



NHB Ball & Roller Limited

Mission & Vision

Our Mission

Our Mission is to provide our customers with best in class products that make a positive difference in their lives.

Our Vision

We believe that our vision “*Leadership Through Quality*” will give us a sustainable advantage in the global market place.



Leadership Through Quality

Contents

1. Company Overview
2. World Class Manufacturing Journey
3. World Class Product (Super Premium)
4. Growth Plans



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The Company

- Manufacturing Balls in India since 1949
- For the year 2018 – turnover INR 1,910 Mill (30 million USD)
- 2 manufacturing plants with IATF16949 & ISO 14000 certification
- 8 warehouses globally
- 320 Employees
- Supplying to MNC's Bearing, Automotive & Cosmetic Industry in 15 countries.
- Continuous investment in technology to move up the value chain.

1969	1994	1999	2004	2006	2008	2012	2012	2015	2018
NHB Amalsad	NHB Billimora	Hoch GBMH Germany	Thomson Assets USA	Thompson Assets Mexico	SKF (B) Assets India	SKF (P) Assets India	NHB plants reorg.	FAG (I) Assets India	KBR, Korea Acquisition
									



Leadership Through Quality

The Company Profile (AMALSAD)

- ❑ Plant In Gujarat State, Navsari District
- ❑ Bearing / Automotive industry
- ❑ Land 31832 Sq Meters Area
 - Cover area – 11312 Sq Mtr
- ❑ 215 Employees
- ❑ Revenue – INR 155.8 Cr (24 million USD).
- ❑ 4 mm to 27 mm Diameter Balls
- ❑ Raw material (SAE52100) – Daido (Japan), Posco (Korea), Ascometal (France)

