

## Q4 2009: Inside this Issue

Welcome to the most recent issue of Lincoln International's Aerospace and Defense ("A&D") Deal Reader, a newsletter focused on market dynamics, merger and acquisition trends and events of interest to owners and managers of global A&D businesses and their advisors.

Lincoln's Aerospace and Defense group is one of the largest and most active in the middle market - *and the only truly global team*. In December 2009 alone, Lincoln

**closed three transactions in the A&D sector representing clients in the United States, the United Kingdom and France.**

In this issue, we are pleased to present an interview with Rick Nagel of Acorn Growth Companies that highlights the current state of the aerospace and defense market, with specific attention paid to the mergers & acquisitions landscape.

Other topics covered in this issue include

an article on the current defense budget and related trends in Washington D.C. by Lincoln Advisory Director Brigadier General Bob Edmonds, a review of current trends in the industry and recent M&A news involving A&D companies.

We hope you find this newsletter a useful tool, and welcome any comments.

Lincoln International

## State of the Aerospace and Defense Markets: Interview with Rick Nagel of Acorn Growth Companies

Conducted by Lincoln International's Alyssa Morrisroe

*Acorn Growth Companies is a private equity firm focused exclusively on aerospace and defense opportunities. The firm has over \$100 million under management and is a sponsor to operating companies across the globe.*

*Rick Nagel, a partner with the firm, directs the latter-stage initiatives of Acorn Growth Companies, concentrating on the firm's acquisition, merger, and portfolio operating activities. He serves in direct executive and oversight capacities for several firms held by Acorn, which include manufacturing, engineering services, applied sciences, maintenance, repair, and overhaul services, intelligence and surveillance operations, and specialty government financing.*

**Q: Acorn has continued to be active through what has been a challenging market for most sponsors. Can you talk about how you've been able to continue to close transactions?**

Rick Nagel: At a high level, a couple of things are going for us here. We take a three-legged approach – focusing on a particular sector, situations where we can add value and finding the appropriate capital structure.

Our focus on and experience in the aerospace sector provides comfort for our fund's limited partners that we're looking for the right kind of businesses. It has been very helpful for deal flow as well.

In terms of capital structure, we are generally conservative, not trying to



F-35 Joint Strike Fighter

leverage capital positions too far. This gives sellers more comfort that we'll be able to close at the end of the day as well. Sellers are sophisticated and want to know that a deal can get done.

And finally, we focus on companies where we can add value as an operating partner, and where there are synergies with our other companies. Because we can add value, the risk profile of a deal is mitigated.

In terms of synergies, we look for opportunities that have complementary elements with our businesses. We had a company that did heavy manufacturing in composites. We then bought one that offered design, engineering and tooling for composites – these were very complementary. We look for opportunities where one of our existing companies can lend a hand, and where there are program, customer and operating synergies.

**Q: From your experience, how has this most recent downturn in the industry and M&A market compared to**

**historical troughs?**

RN: Frankly, it's going to get worse before it gets better. The aerospace curve tracks to GDP, lagging it by 12 to 18 months historically. I think, in looking at the U.S. economy, that GDP is going to get worse before it improves.

There are rumors about Boeing cutting production, which will create a ripple effect throughout the supplier base. However, when you chart it over the life of the industry, aerospace rebounds more quickly than people anticipate and generally makes up for lost ground. I think there will be an 18 to 24 month recovery period before we see stronger aircraft sales and deliveries.

General aviation is in a longer recovery period.

The military market is tough to read, as we don't know yet what the administration will ultimately support. The F-22 and presidential helicopter programs are dead, and the future of the C-17 is a big question mark. Will the JSF

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## State of the Aerospace and Defense Markets: Interview with Rick Nagel of ACG

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come under pressure? There are big question marks about future programs. Aging systems are going to get more emphasis, but there is generally a lot of uncertainty.

If you are focused on aerospace and defense, you have to be careful to invest in the right businesses. A lot of work is getting pushed to the right – it's not a question of if things are going to happen, it's a question of when. You either fundamentally believe that or not, and Acorn Growth Companies believes it.

