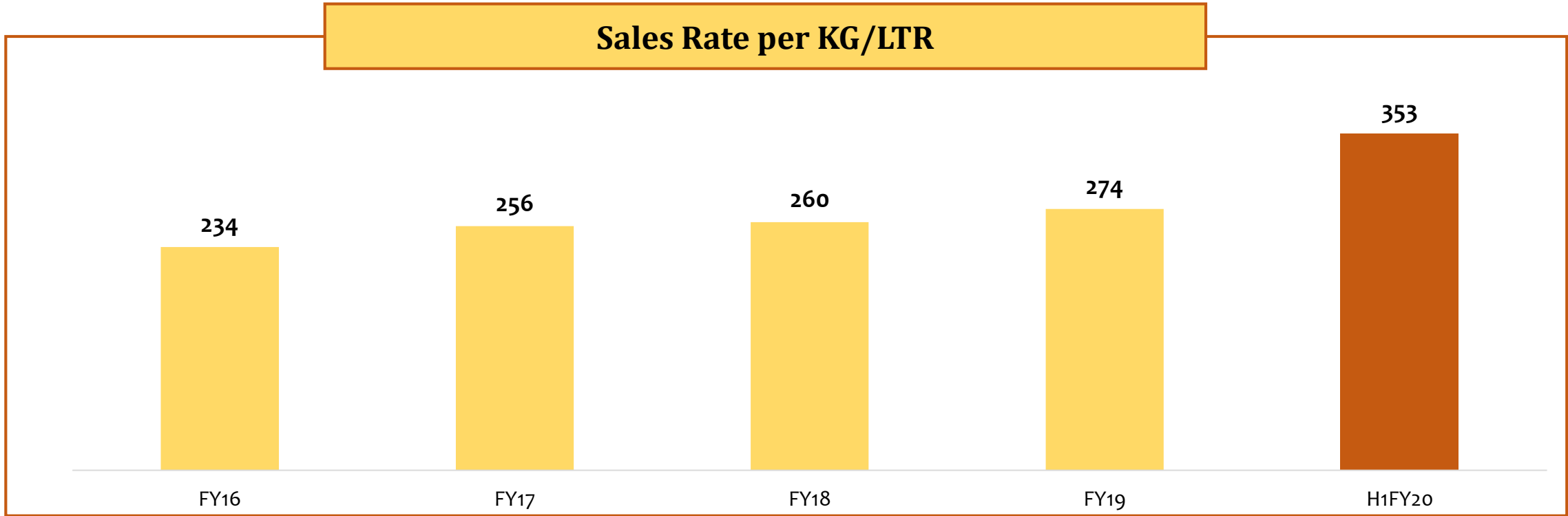


Proven track record of successful new product launches exhibits IIL's strong R&D capabilities and continues to provide competitive edge

