

Automotive Supplier ranking 2023

Glossary



Word	Definition
CAGR	Compound annual growth rate
CPV	Content per vehicle
EBIT	Earnings before interest and taxes
EV	Electric vehicle
KPI	Key performance indicator
ROCE	Return on capital employed
YoY	Year-on-year

Our Ranking 2023 is based on 2022 financial information

Methodology

Ranking and clusters

- Source = Capital IQ, including 1,000+ companies belonging to OES category (registered as automotive supplier)
- Ranking by estimated 2022¹⁾ Auto sales to select top 100 players, and clusterization in 4 groups:
 - EUR +25 bn
 - EUR 25-8 bn
 - EUR 8-4 bn
 - Less than EUR 4 bn
- Each company gets a grade and is re-ranked within its cluster according to this grade – even scores are ordered with the ROCE value

Grading on 3 criteria from 0 to 10, evenly weighted

• Auto and non auto Sales CAGR 2017 - 2022

Grade	0	1	2	3	4	5	6	7	8	9	10
Min value	negative	0%	2%	4%	6%	8%	10%	12%	14%	16%	20%

• Auto and non auto ROCE 2022

Grade	0	1	2	3	4	5	6	7	8	9	10
Min value	negative	3%	5,4%	7,8%	10,2%	12,6%	15%	18%	22%	26%	30%

• Auto and non auto EBIT margin 2022

Grade	0	1	2	3	4	5	6	7	8	9	10
Min value	negative	0%	2%	4%	6%	8%	10%	14%	18%	22%	26%

1) 2021 figures used when no available data for 2022, this concerns a very small number of players



Main findings

Top-100 OEMs is rather scattered with a Cluster 1 of 10 players accounting for ~40% of ranking total sales – Japanese players are the most represented

View by cluster

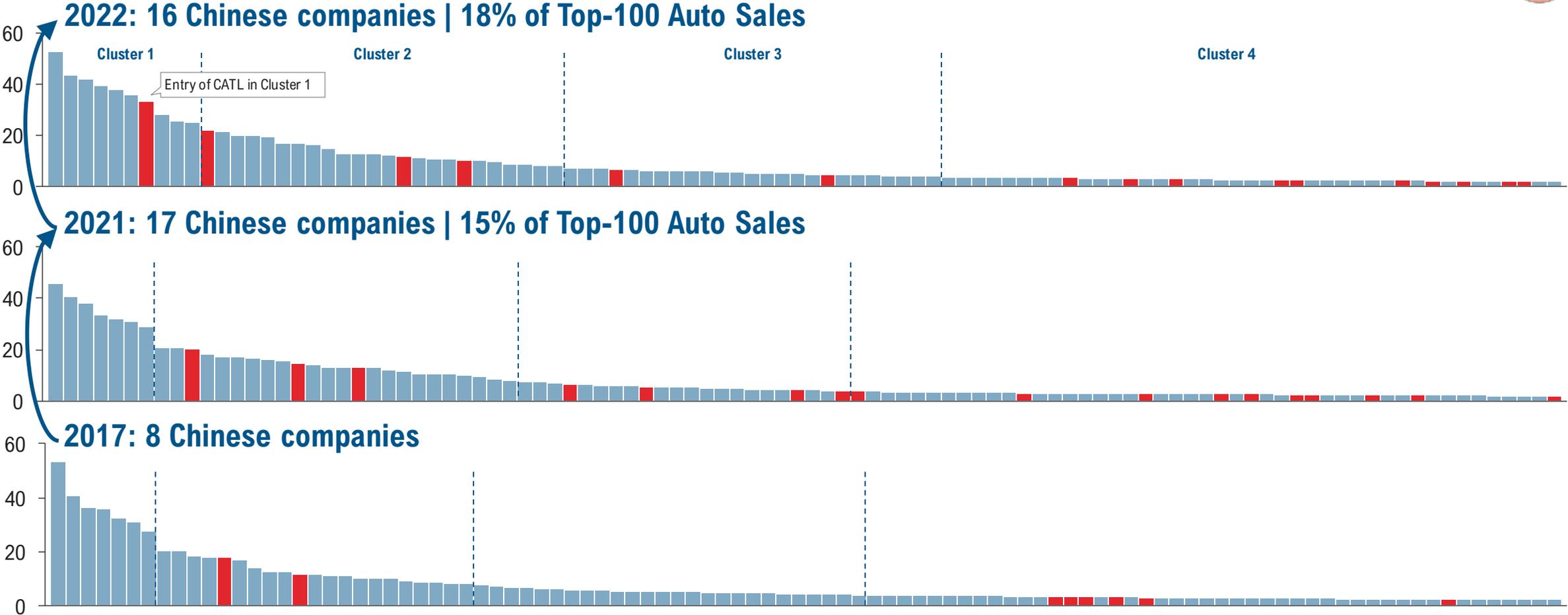
Rank	Cluster	Company	Final Grade	Auto Sales [EUR bn; 2022]	% of Top 100 Sales	Total Sales CAGR 17-22	Grade CAGR	EBIT Margin [% sales; 2022]	Grade Margin	ROCE [2022]	Grade ROCE
1	Cluster 1	10 companies	8	365.1	38%	4.6%	3	5.7%	3	6.9%	2
2	Cluster 2	24 companies	8	328.6	34%	5.4%	3	5.9%	3	7.3%	2
3	Cluster 3	25 companies	8	142.3	15%	4.1%	3	4.3%	3	6.3%	2
4	Cluster 4	41 companies	9	122.1	13%	3.7%	2	6.1%	4	8.3%	3
Total		100 companies	8	958.0	100%	4.7%	3	5.0%	3	7.2%	2

View by players' origin geography

Rank	Company's origin region	Company	Final Grade	Auto Sales [EUR bn; 2022]	% of Top 100 Sales	Total Sales CAGR 17-22	Grade CAGR	EBIT Margin [% sales; 2022]	Grade Margin	ROCE [2022]	Grade ROCE
1	JAPAN	24 companies	6	220.7	23%	1.6%	1	5.6%	3	6.1%	2
2	EUROPE	23 companies	7	312.7	33%	2.7%	2	4.5%	3	6.8%	2
3	US	16 companies	11	153.7	16%	6.5%	4	6.1%	4	9.7%	3
4	CHINA	16 companies	14	117.9	12%	16.8%	9	5.2%	3	7.0%	2
5	SOUTH KOREA	13 companies	9	87.9	9%	6.9%	4	4.1%	3	5.7%	2
6	NAFTA	4 companies	8	48.1	5%	2.7%	2	4.8%	3	9.4%	3
7	REST OF ASIA	3 companies	6	8.3	1%	1.7%	1	4.2%	3	6.8%	2
8	INDIA	1 company	8	8.7	1%	8.7%	5	2.4%	2	5.1%	1
9	RUSSIA	0 companies	n.a.	n.a.	0%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
10	ROW	0 companies	n.a.	n.a.	0%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total		100 companies	8	958.0	100%	4.7%	3	5.0%	3	7.2%	2

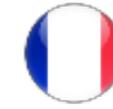
Since 2017, there has been strong growth in the number of Chinese OEMs, which have considerably grown between 2021 and 2022

Top-100 supplier distribution per Auto Sales [EUR bn]



Chinese companies

What did the French players do in 2022?



French companies' takeaways



In 2022, Faurecia/Forvia experienced a remarkable 63% increase in revenue, reaching **EUR 25.5 bn**, primarily driven by the acquisition of Hella. Organic revenue also saw substantial growth, rising by 17%. This impressive performance was attributed to a **robust backlog of net new business**, outperforming global light vehicle production by approximately 10 points. Faurecia/Forvia also reported progress in integrating Hella, leading to a **raised forecast for synergies related to the acquisition** and announced it was on the right track to achieve the entire Forvia non-strategic asset disposal program for EUR 1 bn euro by the end of 2023.



