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Introduction

The Global M&A Construction Monitor 2018-2019 analyses trends and developments in the construction industry based on M&A activity and opinions from our local construction experts.

We are pleased to present the first Global M&A Construction Monitor (GCM), a publication that identifies trends and developments in the Global and regional construction industries based on M&A activity and opinions from our local construction experts. This report is based on publicly available data regarding M&A and market outlooks.

Over the period 2013-2018, M&A activity in global construction markets grew to 484 deals recorded in 2018, up from 273 deals recorded in 2013. North America, Europe and Asia (foremost China) are the most dominant regions in terms of recorded number of deals. Whereas the number of deals showed a continuation of steady growth, the average deal value dropped slightly to 203m USD in 2018, down from 222m USD in 2017.

Per global region – North America, Latin America, Europe, Africa & the Middle East and Asia & the Pacific – M&A developments and shaping trends are analyzed. For some of the countries a more detailed outlook on the local construction industry is included. Although there are regional differences in market characteristics we observe two major global trends: a growing focus on local markets and diversification strategies to boost margins.

Growing focus on local markets

Spurred by widespread positive economic conditions we observe a growing focus on local markets. For the second year in a row the share of cross-border deals showed a decline: 23% in 2018 compared to 29% in 2016. This trend indicates an increased focus on local market opportunities.

An analysis of cross-border M&A activity shows European and North American construction companies to have been the most active transregional buyers in 2018. Mainly the larger construction firms continue to focus on internationalization strategies.

Boosting margins by diversification

Traditionally, margins in the construction sector are under pressure. Supply chain pressure, mainly due to strongly increased construction costs, is a major challenge for construction companies in multiple global regions. In search for better margins the construction industry focuses on diversification strategies. This is reflected in the increased number of diversification deals reaching 172 in 2018, compared to 75 in 2013.

Global Outlook

Global economic growth softened over the first half of 2019. Dominating downside risks could affect the confidence and investments. Although geopolitical headwinds and economic uncertainty are likely to persist in the near future, we expect a slightly softening growth or stabilization of the M&A-activity in global construction markets in the near future.

Furthermore in this publication

Digitalization and technology are gradually on their way to become common practice in the construction industry. In this report we included an analysis of the maturation of the construction technology ecosystem, showing an accelerated growth over the past five years.

We hope you find our GCM 2018-2019 analysis of M&A activity in the construction industry interesting. The information in this monitor can help you understand and assess the opportunities and challenges in the construction industry. We welcome all thoughts and suggestions you may have regarding this publication.

Global | Growing focus on local markets and boosting margins by diversification

This 1st edition of the Global Construction M&A Monitor focuses on the developments and trends in construction markets across the world, based on mergers and acquisitions and opinions from our local construction experts. This section focuses on the global developments and trends.

Developments in 2017 – 2018

Over the period 2013 to 2018, M&A activity in the construction sector steadily increased up to 484 deals recorded in 2018, up from 273 deals recorded in 2013. North America, Europe and Asia (foremost China) are the most dominant regions in terms of recorded number of deals. Both Europe and Asia show a decline (slightly) in construction deals over 2018 compared to 2017, while North America shows a sharp growth in total deals recorded.

Decrease of market value

The average deal value of individual transactions decreased to 203m USD in 2018, down from 222m USD in 2017 based on the disclosed transaction values in MergerMarket. Compared to an average deal value of approximately 95m USD in 2016 and 173m USD in 2015, the average deal size still seems to be higher compared to the period from 2013 to 2016. Nevertheless, it is significantly lower than 2017. This is also reflected in the total deal value: 98b USD in 2018 compared to 103b USD in 2017.

Cross-border deals declining

For the second year in a row, the share of cross-border deals showed a slight decline: 23% in 2018 compared to 29% in 2016. The absolute number of cross-border deals in 2018 fell to 110 deals, compared to 118 cross-border deals in 2016. This trend indicates an increased focus on local market opportunities in the construction industry.

Private equity deals

The number of private equity (PE) deals shows an increase for the fourth year in a row: 111 PE deals were done in 2018, compared to 65 PE deals in 2014. However, the share of PE deals compared to the total deals in the industry remains stable: around 23%. Since 2013, the share of PE deals has fluctuated between a maximum of 27% (2013) and a minimum of 20% (2014).

PE activity varies strongly between regions across the globe. Historically, the PE activity in the construction sector is relatively strong in the US and Europe compared to, for instance, Asia. While in Europe M&A activity is finally picking up, the share of PE deals in North America has been declining for two years in a row.

