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Global Aerospace Transaction Expertise



- Introduction
- Global Market Developments
- China's Growing Role
- Global Transaction Landscape and Selected M&A Transactions
- Valuations in A&D Industry Sectors
- M&A International Inc. Automotive & Aerospace Industry Group

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An M&A International Inc. firm 



Dear valued reader,

The aerospace and defense industry is currently facing steady growth, but also a challenging business environment. On one hand, the demand for air travel remains strong and will follow the upward trend during the next years. But the global markets are shifting their focal points and OEMs in this sector as well as suppliers on all tier levels have to follow the market. A trend that is underlined by aggressive government plans in several countries to get a share of the global market by pushing their hubs. Examples are countries such as China or Mexico. In particular China remains a magnet for aerospace investment thanks to new manufacturing clusters and the rise of new aerospace champions.

On the other hand, A&D companies, regardless of their particular focus or segment, are currently facing structural industry changes and declining defense budgets in many countries. Large development projects have been cancelled or reduced, and even the Departments of Defense in countries with an own, strong A&D industry have partly decided to purchase existing air fighters, drones and transporters instead of financing new projects with all their inherent risks.

For OEMs and suppliers in both segments, it is a major challenge to secure and optimize the supply chain, with close attention to be paid to the relationship between developing and existing markets. As the commercial aerospace landscape has changed dramatically over the past years, especially mid-market companies in the value chain now face the need to cover global demand, balancing risk in global business and rethinking their long-term location strategies.

With our report we aim to summarize the most important industry trends and summarize the transaction landscape in Germany and globally, showing that mergers and acquisitions are a characteristic driving force for strategic development in the industry. We have analyzed the deal activities in different sectors of the A&D industry, and also valuation trends in each cluster.

With the globalization of the supply chain and the continuing consolidation of the industry, aerospace targets will remain attractive, for both financial and strategic investors.

The aerospace industry team of Angermann M&A International wants to say a very special "Thank You" to our colleagues at Janes Capital Partners, the M&A International Inc. team based in Irvine in the US, for all their valuable input, and hopes that the first Aerospace Report of 2014 will be interesting and informative to our readers.

A handwritten signature in blue ink, appearing to read "Michael Thiele". The signature is fluid and cursive.

Dr. Michael Thiele
Managing Partner and Primary German Contact to the Automotive & Aerospace Industry Group

Global demand for air traffic drives growth

The world's airlines had a lot to celebrate in 2013, including record passenger demand, which maintained historic growth rates in 2013. According to new statistics from the International Air Transport Association (IATA) there was a 5.2 percent increase over 2012. It is not surprising that especially emerging markets are the main growth drivers. African airlines' demand increased by 5.5 percent, slightly above the global average, while Asia-Pacific saw growth that was relatively on par with the global average at 5.3 percent. Latin America (8.1 percent growth) and the Middle East (12.1 percent growth) were, far and away, the strongest performers in 2013. The Middle East's growth was below the 15.4 percent growth recorded in 2012, but carriers in the region have benefited from the continued strength of regional economies.

The demand environment for air travel will remain broadly positive. Recent improvements in the global economy, followed by rising business confidence and acceleration in world trade should continue to support growth in international air travel as well as business-related premium travel. Meeting the demand will be a challenge for the whole industry. Airports, carriers but also the whole supply chain will need to add capacity.

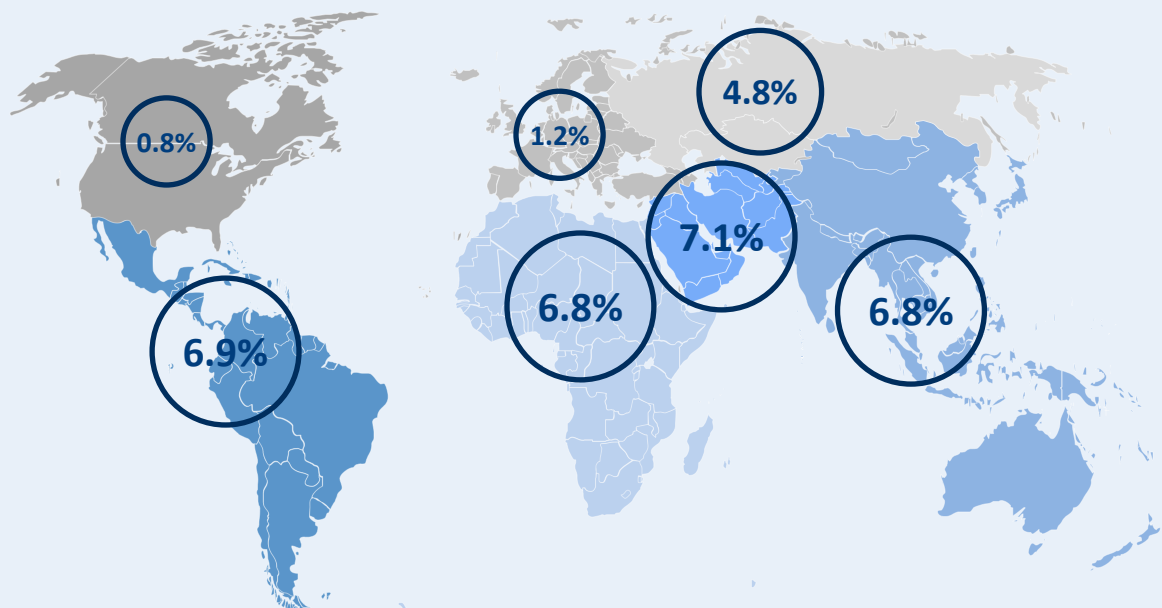
However, it is a clear fact that traffic growth over the next years will be led by countries outside Europe and North America. The increasing importance of emerging

economies and the shift of demand to these countries will continue during the next decade. Especially the markets in the southern hemisphere will be drivers of the growth. Projections show that air traffic in Latin America, Africa, the Middle East and Asia will grow with nearly 7 percent per year until 2020, while Europe and Northern America nearly stagnate with growth rates around 1 percent.

In particular the Asian aviation market is undergoing a transformation boosted economic growth and large populations joining the middle class and with sufficient income to travel by plane. In China alone, the need for another 5.000 commercial aircraft is predicted until 2032, valued at several hundred billion USD. This shift from North to South and from West to East will fundamentally change the landscape of the industry, as new rising OEMs like COMAC will compete with the established manufacturers like Boeing, Airbus, Embraer and Bombardier.

Rising fuel costs and environmental aspects have been main drivers for today's civil aircraft design. Aircraft manufacturers and in particular companies in the engine sector like Rolls-Royce, P&W etc. have to balance the gap between increasing demand for cost reductions and eco-friendly, fuel-saving products. Beside the shift to growth markets, this is for sure the industry's driving force of the next decade.

Projected regional growth in passenger traffic till 2020



Source: IATA

Key trends in aerospace industry's supply chain

The aerospace industry is supposed to grow by 5 percent in 2014, and the predictions for the upcoming years are good.. Heavy economic development in emerging markets is driving this growth, but also leading to notable change in the A&D industry's supply chain.

While the manufacturing of aircraft has been mainly a domestic US-based business in the 1970's, the formation of Airbus as a pan-European player has led to the beginning of a deliberate globalization of the value chain – with first outsourcing and offshoring projects in the 1980's and 1990's. Since the early 2000's, this development resulted in an integrated global supply chain, with some new OEMs having emerged while others (like Fokker and Dornier) have been gone or became totally integrated.

