



ASTRAL POLY TECHNIK

A WATER SOLUTIONS CONGLOMERATE ?



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- DISCLOSURE: The authors hold a tracking position in one of the stocks mentioned.



- UPVC pipes usage started in government water supply schemes
- Small & large players started adding capacities

1970

1980

- World bank-funded water supply schemes led to rapid demand & capacity growth
- UPVC agri pipes received good acceptance in Maharashtra & neighbouring states

1990

- Major shift from metal pipes to plastic pipes happened due to new applications of UPVC (SWR, casing, plumbing & column pipes) & HDPE (drip & sprinkler irrigation systems)

2000

- Government spending on infrastructure led to hugh growth in UPVC pipes segment
- CPVC pipes gained traction due to usage in hot water plumbing applications

- The share of organised players growing rapidly supported by GST, increased brand consciousness, poor quality products by unorganized players, growth in fittings segment etc.

NOW



POLYMER PIPES

UPVC

UPVC

These pipes find application in agriculture and plumbing for portable water supply and sewerage. Continuous replacement of galvanised iron pipes with these pipes has supported healthy demand growth in the past. Features such as affordability and longer life compared with metal pipes have aided this segment. Government initiatives, such as AIBP, also provide growth potential.

CPVC

CPVC

These pipes are primarily used in plumbing applications, as well as hot and cold, potable water distribution systems. CPVC pipes in India are still at a nascent stage and have huge potential due to factors such as longevity, corrosion free, fire resistant, being lead-free, and the ability to withstand high temperatures

HDPE

HDPE

These pipes are used in the irrigation sector, sewerage and drainage, city-gas distribution and in chemical and processing industries. HDPE pipes account for ~15% share in the total plastic pipes industry. These pipes have been gaining prominence over traditional metal and cement pipes, due to durability, low maintenance and longevity versus metal pipes.

PPR

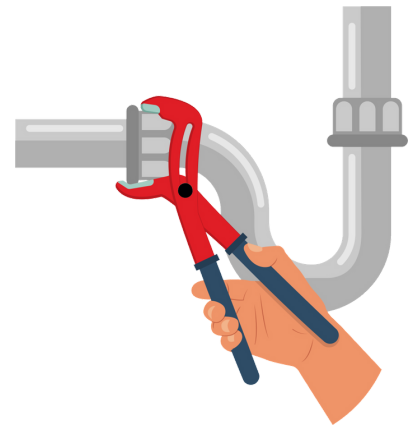
PPR

These pipes account for a mere 5% of the total plastic pipes demand. These pipes, which are used for various industrial purposes, are relatively costly compared with other plastic pipes, which restricts their usage

COMPOSITE PIPE

COMPOSITE PIPE

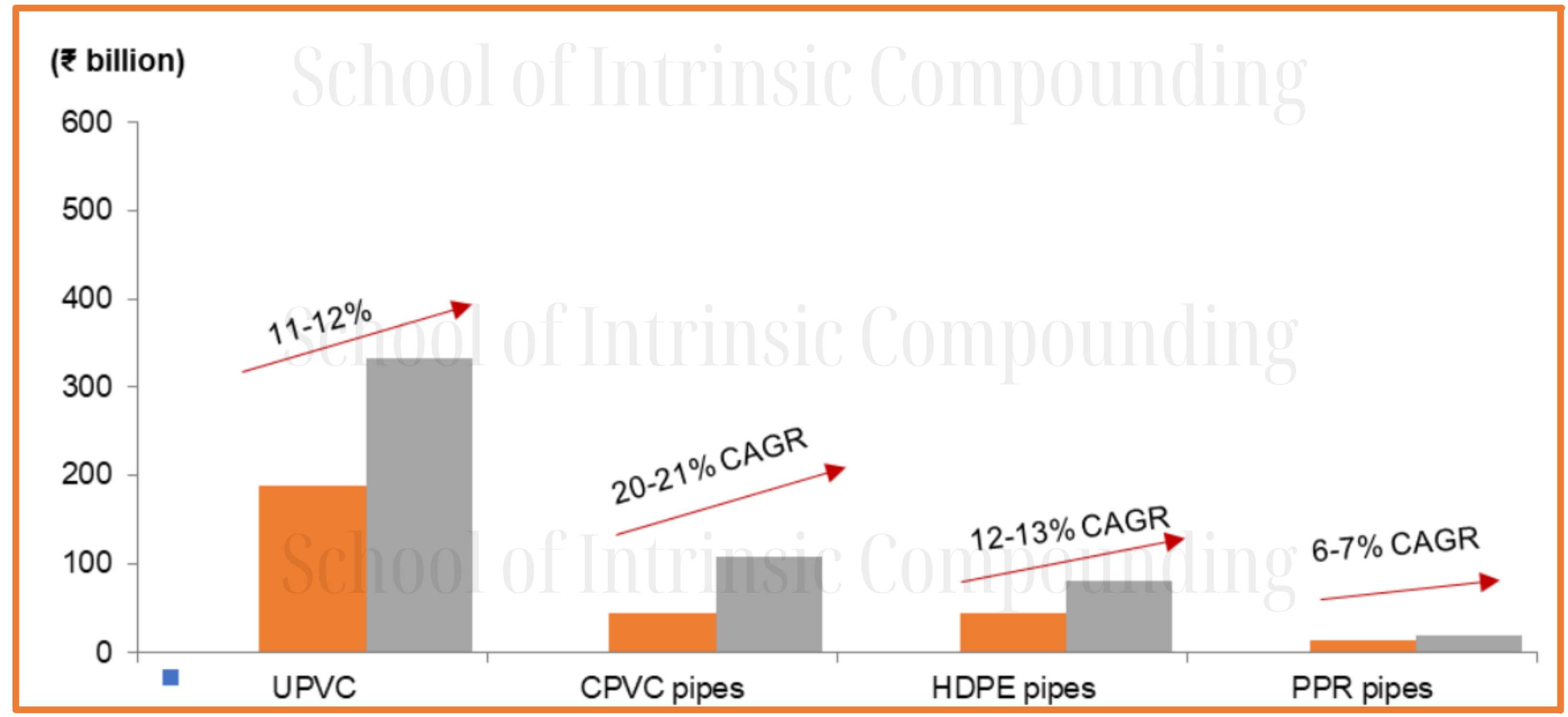
Composite pipes are made from unreinforced thermoplastics like high density polyethylene (HDPE), polyvinyl chloride (PVC), polypropylene (PP), fiber reinforced plastics (FRP), and glass reinforced plastics (GRP). Composite pipes are resistant to corrosion and have stronger mechanical properties.

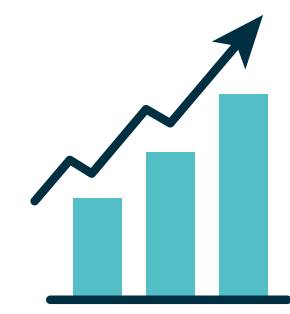


PIPE COMPARISON TABLE

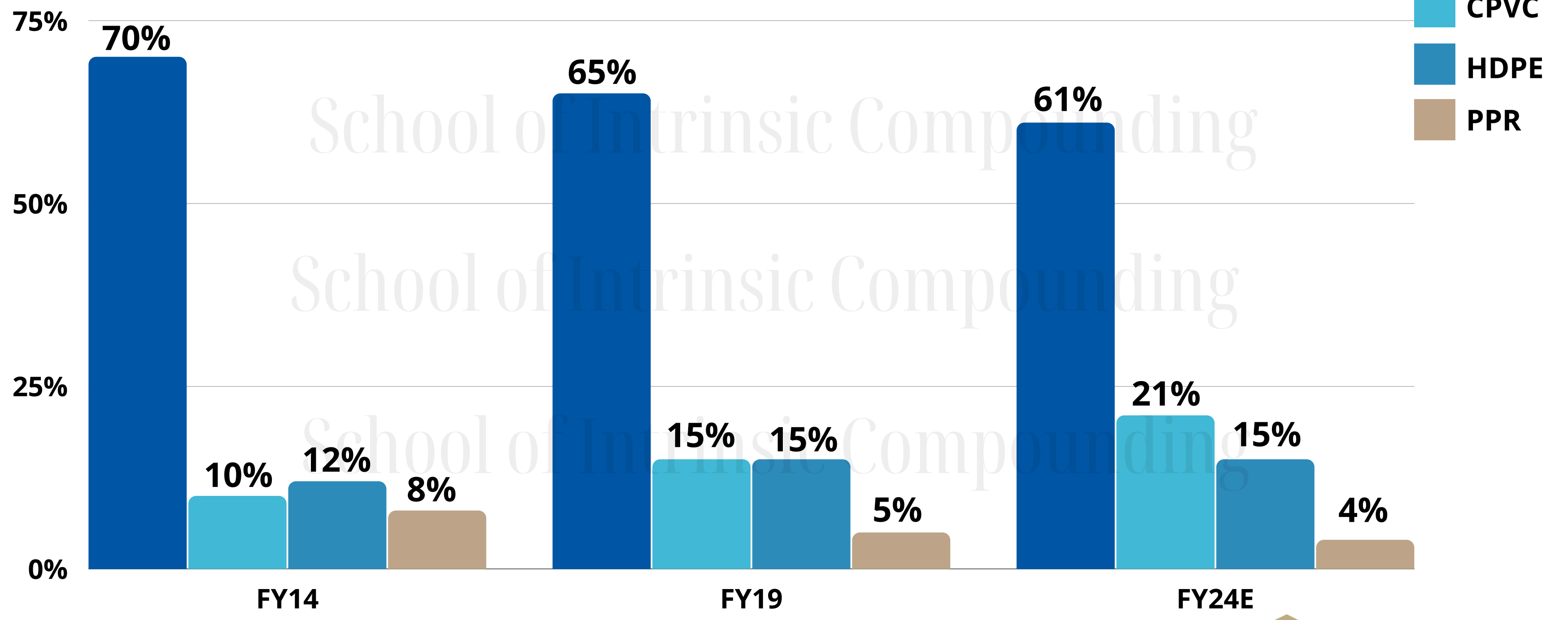


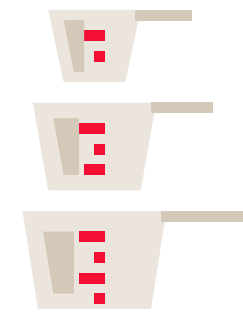
	Galvanised iron (GI)	UPVC	CPVC	HDPE	PPR
Life (years)	15-20	20-25	30-35	50	50
Max operating temperature (degrees Celsius)	200-250	60-70	90-100	90-100	90-100
Strength (hoop)	Higher than plastic pipes	500-600	450-550	350-400	250-300
Cost	Costlier than plastic	Cheaper than GI	Cheaper than GI, costlier than UPVC	Cheaper than GI, costlier than UPVC	Cheaper than GI, costlier than UPVC
Corrosion	Corrodes faster	No effect due to chemical resistance	Has anti-corrosive properties	Excellent anti-corrosion and chemical resistance	Good chemical resistance and corrosion resistance
Leakage	Vulnerable to leakage	Leakage-free	Leakage-free for lifetime	Leakage-free	Leakage-free but requires installation by skilled manpower
Bacterial growth	More prone to bacterial growth compared with plastic	Relatively low compared with GI	Extremely low compared with GI	Extremely low compared with GI	Relatively low compared with GI
Installation	Time- and energy-consuming	Done through cold welding	Done through cold welding	Cold welding. Known for more tolerance to poor installation	Fusion-welded system which requires specialised training and equipment
Thermal conductivity and insulation	Needs insulation as heat loss occurs faster due to high thermal conductivity	Requires less insulation as low thermal conductivity reduces heat loss	Requires less insulation as low thermal conductivity reduces heat loss	Require less insulation as low thermal conductivity reduces heat loss	Require less insulation as low thermal conductivity reduces heat loss