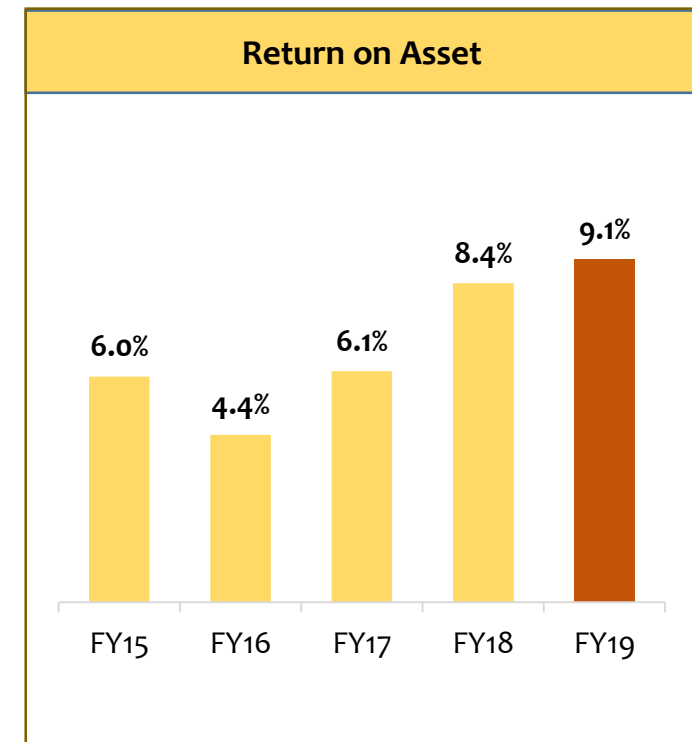
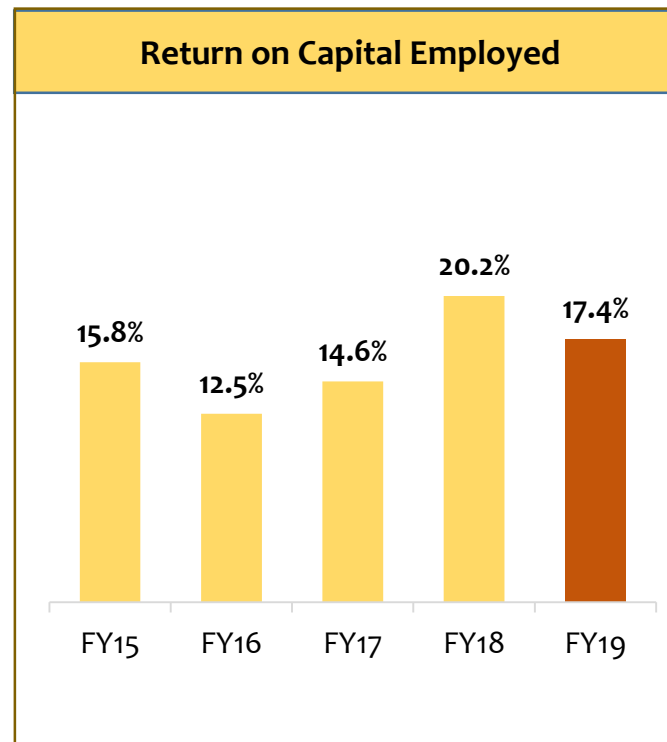
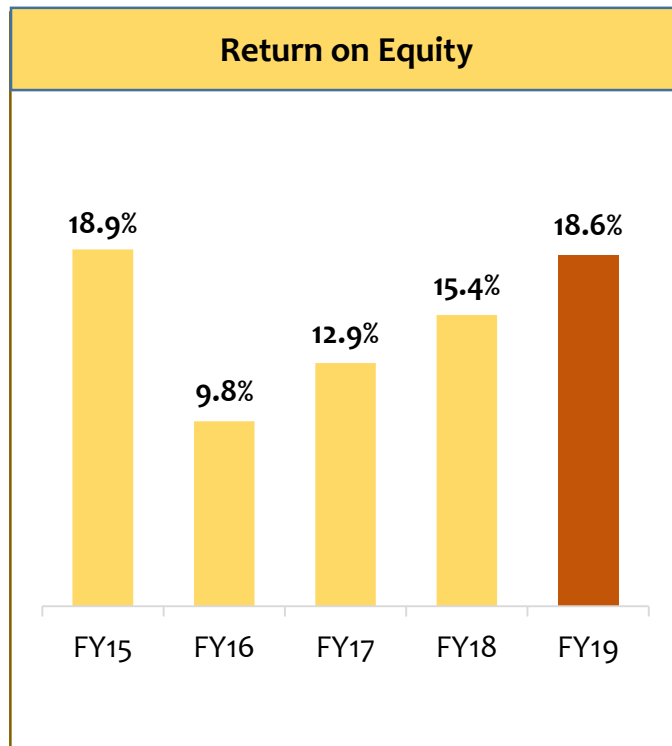


New Products launched during the year	5	5	3	2	5	5	8	5
% of Revenue from Operations	7.1%	19.9%	22.9%	30.3%	37.9%	43.1%	44.9%	47.3%