Michelin experienced significant year-on-year (YoY) revenue growth of 20% in 2022, resulting from a price effect on its Automotive segment (accounting for 49.5% of the company's total revenue), with a **proactive pricing strategy** implemented across all regions, resulting in substantial market share gains. In the road transportation segment (26% of Michelin's 2022 revenue), the increase was attributed to **higher sales volumes**, along with the expansion of services and solutions into new geographical areas. Michelin's focus includes **developing new tire ranges, especially sustainable and EV tires**, digitalization, and data analytics in mobility (Michelin Connected Fleets), with a focus on driving behavior analysis. Furthermore, they have integrated an **environmentally friendly rubber producer**, Royal Lestari Utama, into their operations.



Plastic Omnium made a **significant leap from cluster 3 to cluster 2 in the RB ranking**, securing the 21st position in 2023. This remarkable ascent was primarily attributed to Plastic Omnium surpassing the **EUR 8 bn sales threshold**, with no notable improvements in KPIs between the two years. PO shows a +18% YoY sales growth and by expanding its product portfolio through innovation and acquisition, Plastic Omnium has increased its content per vehicle, leading to profitable growth in EV mobility. The company **is heavily focused on advancing hydrogen technology and electric vehicles** and has made **substantial acquisitions to diversify its growth** (Varroc's automotive lighting systems business, HBPO, JV with HELLA, to develop new modules in response to the electrification trend). Additionally, the **launch of "New Energies," Plastic Omnium's hydrogen division**, strengthens their presence in the rapidly growing market of high-pressure vessels, fuel cells, and integrated hydrogen systems



In 2022, despite challenges like high inflation and component shortages, Valeo **achieved its financial goals accelerating efforts in electrification and driver assistance systems**. They exceeded **EUR 20 bn in revenue, up 16% YoY**, outperforming the auto market by 3%. Notably, with the **integration of Valeo Siemens eAutomotive** into Valeo starting in July, the **high-voltage activity within Propulsion Systems division grew by 32%**, with losses in this area reduced by half compared to 2021. They secured EUR 32.6 bn in orders, driven by electrification and ADAS. Valeo's successful Move Up plan resulted in a EUR 388 m free cash flow, aiding debt reduction. Their commitment to ESG was underscored by progress on carbon neutrality.

- 4 French suppliers in the Top-100 based on 2022 figures – the same as in the last edition
- Both Forvia and PO **managed to increase in the ranking**, while the others dropped slightly:
 - Merger of Hella and Faurecia made Forvia jump to Cluster 1, reaching 5th position
 - PO entered Cluster 2, reaching 23rd position
 - Respectively -1 and -4 positions for Michelin and Valeo
- Despite external challenges, they all **experienced significant revenue growth** in 2022
- All four players are **focusing on the EV market and sustainability**
 - Michelin is developing sustainable and EV tires
 - PO is heavily invested in hydrogen technology and EVs
 - Valeo is accelerating efforts in electrification



Cluster analysis

Cluster 1 Ranking

Rank 2023	Company	Origin country	Final Grade	Auto Sales [EUR bn; 2022]	Total Sales CAGR 17-22	Grade CAGR	EBIT Margin [% sales; 2022]	Grade Margin	ROCE [2022]	Grade ROCE	Cluster 2022	Rank 2022	Rank 2023 vs 2022	Grade 2022	Grade 2023 vs 2022
1	Contemporary Amperex Technology	China	18	33.4	79.2%	10	8.7%	5	9.8%	4	2	New in cluster	n.a.	20	-1
2	Bridgestone Corporation	Japan	11	25.5	0.7%	1	10.3%	6	11.2%	4	2	New in cluster	n.a.	10	+1
3	Magna International	Canada	8	36.0	2.1%	2	4.4%	3	10.1%	3	1	1	-2	7	+1
4	DENSO Corporation	Japan	8	42.3	2.1%	2	6.4%	4	6.4%	2	1	4	=	5	+3
5	Forvia SE	France	8	25.5	8.5%	5	3.5%	2	5.1%	1	2	New in cluster	n.a.	5	+3
6	Hyundai Mobis	South Korea	7	38.2	6.8%	4	3.9%	2	4.6%	1	1	2	↓ -4	5	+2
7	Aisin Corporation	Japan	6	28.4	0.2%	1	5.6%	3	6.9%	2	1	3	↓ -4	5	+1
8	Robert Bosch GmbH	Germany	6	52.6	2.5%	2	4.0%	3	5.0%	1	1	6	-2	4	+2
9	ZF Friedrichshafen AG	Germany	5	43.8	3.7%	2	2.5%	2	4.4%	1	1	5	↓ -4	4	+1
10	Continental Aktiengesellschaft	Germany	2	39.4	-2.2%	0	1.9%	1	3.6%	3	1	7	-3	1	+3
Total	10 companies		8	365.1	4.6%	3	5.7%	3	6.9%	2					

Cluster 1 – takeaways

- Cluster 1 = 10 biggest companies, representing **38% of total sample Auto sales (vs 19% in last edition)** – average RB grade is 8 (vs 4 in last edition) and including 5 Asian (1 Chinese, 3 Japanese, and 1 South Korean), 4 West-European (1 French and 3 German) and 1 North-American (Canadian) companies
- Compared to the last edition, **3 additional players** saw their revenues exceed EUR 25 bn in 2022, which transferred them into the cluster 1: CATL, Bridgestone and Forvia
- Post-COVID situation leave the Automotive sector with a crisis of semiconductor that lasts
- Overall sales increase mainly due to **customer price increase** (more or less reflecting the increase in raw materials and semi-finished products price) & **automotive industry production increase**
- **Nr 1 CATL** largely dominates the ranking of the cluster 1 (7 points more than the 2nd in the ranking), after dominating the cluster 2 in the last edition. Although it's not the biggest player in terms of revenues, it shows a tremendous growth dynamic (79.2% revenue CAGR between 2017 and 2022), as well as having the best ROCE (12.4%) of the cluster 1. The company had its revenues tripled in 2022 vs. 2021, capitalizing on the boom of electric vehicles by supplying 37% of the world's automotive battery cells.
- 2 additional players also integrated the cluster 1 of this edition: Bridgestone was relatively close from integrating the cluster one in the last edition (with EUR 20.8 bn of auto revenues). It benefited from a 18% YoY auto revenues increase to integrate the cluster 1. Forvia is the result of the merger between Faurecia (cluster 2 in last edition with EUR 15.6 bn auto revenues) and Hella (cluster 3 in last edition with EUR 6.4 bn auto revenues).
- **The cluster one performed largely better compared to the other clusters vs. the last edition**
 - **Average sales growth over 2017-2022** is the **2nd highest** from all 4 clusters (4.6% in average for cluster 1, vs respectively 5.5%, 4.1% and 3.7% for clusters 2, 3 and 4) – large companies have returned to growth levels close to their smaller competitors (cluster 1 had a 0.7% average growth and was last of all clusters in the last edition)
 - **Average cluster EBIT margin is 5.7%** – **2nd highest** profitability behind cluster 4 (lowest in the last edition)
 - **Average cluster ROCE is 6.9%** (**2nd lowest** of all clusters, but increased since last edition, where it was lowest)

