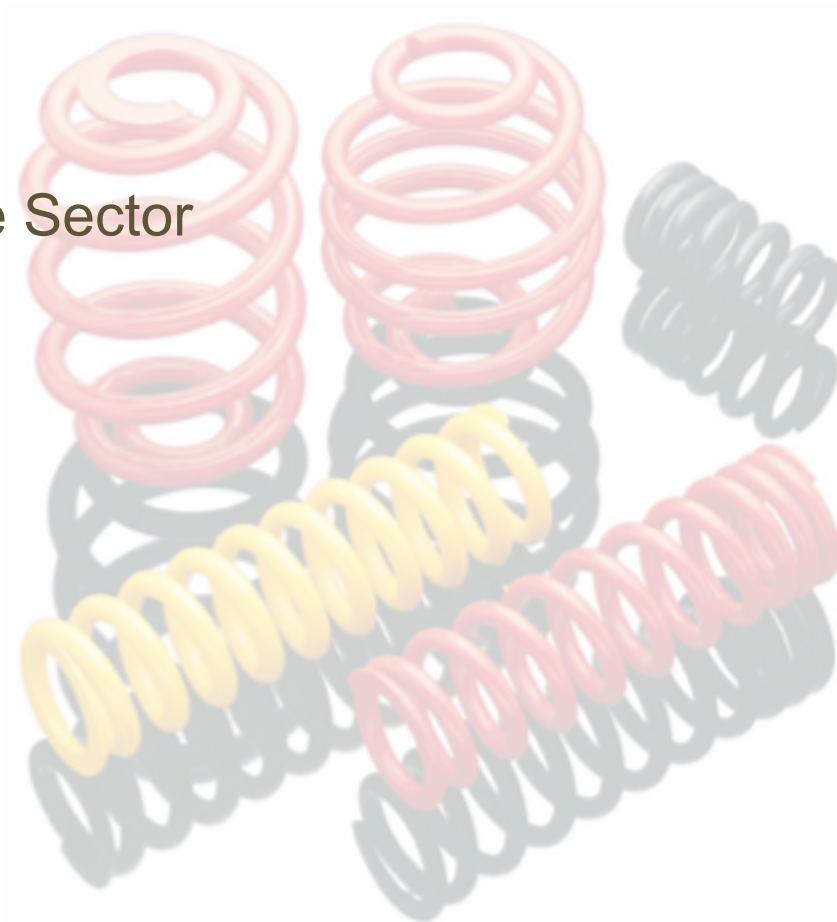


The
Group

SUMMARY

- Introduction
- History
- Belfin at a glance
- Product Range
- Operations
- Springs Automotive Sector