## Increasing Sales Rate Per KG Trend



Consistently improving return ratios and generating wealth for shareholders



# Capital Structure

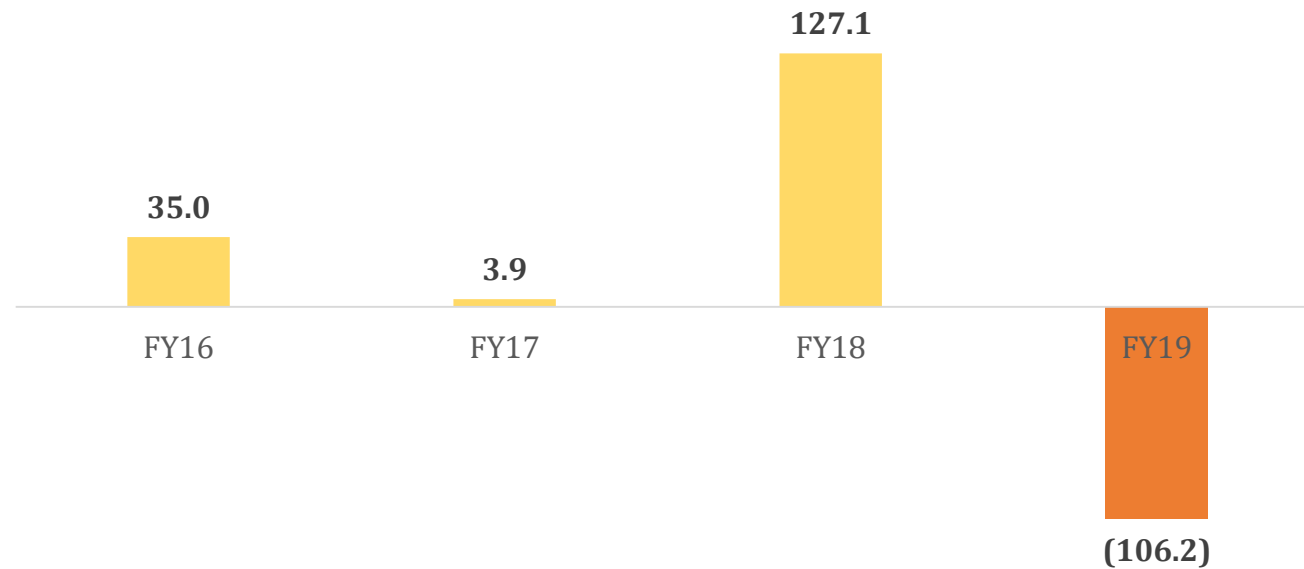
(Rs. Million)	FY2015	FY2016	FY2017	FY2018	FY2019	H1 FY2020
Long Term Debt	775	519	283	145	68	34
Short Term Debt	2,409	1,514	2,060	968	2,952	2,972
<b>Total Debt</b>	<b>3,184</b>	<b>2,033</b>	<b>2,342</b>	<b>1,112</b>	<b>3,020</b>	<b>3,006</b>
Cash & Cash Equivalents	86	71	68	196	89	91
<b>Net Debt</b>	<b>3,098</b>	<b>1,962</b>	<b>2,274</b>	<b>917</b>	<b>2,931</b>	<b>2,915</b>
<b>Total Equity</b>	<b>2,908</b>	<b>4,049</b>	<b>4,645</b>	<b>5,476</b>	<b>6,613</b>	<b>7,407</b>
<b>Net Debt/Equity</b>	<b>1.07x</b>	<b>0.48x</b>	<b>0.49x</b>	<b>0.17x</b>	<b>0.44x</b>	<b>0.39x</b>

## Key Highlights

- Higher debt in FY2019 was represents amount invested in building up higher inventory of Thimet and Nuvan
- Debt is expected to normalize to the range of ~150 Cr by the end of the current fiscal year with zero long term debt

