

CLAIRFIELD INTERNATIONAL

Trends and market analysis: automotive sector 2017



Executive Summary

Study focus

This study gives a short overview of the automotive sector. In detail, the study shows the Global, European and German M&A market, European and German automotive market, and upcoming key trends. There is a general change from combustion engine to hybrid, electrical powertrain.

- In H1 2016, the global automotive M&A deal volume and deal value underperformed in relation to the first half of 2015. The deal value of \$21.3bn in H1 2016 decreased by 37% compared to H1 2015. Europe stayed the most active region for M&A activity with a decrease in volume and share of deal value
- The annual growth rate for the period 2016 until 2022 is expected to be 3.3%, based on a PwC calculation. That is an addition of 19.6 million vehicles. China remains the driver for the future: 7.7 million more cars will be assembled for China until 2022
- Lightweight to reduce emissions remains a trend but might be replaced by trends like big data, autonomous driving and electric vehicles. Digitalization or "big data" is a . growing market, until 2030 it is estimated to become a \$600bn market. Autonomous driving is the highlight project and is becoming an important purchase criteria for the future, 62% of the CEOs expect it. The number of new registered hybrid- and electro vehicles are expected to increase by more than 75% in the three global markets EU, NAFTA and China.



Production in global automotive assembly – a forecast until 2022

Dirk Freiland - Managing Partner

Dirk Freiland has 18 years of experience in M&A and studied mechanical engineering, electronics and computer science. He has advised transactions in the automotive sector with significant repeat.



Dirk Middelhoff - Managing Partner

Dirk Middelhoff holds a degree in Business Law (LL.B) with a focus on corporate finance and more than 15 years experience in corporate finance, business development and strategy.



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Α.

Global M&A trends and update of the first half of 2016

First half of 2016: Transactions in the automotive industry with regional breakdown Europe maintains its top position while Asia catches up with North America



First half of 2016: M&A activity in the automotive sector First half of 2016 underperformed in relation to first half 2015

Worldwide

- In the first half of 2016, the global automotive M&A deal volume and deal value underperformed in relation to the first half of 2015 with a total amount of 257 deals
- The deal value of \$21.3bn in H1 2016 decreased by 37% compared to H1 2015. The average deal size has been approx. \$254m. The number of deals decreased by 7%
- Europe maintained its position as the most active region for M&A activity with 93 local deals, North America following second with 60 local deals, Asia showing consistency in its M&A trend with 51 local deals and ultimately the rest of the world with 13 local deals
- Primarily responsible for the deceleration in M&A activity during H1 2016 was the weak economic environment and a general lower level in the M&A market
- Some indicators show a positive development for the rest of 2016. The indicators are the large cash balance of companies and private equity, ongoing pressure from shareholders and competitors and the development of new technologies
- Across all regions, local deals dominated the M&A activity with 84% of total deal volume and 75% of deal value or \$16.1bn

Europe

- The M&A activity in Europe saw total deal values reaching \$11.9bn in the first half of 2016. The total value included 93 local deals (\$8.2bn), 12 inbound deals (\$3.7bn) and 10 outbound deals (\$0.01bn)
- With these numbers, Europe remained the most active region for M&A activity with a decrease in volume and share of deal value
- On the other hand Europe increased the deal value by target region for approximately 56%, that's the highest gain since 2008 for the first half of 2016
- The megadeals are still from Europe, in four out of the six deals are European target companies and in three out of six megadeals, a European company is the acquirer
- Brexit is an ongoing topic for the automotive sector as well as for M&A activities. The UK produced about 1.7 million cars in 2015 and the European export market is crucial, 57% of the exports go to Europe. There will be changes in expenditures for the Capex, R&D and Talent acquisition

First half of 2016: Transactions in the automotive sector First half of 2016 underperformed in relation to first half 2015

40 400 275 Disclosed deal value (\$bn) 35 303 264 30 300 257 250 volume 222 25 20 200 Deal 15 10 100 5 \$21,3 \$18. S10 \$13 \$27,5 \$34, 0 0 H1 2011 H1 2012 H1 2013 H1 2014 H1 2015 H1 2016 Disclosed deal value Deal volume

Global automotive M&A deal volume and value









Component suppliers M&A activity



M&A transaction highlights of the first half of 2016 automotive sector

Worldwide

- The largest deal worldwide in H1 2016 was the \$4,065m deal between LeasePlan Corp NV and LP Group BV; two European companies. LeasePlan is currently a full leasing service provider. The owner of VW and the bank of Metzler both held 50% of the shares and sold them to LP Group BV. The acquirer is a consortium of the Dutch pension fund PGGM, the Danish pension fond ATP, the pension fond GIC, Luxinva and TDR Capital LLP
- Magna, a Canadian-Austrian company, bought the German GETRAG GmbH & Cie KG, a supplier for automotive transmission for about 2,666m. The investment was a strategic one, both companies are suppliers for the automotive sector. The German leader for dual-clutch transmissions has 14,000 employees and turned over \$1.85bn in 2016. For Magna, it is a way to grow and an opportunity to establish in the sector of dual-clutch transmission, which will be a growing market in the future. Magna holds its market position as the second biggest supplier for the automotive sector behind BOSCH
- General Motors bought an undisclosed number of shares from Lyft Inc, an Uber competitor. The investment carried an estimated value of \$500m. GM is also trying to invest in the mobility of tomorrow. A full acquisition of the company failed recently as reported in the news

Europe

- Gestamp bought back it's 35% shares of a joint venture from Arcelor Mittal. The joint venture was established in 1998. A connection between both enterprise remains because Arcelor Mittal holds another investment of 35% of the holding that owns Gestamp
- LKQ Italia S.r.l. merged with RHIAG S.p.A., the deal volume exceeded \$1,135m. Both firms are active in the aftermarket for spare parts for commercial and non-commercial vehicles. LKQ Italia is a sub company of the LKQ Cooperation from North America and a leading distributor. LKQ is listed in the S&P 500

Germany

- Volkswagen bought Gett, Inc. for approx. \$300m. Gett is an U.S. company that wants to attack Uber's market share. The business model is similar to Uber but the pricing is different. The investment is the way to digitalize the business from VW. The management from Wolfsburg failed to invest in Uber, Mytaxi or develop a share-service like Car2Go and DriveNow
- ALD Automotive, a member of the Société General Group, acquired Parcours SAS from France. ALD is a full leasing service provider for cars, with a fleet of 1.6 million vehicles in 41 countries and 5.000 employees
- Altran, a France engineering and R&D service provider, bought Benteler engineering a German specialist in design and engineering services. It is a strategic investment to gain access to German OEM's and Tier 1 suppliers

Top 20 global transactions of the automotive sector 2016

Date effective	Target	Target region	Acquirer name	Acquirer region	Category	Transaction Value \$m	% of share acquire
3/2016	LeasePlan Corp NV	Europe	LP Group BV	Europe	Leasing Company	4,065	100
1/2016	GETRAG GmbH & Cie KG	Europe	Magna International Inc	ROW	Automotive Supplier	2,666	100
6/2016	Baoxin Auto Group Ltd	Asia	China Grand Automotive Services (Hong Kong) Ltd	Asia	Automobile Sales and Service Group	1,483	75
5/2016	Affinia Group, Inc.	US	MANN+HUMMEL GmbH	Europe	Automotive Supplier	1,335	100
5/2016	CGS Holding AS	Europe	Trelleborg AB	Europe	Supplier of Specialty Tires and Engineered Polymer Solutions	1,249	100
07/2016	Alliance Tire Group	Europe	The Yokohama Rubber Co., Ltd.	Asia	Supplier of Tires	1,179	100
3/2016	Rhino HoldCo Ltd	Europe	LKQ Italia S.r.l.	Europe	Distributor of spare parts	1,135	100
5/2016	Cruise Automation Inc	US	General Motors Co	US	Tech Startup (Autonomous driving)	1,000	100
2/2016	Gestamp Automocion SL	Europe	Corporacion Gestamp SL	Europe	Joint Venture	980	35
2/2016	Montupet SA	Europe	Linamar Corp	ROW	Automotive Supplier	960	100
6/2016	Key Safety Systems Inc	US	Ningbo Joyson Electronic Corp	Asia	Security Specialist	920	100
2/2016	The PEP Boys-Manny Moe & Jack	US	Icahn Enterprises LP	US	Full-service and Tire Automotive Aftermarket Chain	894	88
7/2016	Faurecia SA	Europe	Plastic Omnium	Europe	Automotive Supplier	754	100
1/2016	Huayu Automotive Sys Co Ltd	Asia	SAIC Motor Corp Ltd	Asia	Automotive Supplier	727	9
4/2016	Pittsburgh Glass Works LLC	US	LKQ Corp	US	Automotive Supplier	635	100
3/2016	Various component suppliers	US	Autoliv AB	US	Automotive Supplier	542	100
1/2016	Lyft Inc	US	General Motors Co.	US	Startup (share-mobility)	500	n.a.
2/2016	Various component suppliers	US	Haosheng Investment Co Ltd	Asia	Automotive Supplier	491	100
2/2016	Jiangsu JoylongAuto Co Ltd	Asia	Jiangxi Special Electric Motor Co Ltd	Asia	Automobile Manufacturer	340	67
5/2016	Parcours SAS	Europe	ALD Automotive Ltd	Europe	Leasing Company	334	100

Transaction multiples Germany: Automotive sector

European Buyer (in €m)