It is also important to remember that aerospace is a global industry. Worldwide, the population is growing, and everyone wants air travel. China is opening something along the lines of an airport a week. Aircraft deliveries are going to Asia and Europe, not the U.S. currently. Growing global demand in an industry dominated by U.S. companies bodes well for the U.S. supply chain. This is the only industry in the U.S. that, year-over-year, consistently has a trade surplus. This doesn't mean we can rest on our laurels, but it is something to continue to leverage.

On the defense side, it's difficult to understand why the administration and – more importantly – Congress are looking to stimulate the economy with social programming instead of maintaining readiness for defending the country. The current budget anticipates cutting defense spending while growing the Department of the Interior. Weighing national parks versus national defense, it is tough to see how that decision making process works.

**Q: You touched on growing global**

**demand – how do U.S. suppliers react to the emerging manufacturing capabilities in developing economies?**

RN: New capabilities in Asia in particular will no question have an impact, although not from a military perspective. Boeing's strategy for content on the 787 is a global supply chain, in which content is built in locations where there are likely to be customers. This works both ways – if the Chinese are looking to develop an aircraft, they will want a global market and need to adopt a similar strategy. Clearly, additional suppliers will have an impact based on supply and demand – there will be more qualified suppliers making parts.

American manufacturers need to get smart, and look to automate instead of being stymied by labor rates. Efficiency, precision, dependability and engineering content need to be the focus if the U.S. is to continue to be competitive.

**Q: There has been a trend on the part of equity funds toward using industry veterans as advisors and/or management support. ACG was an early practitioner of this. Can you talk about how this strategy plays with sellers?**

RN: The founders of ACG are all operating guys first, finance guys second. When times are good, you can remain watchful from the home office and depend on management teams to go out and “do their thing.” When a company hits a bump, though, management needs industry partners that have been in the trenches for support and added value. Great experience around the board table allows us to get in and work through challenges. We have a good bench, and

it's a strong differentiator. This relates to your first question as well – when I talk to a seller and I know his machines, how they work, what it takes to manage a supply chain and relationships with customers, I'm a more credible buyer, and he knows that this will be a good home for what is ultimately his “baby.”

ACG was born out of necessity. We know it's a tough industry, even when it doesn't cycle. There's a need for us to offer support to management teams when they hit a rough patch. It's equally important when you hit a growth spurt. We buy companies at an inflection point – when they can stay steady or take the next evolutionary step. Having a bench that's been through implementing MRP systems, implementing lean approaches and the like is helpful in either growth mode or when you have to play things closer to the vest.

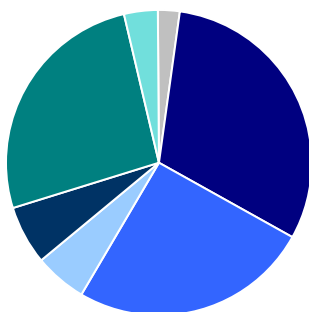
**Q: ACG has developed a strong position in composites – could you share your view on the consolidation in the sector to date? Are you still seeing significant opportunities?**

RN: There are three sets of players in the composites sector – the material providers, the manufacturers (including engineering and tooling providers) and the repair players. Certainly, in our view, there will be growth in each area.

Composites represent \$7 billion of the \$200 billion annual aerospace market. That figure is expected to reach over \$30 billion in the next 15 years (some think much higher). Content on aircraft is shifting away from steel, titanium and aluminum. We've seen a big leap to analysis of structural flight critical parts

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## New Aircraft Delivery by Region: 2009 - 2028



Region	New Aircraft	Percent
Africa	620	2.1%
Asia Pacific	8,960	30.9%
Europe	7,330	25.3%
Latin America	1,640	5.7%
Middle East	1,710	5.9%
North America	7,690	26.5%
Russia and Central Asia	1,050	3.6%

Source: Boeing Current Market Outlook

## General's Mission Briefing



Brigadier General Bob Edmonds  
USAF, retired

*Brigadier General Bob Edmonds is an Advisory Director in Lincoln International's Aerospace and Defense Group. He retired in 2007 from the United States Air Force after 28 years of service, including as an F-15 pilot and commander. His experience also includes leading the U.S. Air Force's Senate Liaison office on Capitol Hill after September 11, 2001 and serving as a White House Fellow.*

### Budget Time in DC

While we went into the holiday break this past December with all the focus in Washington on healthcare reform, the Christmas Day terrorist attempt refocused the national attention. The signals were there, yet the dots were not connected. TSA policies, procedures, and equipment were and will continue to be brought into question. As I have stated in previous Deal Readers, improvements in the field of Intelligence, Reconnaissance and Surveillance (ISR) technologies and products are needed, and needed now. Essential technologies include both hardware (e.g. scanners) and software (e.g. improved database management).