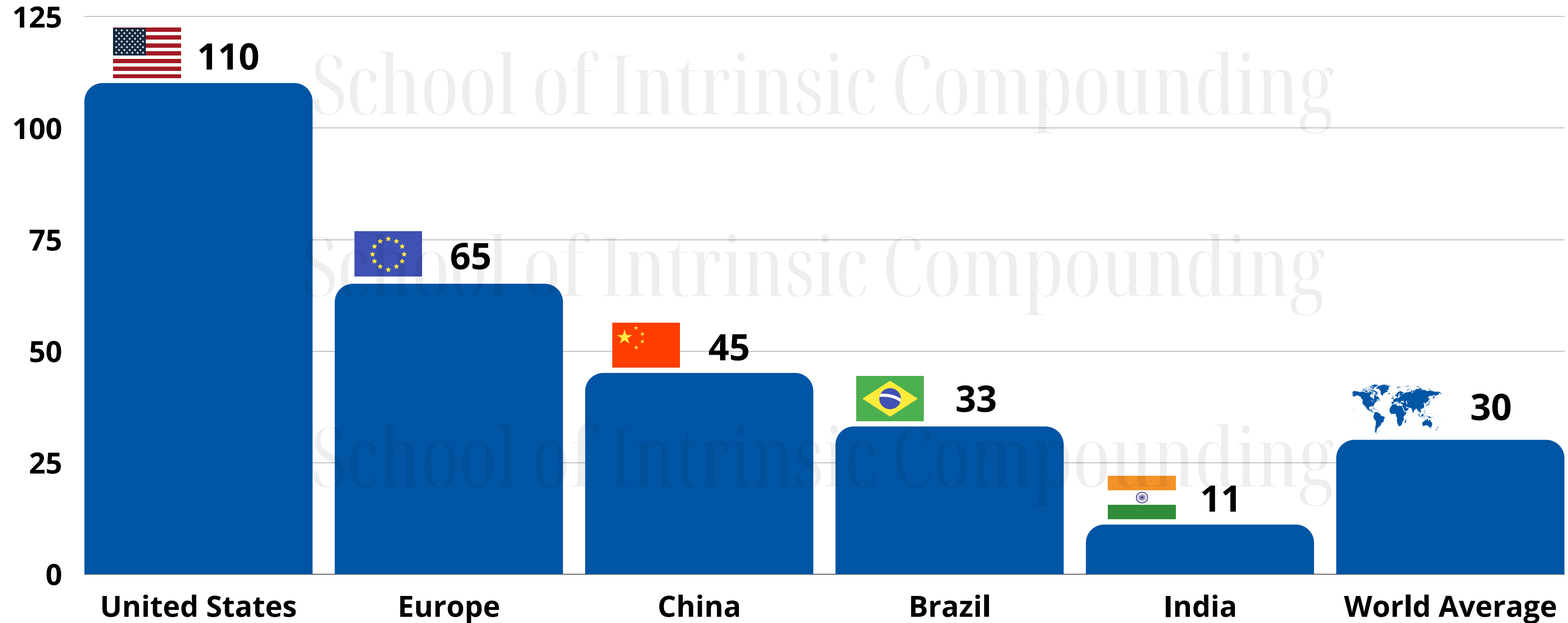


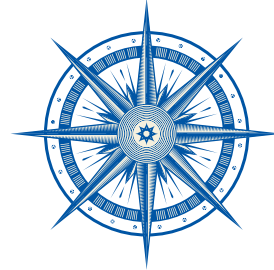
CHANGING REVENUE MIX TOWARDS CPVC





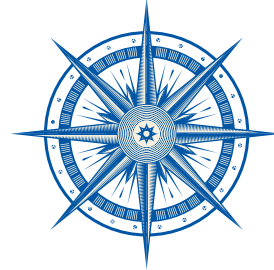
PER CAPITA PLASTIC CONSUMPTION: INDIA VS OTHERS (IN KGS)





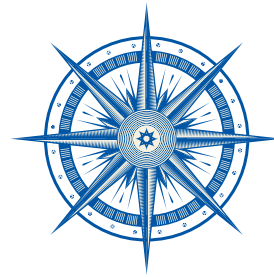
- Sandeep Engineer had to shut down his first pharmaceutical business in 1984 due to a collapse of a major client (Gujrat Drugs).
- He also started a chemical business in 1986 and shutdown in 1993 due to stringent norms applied by the government.
- In 1990s, the fascination of CPVC began in Sandeep Engineer's mind.
- Engineer observed that in the US, CPVC was the new solution to anti-corrosion for plastic pipes which was replacing iron & copper pipes



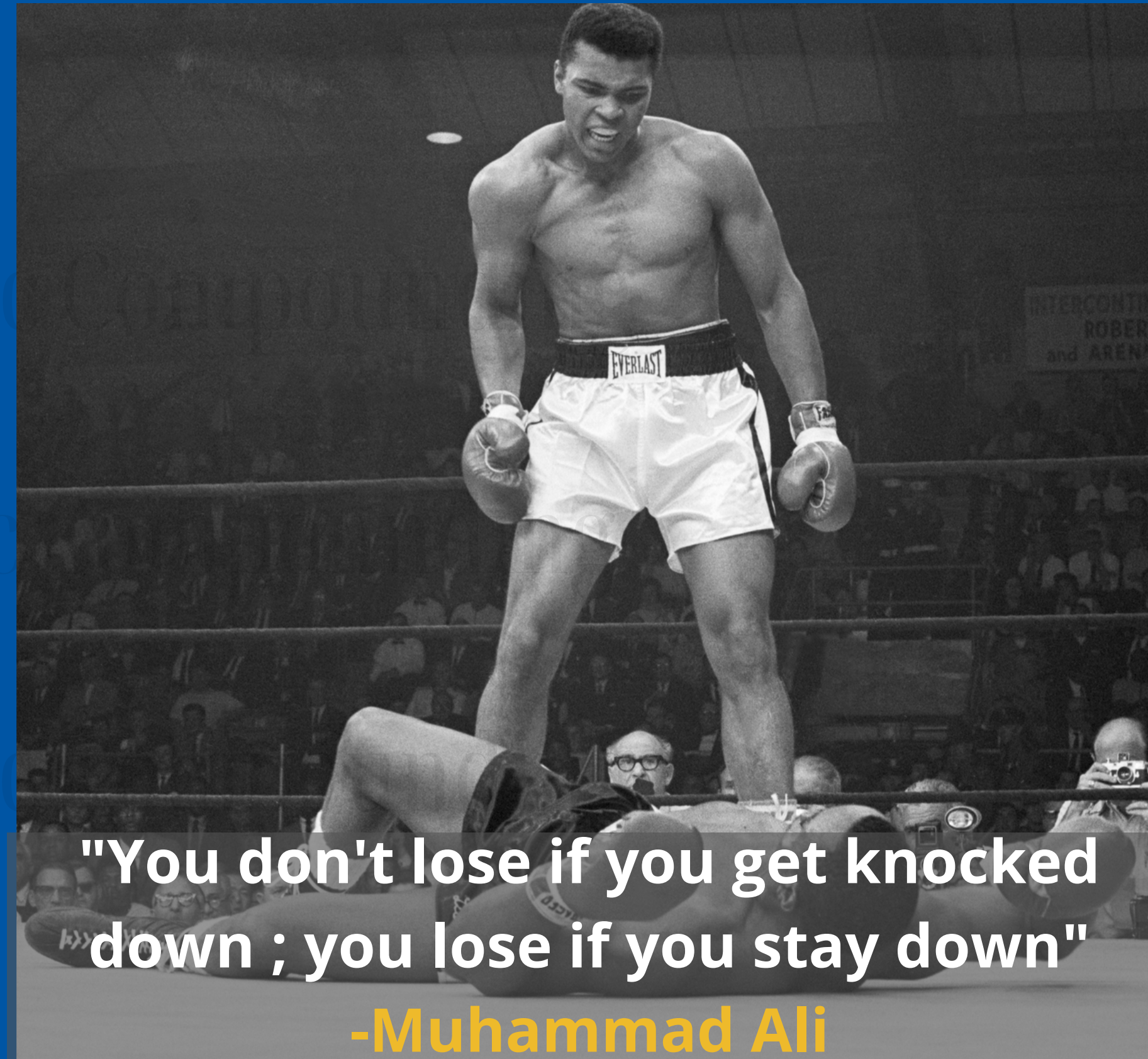


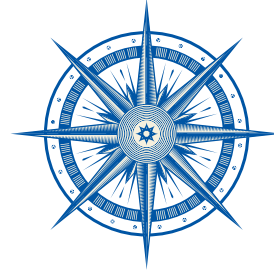
- CPVC is a superior product as compared to PVC due to its ductile strength
- Astral got the license for CPVC resin from Lubrizol. This is how **Astral Poly Technik** was incorporated in 1996
- The patent for the CPVC resin technology was held by Lubrizol. Engineer went to the US to form a joint venture with Thompson Plastics, USA which provided Astral with the technical know-how for setting up the CPVC plant.
- Thompson plastics put up 20% of equity for the company, Engineer approached his uncle to fund another 20% and engineer sold his house in Ahmedabad for his own contribution.





- Astral was selling pipes at a loss and still the product flopped, People preferred using GI pipes as it was so well established in the market.
- Engineer realised that he cannot compete with the giants of the industry like Tata Steel, Jindal Steel etc. for industrial pipes and hence, he decided to shift to plumbing pipes.
- Engineer targeted the consumers of plumbing- real estate developers and hotels where they addressed issues related to corrosion and pinholes in copper pipes.





- Engineer identified the plumbers as playing an integral part in the decision making and influencer in the value chain. He sponsored the Annual meeting of the Plumbers Association in Mumbai 2002 attended by 300 Plumbers.
- The persistent nature of Engineer and his constant efforts earned him a few large institutional projects in Mumbai –Renaissance Hotel in Powai and the Hilton Hotel in Bengaluru.
- Astral ran advertising campaigns in full swing through news channels Aaj Tak, Star News, etc. Astral Poly Technik established scale by hiring Salman Khan as its brand ambassador.



Plumber

Astral Poly Technik targeted to capture the Plumbers perception & the Plumbers attracted the customers.