Date	Bidder	Target	Country	Stake	Deal	EV	Revenue	EV Mu	ıltiples	
Date	bluuei	Taiget	(Target)	SLAKE	Value	EV	Revenue	Sales	EBITDA	EBIT
Nov 16	VBG Group AB	Mobile Climate Control Group Holding AB	Sweden	100	181	181	138	1.3	10.1	
Aug 2016	Alliance Automotive Group	Lookers Plc	UK	100	140	140	297	0.5	8.2	9.5
July 2016	Valeo S.A.	FTE automotive GmbH	Germany	100	819	819	500	1.6	5.0	
July 2016	Zhongding Holding Europe GmbH	AMK Holding GmbH & Co. KG	Germany	100	130	130	200	0.7	8.7	13.6
May 2016	CIE Automotive SA	Grupo Amaya Telleria	Germany	100	186	186	134	1.4		
May 2016	Musashi Seimitsu Industry Co., Ltd	HAY Holding GmbH	Germany	100	361	361	524	0.7		11.3
Feb 2016	Ningbo Joyson Electronic Preh Holding GmbH	TechniSat Automotive	Germany	100	218	218	388	0.6	6.7	13.2
Jan 2016	Magna International Inc.	GETRAG GmbH & Cie KG	Germany	100	2,450		3,300	0.7	8.8	-
Dec 2015	Mahindra & Mahindra Ltd.	Pininfarina S.p.a.	Italy	76	95	95	82	1.2	13.0	24.1

		EV Mult	iples	
	Revenue	EBITDA	EBIT	г
Min	0.5		5.0	9.5
Median	0.7		8.7	13.2
Mean	1.0		8.6	14.3
Max	1.6	1	3.0	24.1

German Buyer (in €m)

Date	Bidder	Target	Country (Target)	Stake	Deal Value	EV	Revenue	EV Mu Sales	Iltiples EBITDA	EBIT
Jun 2016	Mubea Motorkomponenten GmbH	Tubos Reunidos SA	Spain	100	33	33	56	0.6	5	12.8
May 2016	Volkswagen AG	Gett Inc.	USA	-	268	-	-	-	-	-
Jan 2016	Weber Automotive GmbH	SaarOTEC GmbH	Germany	84	-	-	60	-	-	-
Nov 2015	BMW-Group AG	Herald International Financial Leasing Co. Ltd.	China	100	-	-	30	-	-	-
Jan 2016	Weber Automotive GmbH	SaarOTEC GmbH	Germany	84	-	-	60	-	-	-
Dec 2015	Schaeffler AG	SIA Naco Technologies	Latvia	100	-	-	-	-	-	-
Dec 2015	Grammer AG	REUM Kunststoff- und Metalltechnik GmbH	Germany	100	50	50	117	0.4	4.1	5
Sep 2015	Porsche Automobil Holding SE	Volkswagen AG	Germany	2	523	34,867	203	0.7	5.1	10.6
Aug 2015	MANN+HUMMEL GmbH	Affinia Group, Inc.	Germany	100	1,204	1,204	798	1.4	10.8	12.5
May 2015	MAHLE GmbH	Delphi Automotive Plc	Germany	100	639	639	1,322	0.5	9.5	

		EV Mult	iples		
	Revenue	EBITDA		EBIT	
Min	0.4		4.1		5
Median	0.6		5.1		11.6
Mean	0.7		6.9		10.2
Max	1.4	1	10.8		12.8

Recent selected transactions and valuation in the automotive and supplier sector

Selected transactions with selling companies from Germany

Date	Target	Buyer	Deal value in €m	EBIT multiple
Nov 2016	TriStone Flowtech Group	Anhui Zhongding Sealing Parts Co Ltd.	170	n/a
Jul 2016	FTE automotive GmbH	Valeo S.A.	819	n/a
Jul 2016	AMK Holding GmbH & Co. KG	Zhongding Holding Europe GmbH	130	13.6
Jun 2016	FTE automotive GmbH	Valeo S.A.	819	n/a
May 2016	HAY Holding GmbH	Musashi Seimitsu Industry Co., Ltd.	361	11.3
Apr 2016	Vibracoustic GmbH (50% Stake)	Freudenberg SE	740	11.1
Feb 2016	TechniSat Automotive	Ningbo Joyson Electronic Preh Holding GmbH	218	13.2
Jan 2016	GETRAG GmbH & Cie KG	Magna International Inc.	2,450	n/a

Valuation

	Stock market	Large-	сар	Mid-ca	ap	Small-cap		
Sector	EBIT multiple	EBIT m	nultiple	EBIT m	nultiple	EBIT m	nultiple	
	multiple	from	to	from	to	from	to	
Automotive and components	9.9	7.6	10	6.7	8.7	6.4	8.5	

- Median EBIT multiple of Automotive transactions with selling companies from Germany (01.01.2016- today): 13.2x
- Median EBIT multiple of Automotive transactions with selling companies from Europe (Germany excluded) (01.01.2016- today): 13.2x
- Transaction multiples are above the valuation of the finance magazine
- Chinese companies pay high prices for shares of German companies

Β.

Analysis of the automotive sector Worldwide, in Europe and in Germany

Global automotive assembly – a forecast until 2022 China remains the driver for the future

Automotive assembly

- The yearly growth rate for the period 2016 until 2022 is expected to be 3.3%, based on PwC calculation. That is an addition of 19.6 million vehicles
- China remains the driver for the future: 7.7 million more cars will be assembled for China until 2022. That is a total increase of 62% of the cars assembled for China and a total increase of 39% for the global production
- The number of cars produced for North America will grow by 11%, especially as Mexico is driving demand
- The European market follows a yearly growth rate of 3.3% and will reach a total output of 20.3 millions cars in 2022
- The Middle-East & Africa are expected to expand production by 1.2 million cars by the end of the estimation
- Eastern Europe is in recovery stage and will grow slightly until 2022
- Summary: The market is growing. Further cost reduction while staying on a high level of quality is the challenge for all automotive companies in the future



Overview of automotive market in Europe Germany is a market leader

Revenues of automotive companies by country €bn



Number of the automotive companies by country



Revenue of automotive companies in Europe



Overview of the automotive market in Germany Revenue exceeding the top level from 2008



Revenue Automotive sector in Germany 2011-2018 €bn

Revenue-split in Germany by sectors €bn



Revenue by federal state in Germany



German automotive OEM and Supplier Highest density of automotive related companies in Europe

A list of OEM's and suppliers (only German headquarters):



Trellborg Vibracoustic

Mautex Textron

Overview Germany



Major suppliers of automotive parts

Top 25 OEM parts suppliers in Europe – Ranked by sales of original equipment parts in 2015