Prior to the holiday break, the **FY2010 Defense Appropriations** bill was passed for \$636.3 billion (it should be noted that the bill does not include any funding for the President's new Afghanistan strategy). A few points on this defense budget:

- Allots \$104.4 billion for procurement, \$3.5 billion above 2009, but \$816.0 million below the President's request. The bill also includes \$80.5 billion for R&D, \$17 million above 2009 and \$1.9 billion above the request.
- \$1.5 billion was allocated for 18 **Boeing F/A-18E/F Super Hornet** aircraft, nine above the President's request and \$1.6 billion for **22 EA-18G**

**Growler** electronic attack aircraft.

- \$465.0 million was committed for the **F-35 alternate engine (General Electric and Rolls-Royce)** added above the President's request.
- 10 additional Boeing **C-17** cargo aircraft were approved above the budget request.
- The bill rekindled hopes for the **F-22 Raptor**; new language gives the Pentagon the ability to "conduct or participate in studies, research, design and other activities to define and develop a future export version..."

While the **FY2010 budget** was being passed on the Hill, the **FY2011 budget** (and associated **five-year plan**) was being finalized in the Pentagon prior to going to OMB for the President's budget submission in February. A few leaks have surfaced:

- \$2.8 billion originally earmarked to buy **F-35** aircraft was directed back into the aircraft's development to cover an apparent budget shortfall; as a result, 122 fewer aircraft are expected to be acquired between now and 2015. Lockheed defends the program as on track, but this revision slows procurement regardless (note: part of the rationale to terminate the **F-22** was that the **F-35** would ramp up production).
- Secretary Gates directed the following, cancelled by the services, to be added back into the budget:
  - **C-130** modernization program performed by Boeing (this aircraft is a workhorse in Afghanistan and Iraq).
  - **Joint Tactical Radio System**

**(JTRS):** restoring \$2.4 billion for 2011 – 2015 in the program that Lockheed Martin is building for aircraft and vessels. Of the major "transformation" programs designed to network different weapon platforms that were started by Secretary Rumsfeld, JTRS is the only one that has managed to survive the Obama administration.

- **JSTARS** re-engine program received \$280.0 million to continue its upgrade of Pratt & Whitney engines on the Northrop Grumman surveillance aircraft.

- The U.S. Air Force was told to add a total of \$1.6 billion through 2015 to support industry efforts for the next generation long range strike platform. We should get more clarity from the QDR and when the budget is released. This budget increase is expected to benefit Northrop Grumman and Boeing.

### Organizational Changes

This month there are two organizational changes of which industry participants should be aware. On January 1st, the **Multi-National Forces – Iraq** organization was renamed as **United States Forces – Iraq (USF – Iraq)** as a key milestone reflecting all coalition troops being out of Iraq as of July 2009. While all U.S. ground forces are due out of Iraq by December 2011, there will likely still be U.S. forces in Iraq longer providing logistics, training, services and education. The other change worth noting is that the **National Security Council** merged with the **Homeland Security Council**; the new organization is called the **National Security Staff**.