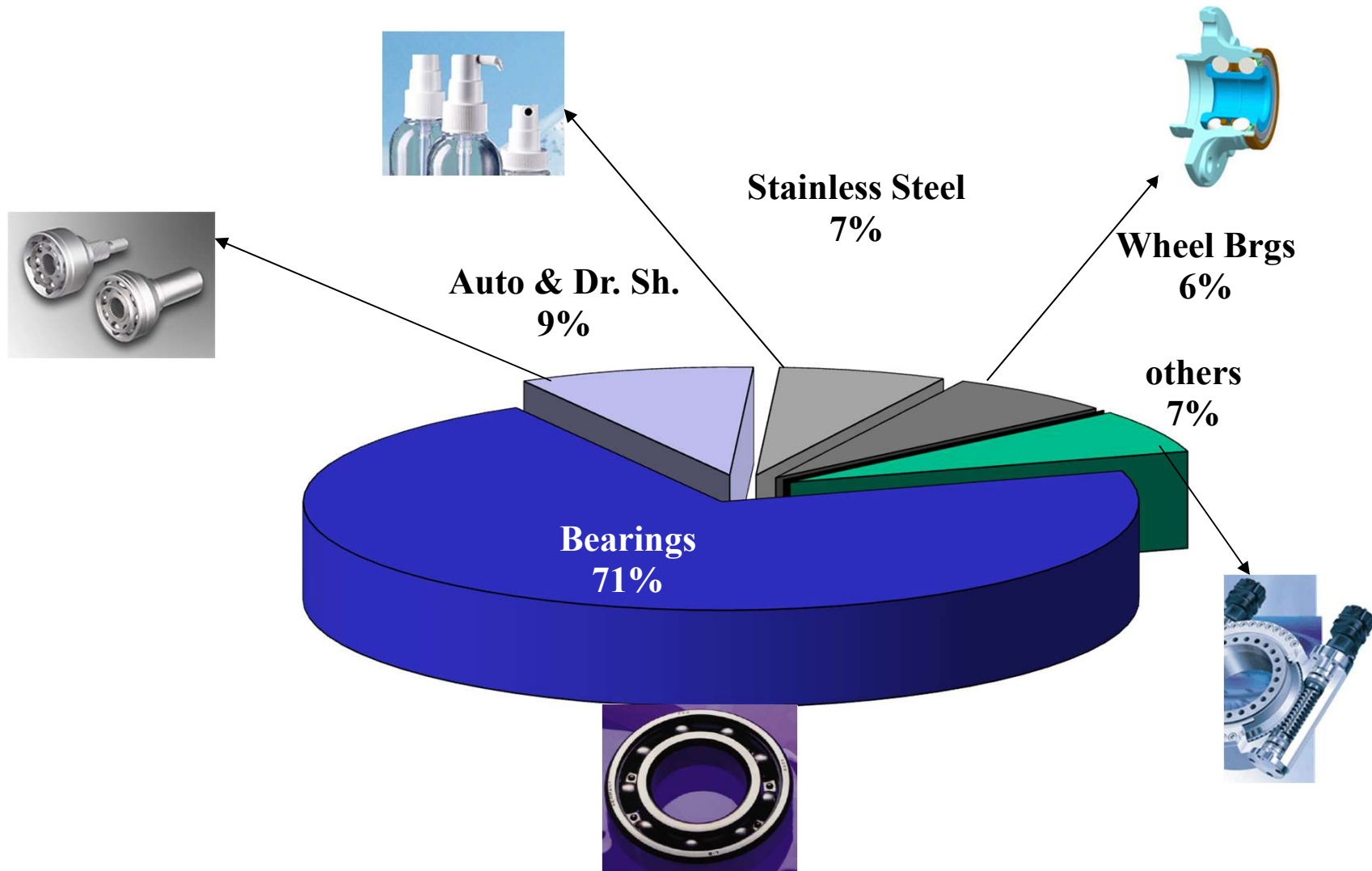


The Company Profile (BILLIMORA)

- ❑ Plant In Gujarat State, Valsad District
- ❑ Automotive, Cosmetic and Food processing
- ❑ Land 12511 Sq Meters Area
 - Cover area – 3748.04 Sq Mtr
- ❑ 105 Employees
- ❑ Revenue INR 35.2 Cr (5.5 million USD)
- ❑ 1.9mm to 13mm Diameter Balls
- ❑ Raw material – SAE52100, Stainless, Aluminum, Brass & S2 (Rock Bit)



