



Commercial Vehicle Solutions

Department Finance
From Muthulakshmi M
Phone +91 044-4224 2000
Email muthulakshmi.m@zf.com
Date August 4, 2022

ZF Group · ZF Commercial Vehicle Control Systems India Limited, Chennai 600058

The Manager
Listing Department
BSE Limited, Phiroze Jeejeebhoy Towers
Dalal Street, Mumbai 400 001

Scrip code: 533023

Listing Department
National Stock Exchange of India Ltd
Exchange Plaza, C-1, Block G
Bandra - Kurla Complex
Bandra (E), Mumbai 400 051

Trading Symbol: ZFCVINDIA

ISIN : INE342J01019

Dear Sir(s),

**Sub: Announcement under Regulation 30 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 - Investor Meet
Presentation to be made at Investor Con-call for Q1 FY 2022-23**

In pursuance of Regulation 30 of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 and in continuation of our earlier letter dated 29th July 2022 intimating schedule of Investor Con-call for Q1 FY 2022-23 on Thursday, 4th August 2022 at 14:30 hrs.(IST). Please find attached the presentation to be made thereat.

Request you to take the above information on record.

Thanking you,

Yours sincerely,
ZF Group

M. Muthulakshmi

Muthulakshmi M
Company Secretary
ZF Commercial Vehicle Control Systems India Limited
(Formerly known as WABCO INDIA Limited)

Encl. : as above



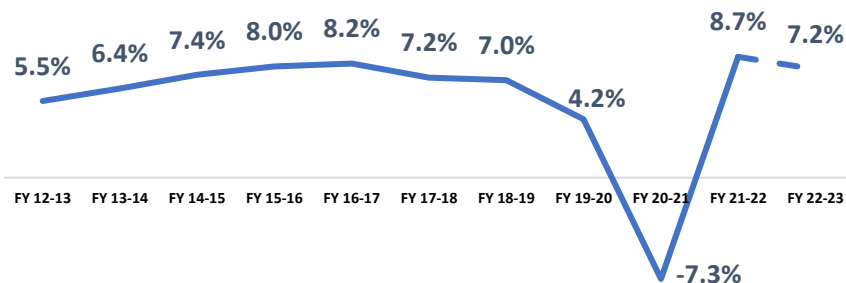
ZF Commercial Vehicle Control Systems India Limited – Quarterly Earnings Call