Number of deals

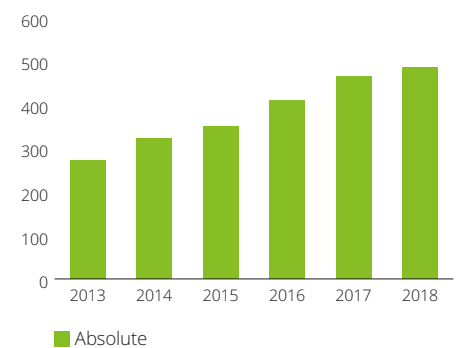


Figure 1 – Number of deals per year

Cross border deals

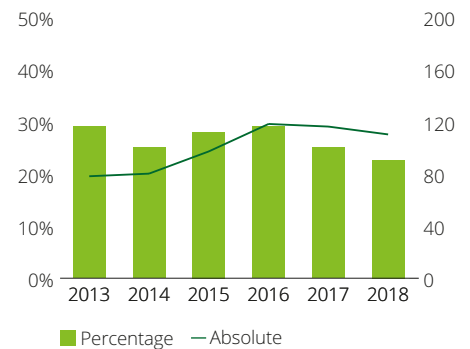


Figure 2 – Number and share of cross border deals per year

Private equity deals

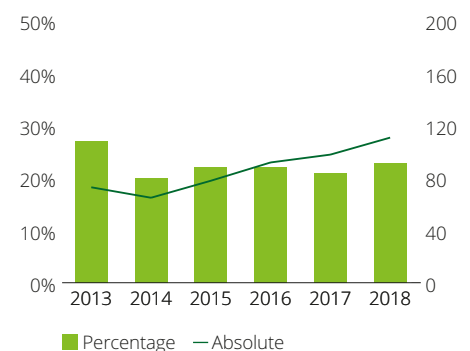


Figure 3 – Number and share of PE deals

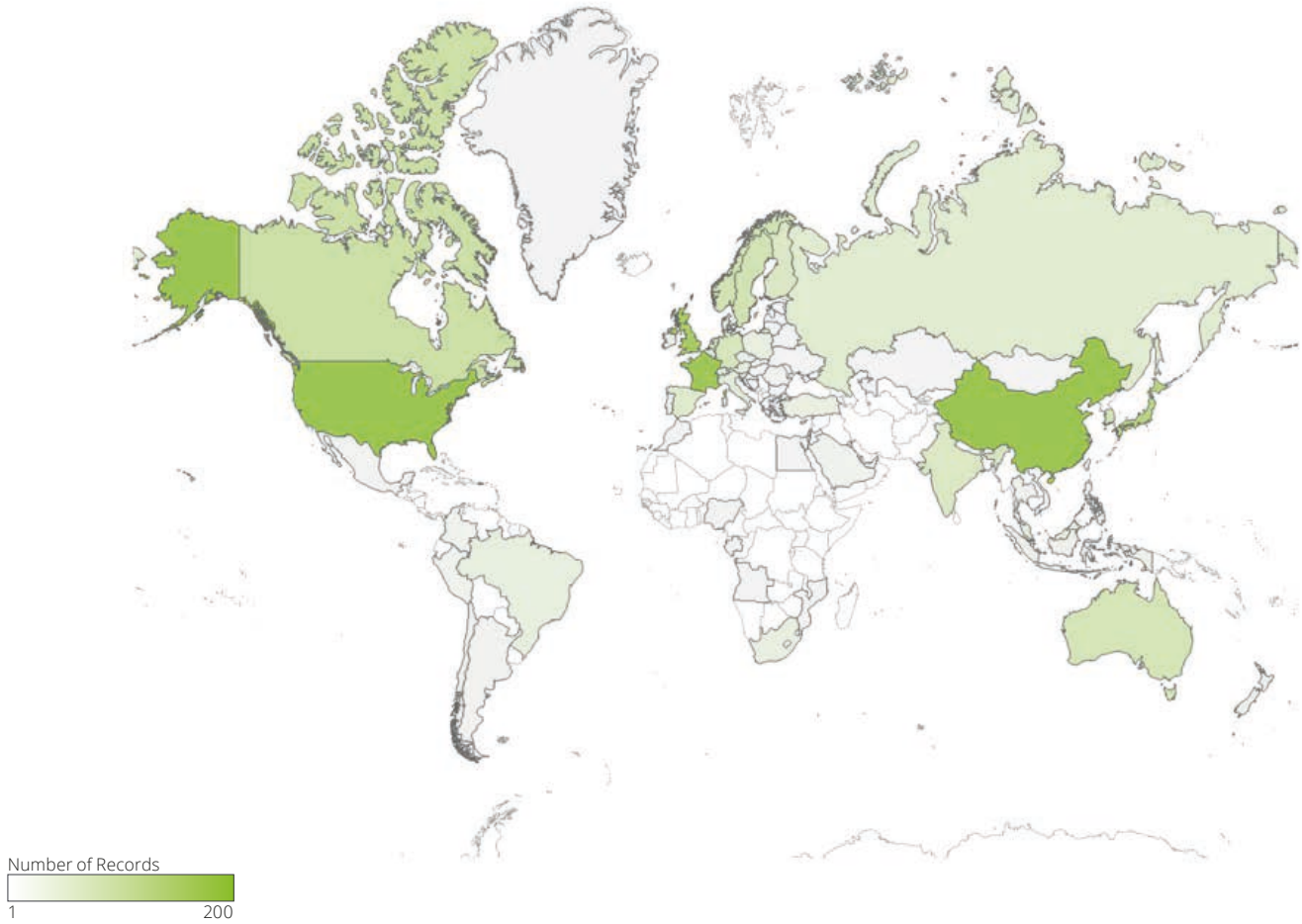


Figure 4 – World map showing number of deals over the period 2013-2018 per country (Source: MergerMarket)

Focus on diversification

Strategic deals can be divided into two main categories: diversification deals and core deals. Diversification deals comprise transactions in which the buyer and seller are not within the same industry.

Core deals comprise transactions in which the buyer and seller are in the same industry. In 2018, 203 core strategic deals were entered into, compared to 201 in 2017. The share of core deals compared to the total number of deals has decreased slightly. In 2018, the share of deals focusing on core business was 41.7% compared to 43.3% in 2017.

Globally, the trend shows a slight decrease in the focus on core deals. On the North-American continent core deals are gaining traction at the expense of PE driven deals. In Europe, on the other hand, the number of core deals shows a sharp decline, which can be explained by a pick-up in PE activity. In Asia, firms are increasingly choosing to diversify through M&A rather than to focus on core activities. However, this is only a slight increase.

The number of diversification deals increased to 172 in 2018, up from 165 in 2017. At around 35%, the share of diversification deals has been stable over the last years.

Diversification deals

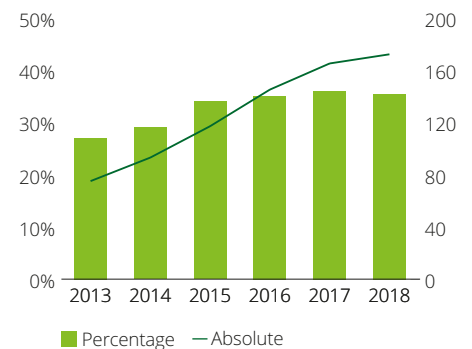


Figure 5 – Number and share of diversification deals

Global Outlook

Global economic growth softened over the first half of 2019, which reflected weaker-than-expected international trade and investment. The risks that threaten global economies include the possibility of destabilizing policy developments, including Brexit and further escalation of the trade tensions, renewed financial turmoil in emerging market and developing economies and sharper-than-expected

slowdowns in major economies.¹ Dominating downside risks could affect the confidence and investments. Though geopolitical headwinds and economic uncertainty are likely to persist in the near future, global M&A activity is expected to remain strong.² For the global construction market we expect a slightly softening growth or stabilization of the M&A-activity in the coming years.

Trends and developments based on M&A activity and insights from our local experts are described per region.