Traditional regional aircraft clusters include Montreal, Seattle, Toronto and Toulouse, which have a long history of airplane and component production. Therefore, 80% of the world wide A&D revenue still is generated in Europe and the United States.

However, the development of new markets is an important driving force in the current state of the A&D supply chain. OEMs have begun moving to emerging markets, such as China and Russia, for a variety of reasons. These markets offer lower cost of production, but it also allows the OEMs to be more involved in the markets that will drive demand in coming years.

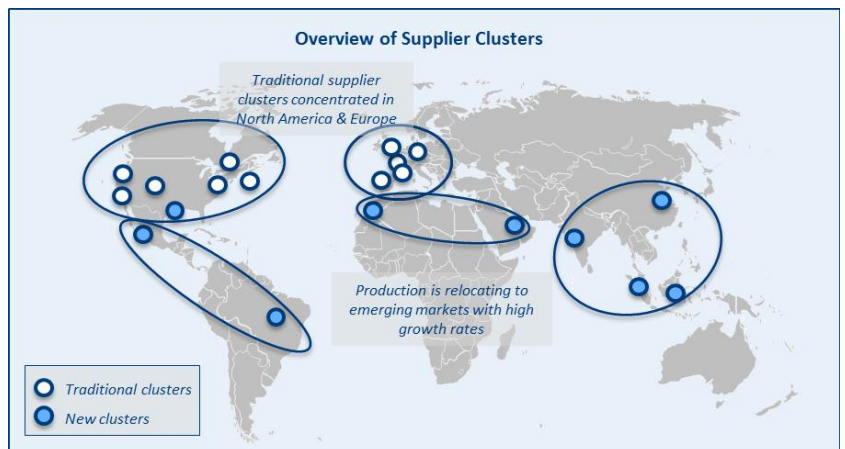


Source: M&A International Inc., Janes Capital Partners

Last not least, huge orders from Chinese buyers have been linked to the pre-condition of establishing local production hubs and technology transfer. Nowadays, Russia, China, India and Japan all have new OEMs, in response to their rising economies and need for business and domestic travel. Following the development of new aerospace clusters, a new group of suppliers has begun to emerge in the southern hemisphere and in the east, and established suppliers also had to follow their customers.

Although the main new clusters have developed in the southern and eastern parts of the world, we have seen some interesting development in the US as well. South Carolina has become a new major cluster since Boeing has decided to move its final assembly of the 787 Dreamliner to Charleston. In addition to Boeing's facilities, South Carolina today is home for 200 aerospace-related companies.

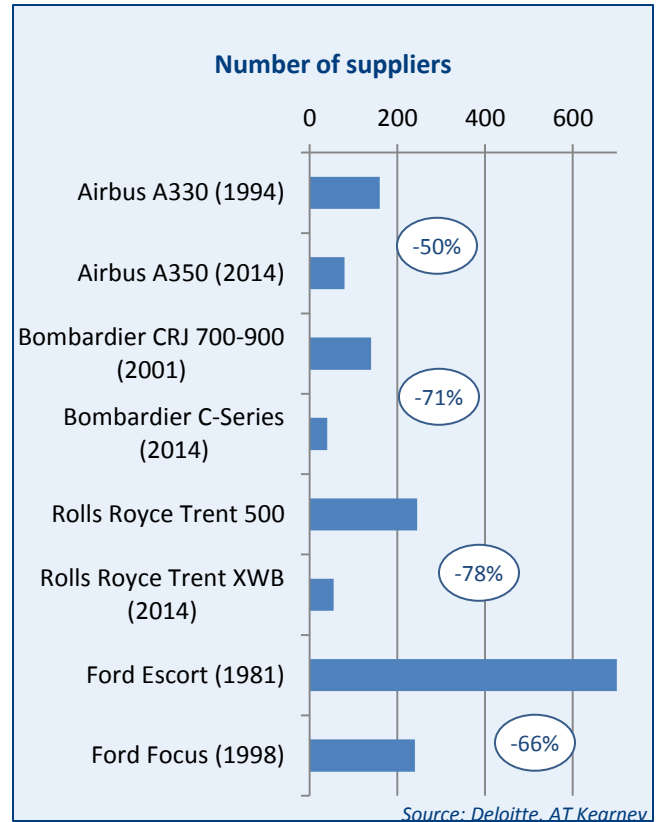
The defense industry has to deal with another aspect in this regard as well: The reliance on foreign nations for the raw materials, parts and finished products is growing. Certainly, we can expect further debates over how much of systems, weapons and dual-use goods should be made domestically and how much dependence on foreign markets can be accepted



The whole industry structure is in a process of re-organization

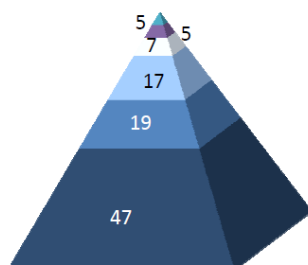
In response and in order to stay competitive in the A&D industry, all market players, starting at the OEM level down to suppliers on all tier levels, are working on the improvement of their efficiency. But efficiency gains cannot only be realized on the individual company level, but also – and mainly – by reshaping the whole value chain. The challenge is comparable to the automotive industry some decades ago. In fact, automotive manufacturers were the first ones shifting activities at a large scale to their suppliers, while, in parallel, very restrictively limiting the number of their direct suppliers and forcing smaller suppliers into the roles of sub-suppliers.

Similar to this, aerospace OEMs made various efforts in the last years to reorganize their supply base, to increase their outsourcing to suppliers of subassemblies (such as engines, structures, landing gear and avionics) and to concentrate on their core competencies of design, assembling and marketing complete aircraft. This is still a major trend in the industry, with several industry-wide impacts: First of all, the reduction and rationalization of the supply chain cut the number of suppliers by half during the last ten to twenty years leading to stronger connections and dependencies as well as to vertical integration on all tier levels. Secondly, supply chain management and knowledge management along the chain have become even more critical for OEMs. Thirdly, as the A&D industry undergoes rapid globalization, there is a significant push for suppliers to share the cost of research and development. Driven by the need to compete on a more global scale, OEM are looking for suppliers to provide more integrated solutions for aircraft manufacture. This forces suppliers to risk a much larger financial investment in development and production. However, there is also another side of the story: Suppliers increased their importance in the supply chain but also their bargaining positions which help them against the pressure from growing markets and new market players.

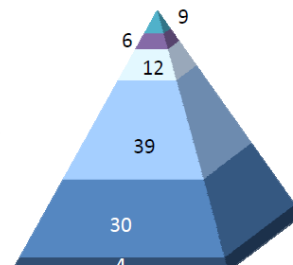


Below the line, it is a dynamic time for the A&D industry. For global players in this industry this also means to play an active role as market consolidator and therefore to integrate Mergers & Acquisitions (M&A) into their overall strategy, bringing it in line with present and future market requirements.