Customer



SOIC INTENSIVE COURSE

TO UNDERSTAND IS TO KNOW WHAT TO DO



EXCLUSIVE NEWSLETTERS



FORENSIC ACCOUNTING WITH INDIAN AND INTERNATIONAL CASE STUDIES



PROPRETORY ACCOUNTING CHECKLIST



SOIC SECTORAL ANALYSIS: DEEP DIVE INTO INDUSTRY STRUCTURES



DEEP INSIGHTS FROM ANNUAL REPORT & CONCALL



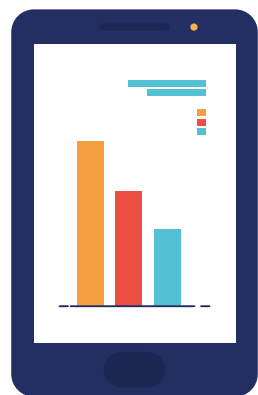
BASICS OF FINANCIAL STATEMENT ANALYSIS: LANGUAGE OF BUSINESS



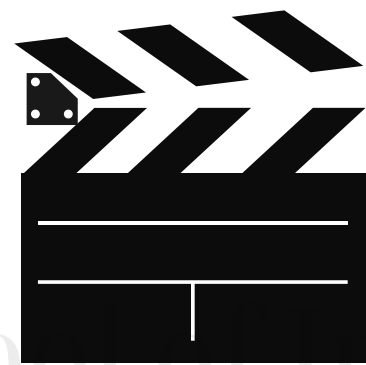
Q&A DASHBOARD: SOLVED 1000+ QUESTIONS



ANNUAL REPORT AND QUARTERLY RESULT REVIEWS



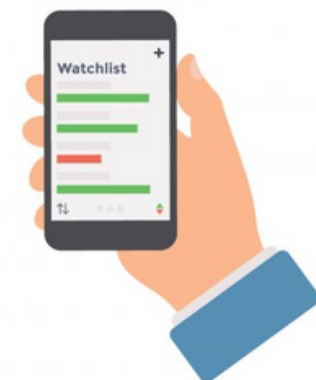
DU PONT OF ALL THE KEY RATIOS AND APPLICATION IN THE INDIAN CONTEXT



SOIC CONCLUSION VIDEOS OF BUSINESS ANALYSED



SOIC EXCEL TEMPLATE: SIMPLIFYING RATIO



SOIC BUSINESSES WATCHLIST: FILTERS

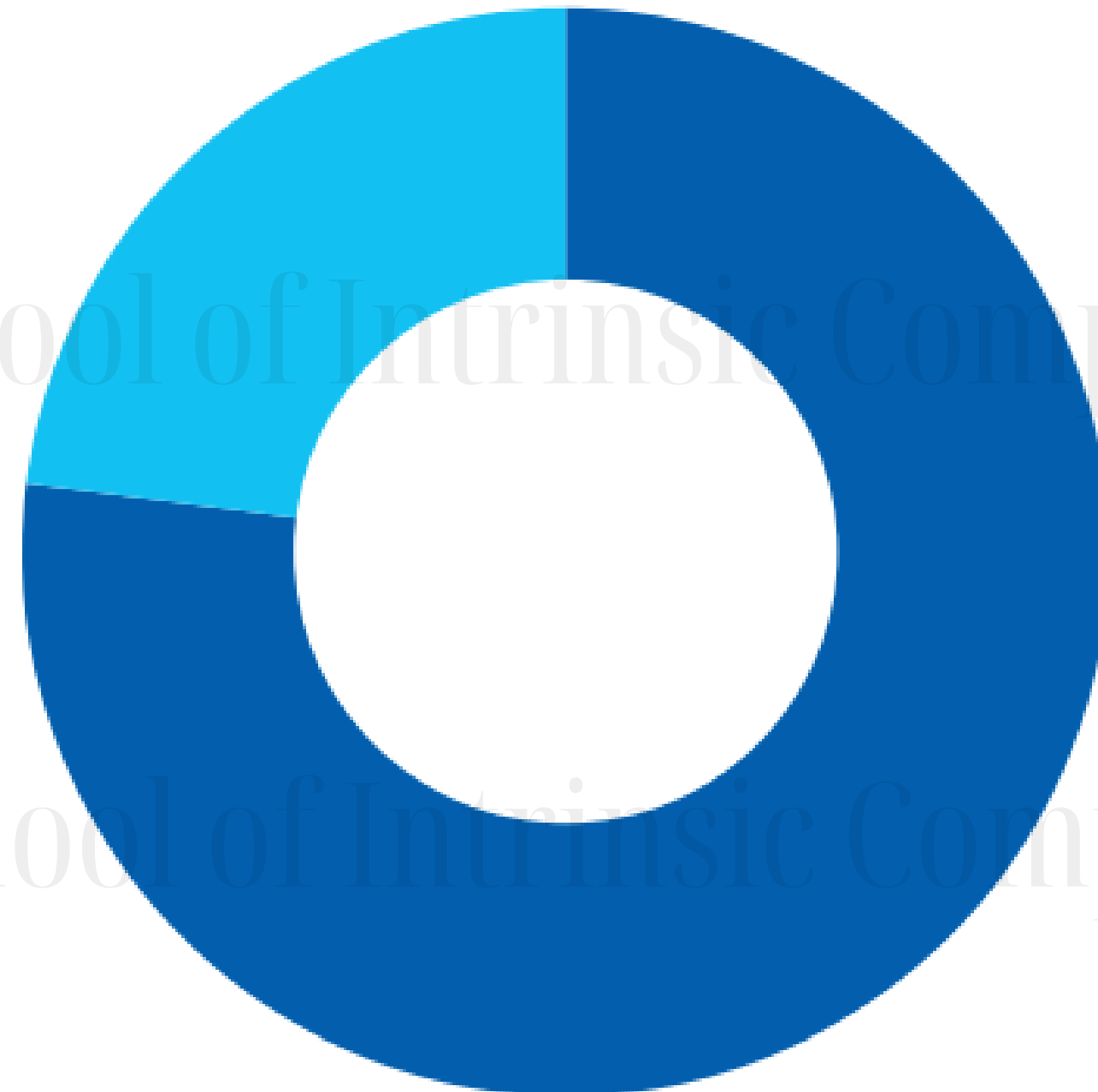




REVENUE BREAK UP

Revenue Mix

(%)



Piping **77**

Adhesive **23**



246,765 MTPA

Piping Production
Capacity

86,817 MTPA

Adhesive Production
Capacity

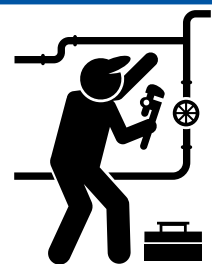
PIPING

- **Plumbing Pipes & Fittings**
CPVC, PVC & Pex
- **Sewerage Drainage Pipes & Fittings**
SWR, DWC Piping, Low Noise drainage, Sewerage,
Storm-water
- **Agriculture Pipes & Fittings**
- **Industrial Pipes & Fittings**
- **Fire Sprinklers Pipes & Fittings**
- **Conduit & Cable Protection**
- **Ancillary Products**
- **Urban Infrastructure**
- **Ducting**

ADHESIVES

- **Epoxy Adhesives & Putty**
- **Silicone Sealants**
- **Construction Chemicals**
- **PVA**
- **Cyanoacrylate**
- **Solvent Cements**
- **Tapes**
- **Polymeric Filling Compound**
- **Anaerobic Adhesives**
- **Industrial Adhesives**
- **Instant Hand Sanitizer**
- **Surface Cleaning Products**

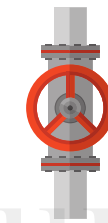




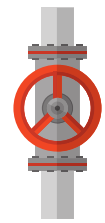
WHAT DOES IT TAKE TO BE SUCCESSFUL IN THE PIPES INDUSTRY ?



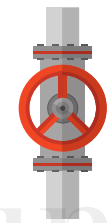
**PAN INDIA
PRESENCE**



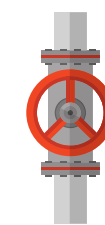
**END USERS,
THEY CATER TO**



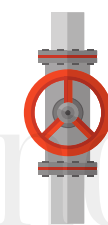
**DISTRIBUTION
NETWORK**



**PRESENCE IN
PIPES & FITTINGS**



**PRODUCT
PORTFOLIO**



**ECONOMIES
OF SCALE**

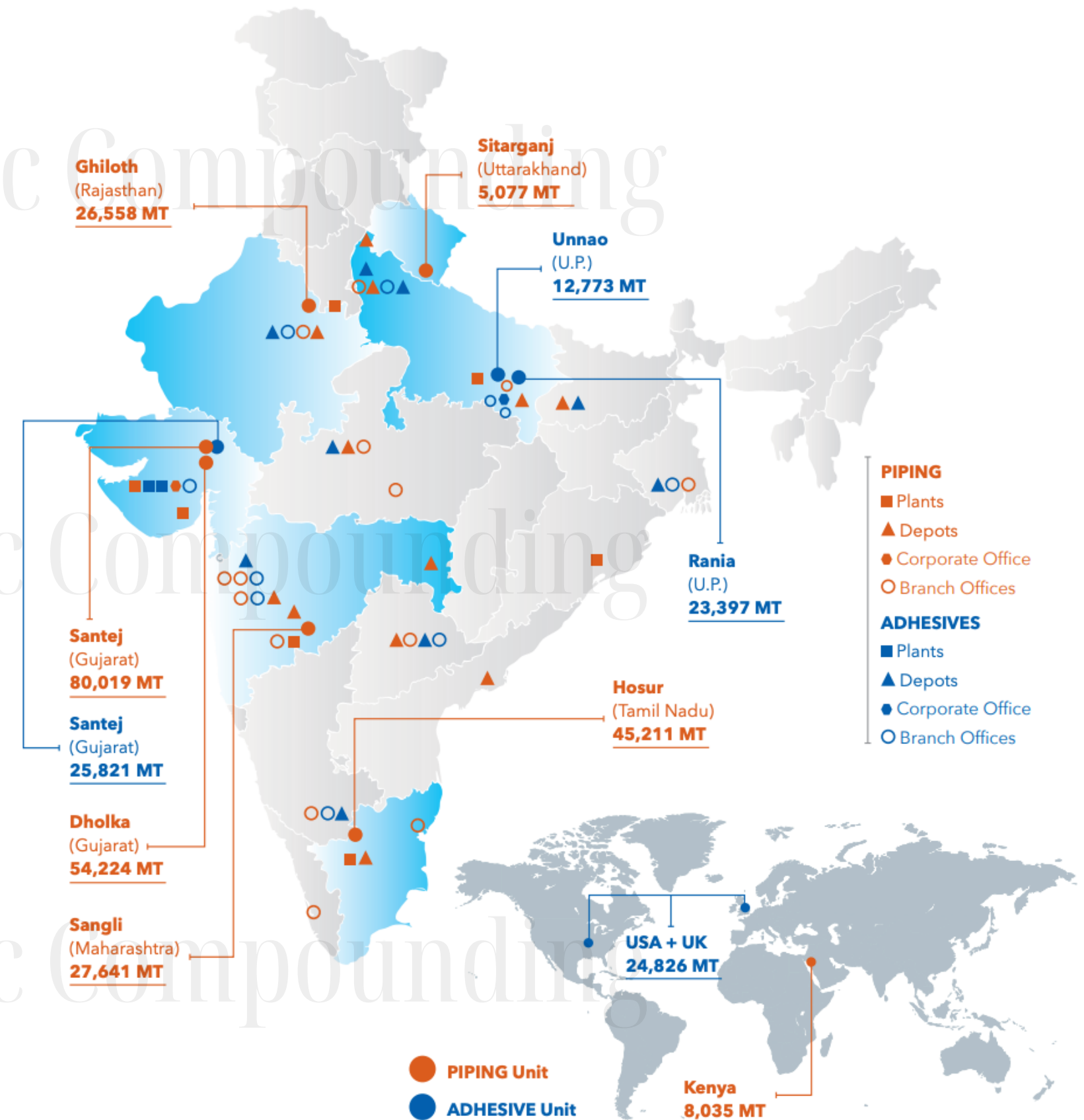


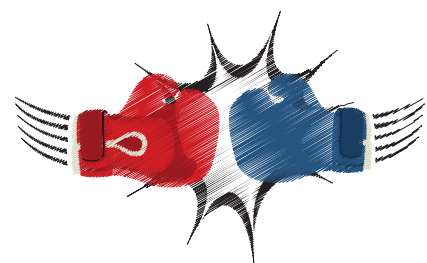
PIPES INDUSTRY





**PAN INDIA
PRESENCE LEADS TO
2% TO 3% SAVINGS
ON LOGISTICS**



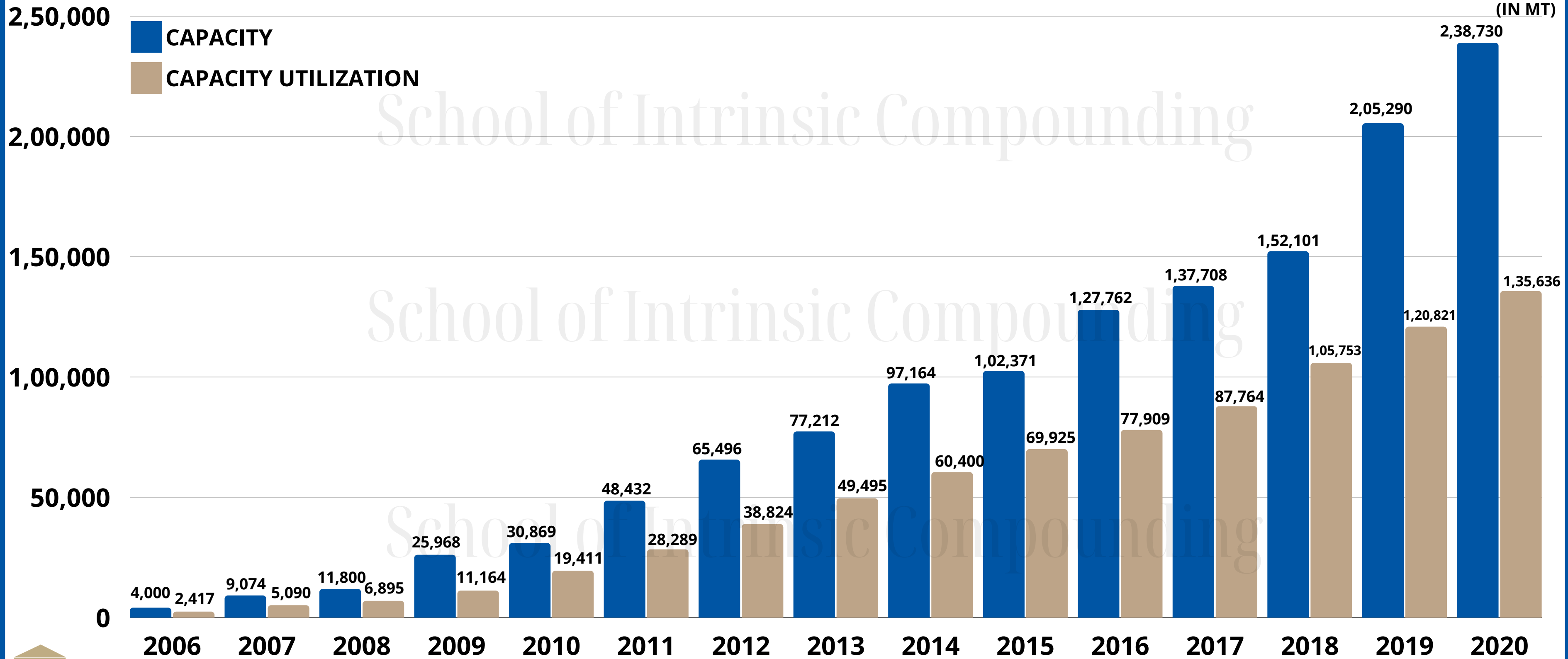


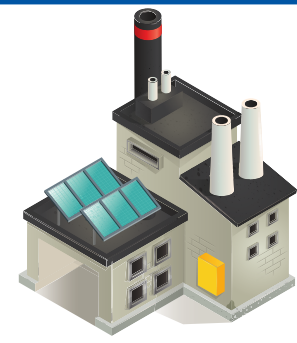
P2P COMPARISON

COMPANY	MANUFACTURING BASE	TOTAL NO OF TOUCHPOINTS	N.O OF DISTRIBUTORS
SUPREME INDUSTRIES	Maharashtra, Madhya Pradesh, West Bengal, Uttar Pradesh	N.A	984
ASTRAL POLY TECHNIK	Gujrat, Tamil Nadu, Rajasthan, Maharashtra, Uttarakhand	28,000	750
FINOLEX INDUSTRIES	Maharashtra, Gujrat	18,000	850
PRINCE PIPES & FITTINGS	Maharashtra, Tamil Nadu, Uttarakhand, Dadra, & Nagar Haveli, Rajasthan	46,171	1,408
ASHIRWAD PIPES	Karnataka, Rajasthan	36,000	1,100
JAIN IRRIGATION	Maharashtra, Gujrat, Tamil Nadu, Rajasthan, Andhra Pradesh	11,000	N/A