August 4, 2022

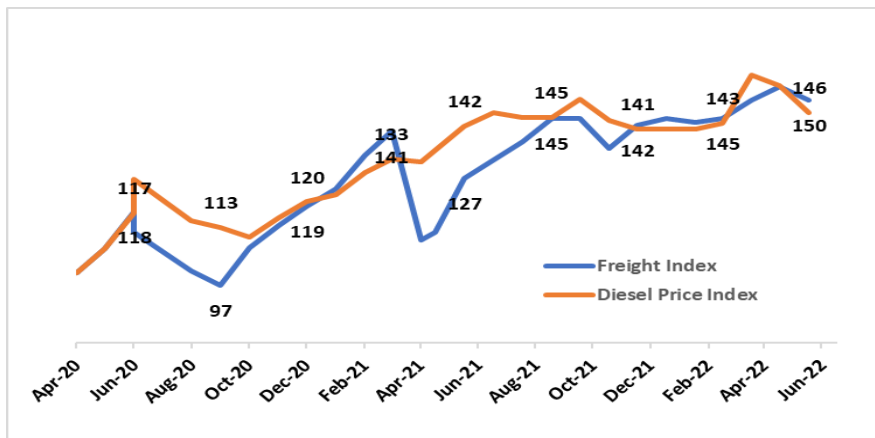


MACRO ECONOMIC UPDATE

GDP Trend



Freight and Diesel Index



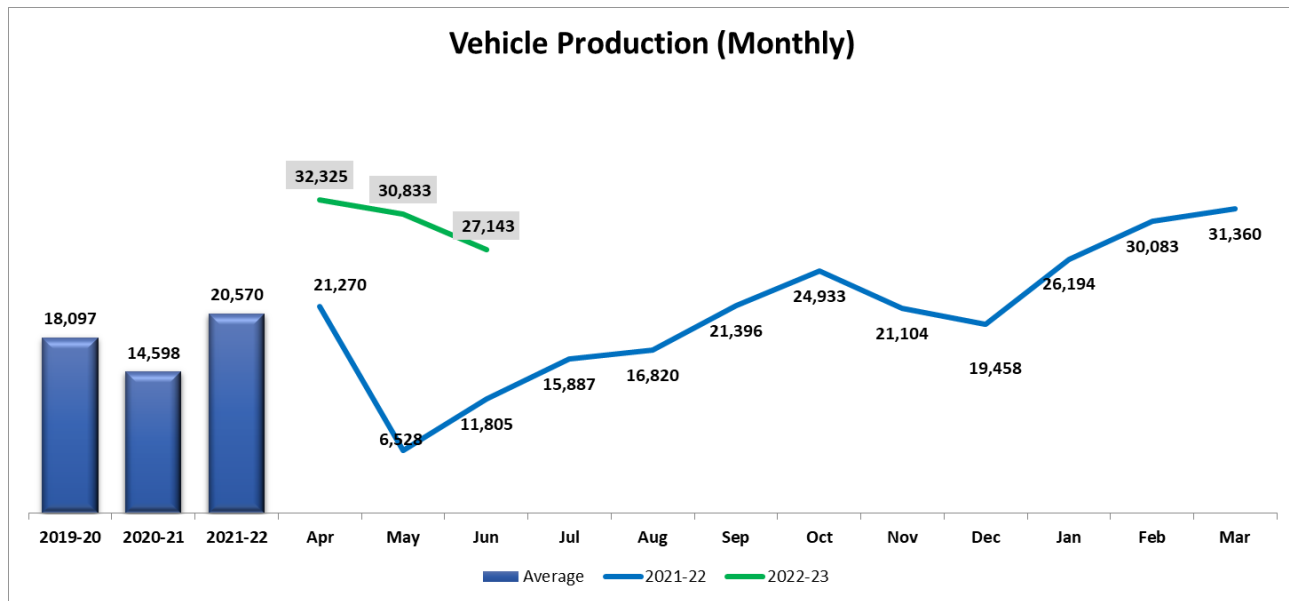
- The GDP growth estimate for FY 22-23 is 7.2% down from 9.5% in view of the global geo-political situation arising out of the Russia-Ukraine conflict and elevated global commodity prices
- Risk to inflation have risen, RBI has revised up its inflation forecast to 6.7% for Fiscal 2023
- Road, Metro projects, Power and Water projects have seen the maximum increase in infrastructure spend allocation
- Vehicle Scrappage policy announced and to be implemented in 3 Phases & Phase 1 Implemented from April 2022
- In Q1, there was a drop in freight rates since transporters passed on the full effect of a drop in diesel prices
- However, fleet utilization also dropped especially in Agri products, auto-carriers, FMCG/FMCD, petroleum tankers, and textiles & the segments, such as market load, parcel/loose goods, mining saw slower decline.

Air Brake Vehicle Production Trend

- VP in Q1 is 90,301 Vs 39,603 in PY; growth of 128.0%

NOS.	Q1	Q2	Q3	Q4	FY
	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	
2021-22	39,603	54,103	65,495	87,637	246,838
2022-23	90,301	-	-	-	90,301
Growth %	128.0%				