2003 Top 100 A&D Industry Pyramid
(number of companies by revenue bracket)



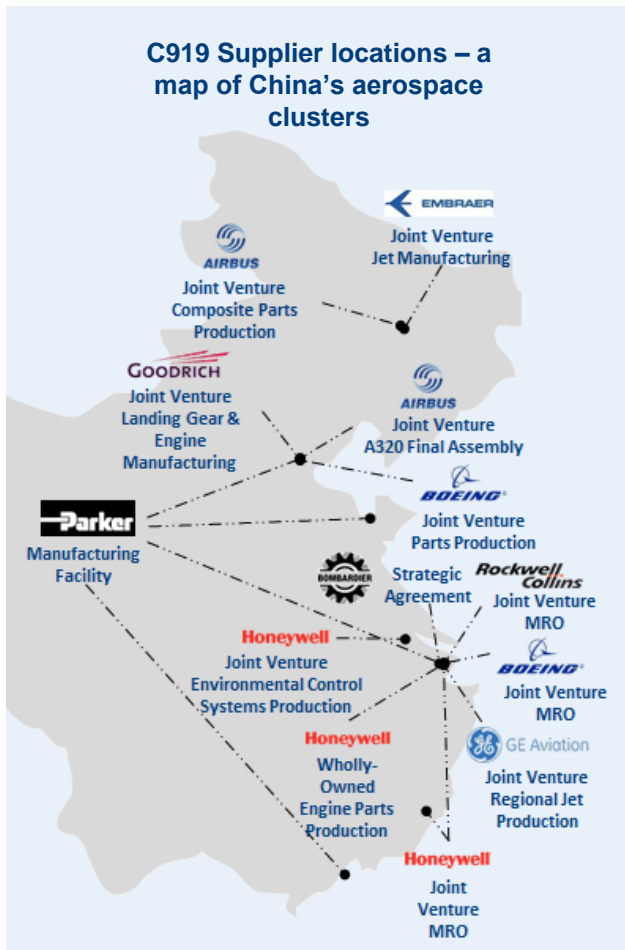
2011 Top 100 A&D Industry Pyramid
(number of companies by revenue bracket)



- >\$20Bn
- \$10-20Bn
- \$5-10Bn
- \$2-5Bn
- \$1-2Bn
- <\$1Bn

China's growing role

By looking at the worldwide A&D revenue share, one could miss China's importance for the industry. Although China currently has only a slight share of the global A&D revenue, the country has emerged as the world's second largest country for the Aviation market. China's aerospace industry has advanced at an impressive rate over the past decade and is predicted to continue its growth in all sectors including the MRO segment for the next decade as well. One reason is this increasing participation of China's aerospace industry in the global commercial aerospace market and the supply chains of the world's leading aerospace firms. Also – concerning the defense sector - China's increasing military budget is a unique growth opportunity for the region's manufacturing and knowledge sectors. Since OEMs need to stay connected to the markets that will drive demand during the next decades, China's role in the industry will increase further. Another market push is coming from the state-owned Commercial Aircraft Corporation of China (COMAC), whose ARJ21-700 recently passed another hurdle to market maturity. With the C919 COMAC is testing its capabilities to compete against the world's strongest duopoly on the long run.



C919 Supply Chain



- Wheels & Brakes**
 - Honeywell (US)
 - Hunan Boyun New Material (CN)
 - Changsha Xinhang
 - Wheel & Brake (CN)
- Engine Suppliers**
 - Leap-X, CFM, a JV between GE Aviation (US) and Safran (FR)
- Landing Gear JV**
 - Liebherr Holding (GE)
 - AVIC Landing Gears (CN)
- Aircraft Assembler**
 - COMAC (CN)
- Flight Control Actuator JV**
 - Parker Hannifin (US)
 - AVIC Flight Automatic Control Research Institute (CN)
- Flight Control Avionics JV**
 - Honeywell (US)
 - AVIC Flight Automatic Control Research Inst. (CN)
- High Lift System JV**
 - Moog (US)
 - AVIC Qingan Group
- Power Systems JV**
 - Hamilton Sundstrand (US)
 - AVIC SHAANXI Aero Electric (CN)
- Hydraulic and Fuel Inerting JV**
 - Parker Hannifin (US)
 - AVIC Jincheng (CN)
- APU System JV**
 - Honeywell (US)
 - AVIC Dongan Aero Engine (CN)
- Fire Detection JV**
 - UTC Fire & Security (US)
 - AVIC Tianjin Aviation (CN), part of AviChina
- Environmental Control JV**
 - Liebherr Holding (GE)
 - AVIC Jincheng (CN)
- Pneumatic De-Icer JV**
 - Goodrich (US)
 - AVIC Wuhan Aerospace Instrument (CN)
- Lighting JV**
 - Goodrich (US)
 - AVIC Wuhan Aerospace Instrument (CN)
 - Jiuzhou LED (CN)
 - AVIC Avionics (CN)
- CPU, Display, Maintenance, & Flight Data record JV**
 - GE Aviation (US)
 - AVIC System (CN)
- Supervision System JV**
 - Rockwell Collins (US)
 - AVIC Institute of Radar & Elec. Equip. (CN)
- Air Data & Initial Reference JV**
 - Honeywell (US)
 - AVIC Kaitian (CN), part of AVIC Avionics
- Entertainment System JV**
 - Rockwell Collins (US)
 - AVIC Shanghai Aero Measurement Controlling Research Institute (CN)
 - Thales (FR)
 - CETC (CN)

Sources: Airbus, Boeing, Bombardier, Goldman Sachs

Besides the domestic market volumes, cheap labor costs in emerging countries can provide major cost advantages. Studies by McKinsey indicate that even after accounting for transportation, coordination and supply chains, as well as mitigating supply disruption risks, the cost of manufacturing typical aircraft structures can still be roughly 20 to 25 percent lower in emerging markets compared to more developed ones.

It is expected that China's growing role in the industry will also have an impact on M&A in the future and Chinese companies will be engaged in more deals outside of their home market. We already see an increasing number of buy-side engagements from Chinese market players, boosting cross-border M&A activities since probably two years.

A closer look at Europe and Germany

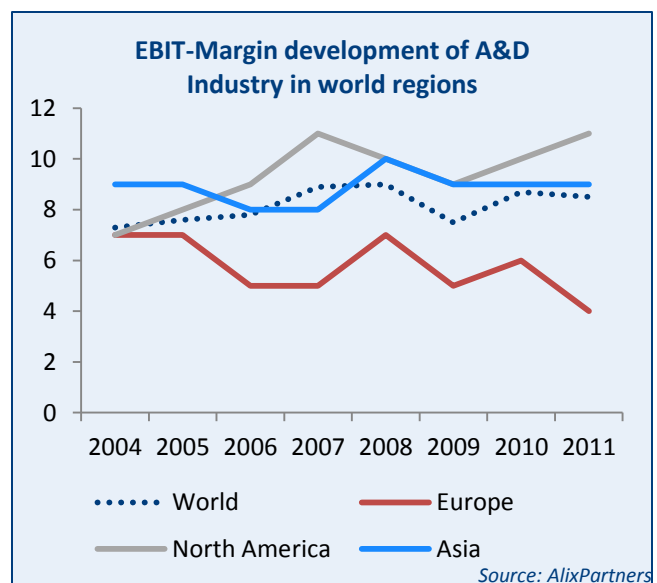
Taking a look at the European and German aerospace and defense Industry shows some interesting developments. Although Airbus has shifted its center of gravity towards France, the European space industry being confronted with a cut-down of many projects and German military expenses budgets are heavily under pressure, German aerospace suppliers are stronger than ever. The strong focus of the industry on high technology and new materials, combined with a consequent near- and offshoring of activities with high manual efforts or low technology contribution, has led to a strong positioning of the industry in international competition. 75% of the manufacturing volume of Germany's aerospace industry is supplied to the fast-growing civil aerospace markets. Another advantage is the long tradition of Germany's A&D industry, which has led to a sound industry structure, covering all four tiers level and a "Mittelstand" with various well specialized equipment manufacturers and component suppliers, renown for their specific know-how in material technologies, machining and processing.