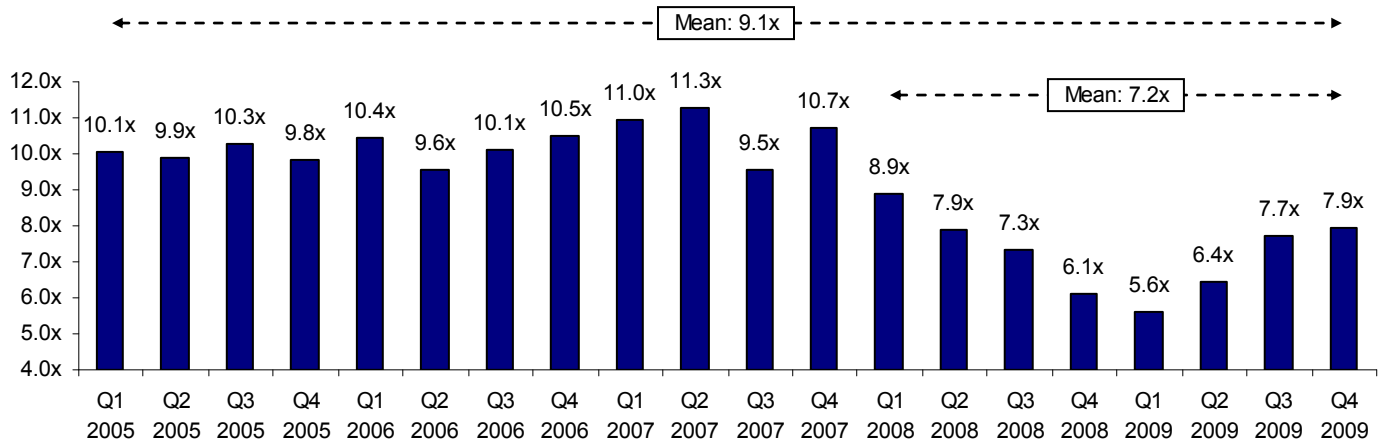


Boeing F/A-18E/F Super Hornet

## Industry Trading Multiples

After reaching a trough in the first quarter of 2009, aerospace and defense companies have seen a trend of multiple expansion in each of the last three quarters. Whether or not this expansion will continue depends on the commercial aerospace order trends, widely rumored production cuts and the tone of Washington with regard to procurement.

### Enterprise value / LTM EBITDA trading multiples for selected Aerospace and Defense companies, by quarter



## State of the Aerospace and Defense Markets: Interview with Rick Nagel of ACG

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where composites wouldn't have been considered even a few years ago. Long-range demand drivers are in place.

There are a highly fragmented group of companies that are involved or claim to be involved in some way with composites – perhaps as many as 1,000 worldwide. The industry is split between a handful of very large players and variety of much smaller players. Our opportunity is to put together the small and medium players that have a good mix of program and

content capability. Larger players, on the other hand, tend to be concentrated with particular programs and OEMs by necessity. You have to be very mindful of what you're buying, however. There are many lemons out there and we focus on getting the right processes, technologies and programs. Certainly not every composite company is going to be around in twenty years – some are clearly not going to make it. Our competitive advantage is the ability to assess the right mix of capabilities, bring it into the group and leverage it for growth.

**Q: What are your views on prospects for M&A within the A&D market in the near to medium term?**

RN: Our pipeline has never been so full. The biggest challenge right now for us and other buyers is that, although it's a good time to buy, there are fewer companies willing to sell due to a perceived value gap. In today's market environment, it can be difficult to get transactions done without dealing with partners willing to take a risk.

## Recent History of Boeing 787 Dreamliner Production Delays / Milestones

- **October 2007** — Boeing announced a six-month delay for the 787 due to production problems, pushing the first test flight to late March 2008 and setting back first delivery (then scheduled for late November or December 2008).
- **January 2008** — Boeing announced a three-month delay to the first flight of the 787 due to problems with unnamed suppliers and slow assembly progress at the Everett plant, pushing the original delivery back nine months – to sometime in early 2009.
- **December 2008** — The company delayed its first 787 delivery until Q1 2010 after a machinists' strike forced the company to close its commercial aircraft operations for eight weeks. The first flight was delayed until Q2 2009.

- **June 2009** — Boeing again delayed the maiden flight, saying it had identified a need to reinforce an area within the side-of-body section of the aircraft during recent tests.
- **November 2009** — Boeing announced that it had fixed one of the main problems contributing to the past delays

and that the aircraft was on schedule for first flight before year end 2009.

- **December 2009** — The 787 completed its first and second test flights, marking the beginning of a flight test program that will include six aircraft. The first delivery is scheduled for the fourth quarter of 2010.



