

AlixPartners

INDUSTRIALS QUARTERLY M&A REVIEW

Q4 2021



Introduction:

ALIXPARTNERS INDUSTRIALS
QUARTERLY M&A REVIEW

Welcome to the AlixPartners Q4 2021 Industrials Quarterly M&A Review, a round-up of deal activity across the sector during the quarter.

2021 has been solidified as a strong year for deal activity with 2,465 deals in Q4 ticking up 1% from Q3. This brings the full-year total to 10,005 deals, exceeding 8,153 in 2020 by 23% and 8,471 in pre-pandemic 2019 by 18%. Deal activity has surpassed 2016/17 levels of approximately 9,500, representing a sustained M&A rush following caution at the start of the crisis. However, this may be easing as H2 2021 saw 4% fewer deals than H1.

While quarterly deal volumes in 2021 have been above 2019 levels, Q4 did not offer a boost in deal volume and value as in previous years. Lifting global restrictions in Q4 2020 provided a material uplift to last year's total figures but the same period saw increasing restrictions in 2021. This uncertainty resulted in a 20% deal value drop exacerbated by a 42% fall in mega-deals. Uncertain conditions are seen in lower valuations with multiples averaging 10% below Q3.

Private equity investors have been less active than expected in H2 2021, involved in 7% fewer deals in Q4 than Q3. They remain an important investor group and we expect their equity capital investment to step up in 2022 as markets improve.

2021 was a strong year for the global M&A market despite rolling restrictions, fluctuating market conditions and supply chain challenges; we expect this strength to persist through 2022 as market confidence returns.

We hope you enjoy the fourth quarter review and, as always, please do get in touch should you have any comments or suggestions.

Nick Wood
Industrials M&A Lead

KEY STATISTICS: Q4 2021



£92bn

Total deal value
▼ 59% vs. Q4 2020
▼ 20% vs. Q3 2021



2,465

Total deal volume
▼ 1% vs. Q4 2020
▲ 1% vs. Q3 2021



£123m

Avg. deal value
▼ 45% vs. Q4 2020
▼ 6% vs. Q3 2021



9.0X

Avg. valuation
▼ 8% vs. Q4 2020
▼ 10% vs. Q3 2021



7%

Decrease in PE-backed deals compared to Q3 2021



41%

of Q4 deal volume took place in North America, the most active region

Note on sub-sector classifications: Sub-sector categorisations were refreshed in Q3 2021 and historical trends reviewed to provide a more focused cross-section of industrial sub-sectors including industrial electronics and trading companies & distributors.

Outlook:

2021 FULL-YEAR ACTIVITY EXCEEDS PRE-COVID LEVELS WHILE VALUATIONS ARE REDUCED

Uncertainty relating to the Omicron COVID variant in Q4 led to caution and suppressed deal activity with smaller transactions favoured. Unlike previous years, the fourth quarter proved unusually quiet in 2021 but was sufficiently stable to ensure that 2020's total deal volume was exceeded by 23%.

PE firms played a lesser role than expected in H2 2021 with acquisitions of carved out non-core assets seized by strategic purchasers. Given the level of buyout dry powder across industries – est. £870bn in Dec-21¹, we expect PE firms to respond in early 2022 to increased corporate activity and market stability with large P2P deals.

The threat of the Omicron coronavirus variant is subsiding, having had less impact globally than initially expected; this has resulted in improving market conditions that will underpin M&A activity in 2022. We expect deal activity in the coming year to be typical of pre-pandemic times.

Both financial investors and corporates will take advantage of returning market confidence in 2022 to accelerate expansion strategies by **seizing opportunities to leverage depressed company valuations.**



In detail:

FEWER MEGA-DEALS IN Q4 UNDERPIN A DROP IN DEAL VALUE, WHILE PE P2P ACTIVITY DWINDLES

Deal volume remained stable in Q4 while total deal value was notably reduced:

- Amongst a global climate of rolling COVID-19 waves and variants, Q4 saw a 42% reduction in multi-billion deals which had previously been strong in 2021. This was a key driver of a 20% deal value reduction over the same period, falling below £100bn for the first time since Q2 2020.
- The appetite for larger deals appears to have diminished, as high deal volume in 2021 has not translated to high total deal value with all transactions in the year totalling £434bn, down from £478bn in 2020 and £513bn in 2019. This is evidenced by a comparatively low-value Q4 which has historically seen a bump in activity.
- EMEA saw the greatest deal value variability in 2021 dropping 51% to £24bn from £48bn between Q3 and Q4 driving the overall value reduction – unsurprising given the rapid rise of COVID restrictions across the region.
- After growing into a strong M&A market following the initial pandemic depression, activity in APAC eased in Q4 but averaged approximately 25% more deals per quarter than in 2019.
- North America remained comfortably the most active M&A market comprising 41% of the total deal volume and 51% the deal value, solidifying its leading position after moving ahead of EMEA during 2021.
- Despite fewer multi-billion deals in Q4 than Q1-3, particularly in EMEA, 18 such deals in Q4 still sits above the average in 2019 and 2020, with 61% of these in NA. A full-year total of 99 mega-deals is 50% and 41% above 2019 and 2020 levels respectively, making 2021 a boom year for large deals.
- After initially being on track for historic highs in 2021, public-to-private transactions led by PE firms were down in H2 2021 with just four per quarter. 2021's total roughly matches 2019 levels; the accumulated dry powder available to PE firms was not being readily deployed amongst the uncertainty of rolling COVID lockdowns in H2 2021.

KEY STATISTICS: Q4 2021 (CONTINUED)



Multi-billion deals completed in Q4 2021



42%

Decrease in mega-deals vs. Q3 2021



4

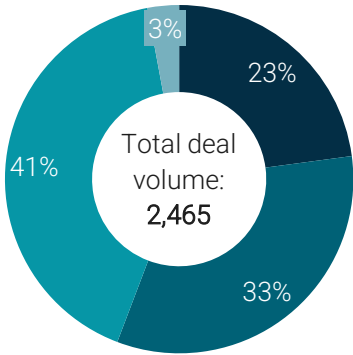
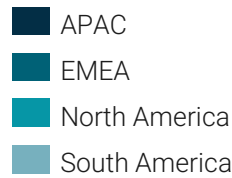
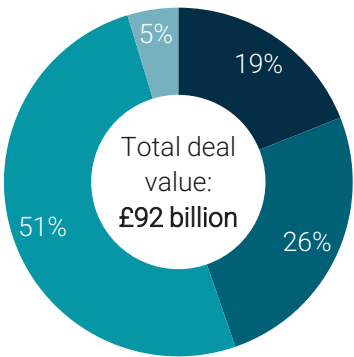
PE-backed public-to-private (P2P) deals completed in Q4 2021