**The
Group**

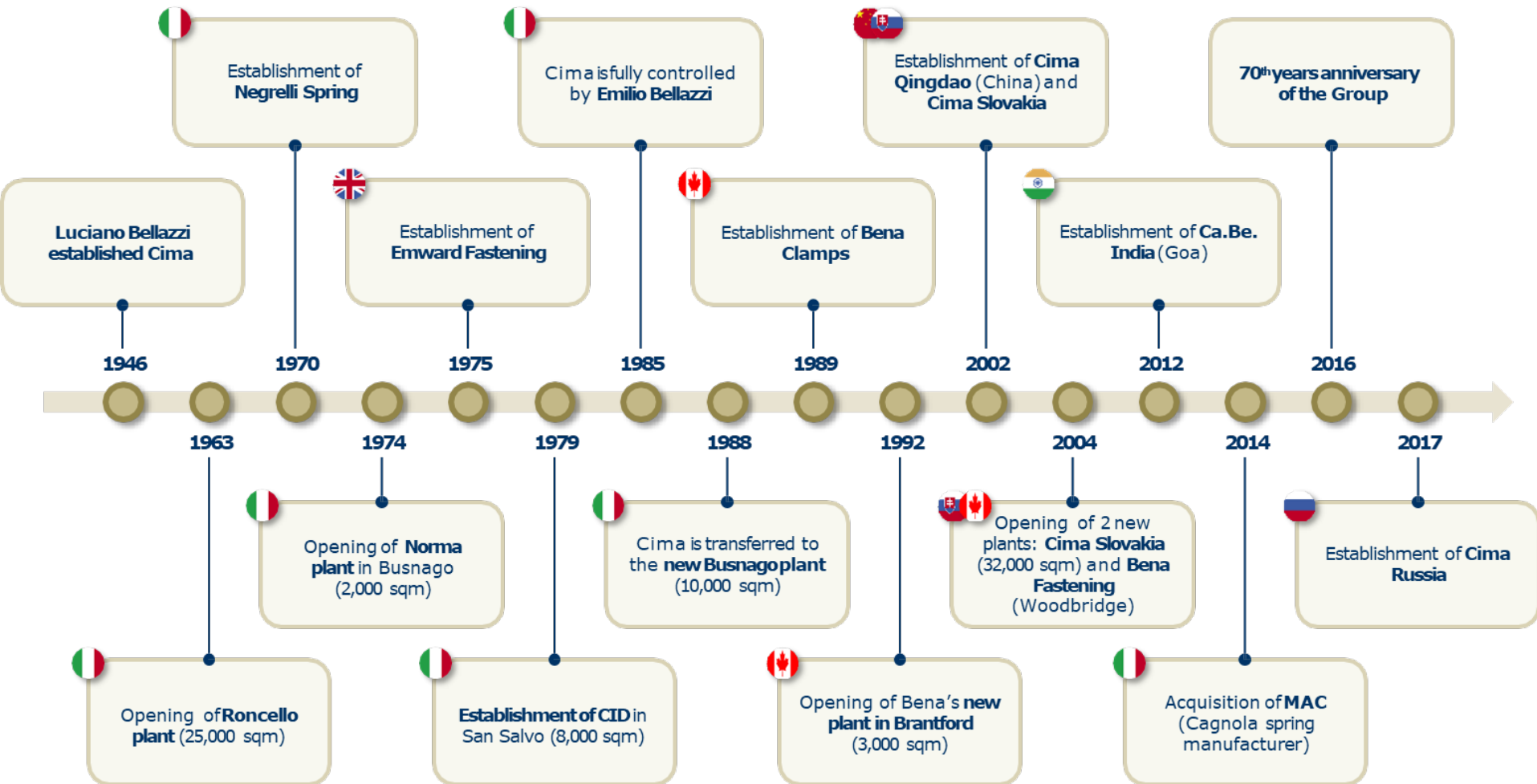
INTRODUCTION

The Belfin Group is a global manufacturer of products for chassis and driveline technology , as well as a pioneer in mechanically joined fastener technology

Our technologies are mostly dedicated to pressing and forming of steel wire and band , thus providing numerous products for both passenger cars and commercial vehicles .

Nowadays our range comprises springs, special fasteners, hose clamps , rings bellevilles and washers together with a wide range of special products that we design and manufacture in cooperation with our customers.