Boeing 787 Dreamliner on its inaugural test flight

## Public Comparable Trading Statistics

	Stock Price	52 Week		Enterprise Value	1-Year Growth		EV / LTM	
		High	Low		Revenue	EBITDA	Revenue	EBITDA
<b>Market Cap &gt; \$10B</b>								
Boeing Co.	\$54.13	\$56.56	\$29.05	\$44,074	(4.1%)	(77.3%)	0.7x	28.5x
EADS N.V.	20.41	24.01	11.76	10,830	6.2%	(27.9%)	0.2x	2.4x
General Dynamics Corp.	68.17	70.84	35.28	28,755	10.3%	4.4%	0.9x	6.8x
Honeywell International Inc.	39.20	41.55	23.06	35,634	(15.0%)	(5.0%)	1.1x	8.4x
L-3 Communications Holdings Inc.	86.95	89.23	57.12	13,527	4.9%	3.5%	0.9x	7.4x
Lockheed Martin Corporation	75.35	87.06	57.41	29,578	3.2%	(9.8%)	0.7x	5.9x
Northrop Grumman Corporation	55.85	57.32	33.81	20,258	5.0%	1.1%	0.6x	5.6x
Precision Castparts Corp.	110.35	115.60	47.71	15,049	(16.2%)	(7.0%)	2.6x	9.3x
Raytheon Co.	51.52	53.84	33.20	19,698	5.2%	9.1%	0.8x	6.2x
Rolls Royce Group plc	7.87	8.21	4.11	13,251	28.9%	47.7%	0.8x	7.2x
Thales	52.10	52.18	39.45	11,591	2.9%	(28.8%)	0.6x	8.3x
United Technologies Corp.	69.41	70.89	37.40	72,032	(11.9%)	(1.9%)	1.4x	8.3x
<b>Market Cap \$2B to \$10B</b>								
Bombardier, Inc.	\$4.64	\$5.17	\$2.15	\$9,609	(0.6%)	(1.7%)	0.5x	5.6x
CAE Inc.	8.48	9.16	5.85	2,420	6.7%	12.0%	1.6x	6.5x
Elbit Systems Ltd.	66.85	74.46	46.22	2,996	11.2%	13.5%	1.1x	7.6x
Finmeccanica SpA	16.22	18.58	12.13	17,384	23.8%	32.4%	0.7x	6.5x
GKN plc	1.90	2.14	0.59	4,258	(0.4%)	(46.7%)	0.6x	10.9x
Meggitt plc	4.23	4.35	1.80	4,358	16.8%	11.5%	2.2x	8.6x
Rheinmetall AG	64.41	65.80	27.68	3,108	(16.1%)	(54.9%)	0.6x	12.3x
Safran SA	19.84	20.00	9.55	10,182	5.4%	49.8%	0.7x	5.2x
Singapore Technologies Engineering Ltd.	2.34	2.34	1.48	7,002	2.5%	(12.1%)	1.8x	15.7x
Zodiac Aerospace SA	42.22	43.40	26.89	3,297	21.4%	(2.3%)	0.9x	8.1x
<b>Market Cap &lt; \$2B</b>								
Cohort PLC	\$1.95	\$3.00	\$1.51	\$75	17.0%	(19.8%)	0.6x	6.7x
Curtiss-Wright Corp.	31.32	36.67	22.62	1,904	(0.3%)	(9.4%)	1.0x	7.7x
OHB Technology AG	16.23	16.45	8.48	236	13.1%	(18.0%)	0.6x	8.0x
QinetiQ Group Plc	2.64	2.92	2.00	2,499	16.6%	(7.8%)	0.9x	9.2x
Societe Industrie d'Aviation Latecoere	8.28	12.67	5.59	691	17.2%	13.1%	0.8x	11.7x
Senior plc	1.22	1.24	0.37	685	8.9%	9.6%	0.8x	5.4x
Teledyne Technologies Inc.	38.36	46.75	21.65	1,675	(4.3%)	(17.5%)	0.9x	8.4x
Ultra Electronics Holdings plc	22.39	22.78	16.44	1,641	34.8%	46.3%	1.7x	9.9x

Notes:  
1. Multiples for Boeing Co. reflect a one-time charge associated with the 787 program of \$2.5 billion. The charge reflects a reclassification of funds from inventory to R&D expense.  
2. Data as of market close on 12/31/2009  
3. All figures: U \$D in millions