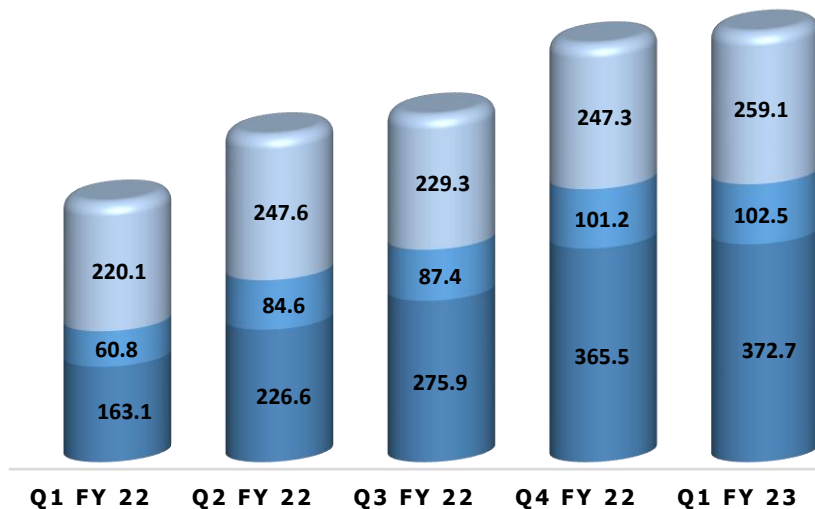
In Numbers



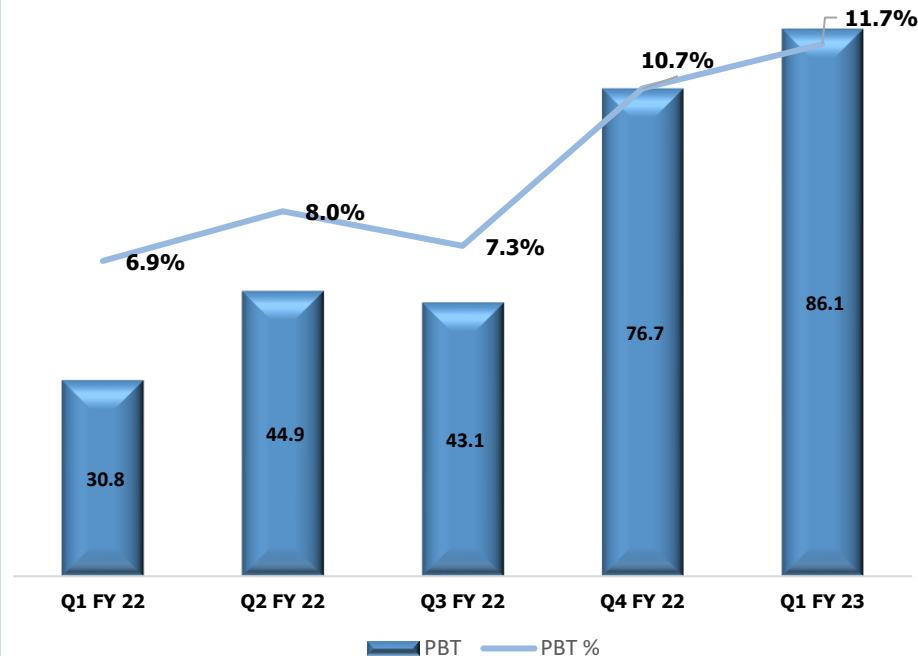
- Q1 VP growth of 128.0% (Lower base due to Covid Second Wave)
- The VP growth is driven by
 - Higher retail sales due to increased truck utilization driven by infrastructure, real estate, mining sectors.
 - ILCV growth due to eCommerce, intracity last mile connectivity and increase in penetration of CNG/LNG Vehicles