HISTORY

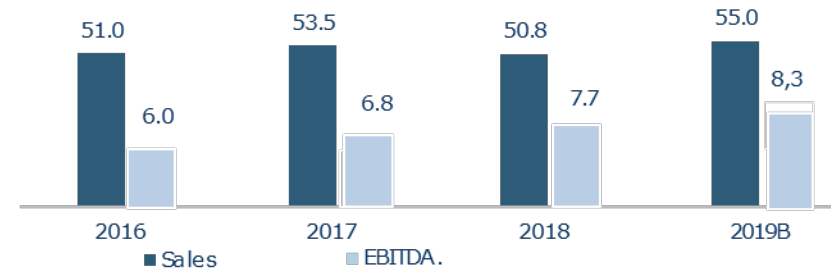


BELFIN AT A GLANCE

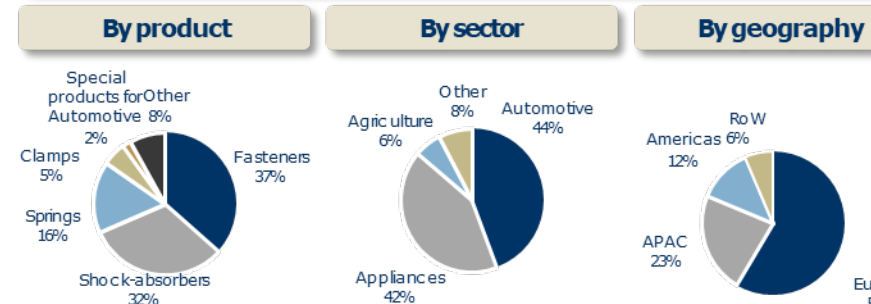
Overview

- ◆ **Established in 1946**, the Group is a global manufacturer of components for the automotive, appliances and industrial markets
- ◆ The product portfolio includes **fasteners, shock-absorbers, springs, clamps** and other components
- ◆ The Group uses comprehensive **customized designs** and **test facilities** to produce **high quality and precision products**, most of which are manufactured in close cooperation with the customers
- ◆ Cima serves a **wide range of blue chip companies**, such as FCA, VW, ZF-TRW, Valeo, Whirlpool, Little Swan (Midea), Haier, etc.
- ◆ The Group operates through **6 manufacturing facilities and 2 commercial subsidiaries** and distributes its products in **Europe, US, Canada, South America, China and India**
- ◆ Cima currently employs **~500 employees worldwide**
- ◆ The Group is **fully owned by Bellazzi family**

Key financials (€m)



Sales breakdown¹



PRODUCT RANGE

Extensive range of products tailored to customers' requirements

Legend:

- Standard
- Slightly customiz.
- Highly customiz.

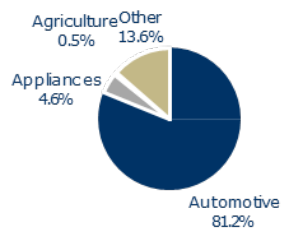
	A	B	C	D	E	F
	Fasteners	Shock-absorbers for washing machines	Springs	Clamps	Special products for automotive	Other products
Product portfolio	 Special fasteners, cage and speed nuts	 Junior, electronic and free stroke dampers, piston rod	 Titanium, suspension, diaphragm springs, etc.	 Spring wire, worm drive hose clamps, etc.	 Jonc, Audi assembly guide sleeve	 Foot nuts, brackets, bushings
Degree of customization	 	 	  		  	 
Key metrics	37% of Sales 231.4m pieces sold 	32% of Sales 42.0m pieces sold 	16% of Sales 62.7m pieces sold 	5% of Sales 41.6m pieces sold 	2% of Sales 12.2m pieces sold 	8% of Sales 54.6m pieces sold 
Applications	  		  	  		  
Customer advantage	+Customization +Technological content +Wide products range	+Customization +Wide products range +360° R&D	+Customization +Wide products range +Strongly recognized know-how	+Wide products range +Strongly recognized know-how	+ Strong innovation +Dedicated production areas +Efficiency	+Wide products range +Efficiency

Products' overview

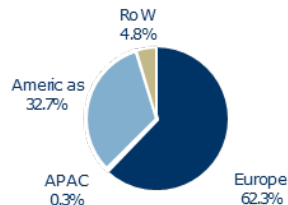
- ♦ 231.4m pieces sold in 2018
- ♦ Production mainly carried out in Cima's plant in San Salvo, apart from some residual manufacturing held in Busnago
 - ♦ Products mostly built out of presses from 25 to 1,500 tons
- ♦ Made out of steel or plastic fixing components with threaded elements and available both in standardized formats and in highly customized versions
- ♦ Main application sectors: Automotive, Appliances and Agriculture