NHB Customer segmentation



Leadership Through Quality

Automotive Customers

OEM's

Product	Customers Name
 	TATA
 	MARUTI
 	TOYOTA
 	FORD
 	HERO
 	YAMAHA

TIER -1




Product	Customers
  	SKF, SCHAEFFLER, NBC
  	TATA, NACHI NRB, SLF THOMSON
 	GKN
 	NEXTEER
 	AUTOLIV
	RING + AQUA



Leadership Through Quality

Customers

Automotive Customers – TIER 2

Product	Customers Name
	CONTINENTAL
	BORGWARNER
	BOSCH

Dispenser Pump customers

Product	Customers Name
	WESTROCK
	APTAR

Dispenser Pump customers

Product	Customers Name
	EMSAR IT
	REXAM
	UNILEVER
	FIABILA
	COSTER



Leadership Through Quality

Awards & Appreciations : 2017-18

Internal Awards



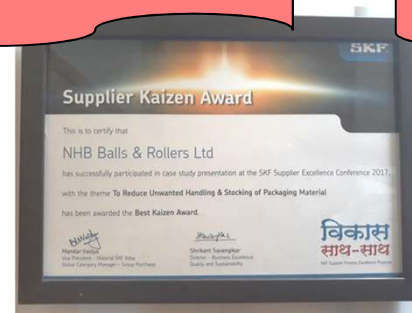
External Awards



**Schaeffler
Supplier of the Year**



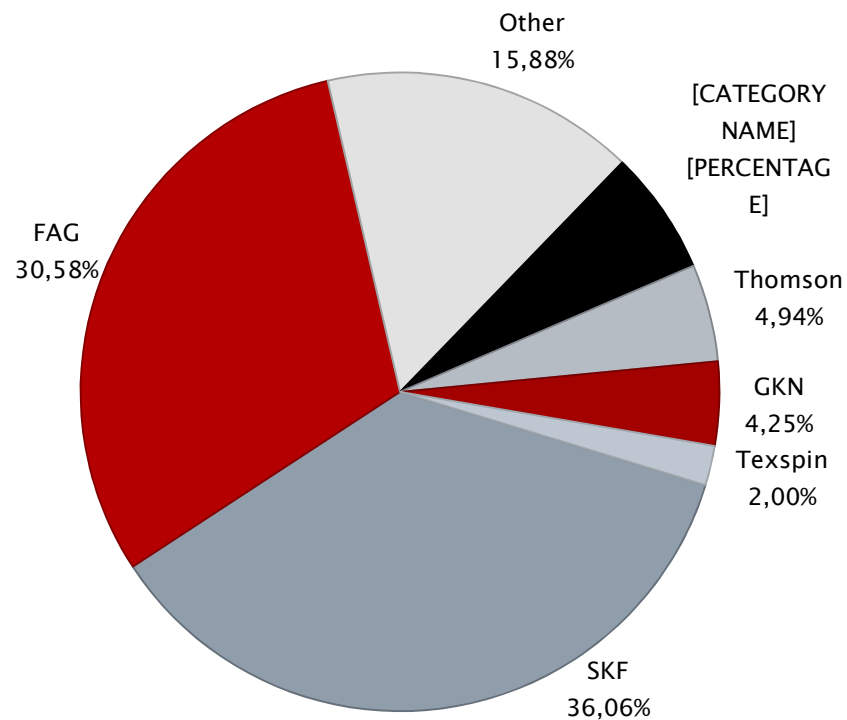
**SKF
Quality**



Leadership Through Quality

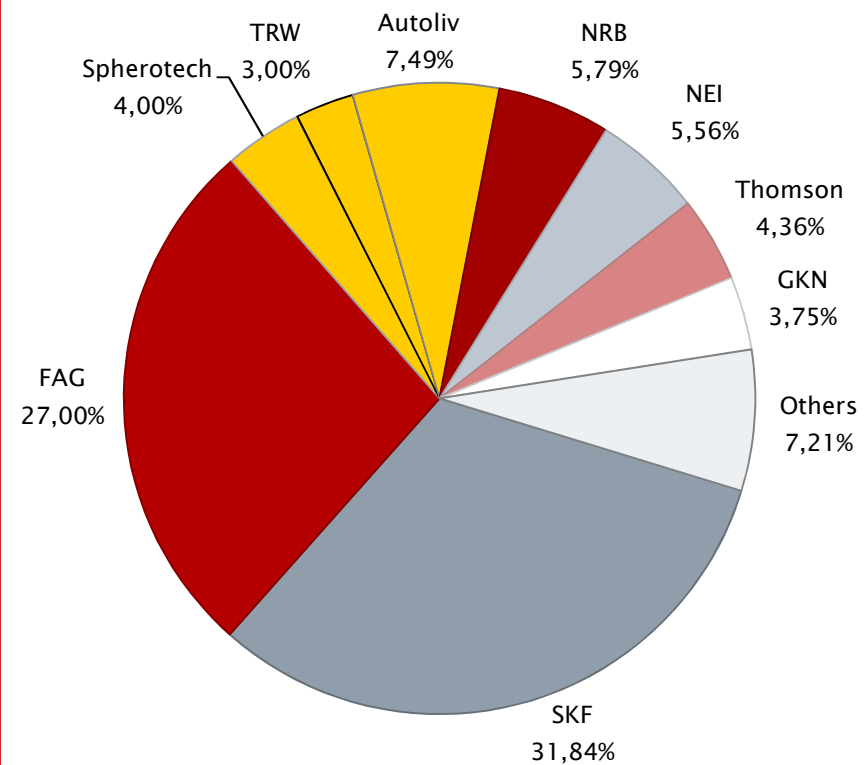
Customer Split

2013



14 MUSD

2018

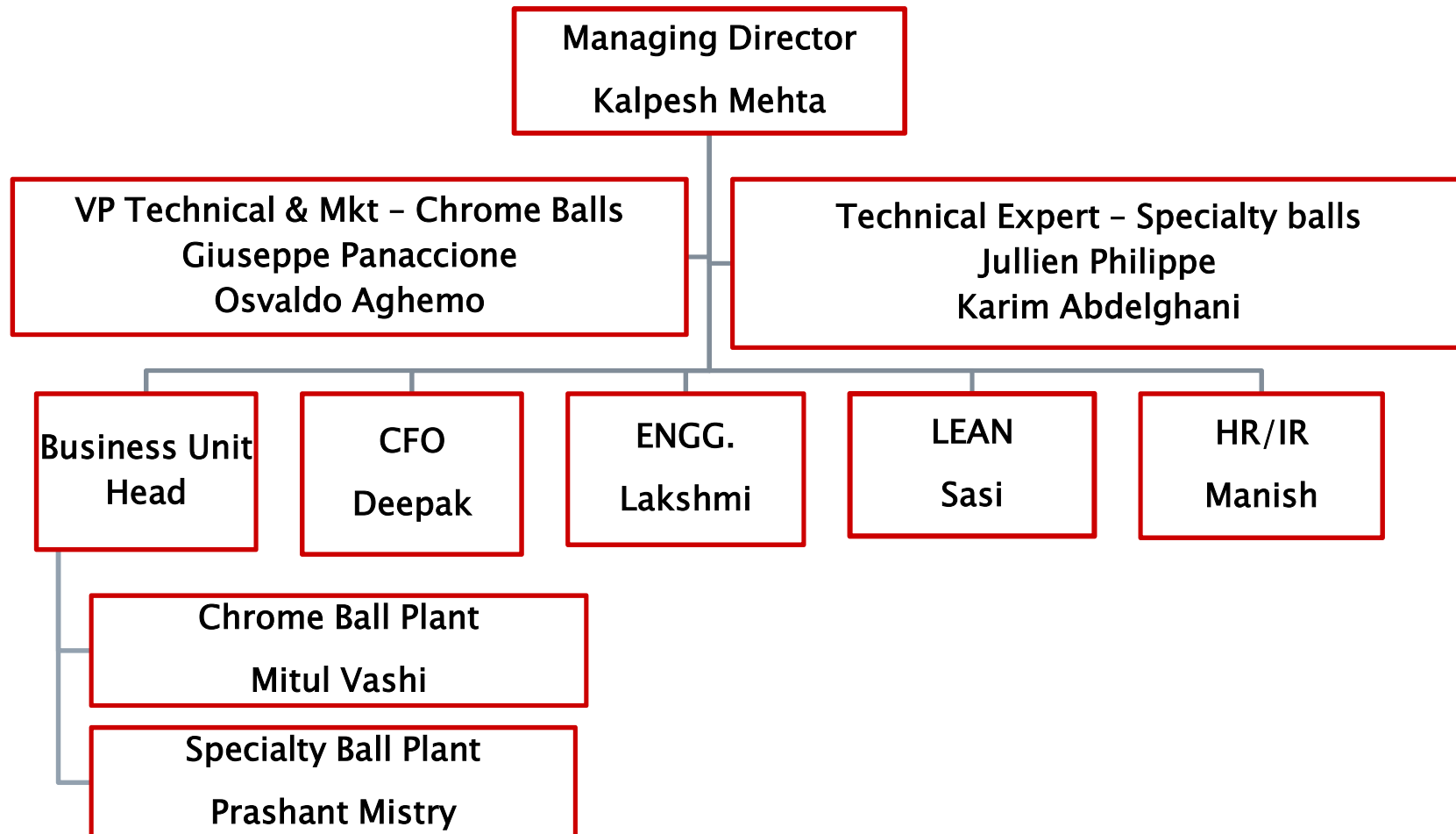


30 MUSD

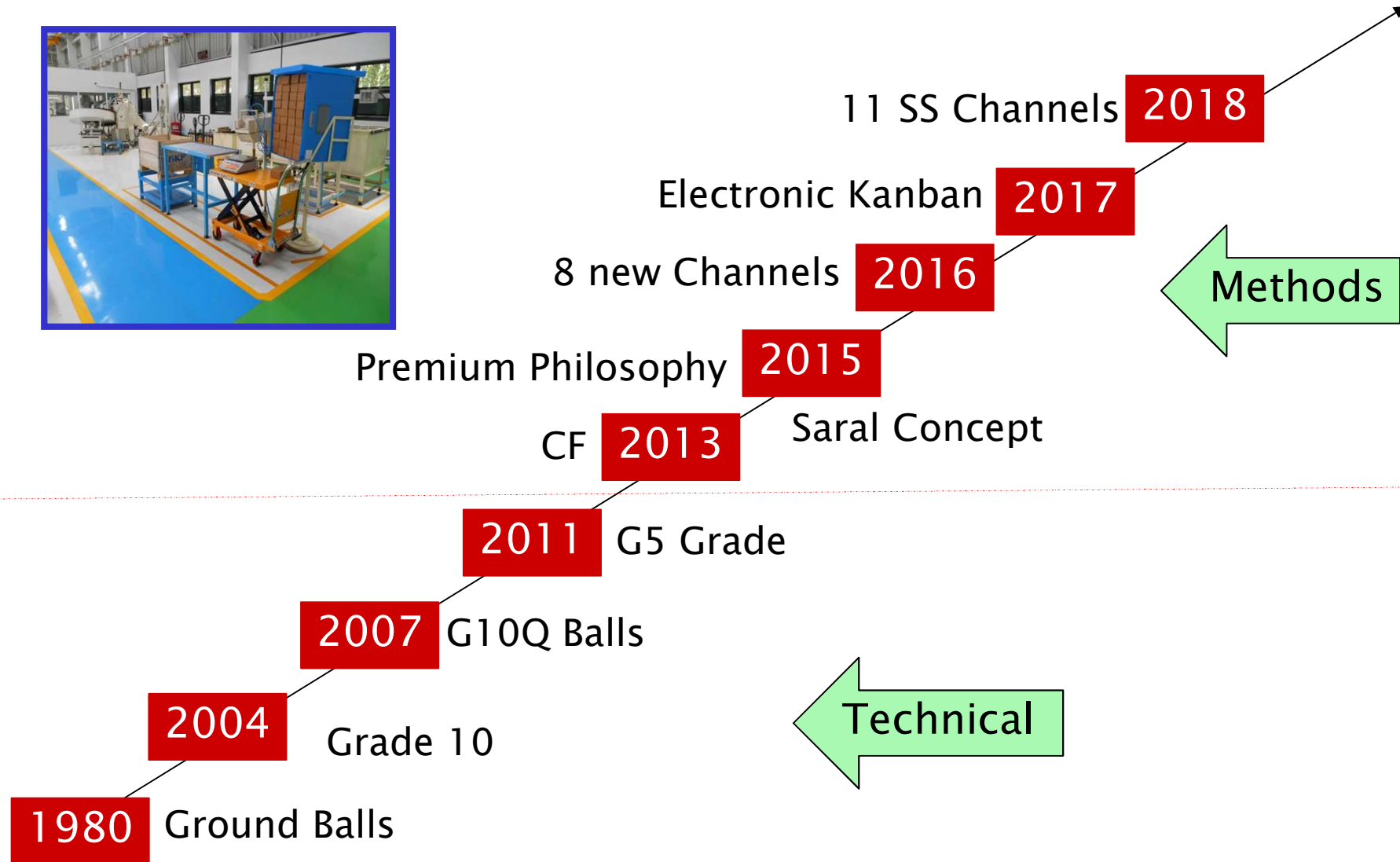