64%

Decrease in PE P2P deals vs. Q4 2020

GEOGRAPHICAL TRENDS



In detail:

CEE LEADS DEAL VALUE IN BOTH FULL-YEAR AND Q4, DEMONSTRATING THE VALUE OF TECH FIRMS

Packaging and Distribution companies both saw double-digit growth into Q4 2021 while Automotive declined 9%:

- With 558 deals in Q4, the CEB sector was the most active sector making up 23% of total deal volume, while three other sectors contributed more deal value including £26bn in CEE. Most deals in CEB involve regional businesses that offer global expansion.
- 281 deals within TCD in Q4 is 24% up on Q3, marking its highest level since 2019 although contributing only 6% to the quarter's deal value, emphasising the sector's domination by low-value firms with limited interest to PE firms as they are involved in just 7% of these deals.
- The Chemicals sector remains a significant contributor to total value with each deal averaging £233m in Q4, 37% higher than the next highest sector (CEE) at £171m average deal value. This is driven by four mega-deals in the quarter targeting chemicals companies including the £2.7bn acquisition of Hexion Holdings by American Securities LLC.
- Deals in CEE dominated deal value in 2021 with 22% of the year's total value (Q4: 26%). Although less prevalent than 2020, where CEE deals comprised 38% of the year's total (Q4 2020: 39%), this highlights the sustained high valuations of electronics companies in the context of growing technology demands.

Corporate activity suppresses PE presence:

- PE firms remain a key buyer group, being involved in 9.1% of Q4 2021 deals, but their presence is overall reduced on 2019 and 2020. In 2019, PE firms were involved in 11.7% of deals and 11.2% in 2020, yet this was just 9.2% in 2021 suggesting high corporate reliance on inorganic growth post-COVID-19.
- In Q4, as in all quarters of 2021, PE firms showed least interest in M&M, involved in 3% of deals compared to 14% of A&D deals. During 2021, PE firms were most active in EMEA and NA, involved in 11% of Q4 deals in both regions. They were increasingly active in NA as the year progressed while reducing in EMEA likely in-line with COVID restrictions.

SUB-SECTOR TRENDS



£26bn

Value in Conglomerates & Electrical Equipment deals in Q4 2021



24%

Steepest sub-sector activity growth from Q3 2021 in the TCD sector



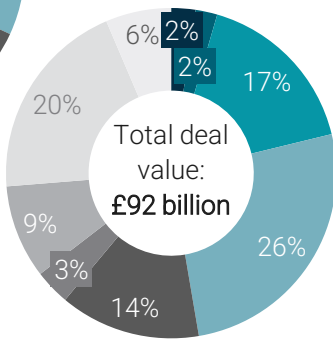
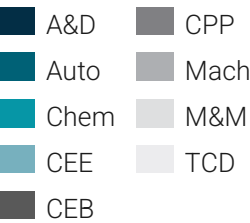
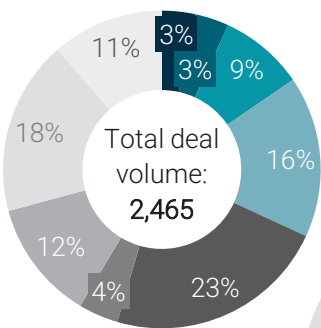
15.0%

of deals involved a non-European buyer of a European asset in Q4



9.1%

of deals involved a PE buyer in Q4 2021



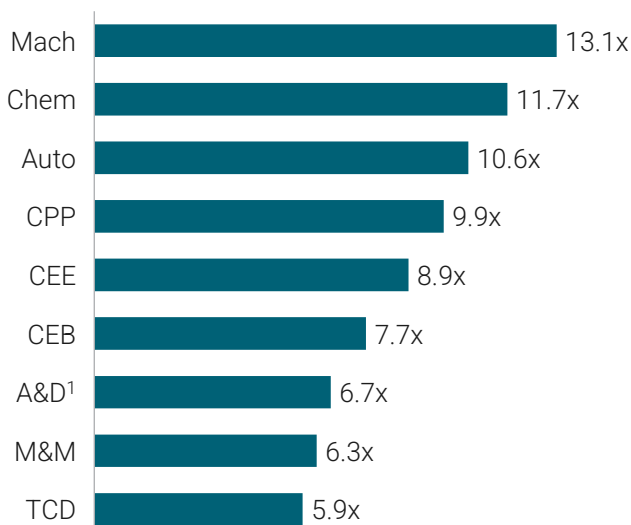
A&D	Aerospace & Defence
AUTO	Automotive
CHEM	Chemicals
CEE	Conglomerates & Electrical Equipment
CEB	Construction, Engineering & Building Products
CPP	Containers, Packaging & Paper Products
MACH	Machinery
M&M	Metals & Mining
TCD	Trading Companies & Distributors

DEAL MULTIPLES FALL IN Q4 TO LOWEST QUARTERLY AVERAGE SINCE H1 2019

Transaction multiples reduce 10% from Q3, falling to the lowest level since Q2 2019:

- Deal pricing multiples have dropped notably from 10.0x in Q3 to 9.0x in Q4, the lowest level since 8.7x in Q2 2019, and lower than any time during the pandemic. APAC multiples sustained higher than North America and EMEA, averaging 10.3x while other regions all decreased from Q3 levels by 11% in EMEA and 7% in NA. The prevalence of electronics companies in the APAC region likely drives these high valuations.
- After strong public trading multiples across sub-sectors in H1 2021, H2 saw a step down in average values at 8.6x in Q4 and 8.8x in Q3 down from 9.8x in Q1 and 9.5x in Q2. Nonetheless, full-year 2021 averaged 9.2x, comfortably above both 2019 (8.4x) and 2020 (8.6x) buoyed by post-COVID activity.
- A&D retains the highest multiple at 11.0x, while M&M has the lowest at 6.6x. All sub-sector average trading multiples except Automotive reduced or remained flat quarter-on-quarter, most sharply felt by Chemicals which fell 7% on Q3 valuations. These reductions reflect the lower total deal value seen in Q3.