Sales breakdown¹











By sector



By geography



Selected key products

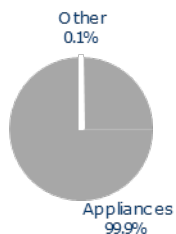
	Floating nuts	Welding nuts	Threaded plates	Threaded clips
Product				
Description	♦ Metallic cage nuts	♦ Special types of nuts, specifically designed to be welded to another object	♦ Reinforcement plates	♦ Clips made out of plastic fixing
Features	♦ Standard product used to fix the metallic parts of the car seats to allow movements ♦ Nuts free to "float" in the cage and be fixed based on specific needs	♦ Product available both in standard or highly customized versions ♦ Made out of stainless or carbon steel	♦ Customized products ♦ Production carried out through high technological presses from 25 to 1,500 tons	♦ Customized products ♦ Production carried out through high technological presses from 25 to 1,500 tons
Main clients	<div> <div>OE</div> <div>   </div> </div> <div> <div>Tier I</div> <div>     </div> </div>			

Products' overview

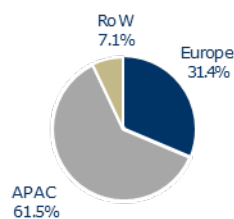
- ◆ 42.0m pieces sold in 2018
- ◆ Production mainly carried out in Cima's plants in Slovakia and in China, with a single production line in India
- ◆ Made out of plastic, metal, grease and PU foam components
 - ◆ The combination of each component defines the type of product and its use
 - ◆ The products' features are result of years of R&D research and are constantly changing following the technology innovation
- ◆ Main application sector: Appliances

Sales breakdown¹



















By sector



By geography



Selected key products

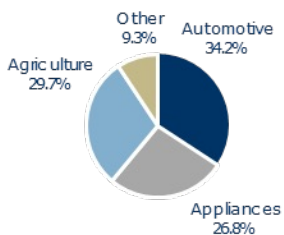
	Junior damper	Senior damper	Piston rod damper	Free stroke damper
Product				
Description	◆ Products used for both front and top loading (horizontal axis) washing machines	◆ Previous version of the junior damper used in the spare parts and industrial markets	◆ Equivalent version of the junior damper for top loading vertical axis machines	◆ High performing version of the junior damper for high level machines
Features	◆ Widespread product ◆ Adapt for all the kind of needs ◆ Economic and standardized products	◆ High loads and resistance requirements	◆ Worldwide usage (except for EU market) ◆ High technological content	◆ Noiselessness and durability requirements ◆ Higher quality standards ◆ Higher price
Main clients	  B/S/H/ 	  	Spare parts resellers & industrial machines manufacturers 	   
	  			

Products' overview

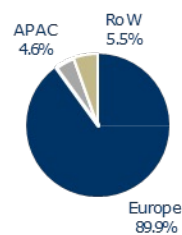
- ♦ 62.7m pieces sold in 2018
- ♦ Production carried out in Cima's plants in Busnago, Slovakia, Russia, India and China
- ♦ Made out of a wide range of different materials, such as wire rod, chrome vanadium steel and titanium
 - ♦ Available in an extended variety of wires' diameters (from 0.5 mm up to 85 mm)
- ♦ First family of products developed by Cima and marketed since 1946
- ♦ Main application sectors: Automotive, Appliances and Agriculture

Sales breakdown¹








By sector



By geography



Selected key products

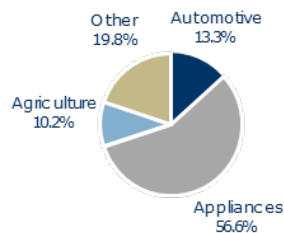
	Titanium suspens. springs	Rebound springs	Traction springs	Agricultural spring
Product				
Description	<ul style="list-style-type: none"> ♦ Highly technological suspension spring for super cars 	<ul style="list-style-type: none"> ♦ Spring in round or squared wire, made out of alloyed steel FD and VD 	<ul style="list-style-type: none"> ♦ Designed for the suspension and function of washing machines' drums 	<ul style="list-style-type: none"> ♦ High resistance spring with a wide range of wire diameters
Features	<ul style="list-style-type: none"> ♦ 100% supplier of Ferrari ♦ Light weight ♦ High resistance ♦ High prices 	<ul style="list-style-type: none"> ♦ Co-design manufacturing (based on the client's plans and illustrations) 	<ul style="list-style-type: none"> ♦ High customization ♦ Worldwide usage 	<ul style="list-style-type: none"> ♦ High resistance materials ♦ High customization
Main clients			Washing machines manufacturers worldwide	