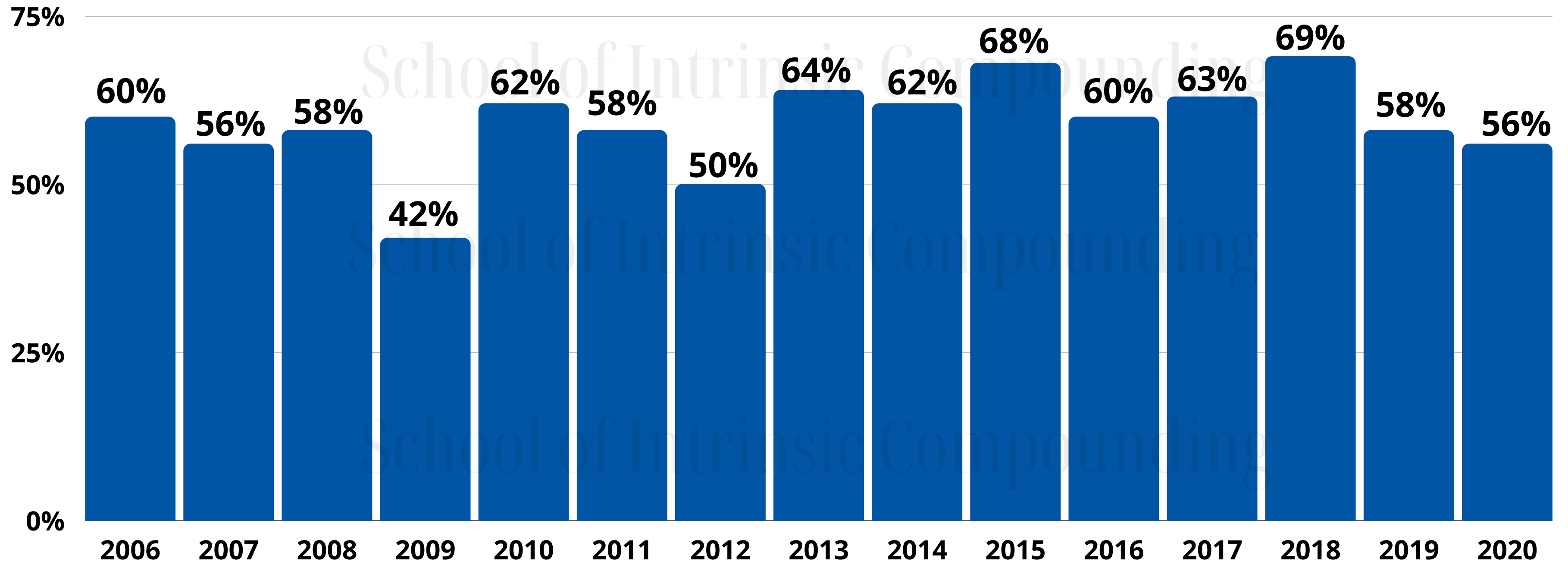


BLITZKRIEG CAPACITY ADDITION





CAPACITY UTILIZATION





MARKET SHARE



Supreme Industries
11%



Finolex Industries
9%



Astral Poly Technik
7%

Others
51%



Jain Irrigation
8%



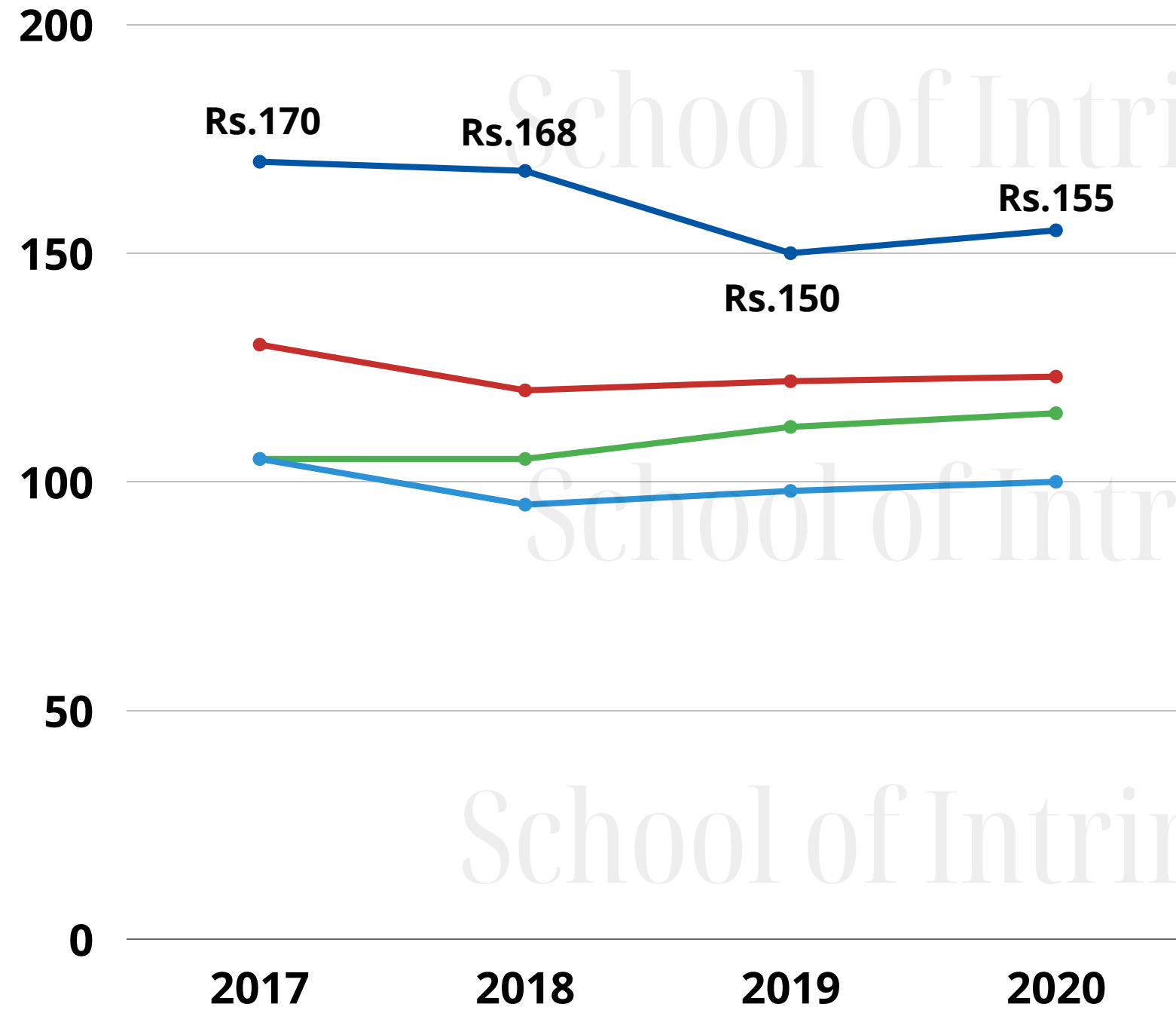
Prince Pipes
5%



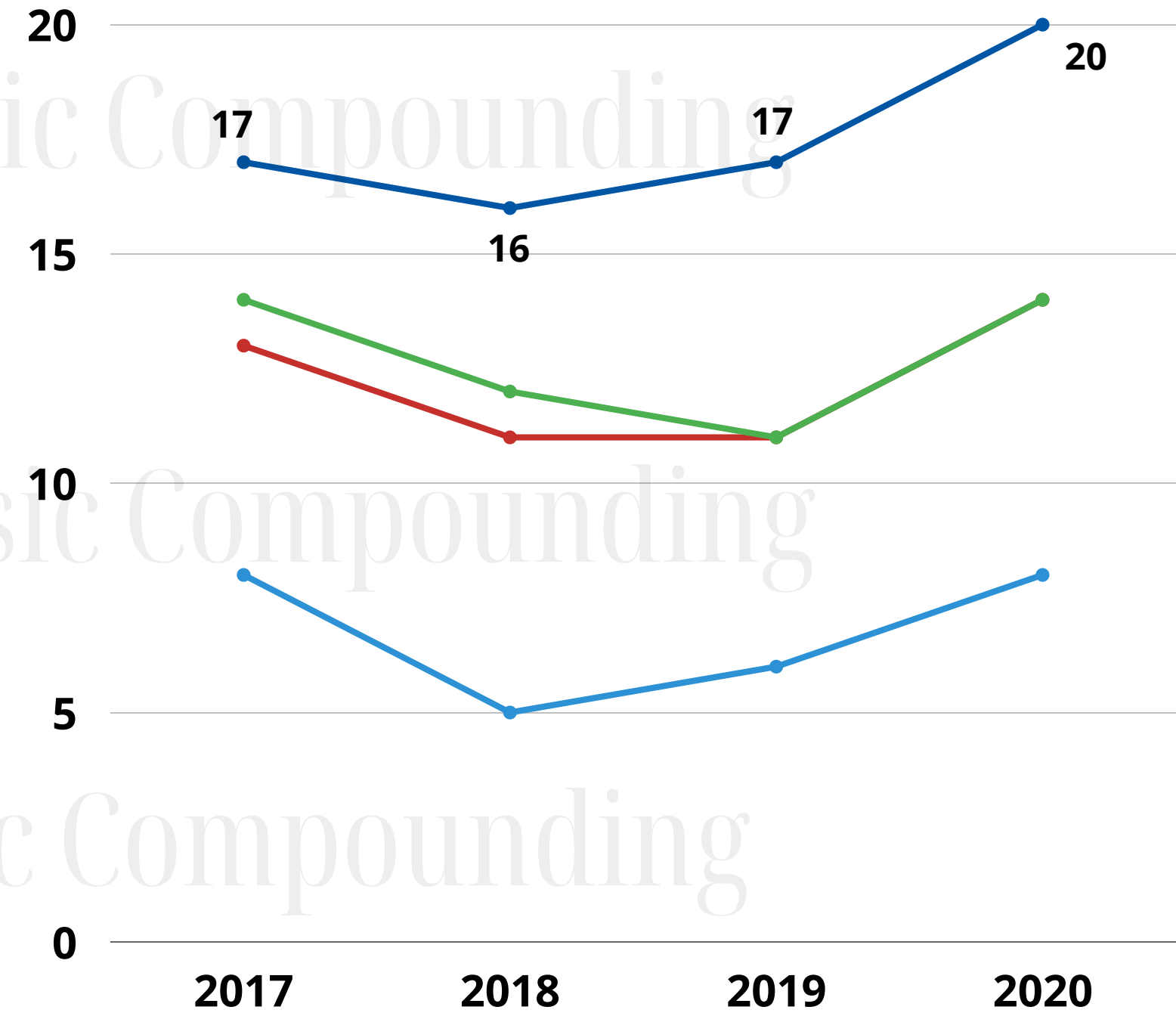
Ashirvad Pipes
9%



NET SALES REALISATION



EBIT PER KG





PRODUCT PORTFOLIO OF DIFFERENT PLAYERS

PRODUCTS	1 ASHIRVAD PIPES	2 ASTRAL POLY TECHNIK	3 FINOLEX INDUSTRIES	4 SUPREME INDUSTRIES	5 PRINCE PIPES & FITTINGS	6 JAIN IRRIGATION
PVC PIPES	✓	✓	✓	✓	✓	✓
CPVC PIPES	✓	✓	✓	✓	✓	✓
HDPE PIPES	✗	✓	✗	✓	✓	✓
PPR PIPES	✗	✗	✗	✓	✓	✓

