



Composites Sector M&A update

Spring 2013

Increasing demand driving M&A to record £2.3 billion

Demand for composite material is forecast to double by 2015. Improved fuel efficiency and demand for high-strength lightweight material is increasing the penetration of composites in multiple sectors. This is supporting record levels of M&A.

Key findings from our research

■ Value and volume of deals reaching new highs

The pace of M&A activity in 2012 built on the momentum which began in 2011 with 41 deals worth over £2.3 billion. Strategic acquirers are strengthening their competitive positions to benefit from the anticipated growth in end markets. A small number of private equity houses are establishing and growing platforms.

■ Aerospace suppliers using M&A to safeguard their position

Leading composite manufacturers and aerospace suppliers are vertically integrating the supply chain to ensure they can meet the demands of record OEM backlogs, strong order books and ambitious production rates for composite-intensive commercial aircraft.

■ Automotive sector is an emerging battleground for carbon fibre

OEMs and composite manufacturers are using joint ventures, partnerships and acquisitions to overcome the technology, cost and capacity challenges of higher volume automotive production. With security of supply a priority, those players with vertically-integrated supply chains will be in the strongest position.

■ Smaller companies need to develop their offering

The composites sector is highly fragmented. With pressure from OEMs to provide a complete solution, smaller companies need to gain scale, broaden their end markets and provide an increasing proportion of the composites value chain.



“We are seeing innovation across the supply chain as companies develop composites technology for higher volume applications. Different M&A strategies are playing an important role in helping them achieve this.”

Mark Humphries, Partner

Leading producers investing in capacity

Global demand for composites forecast to double by 2015

The next decade will see a significant increase in demand for composites. While penetration across end markets is currently low (see Figure 1), the need to increase fuel efficiency and meet carbon emissions regulations is driving a requirement for light-weight carbon fibre components in the aerospace and automotive sectors. Wind energy and industrial applications are also increasing their use of composites.

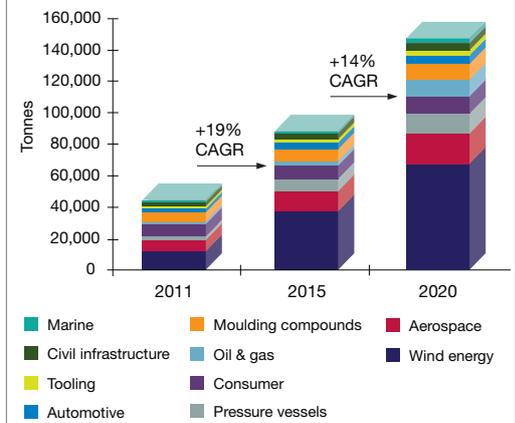
Rising demand leading to investment in capacity

Over the next five years, the composite industry is forecast to be worth US\$27 billion with end product applications worth US\$78 billion. Current production volumes for composites are low compared to conventional materials. Around 1.3 billion tonnes of steel is produced annually compared to five million tonnes of glass fibre reinforced plastic ('GFRP') and 46,000 tonnes of carbon fibre reinforced plastic ('CFRP'). However, demand for CFRP is forecast to rise to 157,000 tonnes by 2020 (see Figures 2 and 3).

The top five CFRP producers, who account for more than 80% of global capacity, are investing heavily in additional capacity.