Leadership Through Quality

Corporate Organisation Structure



Journey towards Global Supplier



Leadership Through Quality

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Mission - 2020 (Formulated in 2012)

Strong Organization

- Product Diversification.
- Corporate & Unit Structure.
- Competency.
- Zero Accident and pollution free environment

50 Million USD with 10% NP

- Lean Manufacturing.
- Larger /diversified Customer Base
- "PREMIUM" balls Channels
- Silicon Nitride Ball
- Rollers

Zero Customer Concerns

- Bench Mark Process / Technology
- "PREMIUM" Ball Quality
- Methods Improvement



Results so far – 2012-2018

**Strong
Organization**

50 Million USD
with 10% NP

Zero
Customer
Concerns

1. New products – 10 new products in cosmetics, food and pharma
2. Market leader – Spray pumps and retractor
3. Fair Employer – Performance based incentives
4. Productivity – Manpower rationalized from 620 to 320
5. Communication Speed – 3 layered Lean structure from 7 layers
6. Accountability – Operators measured on skill matrix
7. Cultural – TPM started at both plants.



Results so far – 2012-2018

Strong
Organization

50 Million USD
with 10% NP

Zero
Customer
Concerns

1. Sales from 20 to 36 MUSD (stable EX rate). YoY 10% CAGR
2. Key customers increased from 43 to 65
3. Profit before tax improved from 2% to 5%
4. Cash flow transformed into positive
5. Saral Concept – Simple/Straight
 - TPT – reduced from 21 to 3 days
 - WIP – Reduced from 32 to 17 days.
 - Productivity – improved 5.6 to 13kg/man Hr



Results so far – 2012-2018

Strong
Organization

50 Million USD
with 10% NP

Zero
Customer
Concerns

1. Discipline – Complaints reduced from 132 to 9/year.
2. Electronic Kanban – OTD improved from 62% to 85%.
3. Established 2 overseas W/H for JIT deliveries to customers.
4. “Best in class technology” w.r.t. to global competitors.
5. Customer Satisfaction –
 - “Supplier of the YEAR” award by Schaeffler India in 2018
 - Award from SKF India for quality in 2018.
 - 3 years “Best Quality” from Nexteer Automotive.