P2P COMPARISON

KEY FINANCIALS

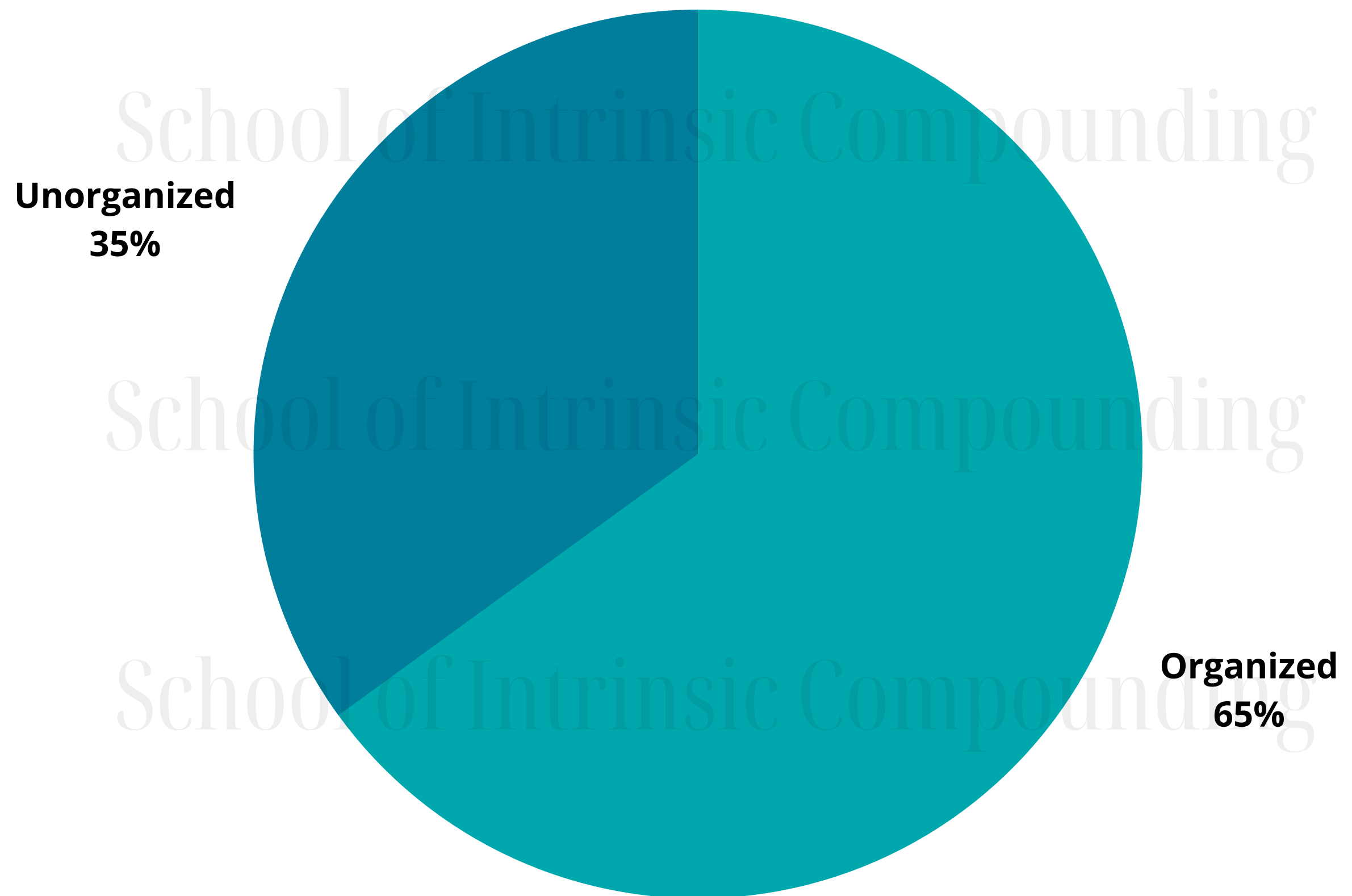


EBIT MARGINS

COMPANY	FY 20	FY 19	FY 18	FY 17	FY 16
PRINCE PIPES & FITTINGS	14%	9.3%	9.5%	10.4%	6.9%
SUPREME INDUSTRIES	13.3%	9.86%	11.5%	13.6%	10.3%
FINOLEX INDUSTRIES	15%	7.1%	5.8%	8%	8.8%
ASTRAL POLY TECHNIK	17%	12.8%	11.8%	11.2%	9.9%
ASHIRVAD PIPES	-	16%	18.1%	17.4%	12.4%
JAIN IRRIGATION	-	10.8%	10.2%	8.4%	8.6%

ROCE

COMPANY	FY 20	FY 19	FY 18	FY 17	FY 16
PRINCE PIPES & FITTINGS	14%	22.6%	20.8%	24.8%	14.8%
SUPREME INDUSTRIES	13.3%	32.7%	31%	35%	30.1%
FINOLEX INDUSTRIES	15%	20%	16.7%	24.1%	24.3%
ASTRAL POLY TECHNIK	17%	20.5%	18.6%	17.8%	15.5%
ASHIRVAD PIPES	-	33.8%	34.9%	37%	22.7%
JAIN IRRIGATION	-	9.7%	8.8%	8.2%	8.1%





PRINCE PIPES AND FITTINGS CON CALLS Q3FY21

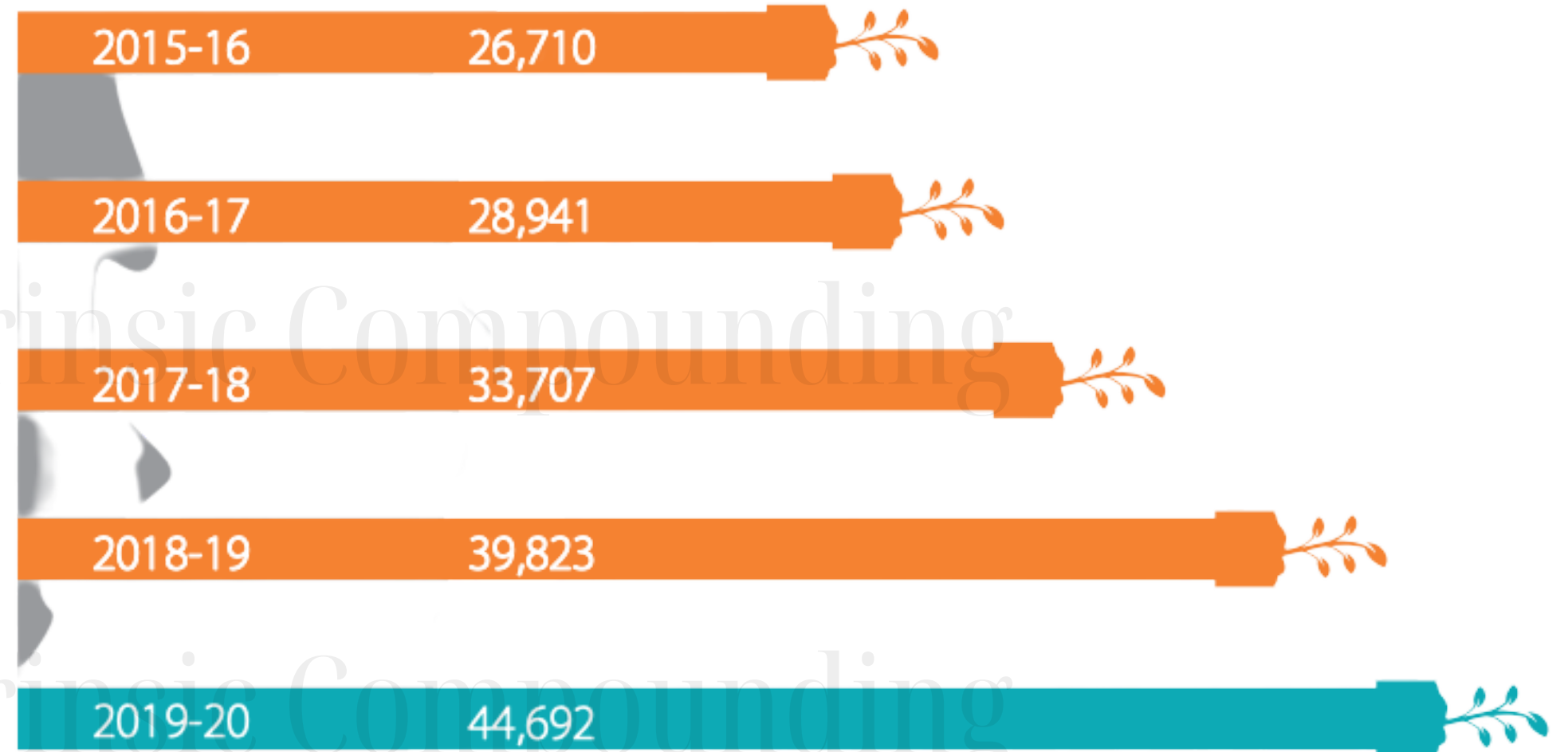
Nihar Chheda: Yes, it was a planned thing, I would not call it disruption of course we work to liquidate old inventories of the non-Flow guard CPVC that we had and obviously those things do not happen as smoothly as we would like, so those overlaps happened, but I think that was part of the Q2 performance and Q3, we have been able to really ramp up the CPVC business well and now our tie-up with Lubrizol I think we have the best supply security to fulfil our aggressive growth aspirations in the next 3 to 5 years as well with now Lubrizol announcing their backward integration in India, I think we now have a very good opportunity to make some formidable move in CPVC over the next 3 to 5 years.

Maulik Patel: I have missed that Lubrizol announcement of backward integration; can you just highlight and if they want to setup a CPVC resin plant in India at Dahej?

Nihar Chheda: Yes, I am happy to forward the press release to you after the call, we have tied up with an Indian partner to setup CPVC resin in India, they were importing and then compounding at their facility in Dahej, now they will backward integrate manufacture resin in India and then compound it at their Dahej facility and this sets up a very good capacity for us, which will really be able fuel our growth aspiration over the next 3 to 5 years.