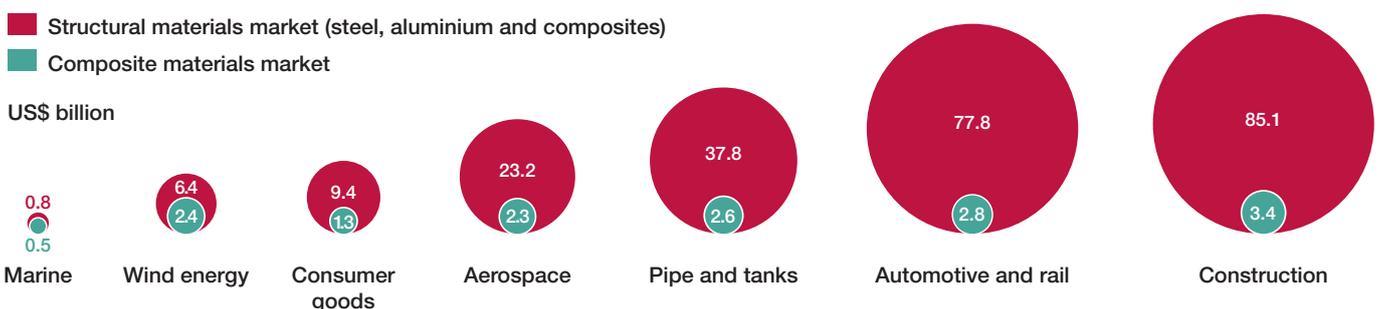
- Cytec is spending up to US\$250 million annually over the medium term to meet increasing demand from aerospace customers.
- Hexcel has doubled capacity at its Spanish-based prepreg plant to support new aircraft build programmes and increasing production rates.
- Grafil is expanding production capacity to benefit from rising demand for pressure vessels used in US shale gas exploration and production.
- Toray is targeting annual capacity of 27,100 tonnes by 2015 to cope with increased demand from its partner Daimler.

Figure 2: Demand for carbon fibre will double by 2015



Source: Ricardo analysis, Composites World, IHS Supplier Insights 2012

Figure 1: Composites penetration in end markets compared to competing materials



Source: Lucintel

Sector discovering its M&A potential

Manufacturers and suppliers are positioning themselves to be at the forefront of opportunities driven by the substitution of conventional materials with composites. Large strategic buyers are using acquisitions to expand into higher growth end markets, access new process technologies and control more of the supply chain.

Establishing platforms in end-markets

Large acquisitions by Cytec and TenCate are evidence that major producers are confident that the use of composites by the higher volume industrial and automotive industries is set to grow significantly.

- Aerospace specialist Cytec's 2012 acquisition of Umeco for £348 million (9.8x EBITDA) enables the company to move up the supply chain and capitalise on Umeco's composite components manufacturing and process technologies. This includes the energy efficient and more cost effective out-of-autoclave technology it is developing to shorten thermoset production cycles.

"TenCate's M&A strategy is focused on advanced composite materials with a high added value. We are looking for material solutions which will reduce the total cost of a system or end product, increase safety or reduce weight."

Frank Spaan
Corporate Development Director, TenCate

- TenCate's 2012 acquisition of US thermoplastic producer PMC Baycomp extends the company's customer base beyond aerospace to industrial applications including oil and gas and automotive. The recent acquisition of UK-based Amber Composites, a manufacturer of thermoset composites for industrial and automotive applications, enhances TenCate's access to the European market.

Acquirers targeting capabilities in industrial applications

Figure 3: Key end markets for high strength composites

Aerospace	Automotive	Construction	Energy
2016 value: US\$4.1 billion*	2016 value: US\$4.0 billion*	2016 value: US\$4.4 billion*	2016 value: US\$6.5 billion*
			
<ul style="list-style-type: none"> ■ Growing passenger traffic supports major aircraft build programmes and demanding production rates ■ Interiors include large number of GFRP components ■ OEMs need to increase fuel efficiency. CFRP increasing share of structural weight (e.g. B787 Dreamliner and A350 around 50% CFRP) ■ Combat aircraft like Lockheed Martin Joint Strike Fighter made from around 30% CFRP 	<ul style="list-style-type: none"> ■ EU and US regulation compelling lower CO₂ emissions is increasing demand for light weight composites ■ OEMs, suppliers and raw material manufacturers have entered joint ventures to reduce composite production cycle times and secure supply (see page 6) ■ Electrification of vehicles requires high composite usage to offset battery weight 	<ul style="list-style-type: none"> ■ Largest segment for composites applications but penetration still low, see Figure 1 ■ Emerging economies expected to be significant composites users over the next five years as they make significant investments in residential and commercial construction 	<ul style="list-style-type: none"> ■ Escalating operational demands associated with deep water oil exploration and production attracting companies to composites' high strength to weight ratio, fatigue strength and corrosion resistance ■ Around 60,000 rotor turbine blades made annually by some 20 major manufacturers. Blades made mostly from GFRP but trend for longer offshore blades requires use of stiffer CFRP

*Source: Lucintel, Global composite materials shipment

Tier 1 suppliers pursuing vertical integration

Protect position in supply chain through vertical integration

Suppliers are under pressure from OEMs to safeguard against supply disruption. The aerospace supply chain in particular is becoming increasingly consolidated with OEMs preferring to outsource larger packages of work to fewer trusted suppliers. This favours players with vertically-integrated supply chains.