AVERAGE TRANSACTION COMPARISONS AVG. IMPLIED EV/EBITDA (Q4 2021 DEALS)



13.1X

Highest sector avg. deal multiple for Machinery (based on 7 deals)



11.0X

Highest avg. public company valuation multiple in A&D

AVERAGE TRADING COMPARISONS

SUB-SECTOR ²	REV. CAGR (LAST 2YRS)	EBITDA % (FY 2020)	EV/ Q4 2021 LTM REV.	EV/ Q4 2021 LTM EBITDA	REV. CAGR (2021-2023)
Aerospace & Defence	3.2%	10.7%	2.3x	11.0x	11.2%
Automotive	7.9%	8.7%	1.3x	7.3x	13.9%
Chemicals	(0.1%)	15.0%	2.0x	8.0x	7.3%
Conglomerates & Electrical Equipment	6.6%	12.8%	2.5x	9.7x	12.1%
Construction, Engineering & Building Products	6.7%	11.5%	1.4x	7.9x	8.0%
Containers, Packaging & Paper Products	(1.0%)	14.7%	1.4x	8.5x	6.2%
Machinery	2.0%	11.6%	1.9x	10.3x	9.3%
Metals & Mining	5.7%	16.9%	1.4x	6.6x	5.0%
Trading Companies & Distributors	5.2%	7.8%	1.3x	8.5x	8.5%

1. Based on two A&D deal in Q4 that included published transaction multiples. 2. Includes companies with revenue in excess of £500 million per annum.

In detail:

CORPORATE BUYOUTS CONTINUE TO LEAD GLOBAL DEAL MARKETS WITH A CHEMICAL SECTOR FOCUS

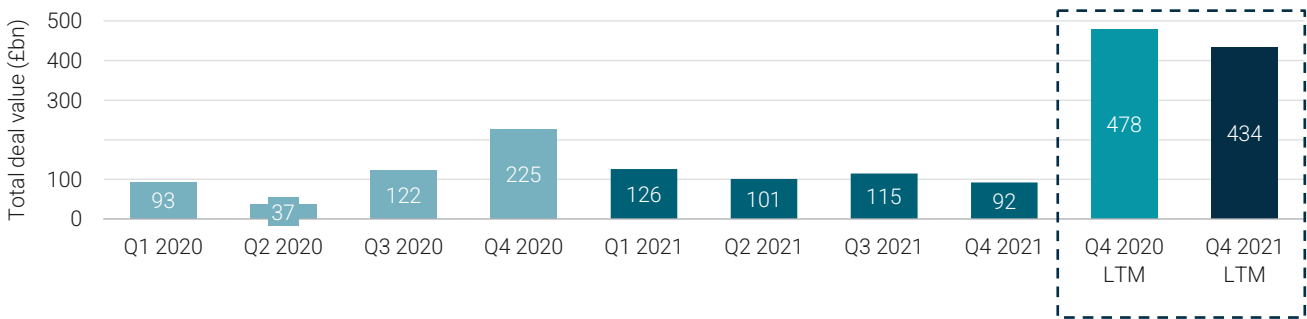
COUNTRY	TARGET	SECTOR	ACQUIRER	DEAL VALUE (£M) ¹	EV/ EBITDA	RATIONALE
EMEA						
Germany	MBCC Group	Building Products	Sika AG (SWX:SIKA)	4,455	Not disclosed	Lone Star Funds was looking for an exit strategy for MBCC while Sika has been looking for suitable acquisitions
Luxembourg	Aircraft Leasing Operations of CK Asset Holdings Ltd	Trading Companies & Distributors	Carlyle Aviation Partners Ltd	3,193	Not disclosed	Maverick Aviation (under Carlyle) acquires CK's 125 narrow-body aircraft and 20 more on order
Spain	Esmalglass, S.A.U.	Chemicals	The Carlyle Group Inc. (NasdaqGS:CG)	1,614	9.5x	Lone Star Funds was looking for an exit strategy for Esmalglass and Carlyle provided PE funds to acquire the required distressed debt
France	Cromology SAS	Chemicals	DuluxGroup (Investments) Pty Ltd	956	18.0x	Transaction helps solidify Cromology's integrated, wholly-owned network while launching other brands in the DuluxGroup's portfolio
Netherlands	Global Epoxy Business of Hexion Inc.	Chemicals	Westlake Olefins Corporation	900	Not disclosed	Hexion sells its epoxy business to Westlake Olefins to reduce non-core assets
North America						
United States	CMC Materials, Inc. (NasdaqGS:CCMP)	Conglomerates & Electrical Equipment	Entegris, Inc. (NasdaqGS:ENTG)	5,065	18.3x	Vanguard Group sells CMC to consolidate its market position
United States	Rogers Corporation (NYSE:ROG)	Conglomerates & Electrical Equipment	DuPont de Nemours, Inc. (NYSE:DD)	3,861	Not disclosed	DuPont merges with Rogers to integrate Electronics & Industrials units at both companies
United States	SPX FLOW, Inc. (NYSE:FLOW)	Machinery	Lone Star Americas Acquisitions, Inc.	3,108	20.0x	Lone Star takes SPX flow private with \$3.7bn deal to consolidate market.
United States	Hexion Holdings Corporation (OTCPK:HXOH)	Chemicals	American Securities LLC	2,736	8.5x	Acquisition diversifies American Securities range of industries it can access.
United States	Bro-Tech Corporation	Chemicals	Ecolab Inc. (NYSE:ECL)	2,680	Not disclosed	Ecolab will operate Bro-Tech's Purolite brand as a separate global business following acquisition as they look for growth