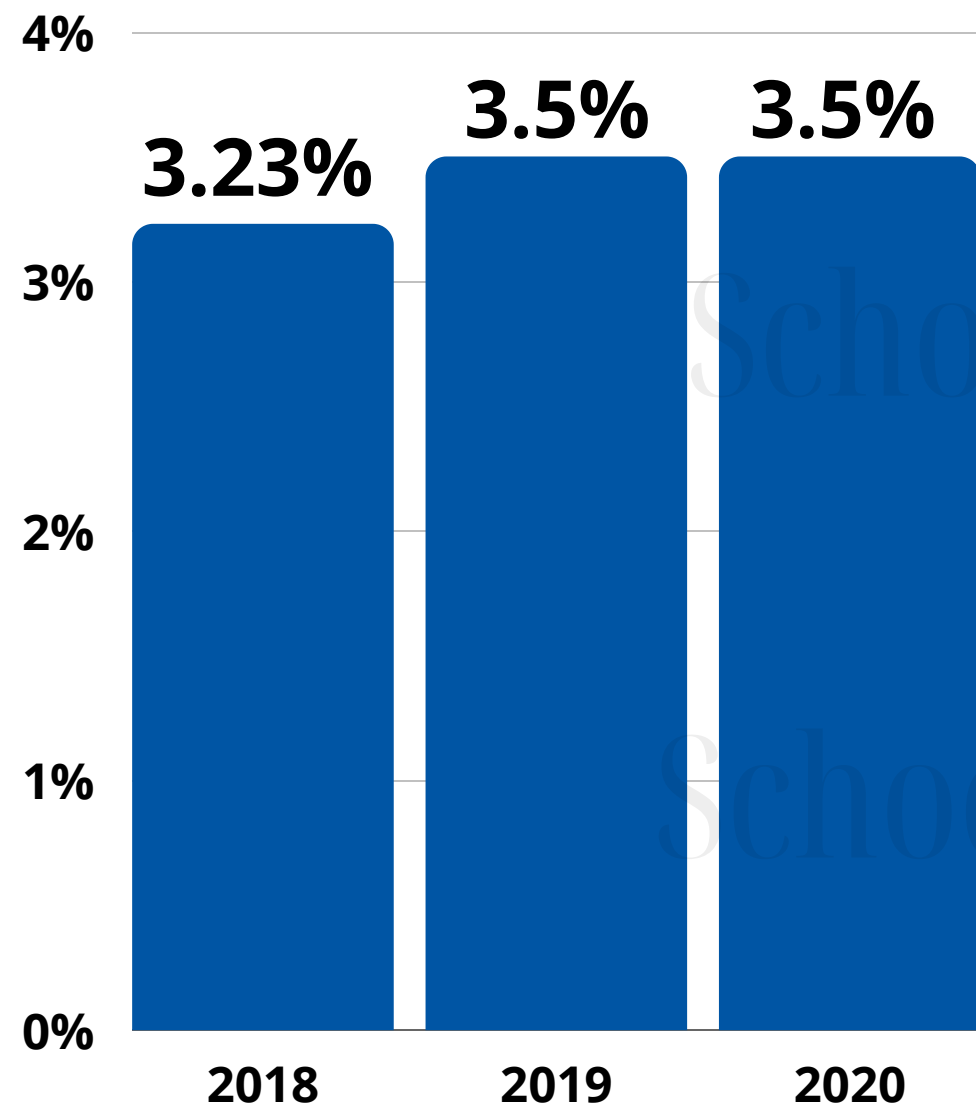


School of Intrinsic Compounding

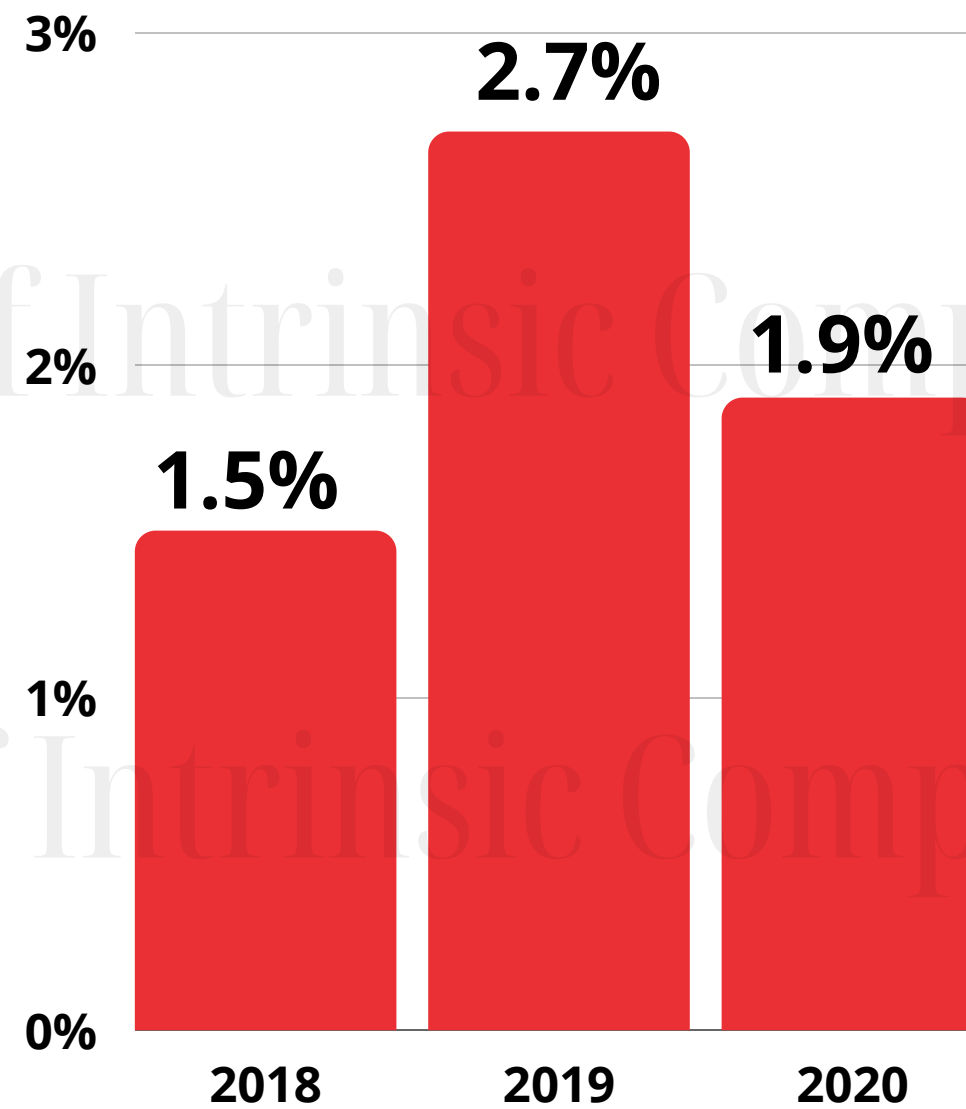




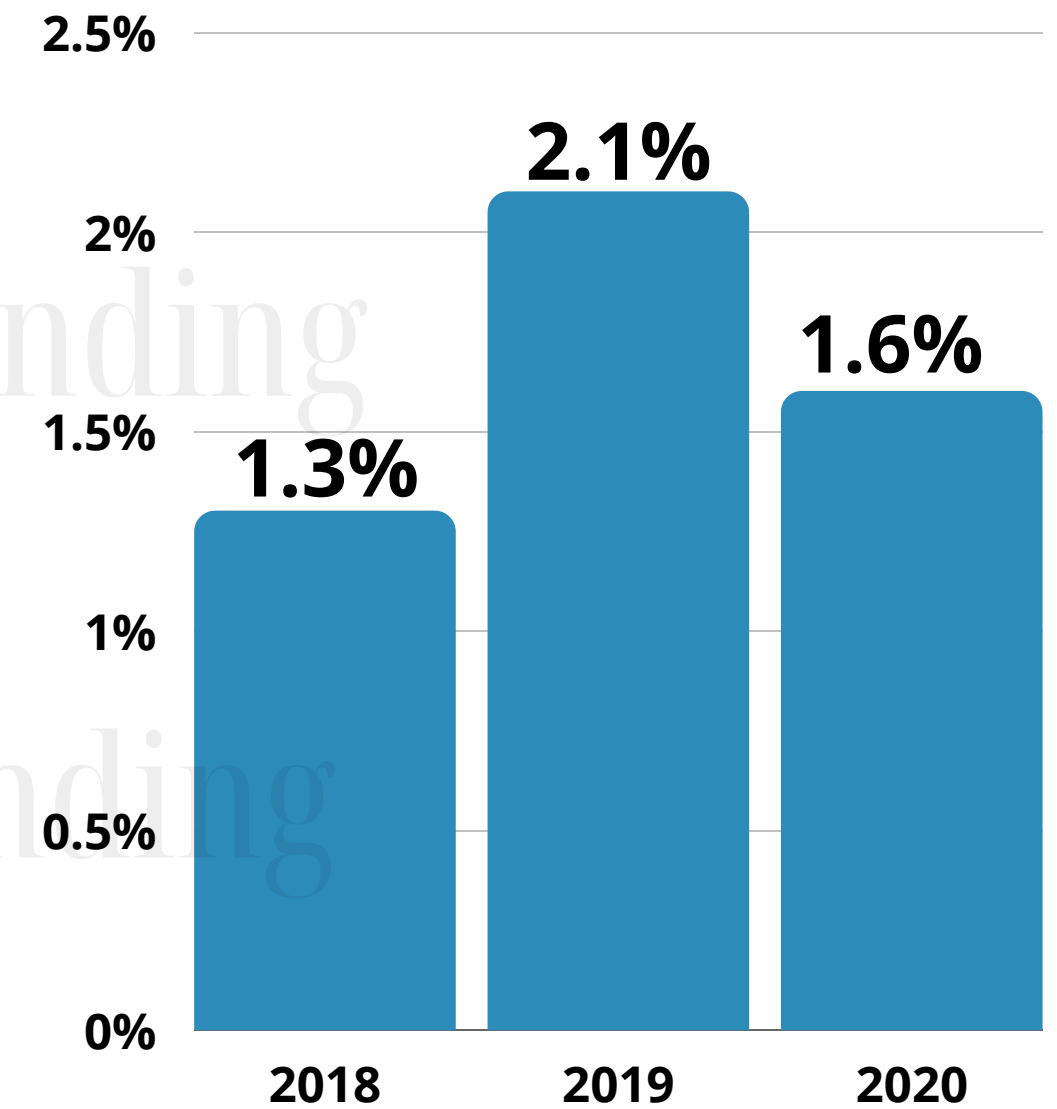
AD EXPENDITURE

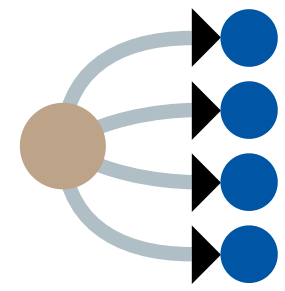


AD EXPENDITURE



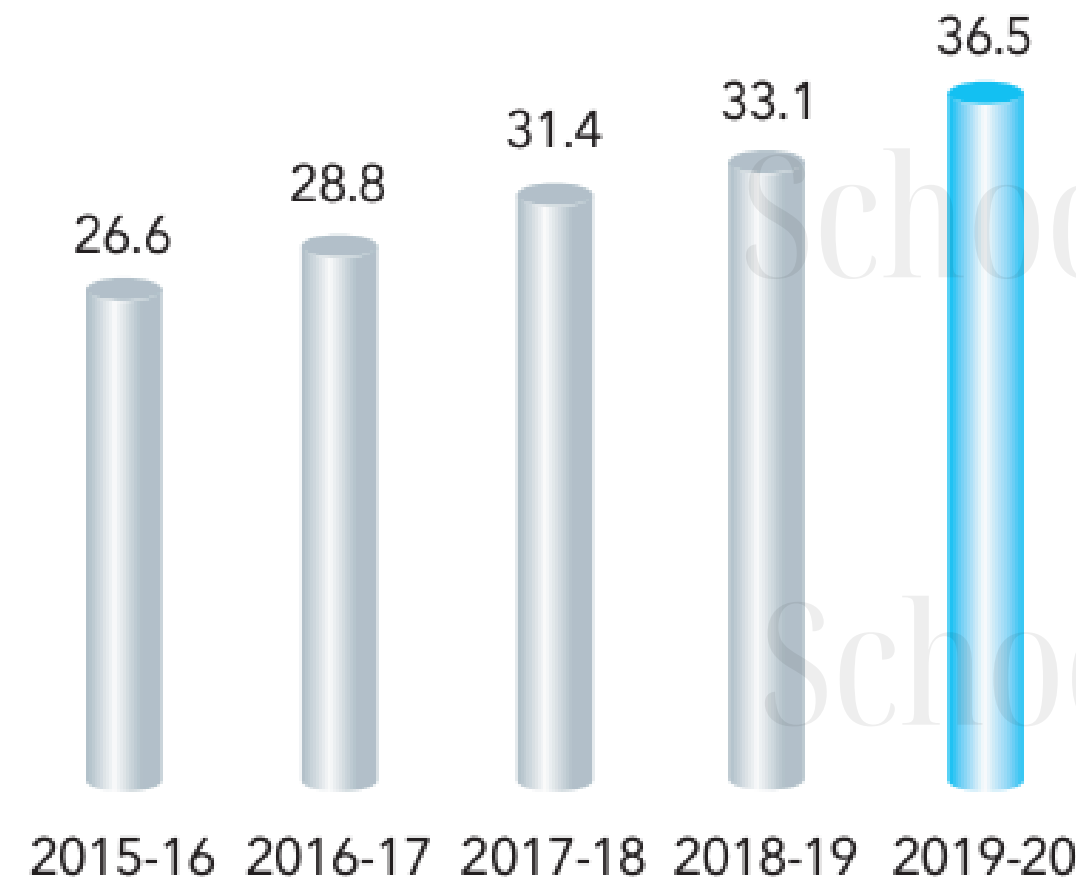
AD EXPENDITURE





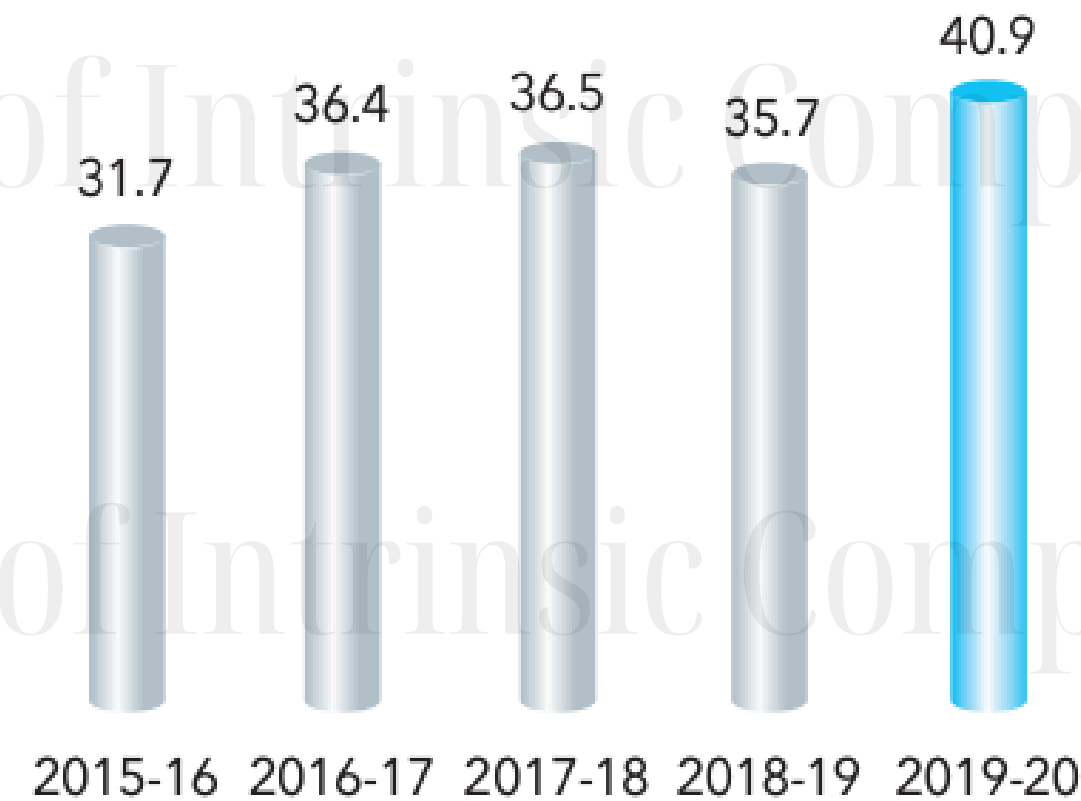
PIPING SEGMENT

Gross Profit Margin (%)