Despite Germany's current success, the European industry is under pressure regarding the long-term business development. In recent years, competition in the global aerospace industry has increased and new players have emerged from low-cost countries like India, China or Russia. For this reason, especially the European A&D Industry has suffered a loss in profitability compared to other regions. Secondly the leaders, especially Airbus and Boeing, aim to have fewer but stronger suppliers who can act as risk-sharing partners and system integrators to whom they can outsource the delivery of complete sub-systems.

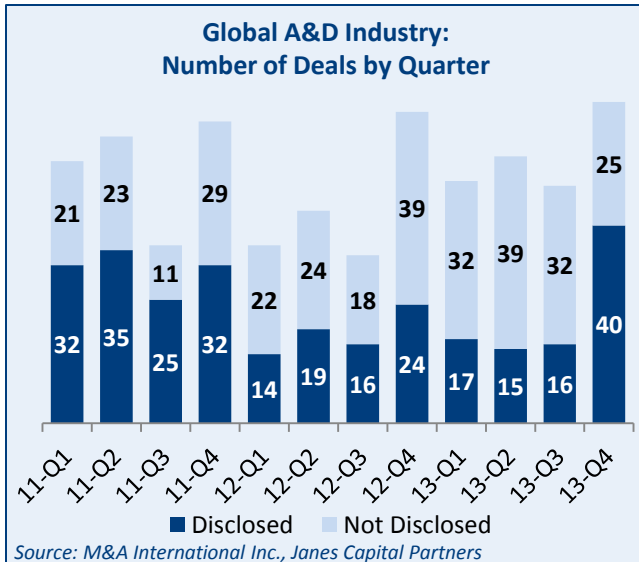
Threats also result from the development in the defense sector. In 2013, for the third year in a row, the defense technology based aerospace industry reported weak results. In order to face the challenge of cut downs in defense budgets all over the globe, defense contractors must act prudently and implement strategies necessary to survive. Mergers & acquisitions can be part of such strategy, since market consolidation has potential for economies of scale and scope, and may increase competitiveness in a changing operation environment.

Below the line the future competitiveness of the European aerospace industry will depend on its ability to create new and strong alliances, to establish joint ventures with attractive partners and to actively consolidate the market – instead of being consolidated.

A recent study by h&z, under the patronage of BDLI and ISC, also stresses that "individual efforts have to be complemented by joint actions throughout the entire aerospace supply chain including at the OEM level, to maintain a competitive industrial base in Europe. [...] In the long term, SMEs can only become suppliers with attractive work packages in future international aircraft programs if they have the skills needed to do business internationally. [...] and they have to display commercial capabilities such as accepting risk sharing partnerships as well as management of sub-suppliers."

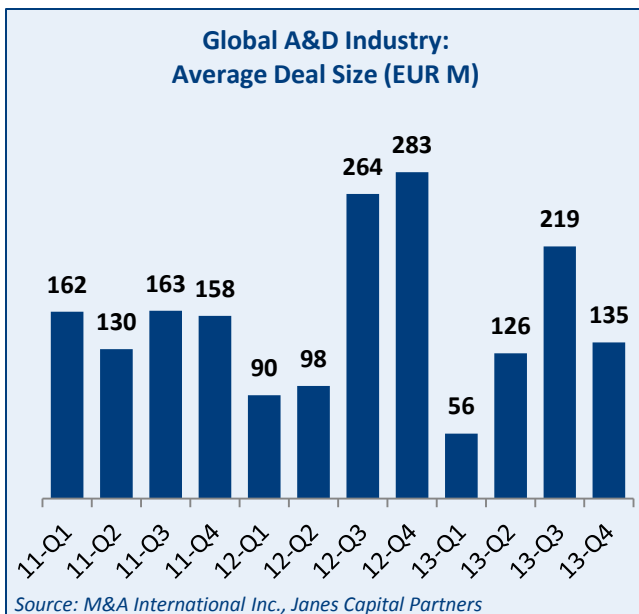


Global transaction landscape



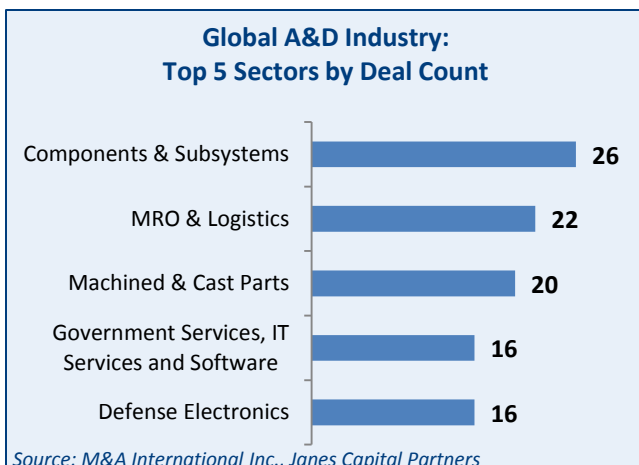
Globally the number of transactions in the A&D industry increased in 2013, with approximately 20% more deals compared to 2012, but the deal count is still far lower compared to 2011. On the buyer side both strategic and financial buyers have been active in aerospace and defense transactions, although only a small number of private equity investors has been active as buyer in M&A transactions in the A&D industry.

The decreasing percentage of disclosed deals is an indicator for the low amount of deals with publicly-traded sellers, which are usually the only ones disclosing their transactions. The reasons for this are – on the one hand – the high industry fragmentation with various smaller supplier companies, but on the other hand the ongoing industry consolidation providing private sellers with exit opportunities. Interestingly, a small number of buyers is very active as consolidator in the industry, with huge numbers of closed transactions. Examples are PCC Precision Castparts Corp. and TransDigm Group Inc. with each more than 10 acquisitions over the past four years.



The average deal size of disclosed deals during the last three years was 157 million EUR, a figure that has to be considered carefully as typically only larger transactions disclose their volume, while smaller deals on the tier 2 and 3 level usually are not disclosed.

In the Defense area volume and value stayed low in 2013, because of the growing uncertainty regarding defense budgets. Since most studies predict commercial aerospace to hit new records soon but the defense industry to continuously decline, it seems unpredictable whether deal count and volume will bounce back to old averages. The only exception is the electronics sectors where even defense companies are among the top 5 sectors in terms of global deal count. Looking at the global industry's transactions shows another interesting fact: Studies indicate that almost ¾ of deals involve targets and buyers from the same countries. An increasing portion of cross-border deals is an indicator for the globalization of the supply chain and the global consolidation of the industry.