New businesses covered by the cluster 1

	Mobility	Autonomous Driving	Digital	Electrification
CATL				✓ Battery cells
Bridgestone	✓ Fleet management			
Magna International Inc.		✓ Sensors, Vision & electronics		✓ vehicle engineering & tooling
DENSO Corporation	✓ R&D			✓ Powertrain
Forvia		✓ Sensors & Auto-parking	✓ IVI, telematics units & display	✓ Hydrogen, battery housing, fuel cell systems
Hyundai Mobis Co.,Ltd	✓ Softwares	✓ Passive safety	✓ components	
Aisin Corporation		✓ Softwares	✓ Information, Life & Amenity	✓ Drivetrain
Robert Bosch GmbH		✓ Sensors, Vision & electronics		✓ Powertrain
ZF Friedrichshafen AG	✓ Safety systems		✓ Onboard equipments	✓ Driveline
Continental Aktiengesellschaft	✓ hardware and soft platform	✓ Chassis & Safety V2X	✓ ContiTech	

Cluster 1 – company focus

Company / Δ Rank

Market Details

M&A and partnerships [Non-exhaustive]

#1 Contemporary Amperex Technology

NEW



Power batteries, battery cells, modules, battery management systems

- Rank: 8 (2022) => 1 (2023) **New entrance in cluster 1 from 2**
- **Very high 5-year sales CAGR** (79.2%, well above cluster 1 average of 4.4%), **including a 152% YoY growth**. Pushed by global market growth of 63% for EVs (inc. 121% in China due to government incentives to purchase EVs). CATL now command 37% share of world's market for EV cells
- **High-standing customer portfolio**, including Tesla (12% of CATL revenue), Mercedes-Benz, BMW, Volkswagen, Hyundai, Ford...
- **Above cluster 1 average EBIT margin** (8.7%) and **third highest ROCE** of cluster 1 (9.8%)

- **Acquisition** announced of 11% of JiangSu Lithitech Co (polyethylene fiber manufacturer)
- **Licensing deal** between Ford and CATL involving a USD 3.5 b battery cell plant in Michigan – due to public opinion and regulator investigations related difficulties
- **Partnership** with Arun Plus for cell-to-pack batteries

#2 Bridgestone

NEW



Tires

- Rank: 16 (2022) => 2 (2023) **New entrance in cluster 1 from 2**
- **5-year sales CAGR under cluster 1 average** (0.7%, improvement from 16-21 CAGR of -1.7%), with a **high 18% YoY auto sales growth**. Attributable to postponement of increase in prices after the increase in costs of raw materials, decline in yen, and improvement of automotive production in S2 of 2022
- **Strong ROCE** of 11.2% highest ROCE of cluster 1
- **Strong EBIT margin** of 10.3%, higher than cluster 1 average, slight decrease since 2021

- **Acquisition** ongoing of the ADAS business from Veoneer for USD 1.5 b, showing the will to embrace the upcoming shift of the industry
- **Joint venture** announced with Huatite to deliver seating systems in China, showing the will to capitalize on the fast-growing Chinese market where Magna has low presence

#3 Magna International

-2



Body & Chassis, Exteriors, Powertrain, Vision & electronics, Closures, Seating, Vehicle Engineering & Tooling

- Rank: 1 (2022) => 3 (2023)
- **Low 5-year sales CAGR** (2%), and 4% YoY growth between 2021 and 2022, due to the launch of new programs and customer prices increases. Was affected by economic situation in 2022 (inflation, Russian business reduction, component shortages)
- **Step back in the ranking** mainly due to **EBIT margin reduction** (4.4% vs 5.2% in 2021) due to higher production costs and idling of Russian facilities
- **Second highest ROCE in cluster 1** (10.1%), well above average

Cluster 1 – company focus

Company / Δ Rank

Market Details

M&A and partnerships [Non-exhaustive]

#4 Denso

Thermal, Powertrain, Electrification, Mobility, Electronic, Other

0



- Rank: 4 (2022) => 4 (2023)
- Remarkable impact of COVID-19, leading to a **low 2% 5-year sales CAGR**. However, **important YoY growth** (12%), driven by a 18.5% growth in electrification systems (20.6% of total revenues).
- Strategic orientation towards **electrification and ADAS**, and willingness to diversify into semi-conductors and non-automotive segments (factory and agriculture equipment)
- Good performance in terms of profitability (**EBIT margin** of 6.4%, surpassing pre-COVID levels, vs 3% in 2021)
- **Above average ROCE** of 6.4%

- **Acquisition** of a minority stake in Japan Advanced Semiconductor Manufacturing Inc
- **Partnership** with Blue Nexus Corporation and Aisin to develop a new 1-motor hybrid transmission
- **Partnership** with NTT Communications Corporation to develop a Security Operation Center of Vehicles to respond to the threat of increasingly sophisticated cyber-attacks against vehicles
- **Partnership** with Honeywell International to co-develop an e-motor for the Lilium Jet

#5 Forvia

Seats, interior systems, exhausts, hydrogen tank, battery packs, cockpit electronics, ADAS

NEW



- Rank: 27 (2022) => 5 (2023)
- Strong 5-year sales CAGR of 8.5% (among best performances in cluster 1) – improvement since 2021 mainly due to HELLA acquisition, with a 63% YoY increase compared to 2021 (organic revenue growth of 17%)
- 2017-22 sales CAGR would still be negative for Faurecia on a like-for-like basis: -1.6%
- **Negative impact on EBIT margin**, slightly below cluster average (3.5%) – margin degradation compared to 2021 (-1.1 pp)
- **Neutral impact on ROCE**, at par with cluster average (5.1%) – degradation compared to 2021 (6.7%), but neutralized by cluster change

- **Acquisition** of HELLA GmbH (electronic and lightning components), allowing to combine the complementary product offerings and strengths of both companies
- **Partnership** with Mercedes to integrate its apps platforms into Mercedes' multimedia platform
- **Partnership** with BMW to integrate its apps platform into BMW's multimedia platform

#6 Hyundai Mobis

Chassis, interior, safety, lights, steering, exterior, etc

-4



- Rank: 2 (2022) => 6 (2023)
- **5-year sales CAGR slightly above cluster 1 average** (6.8%), with a **high YoY growth in 2021-2022** (24.4%), mostly due to the growth in the electrification business (59% YoY increase, 23% of auto parts sales in 2022)
- **Decrease in EBIT margin** (3.9% vs 4.9% in 2021), explaining the fall in the ranking
- **Under average ROCE** (4.6%)

Cluster 1 – company focus

Company / Δ Rank

Market Details

M&A and partnerships [Non-exhaustive]

#7 Aisin

Drivetrain, Engine, Brake & Chassis, Body, Information, Life & Amenity, Others

-4



- Rank: 3 (2022) => 7 (2023)
- **Small 5-year sales CAGR**, below cluster 1 average (0.2%). YoY growth of 11.1% in 2021-22, almost recovering to pre-COVID levels. Growth mostly driven by powertrain and chassis & vehicle sector. **Highly dependent** on Toyota, which represents 62.3% of 2022 sales
- **In line with average EBIT margin** (5.6% vs 3.8% in 2021) despite semiconductor shortage, thanks to cost structure improvements and structural reforms
- **At par with average ROCE** (56.9%)

- **Partnership** with Blue Nexus Corporation and Denso to develop a new 1-motor hybrid transmission
- **Partnership** with Blue Nexus Corporation and Denso to jointly develop the eAxle for Toyota's new battery electric vehicle, bZ4X

#8 Robert Bosch

Connected mobility, automated mobility, and powertrain and electrified mobility + parts