Products' overview

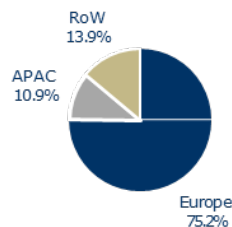
- 41.6m pieces sold in 2018
- Production mainly carried out in Cima's plants in Busnago and in China
- Extended range of products including wire clamps, band clamps, nut clamps, hose clamps, bolt clamps, tension clamps and others
- High standardization level and high revenue visibility
- Main application sectors: Automotive, Appliances and Agriculture

Sales breakdown¹













By sector



By geography



Selected key products

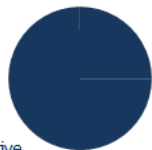
	Wire clamps	Band clamps	Nut & bolt clamps	Single ear clamps
Product				
Description	<ul style="list-style-type: none"> Designed with thick double wires and with a dual pressure between hoses and tap 	<ul style="list-style-type: none"> Constant tension clamps made out of chrome-vanadium steel (high efficiency over time) 	<ul style="list-style-type: none"> Manufactured with a solid band, a rolled edge and a smooth underside 	<ul style="list-style-type: none"> Single use clamps
Features	<ul style="list-style-type: none"> Able to hold the pipe tightly on the tap connectors without any leakage Suitable for higher pressure hoses and connectors 	<ul style="list-style-type: none"> Highly technological, made out of the same material of suspension springs for automobiles Few existing suppliers worldwide 	<ul style="list-style-type: none"> Able to prevent hose damage and to deliver high strength for superior sealing Designed with a fixed nut and bolt for ease of installation Ideal for use in confined spaces 	<ul style="list-style-type: none"> Ideal for applications involving soft or hard rubbers and plastics Design ensuring a uniform compression around the whole circumference
Main clients	 B/S/H/  		 	 

Products' overview

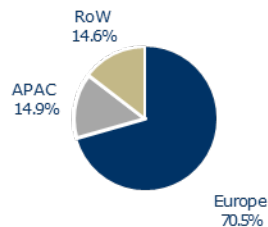
- ◆ 12.2m pieces sold in 2018
- ◆ Production carried out in Cima's plant in Busnago
- ◆ Special products co-designed with renowned clients such as Valeo and Audi
 - ◆ The assembly guide sleeve for Audi's clutches has a dedicated area inside the Busnago's production plant. The manufacturing is carried out by highly trained workers
 - ◆ Jonc special springs for the gear boxes of Valeo have a dedicated manufacturing area with the employment of trained workers
- ◆ Main application sector: Automotive

Sales breakdown¹

By sector



By geography



Selected key products

Assembly guide sleeve

Product



Description

- ◆ Spring made out of 10 components between spacers and springs

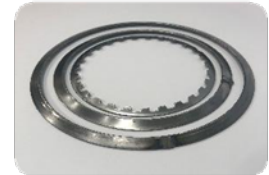
Features

- ◆ The manufacturing process requires highly trained workers and a separate area for the production and packing
- ◆ Highly customized product
- ◆ High technological content

Main clients



Jonc



- ◆ Special spring for the gear boxes

- ◆ The manufacturing process requires highly trained workers and a separate area for the production and packing
- ◆ Highly customized product
- ◆ High technological content