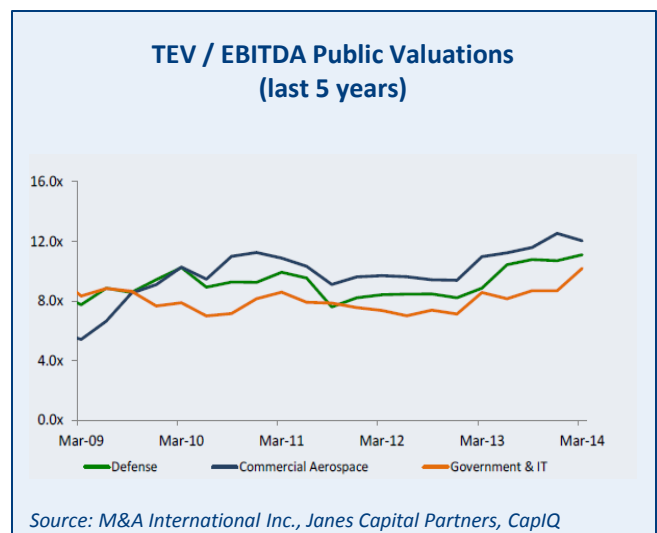
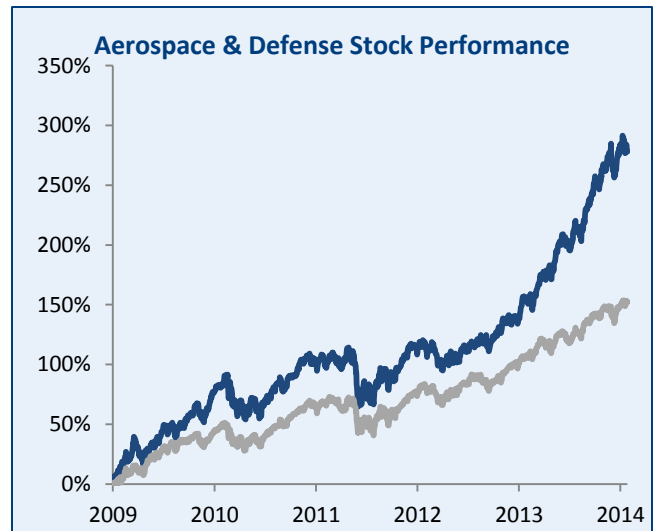
In 2014 we have seen a typically weak first quarter so far, however, we expect M&A volume and deal count to grow again. Currently many financial investors also realize the strengths of the A&D industry, such as long-term planning reliability, and become increasingly active in this industry. Unfortunately, this forecast can change rapidly in case the governments do not provide the industry with some confidence regarding the levels of defense expenditure.

An attractive industry for financial investors

Since 2009, stock market valuations of A&D companies have performed much better than the overall S&P 500 index. This development has been mainly driven by OEMs and suppliers of the commercial sector, whereas defense companies are still undervalued and offer attractive opportunities for investors.

While financial investors have been quite calm on the buy side in M&A transactions the recent years, there has been a large growth in private equity investments into stock listed companies in the A&D sector with more than 30 billion USD of invested capital. But although already a huge amount of money has been invested into the industry and valuations are on record-breaking levels, the A&D industry still needs capital for R&D, international expansion and working capital requirements. Besides the stock markets, particularly the suppliers at the tier 3 and 4 levels need private equity to help consolidate the industry, to grow and to streamline lower tier suppliers.

Current valuations also show a great variation with the highest EV/EBITDA multiple at 13.6 for companies in the MRO & Distribution sector, multiples at 12.6 for Satellites, Satellite Services & Space Systems and 12.5 for Controls & Systems. Lowest valuations we see for companies in engineering & construction with an EV/EBITDA multiple at 8.0, and companies in aerostructures with 8.4, although operating margins in this subsectors are not even bad.



Source: M&A International Inc., Janes Capital Partners, CapIQ

Public Valuation Summary (Q1 2014)	Valuation Multiples			Operating Performance		
	TEV/ LTM Revenue	TEV/ LTM EBITDA	TEV/ LTM EBIT	Gross Margin (%)	Operating Margin (%)	EBITDA Margin (%)
Aerostructures	0.9x	8.4x	12.5x	23.5%	8.7%	12.5%
Commercial Airframes	1.0x	10.7x	15.0x	15.4%	6.8%	9.4%
Components & Subsystems	1.8x	11.6x	14.3x	34.7%	12.3%	15.3%
Controls & Systems	2.0x	12.5x	15.3x	30.4%	12.5%	15.8%
Defense Electronics, Sensors and C4ISR	1.4x	10.5x	13.5x	35.0%	10.2%	12.8%
Engines & Engine Systems	1.8x	11.2x	16.3x	31.8%	10.4%	15.9%
Engineering & Construction	0.6x	8.0x	10.2x	10.2%	5.0%	6.6%
Government, IT Services and Software	0.7x	8.6x	10.4x	18.6%	7.7%	8.3%
Machined & Cast Parts	1.4x	10.7x	15.4x	24.8%	11.9%	15.7%
MRO & Distribution	1.7x	13.6x	15.5x	21.6%	9.3%	12.3%
Prime Defense Contractors	1.1x	8.7x	10.7x	18.5%	10.1%	11.8%
Satellites, Satellite Services and Space Systems	1.3x	12.6x	13.2x	26.1%	8.3%	12.5%
Specialty Systems and Services	1.4x	9.8x	14.6x	29.9%	12.7%	15.5%

Source: M&A International Inc., Janes Capital Partners, CapIQ

Transaction Valuation in various A&D sectors

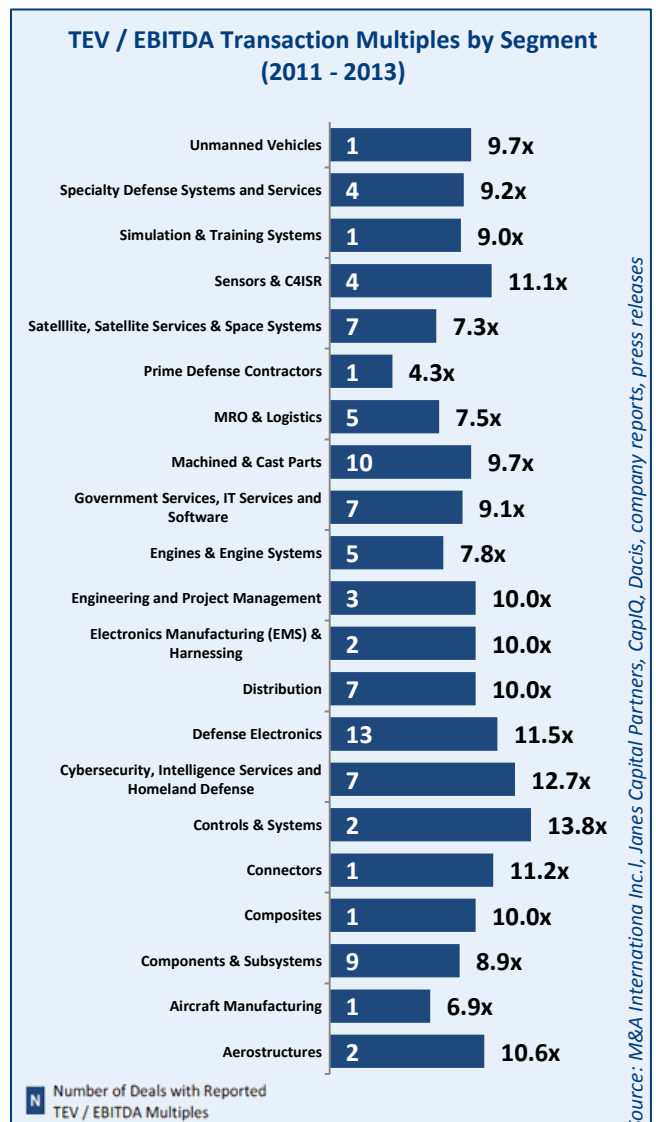
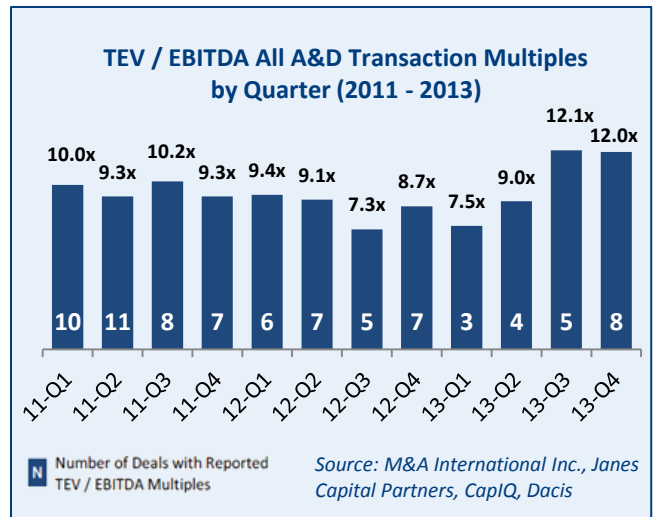
Both publicly traded company valuations and transaction multiples increased across the A&D industry over the past 12 months. In particular transactions in the second half of 2013 have been valued on a long-term high – a trend that continued in Q1-2014 with a comparable high valuation level.