-2



- Rank: 6 (2022) => 8 (2023)
- **Highest auto sales** in 2022 of cluster 1.
- Impact of COVID-19 led to a **low 5-year sales CAGR** (2.5%, below cluster 1 average). However, **high YoY sales increase** in 21-22 (16%), due to a new pricing strategy
- **EBIT margin at par with cluster 1 average** (4.0%, increase from 3.6% in 2021) – Suffered from increase in prices of raw materials and energy, shortage of chips, and phasing-out of Russian business. **ROCE at par with cluster average** (5.0%)

- **Partnership** with Cariad (Volkswagen's software subsidiary) to accelerate the deployment of automated driving functions
- **Joint venture** with Volkswagen (equipment of battery cell factories to make Europe self-sufficient in battery production)
- **Acquisition** of Atlatec, provider of high-res maps for ADAS
- **Acquisition** of Five, Europe's leading startup in automated driving
- **Acquisition** of HydraForce, to develop Bosch's hydraulics business

#9 ZF Friedrichshafen

Driveline, chassis, steering, braking, electronics and occupant safety systems

-4



- Rank: 5 (2022) => 9 (2023)
- **Slower than average 5-year sales CAGR** (3.7%, below cluster 1 average), even though it improved since 2021 (+0.7 pp), due to the successful development of the aftermarket and electric drives business divisions
- **Decreasing EBIT margin** (2.3% vs 3.0% in 2021, below cluster 1 average)
- **Decreasing ROCE** (4.0% vs 4.4% in 2021, below cluster 1 average)

- **Acquisition** of Intellig Germany GmbH, the aim being to add Intellig's tachograph technology to ZF's digital fleet management capacities
- **Acquisition** of the remaining stakes in ZF Sachs Micromobility (building components for electric bikes)
- **Acquisition** of Wabco (air brakes manufacturer), debt-financed for USD 7 b, temporarily unsettling investors

#10 Continental

Chassis & Safety, Powertrain, Interior, Tires, ContiTech, Other/Consolidation

-3



- Rank: 7 (2022) => 10 (2023)
- **Only negative 5-year sales CAGR of cluster 1** (-2.2%), due to the spin-off of Vitesco completed in 2021. 16.7% YoY revenue growth in 2022
- **Lowest EBIT margin in cluster 1** (1.9%); -59.1% YoY decrease in EBIT, -3.6 pp decrease in EBIT margin, mostly due to semiconductor shortages
- **Above average ROCE** (8.5%)

- **Acquisition** of Backes Transportbandservice AB, a conveyor belt and maintenance company
- **Acquisition** of Norrvulk AB, a conveyor belts systems and services provider
- **Acquisition** of WCCO Belting, a belting manufacturer
- **Acquisition** of Vulk & Montage, a conveyor and maintenance company

Cluster 2 ranking

Rank 2023	Company	Origin country	Final Grade	Auto Sales [EUR bn; 2022]	Total Sales CAGR 17-22	Grade CAGR	EBIT Margin [% sales; 2022]	Grade Margin	ROCE [2022]	Grade ROCE	Cluster 2022	Rank 2022	Rank 2023 vs 2022	Grade 2022	Grade 2023 vs 2022
11	Cummins	United States	17	13.1	8.1%	5	10.7%	6	16.2%	6	2	11	=	13	+4
12	Tianneng Power International	China	16	10.5	24.5%	10	2.7%	2	10.8%	4	2	12	=	13	+3
13	BorgWarner	United States	15	15.0	11.6%	6	9.6%	5	12.1%	4	2	10	-3	14	+1
14	Michelin	France	14	21.7	5.4%	3	11.8%	6	12.8%	5	2	13	-1	12	+2
15	Toyota Industries Corporation	Japan	12	16.3	10.1%	6	9.1%	5	3.6%	1	2	18	+3	10	+2
16	Autoliv	Sweden	11	8.4	3.1%	2	6.5%	4	14.3%	5	New in cluster	34	↑ +18	10	+1
17	Aptiv	United States	11	16.6	7.8%	4	7.8%	4	8.2%	3	2	17	=	10	+1
18	Tenneco	United States	11	17.2	15.9%	8	2.0%	1	7.3%	2	2	14	-4	12	-1
19	Schaeffler	Germany	10	11.5	2.4%	2	6.6%	4	10.6%	4	2	15	-4	10	=
20	Gestamp Automocion	Spain	9	10.8	5.3%	3	4.9%	3	8.8%	3	2	24	↑ +4	6	+3
21	The Goodyear Tire & Rubber Company	United States	9	17.0	7.7%	4	4.4%	3	6.0%	2	2	21	=	7	+2
22	Yazaki Corporation	Japan	9	12.2	16.1%	9	0.0%	0	-0.1%	0	2	22	=	7	+2
23	Compagnie Plastic Omnium	France	8	8.5	5.8%	3	3.3%	2	8.0%	3	New in cluster	42	↑ +19	7	+1
24	Samvardhana Motherson International	India	8	8.7	8.7%	5	2.4%	2	5.1%	1	New in cluster	38	↑ +14	9	-1
25	Dana Incorporated	United States	8	9.7	8.6%	5	2.4%	2	5.1%	1	2	19	↓ -6	9	-1
26	Toyota Boshoku Corporation	Japan	7	10.9	-1.0%	0	4.3%	3	10.4%	4	2	20	↓ -6	7	=
27	HUAYU Automotive Systems Company	China	7	22.4	4.0%	2	3.4%	2	8.5%	3	2	26	-1	6	+1
28	Lear Corporation	United States	6	19.9	1.8%	1	3.9%	2	9.8%	3	2	23	-5	6	=
29	Valeo	France	4	20.0	1.6%	1	3.0%	2	5.2%	1	2	25	-4	6	-2
30	Sumitomo Electric Industries	Japan	4	13.2	1.7%	1	3.6%	2	5.0%	1	2	29	-1	4	=
31	Vitesco Technologies	Germany	4	9.1	3.4%	2	2.0%	1	4.1%	1	New in ranking	n.a.	n.a.	n.a.	n.a.
32	Weichai Holding Group	China	4	12.1	4.6%	3	1.9%	1	1.8%	0	2	9	↓ -23	16	-12
33	Adient	United States	2	13.1	-2.3%	0	1.5%	1	3.4%	1	2	28	-5	4	-2
34	MAHLE	Germany	1	10.5	-0.6%	0	0.2%	1	0.6%	0	2	30	-4	2	-1
Total	24 companies		8	328.6	5.4%	3	5.9%	3	7.3%	2					

Cluster 2 – takeaways

- **Cluster 2 = 24 companies** (same as last edition), with auto sales between 8 and 25 billion euros, that represent **34% of total sample Auto sales** (31% in last edition), **2nd highest** – average RB grade is 8 (vs 8.5 in last edition)
- Most of the companies in cluster 2 were already present in the previous edition, they have been able to maintain their performances to limit the impact of the semiconductor crisis on their results (CAGR sales, EBIT Margin and ROCE are positive in most cases)
- In last edition CATL, Bridgestone and Faurecia were in cluster 2 – They are now new in cluster 1 (Faurecia now as Forvia)
- In last edition, CATL, Cummins Tianneng were new in cluster 2 – CATL is now leading the cluster 1, while Cummins and Tianneng are respectively 1st and 2nd of the cluster 2
- **Entry of 4 companies** in the cluster:
 - Autoliv, Plastic Omnium and Motherson – members of the cluster 3 in the last edition – saw their revenues exceed EUR 8 bn, which led them to integrate the cluster 2
 - Vitesco – spin-off powertrain division of Continental – is new in the ranking, joining directly the cluster 2
- **Nr 1 Cummins**, was 4th of the cluster, benefited from the transfer of CATL in the cluster one and the major drop of Welchai to gain 2 places, and gained one more over BorgWarner. Cummins showed exceptional performance with the best results of the cluster : CAGR Sales 8.1% (above cluster average), EBIT Margin 10.7% (2nd best) and ROCE 16% (best)
- **Diversified countries:** 8 American, 4 French, 4 Japanese, 3 Chinese, 2 German, 1 Spanish, 1 Indian & 1 Swedish companies
- **The cluster 2 overall maintain a strong performance level compared to the other clusters:**
 - Average **sales growth over 2017-2022** is the highest of all 4 clusters (5.4% in average (vs 4.7% in last edition, 2nd highest), vs respectively 4.6%, 4.1% and 3.7% for clusters 1, 3 and 4
 - **Second biggest EBIT margin** of 5.9% (vs. 6% in last edition, second highest)
 - **Second highest ROCE** average of 7.3% (vs. 8.2% in last edition, second highest)

