



fragokov

TRADITIONAL QUALITY

Company profile

Fragokov – export, výrobné družstvo, was founded in 1949, as Východoslovenské ľudové autodružstvo (VLAD). This engineering company was focused on production for the tractor and automotive industry and service. VLAD produced brake and clutch cylinders, hydraulic systems and also cabins for tractors. By the end of the nineties, VLAD had around 2 000 employees.

In 1996 there was the transformation, and six successor plants was created. The main part of production was taken over by the new entity Fragokov, which until that time was the main plant of VLAD.

Fragokov - export is one of the largest engineering companies in the Prešov region. Production is located in 4 production halls with a total area of more than 9 000 m². The production program is covered by three production centers.

HYDRAULICS center is focused on several types of production:

1. Design and production of brake, clutch and hydraulic systems for tractors (ZETOR, URSUS, ZŤS), passenger cars, trucks and forklifts, etc. We supply these products for final assembly, but also for aftermarket.
2. The railway industry, where Fragokov-export is a manufacturer and supplier of brake calipers, control elements for brake, hydraulic and pneumatic systems for trains and underground. The main customer in this area is WABTEC CORPORATION (Faiveley Transport), where we deliver to plants in France, Italy, Macedonia, and the Czech Republic.
3. The Hydraulics center also offers production and assembly of various products according to customer requirements, where in addition to production we also provide technological development of products. It is mainly a very precise machining of products for the engineering and electrical engineering industry.

Company profile

TOOLMAKING center is focused on the design and production of molds for injection molding, molds for overmolding/insert molding and molds for foundries. Annually, we design and manufacture approx. 25-30 molds for different areas of industry. Our main customers include BSH DRIVES and PUMPS, a member of the BOSCH group, SaarGummi Czech, EHLEBRACHT Slowakei.

INJECTION MOLDING center was built next to the TOOLMAKING center. This center offers our customers tests of manufactured molds and serial production of plastic moldings. Injection molding center is equipped with modern fully electric, hydraulic and hybrid injection molding machines with clamping forces from 63 to 670 tons. Automation is a matter of course, where most machines are equipped with manipulators. The main customer is BSH DRIVES and PUMPS, a member of the BOSCH group.

Contacts and where we are

Marketing and Sale

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Hydraulics center

HYDRAULICS center is the largest production center of Fragokov – export. The production is located in 2 production halls and creates more than 60% of total turnover of the company



Hydraulics center

1. Design, production and sale of brake and clutch cylinders, hydraulics systems and other components for final assembly and aftermarket of tractors (ZETOR, ZTS, URSUS), passenger cars (ŠKODA), trucks (TATRA, LIAZ) and forklifts (DESTA).

Tractors



Passenger cars



Trucks



Hydraulics center

2. Production for the railway industry consists of the production of brake calipers, where Fragokov produced resp. produces brake calipers for regional train projects such as CATANIA Italy, RRX (The Rhine-Ruhr Express) Germany, MIREO Germany, M7 Belgium, MIREO and international trains ICE and ICX.



The Rhine-Ruhr Express
Siemens raises the standards of regional rail transport in NRW.

>99%
availability thanks to digital service

The end of 2018
sees the start of services in the Rhine-Ruhr Metropolitan Region

70,000 m³
depot with six roads

82
RRX trains

All attractively designed with outstanding comfort (e.g. Wi-Fi and power sockets throughout the train)

400 seats
wide double doors for fast passenger embarkment

56 Regionalzüge für Augsburg
Go-Ahead betreibt ab Dezember 2022 den durchgehend elektrifizierten Teil der Augsburger Netze mit Neufahrzeugen von Siemens.

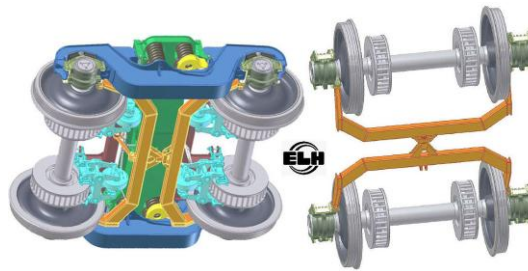
44 Mireo
Dreifachzügler Zug
Sitzplätze: 216
Höchstgeschwindigkeit: 160 km/h

12 Desiro HC
Fünffachzügler Zug
Sitzplätze: 538
Höchstgeschwindigkeit: 160 km/h

39 trains from Siemens for the Rhine Valley
Beginning in 2020, DB Regio will operate its Rhine Valley route exclusively with new trains from Siemens.