Although valuations are extremely difficult to generalize as each single transactions follows its own rules and has been valued based on individual considerations, it can be summarized that throughout most A&D industry segments EV/EBITDA multiples of transactions with disclosed transaction multiples, are around the high single-digit to low double-digit range both in the case of transactions and publicly traded companies.

Transaction valuations significantly vary by segment in the aerospace as well as the defense sector, with Controls & Systems (13.8x), Cybersecurity, Intelligence Services & Homeland Defense (12.7x) and Defense Electronics (11.5x) seeing the highest valuations in the last 12 quarters. Surprisingly low transaction multiples have been registered for MRO & Logistics as well as for Satellite, Satellite Services & Space Systems companies, although these are the sectors with the highest public valuations.

However, it must be said that only 88 out of 700 transactions which have been tracked by our US team in Irvine have disclosed their transaction volume. Therefore all statistics regarding transaction multiples and in particular the analyses by A&D sector only reflect a portion of the market.

Top 5 transaction in Q1-2014 have been the acquisition of Avincis Mission Critical services Holdings by Babcock International at an TEV/EBITDA multiple of 13.6x; the acquisition of TriQuint Semiconductor Inc. by RF Micro Devices, Inc. at a valuation level of 8.6x; the takeover of Remington Outdoor Company by GDSI at a valuation level of 6.3x; the acquisition of Aerospace Dynamics International by PCC Precision Castparts Corp. (their 11th announced take-over in two years!) and the take-over of LiveTV, LLC by Thales (both with non-disclosed TEV/EBITDA multiples).



Top 10 A& D transactions 2012 and 2013

2012 Top 10 Transactions			2013 Top 10 Transactions		
Target	Acquiror	Price in \$	Target	Acquiror	Price in \$
C Titanium Metals Corp	Precision Castparts Corp	2,990	Avio	GE	4,300 I C
I C Space Systems (Loral)	MDA	875	GeoEye	Digitak Global	900 I G
I C G Volvo Aero	GKN	835	Rolls-Royce Turbomeca Ltd.	Turbomeca S.A.	760 I C
SE C AmSafe	TransDigm	750	Permaswage SA	Precision Castparts Corp	600 SE I
SA G Ceradyne	3M	668	Rocketdyne (Pratt & Whitney)	GenCorp	550 C G
I SE UMECO plc	Cytec Industries Inc.	550	Savage Sports Corporation	Alliant Techsystems Inc. TransDigm Group	315 SE C
C G UFC Aerospace Corp	BE Aerospace Inc.	400	Arkwin Industries, Inc.	Incorporated	286 G
I SE C Oxford Aviation Academy UK	CAE Inc.	311	ADB Airfield Solutions	PAI Partners Pacific Architects and Engineers Incorporated	260 SA I C
I C Heroux-Devtek Inc.	Precision Castparts Corp	303	CSC Applied Technologies LLC GE Aviation, Electromechanical Actuation Division	TransDigm Group Incorporated	175 G
SE C Valent Aerostructures, LLC	LMI Aerospace Inc.	287			150 C G
Total Value of Top 10 Transactions		\$ 7,969	Total Value of Top 10 Transactions		\$ 8,296

SA Sponsor Acquisition SE Sponsor Exit C Commercial I International Transaction G Government Services

Source: M&A International Inc., Janes Capital Partners

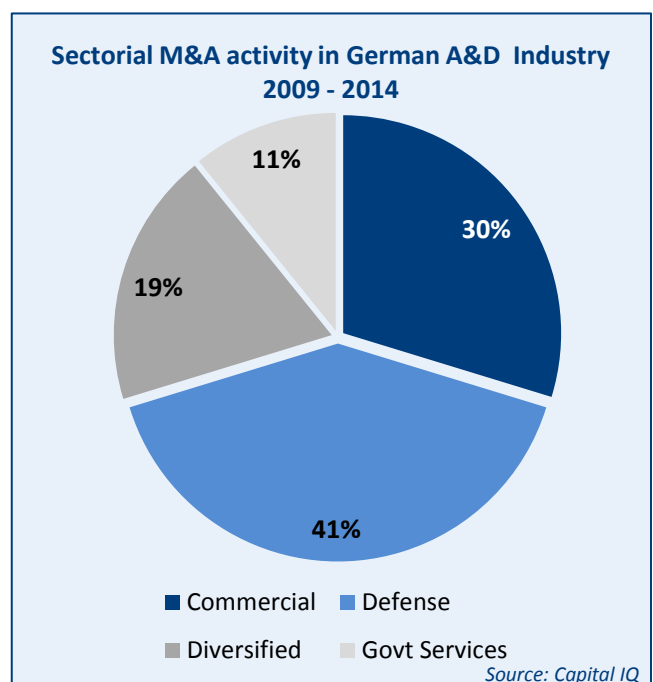
Transaction landscape in Germany

Although the A&D industry has a significant importance for Germany in terms of economic size, the M&A activity is lower compared to industries with comparable size. Looking at the last five years period, most deals occurred in the sectors Defense Systems & Services, Controls & Systems and Components & Subsystems, where German companies acted as buyers or targets. On the next pages we provide an overview of selected deals from the last two years.

One significant characteristic seems to be the high amount of cross-border deals with German targets or buyers, clearly underlining the cross-border consolidation of the industry. In Germany, acquisitions by foreign firms in the defense, aerospace and security sectors are not prohibited, however, non-German companies, as well as German companies in which a foreigner holds at least 25 percent of the voting rights, are subject to review by the Federal Ministry of Economics and Technology if seeking to acquire 25% or more in the German company. If the transaction endangers the public order or security of the Federal Republic of Germany, it may be forbidden – which practically never happened so far.

Our prediction for 2014 and 2015 is an increasing deal activity, both by strategic and financial investors. We hope to see European suppliers as active consolidators in the industry – having said this, we have to state that actually much more buy side activity happens from abroad, in particular from China, than domestically.