Cluster 2 – company focus

TOP 5

Company / Δ Rank	Market Details	M&A and partnerships [Non-exhaustive]
#11 Cummins Diesel and natural gas engines, related products such as filters and turbochargers 	 <ul style="list-style-type: none"> Rank: 11 (2022) => 11 (2023) 5-year sales CAGR of 8.1%, above cluster 2 average, with a solid YoY growth of +17% between 2021 to 2022, mostly attributable to the acquisition of Meritor Highest ROCE of cluster 2 (16.2%), and 2nd highest EBIT margin (10.7%) 	<ul style="list-style-type: none"> Acquisition of Meritor to accelerate the development of economically viable powertrain solutions Acquisition of a part of Faurecia's emission solutions business in Europe and the US Partnership with Tata motors to collaborate on the development of zero-emission power technologies for vehicles in India
#12 Tianneng Power International Lithium and lead-acid batteries for EV, and wind & solar energy storage batteries 	 <ul style="list-style-type: none"> Rank: 12 (2022) => 12 (2023) Highest 5-year sales CAGR of cluster 2 (24.5%), mostly driven by the sales of their lead-acid batteries, capitalizing on the growth of the EV market in China, though revenues decreased between 2021 and 2022 (-6% YoY) ROCE above cluster 2 average (10.8%), and low EBIT margin (2.7%) 	<ul style="list-style-type: none"> Partnership with Taihu Electric, to sell them 30GWh lead-carbon batteries
#13 BorgWarner Powertrain systems, battery modules and packs, hybrid architecture, etc. 	 <ul style="list-style-type: none"> Rank: 10 (2022) => 13 (2023) 5-year sales CAGR above cluster 2 average (11.6%), YoY growth driven by favorable volume and pricing increases, and acquisitions (most of them related to the electrification business) 3rd highest EBIT margin of cluster 2 (9.6%), and high ROCE (12.1%) 	<ul style="list-style-type: none"> Acquisition of Delphi Technologies in 2020, expanding their EV components offering Acquisition of Santroll Automotive components, a carve-out of Santroll Electric Auto's eMotor business Acquisition of Akasol AG (89% ownership), an EV battery manufacturer
#14 Michelin Tires 	 <ul style="list-style-type: none"> Rank: 13 (2022) => 14 (2023) 5-year sales CAGR at par with cluster 2 average (5.4%), but impressive YoY growth between 2021-2022 of +20%, attributed to a proactive pricing strategy leading to market share gains, and geographic expansion Highest EBIT margin of cluster 2 (11.8%), 2nd highest ROCE (12.8%) 	<ul style="list-style-type: none"> Acquisition of Royal Lestari Umana, an environmentally friendly rubber producer Acquisition of Roadbotics, a road infrastructure analysis provider, to reinforce Michelin's competencies in driving behavior analysis
#15 Toyota Industries Materials handling equip., auto equipment (engine, AC compressor, batteries, electronics) 	 <ul style="list-style-type: none"> Rank: 18 (2022) => 15 (2023) Gained position due (i) to solid double-digit YoY sales growth, driven by increase in engines sales, units' sales of electric AC compressors and material handling equipment due to positive market trends toward EVs and e-commerce popularization; and (ii) improved profitability 5-year sales CAGR (+10.1%) above average, higher EBIT margin vs. 2021 (9.1%) 	

Cluster 2 – company focus

Decline in Ranking

Company / Δ Rank	Market Details	M&A and partnerships [Non-exhaustive]
#18 Tenneco Clean Air Division, Ride Performance Division 	-4 <ul style="list-style-type: none"> Rank: 14 (2022) => 18 (2023) 2nd highest 5-year sales CAGR of cluster 2 (15.9%), mostly driven by 48% jump between 2018 and 2019 due to acquisitions. More moderate growth recently (4.4% revenue growth for 9 months ended 2022 vs 2021) Heavy dependence on Ford & GM (21% of 2021 sales combined) Under cluster 2 average EBIT margin (2.0%) and at par ROCE (7.3%) 	<ul style="list-style-type: none"> Acquisition of Federal Mogul in 2018, specialist of exhaust & shock absorbers, highly responsible for 18-19 sales growth Acquisition of Ohlins Racing in 2018, suspension components manufacturing, highly responsible for 18-19 sales growth
#19 Schaeffler Rolling elements bearings 	-4 <ul style="list-style-type: none"> Rank: 15 (2022) => 19 (2023) Low 5-year sales CAGR (2.4%), but high YoY growth between 2021 and 2022 (14.1%), due to a growing number of awards for customer projects won in the E-mobility business division Average EBIT margin (6.2% vs 8.8% in 2021), above average ROCE (11.1% vs 14.9% in 2021) 	<ul style="list-style-type: none"> Joint Venture with Symbio (a Faurecia, Michelin and Stellantis company), to expand Schaeffler's hydrogen technology activities Acquisition of SPV Solarpark 106, which operates a solar farm in Germany (part of Schaeffler's energy objectives for 2030) Acquisition of former joint venture Schaeffler Paravan (ADAS technology)
#25 Dana Light Vehicle Driveline, Commercial Vehicle Driveline, Off-Highway Drive and Motion, Power 	-6 <ul style="list-style-type: none"> Rank: 19 (2022) => 25 (2023) Strong 5-year sales CAGR (8.6%), with high YoY growth in 21-22 (13.5%). Benefitted from the increase in production of light, medium, and heavy-duty trucks in North America Strong dependence on Ford and Stellantis (30% of total sales) Low EBIT margin (2.4%, vs 3.8% in 2021), below average ROCE (5%) 	<ul style="list-style-type: none"> Acquisition of remaining shares of Pi Innovo Holdings Ltd (design, development and manufacture of ECUs) Acquisition of 35% of Ashwoods Innovations Ltd (already had 62%), that designs and manufactures PSMs
#26 Toyota Boshoku Interior systems, automotive filters, powertrain, other automotive components 	-6 <ul style="list-style-type: none"> Rank: 20 (2022) => 26 (2023) Negative 5-year sales CAGR (-1%, 2nd lowest of cluster 2), but YoY growth in 21-22 (6%). Due to the suspension of operations following the spread of COVID-19 in Japan during 2021 Q1 Low EBIT margin (4.2% vs 4.5% in 2021) caused by a shortage in components and production cutbacks due to COVID-19. High ROCE (10.4%) 	<ul style="list-style-type: none"> Investments in Amora Bit Inc, a Japanese startup engaged in providing compact odor imaging sensors (aim is to make smell a component of future automotive interior design)
#32 Weichai Diesel engines and vehicle powertrains, luxury yacht and automotive parts 	-23 <ul style="list-style-type: none"> Rank: 18 (2022) => 32 (2023) Under average 5-year sales CAGR (5%), due to an important decrease in 21-22 (-20.5%), attributable to an important decrease in demand in light and heavy trucks in China (due to slowdown in economic growth, and high inflations) Decrease in EBIT margin (6.1% vs 2% in 2021), due to the increase in raw materials price and supply chain costs. 3rd lowest ROCE of cluster 2 (2%) 	