11Robert Bosch GmbHVolkmar Denner21,06822,120124Continental AGElmar Degenhart15,42516,311235ZF Friedrichshafen AGStefan Sommer13,87312,428548FaureciaYan Delabrirer12,40214,024453Magna International Inc.Donald Walker10,60414,1673611Valeo SAJacques Aschenbroich7,8838,770779Johnson Controls Inc.Alex Molinaroli6,7387,0919810Lear Corp.Mathew Simoncini6,7387,0919917Mahle GmbHWolf-Henning Scheider5,8966,229111019BASF SEKurt Bock5,8376,90181112Delphi AutomotiveKevin Clark5,2756,081121227Gestamp Automocion SAFrancisco Riberas5,1665,372131422Schaeffler AGKlaus Rosenfeld4,9954,31215152Denso Corp.Nobuaki Katoh4,7004,0361616Thyssenkrupp AGHeinrich Hiesinger4,4443,667-1732HELLA KGaA Hueck & Co.Rolf Breidenbach3,8123,312242049Samvardhana Motherson GroupVive Chaand Sehgal3,3183,312242128Borgwarner Inc.	k ope 015	Rank Global in 2015	Company	CEO	Total Europe OEM automotive parts sales (in \$m) in 2015	Total Europe OEM automotive parts sales (in \$m) in 2014	Rank Europe in 2014	Rank Global in 2014
3 5 ZF Friedrichshafen AG Stefan Sommer 13,873 12,428 5 4 8 Faurecia Yann Delabriere 12,402 14,024 4 5 3 Magna International Inc. Donald Walker 10,604 14,167 3 6 11 Valeo SA Jacques Aschenbroich 7,828 8,556 6 7 9 Johnson Controls Inc. Alex Molinaroli 7,7828 8,556 6 8 10 Lear Corp. Matthew Simoncini 6,738 7,091 9 9 17 Mahle GmbH Wolf-Henning Scheider 5,896 6,229 11 10 19 BASF SE Kurt Bock 5,837 6,081 12 11 12 Delphi Automotive Kevin Clark 5,275 6,081 12 13 30 Magneti Marelli S,p.A. Petro Gorlier 5,056 5,372 13 14 22 Schaeffler AG Klaus Rosenfeld 4,995 4	1	1	Robert Bosch GmbH	Volkmar Denner	21,068	22,120	1	
48FaureciaYann Delabriere12,40214,024453Magna International Inc.Donald Walker10,60414,1673611Valeo SAJacques Aschenbrich7,8838,270779Johnson Controls Inc.Alex Molinarolich7,8288,5966810Lear Corp.Matthew Simoncini6,7387,9919917Mahle GmbHWolf-Henning Scheider5,8966,229111019BASF SEKurt Bock5,8376,90181112Delphi AutomotiveKevin Clark5,2756,081121227Gestamp Automocion SAFrancisco Riberas5,1665,324141330Magneti Marelli S.p.A.Petro Gorlier5,0565,372131422Schaeffler AGKlaus Rosenfeld4,9954,31215152Denso Corp.Nobuaki Katoh4,7004,036161616Thyssenkrupp AGHeinrich Hiesinger4,4443,467-1834Brose Fahrzeugteile GmbHJuergen Otto3,4933,738171931Samvardhana Motherson GroupVivek Chaand Sehgal3,3183,312242049Eberspaecher Gruppe GmbHHeinrich Baumann3,1673,128212128BorgWarme Inc.James Verier3,0432,63120236 </td <td>2</td> <td>4</td> <td>Continental AG</td> <td>Elmar Degenhart</td> <td>15,425</td> <td>16,311</td> <td>2</td> <td></td>	2	4	Continental AG	Elmar Degenhart	15,425	16,311	2	
53Magna International Inc.Donald Walker10,60414,1673611Valeo SAJacques Aschenbroich7,8838,270779Johnson Controls Inc.Alex Molinaroli7,8288,5966810Lear Corp.Matthew Simoncini6,7387,0919917Mahle GmbHWolf-Henning Scheider5,8966,229111019BASF SEKurt Bock5,8376,081121112Delphi AutomotiveKevin Clark5,2756,081121227Gestamp Automocion SAFrancisco Riberas5,1665,234141330Magneti Marelli S.p.A.Petro Gorlier5,0565,372131422Schaeffler AGKlaus Rosenfeld4,9954,31215152Denso Corp.Nobuaki Katoh4,7004,036161616Thyssenkrupp AGHeinrich Hiesinger4,4443,657191834Brose Fahrzeugteile GmbHJuergen Otto3,4933,738171931Samvardhana Motherson GroupVivek Chaand Sehgal3,3183,312242049Eberspaecher Gruppe GmbHHeinrich Baumann3,1673,128212128BorgWarner Inc.James Verier3,0432,631202237Plastic Omnium Co.Laurent Burelle3,0432,631202	3	5	ZF Friedrichshafen AG	Stefan Sommer	13,873	12,428	5	
611Valeo SAJacques Aschenbroich7,8838,270779Johnson Controls Inc.Alex Molinaroli7,8288,5966810Lear Corp.Matthew Simoncini6,7387,0919917Mahle GmbHWolf-Henning Scheider5,8966,229111019BASF SEKurt Bock5,2756,081121112Delphi AutomotiveKevin Clark5,2756,081121227Gestamp Automocion SAFrancisco Riberas5,1665,234141330Magneti Marelli S.p.A.Petro Gorlier5,0565,372131422Schaeffler AGKlaus Rosenfeld4,9954,31215152Denso Corp.Nobuaki Katoh4,7004,036161616Thyssenkrupp AGHeinrich Hiesinger4,4443,467-1732HELLA KGaA Hueck & Co.Rolf Breidenbach3,8123,657191834Brose Fahrzeugteile GmbHJuergen Otto3,4933,738171931Samvardhana Motherson GroupVivek Chaand Sehgal3,3183,312242049Eberspaecher Gruppe GmbHHeinrich Baumann3,1673,128212128BorgWarner Inc.James Verier3,0493,737182237Plasti Omnium Co.Laurent Burelle3,0432,651202	4	8	Faurecia	Yann Delabriere	12,402	14,024	4	
79Johnson Controls Inc.Alex Molinaroli7,8288,5966810Lear Corp.Matthew Simoncini6,7387,0919917Mahle GmbHWolf-Henning Scheider5,8966,229111019BASF SEKurt Bock5,8376,90181112Delphi AutomotiveKevin Clark5,2756,081121227Gestamp Automocion SAFrancisco Riberas5,1665,372131330Magneti Marelli S.p.A.Petro Gorlier5,0565,372131422Schaeffler AGKlaus Rosenfeld4,9954,31215152Denso Corp.Nobuaki Katoh4,7004,036161616Thyssenkrupp AGHeinrich Hiesinger4,4443,467-1732HELLA KGaA Hueck & Co.Rolf Breidenbach3,8123,657191834Brose Fahrzeugteile GmbHJuergen Otto3,4933,738171931Samvardhana Motherson GroupVivek Chaand Sehgal3,3183,312242049Eberspaecher Gruppe GmbHHeinrich Baumann3,1673,128212128BorgWarner Inc.James Verier3,0493,737182237Plastic Omnium Co.Laurent Burelle3,0432,63120236Hyundai MobisYoung Deuk Lim2,9202,88623<	5	3	Magna International Inc.	Donald Walker	10,604	14,167	3	
8 10 Lear Corp. Matthew Simoncini 6,738 7,091 9 9 17 Mahle GmbH Wolf-Henning Scheider 5,896 6,229 11 10 19 BASF SE Kurt Bock 5,837 6,901 8 11 12 Delphi Automotive Kevin Clark 5,275 6,081 12 12 27 Gestamp Automocion SA Francisco Riberas 5,166 5,234 14 13 30 Magneti Marelli S.p.A. Petro Gorlier 5,056 5,372 13 14 22 Schaeffler AG Klaus Rosenfeld 4,995 4,312 15 15 2 Denso Corp. Nobuaki Katoh 4,700 4,036 16 16 16 Thyssenkrupp AG Heinrich Hiesinger 4,444 3,467 - 17 32 HELLA KGaA Hueck & Co. Rolf Breidenbach 3,812 3,657 19 18 34 Brose Fahrzeugteile GmbH Juergen Otto 3,493 <td>6</td> <td>11</td> <td>Valeo SA</td> <td>Jacques Aschenbroich</td> <td>7,883</td> <td>8,270</td> <td>7</td> <td></td>	6	11	Valeo SA	Jacques Aschenbroich	7,883	8,270	7	
917Mahle GmbHWolf-Henning Scheider5,8966,229111019BASF SEKurt Bock5,8376,90181112Delphi AutomotiveKevin Clark5,2756,081121227Gestamp Automocion SAFrancisco Riberas5,1665,234141330Magneti Marelli S.p.A.Petro Gorlier5,0565,372131422Schaeffler AGKlaus Rosenfeld4,9954,31215152Denso Corp.Nobuaki Katoh4,7004,036161616Thyssenkrupp AGHeinrich Hiesinger4,4443,467-1732HELLA KGaA Hueck & Co.Rolf Breidenbach3,8123,657191834Brose Fahrzeugteile GmbHJuergen Otto3,9313,738171931Samvardhana Motherson GroupVivek Chaand Sehgal3,3183,312242049Eberspaecher Gruppe GmbHHeinrich Baumann3,1673,128212128BorgWarner Inc.James Verier3,0493,737182237Plastic Omnium Co.Laurent Burelle3,0432,63120236Hyundai MobisYoung Deuk Lim2,9202,88623	7	9	Johnson Controls Inc.	Alex Molinaroli	7,828	8,596	6	
1019BASF SEKurt Bock5,8376,90181112Delphi AutomotiveKevin Clark5,2756,081121227Gestamp Automocion SAFrancisco Riberas5,1665,234141330Magneti Marelli S.p.A.Petro Gorlier5,0565,372131422Schaeffler AGKlaus Rosenfeld4,9954,31215152Denso Corp.Nobuaki Katoh4,7004,036161616Thyssenkrupp AGHeinrich Hiesinger4,4443,467-1732HELLA KGaA Hueck & Co.Rolf Breidenbach3,8123,657191834Brose Fahrzeugteile GmbHJuergen Otto3,4933,738171931Samvardhana Motherson GroupVivek Chaand Sehgal3,3183,312242049Eberspaecher Gruppe GmbHHeinrich Baumann3,1673,128212128BorgWarner Inc.James Verier3,0493,737182237Plastic Omnium Co.Laurent Burelle3,0432,63120236Hyundai MobisYoung Deuk Lim2,9202,88623	8	10	Lear Corp.	Matthew Simoncini	6,738	7,091	9	
1112Delphi AutomotiveKevin Clark5,2756,081121227Gestamp Automocion SAFrancisco Riberas5,1665,234141330Magneti Marelli S.p.A.Petro Gorlier5,0565,372131422Schaeffler AGKlaus Rosenfeld4,9954,31215152Denso Corp.Nobuaki Katoh4,7004,036161616Thyssenkrupp AGHeinrich Hiesinger4,4443,467-1732HELLA KGaA Hueck & Co.Rolf Breidenbach3,8123,657191834Brose Fahrzeugteile GmbHJuergen Otto3,4933,738171931Samvardhana Motherson GroupVivek Chaand Sehgal3,3183,312242049Eberspaecher Gruppe GmbHHeinrich Baumann3,1673,128212128BorgWarner Inc.James Verier3,0432,631202237Plastic Omnium Co.Laurent Burelle3,0432,63120236Hyundai MobisYoung Deuk Lim2,9202,88623	9	17	Mahle GmbH	Wolf-Henning Scheider	5,896	6,229	11	
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25 47 Federal-Mogul Corp. Rainer Jueckstock 2,485 2,122 34	24	25		John Carlson	2,843	3,049	22	

С.

Automotive strategic trends Worldwide, in Europe and in Germany

A classification of vehicle components

Sorted by automotive suppliers focus and business areas



Car body

Structural parts such as the front pillar, center pillar, rear floor side member and spring house are crucial for safety. Exterior parts like skin & closure parts are visible and therefore require perfect finishes and flawless surface



Chassis & Powertrain

Engine: electrical engine or combustion engine. Powertrain components: Brakes, exhaust system, transmission Chassis: suspension arms, axles, shock absorbers



Exterior

Includes: Front and rear bumper, grills, liftgate modules, front end carrier, car mirrors, headlamps and shielding systems





Electronic

Includes: Infotainment systems, chassis electronics (ABS, TCS, EBD, ESP), advanced driver assistance systems (ADAS) and passenger comfort systems

Interior

Includes: Overhead, door trim, seats, lighting, acoustic insulation as well as cockpits and consoles



Overview of the current automotive trends

In the different classifications of a vehicle

Car body	Chassis	s & Powertrain		Electronic
Exterior	Interio	pr		
				Trend autonomous driving car
				 Drive assistance systems, like park assist systems, are used in most cars on the market today
Major trend is lightweight				• The next stage demanded by customers and the
 Stricter governmental CO2 reg components than steel to meet t 	0	I mix. Suppliers and OEM's work on ry components are:	lighter	goal of technological development is autonomous driving cars
 Aluminum or other light 	weight materials		• Experts estimate that the worldwide number of	
 Plastics or carbon 				autonomously driving cars produced will reach 50 million by 2032.
 This trend is currently driven by smaller and cheaper cars, as the 		r. However, it is expected to filter down shed	to the	Trend big data
Another trend is electric mobility				 As a subtopic of digitalization, big data is becoming more important for new business
 Stricter regulations and the "Dies 	elgate" alter the pressure on O	ns	solutions in the future	
 The high complexity of this megatrend is going to increase the demand for R&D investments in the area of e- mobility, electric drives and battery solutions 				 A selection of services which are based on big data are car-sharing, navigation plugins and telematic services
 The development of electric car engines. The technology for elect 	-	ansmissions, exhaust systems and comb han for combustion engines	oustion	 The importance of this trend is illustrated by the
 Therefore, suppliers will have to deal with a smaller product portfolio and a smaller portion of the added value in the future 			d value	gradually increasing number of semiconductors year by year
The number of newly registered hybrid- and electro vehicles in the three global markets EU, NAFTA and China				 In 2030 almost all cars will be connected

Sources: McKinsey, Strategy Analytics, ZVEI, Roland Berger, PwC and Bain&Company

is expected to rise to above 75% by 2030.