SEGMENT WISE SALES

■ OE ■ AM ■ ICO



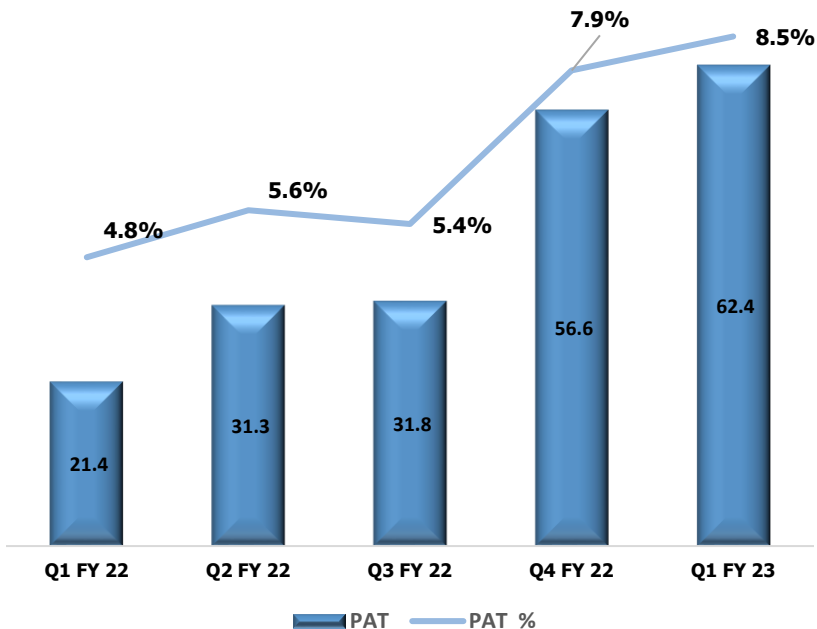
PBT TREND



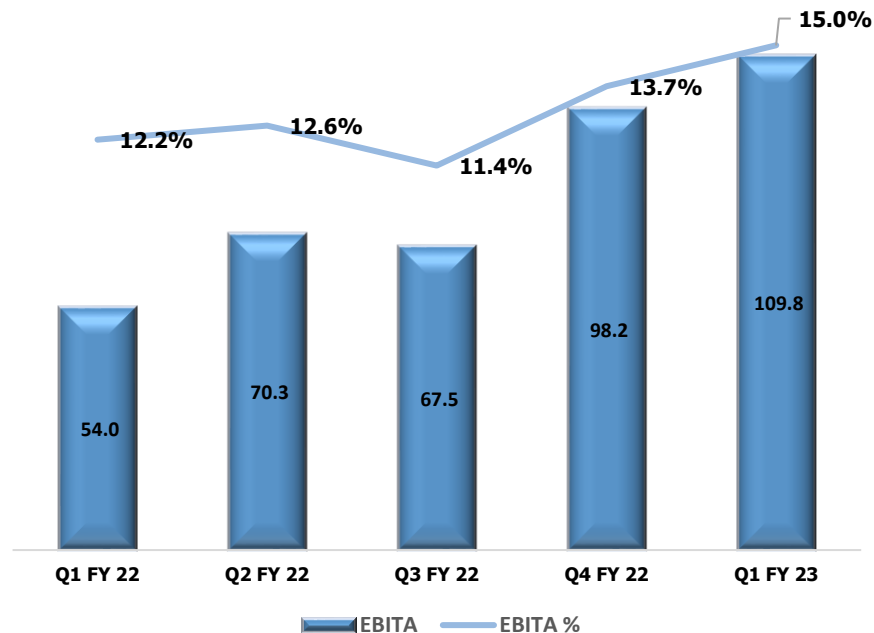
Financials Summary

Internal
INR Cr

PAT TREND



EBITA TREND

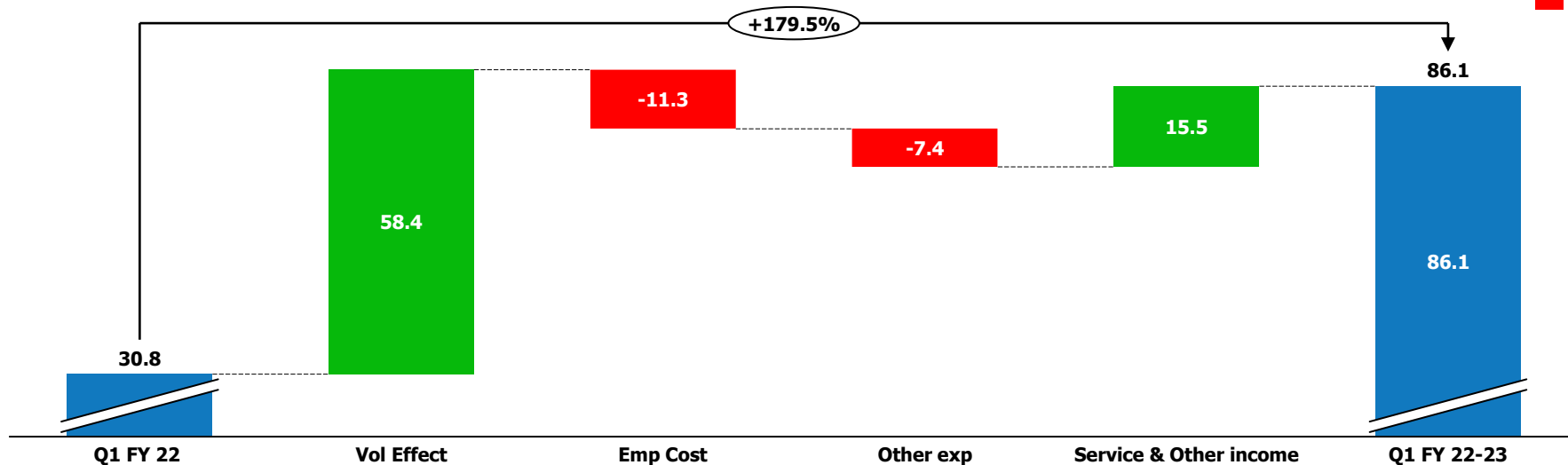


PBT- Q1 FY 22-23 Vs Q1 FY 21-22 Profit Walk

Internal

₹ Cr

Fav
Unfav



Key aspects

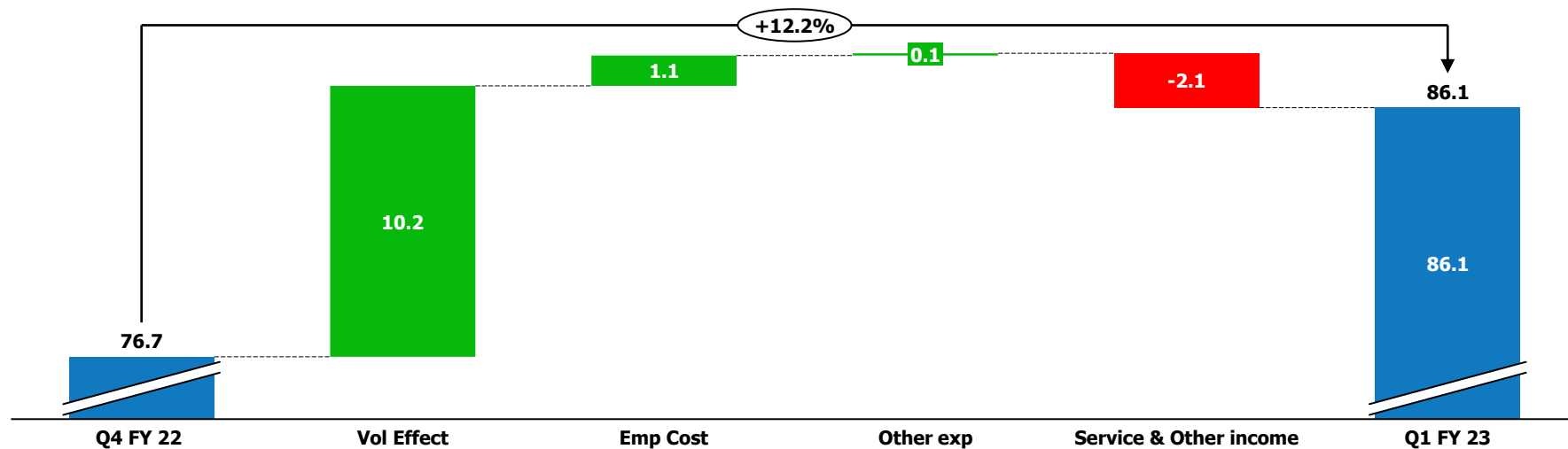
- Volume gains and sorting out compensation from the customers for the inflation suffered
- Growth in the service income on tech services to group companies

PBT - Q1 FY 22-23 Vs Q4 FY 21-22 Profit Walk

Internal

₹ Cr

Fav
Unfav





NEXT GENERATION MOBILITY



Autonomous Driving



Hill Start Aid

Avoids unintended roll-backs to enhance driver comfort and safety

**Helps prevent
roll back**



- Add-on functionality to Antilock Braking System (ABS)
- Can be activated on the ABS system and does not require any additional hardware / modifications on the vehicle.
- Improves safety during "Stop & Go" situation on a gradient
- Helps to avoid roll-back on steep slopes and gradient