1. Reflects total gross transaction value

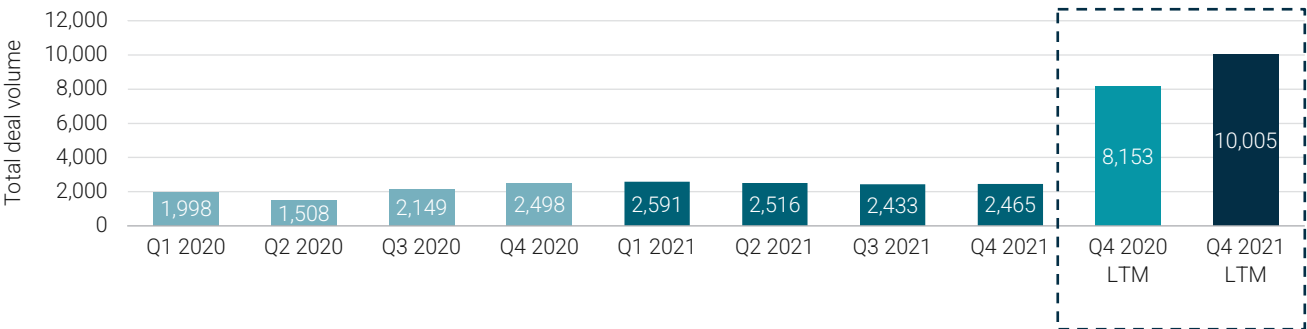
DEAL VALUE, VOLUME AND VALUATION

INDUSTRIALS M&A – VALUE, VOLUME AND VALUATIONS

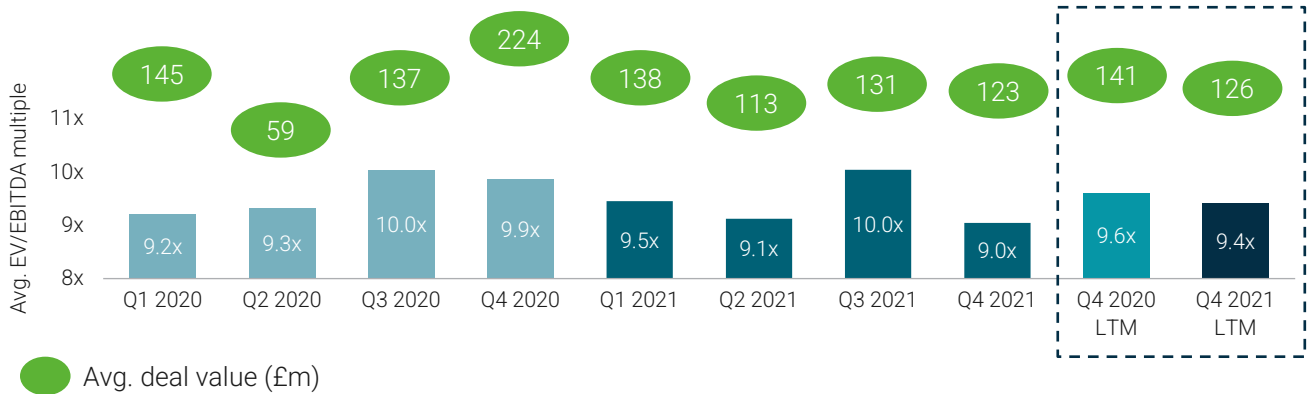
TOTAL DEAL VALUE



TOTAL DEAL VOLUME



AVERAGE EV/EBITDA VALUATION



Note on avg. deal value: Calculated from available deals with disclosed target valuations, which is not exhaustive of all deals reported in deal volume.

Note on data collection: Deal statistics screened from S&P Capital IQ on 4 January 2022, deals backdated into quarter announced after this date may not be included and will be updated in subsequent quarterly reviews.

GEOGRAPHICAL TRENDS

INDUSTRIAL M&A – VALUE, VOLUME AND VALUATIONS BY GEOGRAPHY

NORTH AMERICA			
	Deal volume	Deal value (£bn)	Avg. deal value (£m)
Q4 2021	1,018	47	213
Vs. Q4 2020	▲22%	▼49%	▼42%
Q4 2021 LTM	3,789	181	186
Vs. Q4 2020 LTM	▲34%	▲15%	▲14%

EMEA			
	Deal volume	Deal value (£bn)	Avg. deal value (£m)
Q4 2021	811	24	155
Vs. Q4 2020	▼2%	▼39%	▼28%
Q4 2021 LTM	3,455	153	200
Vs. Q4 2020 LTM	▲26%	▲6%	▼14%

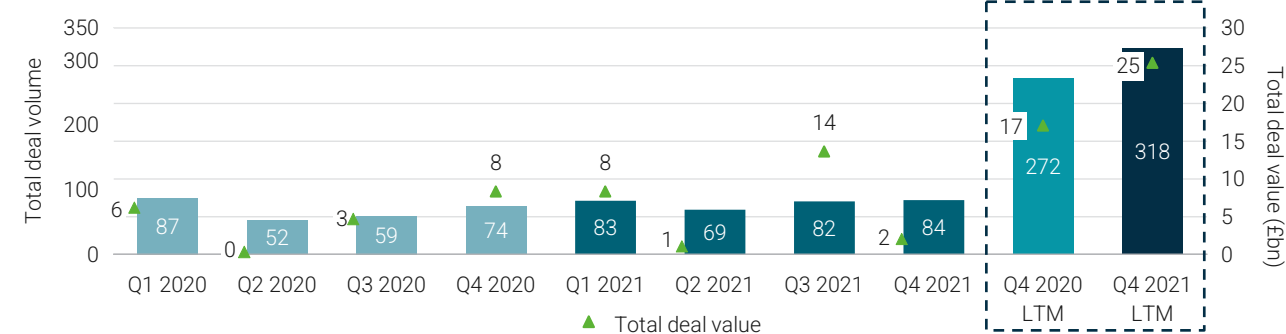
SOUTH AMERICA			
	Deal volume	Deal value (£bn)	Avg. deal value (£m)
Q4 2021	72	4	140
Vs. Q4 2020	— 0%	▲657%	▲755%
Q4 2021 LTM	260	12	104
Vs. Q4 2020 LTM	▲6%	▲671%	▲671%

APAC			
	Deal volume	Deal value (£bn)	Avg. deal value (£m)
Q4 2021	564	17	50
Vs. Q4 2020	▼26%	▼81%	▼71%
Q4 2021 LTM	2,501	88	55
Vs. Q4 2020 LTM	▲7%	▼50%	▼45%