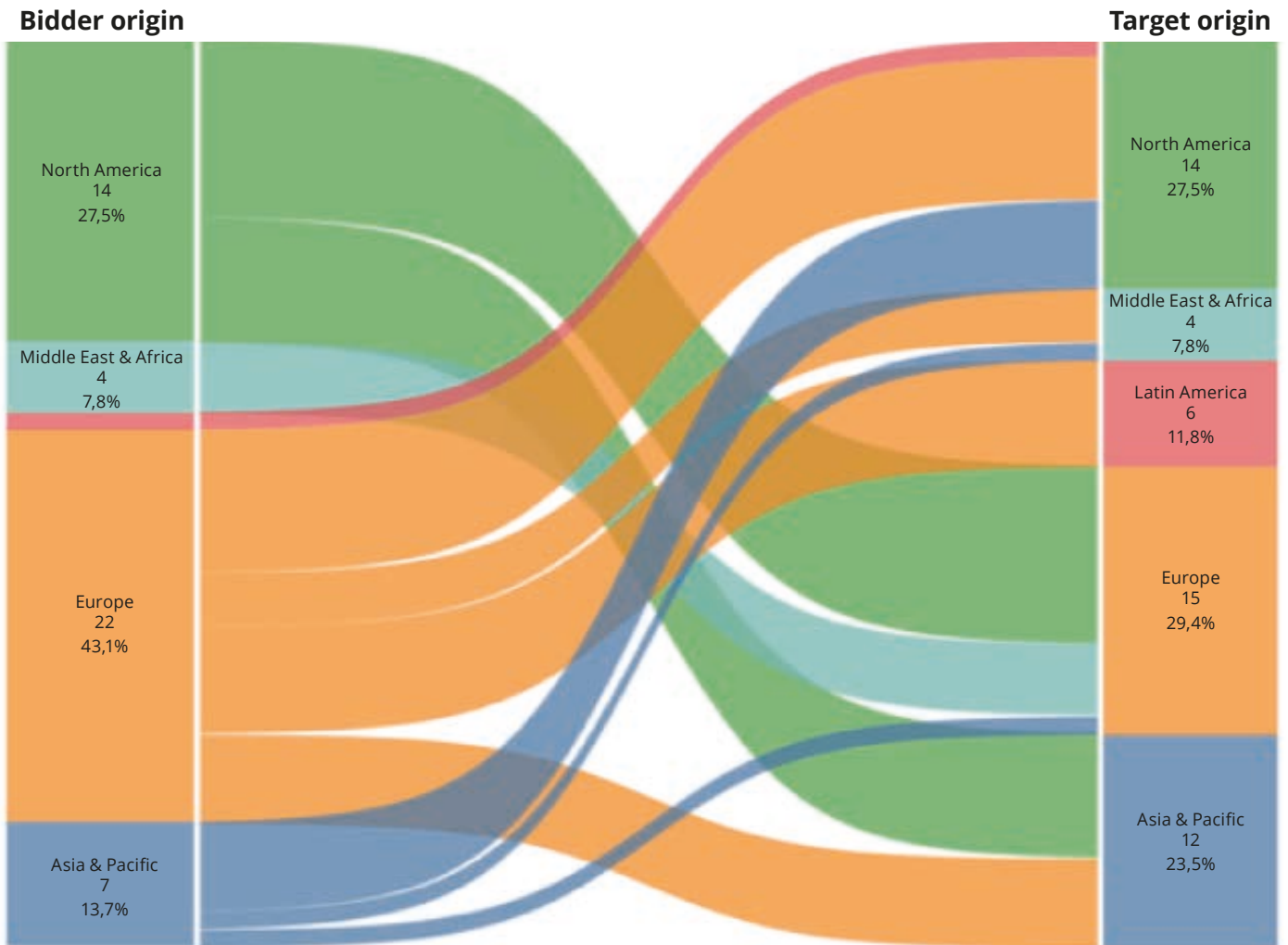


Figure 6 – Visualisation of M&A in 2018 flows between Global regions (Source: MergerMarket, Deloitte Analysis)

Global | M&A flows

In 2018, a total of 110 cross-border deals were recorded. About 46% of the cross-border deals concerned mergers and acquisitions between global regions. This section analyzes the cross-regional construction deals.

Figure 6 shows the M&A flows between global regions. The left side shows the bidder origin, the right side the target origin. The colors of the deal flows represent the bidder origin. The width of the flow indicates the number of deals in 2018.

The figure shows that European and North American construction companies have been the most active buyers on the transregional construction market in 2018,

when European construction companies targeted 22 transregional construction companies across the globe. By contrast, for North American buyers the 17 targets were construction companies from Europe or Asia & the Pacific.

The presence of foreign countries in Latin America is notable. Only European construction companies have targeted Latin American companies in 2018. Broadening the scope to the past 6 years

shows 55% of the bidders in Latin America to be European construction companies, predominantly based in Spain or France.

Asian & Pacific companies tend to solely focus on European and North American construction markets, as more than 90% of the total cross-border deals over the period 2013-2018 targeted companies in Europe or North America. Japanese, Australian and Chinese construction companies are the most active transregional buyers.

Atlantia and ACS complete a 16.5b EUR acquisition of Spain's Abertis

In October 2018, a long running bidder war targeting Abertis ended by the agreement between ACS Group, Hochtief (75% owned by ACS) and Atlantia to jointly acquire the Spain based global toll road operator for 22.4b USD (16.5b EUR). The partnership allows them to jointly bid for projects in North America, Australia and Europe, in order to become the world's largest toll-road group.

Hochtief, the German-based contractor, has purchased Abertis and subsequently sold a 50% holding to Italy's motorway operator Atlantia and a 30% holding to Spain's construction group ACS. The consideration paid by Atlantia included the purchase of 24% of the ACS shares in Hochtief.

Abertis will be run as an infrastructure consortium between the three companies and will bid for projects around the world.



Amazon enters construction industry aiming to spur the smart home business

In recent years Amazon has set its focus on the smart home industry. In 2018, Amazon has gone a step further by taking a stake in a start-up that builds modular homes. Through its Alexa fund, Amazon has invested in Plant PreFab, a Southern California company that uses sustainable construction processes and materials to build prefabricated single- and multifamily houses. Plant PreFab focuses on automation in the construction process to lower costs and increase margins.

Amazon joined Obvious Ventures and private investors in a larger investment of 6.7m USD in Plant PreFab.



Japan's SoftBank to lead a 865m USD financing in a US-based ConTech Start-up

A group of investors led by SoftBank Vision Fund L.P. has agreed to acquire an undisclosed stake in a US-based provider of solutions for building development, design, and construction, for a consideration of 865m USD.

The acquisition will enable the US-based construction start-up to further invest in R&D and continue to scale its business. A representative of SoftBank has joined the company's board of directors. Unlike many other venture capitalists, the Vision Fund has a strong focus on construction- and real estate-related companies.

The vision of the construction start-up is to manufacture buildings as efficiently as cars through end-to-end vertical chain integration.



Global | The maturing construction technology ecosystem

For years the construction industry has been mocked for its low margins and lack of innovation. Fueled by the economic crisis, a turning point seems to have been reached over the last decade. Throughout the world, foremost larger construction companies are increasingly focusing on innovation and digitalization of their business model. This section takes a closer look at the emergence and growth of the construction technology (“ConTech”) ecosystem within the construction industry over the past decade.

Figure 7 represents the ConTech ecosystem. The ConTech ecosystem shows the interconnectedness of all facets involved in construction and several ways in which digitization is shaping the industry.