SARAL Channel 1 - 7.938 mm balls



Leadership Through Quality

SARAL Channel 4 - 4.762 mm balls



Optical & Eddy-Current Scanners



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SARAL Channel 1 - 7.938 mm balls



Packaging



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Installation of a Continuous Heat Treatment furnace

Continuous furnaces n. 2



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-
1. Premium Philosophy
 2. Super Premium Quality



We help make
Bearings more silent



Leadership Through Quality

Why Super Premium

- ❑ To ensure silent bearings (very noise sensitive bearings applications).
- ❑ Q44/Explorer/Gen C/Low DB



We help make
Bearings more silent



Leadership Through Quality

What is “PREMIUM” Philosophy

- ❑ Highest Standard in ball manufacturing
- ❑ Zero defect / No deviation approach
- ❑ Product release criteria changed
- ❑ High level of standardization and repeatability
- ❑ Tighter tolerances at all processes
- ❑ Outstanding geometry



How Super Premium - Developed

- Benchmarking of best in class
 - Physical attributes
 - Packing
 - Preservation
 - On channel observations
- Capability studies & DOE in manufacturing process.

TARGET : NHB SUPER PREMIUM



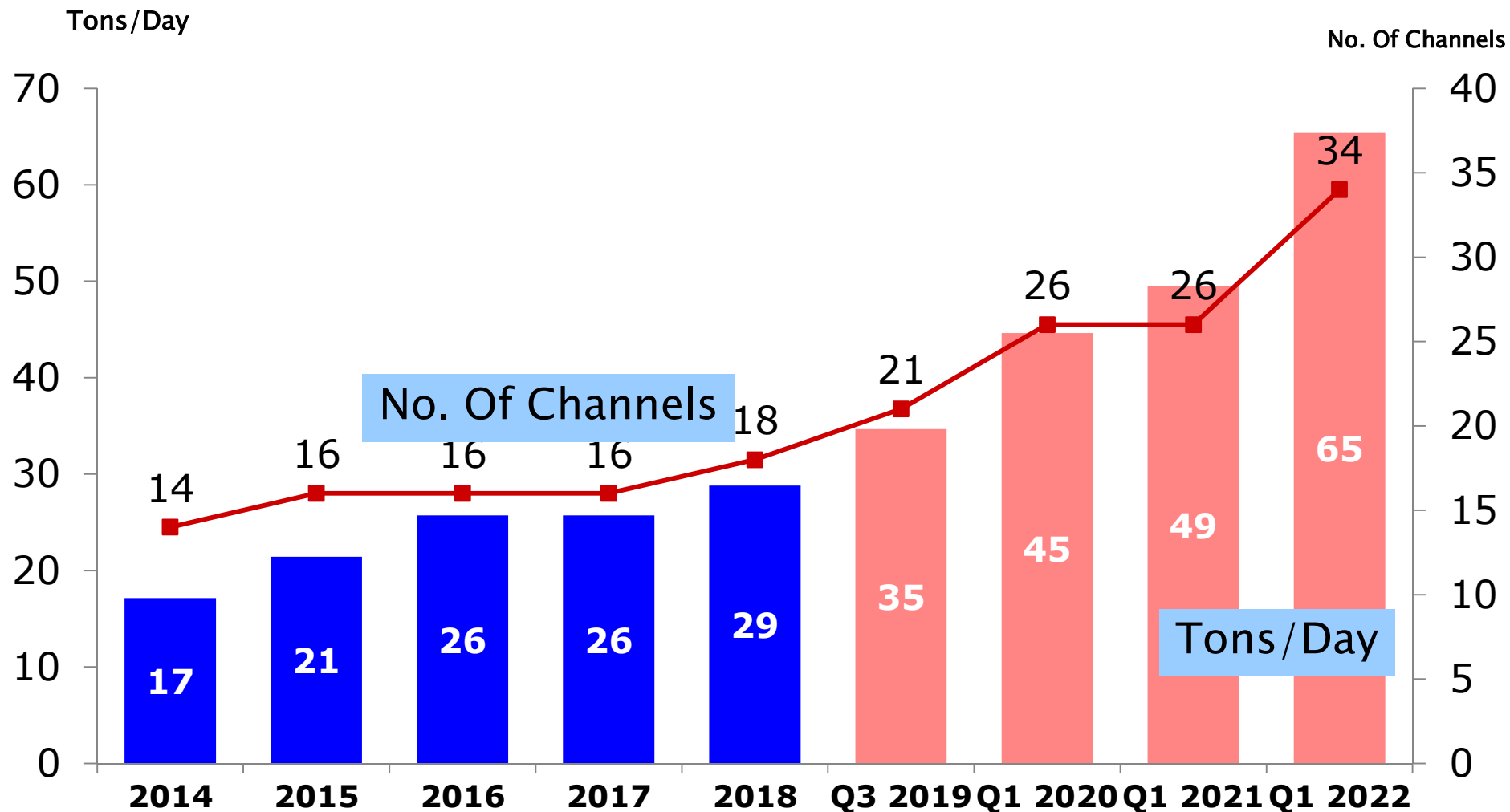
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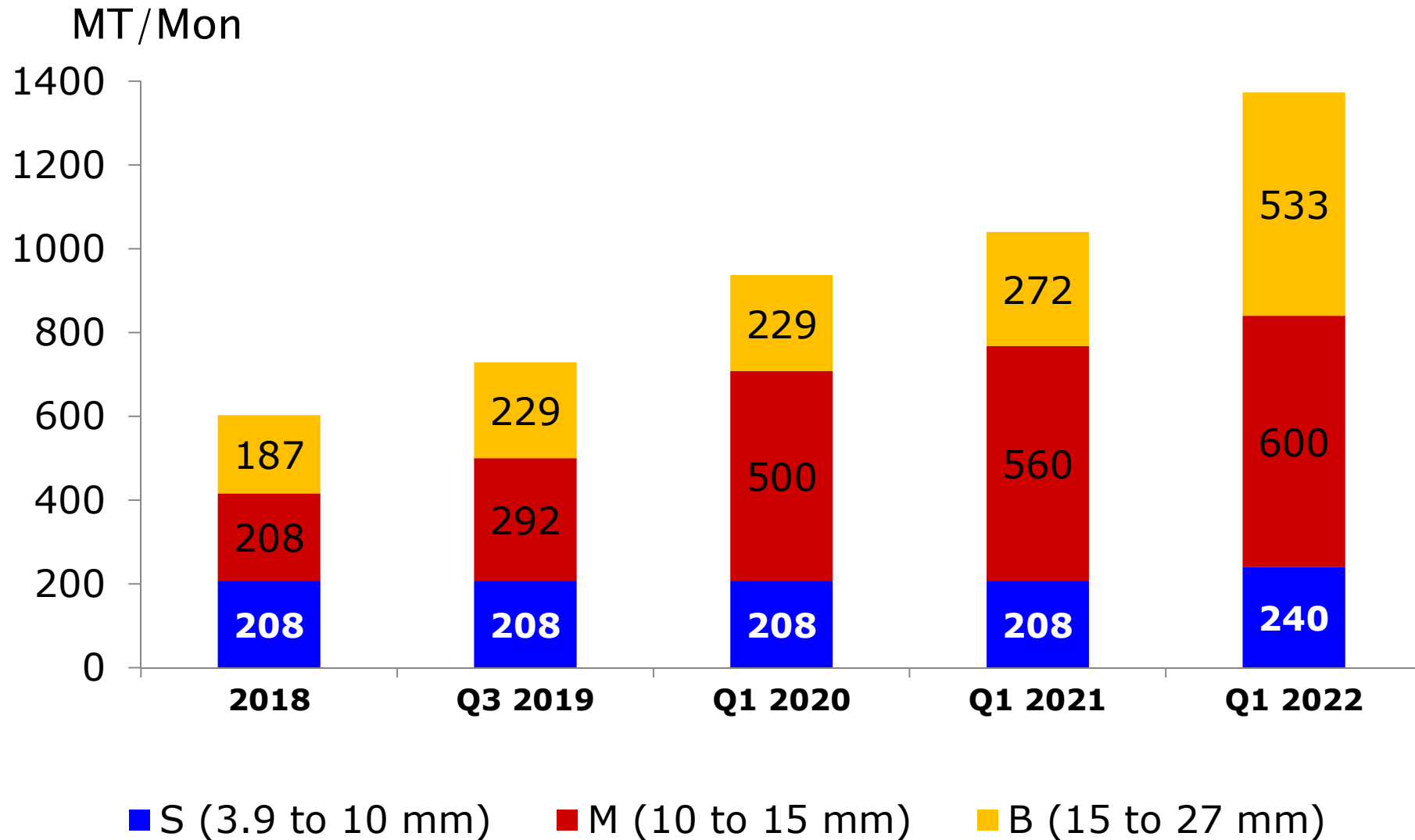
Capacity Growth Plan