- UK OEM component supplier Avingtrans acquired UK-based Composites Engineering Group, which has certifications in the aerospace market and its own tooling capability, to gain access to the aerospace composite market and provide an integrated composite and metal component offering to its global OEM customer base.
- Germany-based SGL's acquisition of Portuguese Fisipe is part of its strategy to secure raw materials from multiple sources. SGL also has a secure supply of industrial carbon fibres via joint ventures with Lenzing and Mitsubishi.

Strengthening product portfolios to establish market leadership

- PE-backed United Initiators' strategic acquisition of Syrgis Performance Initiators (SPI), the third largest organic peroxide manufacturer globally, fits with the company's objective to become a global leader in speciality initiators (used to initiate chemical reactions during the production of thermoset composite materials). United Initiators will achieve significant synergies from SPI's complementary product ranges, established customer base and manufacturing and distribution networks.
- GKN's £515 million (6.9x EBITDA) strategic acquisition of component and sub-assemblies manufacturer Volvo Aero in 2012 complements its push into composite engine blade technologies (GKN and Rolls-Royce have a joint venture to develop composites in fan blades) by combining GKN's aerospace composites expertise with Volvo Aero's metallic technology. The acquisition means GKN is now the third largest engine components manufacturer globally.

In focus: TenCate

TenCate is a Netherlands-based multi-national manufacturer of specialist textiles. Its Advanced Textiles & Composites division accounts for 45% of revenues.

New markets

TenCate is leveraging its capabilities in aerospace to bring thermoplastic composite materials technology to new markets such as oil & gas exploration and mainstream automotive.

Solutions-driven partnerships

In 2012 TenCate established the European Thermoplastic Automotive Composites consortium (eTAC) which provides solutions to requests from car manufacturers and their supply chain.

Joint ventures

TenCate has entered into a strategic alliance with BASF and Owens Corning to develop, produce and commercialise thermoplastic composite materials suitable for mass volume automotive production.

Acquisitions

TenCate's M&A strategy has been technology-driven, using bolt-on acquisitions to create a broad capability base across thermosets and thermoplastics.

The 2012 acquisition of PMC Baycomp gave TenCate increased affordable thermoplastic UD-tape capacity for industrial applications. The 2013 acquisition of Amber Composites increases its presence in the market for industrial and automotive composites, tooling materials and access to the aerospace market in Europe for both thermoset and thermoplastic composites.

Spotlight: The UK is creating a globally competitive composites industry



The UK's leadership in aerospace and motorsport means it has one of the foremost composites industries globally. More than 1,500 companies across the UK's composites supply chain generate revenues of over £1.6 billion annually with 45% of production exported. End users include aerospace, wind energy and automotive.

Integrated approach is key to ensuring UK takes a share of a growing market

The global composites industry has recognised that the potential growth in the use of composites over the next 10 to 15 years will be significant (current CAGR is circa 8-10%). A number of governments are implementing initiatives to develop the competitiveness of their national industries to capture this market. To ensure the UK remains competitive and grows its market share, the Government is implementing a dedicated UK Composites Strategy. The strategy recognises the need for national leadership and investments in new technology, future skills and supply chain development, underpinned by world class infrastructure such as the National Composites Centre (NCC).

UK industry has clear leadership

With the support of the Department of Business, Innovation and Skills, the Composites Leadership Forum (CLF) has been established to fulfil the national leadership role. The CLF will work with key stakeholders, supported by the Government, to map and define UK composites capability and future growth potential, provide strategic direction and assist industry to meet increasing demand from a range of sectors. With representatives from the automotive, aerospace, construction, motorsport, rail, renewables, marine, and education and skills sectors, the CLF will identify key opportunities and challenges for the greater use of composites and create a joint action plan to address current and future needs to ensure the UK remains competitive.