24 Mireo
Zweifachzügler
Sitzplätze: 220
Top speed: 160 km/h

15 Desiro
Einfachzügler
Sitzplätze: 110
Top speed: 160 km/h



Project Overview – Train composition



– Present fleet: trains from Firema in service in Catania, equipped with Sab Wabco brakes

Hydraulics center

2. Another area of production for the railway industry is the production of control elements for brake, hydraulic and pneumatic systems for trains and underground. Our products for various types of trains are intended for railway companies throughout Europe, North America (AVELIA Liberty), Egypt (CAIRO) or for the metro in cities such as Paris, Toulouse, Rome, Sao Paulo, Boston etc.



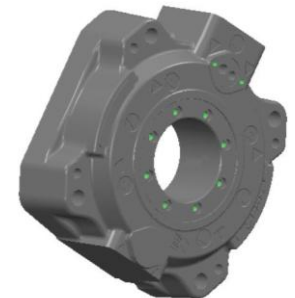
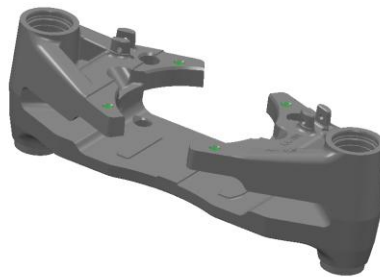
METRO TOULOUSE



MP14 TRAIN (METRO PARIS)

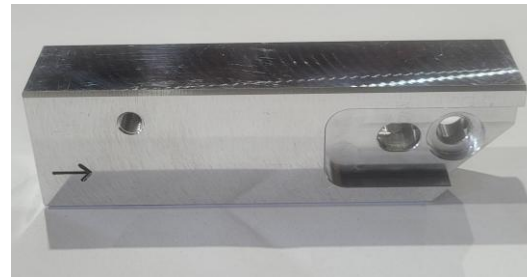
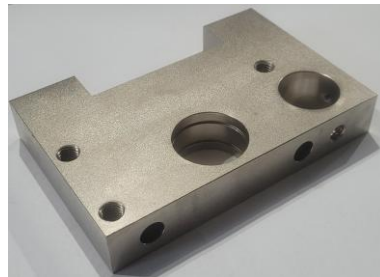
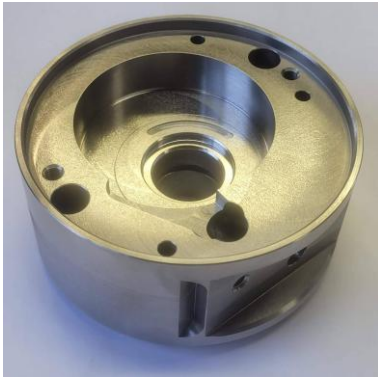


METRO ROME



Hydraulics center

3. Production and assembly of various products according to customer requirements, where in addition to production we also provide technological development of products. These are mainly very precise machining of products for the mechanical and electrical industry, such as high-precision parts for vacuum pumps for the company EDWARDS VACUUM, components for the production of low-lift trucks for TOYOTA MATERIAL HANDLING SWEDEN. The center offers precise machining and assembly of products based on customer documentation for the engineering and electrical engineering industry.



Hydraulics center

Manufacturing activities of the center are realized by classical and modern CNC technologies (turning machines, horizontal and vertical machining centers).