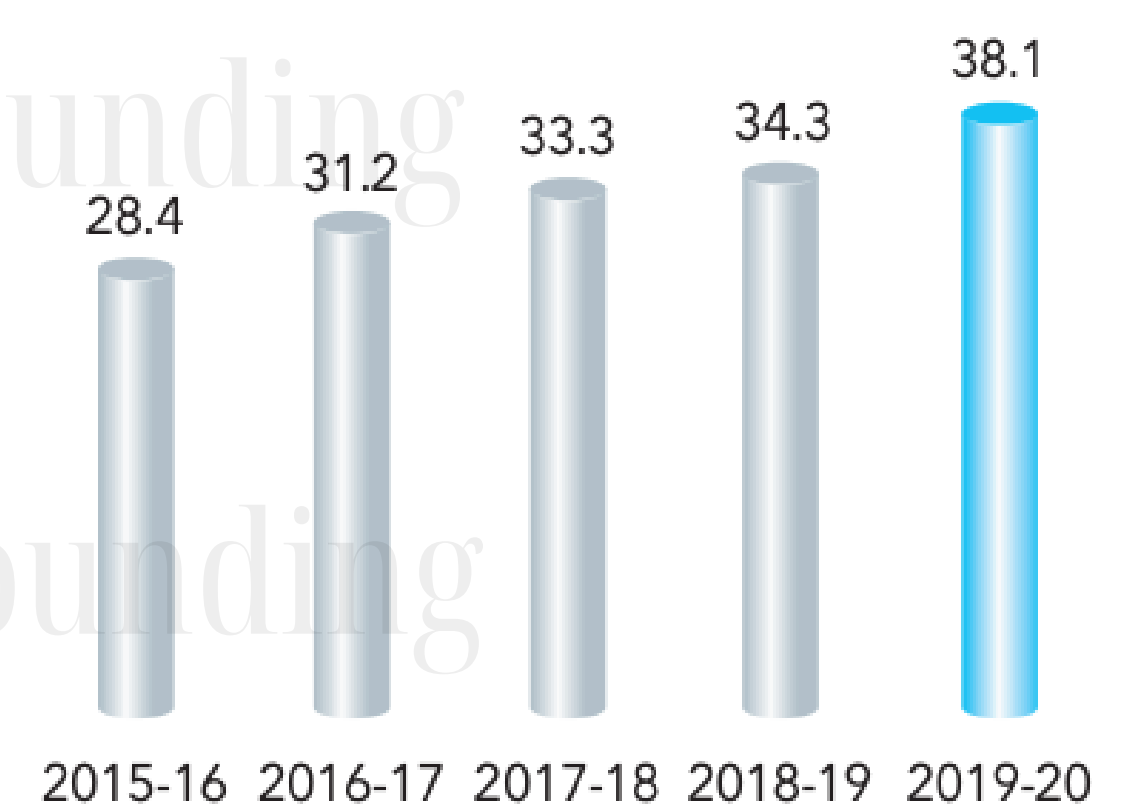
ADHESIVE SEGMENT

Gross Profit Margin (%)



CONSOLIDATED

Gross Profit Margin (%)





COMMENTARY ON PIPES & ADHESIVES

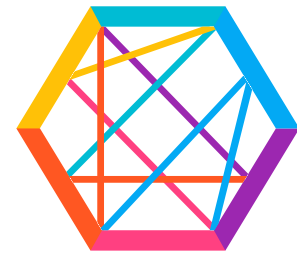


Bharat Shah:

And on pipes, how do we see the picture because pipes is something which begin now? And to that extent, how do we take a base from here to 5 years or 3 to 5 years' time?

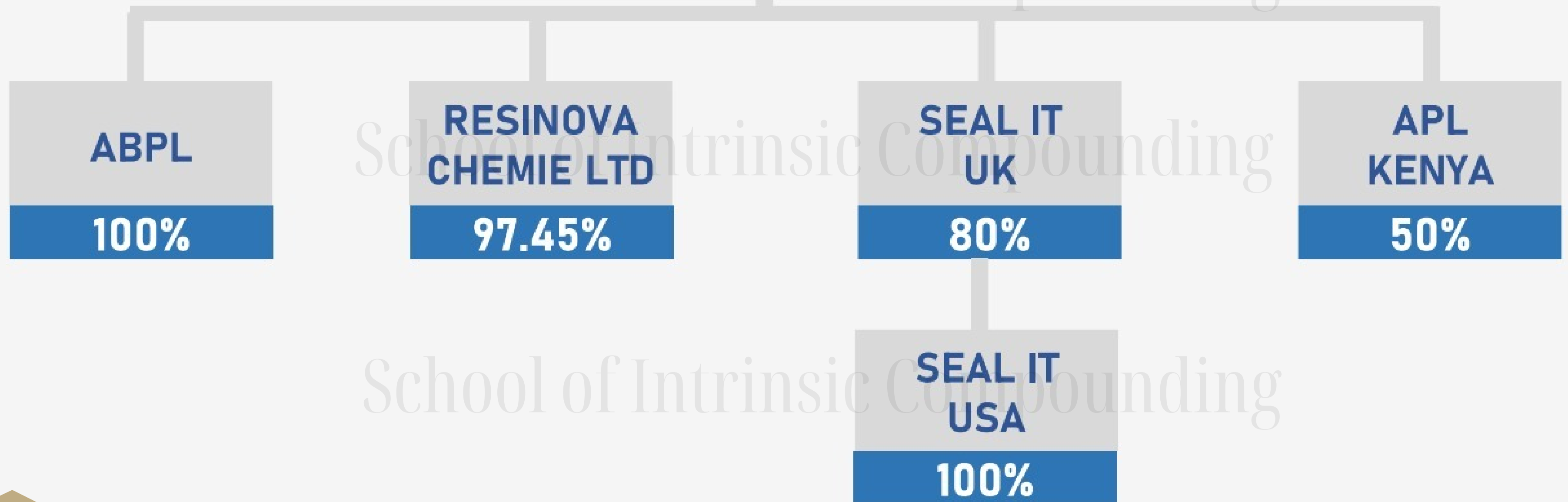
Hiranand A Savlani:

So Bharat bhai, normal margins, we always consider 15%, 16% EBITDA is a very healthy margin for the pipe category of the business, but now many regions are supporting Astral for the higher margin. It can be an economy of scale. It can be a decentralization of the businesses because we are putting up multiple plants. So the moment capacity utilization will start growing from each plant, then the margin will be going to support us. Third thing, we continuously since last almost 7-8 quarters, we are telling that our focus is growing towards the margin side, not only topline because we are continuously adding the value-added products into our basket. So because of that also margins are supporting in the normal margins, we are already continuously delivering higher margin. So if this kind of phenomena will continue, then, yes, we can definitely expect more than that, but I think 15%, 16% is the run rate which can be maintained for next 4-5 years on a longer-term basis, I am giving you the guidance, but yes, if this kind of new addition I am sure that business will go even faster run rate because there the base is still very low. So keep finger crossed that I am sure that tank and infra business in the coming years will give us a very good number and pipe and adhesive, now we are going into the autopilot mode, so they will keep continuously giving us certain level of growth, like pipe 15% kind of growth, adhesive 20% kind of growth. That will keep continuing to work. And plus, other than that, we are continuously looking for the new products. It is not that there is the end of the journey. We are continuously starving for the new product. So we will keep adding that new product and that will give us a little edge over the normal kind of growth. So keep finger crossed, again, I am telling you we are working on many products and in coming 2-3 years, we are going to give you a lot of new products from Astral side and they will also give us a good number.



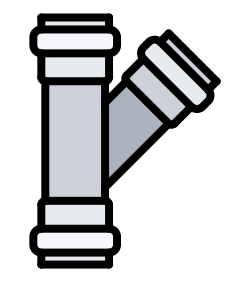
ASTRAL POLY TECHNIK LIMITED

School of Intrinsic Compounding

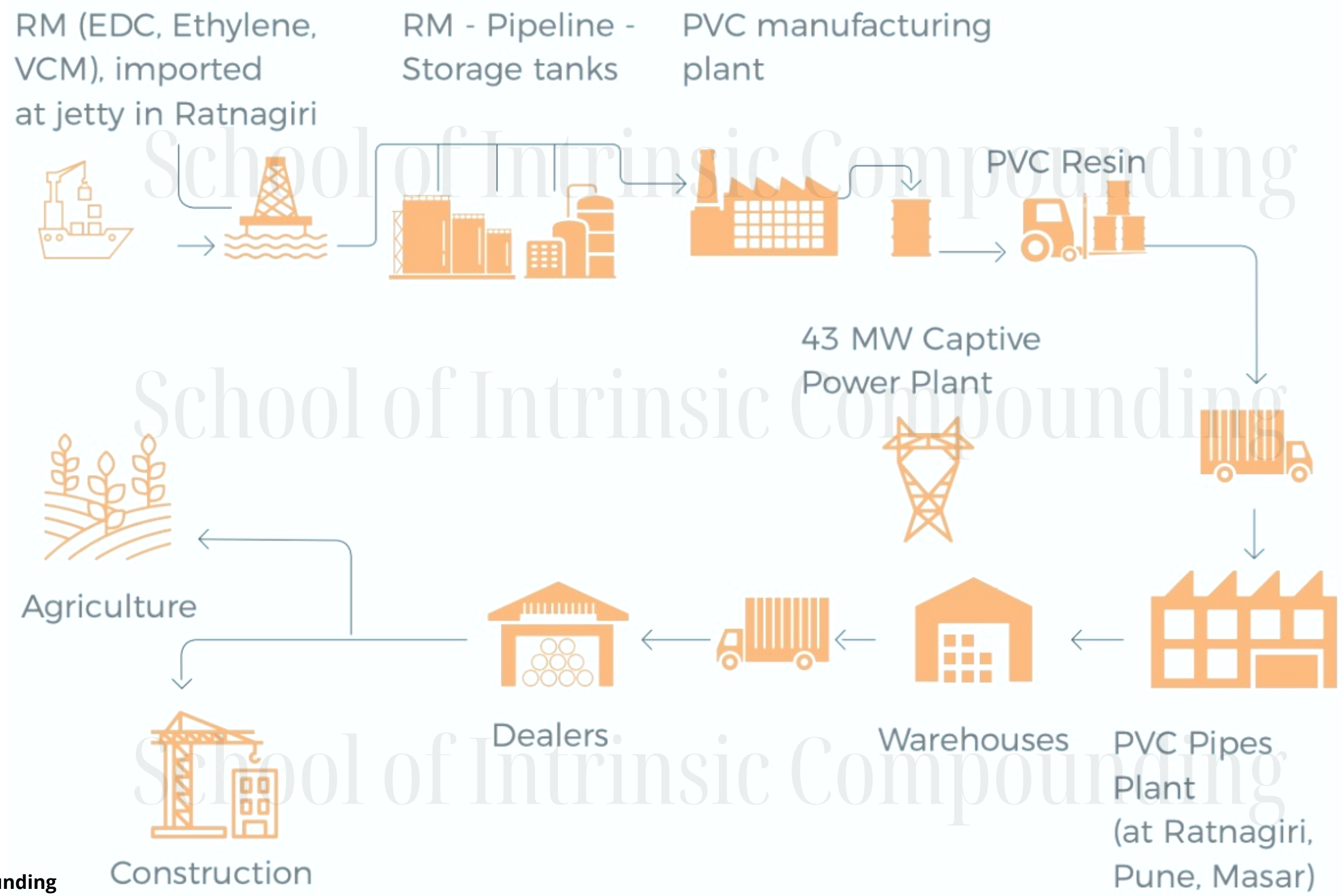


School of Intrinsic Compounding

School of Intrinsic Compounding



HOW IS PVC PIPES ARE MADE ?





- Started by importing solvent cement from a US-based company IPS Corp
- Acquired 85% stake in Advanced Adhesives Ltd in 2010
- Acquired Resinova Chemie Ltd in FY15 for 1.6 time P/S
- In Aug'14, ASTRA also made an overseas acquisition (80% stake) of Seal IT Services, UK for 0.5 Times P/S.
- This company, later in FY17, fully acquired the silicone tape business of US-based Rowe Industries at an EV of INR 22cr.