Finally, we hope to see much more deal activity by institutional investors in this sector on tier 2 levels and below., as it happened so far. The industry fulfills many pre-conditions of investors, and long-term stable growth rates.



EXAMPLES OF TRANSACTIONS IN THE AEROSPACE AND DEFENSE INDUSTRY IN GERMANY

Target	Country	Buyer	Country	Description	Date
Elektro-Metall Export GmbH	DE	TransDigm Group Inc	US	TransDigm Group Inc, the listed US manufacturer of aircraft and aerospace components, has acquired Elektro-Metall Export GmbH (EME), the German electrical and electromechanical components manufacturer for commercial aircraft, helicopters and other specialty applications, in order to enhance its portfolio with EME's highly engineered products.	Mar-14
Aibotix GmbH	DE	Hexagon AB	SE	Aibotix GmbH, the manufacturer of vertical takeoff and landing unmanned aerial vehicles designed for use in industrial inspection, aerial mapping, surveying, and the utility and security markets, has been acquired by Hexagon AB from Sweden. The transaction enables Aibotix to enhance its market position and provide fully integrated solutions across multiple vertical markets.	Feb-14
Thielert AG	DE	Technify Motors GmbH	DE	The investment holding company Technify Motors GmbH, focusing on companies in the aviation and automotive engine components segments, has acquired Thielert AG, the manufacturer of aviation and automotive engine components.	May-13
RUAG Mechanical Engineering Ltd	CH	Berghoff Holding GmbH	DE	Berghoff Holding GmbH, engaged in the design and manufacturing of motors, has acquired RUAG Mechanical Engineering Ltd, the Swiss manufacturer of assemblies and components. The transaction enables RUAG Holding AG to focus on its core business and will enhance the product offering of Berghoff.	Mar-13
Societe Industrielle pour le Developpement de la Securite	FR	Bavaria Industriekapital AG	DE	Bavaria Industriekapital AG, the listed German industrial holding and investment company specialized in the takeover and re-organization of companies, has acquired Societe Industrielle pour le Developpement de la Securite, the France based fire-fighting and rescue trucks manufacturer, from United Technologies Corporation.	Mar-13
Elbe Flugzeugwerke GmbH (35% Stake)	DE	Singapore Technologies Aerospace Ltd	SG	Singapore Technologies Aerospace Ltd, engaged in aircrafts maintenance, repair and overhaul, has acquired 35% stake in Elbe Flugzeugwerke GmbH, the developer and manufacturer of flat fiber-reinforced composite components, from the Airbus Group. The purpose of the transaction is to launch a joint A330 Passenger-to-Freighter conversion program.	Feb-13
Schopf Maschinenbau GmbH	DE	Goldhofer AG	DE	Goldhofer AG, the specialist for solutions in heavy-duty- and road transport as well as special haulage operations, has acquired Schopf Maschinenbau GmbH, the supplier of ground support equipment for the aviation industry. The transaction will enable the companies to combine their market position and provide quality ground support equipment for airports.	Jan-13
Airbus Group (4.8% Stake)	FR	KfW Bankengruppe	DE	The German development bank KfW Bankengruppe has acquired a stake in European Aeronautic Defense and Space Company EADS N.V, from a consortium of investors. The transaction is in line with the strategy of EADS to simplify its governance while securing a share holding structure that would allow France, Germany and Spain to preserve their position as shareholders.	Dec-12
Diehl Aircabin GmbH (49% Stake)	DE	Diehl Stiftung & Co. KG	DE	Diehl Stiftung & Co. KG, the German defense and technology company, has acquired a 49% stake in Diehl Aircabin GmbH, from Thales Group. The transaction is in line with Thales Group's decision to divest its minority interest in the joint venture as part of the ongoing optimization of its portfolio.	Dec-12

EXAMPLES OF TRANSACTIONS IN THE AEROSPACE AND DEFENSE INDUSTRY IN GERMANY

Target	Country	Buyer	Country	Description	Date
RUAG Coatings AG	CH	Impreglon SE	DE	Impreglon AG, the listed German industrial coatings company, has acquired RUAG Coatings AG from RUAG Holding AG, the Swiss aerospace and defense technology company. RUAG Coatings is based in Switzerland and provides surface coatings for the automotive, bicycle, mechanical engineering and defense industries.	Oct-12
Carl Zeiss Optronics GmbH (75.1% Stake)	DE	EADS Deutschland GmbH	DE	EADS Deutschland GmbH has acquired Carl Zeiss Optronics GmbH, the provider of optical and opto-electronic products and services for defense and security.	Oct-12
Interturbine Projekt Management GmbH	DE	BE Aerospace Inc	US	BE Aerospace Inc, the listed US manufacturer of cabin interior products for commercial aircraft and business jets as well as a distributor of aerospace fasteners and consumables, has acquired Interturbine Projekt Management GmbH, engaged in providing products and services to the aerospace, high-tech and logistic industries.	Jul-12
Euroavionics GmbH & Co. KG	DE	Equistone Partners Europe Limited	GB	The management of Euroavionics GmbH & Co. KG, the developer of task management and navigation systems for helicopters and airplanes, has acquired the company in a management buyout transaction backed by a UK based private equity firm. Euroavionics is aiming to enhance its global market position as a supplier to the helicopter, fixed-wing and after-sales sectors.	Jul-12
Cotesa GmbH (Minority Stake)	DE	Holland Private Equity	NL	Cotesa GmbH, the manufacturer of fiber-reinforced composite components for applications in the aircraft industry, has received equity funding from the Netherlands based private equity firm Holland Private Equity through a minority investment. The acquisition helps Cotesa to gain investments in order to fortify its position in the aviation market and accelerate its growth.	Jul-12
Rheinmetall AG (Unmanned Aerial Systems Activities)	DE	Cassidian France	FR	Cassidian France (subsidiary of EADS N.V.), a company that designs, develops and manufactures security solutions and systems, has acquired the Unmanned Aerial Systems Activities of Rheinmetall AG, the listed German producer automotive components and defense equipment. Cassidian and Rheinmetall will hold 51% and 49% stake in the newly formed entity.	Jun-12
EDAG GmbH & Co. KGaA (civil protection branch)	DE	Krauss-Maffei Wegmann GmbH & Co. KG	DE	The defense company Krauss-Maffei Wegmann GmbH & Co. KG has acquired the civil protection branch of EDAG GmbH & Co. KGaA, the developer of modules, motor vehicles, derivatives and production systems. The acquisition enables Krauss-Maffei to strengthen its market presence in Central and South America as well as develop its business operations for highly protected civil vehicles.	Jun-12
Thales Information Systems S.A.U.	ES	Aurelius AG	DE	The German private equity company Aurelius AG has acquired Thales Information Systems S.A.U, the Spain based provider of IT services which include development, installation and support of software and software tools from Thales España, the provider of technological solutions for Transportation, Defense, Security, Aeronautics and Space applications.	Feb-12
Funkwerk Avionics GmbH	DE	DREI Unternehmensbeteiligungen GmbH	DE	The private equity firm DREI Unternehmensbeteiligungen GmbH has acquired Funkwerk Avionics GmbH, a manufacturer of avionics for communication systems for aircrafts, from Funkwerk AG. The transaction is in line with Funkwerk's strategy to focus on its core businesses and improves the company's financial condition.	Jan-12