CNC turning machines

(max. dimensions of turning: d500 mm x 850 mm)



OKUMA ESL 10 – 2x



SPINNER TC 77



LEADWELL T8 – 2x



DMG CTX 410



CITIZEN A20 a A32 Cincom



CITIZEN L32 Cincom

CNC horizontal and vertical machining centres

(max. dimensions of milling: 800 x 700 x 750 mm)



OKUMA MF 46 VA – 2x



OKUMA MA 400 HA – 2x



DMG DMC 50 H



OKUMA MB 5000 H



DOOSAN NHP 5500 – 2x

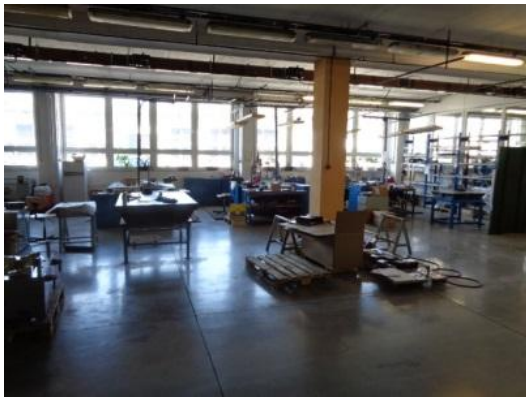


Toolmaking center

TOOLMAKING center is the second largest production center of Fragokov - export and the main activity of the center is design and production of injection molds 1K, 2K and also 3K for injection molding machines, molds for overmolding/insert molding and molds for foundries.

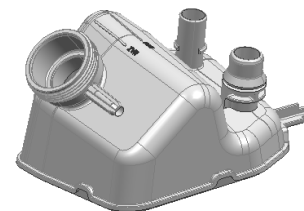
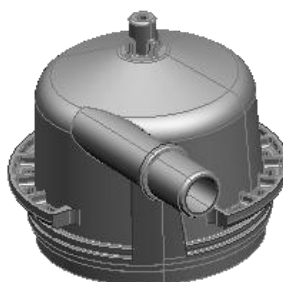
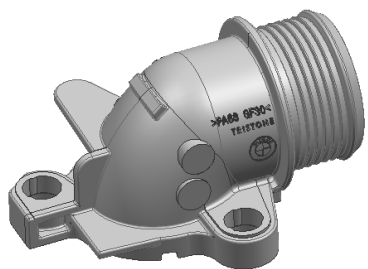
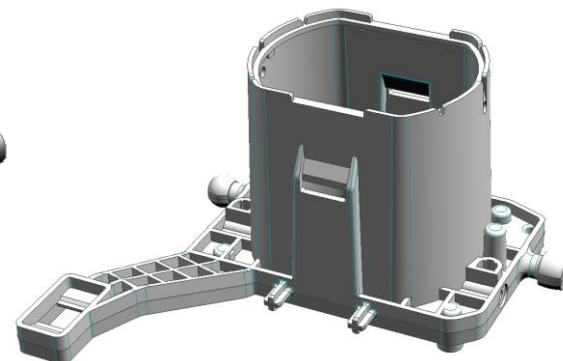
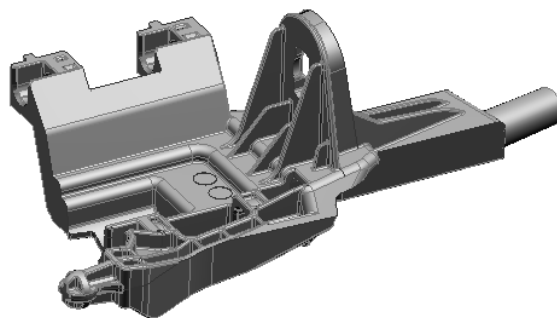
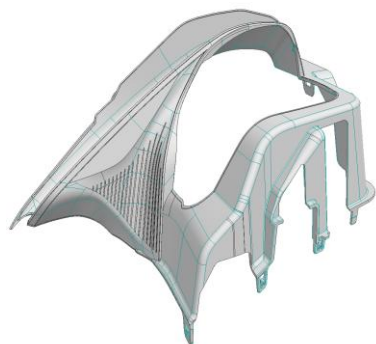
Maximal weight of the molds and tools: 5 000 kg.

Maximal dimensions of the molds and tools: 1 650 x 810 x 810 mm.