- Prevents accidents caused due to unintended vehicle roll back
- Minimizes clutch and brake liner wear (esp. for vehicles operating on hilly terrain)
- Extends tyre life and stabilizes vehicle when supplemented with Automatic Traction Control

Automatic Traction Control (ATC)



- Add on functionality to ABS , ECU includes ATC function
- ATC can be enabled by adding one 3/2 solenoid valve
- Prevents wheel spin during acceleration under different surface conditions (especially slippery surface like mining / sand / Ice)
- Prevents loss of traction of one or more wheels, helps to prevent wheel slip on different surface conditions
- Better vehicle stability management, increase tire life
- Helps while driving on gradient especially with lesser adhesion between tire & ground

ESCsmart™ Electronic Stability Control

Keeps the vehicle stable during dynamic and critical driving maneuvers

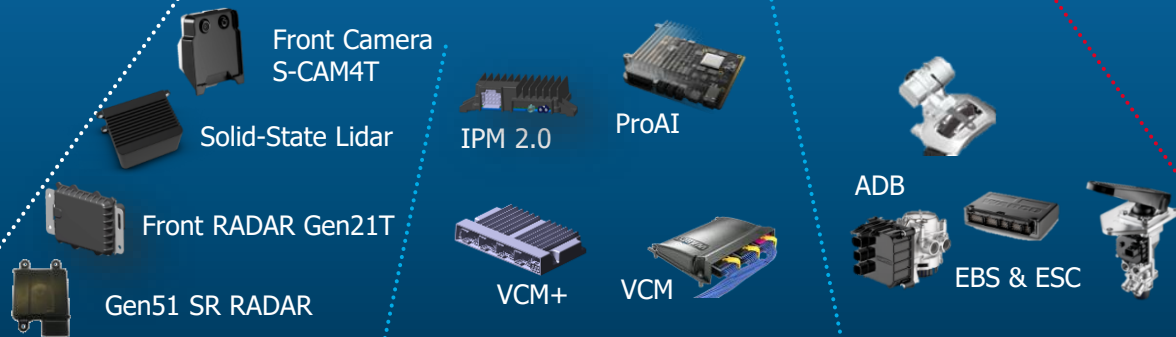
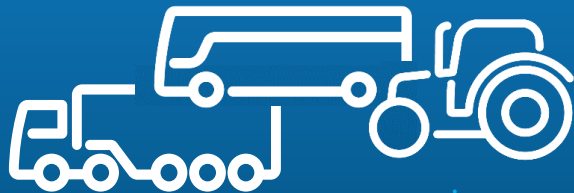
*Next
advancement in
commercial
vehicle safety*