Cluster 2 – company focus

	Company / Δ Rank	Market Details	M&A and partnerships [Non-exhaustive]
Rise in Ranking	#19 Gestamp Auto Body products, chassis, mechanisms for doors  +4	<ul style="list-style-type: none"> Rank: 24 (2022) => 19 (2023) Rise in ranking mainly explained by impressive YoY sales growth of +32.5% over 21-22, driven by outperformance of market esp. in South American and Asia regions coupled with favorable exchange rates and relative acquisition of Gescrap 5-year sales CAGR at par with cluster 2 average EBIT margin slightly above cluster average (4.4%) and above average ROCE (8.8%) 	<ul style="list-style-type: none"> Partnership with Edscha subsidiary of Aditya Auto, an automotive supplier Partnership with ArcelorMittal for low emission steel Agreement with Cemig (Brazil) Acquisition of 33% shares of Gescrap, multinational company dedicated to recycling of metals and total waste management for the industry
	#16 Autoliv Safety components (airbags, seatbelts, etc.), steering wheels  NEW	<ul style="list-style-type: none"> Rank: 34 (2022) => 16 (2023) New entrance in cluster 2 from 3 Low 5-year sales CAGR (3.1%), but impressive +21% YoY sales growth between 2021-2022, attributable to market share gains due to new product launches, increase of CPV, and high win rate for EVs projects EBIT margin above cluster 2 average (6.5%), highest ROCE of cluster 2 (14.3%) 	<ul style="list-style-type: none"> Partnership with Geely Auto Group to develop advanced safety technology for future vehicles
NEW	#23 Plastic Omnium Fuel systems, interior trim, exterior modules...  NEW	<ul style="list-style-type: none"> Rank: 42 (2022) => 23 (2023) New entrance in cluster 2 from 3 5-year sales CAGR at par with cluster 2 KPIs (6%), important growth from 2021 to 2022 (+18%), due to a diversification of product portfolio (through acquisitions and innovation) which increased the company's CPV, and the generation of a new profitable growth in EV mobility Slight improvement of EBIT margin (3% vs 2.8% in 2022) and ROCE at par with cluster 2 average 	<ul style="list-style-type: none"> Acquisition of Varroc's automotive lightning systems business Partnership with French CEA (research for decarbon. of future mobility) Partnership with Safran to support devt of their hydrogen powered buses Partnership with Stellantis and HYVIA to supply high-pressure hydrogen vessels for CV
	#24 Motherson Sunroofs, Fuel tanks and Resin products  NEW	<ul style="list-style-type: none"> Rank: 38 (2022) => 24 (2023) New entrance in cluster 2 from 3 Solid YoY sales growth of +23% driven by increase of EVs' share in revenues (6% of total sales vs. 4% last year and 6 acquisitions for net revenues of ~USD 1.1 bn 	<ul style="list-style-type: none"> Acquisition of the chassis frame assembly business from Daimler India Acquisition of Ichikoh Indus. (Japan), leading manuf. of rearview mirrors Acquisition of Saddles International Automotive and Aviation Interiors (SIAAIPL), a manufacturer of premium upholstery for automotive app. Acquisition of Bolta, a manuf. of chrome plated polymer components
	#31 Vitesco Technologies Powertrains  NEW	<ul style="list-style-type: none"> Rank: X (2022) => 31 (2023) New player in the RB rankings Low 5-year sales CAGR (3%), above average YoY growth from 21 to 22 (8.6%), driven y growth in the electronics control and electrification technology business divisions Low EBIT margin (1.6%, improvement from 0.5% in 2021) due to additional expenses in electrification technology products because of the increase in material prices (esp. semiconductors) Below cluster 2 average ROCE (4%) 	

Cluster 3 ranking

Rank 2023	Company	Origin country	Final Grade	Auto Sales [EUR bn; 2022]	Total Sales CAGR 17-22	Grade CAGR	EBIT Margin [% sales; 2022]	Grade Margin	ROCE [2022]	Grade ROCE	Cluster 2022	Rank 2022	Rank 2023 vs 2022	Grade 2022	Grade 2023 vs 2022
35	LCI Industries	United States	23	5.0	21.1%	10	10.6%	6	19.9%	7	New in cluster	58	↑ +23	16	+7
36	Jilin State-Owned	China	21	4.7	35.6%	10	2.0%	1	32.6%	10	3	32	↓ -4	16	+5
37	Yokohama Rubber	Japan	11	4.3	4.1%	3	8.0%	5	8.3%	3	New in cluster	79	↑ +42	9	+2
38	Hyundai Transys	South Korea	11	7.6	19.2%	9	1.5%	1	3.4%	1	3	45	↑ +7	7	+4
39	Linamar Corporation	Canada	10	4.2	5.3%	3	7.1%	4	9.3%	3	New in cluster	70	↑ +31	11	-1
40	Freudenberg	Germany	10	4.6	4.7%	3	7.3%	4	8.9%	3	New in cluster	73	↑ +33	10	=
41	Pirelli	Italy	10	6.4	3.2%	2	11.8%	6	7.7%	2	3	40	↓ -1	8	+2
42	Hankook Tire & Technology	South Korea	9	6.2	3.0%	2	8.4%	5	7.2%	2	3	39	↓ -3	8	+1
43	TE Connectivity	United States	9	6.0	5.4%	3	7.2%	4	6.7%	2	New in cluster	58	↑ +15	16	↓ -7
44	Ningbo Joyson Electronic Corp	China	9	7.0	15.1%	8	1.3%	1	2.0%	0	3	44	↓ -8	10	-1
45	Koito Manufacturing	Japan	7	5.7	-3.8%	0	7.0%	4	8.2%	3	3	41	↓ -4	7	=
46	HL Mando Corporation	South Korea	7	5.5	4.4%	3	3.3%	2	6.6%	2	3	49	↑ +3	4	+3
47	Nemak	Mexico	7	4.4	2.2%	2	4.7%	3	6.6%	2	New in cluster	86	↑ +39	5	+2
48	Hanon Systems	South Korea	7	6.4	7.7%	4	3.0%	2	5.0%	1	3	44	↓ -4	7	=
49	American Axle & Manufacturing	United States	5	5.5	-0.1%	0	4.0%	3	5.6%	2	3	37	↓ -12	9	↓ -4
50	Futaba Industrial	Japan	5	4.4	4.7%	3	1.1%	1	3.8%	1	3	48	↓ -2	5	=
51	NOK Corporation	Japan	4	4.7	-2.7%	0	4.6%	3	4.9%	1	3	51	=	2	+2
52	HYUNDAI WIA Corporation	South Korea	4	5.4	0.6%	1	2.6%	2	4.1%	1	3	52	=	1	+3
53	Eberspächer Gruppe	Germany	4	6.4	7.5%	4	-0.3%	0	-1.7%	0	3	48	↓ -5	3	+1
54	Toyoda Gosei	Japan	3	6.4	0.0%	0	3.9%	2	5.2%	1	3	46	↓ -8	6	-3
55	JTEKT Corporation	Japan	3	7.4	-0.3%	0	2.9%	2	4.4%	1	New in cluster	31	↓ -24	1	↑ +2
56	Sumitomo Rubber	Japan	3	6.8	2.8%	2	1.8%	1	2.3%	0	3	43	↓ -13	7	↓ -4
57	Brose Fahrzeugteile	Germany	3	7.5	3.5%	2	0.1%	1	0.8%	0	New in ranking	n.a.	n.a.	New	n.a.
58	Grupo Antolin-Irausa	Spain	1	4.6	-3.1%	0	0.3%	1	0.8%	0	3	53	↓ -5	1	=
59	LEONI	Germany	1	5.1	0.7%	1	-1.9%	0	-34.9%	0	3	50	↓ -9	3	-2
Total	25 companies		8	142.3	4.1%	3	4.3%	3	6.3%	2					