NCC as the national hub is addressing technical challenges

By mid-2014 the Government will have invested nearly £60 million to develop the National Composites Centre. The NCC provides industrial scale technology development facilities to meet the needs of various sectors wishing to capitalise on the high-strength, low weight, corrosion and fatigue resistant qualities of composites materials. Whilst these benefits can deliver significant reductions in carbon emissions in sectors such as automotive, a major challenge for high volume applications is to develop cost-effective high rate manufacturing processes.

Only 20 months after opening, the NCC has more than 25 industrial members of all sizes, drawn from across a variety of sectors including renewables, aerospace, motorsport, marine and satellite. The NCC has a broad range of manufacturing technologies and equipment which is supported by a variety of state of the art component and process validation capabilities. These services are available to all UK composites companies.



The NCC has recently secured £28 million of UK Government funding to double the size of its facilities

The NCC works closely with the Engineering and Physical Sciences Research Council's (EPSRC) Centre for Innovative Manufacturing in Composites to evolve and mature emerging composite manufacturing technologies from the laboratory through to commercial maturity. The NCC is hosted by the University of Bristol and is one of the seven technical centres of excellence ("Catapults") that form the High Value Manufacturing Catapult and which bridge the gap between government industrial policy, academic research and business.

Emissions regulations are focusing OEMs' attention on composites

Structural growth opportunity in high volume automotive production

Composites are becoming a core strategic material for automotive OEMs for structural as well as non-structural components. Higher volume usage has to date been hindered by high material costs, long production cycles and lack of automation.

OEMs and tier 1 suppliers are using partnerships, joint ventures and acquisitions to industrialise manufacturing to meet forthcoming US and EU emissions regulations (see Figure 5). This is leading to predictions that the automotive carbon fibre composites market will be worth around US\$4 billion by 2016.

- BMW has adopted a vertically integrated approach in the production of the BMW i3 and i8 sports car (i3 will be launched in 2013). The i3 will be a volume-production all-electric car with a CFRP passenger cell. BMW has redesigned the full production chain including establishing a joint venture

with SGL Group (in which it has taken an initial 5% equity stake) to supply semi-finished carbon fibre products exclusively to BMW.

- Automotive equipment supplier Faurecia acquired the automotive business of Sora Composites, which has expertise in glass and carbon fibre for automotive applications. Sora's customers include Renault, PSA Peugeot Citroën and Aston Martin.
- Raw materials suppliers and manufacturers are working together to accelerate the industrialisation of carbon fibre composites. For example, BASF is working with SGL to develop processing times suitable for mass production.

Figure 4: The carbon fibre supply chain includes multiple customer relationships



*Source: Lucintel



BMW has developed the first high volume carbon fibre car

“BMW is committed to being at the forefront of developing carbon fibre use in automotive production. Although a relatively high cost material, the weight reduction benefits in the BMW i3 electric vehicle help to make a business case for carbon fibre as the principle body construction material for this car and also the

BMW i8 sports car. The unique carbon fibre manufacturing technologies we have developed for BMW i allow us to contemplate the increased use of this material at higher volumes in conventional cars and makes it a viable economic proposition.”

Ian Robertson
Member of the Board of Management of BMW,
Sales and Marketing

Figure 5: Joint ventures driving advances in production capabilities

Carbon fibre supplier	OEM	Est.	Type	Objective/details
Toray	Nissan, Honda	2008	Partnership	Develop a new carbon fibre material for mass market production
SGL Carbon	BMW	2010	JV	Develop manufacturing technologies for ultra-lightweight CFRP for BMW's future vehicle concepts. In the first phase, US\$100 million has been invested in a US-based carbon fibre manufacturing plant
Toray	Daimler	2011	JV	Manufacture automotive CFRP parts
Teijin	General Motors	2011	Partnership	Develop technology to improve fuel economy. Teijin's technology for CFRP reduces cycle times for moulding parts to under one minute
Cytec	Jaguar Land Rover	2012	Partnership	Develop cost-effective composite automotive structures for high-volume production
Dow Automotive	Ford	2012	Partnership	Use carbon fibre composites in high-volume vehicles to improve fuel efficiency by cutting 750 lbs from Ford cars by 2020

OEMs using joint ventures to overcome production issues

Source: Company websites, press releases

Spotlight: OEMs looking for a complete solution from suppliers



From Formula 1 to main street

Composites have enjoyed considerable success in Formula 1 motorsport. This has created a highly fragmented, technology-rich support industry characterised by numerous small players with specialised knowledge.