Note: Capital Employed = Total Debt + Total Equity

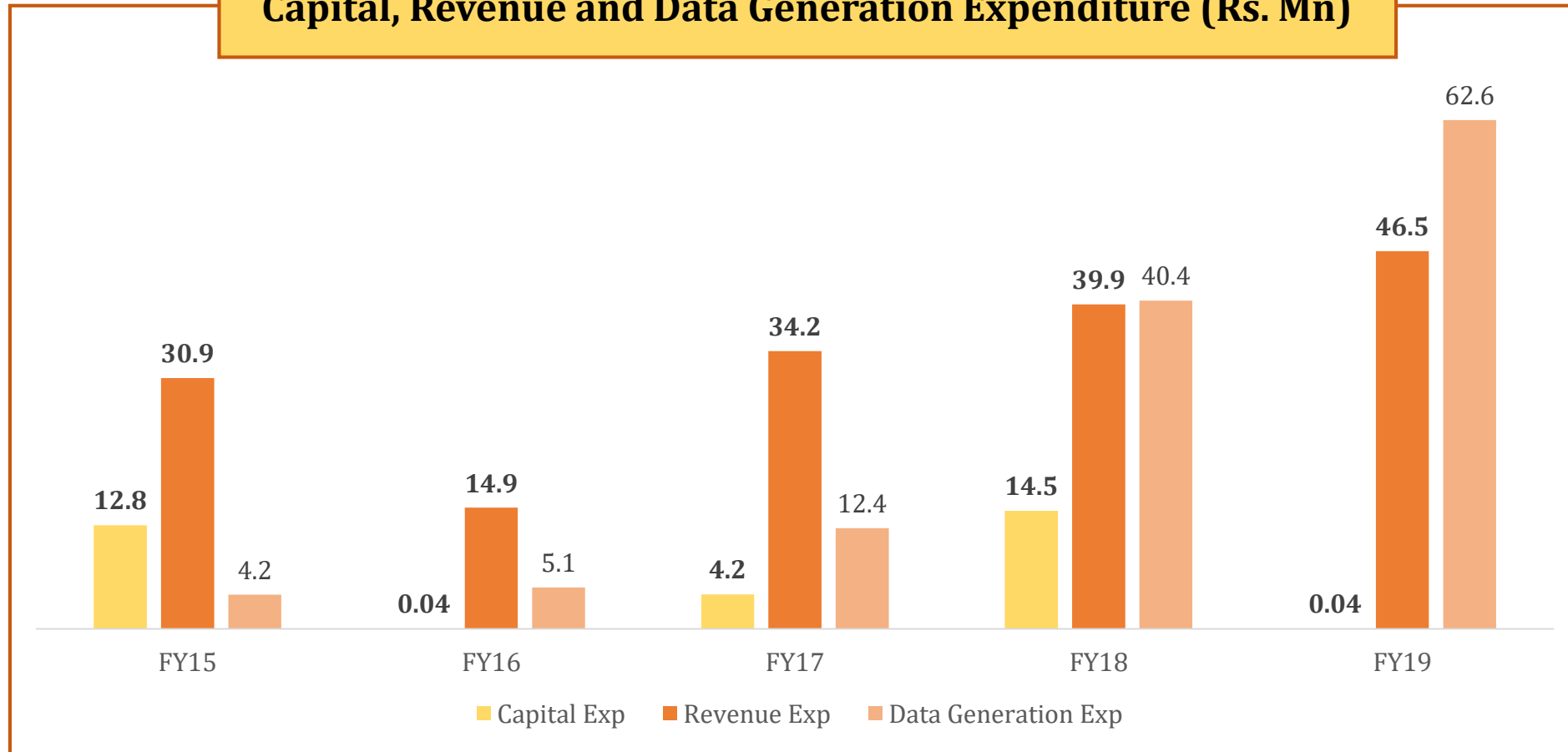
## Net Cash from Operating Activities (Rs. Mn)



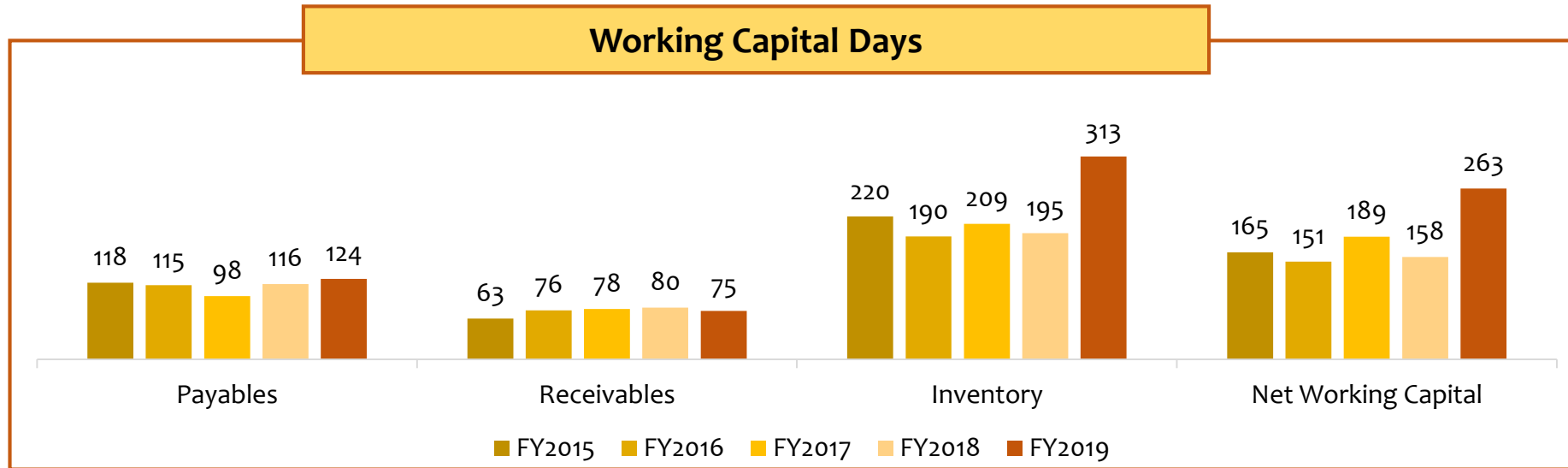
## Key Highlights

- At the end of FY2019 Inventory of Thimet and Nuvan amounted to Rs. ~250 Crores
- Thimet inventory to be fully cleared by the end of current year
- Nuvan inventory to be fully cleared by the mid of next fiscal year
- Positive and growing cash flows going forward