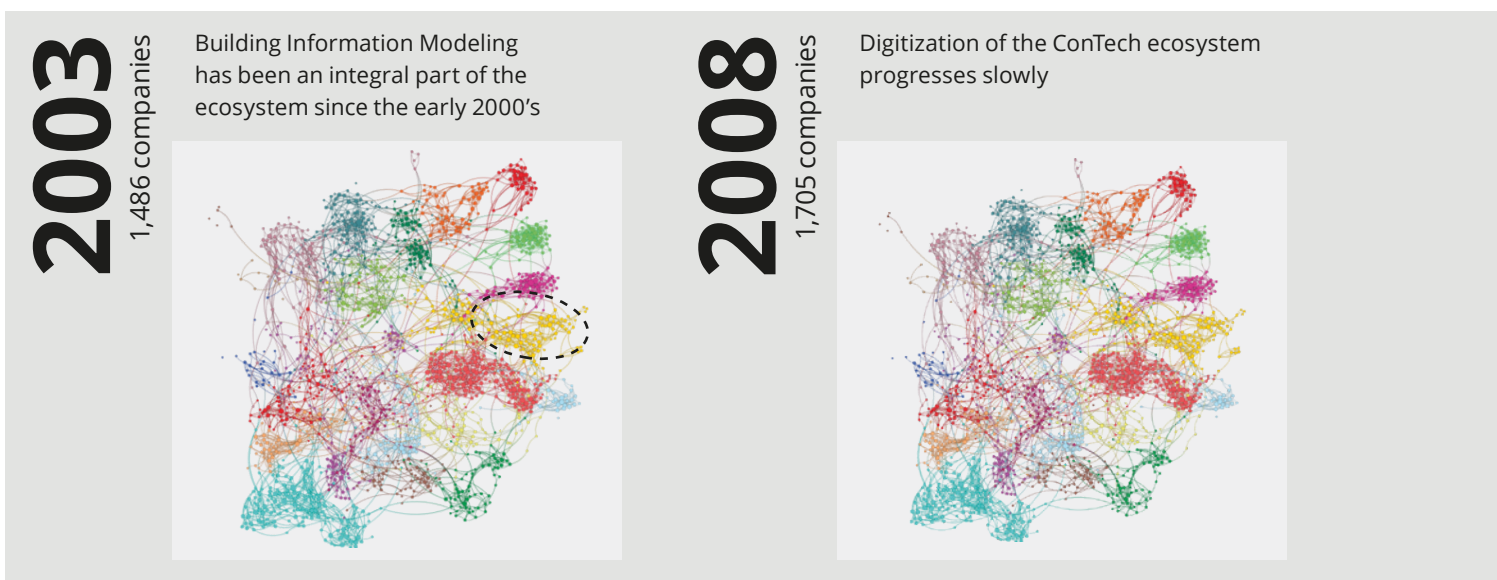
A node in the figure equals one company. Each color in the ecosystem represents a different cluster of ConTech companies. The cluster percentage in the legend refers to the # of companies in a cluster as a percentage of the total number of companies in the ecosystem.

The most dominant clusters in the ConTech ecosystem are Machinery, components & assembly related companies, general contracting related companies, and construction management software related companies.

Development of the ecosystem

Around 2003, Building Information Modeling became an integral part of the ConTech ecosystem. In the following 5 years, digitization of the construction industry progressed slowly. Around 2013, the growth of the ConTech ecosystem had not accelerated. However, software applications are increasingly playing an important role within the ecosystem.

The ecosystem showed an accelerated growth over the past five years, mainly driven by the surge of robotics and 3D-printing, AI, IoT and smart buildings. The growth of these innovations within the construction industry indicates that finally a solid foundation of software applications and BIM is in place that allows the disruption of the industry by ConTech innovations.



ConTech ecosystem

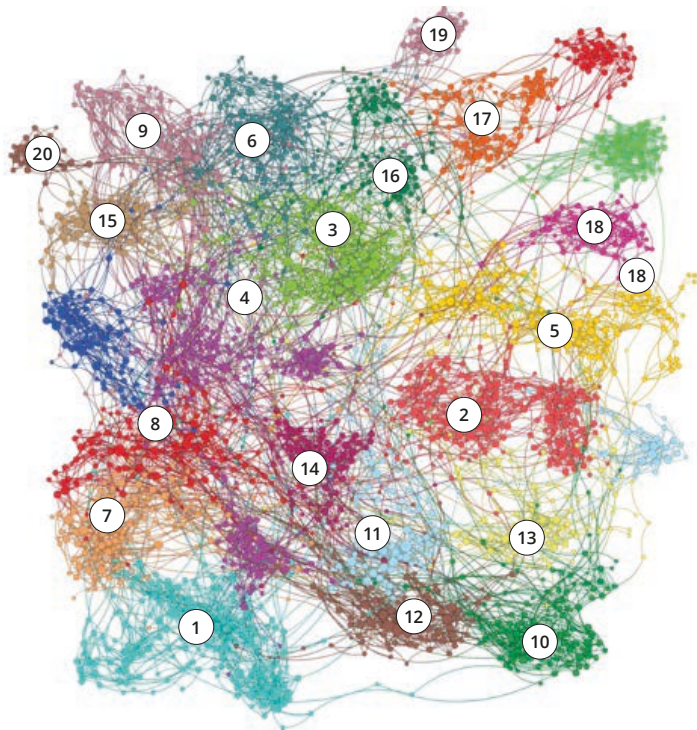


Figure 7 – Visualisation of the ConTech ecosystem (Sources: Quid, CapitalIQ, Crunchbase – Deloitte Analysis, data as at 03-12-2018)

Cluster	Share
1 Machinery, components & assembly	8%
2 General contracting	7%
3 Construction management software	7%
4 Robotics & 3D printing	6%
5 Building Information Modelling	6%
6 Consulting	6%
7 Construction materials and technologies	6%
8 Trading & investments	5%
9 Networks, cable & fiber	5%
10 Landscape construction, environment, waste & water	5%
11 Oil & gas	4%
12 Engineering & technology	4%
13 Road & railway, structural engineering	4%
14 Solar energy	3%
15 Artificial Intelligence, IoT, smart buildings	3%
16 Cad, surveying, laser	3%
17 Staffing employment & HR	3%
18 Plumbing & HVAC	2%
19 Drones & UAVs	1%
20 AR/VR/MR	1%

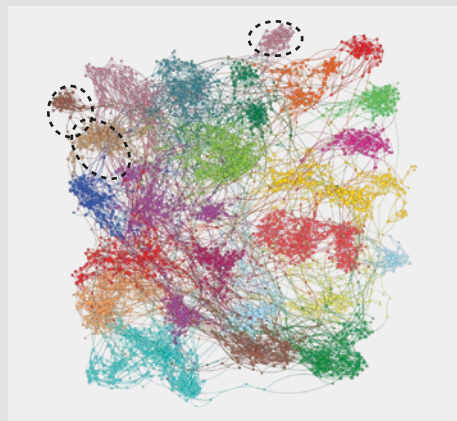
2013
1,948 companies

Software applications play an increasingly important role in the ecosystem



2018
2,599 companies

Robotics & 3D printing, Drones & UAVs, AR/VRMR. AI, IoT & smart buildings – they all surge





North America | Key findings

- M&A activity shows a significant increase for the second year, with 131 deals in 2018
- A strong growth in strategic deals by North American-based construction companies combined with declining cross-border activity indicates an increased focus on opportunities in local markets
- 2018 showed significantly decreased PE activity in the construction sector, approaching the global average of 23%
- California continues to lead all other states in regards to construction establishments, covering an estimated 10.3% of the US total



North America | Increased M&A activity with focus on strategic deals in local markets

Whereas global M&A activity in the construction industry stabilized over 2018, the North American market showed a sharp increase. This increased M&A activity is mainly driven by strategic deals in the local construction markets. In this section we shed light on the developments and trends in North-America based on the analysis of M&A activity and market outlooks from our local construction experts.