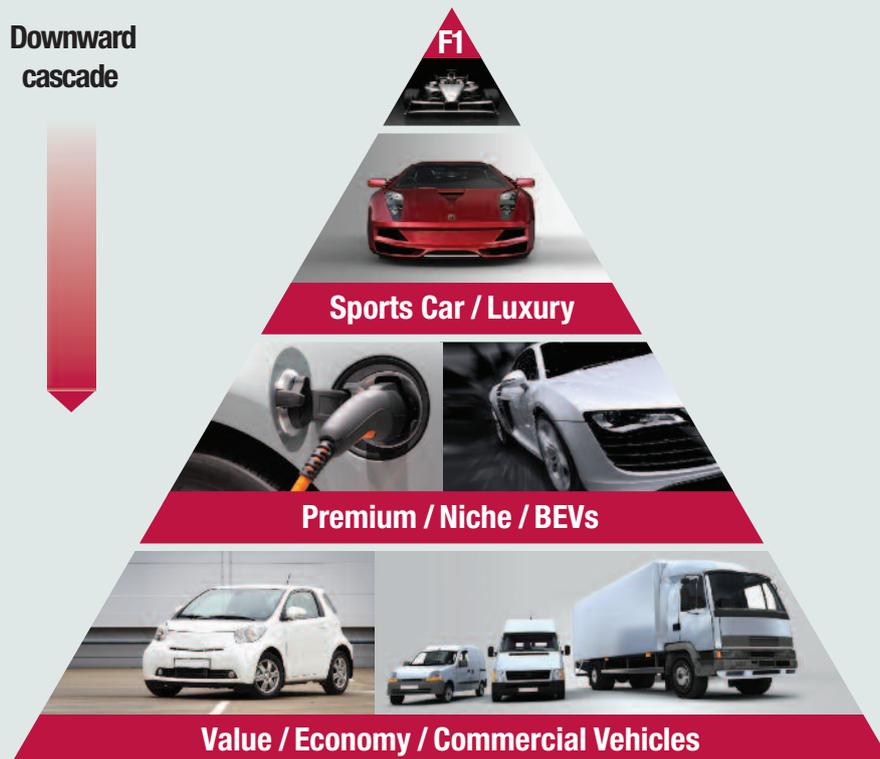
Over the next five years CFRP usage will cascade from the high-end sports and luxury segments into mainstream premium vehicles as OEMs look to deliver improved CO₂ performance through weight reduction across their portfolios.

Not all incumbent suppliers however will be able to translate their aerospace / motorsport experience into these higher volume segments. The lack of experience using composites in the mainstream will drive OEMs towards suppliers who can provide a complete solution to help navigate through the adoption cycle.

Small companies wishing to prosper in this segment should look to provide an increasing proportion of the composites value chain. Reducing manufacturing costs and cycle times will offer the greatest potential to grow a business in the medium term.

“Composite materials have an increasingly important role to play in achieving the targets for fuel efficiency and reduced carbon dioxide emissions that leading automakers are aiming for in the years ahead. While many composite materials are already familiar to the motorsports and supercar sectors, work is underway to develop the out-of-autoclave production processes necessary for mainstream automotive products.”

Ian Kershaw
Managing Director, Ricardo Strategic Consulting



M&A levels reaching new highs

M&A activity hit a record high in 2012 with a 71% annual increase in transactions. Since 2009 the pace of deal activity has been increasing rapidly, albeit from a low base (see Figure 6), with 90 transactions of which 41 (46%) were announced in 2012. M&A activity is off to a strong start in 2013.