- Adhesives are widely used across numerous end user industries such as packaging, construction, furniture, automotive, assembly operations among others. The major demand for adhesive comes from
- The India adhesives and sealants market is consolidated, with the top four players with an approximate market share of 85.30%. The major companies include Pidilite Industries Ltd., Henkel AG & Co. KGaA, Sika AG, Arkema Group (Bostik India), and H.B. Fuller Company
- The India Adhesives & Sealants market is expected to record a CAGR of 11.17% during the forecast period of 2019–2024





ASTRAL POLY TECHNIK CON CALL EXTRACT Q1FY20

Sandeep Engineer: Coming to Resinova, as we had guided, we are going through a structural change from a 3-Tier distribution system to a 2-Tier distribution marketing system. Most of these corrections have been concluded in Q1 and established and going on well with the market share scenarios. A few corrections are still to be undertaken, which will be completed in Q2 and Q2 onwards we will see a good growth quarter-on-quarter in this business.



ASTRAL POLY TECHNIK CON CALL EXTRACT Q1FY20

Sandeep Engineer: have guided in advance that we are doing structurally. Like what we did in last year in Astral we curtailed the credit limit, we fixed up the credit limit for each and every distributor, we connected everybody to the channel finance, so last year we missed some growth, but now with this correction this year you can see it is helping us in a big way and collection cycle has improved a lot for us. Same thing structural correction is happening in the adhesive side also and one more quarter similar kind of low growth will be there, but we are quite confident that from the Q3 onwards adhesive also will be back in a higher-growth territory.



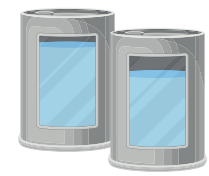
WATER TANKS OPPORTUNITY SIZE



APL APOLLO PIPES CON CALL EXTRACT Q3FY21

Sameer Gupta: The market is you can say quite big as we are right now targeting. It is a big market and several other players like Supreme, Tractor and Sintex they are already working in the same segment with good capacities from many years so we have seen a demand from the market for our brand so we see that it should be you can say a good venture for our Apollo Pipes. The market should be around saying we are targeting it should be around Rs.6000 Crores market. Right now what figures we have it should be a market of Rs.6000 Crores, so we are targeting right now a capacity in the tank business of perhaps of Rs.60 Crores to Rs.70 Crores by this year end and you can say that the results are good with this capacity, we are definitely going for the higher capacity in this





WATER TANK INDUSTRY

**RS.6000 MARKET
GROWING AT 5% TO 6%**

**250 ORGANIZED
PLAYERS + MANY
MORE UNORGANIZED**

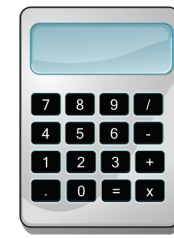
**80% OF TANK
DEMAND IS FOR LESS
THAN 2000 LITRES**



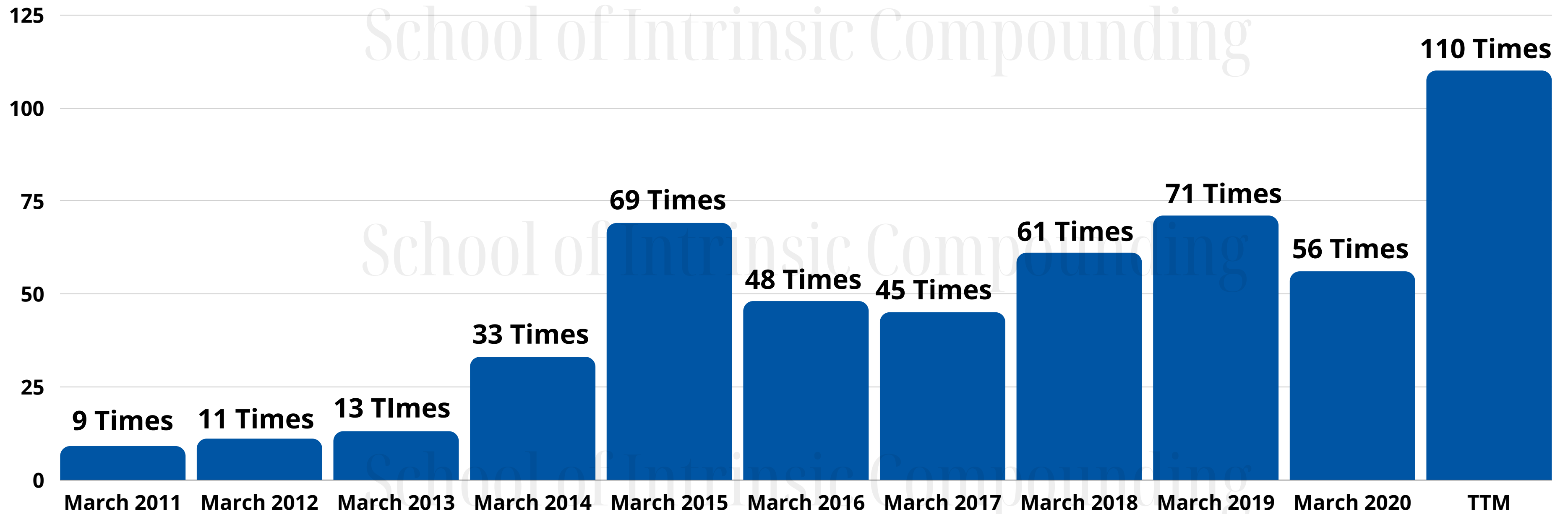
**80% OF THEEE
MARKET BELONGS TO
OVERHEAD TANKS**

**ASTRAL IS EXPECTED
TO GENERATE 4.0-4.5X
ASSET TURNS WITH
15+ EBITDA MARGINS**





P/E RATIO: WHAT IS LEFT ON THE TABLE



THESIS POINTERS



ANTI-THESIS POINTERS

School of Intrinsic Compounding

**MEDIUM TERM
GROWTH PRICED IN**



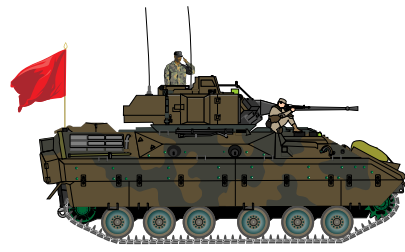
**FADING ENTRY
BARRIERS IN CPVC**



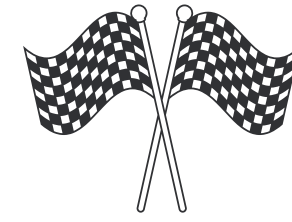
**INCREASING SUPPLY
SIDE COMPETITON**

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BLITZSCALERS



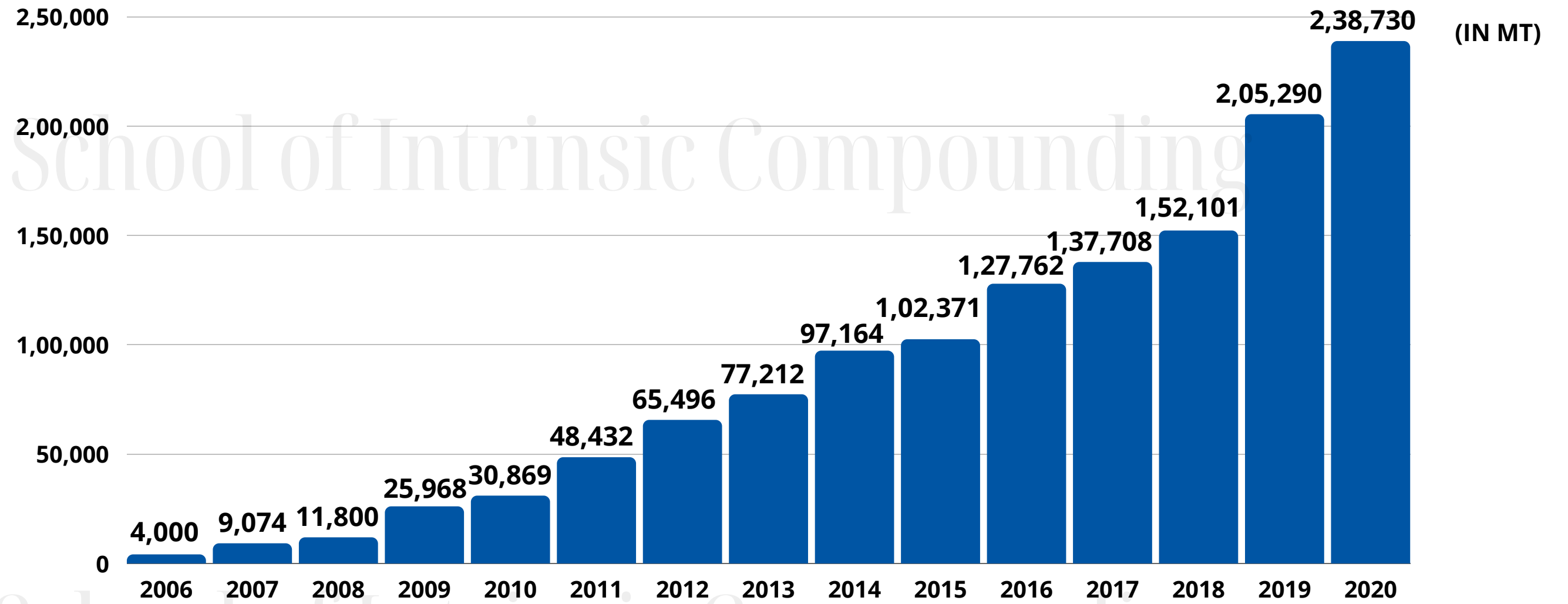
SANDEEP ENGINEER



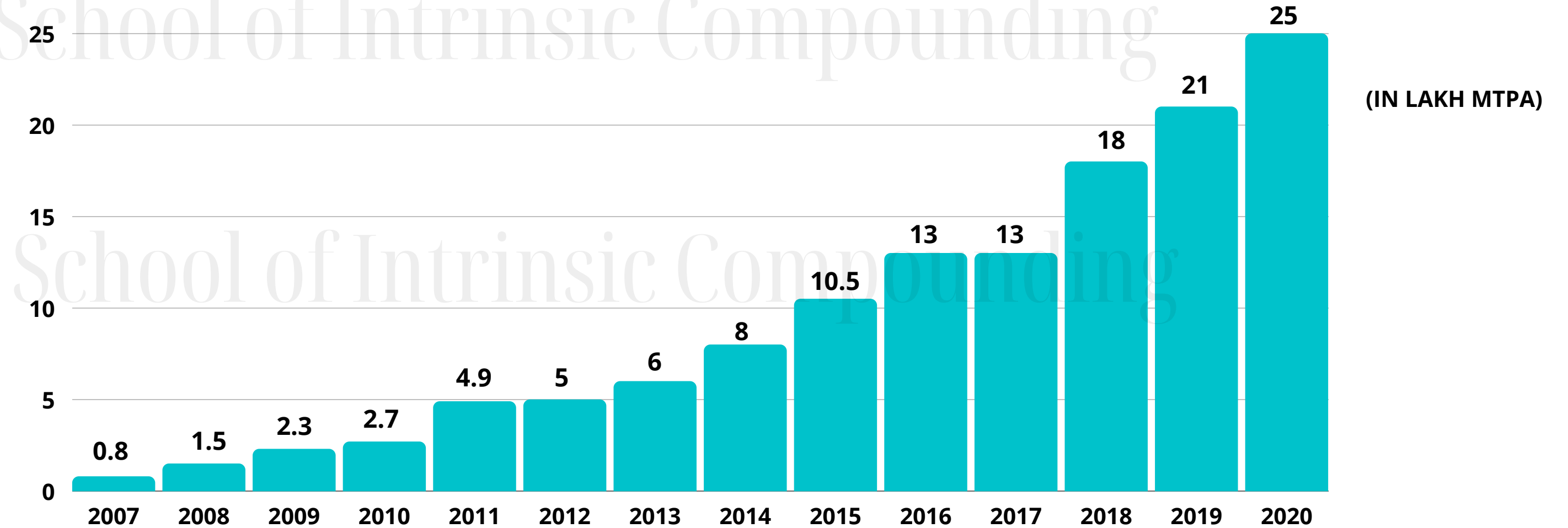
SANJAY GUPTA

- Both of them have scaled their capacities by 8x to 10x in 10 years
- Both of the promoters have made quality acquisitions
- Both of the promoters have been pioneers in creating the category
- Both of them are intelligent fanatics





BLITZSCALING



ROCE DU PONT

$$\frac{\text{EBIT}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Capital Employed}} = \frac{\text{EBIT}}{\text{Capital Employed}}$$

DEMAND SIDE

SUPPLY SIDE

ROCE (FY2020)



17%

1.8x

21.7%



6%

3.6x

20.1%

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