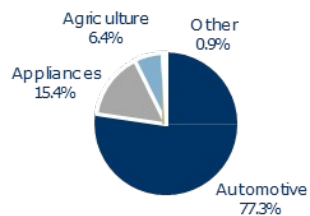


Products' overview

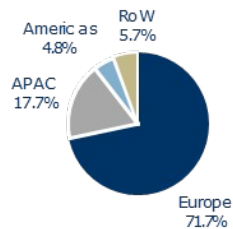
- ◆ 54.6m pieces sold in 2018
- ◆ Production mainly carried out in Cima's plants in Busnago and in India
- ◆ The portfolio includes a wide range of other products such as metal bushings, spring pin and foot nuts
 - ◆ Customized products with regular volumes dedicated to specific customers
- ◆ Main application sectors: Automotive, Appliances and Agriculture

Sales breakdown ¹

By sector



By geography



Selected key products

	Metal bushings	Spring pin	Foot nut
Product			
Description	<ul style="list-style-type: none"> ◆ Metallic stamped products, such as mufflers and sockets 	<ul style="list-style-type: none"> ◆ Part of shock-absorbers used where there are great solicitations requiring a strong reinforcement 	<ul style="list-style-type: none"> ◆ Made out of a screw, a nut and a plastic part, used for the stability of the washing machine
Features	<ul style="list-style-type: none"> ◆ Highly customized product ◆ Regular volumes ◆ Wide range of available designs, dimensions and uses 	<ul style="list-style-type: none"> ◆ Highly customized product, created out from specific requests of clients ◆ Significant R&D component 	<ul style="list-style-type: none"> ◆ Standardized product ◆ High capacity of prevention from vibration and noise
Main clients	 	  B/S/H/  	  B/S/H/  

OVERVIEW OF KEY END-MARKETS & APPLICATIONS



Automotive

- ◆ Presence in the Automotive market since 1946
- ◆ Supply of all the major automotive groups worldwide, both OEM and Tier 1 / 2 suppliers
- ◆ Wide range of both standard and customized products, such as coiled springs, titanium springs, fasteners and stamping parts, etc.
- ◆ Strong partnership and collaboration with clients and co-design projects

44% of total Sales¹



Top 6 clients:
68% of Automotive Sales¹



Appliances

- ◆ Top 1 producer of shock-absorbers worldwide with a portfolio of 50m pieces to be manufactured in 2019
- ◆ Strategic supply of the major appliances groups, such as Whirlpool Group, BSH Group, Haier Group, etc.
- ◆ Dedicated plants manufacturing a wide range of products from suspension springs, shock-absorbers, clamps, etc.
- ◆ Significant number of patent approved products through a dedicated R&D area

42% of total Sales¹



Top 6 clients:
87% of Appliances Sales¹



Agriculture

- ◆ Top manufacturer of springs with important wire diameters up to 85 mm
- ◆ Supplier of the major groups such as Rostselmash, AGCO Group and CNH Group
- ◆ Presence of a dedicated supply chain