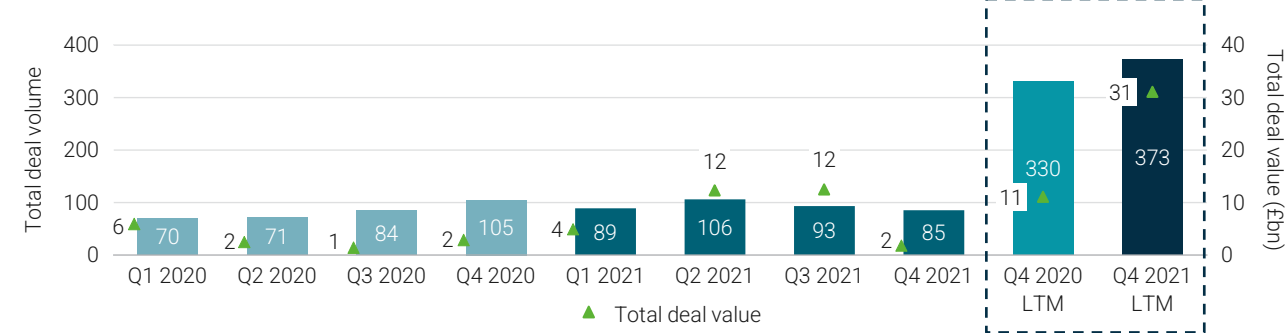
SUB-SECTOR ACTIVITY

DEAL ACTIVITY BY SUB-SECTOR

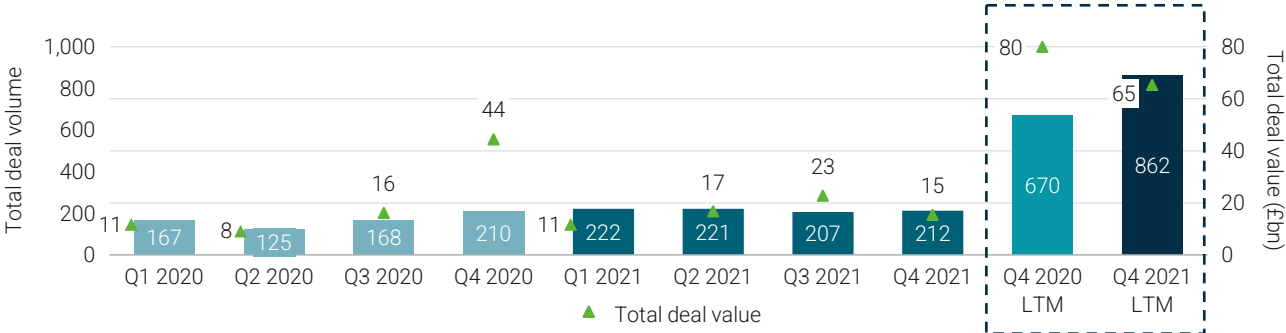
AEROSPACE & DEFENCE



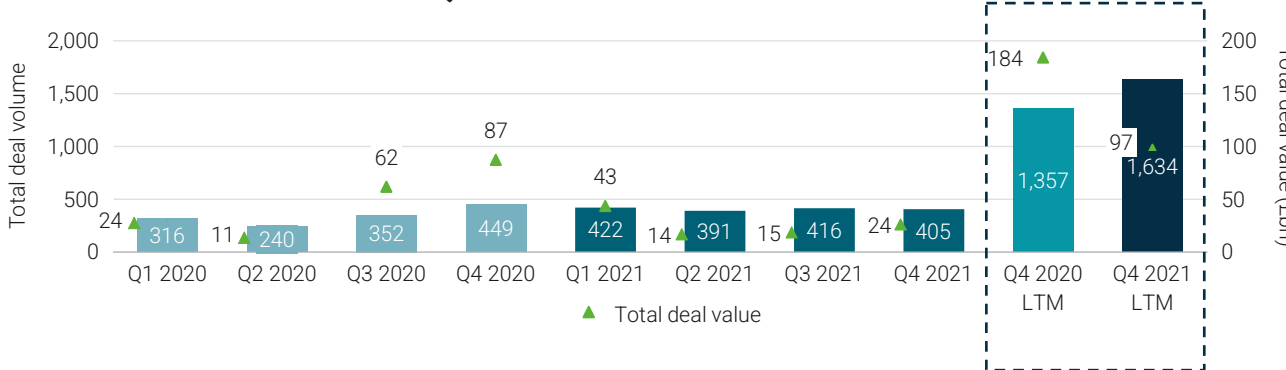
AUTOMOTIVE



CHEMICALS



CONGLOMERATES & ELECTRICAL EQUIPMENT

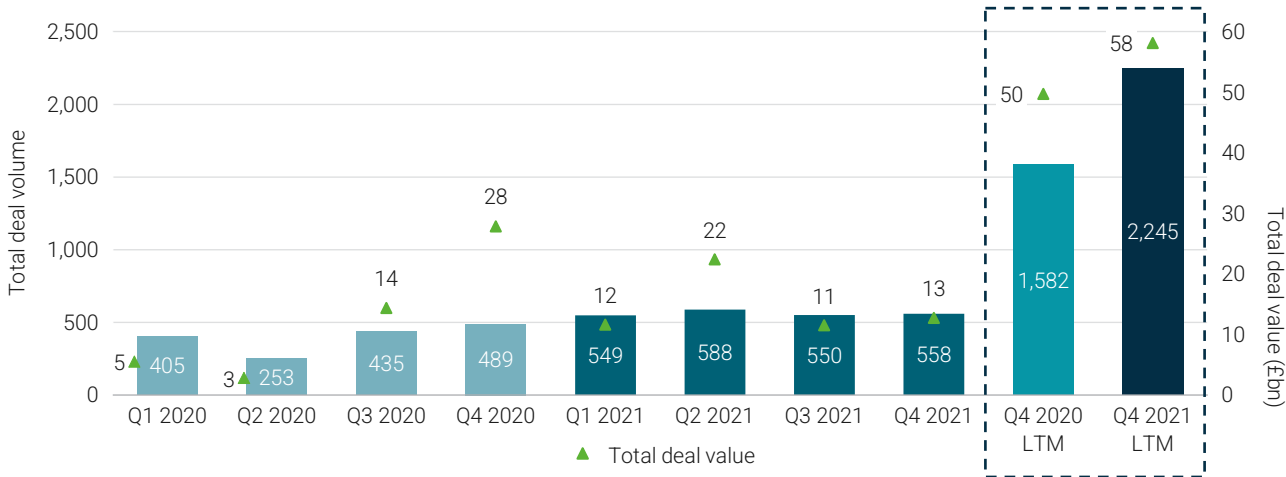


Note on avg. deal value: Calculated from available deals with disclosed target valuations, which is not exhaustive of all deals reported in deal volume.