Lightweight – first trend Importance of aluminium in the automotive sector

Aluminium components in vehicles

- Many industries are looking for effective alternatives to cut down weight without sacrificing durability. At the forefront of this trend is the automotive industry, which is under constant pressure to adhere to increasingly strict fuel economy standards
- CO2 standards for vehicles are increasingly stringent, automobile manufacturers have been forced to continually find new ways to increase fuel economy
- Manufacturing lighter vehicles has been the primary strategy to improve gas mileage, and the most popular method of reducing vehicle weight has been replacing steel parts with aluminium. Over time, aluminium has been progressively incorporated into automotive doors, trunks, hoods, and engines
- Right below is an image that represents the current aluminium used in automobiles and what is expected to be aluminium-based by 2025
- The trend of using aluminium to reduce a vehicle's weight is expected to continue throughout the industry. Aluminium is lighter, more energy efficient to process, and has comparable pound-for-pound durability to steel. Steel's heavy nature has become a burden on fuel efficiency. While aluminium has been identified as the most effective material for light weighting, its use often involves a trade-off of strength for weight when compared to steel
- Aluminium is the material for the future. It is lighter and can be recycled indefinitely. The trade off between strength and weight by replacing steel is not correct. Aluminium could nowadays be made as structurally strong as steel by heat-treating

Automotive is the driver for global aluminium demand



Aluminium components in vehicles



Lightweight an important topic for OEM's The industry shifts to aluminium

OEM's high investments in aluminium casting

CARA
VYYY
AUOI

Audi opened a new aluminium die casting foundry at Münchsmünster, around 30 km outside of its main plant Ingolstadt in Bavaria, Germany



 BMW expanded its aluminium foundry capacity in Germany by around 50%

<u>GM</u>

General Motors announced the closure of an iron cast foundry and the expansion of an aluminium foundry



Ford replaced the steel in its popular F-series truck with aluminium in order to reduce weight and enhance fuel efficiency. Changing the body from steel to aluminium is expected to cut the weight of the car by approx. 700 pounds, or 15 percent of current vehicle weight, which would increase fuel efficiency by as much as 25 percent

Vehicles with combustion engine and the new series of electric vehicles include a higher share of lightweight materials e.g. carbon fibers, polymer/ composites, magnesium, aluminium and thin high-tensile steel grades. Aluminium is becoming the most important material in lightweight vehicles by 2035



Increasing aluminium demand: material split light vehicles in %





Autonomous driving cars – second trend

Experts estimate that the worldwide number of produced autonomously driving cars will reach 50 million by 2032

Development steps towards autonomous driving

The most important and most challenging project for all vehicle producers and the tech industry, Silicon Valley, is **autonomous driving**. It is a key technology for the future. For example, the Germans show a high demand in the trend of autonomous driving. 51% of the people between 18 and 34 years wish an autonomous parking space search and 34% self parking cars.

The development began with drive-assistants like parking assist and adaptive cruise control which are the standard in todays premium cars. The ADAS and AD component market is expected to grow by approx. 16% p.a. until 2025 and to reach a global volume of almost \in 30bn. The trend of increasing drive assistants will lead the way to **autonomous driving**, the next revolutionary step. All vehicle producers are working on this revolutionary step. The development of this feature is a key technology for all producers to show their technological leadership.

For commercial vehicles, there is a similar big project which goes in the same direction as autonomous driving, the **European Truck Platooning Challenge**. Building a platform that allows trucks to drive in a platoon at the same speed and same distance. The trucks drive more efficiently due to aerodynamic formation, a linked acceleration and deceleration.



The ADAS and AD component market for light vehicles

Big data – third trend Expected market volume of \$600bn by 2030

New potential business models of big data

Big data, as part of the digitalization, transforms cars into digital data storages by collecting and saving all information around them. As part of the global trend of digitalization, cars have been transformed into digital data banks, collecting and saving all information around them and producing big data. The mean of installed semiconductors in cars has increased over time, thus cars are able to collect more information today. Vehicle producers want to use this information storage to identify and provide new services for costumers. Big data is the workhorse for digitalization. Some exemplary value adding services include:

- Potential threats are recognized by the car e.g. accidents. The car will provide this information to servers of the vehicle manufacturer and forward it to all cars who are connected to the central information database. Car drivers benefit from this information by receiving a warning of traffic jams or arriving ambulances to accidents. More useful information for drivers can be the weather conditions; the system is able to notify the driver of fog or icy roads.
- Traffic information is collected by the car. It recognizes hazard flashers of other cars and reports a traffic jam. People can avoid these streets and find an alternative route. The drivers will arrive safely and on time to their appointments. This service could be a navigation plugin.
- Parking has become a bigger problem in big cities. The process of searching for an available parking lot causes 30% of traffic. To solve this dilemma, Bosch and Visa have developed an app to locate available parking lots; the app directs the driver to a lot and the allows in app payment through Visa.
- Mobile parcel service from Amazon and Audi, DHL and Smart is in testing right now. Parcel services will deliver orders directly to the cars.
- Entertainment while driving. When autonomously driving cars become reality in the next decade, people will have additional time during their journey or commute to work. This time can be filled by online-shopping or extra entertainment services. Further, personalized commercials will pop up on the screens inside vehicles.







Electric mobility – fourth trend Emission regulations in the USA, China and Europe enhance the production of alternative powertrains

Development

To fulfil the **environmental regulations** in the future, e-mobility is the main solution to achieve these goals. The EU emission goal for 2015 was 130g CO2/Km and the next goal will be 95g CO2/Km by 2020. USA set a goal of 93g CO2/Km by 2025. The climate resolution from Paris forces governments to enhance this development globally. PwC expects the number of hybrid- and electric vehicles in the three major global markets EU, NAFTA and China for new registered cars to be more than 75% by 2030. The share of electric cars is 3% in the three major global markets at the moment.

Non-commercial vehicles: Improvement of the combustion engine is the short-term plan for the future, the long-term plan is to build electrically-powered vehicles. The big OEM's want to sell 2-3 million cars in 2025. Hybrid-cars are the start of electrification and the goal is a full-electric car in the future. The current battery is the bottleneck of technological development. Technological leaders in manufacturing batteries are Asian companies at the moment. R&D investments in this technique are increasing from year to year. The overall market value is €325bn to €500bn for new efficient drive systems.

Commercial vehicles: The short-term and mid-term plan for producers of trucks is to **improve the combustion engines**. The weight of the batteries would reduce the capacity of the trucks today. Long-term visions and plans are the same as for the non-commercial vehicles. Truck producers are in need of batteries that are light weight and long lasting to allow them to continue to provide just in time supply services. That said, 70% of all industry CEOs still believe that 1/3 of all light trucks will be completely electric by 2025. And four out of five believe that delivery vehicles will be totally banned from city centers by 2030.



Global powertrain production [m units]





Electric mobility transforms classic vehicle assembling

It leads to a new powertrain components mix in the future

Market development of powertrain components for light vehicles

- The global powertrain component market is expected to grow to approx. €279bn by 2025
- A significant increase is expected for electric powertrain components
- Slight increase for exhaust, transmission/ drivetrain and engine
- The market development for transmissions/ drivetrain and engines will slow down after 2023 because of electric vehicles
- Competence in electric vehicles is becoming more important for suppliers to hold market share
- The know-how around the combustion engine will be obsolete in the future; battery technology will become the key competence

Market development of powertrain components for light vehicles €bn



CLAIRFIELD INTERNATIONAL

Case study – ElringKlinger Applied strategic decisions of an automotive supplier

Overview and actual situation

- ElringKlinger is a leading automotive supplier from Germany and employs more than 8.000 people in 45 locations around the globe
- Financial key facts:

Revenue (2015): €1,507.3m EBITDA (2015): €222.8m EBIT (2015): €135.2m

- The product portfolio as a percent of company revenue includes plastic shielding technology 27%, housing modules 21%, specialty gaskets 17%, cylinder head gaskets 14%, aftermarket 9%, engineered plastics 6%, exhaust gas purification 3%, e-mobility 1%. ElringKlinger is market leader in cylinder head gaskets.
- In the first half of 2016 the automotive supplier recognized a growth in its three main markets: NAFTA, China and Europe. The unexpected leader was the European market, driven by low fuel prices, high employment rate and low interest rates. Since the financial crisis in 2008/09 the market has recovered. The commercial market for trucks over 3.5t in western Europe increased by 14.3% during the first six months of 2016.
- M&A activity: ElringKlinger bought 27% of the Hofer AG from Nuertingen, Germany and 53% of its production subsidiary Powertrain Products GmbH. Hofer is a specialist in battery- and fuel cell technology as well as for software. 75% of the company's employees are engineers and technicians. Elring Klinger strengthens its position in the field of electric mobility with this acquisition. Electro mobility is currently generating 1% of the revenues.