M&A motivations differ for trade buyers and PE investors

- As discussed above, trade buyers are acquiring targets with composite process technology, geographical reach and long-term customer relationships. They are looking globally for the best targets and cross-border deals now account for 46% of transactions (see Figure 7). For example, serial acquirer Binani Industries (India) acquired US-based Composite Products in 2011 and Belgium glass fibre manufacturer 3B from PE owner Platinum Equity (acquired from Owens Corning in 2008) for £228 million in 2012.
- Private equity investment in composites has been limited to date, characterised by the establishment of platforms and bolt-on acquisitions to gain manufacturing synergies and consolidate parts of the value chain.
- AGC Aerospace and Defense, the brand behind the military and aviation interests of US PE firm Acorn Growth

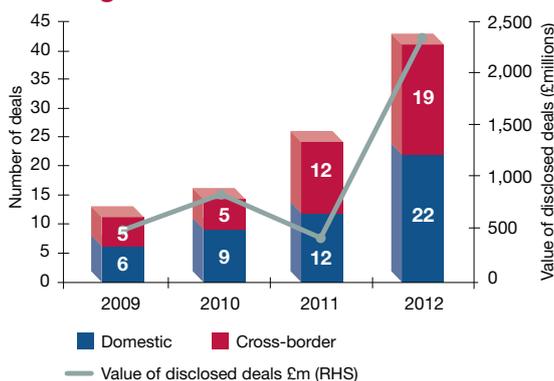
Companies, added US-based aerospace structures firm Hill AeroSystems to its Composites Group in 2012 as part of its strategy to develop a global aerospace composites and structures platform. This Group includes Unitech Composites (acquired in 2008), and Integrated Composites (acquired in 2009). Acorn has made significant investments in plant and equipment across each company.

- Composite Technology Investors (CTI), a US-based helicopter rotor blade repair company acquired by a syndicate of PE firms in 2004, acquired Vector Composites in 2010 and the assets of composite utility pole manufacturer Utility Composite Solutions in 2011. CTI will co-locate the companies' manufacturing plants to increase technical capabilities and geographic reach.
- There has been some exit activity by PE to both trade buyers and PE. US-based oil services provider National Oilwell Varco acquired Fiberspar, a leading manufacturer of advanced spoolable fibre-reinforced composite pipe for oilfield applications, from PE owner White Deer Energy in 2012. White Deer invested US\$50 million in Fiberspar in 2010. PE-backed United Initiators' acquisition of Syrgis Performance Indicators was a partial exit for Edgewater Capital Partners.

Trade buyers will keep M&A at record levels

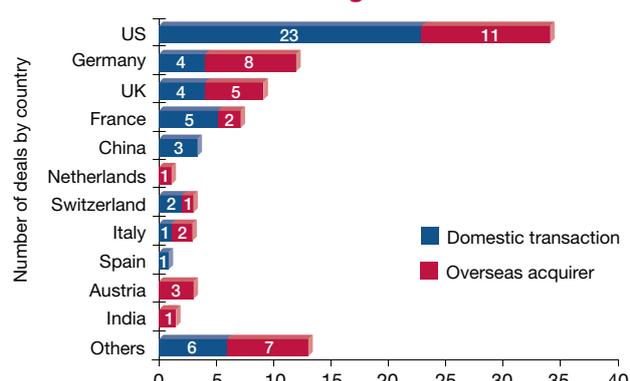
Private equity are attracted to the sector

Figure 6: Deal volumes and values reached record highs in 2012



Source: Capital IQ, MergerMarket

Figure 7: Significant number of transactions involve cross-border targets



Source: Capital IQ, MergerMarket

Demand for capacity and new technology will underpin M&A

Prospects for M&A and the sector

The trends discussed above mean that **M&A in the composites sector will continue to reach record annual levels over the next few years. In particular, we will see:**

- **Raw materials manufacturers securing component production capacity.** Raw materials producers will continue to align themselves with downstream design engineers, component manufacturers and OEMs to secure capacity to support increasing demand for composite materials. This will include M&A.
- **OEMs leveraging partnerships to access key technologies.** Strategic partnerships will grow as OEMs use these alliances to secure technology and access to leading-edge materials, in turn using this expertise in their design and manufacturing processes.
- **Increasing interest from private equity** which will look for opportunities to enter the sector through a platform investment as part of a buy and build strategy or by acquiring complementary existing portfolio holdings.