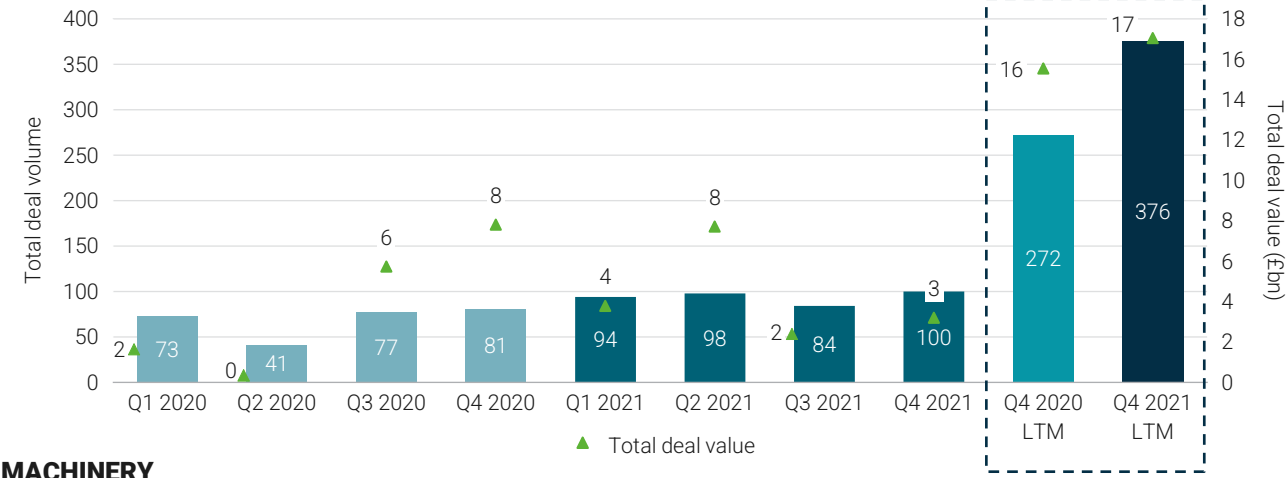
SUB-SECTOR ACTIVITY

DEAL ACTIVITY BY SUB-SECTOR

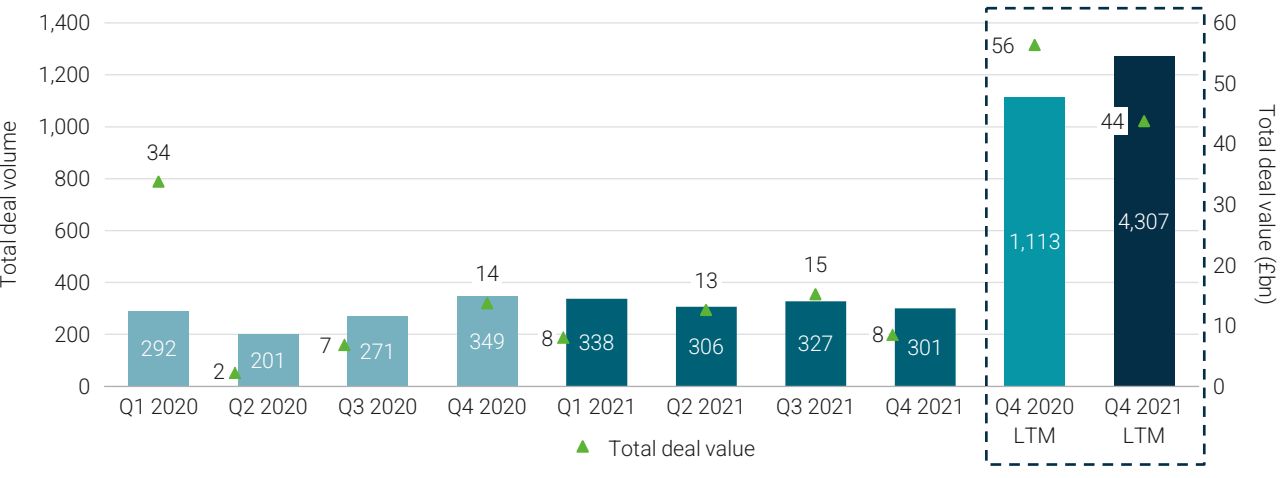
CONSTRUCTION, ENGINEERING & BUILDING PRODUCTS



CONTAINERS, PACKAGING & PAPER PRODUCTS



MACHINERY

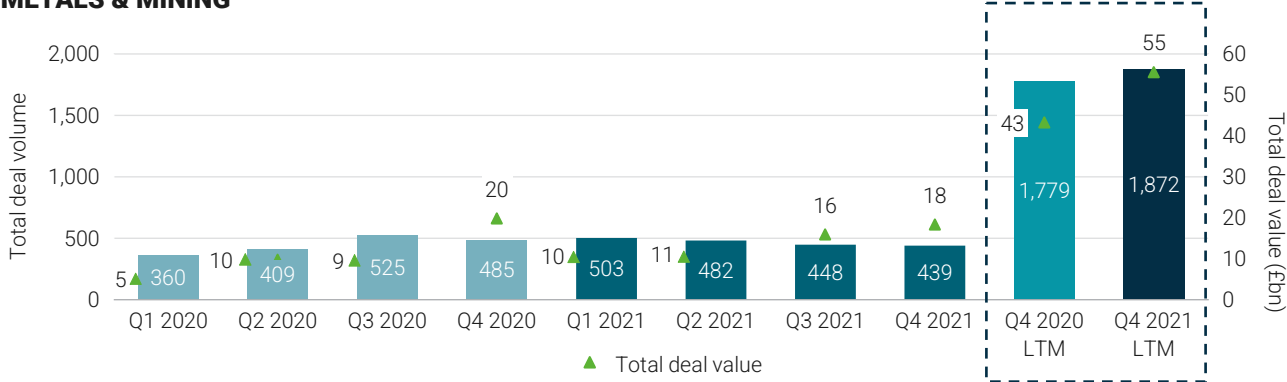


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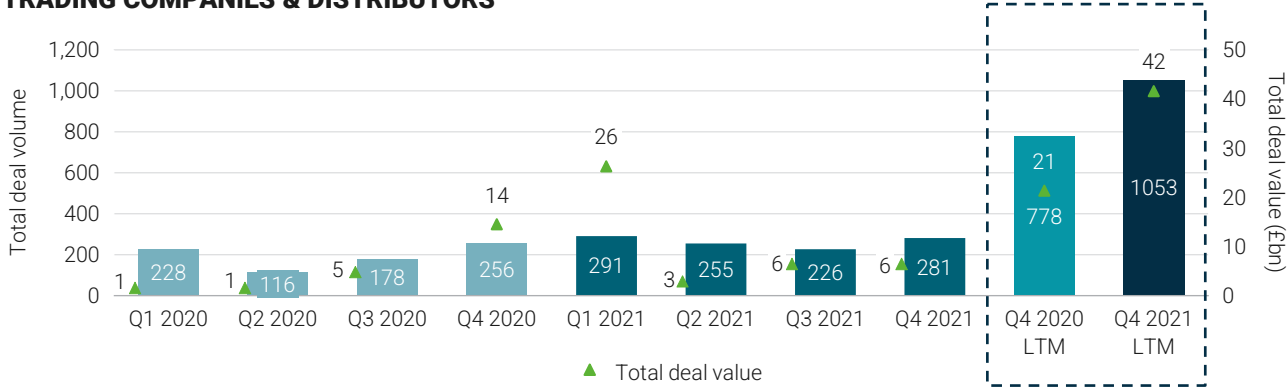
SUB-SECTOR ACTIVITY