Launch of ESCsmart In India – Oct 2017

- Fundamental building block towards Advanced Emergency Braking System (AEBS)
- Automatically intervenes to improve vehicle stability in safety critical driving situations
- Launched in October 2017 with TATA Motors
- Regulation mandates ESC for buses from 2023
- Proactively started localization of ESC components to make the technology more affordable
- Homologated >60% of M&HCV trucks with leading OEM before regulation

A Complete Portfolio of ADAS, Safety Components and Systems



010110
110100
010011

Software Solutions – ADOPT, OnGuardMAX™



see.



think.

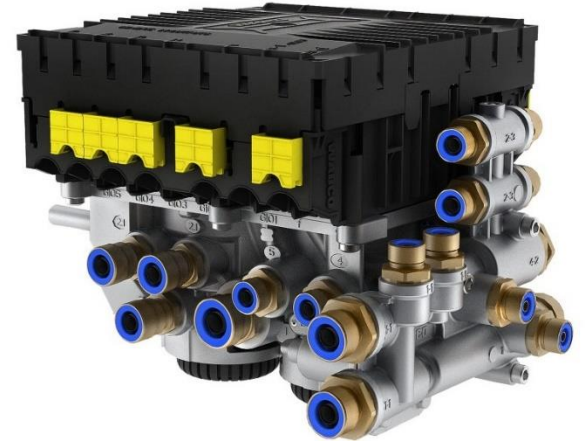


act.

Trailer Electronic Braking System (T-EBS)

New global electronic braking solutions for trailers

- Enables ZF's award winning Intelligent Trailer Program, supporting more than 40 optional functions to improve operating safety and efficiency.
 - With EBS-E, the braking system has evolved to become an advanced control center.
- System development process complies with automotive safety standards ISO 26262, making the product more robust and reliable
- Optimizes the cost of building, operating and maintaining a trailer throughout its operational life
- Can be mounted and retrofitted to all trailer types, including road trains, bi-trains and tri-trains



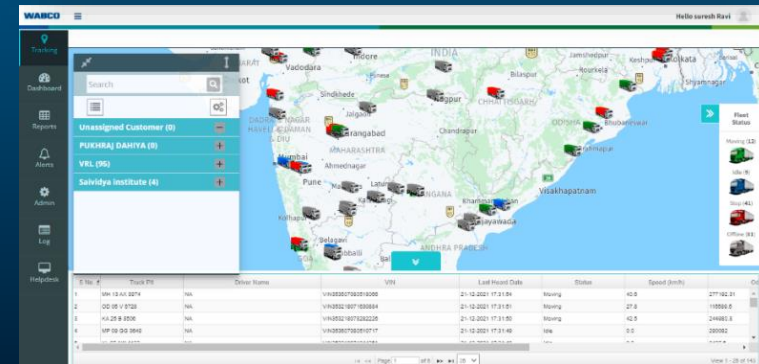
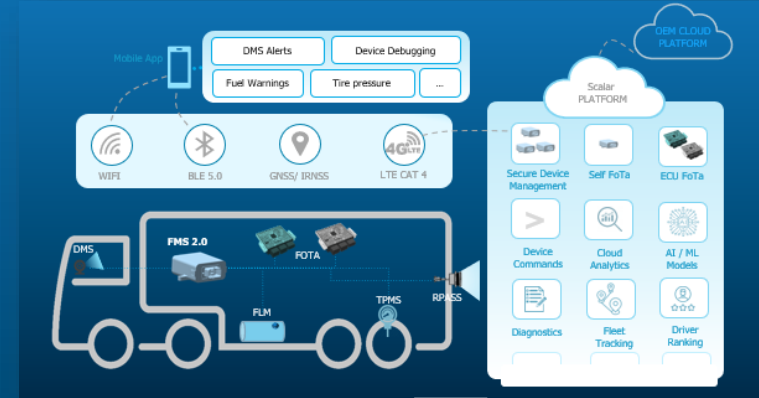