Contact us

If you would like to discuss this report in more detail, please contact us.

Mark Humphries

Partner
Catalyst Corporate Finance
Tel: +44 (0) 20 7881 2960

Mark is a Partner at Catalyst and has nearly 20 years of experience in M&A. He advises on MBOs, fund raising, company acquisitions and disposals. Mark leads our Industrials sector team. Before joining Catalyst he spent three years in the M&A team at FTSE100 engineering company GKN plc, leading many cross-border transactions.



Ian Kershaw

Managing Director
Ricardo Strategic Consulting
Tel: +44 (0) 1223 223 200

Ian is a Managing Director of Ricardo's strategic consulting division and leads Ricardo's global financial advisory services practice. He has over 27 years of experience in advanced automotive and aerospace materials, advising on both market and technology insights, generating value from global market and technology trends, mergers and acquisitions and operational performance improvements.



Figure 8: Selected recent M&A transactions

Date	Target	Country	Description	Acquirer	Country	Deal Value (£M)
Mar-13	Honeycomb Company Of America, Inc.	USA	Manufacture of complex, flight critical, bonded, composite assemblies for US military aircraft platforms	Overall Capital Partners	USA	n/d
Mar-13	Firehole Technologies	USA	Specialises in design and analysis software for composite materials	Autodesk Inc.	USA	n/d
Feb-13	Atlas Composites Limited	UK	Manufacturers composite structures and tooling for the automotive, defence and aerospace sectors	Senior plc	UK	n/d
Jan-13	Amber Composites	UK	Production of composite materials	TenCate NV	Netherlands	n/d
Dec-12	Glasforms, Inc	USA	Produce carbon fibre and fibreglass reinforced composites	PolyOne Corporation	USA	20.9
Nov-12	Synchronous Aerospace Group, Inc.	USA	Manufacture, fabricate, assemble knit aluminium, steel, titanium, and composite parts	Precision Castparts Corp.	USA	n/d
Nov-12	TK Industries GmbH	Germany	Develop and manufacture carbon fibre based multi-axial non-crimp fabric	Mitsubishi Rayon Co Ltd	Japan	n/d
Oct-12	Ceradyne, Inc.	USA	Manufacturer of technical ceramic products and components	3M Company	USA	415.4
Oct-12	VELOX GmbH	Germany	Supplier of raw materials for the plastics, composites, rubber, paints and coatings industries	Azelis SA (composite business)	Belgium	n/d
Sep-12	Pacifica Engineering Inc	USA	Provider of tooling, engineering and design/build services	Mtorres Disenos Industriales SAU	Spain	n/d
Sep-12	e-Xstream engineering SA	Belgium	Provider of advanced materials simulation software	MSC Software Corporation	USA	n/d
Sep-12	Bond-Laminates GmbH	Germany	Manufacture and marketing of advanced thermoplastic composite materials	LANXESS AG	Germany	n/d
Aug-12	Tenmat Limited	UK	Manufacturer of specialised engineering materials and components	Diamorph AB	Sweden	n/d
Jul-12	Syrgis Performance Initiators, Inc.	USA	Manufacturer of organic peroxide initiators used in the production of thermoset composites	United Initiators GmbH & Co. KG	Germany	n/d
Jul-12	Sora Composites	France	Automotive business of Sora Composites	Faurecia SA	France	n/d
Jul-12	Cotesa GmbH (Minority Stake)	Germany	Manufacturer of fibre reinforced composite components for applications in aircraft industry	Holland Private Equity	Netherlands	n/d
Jul-12	Volvo Aero	Sweden	Manufacturer of components and sub-assemblies for aircraft engine turbines	GKN Plc	UK	515.2
May-12	Tellhow Wind Power Blade Jiangsu Co., Ltd.	China	Manufacturing, assembling and marketing blades for wind turbines	Sinomatech Wind Power Blade Co Ltd.	China	21.7
May-12	Norafin Industries GmbH	Germany	Manufacturer of specialty and technical non-wovens and composites	PINOVA Capital GmbH	Germany	n/d
Apr-12	Umeco Plc	UK	Distribution and supply chain management and composite materials manufacturer	Cytec Industries Inc.	USA	348.3
Mar-12	Performance Materials Corporation Baycomp	USA	Design and manufacture fibre thermoplastic composite materials and components	TenCate NV	Netherlands	n/d
Mar-12	Hill AeroSystems Inc.	USA	Manufacturer of parts and assemblies for aircraft	AGC Composites Group	USA	n/d
Mar-12	Fisipe-Fibras Sinteticas de Portugal, S.A.	Portugal	Manufacturer of acrylic textile fibres	SGL Carbon AG	Germany	n/d
Feb-12	Sigma Composites Ltd	UK	Composites engineering group	Avingtrans Plc	UK	n/d
Feb-12	3B-the fibreglass company	Belgium	Develops fibreglass products and technologies for the reinforcement of thermoplastics and thermosets	Binani Industries Ltd.	India	228.3
Dec-11	Aksa Akriilik Kimya Sanayii A.S. (50% Stake)	Turkey	Turkey based carbon fibre production assets of Aksa Akriilik Kimya Sanayii A.S.	Dow Europe GmbH	Switzerland	236.2
Nov-11	Vistagy, Inc.	USA	Developer of engineering software	Siemens AG	Germany	n/d
Nov-11	Vermont Composites, Inc.	USA	Design and fabrication of carbon fibre composites structures for aerospace and industrial markets	Kaman Aerospace Corporation	USA	25.1
Oct-11	Galen LLC (39.96% Stake)	Russia	Composite materials manufacturer	Russian Corporation of Nanotechnologies	Russia	10.3
May-11	Axson Technologies SA	France	Manufacturer of resins, composites, special adhesives and high technology composite materials	Groupe BSR	France	n/d
Mar-11	Cam Elyaf Sanayii A.S.	Turkey	Turkey based business unit of Cam Elyaf Sanayii A.S., which manufactures unsaturated polyester resin	Poliya Poliester Sanayi ve Tic. Ltd.	Turkey	n/d
Feb-11	OCV Capivari Fibras de Vidro Ltda	Brazil	Brazil-based glass fibre maker	Chongqing Polycomp	China	36.7