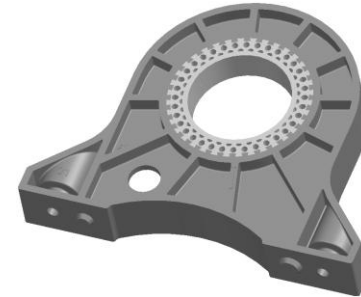
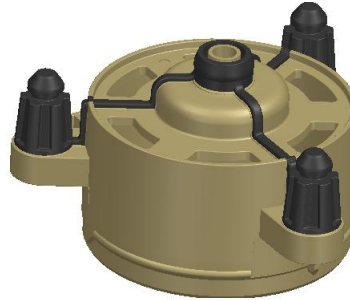
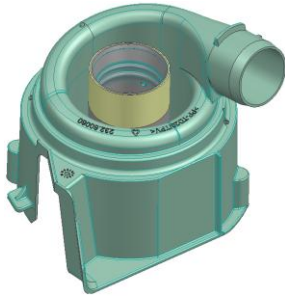
Toolmaking center

Products for automotive – 1K molds

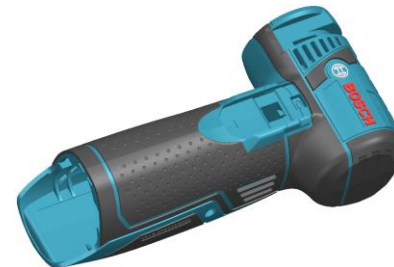


Toolmaking center

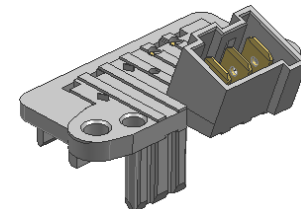
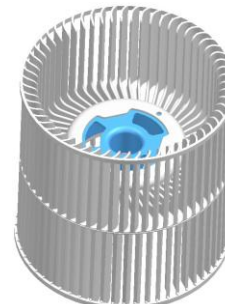
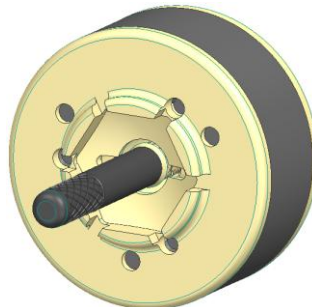
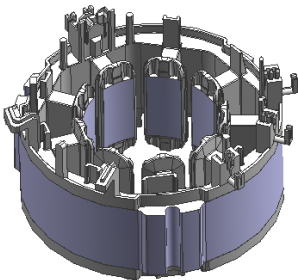
Products from 2K molds



Products from 3K molds



Products from molds for overmolding/insert molding



Toolmaking center

Manufacturing activities of the centre are realized by classical and modern CNC technologies (machining centres, electro erosion boring and wire cutting machines etc.).

CNC machining centres



MCFV ZPS TAJMAC



DMG DMC 103 V



HERMLE C 40 U (5-axis)



MIKRON MILL S500

CNC electro erosion wire cutting and boring machines



FANUC Robocut C600iA



Charmilles FORM 300



Charmilles FORM 35 P



Charmilles ROBOFORM 400



Charmilles ROBOFIL 4000

Injection molding center

Injection molding center makes up 25% of the company's turnover.