□ 2021 figures

Cluster 3 – takeaways

- **Cluster 3 = 25 companies** (vs 22 companies last edition), that represent **15% of total sample Auto sales** – average RB grade is 8 (vs. 3 in last edition)
- 3 out of 5 companies in top 5 are **new** in the cluster
- **Overall, 8 newcomers in cluster 3:** 6 from cluster 4 of the previous edition, 1 from cluster 2 of the previous edition 1 new entrance in ranking
- Nr 1 **LCI Industries** is not the biggest player in terms of revenues/auto revenues, but managed to show strong operating performance with 2nd highest EBIT margin and ROCE, respectively 10.6% and 19.9%, thus improving its grade by +7 pts
- **Japan and South Korea** represent jointly almost the half of the sample with 12 players (respectively 7 Japanese and 5 South Korean companies)
- **The cluster 3 overall performs better than last year, though lower compared to the other clusters:**
 - **Average 5-year sales growth over 2017-2022** is 2nd lowest, slightly below total ranking's average i.e. 4.1% vs. 4.7%, though better than last year's average of 3.5%
 - **Lowest EBIT margin** of 4.3% (vs. 4.0% in last edition, second lowest)
 - **Lowest ROCE** average of 6.3% (vs. 5.8% in last edition, second lowest)

Cluster 3 – company focus

Cluster 3 – TOP 5

Company / Δ Rank	Market Details	M&A and partnerships [Non-exhaustive]
#35 LCI Industries  Components for RVs and adjacent industries 	<ul style="list-style-type: none"> Rank: 58 (2022) => 35 (2023) New entrance in cluster 3 from 4 Managed to reach the top of Cluster 3 by improving its EBIT margin (from 8% to 11% over 2020-2022), its ROCE (from 12% to 20% over 2020-2022), and securing a high CAGR Strong YoY sales growth of +16% mainly due to organic growth (diversification strategy and geographic expansion) and slightly due to acquisition (4 in 2022, contributing to c.4% of sales) 	<ul style="list-style-type: none"> Acquisition of Way Interglobal Network, a distributor of innovative appliances and electronics to OEMs in the RV industry Acquisition of Girard, a manufacturer and distributor of proprietary awnings and tankless water heaters for OEMs and aftermarket customers in the RV, specialty vehicle, and related industries
#36 Jilin State Owned  Environmental systems, chassis, brakes and transmission, steering and safety systems, electronics 	<ul style="list-style-type: none"> Rank: 32 (2022) => 36 (2023) Lost positions mainly due to new entrants in the cluster but actually improved its grade by +5 pts Highest 5-year sales CAGR of the cluster: +35.6% Slight deterioration of EBIT margin (from 5% to 2% over 2021-2022) Impressive ROCE improvement from 9% to 33% over 2021 (highest of the cluster) 	
#37 Yokohama Rubber  Tires for cars, EVs, off-highway vehicles 	<ul style="list-style-type: none"> Rank: 79 (2022) => 37 (2023) New entrance in cluster 3 from 4 5-year sales CAGR at par with cluster 3 average (4.1%) Strong YoY performance with +21% sales, driven by higher share of high value-added tires (42% i.e. +2 pts vs. 2019), in line with “Yokohama Transformation 2023” strategy to reach 50% ratio, one acquisition in off-highway tires, higher prices and favorable exchange rates 	<ul style="list-style-type: none"> Acquisition of Trelleborg Wheel Systems Holding AB, a Swedish company engaged in the manufacture and sale of off-highway tyres (hereinafter, OHT) for agricultural and industrial machinery in March 2022 – acquisition of all outstanding shares in May 2023
#38 Hyundai Transys  Powertrains, seats, and special drive systems 	<ul style="list-style-type: none"> Rank: 45 (2021) => 38 (2022) Tremendous 5-year revenue growth of +19% p.a. between 2017-2022 Slight improvement of EBIT margin vs. 2021 from 1.2% to 2.0% in 2022 but low margin relative to company's type (Tier 0.5) ROCE from 2.2% in 2021 to 3.4% in 2022 	<ul style="list-style-type: none"> Merger of Hyundai Powertech and Hyundai Dymos (2019) Partnership with Kia and 17 other companies to accelerate transition to Software-defined vehicles (2023)
#39 Linamar  Transmission, driveline, engine, chassis, energy storage, propulsion systems, off-highway equipments 	<ul style="list-style-type: none"> Rank: 70 (2021) => 39 (2022) New entrance in cluster 3 from 4 Strong sales growth, +31% YoY driven by organic growth (higher CPV, gain of new customers both new entrants and tradi. OEMs) and acquisition in off-highway applications Operating performance above cluster's avg.: 7.1% EBIT margin (more than +2.5 pts vs. avg) and 9.3% ROCE (+3 pts vs avg.) 	<ul style="list-style-type: none"> Acquisition of Salford, a leader in technology enabled crop tillage and nutrition Acquisition of Mills River Light Metal High Pressure Die Cast Facility, expertise in high-pressure diecasting and machining to provide lightweight solutions for automotive and commercial vehicle customer Launch of a new business Group, eLIN Electrification, dedicated to develop electrified product solutions

Cluster 3 – company focus

	Company / Δ Rank	Market Details	M&A and partnerships [Non-exhaustive]
Decline in Ranking	#44 Ningbo J-E Corp. -8 Auto safety systems, intelligent auto electronics, E-Mobility and Car Connectivity	<ul style="list-style-type: none"> Rank: 36 (2022) => 44 (2023) High 5-year sales CAGR of +15.1% above cluster average (but lower than 2016-2021 CAGR), growth mainly driven by general development trend of intelligent electrification of automobiles, rapid growth of Automotive Electronics business and steady recovery of Automotive Safety business Improvement of EBIT margin and ROCE levels, resp. 1.3% and 2.0% vs. -2.6% and -3.6% in 2021 	
	#49 American Axle & Manufacturing -12 Driveline and metal Forming technologies	<ul style="list-style-type: none"> Rank: 37 (2022) => 49 (2023) Lost 12 positions in the RB ranking mainly due to negative sales CAGR 17-22 but actually shows +12.5% YoY sales increase Deterioration of EBIT margin and ROCE, resp. 4.0% and 5.6% (slightly below cluster average) vs. 6.3% and 7.2% in 2021 	<ul style="list-style-type: none"> Acquisition of Tekfor Group, a leading provider of driveline and powertrain components for both ICE and hybrid vehicles, as well as e-mobility applications
	#55 JTEKT -24 Steering systems, automotive drivetrain components, bearings, manufacturer	<ul style="list-style-type: none"> Rank: 31 (2022) => 55 (2023) New entrance in cluster 3 from 2 Negative 5-year sales CAGR (-0.3%), but positive YoY performance. Change in cluster mainly explained by change in Auto Sales scope vs. 2021 (68% of total sales vs. 100% last year wrongly evaluated) EBIT margin and ROCE, resp. 2.9% and 4.4% below cluster average 	
	#56 Sumitomo Rubber -13 Tyre manufacturer (Dunlop and Falken brands)	<ul style="list-style-type: none"> Rank: 43 (2022) => 56 (2023) 5-year sales CAGR below cluster 3 (2.8%) Lost positions mainly due to deterioration of EBIT margin and ROCE, resp. 1.8% and 2.3% vs 5.4% and 6.4% in 2021 mainly due to inflation and interest rate hikes 	<ul style="list-style-type: none"> Partnership with Sumitomo Riko Company Limited and Sumitomo Electric Industries for the development of recycling technologies
NEW	#43 TE Connectivity NEW sensor and connectivity solutions	<ul style="list-style-type: none"> Rank: 38 (2022) => 43 (2023) New entrance in cluster 3 from 4 Higher revenues, with +9% YoY sales growth driven by organic automotive net sales growth attributable to increased CPV and in a lesser extent driven by acquisitions Deteriorated RB grade by -7 pts vs. 2021, from 16 to 9 pts in 2022 due to poorer KPIs: -3.5% of five-year sales CAGR, from 16.6% to 7.2% of EBIT margin and from 13.8% to 6.7% of ROCE 	<ul style="list-style-type: none"> Acquisition of Kemtron, a leading player in the RFI/EMI shielding, env. sealing, gaskets, and components Acquisition of Linx Technologies, a manufacturer of wireless components including antennas, RF connectors and cables, RF modules, and remote controls