elringklinger)

Business strategy for the future

- ElringKlinger focuses its ambitions on reducing emissions, a current megatrend in the sector. There are various concepts to achieve this goal. One is green technology, which is not only the reduction of CO2 but also the reduction of nitrogen oxides, hydrocarbons and soot particles are also important. Regarding emission reduction, there are particulate filters and end-to-end exhaust gas purification systems. ElringKlinger is one of a few companies, that is able to produce these high-tech components. Lightweight design with new components is another way to reduce fuel consumption and emissions. E-mobility and fuel-cells are concepts as well; these concepts aim to replace the complete combustion engine. This radical step will come; in small ones, but the steps go in this direction. The acquisition of Hofer AG enhances the know-how in electric mobility. The strategy is to stay a technological leader
- The R&D expenditures remain high compared to the sector increasing by 3.7% to €33.4m in 2016
- The development for the first half of the year focuses on one of the megatrends: Efficient drive systems. Main projects are the improvement of components for the car body in lightweight production. They used new materials like composites. Another project is an emission control concept for common rail engines of off-road vehicles. The e-mobility division concentrates on a concept of lithium ion accumulator modules. Applications for this niche concept could be, forklift trucks and construction machinery.
- Conclusion: A diversified product portfolio and R&D concept with focus on the key trends of lightweight and electro mobility, is the best way to remain the leader as a supplier in the sector. Acquisitions of companies is a way to gain know-how in the key trends.

Conclusion of the trend analysis

Large investments and new, specialized knowledge is necessary for the new technology

Derived strategies to meet challenges in the automotive sector





D.

Clairfield International at a glance

Transactions in all relevant European markets with strong automotive M&A team in Germany



Clairfield in Germany

Senior partners	Years in M&A	Industry focus
Dirk Freiland	17	TMT, automotive & machinery, services
Jack Helm	30	health care, industry, automatization
Darius Kianzad	20	clean tech, health care, resources
Dr. Hannes-Alexander Klemm	30	industry, healthcare, retail
Martin Lemmer	13	food and beverage, business services
Dirk Middelhoff	10	TMT , high-tech
Andreas Piechotta	16	industry, medical technology
Dr. Albert Schander	19	consumer goods, industry, logistic, retail
Dr. Mathias Tempel	26	financial service, consumer goods

Strong presence all over Germany, covering all major industries supported by:

- approx. 20 junior and senior professionals across three offices
- more than 25 senior industrial experts

Clairfield in Europe

20 offices	Strong presence in Europe with 20 offices
14 countries	Active in all relevant European markets
#14	Ranked in top 15 in Europe

League table Germany 2016 (Thomson Reuters)

Rank	Firm		# of Deals
#1	EY tataj 1007	EY	53
#2	KPMG-	KPMG	47
#3	Concentro [®]	Concentro Management AG	29
#4	pwc	PwC	22
#5	ROTHSCHILD	Rothschild	21
#6	ALTIUM	Altium Capital Limited	20
#6	ACXIT GAPITAL FRAUNCIS	ACXIT Capital Partners	20
#8		Lincoln International	19
#9	SAKER TILLY	Baker Tilly International	16
#9	Mad	M&A International	16
#11	IMAP	IMAP	14
#11	GLOBALSCOPE	Globalscope	14
#13	Deutsche Bar	k Deutsche Bank	12
#14	perspektiv GmbH corporate finance	perspektiv GmbH	11
#14	na manana at na takan tena.	Clairfield International	11

International support for clients with 480 professionals in 39 offices worldwide



Europe			North America	Asia-Pacific
Austria Vienna	Germany Dusseldorf Frankfurt	Russia Moscow	USA Atlanta	Australia Brisbane
Belgium Antwerp	Stuttgart	Spain Barcelona	Miami Minneapolis New York	China Hong Kong
Brussels Denmark	Hungary Budapest	Madrid Valencia	Phoenix Seattle	India Mumbai
Copenhagen Finland	ltaly Milan	Sweden Stockholm	Washington, D.C.	
Helsinki France	Netherlands Amsterdam	Switzerland Geneva	Brazil Curitiba	
Lyon Marseille	Norway Oslo	UK Birmingham	Sao Paulo	
Nantes Paris	Poland	London	Chile Santiago de Chile	
	Warsaw		Mexico	

Mexico City

Clairfield Worldwide

480+	Professionals in global offices
110	M&A transactions closed in 2016 (small and medium cap) Over 600 transactions in the last 5 years Approximately 75 in the automotive industry
€2.8 bn	Cumulative value of transactions closed in 2016

League table Europe 2016 (Thomson Reuters)

Rank	Firm		# of Deals
#1	рис	PwC	321
#2	KPMG	KPMG	289
#3	ROTHSCHILD	Rothschild	242
#4	EY Differ Langer	EY	234
#5	Deloitte.	Deloitte	177
#6	BDO	BDO	170
#7	IMAP	IMAP	136
#8	M&A	M&A International	134
#9	Lazard	Lazard	112
#10	ENP PARIBAS	BNP Paribas SA	87
#11	A STATE OF A	Clairfield International	82
#12	cíti bank	Citi	78
#13	Morgan Stanley	Morgan Stanley	72
#14	CFI Group	CFI	70
#15	BAKER TILLY	Baker Tilly International	68

Serving clients with tailor-made solutions

Our USP's in M&A and general advisory

Sector Experts

- Access to high quality industry experts and networks
- Worldwide coverage by local industrial experts
- Always close to the market

Cross border and internationality

- 80% cross border execution
- Possibility to access buyers and sellers in more than 40 countries in local language

Business development power

- High analytical depth in buy side targeting and sell side buyers access
- 360 degree approach with global involvement
- Database with more than 20.000 target companies

Senior Attention

- Partner driven deal leadership
- Consistent service to clients on a global level with high level of discretion

Private Equity

 Long standing relationships with PEmarket players



Assisting clients in mid-sized, crossborder transactions

Our focus

Mergers & Acquisitions	 Design, initiation and execution of international and domestic acquisition opportunities Strategic partnerships and alliances Strategic alternative reviews Search for strategic and financial investors
Disposals/ Divestitures	 Feasibility analysis Divestitures, spin-offs and carve outs Valuations and fairness opinions
Capital solutions	 Financial sponsor transactions (MBO and LBO) Debt advisory: advisory in acquisition finance, debt financing, recaps Equity advisory: independent advisory in IPOs, rights issues and placings Strategic investor relations advisory
Advisory	 Strategic advisory services, such as valuations and fairness opinions, market entry feasibility Advisory on strategic alliances, mergers, licensing and joint ventures Market studies Monitoring trustee
Restructuring advisory	Restructuring and recoverySpecial situations

Our focus	
Mid-Market	Clairfield is one of the leading global M&A firms typically executing mid-sized transactions up to an enterprise value of 500 m€
Cross-border	With partner offices in 50% of all OECD countries, Clairfield International covers 75% of Germany's most significant trade partners
Long-term relationships	Our advice is embedded in long term relationships with corporates, family offices and private equity investors
Our philosophy	
Sector expertise	The longstanding experiences of our partners in diverse industries combined with our outstandingly connected industry experts enable our clients to identify new strategic possibilities
Confidentiality	Trust and integrity are essential values for our advisory services. Information is treated with the highest discretion

commitment to quality and prudent advice

usually found in large multi-product firms

single most important hallmark of our execution style and

We own our business and act as entrepreneurs free of conflicts

team

Independence

33

Strong sector expertise and understanding of automotive and automotive suppliers industry

Business Services



- **Business Services**
- Distribution
- Logistics
- **Industrial Services** Education
- Staffing
- н.









Natural Resources,

Cleantech & Energy

Metals & Mining

- Oil & Gas н.
- **Renewable Energy**
- Power
- Coal & Fuels
- **Oilfield Services** Ξ.
 - Nuclear







- **Consumer Goods**
- Retail
- Real Estate
- Furniture
- Food & Beverage **Food Services**
- Agribusiness .



Financial Services

Debt Collection

Asset Mgmt.

Insurance

Family offices

Private Equity

ARDIAN

HSBC (X)

ING

31

e finance

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н.

Financial Institutions

& Private Equity

Healthcare & Life Sciences



- Medical Devices
- Medical Supplies
- Pharma & Biotech
- Animal Health
- Lab Services & Equipment
 - Hospitals & Clinics







VIVA (ANTÉ

VirMedica

Sana Kliniken AG



Automotive

Packaging

Machinerv

Chemicals

Test & Measuring

.







Equipment

HUAWEI

axel springer

DER SPIEGEL





xerox 🌒







Unilever

н.