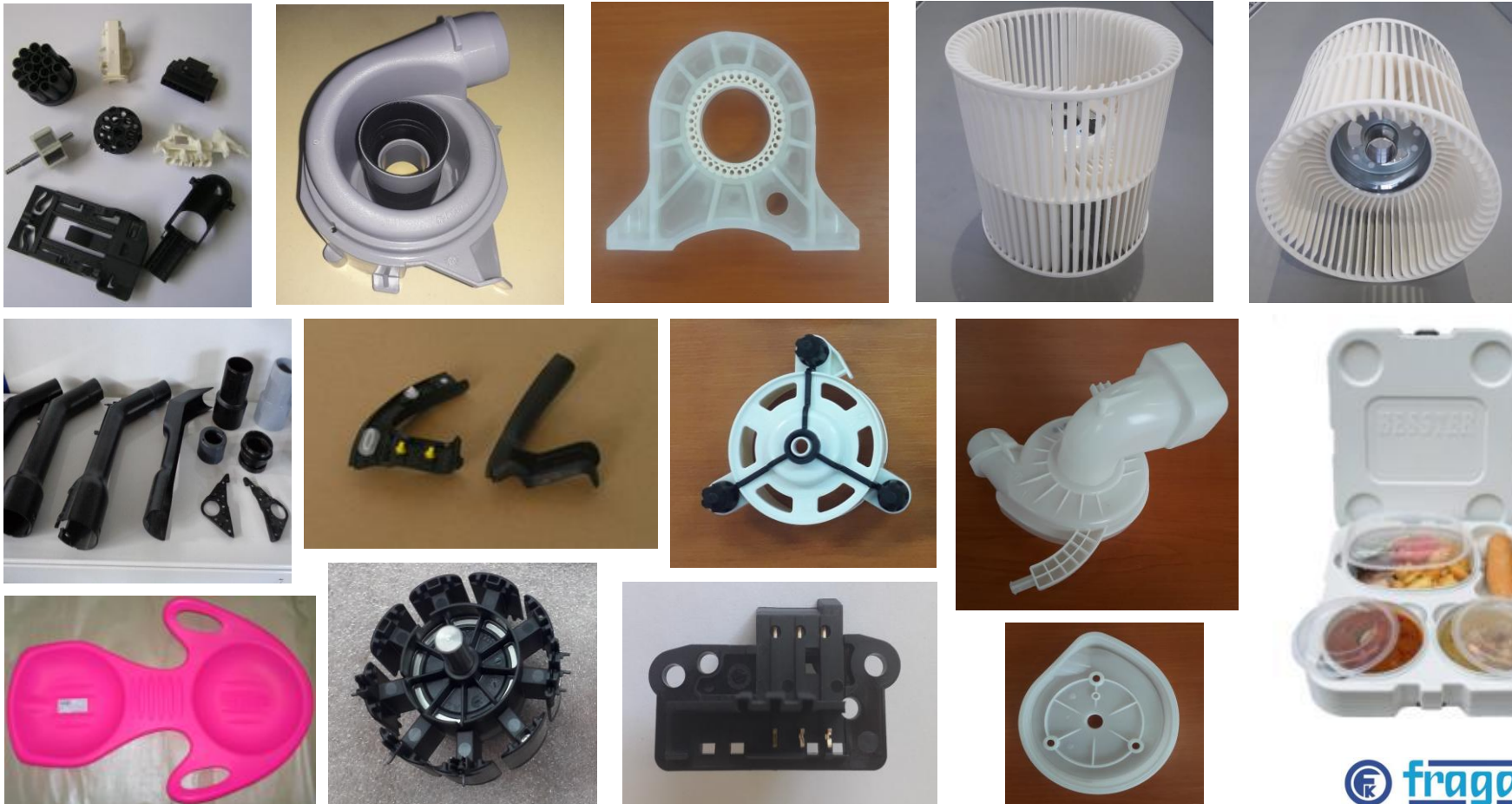


Injection molding center

The main activity is the production of plastic parts according to the requirements of customers from various branches of industry: automotive, electrotechnical, household, etc. Currently we have 14 injection molding machines.

Maximum weight of plastic parts: 2.1 kg.

Materials used: ABS, PA, PBT, PC, PE, PP, PS, SAN, TPE ...



Injection molding center

Manufacturing activities are realized by fully electric, hydraulic and hybrid injection molding machines. Maximal clamping forces: 63 – 670 tons.