Developments in 2017 – 2018

M&A activity in North-America has increased steadily over the last years. The number of deals almost doubled to 131 deals in 2018, up from 66 deals in 2013. The biggest increase in the number of deals took place in 2018, when the number of deals increased by 24% compared to 2017. A significant growth compared to the stabilization of M&A activity in the construction industry in other regions. Accounting for 27.3% of 486 deals done globally, North-America takes the second place in number of deals, trailing Europe.

Increased market value

The combined value of the deals amounts to 19.8b USD, significantly exceeding the total deal value of the years 2013 to 2016, when a combined deal value of around 8b USD to 13b USD was common. However, in 2017 a record combined deal value of 54.4b USD was reached mainly due to the merger between German-based listed Linde and US-based and listed Praxair.

Except for 2017, the average deal value has been increasing slightly over the past five years. In 2018, the average deal value was 150.8m USD compared to an average deal size in the years 2013 to 2016 of approximately 110m USD. The record deal value in 2017 resulted in an average deal value of 656.8m USD. Compared to the global average, the average deal size in North-America is 25.8% lower than the global average. North-America accounts for 20.0% of global deal volume.

Cross-border deals

In absolute numbers the number of cross-border deals is on the decline, down to 26 deals annually over 2018. This is in line with the worldwide trend, where the share of cross-border deals is slightly declining too. The percentage of cross-border deals is lowest in five years, with just 20% of the deals done abroad in 2018 compared to 29% in 2014. This indicates an increased interest in local markets. Compared to Europe (28%) the share of cross-border deals is low.

Decline of private equity driven deals

The average PE activity in the construction sector in North-America has been relatively high compared to other regions. Over the last two years, the share of PE deals has declined to 26% in 2018, down from 35% in 2016. This is approaching the global average of 23%.

The total number of PE deals has been stable over the last three years, averaging around 33 deals yearly. This implies stable PE activity and growing strategic activity in the North American construction industry.

Number of deals

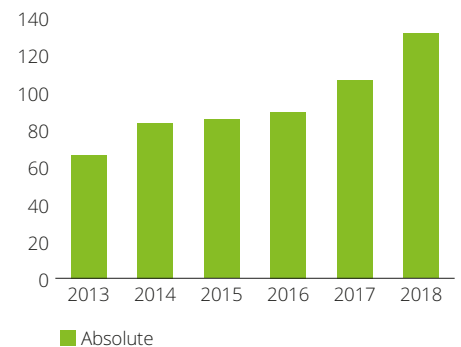


Figure 8 – Total number of deals per year

Cross border deals

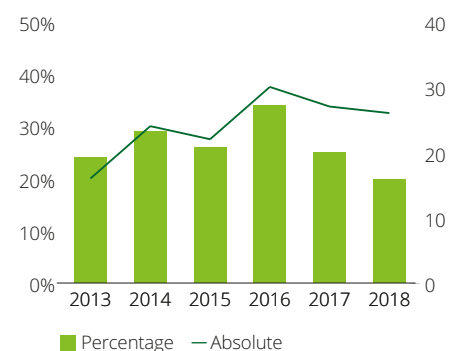


Figure 9 – Share and number of cross-border deals per year

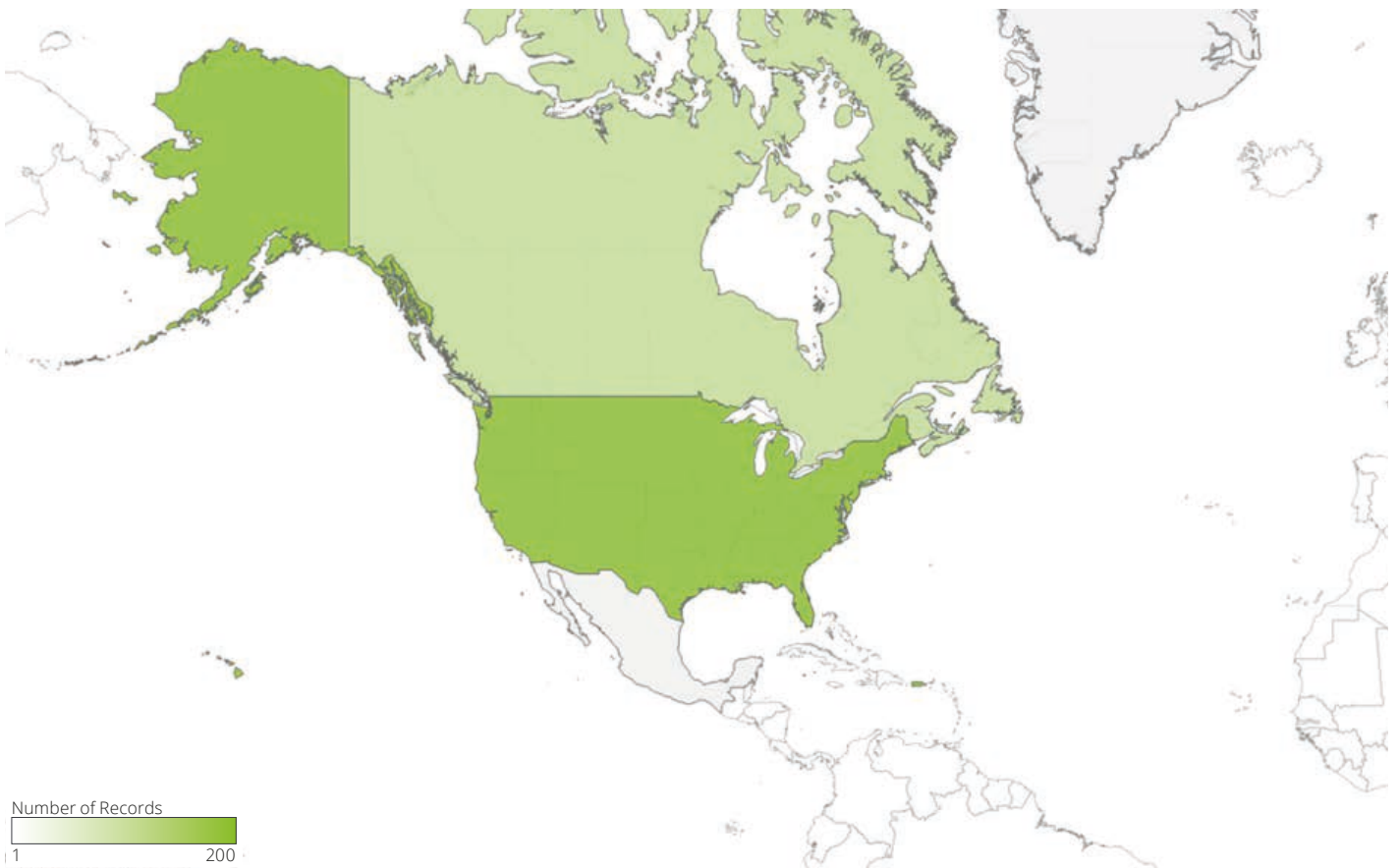


Figure 10 – Map of North America showing the number of deals over the period 2013-2018 (Source: MergerMarket)

Strategic deals

While PE activity has been stable over the last few years in terms of total deals, strategic deals drive the increasing M&A activity in the North American construction industry. The number of deals targeting core business has increased rapidly, to 61 in 2018, up from 37 in 2017. The share of core deals comprise 46.6% of the total deals in 2018.