DEAL ACTIVITY BY SUB-SECTOR

METALS & MINING



TRADING COMPANIES & DISTRIBUTORS

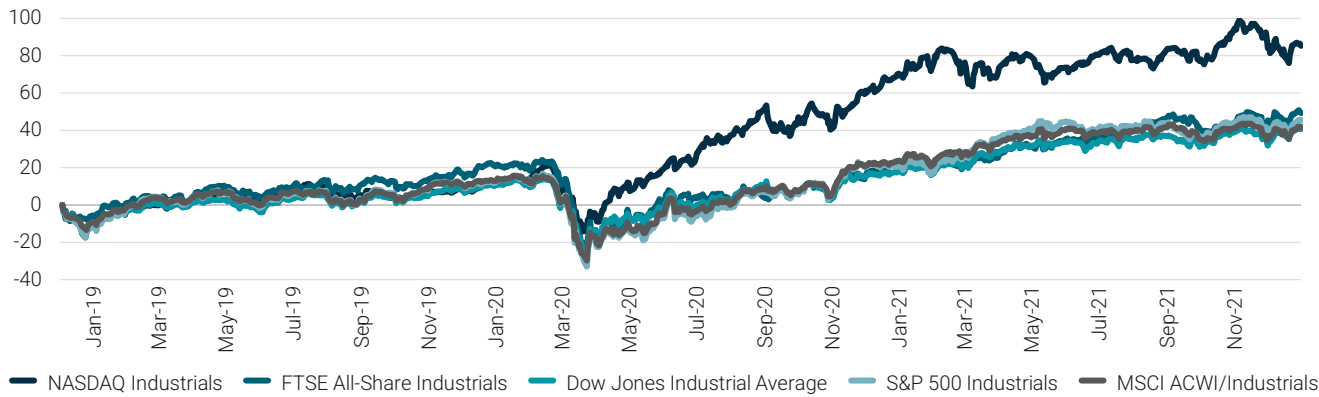


SUB-SECTOR (Q4 2021 LTM)	DEAL VOLUME	DEAL VALUE (£BN)	AVG. DEAL VALUE (£M)	AVG. EV/EBITDA VALUATION
Aerospace & Defence	318	25	316	10.6x
Automotive	373	31	194	8.6x
Chemicals	862	65	190	10.9x
Conglomerates & Electrical Equipment	1,634	97	147	10.6x
Construction, Engineering & Building Products	2,245	58	113	8.7x
Containers, Packaging & Paper Products	376	17	169	8.8x
Machinery	1,272	44	129	11.4x
Metals & Mining	1,872	55	55	7.7x
Trading Companies & Distributors	1,053	42	197	6.6x

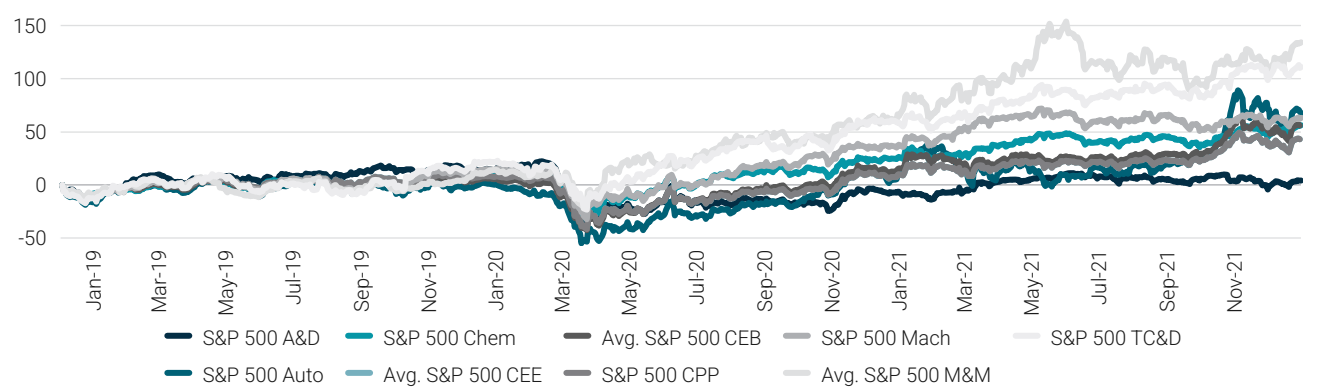
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SUB-SECTOR PERFORMANCE

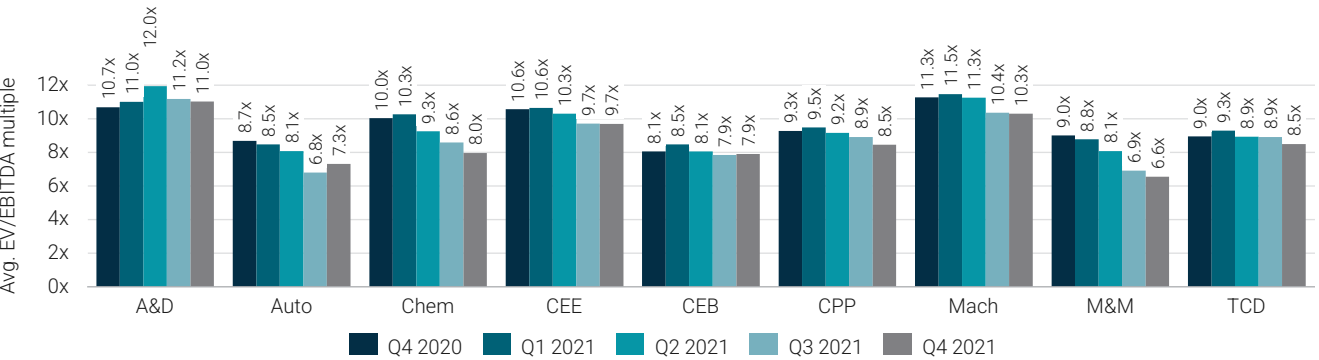
INDUSTRIALS – SECTOR INDEX PERFORMANCE



INDUSTRIALS – SUB-SECTOR PERFORMANCE



INDUSTRIALS – PUBLIC EV/EBITDA (LTM) VALUATION¹



SUB-SECTOR KEY

A&D	Aerospace & Defence
AUTO	Automotive
CHEM	Chemicals
CEE	Conglomerates & Electrical Equipment
CEB	Construction, Engineering & Building Products