Selected References in Aerospace & Defense

<p>we close deals</p>  <p>OLT Express[®]</p> <p>has acquired 100% of</p>  <p>from Private shareholders</p> <p>The undersigned advised the seller in this transaction</p> <p>Angermann M&A International GmbH www.mergers.net</p>	<p>world's leading</p>  <p>British International</p> <p>has been sold to</p>  <p>The undersigned advised on this transaction</p> <p>Smith & Williamson Corporate Finance Limited www.mergers.net</p>	<p>world's leading</p>  <p>The majority shareholders of Car Trim Group</p>  <p>have acquired outstanding shares and carried out a capital increase</p> <p>Angermann M&A International GmbH www.mergers.net</p>	<p>world's leading</p>  <p>Titan Airways</p>  <p>The undersigned acted as lead corporate finance adviser to Titan Airways on its partial buyout</p> <p>Smith & Williamson Corporate Finance Limited www.mergers.net</p>	<p>world's leading</p>  <p>Acted as Financial Advisor to</p>  <p>Prime contractor, developer and manufacturer of high performance, advanced aerial targets and UAV platforms; on its sale to</p>  <p>www.mergers.net</p>
<p>world's leading</p>  <p>Acted as Financial Advisor to</p>  <p>Leading designer and manufacturer of oxygen systems and related components for business jet, commercial and military aircraft; on its sale to</p>  <p>www.mergers.net</p>	<p>world's leading</p>  <p>Acted as Financial Advisor to</p> <p>COMBAT CRITICAL CARE CORPORATION a subsidiary of PPP PACIFIC PRECISION PRODUCTS</p> <p>Designer and manufacturer of rugged, handheld, non-explosive, single-use oxygen source for personal use; on its sale to</p>  <p>www.mergers.net</p>	<p>world's leading</p>  <p>Acted as Financial Advisor to</p>  <p>High-speed, precision, machining manufacturer of large structural components for the aerospace industry; on its sale to</p>  <p>www.mergers.net</p>	<p>world's leading</p>  <p>Acted as Financial Advisor to</p> <p>SORENSEN CAPITAL</p> <p>on its recapitalization of</p>  <p>Manufacturer of high-precision components and sub-assemblies for the aerospace and defense industry</p> <p>www.mergers.net</p>	<p>world's leading</p>  <p>Acted as Financial Advisor to</p>  <p>Developer and manufacturer of liquid propulsion systems and components; on its sale to</p>  <p>www.mergers.net</p>
<p>world's leading</p>  <p>Acted as Financial Advisor to</p>  <p>Distributor and supplier of aviation components to commercial airline, MRO and general aviation end users; on its merger with</p>  <p>www.mergers.net</p>	<p>world's leading</p>  <p>Acted as Financial Advisor to</p>  <p>Leading distributor and logistics solutions provider of military aviation aftermarket parts, systems and services to military aircraft customers worldwide; on its sale to</p>  <p>www.mergers.net</p>	<p>world's leading</p>  <p>PASSUR. KNOW NOW. AEROSPACE</p> <p>has completed a \$10,000,000 private placement of common stock</p> <p>The undersigned served as financial advisor to the Special Committee of the Board of Directors of PASSUR Aerospace, Inc. in connection with this transaction.</p> <p>TM Capital Corp www.mergers.net</p>	<p>world's leading</p>  <p>Sigma Concurrent Engineering GmbH</p>  <p>has sold 100% of the shares to EDAG</p>  <p>Angermann M&A International GmbH www.mergers.net</p>	<p>world's leading</p>  <p>knafaim כנפיים</p> <p>has issued bonds worth US\$21 million</p> <p>The undersigned was a member of the underwriters' consortium in this transaction</p> <p>Rosario Capital www.mergers.net</p>
<p>world's leading</p>  <p>DAMAR AEROSPACE</p> <p>has been acquired by</p>  <p>for US\$24.5 million</p> <p>The undersigned advised the seller in this transaction</p> <p>Alexander Hutton, Inc. www.mergers.net</p>	<p>OUR EXPERTISE YOUR ACCESS</p>  <p>AEROCONSEIL (31) Aeronautical engineering and services - Turnover : 115 M€</p>  <p>Sold to AKKA Technologies Advisor to the seller</p> <p>www.mergers.net</p>	<p>world's leading</p>  <p>plus D</p> <p>has been acquired for \$ 81,000,000</p> <p>by</p>  <p>Aelos Finance / Pagament Partners www.mergers.net</p>	<p>OUR EXPERTISE YOUR ACCESS</p>  <p>NOOMEO (31) 3D capture solutions for aerospace industry - TO 1 M€</p>  <p>Sold to EQYLIA (ERCO FINANCES group) Advisor to the seller</p> <p>www.mergers.net</p>	<p>OUR EXPERTISE YOUR ACCESS</p>  <p>JET Tricotage Toulousain (31) Design & manufacturing of textile articles</p>  <p>Acquisition of TTM (Technical Textile for Aerospace) Advisor to the buyer</p> <p>www.mergers.net</p>

Increased requirements regarding transaction processes

Regarding both, investment possibilities in the national and international aerospace and defense industry as well as a company sale, the successful realization depends on the access to suitable prospective investors or targets inside or outside the industry. Besides, a professional process management and the consideration of the owners' ideas and objectives are crucial.

At the same time, industry specific know-how and transaction-related experience are inevitable in order to identify product, location, production and customer portfolio potentials and convince prospective investors of the possibilities they have regarding transactions.

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- ✓ Local Research**
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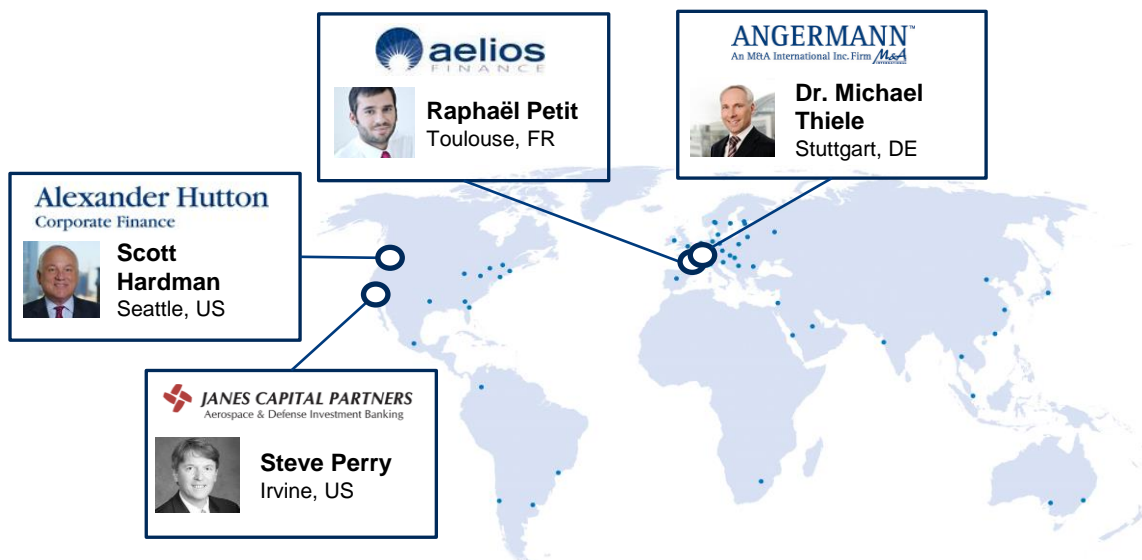
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