## Select Recent Industry Transactions

- 12/31/2009: **Marshall of Cambridge Aerospace Ltd.** completes the acquisition of **Slingsby Holdings Ltd.**, a manufacturer of advanced composite structures for aerospace and defense markets.
- 12/23/2009: **OM Group Inc. (NYSE:OMG)** announces the acquisition of **EaglePicher Technologies, LLC**, a provider of batteries, battery management systems and energetic devices for the defense, aerospace and medical industries.
- 12/21/2009: **Boeing Co. (NYSE:BA)** completes the acquisition of **Global Aeronautica, LLC**, a South Carolina fuselage subassembly facility for Boeing's 787 Dreamliner.
- 12/21/2009: **Goodrich Corp. (NYSE:GR)** completes the acquisition of **Atlantic Inertial Systems, Inc.**, a manufacturer of inertial and navigation systems for use in aviation, military, and satellite applications.
- 12/20/2009: **FLIR Systems Inc. (NasdaqGS:FLIR)** completes the acquisition of **Directed Perception Inc.** (now known as FLIR Motion Control Systems), a provider of pan-tilt motion control systems for security and surveillance, maritime, military, robotics and scientific instruments markets.
- 12/18/2009: An investor group led by **General Atlantic LLC** and affiliates of **Kohlberg Kravis Roberts & Co.** completes the acquisition of **TASC, Inc.**, a provider of advanced systems engineering and technical assistance to the defense, intelligence, federal, state and local markets.
- 12/18/2009: **Versa Capital Management, Inc.** completes the acquisition of **Allen Vanguard Corporation**, a manufacturer and wholesaler of counter-terrorist equipment systems.
- 12/15/2009: **ECA SA (ENXTPA:ECASA)** completes the acquisition of **Triton Imaging, Inc.**, a developer of automated software products for seafloor mapping and underwater imaging applications.
- 12/2/2009: **Xi'an Aircraft Industry (Group) Company Limited** completes the acquisition of **Fischer Advanced Composite Components AG**, a manufacturer of composite aerostructures and aircraft interiors for civil aircraft.
- 12/2/2009: **TransDigm Group Inc. (NYSE:TDG)** announces the acquisition of **Dukes Inc.**, a provider of proprietary, highly engineered components to the business jet, regional jet, and military aerospace markets.
- 12/1/2009: **Six3 Systems Inc.** announces the acquisition of **BIT Systems, Inc.**, a provider of intelligence, surveillance, and reconnaissance software solutions.
- 11/25/2009: **Chemring Group plc (LSE:CHG)** completes the acquisition of **Hi-Shear Technology Corp.**, a manufacturer of pyrotechnic, mechanical, and electronic products to the aerospace and defense markets.

## Recent Transaction Activity in Aerospace and Defense



has recapitalized its portfolio company



with an Investment from



**Recapitalization**

**December 8, 2009**

Lincoln International advised Spell Capital in the recapitalization of its portfolio company LAI International, a manufacturer of precision engineered components. Spell sold a minority position in LAI to RLJ Equity Partners.




has acquired




**Buy Side Advisor**

**December 15, 2009**

Lincoln International advised ECSA SA (ENXTPA:ECSA) in its acquisition of Triton Imaging, Inc., a developer of automated software products for sea-floor mapping and underwater imaging applications.



has been sold to



**Sell Side Advisor**

**December 31, 2009**

Lincoln International advised Slingsby Holdings Ltd. in its sale to Marshall of Cambridge Aerospace Ltd. Slingsby manufactures advanced composite structures for aerospace and defense markets.

### About Lincoln International

Lincoln International specializes in merger and acquisition advisory services, private capital raising, U.K. pensions advisory services and providing restructuring advice, fairness opinions and valuations for leading organizations involved in mid-market transactions. With offices in Chicago, Frankfurt, London, Los Angeles, Madrid, New York, Paris, Tokyo and Vienna, and strategic partnerships with China Everbright in China and ICICI Securities, Inc. in India, Lincoln International has strong local knowledge and contacts in the key global economies. The organization provides clients with senior-level attention, in-depth industry expertise, and integrated resources. By being focused and independent, Lincoln International serves its clients without conflicts of interest. More information about Lincoln International can be obtained at [www.lincolninternational.com](http://www.lincolninternational.com).

### Industry Groups

Lincoln International dedicates teams headed by senior professionals in each of its global offices to the following industries:

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- Automotive and Truck
- Building and Infrastructure
- Business Services
- Chemicals
- Consumer
- Electronics
- Food and Beverage
- Healthcare
- Industrials
- Paper & Packaging
- Renewable Energy
- Transportation and Logistics

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