CPP	Containers, Packaging & Paper Products
Mach	Machinery
M&M	Metals & Mining
TCD	Trading Companies & Distributors

1. Includes companies with revenue in excess of £500 million per annum

M&A EXPERTS WITH EXPERIENCE ACROSS EVERY ELEMENT OF THE DEAL LIFECYCLE

INTEGRATED APPROACH THROUGHOUT DEAL CYCLE

We offer market leading, integrated M&A services and develop long-term relationships with clients

Delivering value creation and M&A solutions for corporates and investors...



...in 'when it really matters' M&A situations...



...leveraging the AlixPartners' unparalleled skill-set combining...



...M&A, operational and sector expertise in small, senior expert teams.



Integrated M&A Advisory

- We have a unique capability of drawing upon our sector and operational experts to provide a fully integrated offering across the deal life cycle.
- Our transactional expertise is recognised through our market leading results in both growth M&A as well as complexed and distressed M&A.



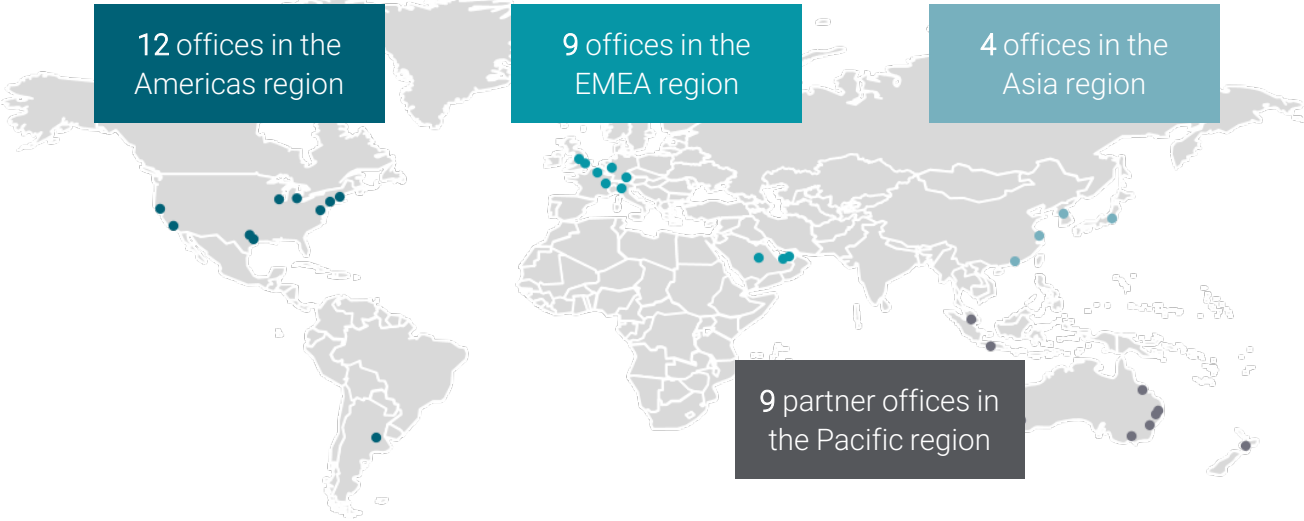
Sector experience

- Our team consists of highly experienced deal leaders as well as operational experts whose skilled have been developed in senior line manager roles in leader corporates of the world.
- Working closely with our deal experts, our sector experts help you understand the industrial logic for a potential acquisition or exit and can assist in quantifying potential performance improvement measures.

Operational and digital expertise

- Our operational experts are focused on identifying and implementing value creation opportunities to drive profit growth and improve cash generation.
- Similarly, by leveraging our IT and digital capabilities, we are very quickly able to assess the complexity of large/complex IT carve-outs and implement IT separation and integration programmes to ensure a smooth transition.

GLOBAL REACH



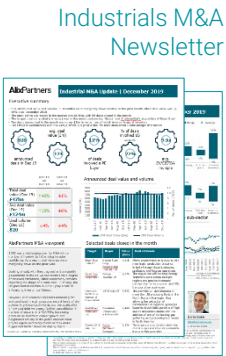
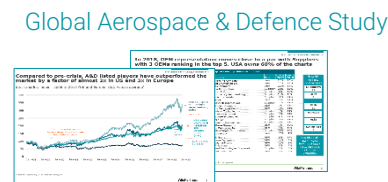
ALIXPARTNERS INDUSTRIALS TEAM

M&A SERVICES ACROSS THE INVESTMENT CYCLE

Investment	Growth	Portfolio optimization and Exit
<ul style="list-style-type: none">• Strategy development• Acquisition search• Buy-side advisory• Debt advisory• Acquisition due diligence• Synergy assessment	<ul style="list-style-type: none">• Post-merger integration• Operational improvement• Bolt-on acquisitions• Digital transformation	<ul style="list-style-type: none">• Strategic review• Corporate turnaround• Restructuring• Exit readiness• Sell-side advisory

OUR EXPERTISE

Manufacturing			Energy & Resources	
Chemicals	Packaging	Automotive	Oil & Gas	Metals & Mining
Aerospace	Industrial Electronics	Diversified Industrials	Waste & Water	Power



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ABOUT US

For more than forty years, AlixPartners has helped businesses around the world respond quickly and decisively to their most critical challenges – circumstances as diverse as urgent performance improvement, accelerated transformation, complex restructuring and risk mitigation.

These are the moments when everything is on the line – a sudden shift in the market, an unexpected performance decline, a time-sensitive deal, a fork-in-the-road decision. But it's not what we do that makes a difference, it's how we do it.

Tackling situations when time is of the essence is part of our DNA – so we adopt an action-oriented approach at all times. We work in small, highly qualified teams with specific industry and functional expertise, and we operate at pace, moving quickly from analysis to implementation. We stand shoulder to shoulder with our clients until the job is done, and only measure our success in terms of the results we deliver.

Our approach enables us to help our clients confront and overcome truly future-defining challenges. We partner with you to make the right decisions and take the right actions. And we are right by your side. When it really matters.

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