**Capital, Revenue and Data Generation Expenditure (Rs. Mn)**



Management is fully committed to improving its working capital cycle



## Key reasons for high working capital

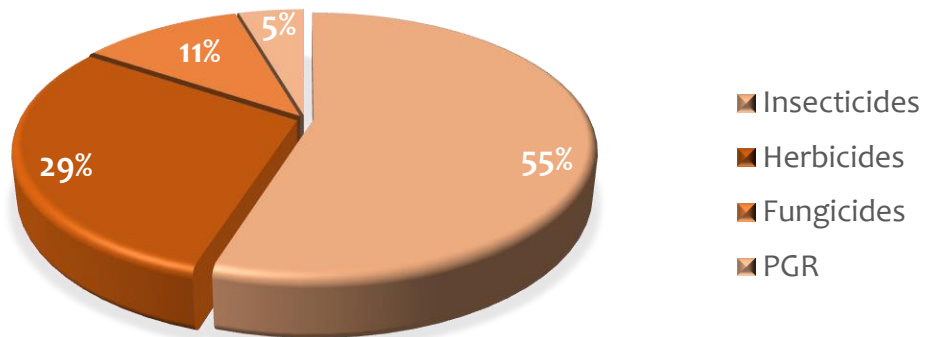
- Higher inventory for work in progress products as company manufactures both technical and formulations
- Lower inventory levels of finished goods
- Advance purchases of intermediaries to get the better prices
- FY2019 inventory levels were exceptional due to Thimet and Nuvan inventory

## Strategy

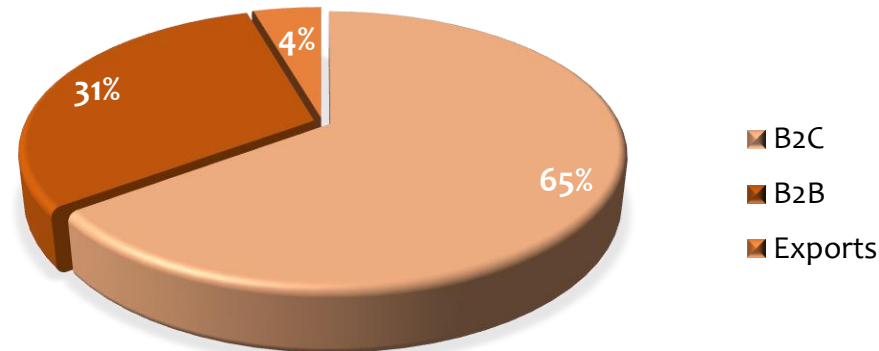
- Backward integration and reduce dependence on raw material imports
- Payables days have increased as a result of new MSME payment policy, company is committed to fund the working capital through internal accruals i.e. without raising working capital loans