Accounting for 27% of the total number of deals in 2018, diversification activity shows a slight decrease compared to the last few years. Due to the sharp increase of total deals recorded, the number of diversification deals remains stable with 36 deals in 2018, compared to 35 deals in 2017.

Shaping Trends

Focus on local market opportunities

A strong growth in strategic deals by North American-based construction companies combined with declining cross-border activity indicates an increased focus on opportunities in local markets.

Like all major global construction markets, the North American construction industry is challenged by increasing material costs and a shortage of skilled labor. Combined with a solid outlook driven by public works, construction companies might seek better margins by focusing on local strategic M&A. Although the economy may slow down the growth in the construction industry, we expect a focus on strategic deals in local markets to continue.

Private equity deals

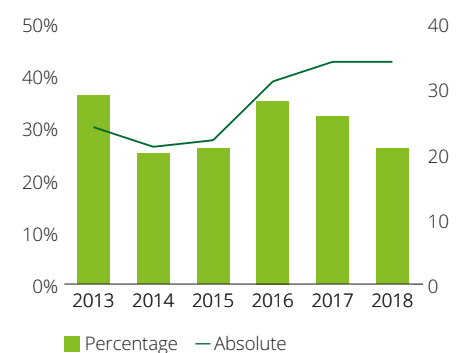


Figure 11 – Share and number of PE deals per year

Ongoing margin compression

The US construction industry continues to be shaped by a constrained labor situation due to a growing shortage of skilled personnel. Combined with the continued increases of raw material prices and compressed project schedules, ongoing margin compression continues to be the key challenge in the industry.

Over the past few years the North American construction industry has seen a wide range of new entrants. Alphabet (Google) has invested in Sidewalk Labs, a development company aiming to turn urban areas into smart and sustainable public spaces. Amazon has invested in Plant Prefab, a company using sustainable construction processes and materials

to build prefabricated, modular single- and multifamily houses. Another major US-based construction start-up aims to manufacture buildings as efficient as cars through value chain integration. Amongst many others, these new entrants aim to increase efficiency, construction speed, productivity and margins, which are traditionally low in the construction industry.

Combined with the traditionally high pressure on margins, new business models introduced by new entrants might put pressure on the traditional incumbents to increase efficiency and productivity, forcing a shift towards digital construction.

Diversification deals

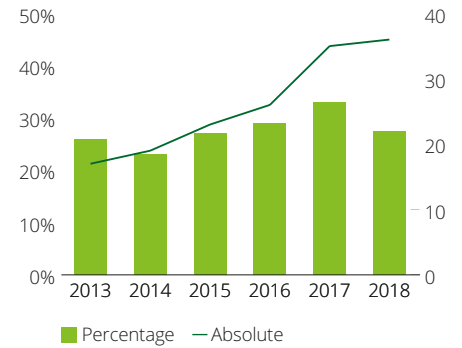


Figure 12 – Share and number of diversification deals per year



North America | Outlook per country

The following page highlight the local construction market in North America. In this section, we take a closer look at construction in Canada and the US based on the opinions and views of local Deloitte specialists on the short and medium term outlook.

Canada

The Canadian construction industry is valued at approx. 153b USD in 2019 (or 6.8% of GDP) employing 5.8% of the active population and expected to reach 192b USD by 2025³.

Overall, the industry is influenced by the economic conditions and highly correlated to the economy of the United States. As such, the expected slowdown will impact the growth in the next fiscal year. However it should not have long-term effects⁴.

A significant portion of the infrastructure in Canada was built in the 1960s and 1970s, therefore the Federal Government is investing more than 138b USD over the next 12 years into various projects to help modernize the facilities⁵. Combined with private and provincial capital investment in major projects around the country, the industry is forecasted to continue its growth offsetting a softening in the housing sector.

British Columbia is expected to be the growth leader due to major public transport projects and pipeline infrastructure. Ontario will remain one of the largest markets in Canada and will experience moderate growth from industrial projects and partly from increasing population due to high immigration. Lastly, Quebec will also experience moderate growth due to major investments in public infrastructure and hydro projects⁶.

The industry is starting to heavily invest and embrace green construction by increasing investments in environmentally friendly projects thus creating new opportunities. In fact, by the end of

2025, the Government of Canada aimed to invest more than 15b USD for green infrastructure initiatives⁷.

Another trend expected to continue in the coming years is the focus on Public Private Partnerships (P3) where the various Federal and Provincial governments will increasingly rely on the P3s to execute major infrastructure projects such as bridges, roads and hospitals⁷.

Similar to the United States, the major challenges facing the industry is the lagging implementation of new technologies and continued shortage of skilled labor, in part due to an aging population⁸.

United States of America

The US construction industry is among the world's largest, with annual expenditures of over 1.3t USD. With this annual spending driving the US economy, US construction companies, for example, spend more than 10t USD in goods and services, employing over 10 million workers. By 2022, the total value of the construction put in place for the US market will likely reach 1.46t USD, up from an estimated 1.35t USD in 2019, indicating a stable growth for US E&C market. Much of this growth will be driven by residential buildings, primarily single-family housing. Construction output in terms of value will grow ~7.8% growth during the period 2019-2022. Growth will be mostly stable through this period, albeit moderately slowing to just about 1% in 2020.

California continues to lead all other states in regards to construction establishments, covering an estimated 10.3% of the US total.

The US economy continues to expand in a relatively balanced and measured fashion, with few signs of overheating or speculative building. There's plenty of public work underway as the US Congress and White House have agreed to invest 2t USD to revitalize the US's infrastructure. In addition, a rise in employment coupled with a modest rise in average income is driving the demand for residential housing.

The market also faces challenges to stay competitive in 2019, during a period where the industry only has the ability to grow modestly. A rise in interest rates and a slowdown of the US economy may slow down construction's future growth.

M&A activity remains solid, driven by solid built environment and will likely continue to see cautious optimistic in the near future. Construction tech startups are set to transform the E&C space.

The key challenges facing the industry include: technology development/integration, increasing material costs, skilled labor shortage, green construction techniques, stagnant level of productivity on construction projects and improving safety practices/meeting standard compliance.