(21 days consumption per month)



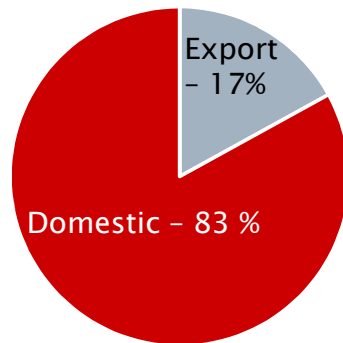
Leadership Through Quality

Ball range growth plan



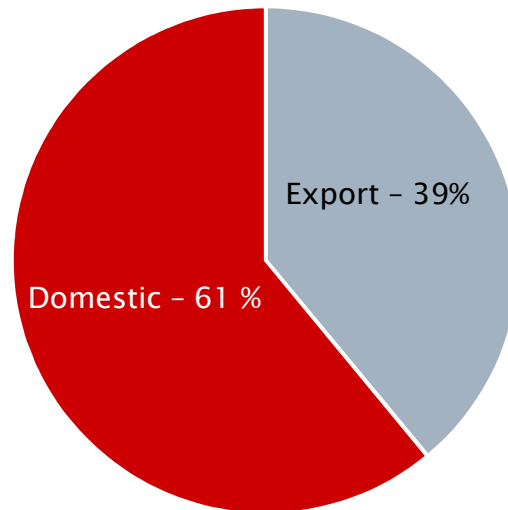
NHB Sales Mix

Sales 2018



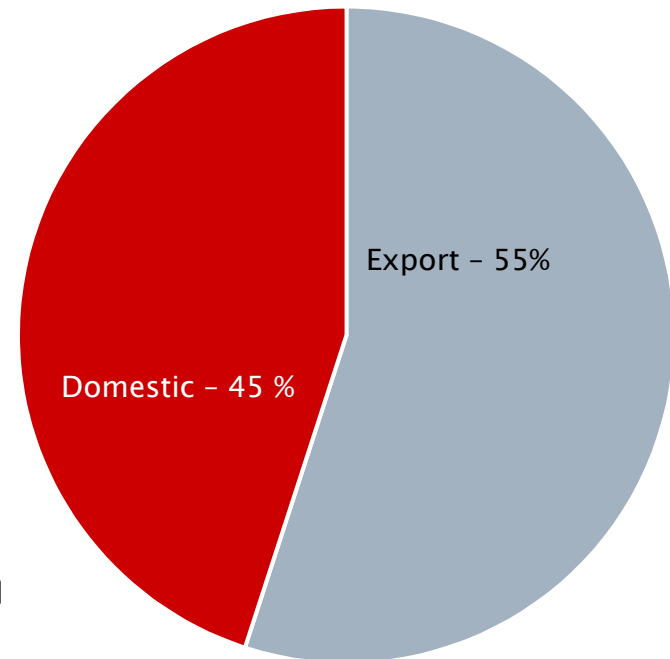
575 T/Mon

Sales 2020



825 T/Mon

Sales 2022



1150 T/Mon



Leadership Through Quality

New JIT warehousing

Old Warehouses

1. India
 - A. Bangalore
 - B. Haridwar
 - C. Jaipur
2. Europe
 - A. Airasca – (SKF)

New Warehouses

1. Europe
 - A. Fulda – Germany
 - B. Hamburg – Germany
2. USA
 - A. Detroit



THANK YOU



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