6% of total Sales¹

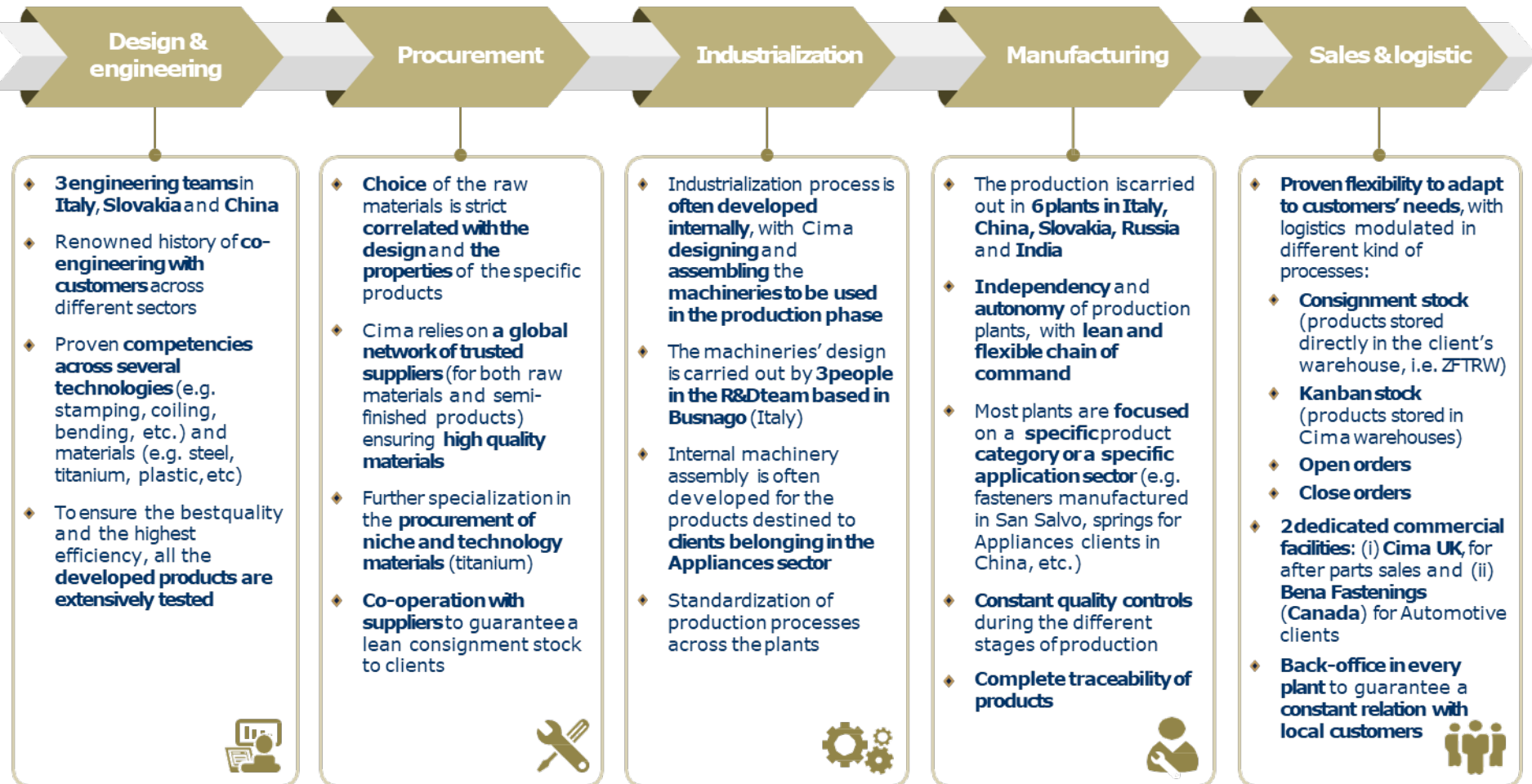


Top 3 clients:
95% of Agriculture Sales¹



OPERATIONS: VALUE CHAIN AND CAPABILITIES

Overview of the Group's value chain



MAIN CUSTOMERS – AUTOMOTIVE SECTOR

Automotive OEM

FCA
Ferrari
Maserati
Audi
Volkswagen
Skoda
Porsche
Seat
Lamborghini
GM / Opel
Honda
Toyota

Automotive Tier

Knorr Bremse
TRW / ZF Sachs
Contitech
Valeo
Brembo
Bilstein
Böllho
Magna Group
Meleghy Automotive
Fontana Fastener
Gestamp
Kirchhoff (VRK Van Rob)
Jordan
Linde & Wiemann
Magnetti Marelli
Benteler
Tenneco
Nedschroef

**The
Group**

SPRINGS AUTOMOTIVE SECTOR: PRODUCT RANGE



Coil Springs

Type	Remark	Major Customer
Suspension Springs	•Standard / Side Load	• ALFA • FERRARI - MASERATI
Truck Cabin Damper Springs	•Ground / Cylindrical	• ZF Sachs • Iveco •Tenneco Automot.
2 – wheeler shock absorber springs	•Cylindrical / Conical / Bi-Conical	• ZF Sachs • Yamaha • Ducati
Brake Actuator Springs	•Conical / Bi-Conical / Barrel Shaped	• Knorr Bremse Group