Bidder Origin	Description	Deal Value (USD m)
Canada	Brookfield Business Partners L.P., a listed Canada-based company with current focus on companies in the business services, construction, energy and industrial operations sector, has acquired Westinghouse Electric Company LLC., a US-based company engaged in design of nuclear plants and supplying nuclear plant products and technologies.	4,600
USA	APG Group N.V. and Corsair Capital LLC, have agreed to acquire a 59.2% in Itinere Infraestructuras, S.A. a Spain-based toll motorways company and provider of construction and engineering services	4,128
USA	Platinum Equity, LLC, a US-based private equity firm, has acquired a majority stake in Yak Access LLC, a US-based company that provides temporary roadway solutions to remote construction sites, from Jones Companies and Beasley Forest Products, Inc.	1,335
USA	Williams Scotsman, Inc., the listed US-based modular space and portable storage rental company, has entered into a definitive agreement to acquire Modular Space Corporation, listed US-based company that provides temporary and permanent modular buildings and storage containers.	1,100
USA	Taylor Morrison Inc, a listed US-based home building company, has agreed to acquire AV Homes, Inc., a US-based company engaged in the homebuilding, community development, and land sale business, from TPG Capital LP.	774
USA	Skyline Corp, a listed US-based company which produces a wide range of factory-built housing, has acquired Champion Enterprises Holdings, LLC, a US-based company which through its subsidiaries, manufactures and sells manufactured and modular homes, as well as modular buildings for government and commercial applications.	613

Table 1 – Selection of deals in 2018 (Source: MergerMarket)

Latin America | Key findings

- M&A activity increased in 2018 to 9 deals, at the same level as in 2015
- The average deal value from the years preceding 2016 has not been reached yet
- Between 2018 and 2022, the GDP in Latin America is expected to grow to an annual average of 2.6%
- The total infrastructure spending is projected to reach 142.5b USD in 2019 and 175.8b USD in 2020
- New governments in Latin America brought perspective for a region struggling economically
- Political stability is key for future growth of the Latin American construction markets



Latin America | Moderate growth expected in locally focused construction markets

M&A activity in Latin-America has been stable over the last years. Based on the limited deals recorded, Latin American construction companies seem to focus on their local markets. In this section we identify the developments and trends in the Latin American construction industry based on M&A activity and the market outlooks from our local construction experts.

Developments in 2017 – 2018

The number of deals per year has stabilized around 8 deals annually over the last years. In 2018, 9 deals were executed with a total deal value of 826m USD. This is the highest combined deal volume since 2015, when a combined deal value of 964m USD was recorded. The average value of the deal has risen again to 92m USD in 2018, up from 53m USD in 2016. However, the average deal value of approx. 107m USD from the years preceding 2016 has not been reached (yet). This is less than half the global average deal size of 203m USD.

2018 showed 6 diversification deals, representing two-thirds of the total deals recorded.

The M&A analysis in this Global Construction Monitor is based on the deals recorded in MergerMarket over the period 2013-2018. Not all deals within the construction industry have reached or surpass the 5m USD threshold. As the number of deals recorded in this region is limited, trends and developments cannot be derived from M&A activity.

Market outlook

GDP in Latin America remained stable in 2018. It is projected to recover over the next two years, though, with a forecasted growth of 1.4% in 2019 and 2.4% in 2020, supported by favorable effects of stronger commodity prices, rising business confidence, increased consumption and stronger exports⁹. The Latin American construction industry will see further growth after three years of weak growth. Between 2021 and 2022, this real growth is expected to accelerate to an annual average of 2,6%.¹⁰

Total infrastructure investment in the region is estimated at 2.8% of GDP, significantly trailing the 5.2% investment requirement as defined by the United Nations. Estimates of the infrastructure financing gap in the region vary, but it is generally accepted that if the gap is to be closed, investment levels must increase in the six countries that account for over 90% of infrastructure investment in the region (Brazil, Peru, Mexico, Argentina, Chile and Colombia).

A combination of favorable demographic trends and the implementation of a number of legislative reforms throughout the region are generating a wide range of infrastructure investment opportunities for investors. Total infrastructure spending is projected to reach 142.5b USD in 2019 and 175.8b USD in 2020.

Number of deals

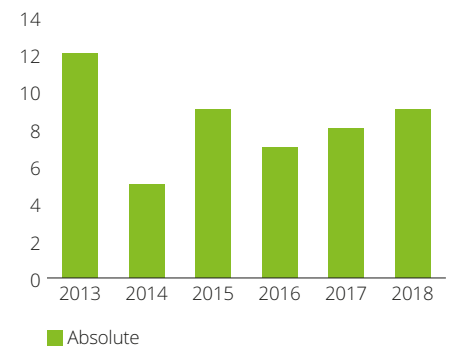


Figure 13 – Total number of deals per year

Cross border deals

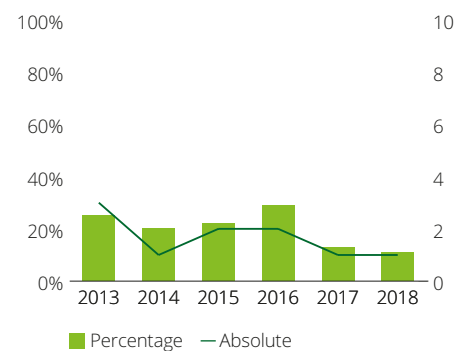


Figure 14 – Share and number of cross-border deals

Shaping Trends

Political stability key for future growth

In recent years, new governments in Latin America brought perspective for a region struggling economically. In Colombia, political commitment has been expressed for public investment in infrastructure to drive transformation in the country. Political uncertainty related to the elections in 2018 have had an impact on the ongoing public infrastructure projects though. More than 40% of the 94 Colombian public investment projects have seen difficulties. By launching a national infrastructure investment plan the Peruvian government, too, focuses on public investments. In Brazil, on the contrary, the Bolsonaro administration has shifted the focus to privatization and concessions to spur (foreign) investments in infrastructure. While Argentina still suffers from the sudden stop of international capital investments.¹¹

In some of the largest economies in Latin America, such as Brazil and Mexico, increased policy uncertainty has contributed to weak growth.¹² Furthermore, a slowing global economic growth and tensions between the USA and China have both affected the Latin American markets. This shows political stability is key for future growth of the Latin American construction markets.