Sector

Sub-Sectors

Representative Clients

Selected references: Automobiles and parts 1/2

Poland/ Germany France/Brazil France/The Netherlands Germany Buy Buy Buy Buy Trescal altran .0.0 LINDSAY GOLDBERG iParts.pl backed by ARDIAN acquired acquired acquired was sold **VDM** Metals **NSPYRE** Materials for the future. Advisor to the seller October 2016 Advisor to the buyer April 2015 Advisor to buyer February 2015 Advisor to the buyer December 2015 E-commerce, spare car parts Calibration services High-performance metals Engineering consulting Germany Italy/Germany Italy/ Germany France Sell Sell Sell Buy IMr HALDER JOUSTRI NDUST bpifrance WIVE RUS MANAGEMENT acquired acquired acquired acquired PRAE-TURBC February 2014 Advisor to the buyer April 2015 Advisor to the buyer July 2014 Advisor to the buyer June 2014 Advisor to buyer Machining compressor wheels Leaf springs, stabilizer bars for Lightweight technologies Varnish and coatings

Clairfield is well connected in the automotive and automotive supplier industry

heavy trucks

Selected references: Automobiles and parts 2/2



Clairfield is well connected in the automotive and automotive supplier industry
Deal snapshot – lightweight manufacturing

Challenging situation initiated by major client of FPK – Volkswagen

Client	Client nationality	Counterparty	Counterparty nationality	Transaction type	Sector	Transaction team
IMR Automotive	Italy	FPK Lightweight Technologies GmbH	Germany	Acquisition	Automotive	Filippo Guicciardi (Lead) Dirk F. Freiland



Clairfield International in Italy and Germany advised IMR

We are very satisfied to have acquired FPK, following the recent acquisition of Sommer Industrielackierung, which will allow us to cover the German market more efficiently and to broaden our services. We are considering a further acquisition in Europe with the assistance of our advisors at Clairfield International.

Matteo Galmarini, shareholder and CFO of IMR Automotive

Deal summary

Clairfield International advised the Italian IMR Automotive S.p.A. in the acquisition of the German FPK Lightweight Technologies Deutschland GmbH. After the transaction, with an enterprise value in the range of ≤ 22 million, the Italian group expects to reach a consolidated turnover in the range of ≤ 200 million in 2014.

Client and situation overview

The acquired business is a company active in the design and manufacture of composite lightweight structures and aerodynamic components for the automotive sector, with 2013 sales in the range of &22 million.

IMR is a world-class supplier in the manufacturing of exterior parts for the automotive and truck industry. IMR offers Tier 1 services and products to the most prestigious car manufacturers in the world, employing approximately 1,300 workers in five different plants, three located in Northern Italy, one in Spain and one in Germany, with 2013 sales in the range of \leq 135 million and an EBITBA margin of about 10%.

Deal snapshot – acoustical management (distressed spin-off)

Very difficult situation with a distressed country organization as a seller

Client	Client nationality	Counterparty	Counterparty nationality	Transaction type	Sector	Transaction team
Autoneum	Swiss	Mutares AG	Germany	Sale	Automotive	Filippo Guicciardi (Lead) Andrea Scarsi Dirk Freiland



Deal summary

The listed Swiss automotive-parts group Autoneum Holding AG sold 100% of its Italian subsidiary automotive manufacturer Autoneum Italy Spa to mutares AG, the listed Munich-based investment company.

Client and situation overview

Autoneum Group is a leading player in the industry of acoustic and thermal management solutions for motor vehicles. The Group is a partner for major light vehicle and heavy truck manufacturers around the world. The historical Italian nucleus of Autoneum Italy SpA was incorporated in the 1930s. Today the company, headquartered in Turin, is the result of the acquisition of Fimit by Autoneum Group in 1996, at that time called Rieter Automotive Systems.

Autoneum Italy produces interior components for acoustic and thermal isolation for both cars and trucks. The turnover in 2012 was approximately €110 million.

Mutares was established in 2008 as an operational industrial group focusing on the acquisition of non-core businesses that are being sold by large international corporations. mutares' current portfolio consists of 11 subsidiaries (for total sales of approximately \in 500 million).

Recent selected transactions: Private equity



Germany

Buy				
EQUISTONE				
together with	1			
management				
acquired 100 %	of			
shares from				
Unlimited Footwear				
Group				

2015

Advisor to the buyer

midmarket private The equity investor Equistone Partners Europe acquired Unlimited Footwear Group together with management. Equistone is one of Europe's leading private equity invests investors and especially in established medium-sized companies with a good market position, outstanding potential for growth and a sustainable positive development of earnings.

Germany



CemeCon AG is a specialist in state-of-the-art coating solutions for cutting tools and components. The Company is located at Würselen (close to Aachen) where it operates one of the largest coating service centers in Europe. In 2008 CemeCon reported sales of €48 million.

	Germany
l G	Sell
	Bayern LB Private Equity
9 8 F	acquired
I	isu

Advisor to the seller

2006

Vedior N.V. sold ISU Personaldienstleistungen GmbH, a temporary staffing company, to BayernLB Private Equity. Bayern LB Private Equity is the fullyowned PE subsidiary of Bayerische Landesbank Girozentrale with a total balance sheet of 340 billion euros and 9500 employees.

Recent selected transactions: Buy-side



Germany/ US



Bilfinger SE is one of the market leaders in the segments of energy technology, nuclear & environmental technologies, piping technology, machinery & apparatus engineering, and power plants. Bilfinger acquired the control systems specialist Helmut Mauell GmbH, a leading provider of technical process systems and equipment for modern power plants.

Germany



GFT Group, headquartered in Germany, is an international provider of innovative IT solutions and services. GFT is among the world's leading IT service providers in the financial services sector. With Asymo, GFT strengthens its expertise in bank process consulting and supports its international growth



Germany

Buy

2010

DESIGNA Verkehrsleittechnik GmbH develops, produces, installs, and maintains fully automatic parking management systems. Asytec GmbH is active in the development, installation and maintenance of customized ticket. access control, and video systems. A prominent local customer is Frankfurt Airport, who runs its entire car parking system by Asytec.



Consulting and services



Electronic and electrical



Industrial engineering





Services





Technology and hardware equipment





Ε.

Clairfield International automotive sector team

Introduction to the Clairfield International automotive sector group

Dirk Freiland



Dirk Freiland is managing partner at Clairfield International and head of the automotive sector team.

- Clairfield International's automotive sector team focuses on advisory to midcap and large cap clients, whether assisting with a suitable growth strategy or going through the process of selling a business.
- The automotive industry is facing significant changes in the next few years which are caused by several drivers and trends, but also by political and legal requirements. They impact the direction of change and also the direction of innovations. With our sector experts located all around the world, Clairfield International understands this complicated sector and is perfectly positioned to help clients take advantage of market conditions.
- Although transactions have declined in the last few years, the automotive sector is still very attractive for international M&A and Clairfield International has closed many successful transactions in this sector.

Clairfield International understands the different players in the market and the importance of suppliers for the automotive industry. Our clients consist of:

- OEM's
- Auto-part suppliers
- Raw-materials suppliers

Our automotive sector experts have analysed following trends for the market:

- Efficiency: lightweight construction with the use of carbon fibre, downsizing of engines while improving power and fuel consumption, improved aerodynamics
- Safety: high-tech driver assistant systems like brake assist, lane keeping, intelligent lights or autonomous driving are more demanded than comfort features
- Digital connectivity: infotainment and connectivity systems are nowadays standardized equipment in premium cars
- New market player: non-automotive companies which provide OEM's with high-tech products or services for increasing customer needs have an important role in the market
- **Electric cars:** so far plug-in hybrids are seen as the best option of alternative drives but battery electric cars, especially in the premium sector are catching up

Next to the trends caused by the market, there are also **political and natural** trends:

- Demographic shifts
- Urbanization
- Climate changes
- These are the trends for the near future which the market participants will have to face

Most important markets for the automotive sector

North and Latin America Australasia Europe Offices: Offices: Offices: Belgium Norway Australia Brazil Denmark Poland Mexico China Finland Russia (Moskva) USA France Spain Germany Sweden Italy UK The Netherlands Countries where Clairfield International is active > The following pages show our presence in Countries where Clairfield International is active automotive key markets with an outlook by & has automotive experts the responsible Clairfield expert

Clairfield International has sector experts in all important regions, where OEM's and auto part suppliers are active

Brazil: Market is expected to decline in sales and production

Brazilian automotive sector is focusing on restructuring and investments in production plants to face crisis

Claudio Doerzbacher – Partner



Before founding Redirection in 2007, he was manager of M&A projects for three years in the IGC Partners. He worked for three years as CEO of Axion Group, being responsible for directing the operation into two separate units, making it the market leader in one of the segments it operates. He is currently CEO of Gauss, a company in the auto-parts industry with factory in Brazil and China.

He has extensive experience in M&A and the auto-parts aftermarket industry.

OEM's



Market overview

- Brazil is one of the largest automotive industries in the world. The industry generates more than \$100 billion per year in revenues.
- In the last two years (2013 and 2014), the Brazilian auto industry has been facing one of the worst crises in domestic consumption and exportation.
- As of October 2016, vehicle production is down about 17% compared to the same period of the previous year, reaching a total of 1.7 million vehicles produced. Exports, on the other hand, showed an improvement. Data up to October / 16 show an increase of almost 20%.
- The market share of the four giants of the automotive sector (Fiat, General Motors, Volkswagen and Ford) strongly fell with the credit crisis in Brazil. Its share dropped down from 82% to 58% in ten years.
- Unlike the general market, luxury vehicles grew about 20% in sales in 2015

- Resumption of growth will begin in 2017.
- The importance of Argentina in national production tends to decrease, while China will gain space. From this change, the national market is expected to reach 5 million vehicles in the next decade, with an average expansion of 5.6% per year from 2017.
- Growth in M&A activity in the Brazilian aftermarket industry. It is still a highly fragmented market and it has showed resilience in moment of crisis. PE funds have already invested in auto parts distribution.
- The aftermarket has been very attractive for investors due the vehicle sales in recent years. The vehicle fleet will continue to increase, which also indicates growth for the aftermarket industry for the next years.