Connectivity Solutions



Digital Solutions: India growth story

- Released by leading CV OEM as preferred solution provider for connectivity solutions in 2020
- AIS -140 and BS-VI compliant services offered
- Indigenous solution now with advanced capabilities for FOTA update being built rapidly
- 46 functionalities being offered on the portal with support for back end analytics
- Home-grown, modular, scalable cloud-based solution
- Released by another OEM for their bus platforms
- Solutions offered in the aftermarket to improve fleet profitability
- Over 90K live connections



Driving the connectivity business to new levels

Growing fleet base
& Customer base



5X growth
in last 3
years
(~60K
connected
vehicles)

Potential
to grow 3X
further to
150k by
2024

Global Cloud Platform



SCALAR

New off
shoots in
trailer
business

1st
customer in
Scalar– SOP
started

Hardware Platform



Migrated
H/W
competency
in-house

FOTA / 4G
platform
next gen
Hw SOP
planned in
2022

Enhanced Security
features (TLS, HSM)
& legislation F/W

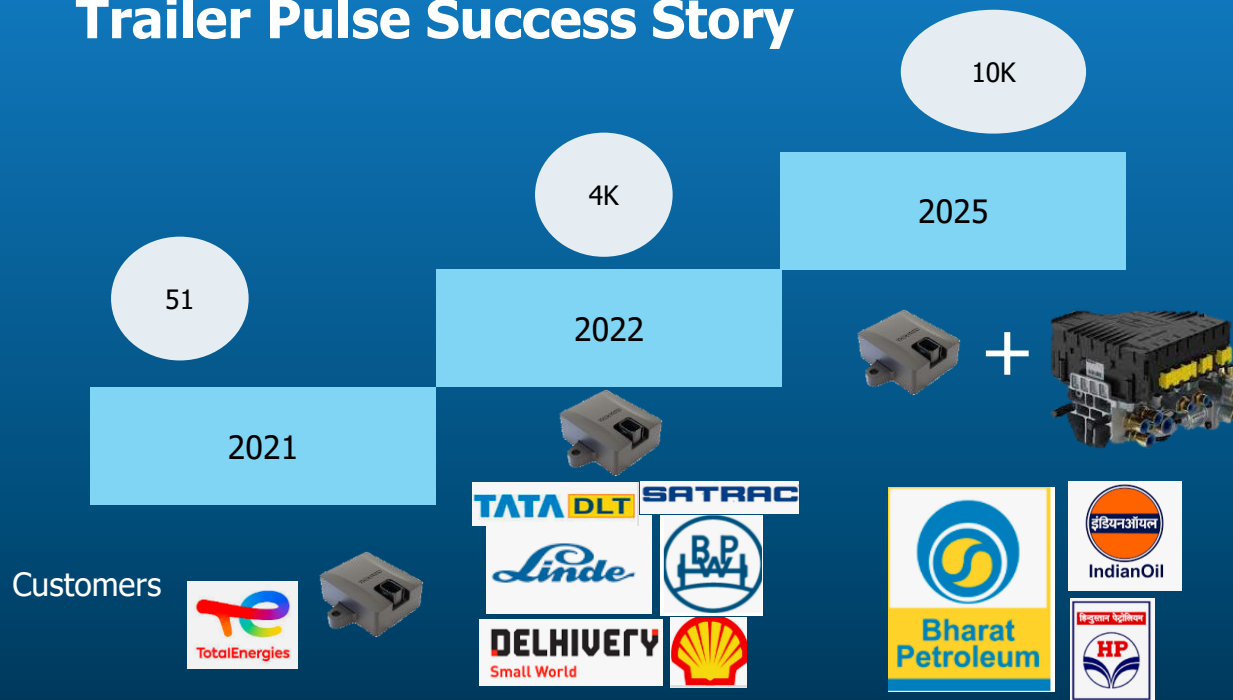
Talent pool &
Competency



Digital
center @
Bengaluru
(100 HC)

Dedicated
teams for
H/W, F/W
& testing

Trailer Pulse Success Story



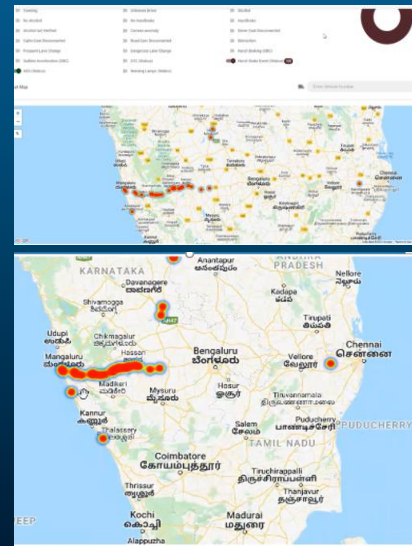
Applicable vehicle market size : 3K
POC with Key customers.