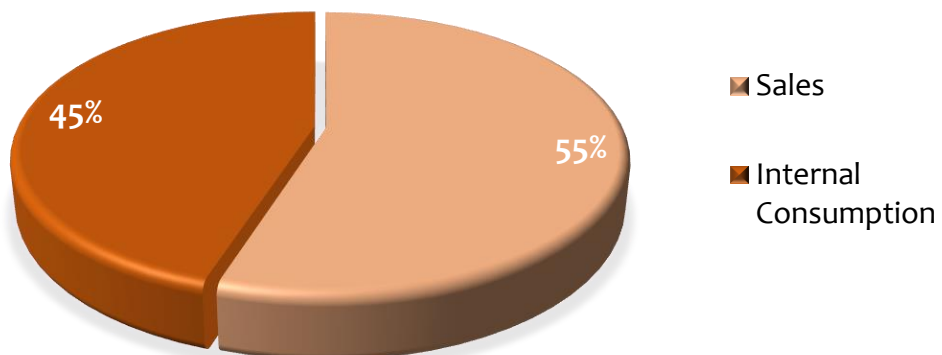
Gross Sales by Product Category



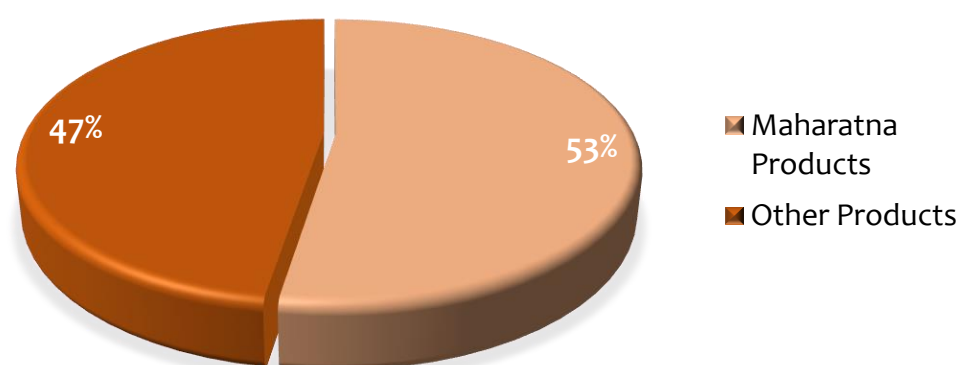
Gross Sales by Segment



Gross Sales vs Internal Consumption



Breakdown of Top Seller Range in B2C





# 7. Corporate Social Responsibility



**Mr. Sanjay Vats**  
Vice President

- ❖ Empowering Children & Farmers of India
- ❖ Rural initiatives for a sustainable living
- ❖ Projects around Farmer Knowledge Enhancement & Child education
- ❖ Farmer First Approach
- ❖ Millions of beneficiaries till date
- ❖ Employee Participation & Volunteering



## विद्या प्रोजेक्ट एक कदम बाल शिक्षा की ओर

- ❖ Children education programs in districts of Punjab, Rajasthan, Bihar, UP and Odisha
- ❖ Adoption of village schools
- ❖ Distribution of books, study materials and stationeries to children
- ❖ Empowering people with dignity and respect by organizing livelihood programs





- ❖ Aimed at educating farmers on crop protection and judicious use of agrochemicals
- ❖ Promoting the cultivation of 3rd crops for soil fertility and extra income
- ❖ Organizing special camps



Signed a MOU with ICAR – IARI for training of farmers to maximize their yield & Entrepreneur ship in 2017



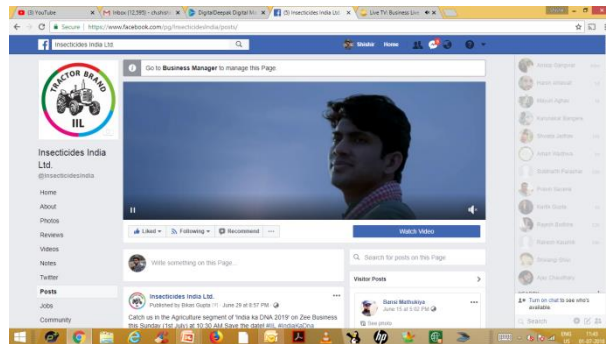
An awareness initiative of informing all the stake holders of the society about the importance, need and judicious use of agro-chemicals

- Involving the agro experts from ICAR-IARI and different universities
- Using social media to take the same to the stake holders
- Involving our industry players in the initiative
- Creating a sense of our responsibility towards farmers

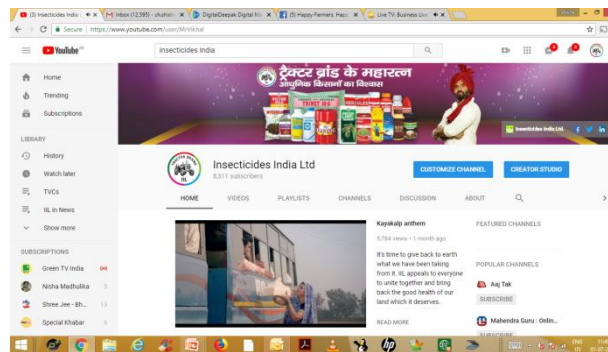


Social media initiatives helps in improving the internal as well as external communication about company and its activities