ZHAFIR VENUS 2300



ZHAFIR ZERES 2300



BATTENFELD 670



**3x 2-komponentný
vstrekoliš**

**WITTMANN
BATTENFELD**

SmartPower 350



MET 100 a 180 MITSUBISHI



Wittman Battenfeld ecopower 90 a 110



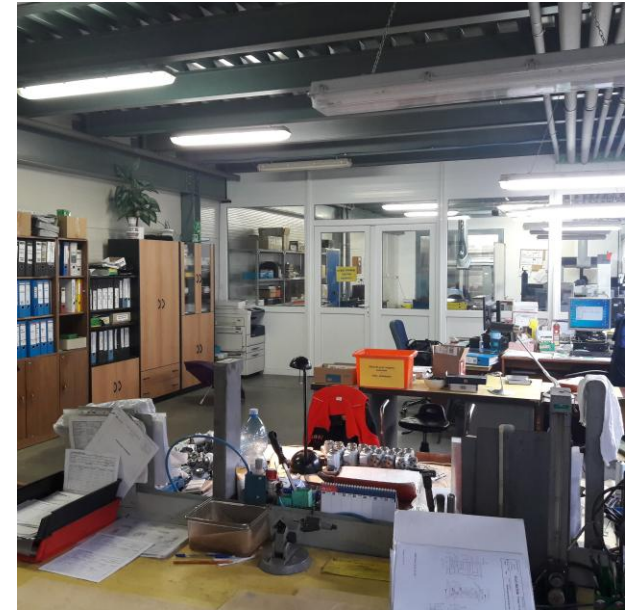
Quality department

Quality department controls the highest quality of our products. Part of this department is also measuring department. Company uses circa 2 500 different gauges with different precisions:

- Calipers, micrometers, parameters, depth gauges, height gauges, two and three-points micrometers, gauges, bevel protractors and set squares, hardness testing machines RB1, surface roughness tester etc.

Then for high levels of precision:

- CMM DEA Global Status 07.07.07
- CMM Global S Hexagon
- 3D measuring machine Mitutoyo 198-501
- Contour measuring station MarSurf XC20, MAHR
- Optical measuring device KEYENCE



Markets

56% of the production goes for export

Hydraulics center

Annual production: more than 470 000 pcs of products

References:

Faiveley Transport a Wabtec company (France, Italy, Czech Republic, Macedonia)

Toyota Material Handling Sweden

Zetor Tractors

Edwards Vacuum



Injection molding center

Annual production: more than 11,4 mil. pcs of products

References:

BSH Drives and Pumps

SaarGummi (Slovakia, Czech Republic)

Plastiflex

Gutmann

Toolmaking center

Annual production: 25 – 30 pcs of molds/tools

References:

BSH Drives and Pumps

SaarGummi (Germany, Nemecko, Slovakia, Czech Republic)

Ehlebracht

Uniplast

Gutmann

Quality systems



1998 – Start of the QMS building-up by STN EN ISO 9000

1999 – Certificate ISO 9001:94

2000 – Certificate VDA 6.1

2003 - Certificate ISO 9001:2000 and VDA 6.1

2010 – Certificate ISO 9001:2008 and VDA 6.1

2015 – Certification ISO 14001:2004

2017 – Certification ISO 9001_2015 and VDA 6.1

2018 – Certification ISO 14001:2015

Regularly performed customer's audits

Fragokov – export, v. d. in numbers

- Average number in 2024:

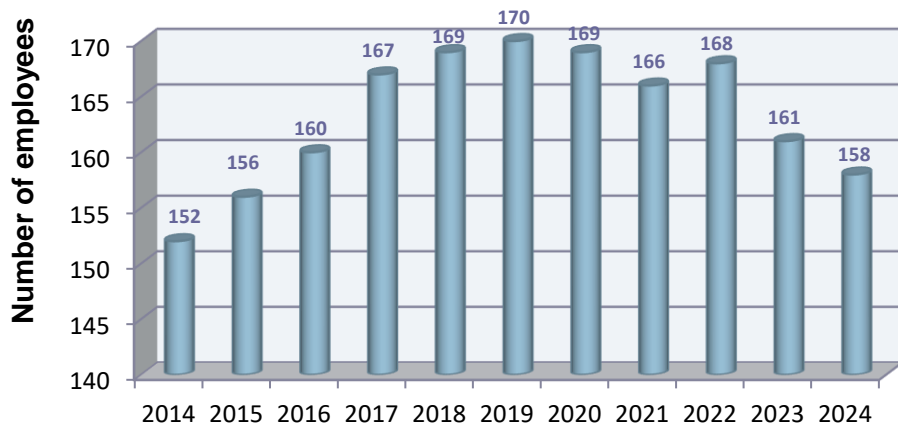
158 employees



Investments 2014 - 2024 in thousands €



Number of employees 2014 - 2024



Revenue 2014 - 2024 in mil. €