Applicable vehicle market : 5K
Focus to conduct POC of TEBS + TX trailer Pulse1combo kit in retro.

Create market size : 20K
Make mandatory as a part of contract.

Customer Value Proposition

Customer developed Heat Map to identify Hazard location using API Data

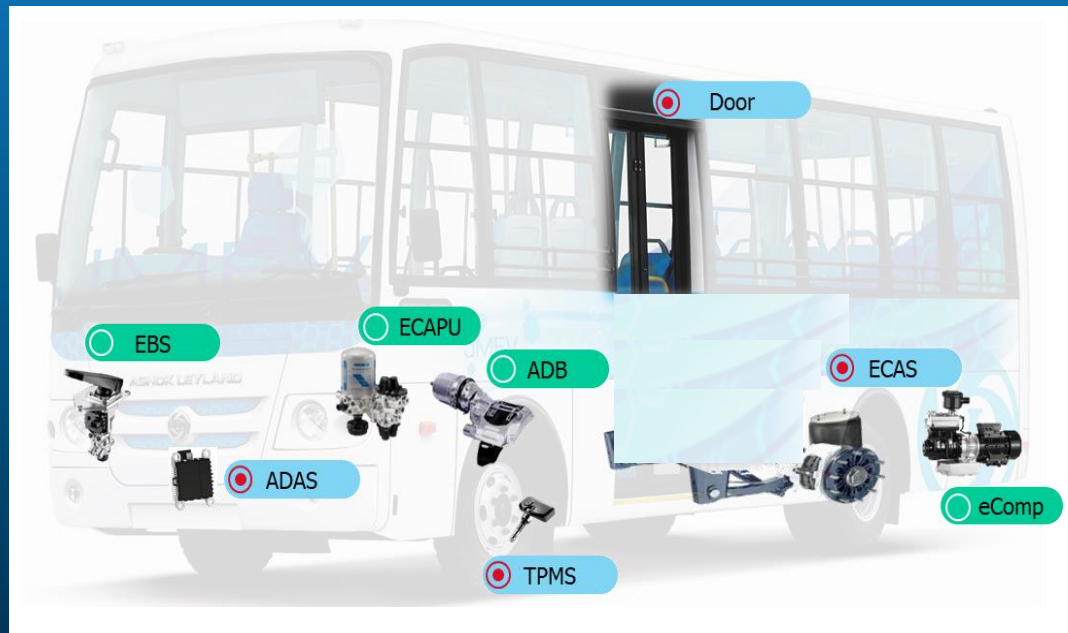




Electric Mobility



Portfolio for Electric Vehicles

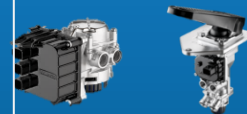


ADAS: Advanced driver assistance system
 ADB: Air disc brake
 AM: Air management
 DCS: Door control system

eComp: Electric compressor
 EBS: Electronic brake system
 ECAS: Electronically controlled air suspension
 TPMS: Tire pressure monitoring system



eComp



EBS



ADB



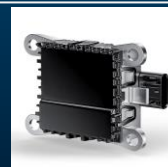
TPMS



EC-APU



Door Controls



ADAS

Expansion at Oragadam - Update



Portfolio

Innovation

Intelligence

Safety

Efficiency

“Mobilizing Commercial Vehicle Intelligence”

Network

Performance

Connectivity

Automation

Speed



Thank you



**Welcome your
questions and
feedback.**

OnGuard and OnLane

SEE



Front Camera
OnLane



Front Radar
OnGuard

FUNCTIONS

Stand Alone Radar for
Automatic Emergency Braking

Stand Alone Camera for Lane
Departure Warning

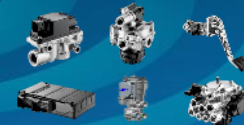
Current System

77GHz Radar with a range of 650 ft.

Over 0.75M vehicles globally equipped with
OnGuard

Also available as retrofit kits

ACT



ABS E8 / EBS 3
Braking System