## Facebook



## Youtube



## Twitter





# 8. Growth Strategy and Outlook



**Mr. Rajesh Aggarwal**  
Managing Director





**India's  
Population**  
1.46 billion

**Growing  
Middle Class**  
High demand  
for calories

**Limitation in  
Arable Land**  
Limited  
expansion  
possible

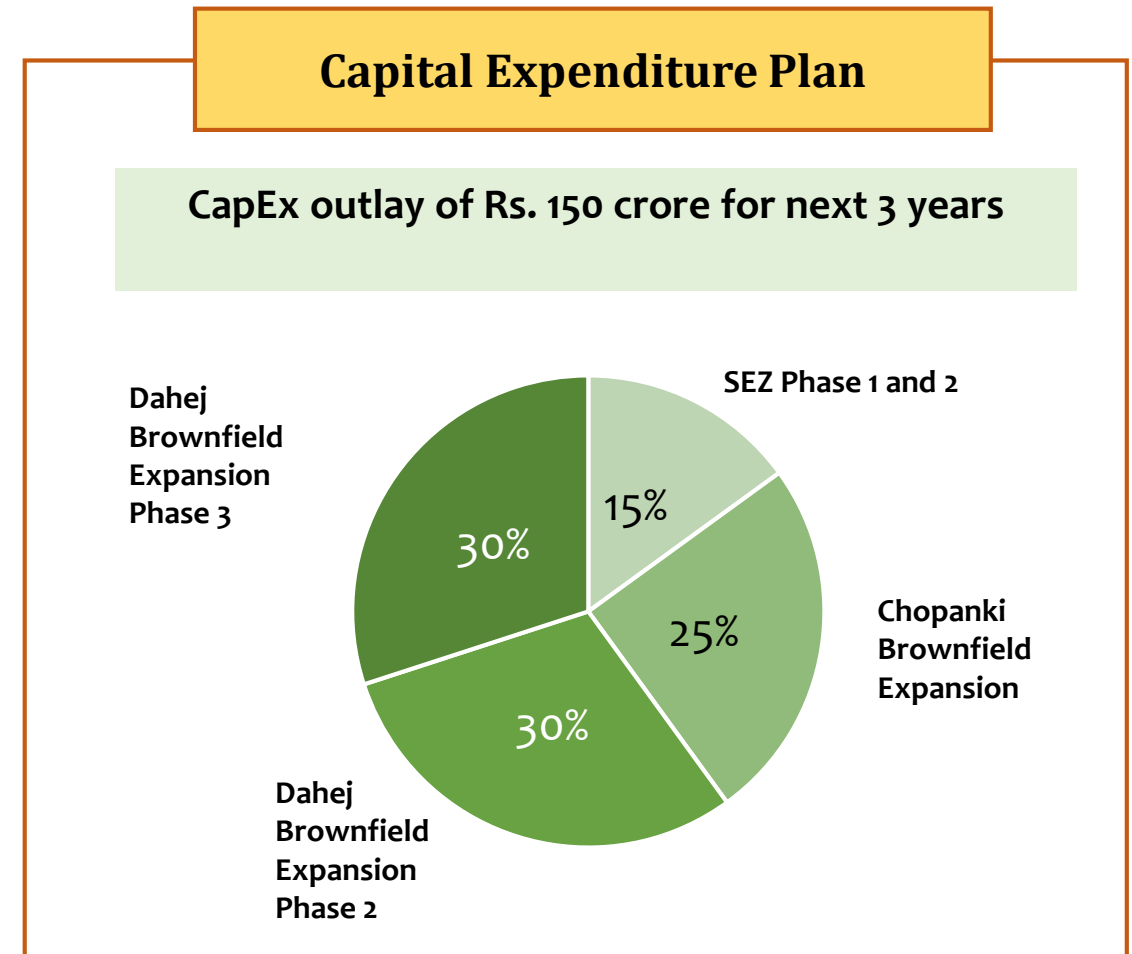
**Climate  
Change**  
High Volatility  
in crop  
production

## Important Characteristics

- Crop protection continue to grow
- Demand for innovative Products will shape the industry
- Farmers will look to combine crop protection, seeds, digital and application technologies while fulfilling societal requirements