France: Local industry is led by PSA Peugeot Citroën and Renault-Dacia

Mobility services and car-sharing solutions are major trends in the French automotive industry

Bertrand Hermez – Partner



Bertrand Hermez has more than 23 years of M&A and investment banking services experience. He began his career as an Associate at Credit National (Natixis) in charge of structured finance (first in Luxembourg, and then in Paris). Prior to joining Clairfield International, Bertrand was a Managing Director - Corporate Finance at Quilvest Bank in Paris. Previously, he was a Director at Deloitte where he led the French TMT Corporate Finance practice and before that worked at Apax Partners in charge of cross-border deals and fundraising assignments. Bertrand graduated from EM Lyon (major in Finance) and also has a degree from the Institute of Chartered Accountants (England & Wales)

OEM's



Market overview

- Global production of vehicles amounted to €90.8m in 2015 (up 1.1%, or 950k new vehicles), which represented uninterrupted growth since 2009. In Western Europe, production progressed by 7% in 2015.
- European markets have continued their recovery after the 2009 crisis, allowing French manufacturers to add substantial volume. In 2015, French manufacturers produced 6m vehicles worldwide (up 5.9% compared to 2014) among which 78% were sold outside France (or 4.7m vehicles).
- In context of dynamic growth, French auto makers have substantially bolstered their deliveries. In 2015, PSA's sales increased by 1.2% (+6% in Europe where the Company still ranks 2nd) and Renault's sales increased by 3.3% thanks to European market sales growth. French manufacturers employed 311, 000 people worldwide.

- Sales have improved and car registration is also expected to improve in the European Union since the financial downturn.
- Connected and intelligent cars are beginning to make inroad in the auto industry
- Traditional players are now figuring out that electric vehicles represent the brightest future for transportation as disruptive players are competing with historical auto makers.
- New vehicle manufacturers will have to distinguish themselves from their peers through their innovative technologies involving both assisted driving and global connectivity.
- Following Volkswagen diesel emissions scandal, regulations are expected to be stricter in the years to come, particularly in mature markets.
- Tax credit for employment and competitiveness granted by the French State, such as CICE or CIR, should continue to positively impact the industry as it contributes to narrow the labor cost gap between French auto makers and their peers.

Germany: OEM's and auto part suppliers outperform global quality standards

The automotive sector has a 20% share of total sales generated by the general industry in Germany

Dirk Freiland – Managing Partner



Dirk Freiland has twelve years of experience in M&A and corporate finance. Prior to Clairfield International he was partner of a midsized M&A company in southern Germany. Thanks to his in-depth knowledge of this sector and good connections, Mr. Freiland has successfully advised several automotive transactions in Germany in the last few years. He is head of the automotive sector team and responsible for Germany, Austria and CH.

OEM's



Market overview

- 2015 was another good year for the German automotive industry, sales amounted to €404 billion and they remain 21st of the world's 100 top automotive suppliers.
- German OEM's produced 5.7 million passenger vehicles and 325,000 trucks and buses in 2015, Germany remains the leader in car production in Europe and the export leader in the world, ahead of Japan and South Korea.
- The focus of our automotive industry is without doubt exporting, about 75% of the produced passenger vehicle were exported. Germany is aware of the chances which arise from emerging markets like China, Brazil or India.
- The German companies of the automotive sector excel with high-tech knowledge and innovative capacity, an essential advantage in order to defend their position in a fast-changing market.

- Lightweight construction compared to the use of self-recycling materials
- Drive technology, downsizing motors while improving power
- Digitalization is coming with a steady growth of sensors in cars. Experts expect big data business models to make a revenue of \$600 billion in 2030
- Autonomous driving as the highlight project of digitalization could be a purchasing argument in the future
- Electronically safety systems

Italy: Gradual recovery in the local automotive industry

Production capabilities and sales have increased in 2014 after years of negative results

Filippo Guicciardi – Partner



Filippo Guicciardi, after gaining experience in a first-rate multinational auditing company, worked for a Milan consulting company that had a strong orientation towards SMEs. In 1999 he co-founded K Finance, an advisory company specialized in domestic and cross-border merger & acquisition deals, gaining a deep knowledge of M&A processes in industries like textile, pharmaceutical, mechanical engineering, logistic and machine tools. In the last few years he worked on some debt restructuring transactions. Filippo developed a deep knowledge of the Private Equity industry, working with all the main players in the Italian market.

OEM's



Auto part suppliers



Market overview

- The Italian automotive industry was the twelfth largest globally throughout last year and the fifth in Europe. In fact, the Italian automotive industry sold approximately 1,574.872 cars compared to the 200,000 sold in 2014.
- In 2015, the Italian automotive industry experienced a strong increase of 15.8% registrations. This positive number testifies the recovery occurring in this sector after years of negative results.
- The data provided by the Ministry of Transport underlines the growth of petrol cars (+ 16.6%), diesel (+ 24.8%), hybrid (+ 21.5%) and electrical (+ 31.5%). The gas cars, instead, registered a slow decrease: - 3% Gpl and - 13% methane vehicles.

Recent transactions



Mexico: Extensive wave of privatization boosts the Mexican market

Mexico is becoming an important global hub for the automotive industry, caused by a major privatization wave

Pablo Coballasi – Managing Partner



Over the last 20 years Pablo Coballasi has worked as a private equity investor, investment banker, and consultant in the United States and Latin America. For the last eight years, Mr. Coballasi helped build Clairfield Mexico into one of Mexico's leading middlemarket investment banking practices. Mr. Coballasi holds a BE in Mechanical Engineering from Vanderbilt University and an MBA from Northwestern's Kellogg School of Management.

OEM's



Market Overview

- The automotive industry has been one of Mexico's strongest performers, with record output in recent years making it the worlds' seventh-largest producer and fourthlargest exporter of vehicles in the world
- The automobile industry represents around 17.6% of Mexico's manufacturing sector, employing roughly 675,000 people in Mexico (accounting for 40% of all automobile sector jobs in North America)
- In the past five years, vehicle production has doubled, bringing over US\$19 billion in foreign direct investment
- Producing a total of 3.4 million vehicles in 2015, of which almost 2.8 million were exported, Mexico is the 4th largest exporter, just behind Germany, Japan and South Korea
- Mexico is the 2nd largest vehicle exporter behind the U.S., with 1.69 million vehicles, toppling Japan
- This sector represented more than 3% of the GDP of the country

- Low labour costs. Mexican workers at GM, Ford, and Chrysler earn \$8 to \$10 an hour, and industry wages in the country can be as low as \$3.77, while wages in the U.S. and Canada average between \$40 and \$60 an hour
- Trade Agreements. With 44 trade agreements, Mexico enables automobile companies to easily export their products duty-free and has access to over 60% of the world's GDP because of their relationships through these agreements
- Location. Mexico's position bridging North and South America makes it a prime location for expanding automobile sales into new markets such as Latin America, while at the same time feeding the world's largest market – the U.S.
- **Economic expansion**. The automobile industry is more than just a source of economic expansion; it is altering the composition of Mexico's society by contributing to the rapid growth of the middle class. 53.2% of Mexicans are considered to be in the middle class today.

Poland: Local revenues are generated primarily by auto part suppliers

According to the strong local supplier industry, Poland remains to be an important production location in Europe for foreign OEM's

Tadeusz Madej – Partner



Partner CET Poland. With CET since 1992. Head of Clairfield Poland's Industrial and Energy practice. Completed over 300 projects including 50 transactions. Clients include the spare part distributors: in Poland like; Inter-Team (JV with Hella), AD Polska sold to AD France, JC Auto floatation on Warsaw Stock Exchange) and others like , PKN Orlen, KGHM, Tauron, Cisco, PERN, PGNiG, PGE, Comcast Corporation, Lockheed Martin, BAE/SAAB. Education Czestochowa Technical University (MSc), Warsaw (Postgraduate Studies in Organisation and Management).

OEM's



Market overview

- In the year 2013, value of the Polish automotive production increased by 6.2% reaching a total value of €26bn. The sector's share in total industry production was 9.5%, making it the second biggest industry in Poland. Sector's profitability amounted to 5.2%.
- 475,000 passenger cars and 108,000 commercial vehicles were produced in 2013. CAGR of commercial vehicles production between 2009 and 2013 amounted to 11,9% making it one of the key drivers for automotive sector growth in Poland.
- Industry sales are generated mostly by auto part suppliers (almost 60% of revenues). A second large part of the sector are foreign OEMs' facilities. In turn, Polish OEM's consist mainly of bus manufacturers (e.g. Solaris, Solbus) and truck manufacturers (e.g. Honker, Jelcz).
- Polish automotive industry is export-oriented. In 2013 almost 95% of automotive production was exported, mainly to customers from Germany.

- Since the Polish production of passenger cars and commercial vehicles is based mainly on the production for foreign OEM's, global technology trends can also be observed in Poland. There is a growing number of lightweight construction and improvement of engine performance.
- Polish manufacturers developed the technology of electric buses. There are already a few public contracts for purchase of such vehicles.
- Polish truck manufacturers refresh old brands, mainly due to supply contracts for the Polish army.

Spain has become Europe's second-largest producer of vehicles behind Germany

The growth in the Spanish auto industry has improved by a vast network of local parts suppliers and relatively flexible labor laws.

Brian O'Hare – Chairman



Brian O'Hare is founding partner of Clairfield Spain and of the Clairfield partnership. He has advised transactions in real estate, healthcare, business services, financial institutions, and transportation, among other sectors. Mr. O'Hare appears regularly on television and radio as well as publishing business comments for leading financial periodicals. Mr. O'Hare earned an MBA from IESE, Barcelona, Spain. He is active in the American Society of Barcelona, where he was President from 1995 to 1999, and the American Chamber of Commerce in Spain, where he is currently 1st Vice President.

OEM's



Market overview

- Spain is the 2nd largest car manufacturer in Europe, although it is the first manufacturer in the Old Continent in commercial and industrial vehicles
- Spain is the 8th car manufacturer worldwide
- In 2016, 83% of vehicles produced in Spain were exported
- 1000 companies from International groups to SME's in the Component Industry
- Low labour costs
- Great location to enter European market

Trends

Vehicle manufacturing experienced 7.9% of growth through September as 2,220,722 vehicles were manufactured during 2016. In the same period, vehicle exports grew 8.4%. All these positives numbers make reasonable to think that Spain will produce about 2.800.000 cars at the end of the year 2016.