Cluster 4 ranking

Rank 2023	Company	Origin country	Final Grade	Auto Sales [EUR bn; 2022]	Total Sales CAGR 17-22	Grade CAGR	EBIT Margin [% sales; 2022]	Grade Margin	ROCE [2022]	Grade ROCE	Cluster 2022	Rank 2022	Rank 2023 vs 2022	Grade 2022	Grade 2023 vs 2022
60	Patrick Industries	United States	23	2.6	26.2%	10	10.2%	6	20.9%	7	4	55	-5	20	+3
61	DN Automotive Corporation	South Korea	21	2.3	27.5%	10	13.4%	6	12.9%	5	New in ranking	n.a.	n.a	n.a	n.a
62	Garrett Motion Inc.	United States	20	3.4	4.5%	3	14.1%	7	40.9%	10	4	56	-6	19	+1
63	Fuyao Glass	China	18	3.6	10.1%	6	15.8%	7	13.9%	5	4	57	-6	17	+1
64	SL Corporation	South Korea	17	3.1	21.3%	10	4.7%	3	10.7%	4	4	76	+12	10	+7
65	TVS	South Korea	15	3.0	10.0%	5	8.4%	5	13.1%	5	4	59	-6	16	-1
66	Sailun	China	15	3.1	11.3%	6	8.3%	5	10.4%	4	4	60	-6	14	+1
67	Brembo	Italy	14	2.8	8.0%	4	10.0%	5	13.8%	5	4	66	-1	12	+2
68	CIE Automotive	Spain	14	3.8	6.2%	4	12.0%	6	12.6%	4	4	65	-3	12	+2
69	Knorr-Bremse	Germany	13	3.7	2.8%	2	10.1%	6	13.5%	5	4	61	-8	14.	-1
70	Minth Group Limited	China	13	2.4	10.4%	6	8.2%	5	7.4%	2	4	68	-2	12	+1
71	Ningbo Jifeng Auto Parts	China	12	2.5	59.1%	10	1.4%	1	3.2%	1	4	62	-9	13	-1
72	Visteon Corporation	United States	11	3.6	5.1%	3	5.3%	3	14.4%	5	4	88	+16	4	+7
73	Toyo Tire Corporation	Japan	11	3.6	2.4%	2	8.9%	5	11.0%	4	4	69	-4	11	-
74	AB SKF	Sweden	11	2.6	2.4%	2	8.8%	5	10.3%	4	4	63	-11	12	-1
75	Niterra	Japan	11	3.1	3.7%	2	13.5%	6	10.0%	3	4	74	-1	10	+1
76	Ningbo Huaxiang Electronic	China	11	2.8	7.4%	4	6.9%	4	9.9%	3	4	71	-5	11	-
77	Martinrea International	Canada	10	3.5	6.6%	4	4.8%	3	8.9%	3	4	95	+18	2	+8
78	Ling Yun Industrial Corporation	China	10	2.4	8.7%	5	4.0%	3	7.2%	2	4	61	-17	13	-3
79	Seoyon	South Korea	9	2.4	0.9%	1	5.3%	3	14.0%	5	New in ranking	n.a.	n.a	n.a	n.a
80	Changchun FAWAY	China	9	2.8	11.1%	6	2.6%	2	5.3%	1	4	75	-5	10	-1
81	UMW Holdings Berhad	Malaysia	8	2.5	7.7%	4	3.5%	2	6.3%	2	New in ranking	n.a.	n.a	n.a	n.a
82	North Lingyun Industrial Group	China	7	3.3	5.9%	3	3.6%	2	6.7%	2	4	72	-10	10	-3
83	YURA	South Korea	7	2.3	6.6%	4	1.7%	1	6.0%	2	4	80	-3	7	-
84	GS Yuasa Corporation	Japan	6	2.4	0.4%	1	5.3%	3	6.7%	2	4	83	-1	7	-1
85	Cheng Shin Rubber	Taiwan	6	3.1	-0.8%	0	7.5%	4	6.6%	2	4	84	-1	6	-
86	Sungwoo Hitech	South Korea	6	2.9	2.1%	2	2.5%	2	5.6%	2	4	94	+8	3	+3
87	Stanley Electric	Japan	6	2.9	-2.2%	0	7.3%	4	5.6%	2	4	82	-5	7	-1
88	Giti Tire Pte	Singapore	5	2.7	-1.2%	0	1.3%	1	12.1%	4	New in ranking	n.a.	n.a	n.a	n.a
89	TS TECH	Japan	5	2.7	-5.7%	0	6.0%	3	6.4%	2	4	81	-8	7	-2
90	Johnson Electric	China	5	2.3	3.2%	2	3.9%	2	3.9%	1	4	67	-23	12	-7
91	NHK Spring	Japan	4	3.9	-3.2%	0	3.6%	2	5.5%	2	4	96	+5	1	+3
92	Nexteer Automotive	United States	4	3.7	1.2%	1	2.3%	2	3.8%	1	4	91	-1	3	+1
93	Shandong Linglong Tyre	China	4	2.4	5.7%	3	0.6%	1	0.5%	0	4	77	-16	10	-6
94	TI Fluid Systems	United Kingdom	3	3.3	-1.3%	0	3.0%	2	4.7%	1	4	87	-7	5	-2
95	Kumho Tire	South Korea	3	2.6	3.0%	2	0.7%	1	1.0%	0	New in ranking	n.a.	n.a	n.a	n.a
96	NSK	Japan	2	3.7	-2.4%	0	2.9%	2	2.7%	0	4	98	+2	1	+1
97	Tokai Rika	Japan	1	3.7	-0.7%	0	1.9%	1	2.9%	0	4	92	-5	3	-2
98	Sumitomo Riko	Japan	1	3.0	-0.8%	0	1.3%	1	2.3%	0	4	97	-1	1	-
99	NTN Corporation	Japan	1	3.2	-1.8%	0	1.1%	1	1.4%	0	4	99	-	0	+1
100	Cooper-Standard	United States	0	2.4	-5.6%	0	-3.1%	0	-6.0%	0	New in ranking	n.a.	n.a	n.a	n.a
Total	41 companies		9	122.1	3.7%	2	6.1%	4	8.3%	3					