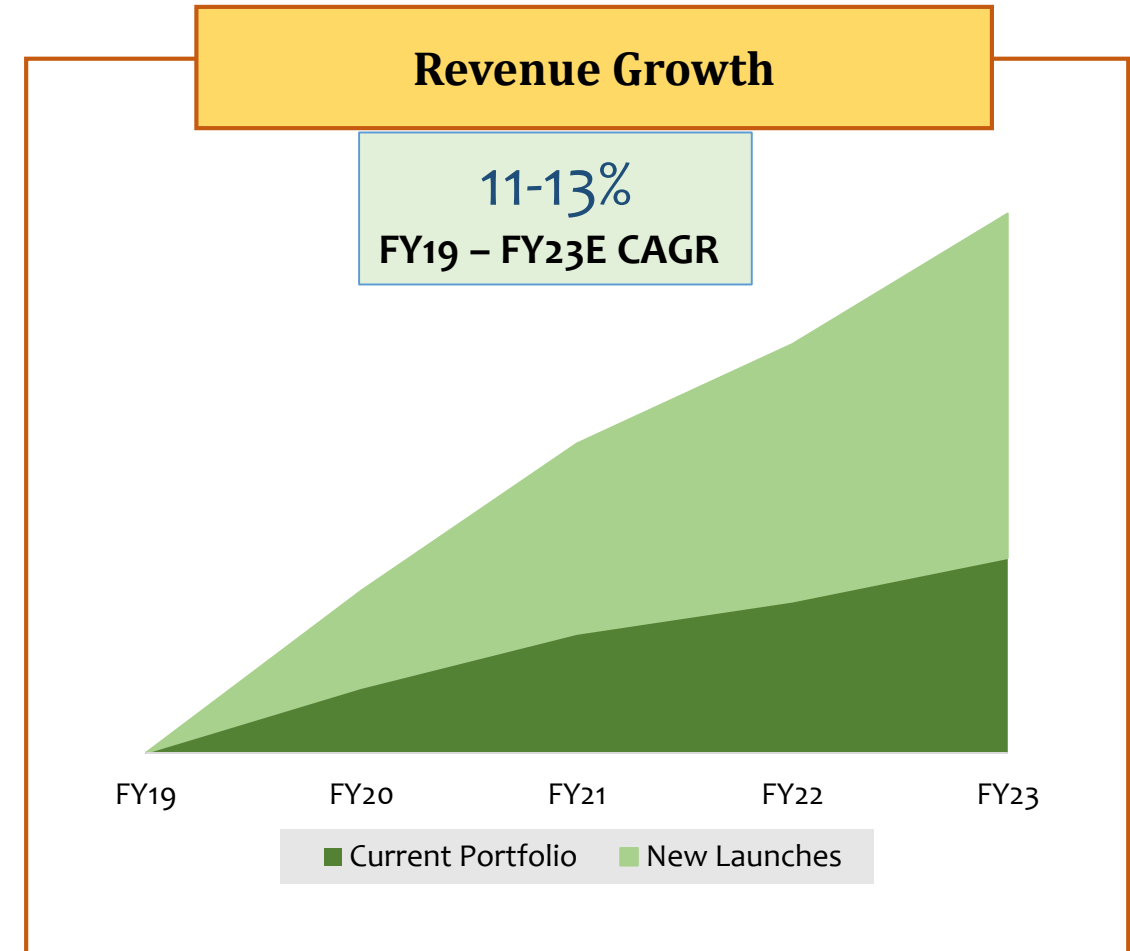
Capex will be incurred in a phased manner over next 3 years and will drive IIL future growth

- ❖ Out of Rs. 150 Crores, already incurred Rs. 32 Crores of Capex for setting up SEZ unit at Dahej. SEZ will result in increased expanding our exports to newer geographies
- ❖ Remaining capex will be incurred in a systematic phased manner
- ❖ Chopanki Brownfield Expansion – Expanding existing facility to add new manufacturing lines to produce high value products
- ❖ Dahej Brownfield Expansion – Setting up backward integration plan to reduce dependence on imported raw materials and reduce cost of sales
- ❖ These investment will yield result in long run and will enhance IIL overall capability to manufacture high value product, complex molecules and facilitate exports into new geographies



## Phasing out the generic products and introduction of new products in Maharatna category will significantly grow topline and bottomline by FY2023

- ❖ Revenue is expected to grow by 11-13% CAGR in FY19-23 period
- ❖ The topline growth will be primarily driven by recent and upcoming innovative product launches
- ❖ Maharatna products will constitute more than half of sales by the end of FY23
- ❖ Exports will grow three times from current level, contributing ~ 15% of the sales as compared to ~5 of sales in FY19
- ❖ Identified 25 products which are in the process of tail cutting and with new product launches every year will ultimately result in better product mix and improved margins
- ❖ Efficient working capital management and backward integration of key intermediaries will result in enhanced bottom line



## R& D will results in New product launches in Maharatna Category

- Focus on in-house R&D and international partners to launch new products
- 28 registrations are in pipeline out of which 22 registrations are in 9(3) category

## Exports

- Working on registration in new countries with 100+ export agreements
- Expanding in new geographies: Exporting to 20+ countries  
Expand to 50+ countries and 100+ customers by the end of FY2023

## Phase out Generic Products

- Phasing out the Generic Products (high volume-low margin)
- Introduction of new products in the Maharatna category and moving up the value chain

## Backward and Forward Integration

- Moving on the strategic path of backward and forward integration
- Capitalize on the Make in India initiative
- Will result in better margins across technicals and formulations

## Focussed Approach on Biologicals

- Developed and commercialized VAM (Vascular Arbuscular Mycorrhizae)
- Developed and commercialized soil energizer, Kayakalp
- Development of 3-4 new biological products is in pipeline

## Optimum Capital Structure and Operational Efficiency

- Focus on sustainable generation of cash flows
- Capex of Rs. 1.5 bn in next 3 years in a phased manner for setting up SEZ, synthesis facilities and backward integration plant

# Thank You

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