UK: Automotive market is growing continuously led by premium brands

The British automotive industry is expected to grow within the next years, without being outperformed



Chris Gregory – Partner –

Chris Gregory has over 25 years of experience in M&A and corporate finance including advising on various automotive transactions in the UK. Chris was previously a Corporate Finance Partner within Deloitte. Chris is the head of the industrial sector team within Clairfield.



Simon Lloydbottom – Associate Director –

Simon Lloydbottom has six years of experience in M&A and corporate finance including experience advising on various transactions in the UK with a specific focus on industrial transactions.

OEM's manufacturing in the UK



Market overview

- The UK is the 14th largest global automotive manufacturer, increasing their output by 1.3% since 2012.
- In 2013, 77.3% of vehicles built in the UK were exported to more than 100 countries worldwide, 49.2% of these being within the EU.
- Nissan is the largest car manufacture in the UK in terms of volume, producing 501,756 in 2013.
- There are only three UK-owned British car manufacturers Morgan Motor Company, Caterham Cars Ltd and McLaren Automotive. The overall output of these three companies is small.
- The automotive industry accounts for 4% of GDP (€77.4 billion) and currently provides employment for more than 700,000 people in the UK.
- The average value of vehicles imported in 2013 was approximately €16,640 compared to an average of €26,370 for vehicles exported, meaning that the balance of trade for vehicles was €89.6 million net export.

- By 2018, the United Kingdom automotive manufacturing industry is forecast to have a value of €58.7 billion, an increase of 39.2% since 2013.
- Sales are at an all-time high due to manufacturers providing financial support for the industry. Sales are expected to plateau and remain at this all time high as manufacturers commit to providing financial support.
- Production of automotive vehicles is expected to increase in 2015, and further in 2016 & 2017.
- The increased amount of internet connected cars will provide benefits not only for consumers in terms of entertainment, but also for manufacturers who receive revenue opportunities from analysing the data that they will now be able to collect from drivers.



Senior partners Germany (1/3)



Dirk F. Freiland

Dirk Freiland has twelve years of experience in M&A and corporate finance. Prior to joining Clairfield he was co-founder of a medium sized M&A company in Southern Germany. Previously, he worked as senior manager at Accenture (formerly Andersen Consulting) in Strategy and Change Management where he was responsible for building up the M&A team and activities for Germany, Austria and Switzerland. Further milestones in his career include a small service company he built from 20 to 120 people within 14 months and Alcatal (Paris) where he worked in research and development. Dirk Freiland studied Mechanical Engineering, Electronics and Computer Science of the University of Applied Sciences of Esslingen/Stuttgart and Paris.

E-mail: freiland@de.clairfield.com



Walter J. Helm

Walter Jackson "Jack" Helm has been advising in cross-border corporate finance and mergers and acquisitions for over thirty years. Educated in both the US and Germany, Mr. Helm was trained at Citibank and Lehman Brothers, New York and relocated to Frankfurt in 1988 to open Lehman Brothers' new German corporate finance practice. His affinity for life sciences has resulted in significant repeat transactions primarily in the chemicals and healthcare sector and diversified industrial segments, and in 1996 he became Managing Director and Country Head of the merger and acquisitions specialty group Wasserstein Perella. Upon the acquisition of Wasserstein Perella by the Dresdner Bank in 2001, Mr. Helm returned to his native Virginia to pursue venture capital opportunities and returned to the German advisory business in 2011. Mr. Helm has a bachelor's degree from the University of Virginia and a Master in International Business from Georgetown University.

E-mail: helm@de.clairfield.com



Darius O. Kianzad

Darius Kianzad began his career in 1991 at the Treuhandanstalt in Halle and Berlin. Between 1993 and 2005, Mr. Kianzad held leading positions in renowned audit firms and investment banks such as PricewaterhouseCoopers in Frankfurt and was Senior Vice President M&A at Sal. Oppenheim where he was in charge of M&A transactions in the energy and automotive sectors and also became co-leader of the Industrials segment. Between 2006 and 2010, Mr. Kianzad was a member of the Management board at ista Group, a leading international energy services company, in charge of Corporate Development/M&A and Regional Head of "Emerging Markets". Darius Oliver Kianzad graduated with a master's degree in Economics (University of Heidelberg) and has completed a General Management program at the University of St. Gallen and the Advanced Management program at INSEAD.

E-mail: kianzad@de.clairfield.com

Senior partners Germany (2/3)



Dr. Hanns Alexander Klemm

Alexander Klemm was born in South Africa, raised in Germany and the UK and studied in the UK, USA and Germany. He has over 30 years investment and wholesale banking transaction experience in M&A and equity capital markets. He worked in Frankfurt, London and New York at Deutsche Bank/Morgan Grenfell, Lehman Brothers, UBS Warburg, JPMorgan Cazenove, and Hauck. He has also held various senior management positions in banking. As head of investment banking at JPMorgan Cazenove in Germany/Austria/Switzerland, he established the Frankfurt office and built Cazenove's successful midmarket advisory and capital markets business. Following leadership of the MBO of this business and subsequent contribution to Hauck & Aufhäuser, the German private bank, he was partner and CEO of the corporates and markets division of the bank. Dr. Klemm holds a BSc. Hons. in economics and politics from the University of Bristol, an MBA from Columbia Business School and a Ph.D. in finance from Freie Universität Berlin.

E-mail: klemm@de.clairfield.com



Martin Lemmer

Martin Lemmer has extensive experience in strategy consulting and advising corporates and private equity investors in corporate finance matters. Prior to Clairfield International, Martin Lemmer worked for the London based consulting firm L.E.K. Consulting and M&A boutique First Capital Partners. Martin Lemmer has advised a large number of projects both on the buy- and sell-side serving strategic buyers and private equity players. Amongst others, Martin's business focus lies in the retail, food and beverage, business services and healthcare industries. He graduated in business administration from the University of St. Gallen (Switzerland) and the Richard Ivey School of Business at University of Western Ontario in London (Canada).

E-mail: lemmer@de.clairfield.com



Dirk Middelhoff

Dirk Middelhoff holds a degree in Business Law (LL.B) with a focus on corporate finance and more than 10 years of experience in corporate finance, business development and strategy. Until 2008, Dirk Middelhoff worked for the listed EMC Corporation, headquartered in Boston, one of the 25 largest IT companies in the Fortune 500. There he led national and international projects such as, Vodafone, Deutsche Bank, Metro etc.. At last head of strategic alliances and mergers & acquisitions. After 2008 Dirk Middelhoff worked as Director for a medium-sized M&A consultancy firm with focus on technology companies. Mandates of German and international companies from technology sectors among others, software, consulting, photonic on the buy or sell side as well as start-ups in the fields of software, internet and media with focus of founding and financing. Numerous publications on topics of accounting, valuation and financing. Dirk Middelhoff is member of various advisory and supervisory boards in technology companies.

E-mail: middelhoff@de.clairfield.com



Senior partners Germany (3/3)



Andreas Piechotta

Andreas Piechotta has been involved in international equity- and transaction business for almost 16 years. As a partner of a well-known international M&A advisory firm he has been responsible for business development in Eastern Europe and has managed to execute a variety of cross border transactions, e. g. in Poland, Hungary and Slovenia. Andreas Piechotta began his career in 1994 at Pfeifer & Langen, a known family-owned German sugar producer. At Pfeifer & Langen he supported various privatization processes in the Polish sugar industry. From 1997 to 2004 Mr. Piechotta was engaged in the Private Equity activities of DEWB AG, a subsidiary of JENOPTIK Group. Born in Poland, Andreas Piechotta studied Law at the University Bayreuth/Germany being a qualified lawyer, with a particular focus on commercial law.

E-mail: piechotta@de.clairfield.com



Dr. Albert Schander

Prior to founding M&A advisory firm SynCap in 2000 and contributing it subsequently to Clairfield, Albert worked as Executive Director/ Co-Head Corporate Finance for finance specialist group VMR where he was responsible for international fund raising projects and M&A. He held positions in his prior career at Deutsche Bank (BAI), Milan, KPMG/ Milan and Lehman Brothers/ Frankfurt, where he, among other responsibilities, advised on international and domestic M&A transactions. He studied Law and Economics at the Universities of Passau, Pavia/ Italy and Munich. He is qualified as an attorney-at-law in Germany and earned his Law degree from Ludwig-Maximilian-University of Munich and his PhD from Friedrich-Schiller-University of Jena.

E-mail: schander@de.clairfield.com

Contact Dirk Freiland, Managing Partner Office Stuttgart freiland@de.clairfield.com

Paris

German Offices	Office Stuttgart Mörikestraße 11 D-70178 Stuttgart		Office Frankfurt Friedrich- Ebert- Anlage 18 D-60325 Frankfurt am Main		Office Düsseldorf Tersteegenstr. 28 D-40474 Düsseldorf
	Tel.: +49 (711) 620079 - 0 Fax: +49 (711) 620079 – 29		Tel.: +49 (69) 707969-60 Fax: +49 (69) 707969-99		Tel.: + 49 (211) 415546-14 Fax: + 49 (211) 415546-29
	stuttgart@de.clairfield.com		frankfurt@de.clairfield.con	n	duesseldorf@de.clairfield.com
International Offices	Europe			Americas	Asia and Australia
-	Clairfield Austria Vienna	Clairfield Hungary Budapest	Clairfield Spain Barcelona Madrid	Clairfield Brasil Curitiba Sao Paulo	Clairfield Australia Brisbane
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