Source: Catalyst Corporate Finance, Capital IQ

International experience

Through our international partnership, Mergers Alliance, Catalyst Corporate Finance provides:

- Access to overseas buyers/investors
- Local knowledge of M&A culture and tactics
- International M&A research
- Identifying targets overseas and executing acquisitions

Catalyst Corporate Finance

Award-winning international corporate finance advice

Catalyst advises management teams, private shareholders and corporates on:

- Company sales
- Management buy-outs (MBOs/MBIs)
- Company acquisitions
- Raising development capital
- Debt advisory
- Recapitalisation of companies
- Investment opportunities for private equity firms
- Maximising shareholder value

This is all we do and all we want to do.

Ricardo Strategic Consulting

Ricardo is a leading global provider of product innovation, engineering solutions, clean technology and strategic consulting. Through our advanced and well-equipped technical facilities in North America, Europe and Asia we serve a wide and balanced customer base including:

- Market-leading brands across a range of industrial sectors
- Government agencies
- National and international regulatory authorities

We are a public company quoted on the London Stock Exchange and a constituent of the FTSE techMark 100 index.

CATALYST
CORPORATE FINANCE

www.catalystcf.co.uk

London: 5th Floor, 12-18 Grosvenor Gardens
London SW1W 0DH
Tel: +44 (0) 20 7881 2960

Birmingham: 9th Floor, Bank House, 8 Cherry Street
Birmingham B2 5AL
Tel: +44 (0) 121 654 5000

Nottingham: 21 The Triangle, ng² Business Park
Nottingham NG2 1AE
Tel: +44 (0) 115 957 8230

RICARDO

www.ricardo.com

Cambridge: Cambridge Technical Centre,
400 Science Park, Milton Road, Cambridge CB4 0WH
Tel: +44 (0) 1223 223200