Special Application Springs

Titanium Alloy Springs	•High Performance Sports Car •Motor Bikes	• Ferrari • Yamaha – Mc Laren
------------------------	--	----------------------------------

Coil Spring Raw Material

- Top quality alloy steel – oil tempered and induction heated
- 100% Eddy Current Tested for Surface Defects (Oil Tempered & Induction heated wires)

Standard	Range of Wire Diameter (mm)	Application	Country of Origin
SAE 9254 – 54SiCr6 (DIN 17223-2-FDSiCr) • Standard • High Tensile	6.0 – 16 .00	<ul style="list-style-type: none"> • Suspension Springs • Cabin Damper Springs • Brake Actuator • High Performance 2-wheeler springs 	Japan, Italy, Korea
SAE 9254V – 54SiCrV6 • High Tensile	8.00 – 16.00	<ul style="list-style-type: none"> • Suspension Springs • Brake Actuator Springs 	Japan EUROPE
SWI 210V 54SiCrV6 high tensile	6.00 – 16.00 2000 – 2150 MPA	Suspension springs Brake actuator springs	Japan

TITANIUM SPRINGS



The
Group

TITANIUM SPRINGS

Titanium Car Suspension Springs

GRUPPO | 3 | FERRARI | 4 | MASERATI

FERRARI 360 CHALLENGE STRADALE: PERFORMANCE CAR OF THE YEAR

Gentile Fornitore,

abbiamo il piacere di comunicare e condividere con Lei il più recente riconoscimento ottenuto dalle vetture Ferrari: il settimanale inglese Autocar ha infatti attribuito alla Ferrari 360 Challenge Stradale il titolo di "Performance Car of the Year".

La più longeva rivista del settore automotive ha pubblicato i risultati di una lunga serie di test effettuati sulla pista Pirelli di Vizzola. Oltre alla Challenge Stradale il team di esperti di Autocar ha testato, tra le altre, vetture come Porsche 911 GT3, Mercedes SL55 AMG, BMW M3 CSI.

Il verdetto finale delle rigorose sessioni di prova, ha assegnato alla Challenge Stradale il titolo di auto più performante dell'anno, concludendo che: "la Challenge stradale è, oggi come oggi, la più emozionante macchina del mondo".

La performance in frenata, la sonorità, la guida su strada, lo stile e la velocità massima sono gli elementi che hanno permesso alla Ferrari di piazzarsi in testa a questa classifica.



WORD ON THE STREET

Stradale is first to use titanium springs

Ferrari is no stranger to the use of titanium, the material having long been used for connecting rods because of its exceptional strength and low mass. Now, for the first time on a production sports car, titanium is being used for the suspension springs and wheel bolts.

The titanium front springs in the Ferrari Challenge Stradale yield a 39 per cent weight saving over the high-strength steel used on the 360 Modena on which the Challenge Stradale is based. And the rear springs—a complex dual rate design—are 28 per cent lighter.

Ferrari also designed the titanium springs to be 20 per cent stiffer than the Modena's. Normally higher stiffness requires a spring with more material and mass to

accommodate the load with less deflection and this distorts the weight saving. Had the Challenge Stradale springs been designed to the same stiffness as the Modena's, the weight saving would have been 52 per cent (fronts) and 42 per cent (rears).

The springs were produced by CIMA SPA of San Salvo, Italy, from elastically wound coils of TIMETAL LCB (Ti-6.8Mo-4.5Fe-1.5Al) supplied by TIMET Automotive of Morgantown, Pennsylvania in the USA.

The alloying constituents used in TIMETAL LCB are based on a ferro-molybdenum master alloy widely used in the steel industry. They are substantially less expensive than the pure chromium, vanadium and molybdenum required for other beta titanium spring alloys.