Figure 15 - Map of Latin America showing number of deals over the period 2013-2018 (Source: Mergermarket)

Private equity deals

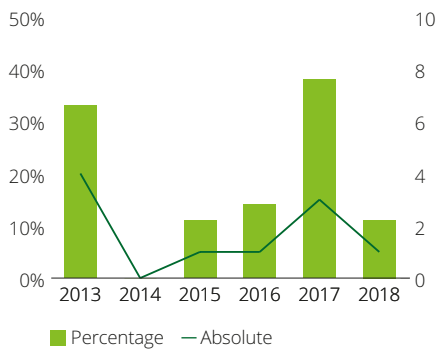


Figure 16 - Share and number of PE deals

Diversification deals

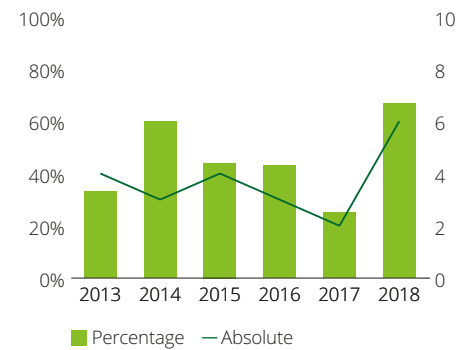


Figure 17 - Share and number of diversification deals

Bidder Origin	Description	Deal Value (USD m)
Brazil	MRV Engenharia e Participacoes S.A., listed Brazil based real estate developer and builder engaged in the management of own assets, development and construction, has agreed to partially spin off LOG Commercial Properties e Participacoes S.A. into a listed company. A 46.29% stake in the company, will be distributed to MRV's shareholders.	522
Argentina	TGLT S.A., a listed Argentina-based residential real estate developer, has acquired a 82.32% stake in Caputo S.A.I.C. y F., a listed Argentina-based construction company, and has launched a mandatory public offer for the remaining 17.68% stake.	134
Brazil	Equatorial Energia S.A., the listed Brazil-based investment holding company, has agreed to acquire a 49% stake in Integracao Transmissora de Energia S.A., he Brazil-based company engaged in providing electricity transmission services by constructing, implementing, operating and maintaining public service transmission facilities.	82
Peru	Stracon S.A.C., a Peru-based company engaged in providing mining contracting services, has acquired a 87.59% stake in Stracon GyM S.A., a Peru-based company engaged in providing construction services to mining companies	77

Table 2 – Selection of deals in 2018 (Source: MergerMarket)

Latin America | Outlook per country

The following pages covers the developments in the local construction markets in Latin America. In this section, we take a closer look at construction in Latin America based on the opinions and views of local Deloitte specialists on the short and medium term outlook.

Mexico

The Mexican M&A market continued to show stable performance throughout 2018 and the first quarter of 2019.

2017 was a difficult year for the Mexican construction industry as the public construction segment suffered from low investment, while private investment in residential and commercial construction remained stable. Overall construction output value contracted 3.8% year-on-year in Q3 of 2017. At the same time, the construction materials segment has been negatively impacted by increased price volatility (mainly steel and cement).

The outlook for 2018 remains subdued and the (already low) profit margins of many construction businesses are expected to deteriorate further in H1 of 2018, mainly due to ongoing low building investment by the government and lower market activity ahead of the July 2018 presidential and general elections. Additionally, uncertainty over the outcome of the ongoing NAFTA renegotiations has an impact on building investments in Mexico.

In general, banks are not restrictive in providing loans to the construction sector. However, the currently high interest rates are an issue for lenders.

On average, payments in the construction industry take 45-120 days. It is common for buyers in this sector to pay slowly, especially in the public infrastructure segment. Due to the subdued demand situation it is expected that non-payment notifications will increase in 2018.

Despite lower than expected economic growth, Mexico's infrastructure and energy sectors continue to attract high levels of foreign investment. In particular,

the Mexican market is expected to see continued activity in the heavy construction.

Brazil

The growth forecast of Brazilian construction industry seems to be improving in 2019 due to the recovering labor market, credit growth and a favorable government agenda. Additionally, President Jair Bolsonaro's initiatives are supported by industry sentiments with his commitment to driving private sector for economic growth. Privatization will be beneficial for state enterprises and big international players investing and allocating funds to infrastructure development for roads, ports and airports. Furthermore, the Building Information Modelling (BIM) sector in Brazil is a promising market and Brazil is recognized as one of the leading countries in this segment.

The country's construction industry is expected to contract further in real terms, by 1.5% in 2018, before returning to growth in 2019. Over the remaining part of the forecast period (2018-2022), the industry is expected to be supported by the government's efforts to revitalize the economy, and subsequent improvements in investor and consumer confidence¹³. Furthermore, the rebound in oil prices is expected to improve the government's ability to invest in large infrastructure construction projects over the forecast period.

By the year 2022, GlobalData expects the residential market to record a forecast-period CAGR of 3.68% in nominal terms, driven by government plans to meet the demand for affordable housing in the country¹³. The residential market growth will also be supported by growing population and urbanization, and positive developments in regional economic conditions.

The Brazilian energy and utilities construction market's growth will be supported by the government's focus on renewable energy infrastructure. The government aims to generate 48.0% of the total energy from non-hydro renewable sources by 2026. Accordingly, the government plans to increase the country's total installed capacity of wind energy from 13.0GW in 2017 to 28.4GW by 2026.

GlobalData expects the infrastructure construction market to retain its second-largest position in the industry over the forecast period supported by the government plans to develop the country's transport infrastructure. In July 2018, the government awarded a contract to the Estrada do Feijao Bahia consortium worth 700m BRL (185.8m USD) to build and maintain the BA-052 road by 2038.

The government is focusing on the installation of 4G technology in major cities, with plans to install high speed fiber optic cables in 70.0% of the country's municipalities by 2020. Furthermore, the government allocated 15.0b BRL (4.5b USD) for providing an internet connection speed of up to 78.0Mbps to 128,000 schools and to connect 92.0% of small cities through broadband connection by the end of 2019.

The total construction project pipeline in Brazil - as tracked by GlobalData and including all mega projects with a value above US\$25 million - stands at BRL1.9 trillion (US\$608.5 billion). The pipeline, which includes all projects from pre-planning to execution, is skewed towards early-stage projects, with 57.8% of the pipeline value being in the pre-planning and planning stages as of November 2018.



Europe | Key findings

- M&A activity stabilized at 197 deals in 2018, after consecutive years of growth
- The share of cross-border deals dropped for the third year in a row, indicating an increasing focus on local markets
- 2018 showed a significantly increase in PE activity in the construction sector, resulting in 58 PE driven deals, covering 29% of the total number of deals
- Margins continue to be under pressure throughout Europe, driven by high costs for material and labor, the lack of skilled personnel and high levels of competition
- Aiming to boost margins, European construction companies are increasingly focusing on diversification strategies, resulting in a continuing rise of total recorded diversification deals



Europe | M&A activity is stabilizing; private equity is finally gaining traction

Over the past few years, the European construction market gradually found its way up to decent market growth throughout most parts of Europe. While European construction companies increasingly started to focus on local market opportunities, supply chain pressure became one of the main trends, mostly in Northwestern European counties. In this section we take a closer look at the European Construction based on the M&A developments and market outlooks from our local construction experts.

Developments in 2017 – 2018

After a relatively stable level of M&A activity from 2013 to 2016, M&A activity in the European construction sector rose significantly in 2017. This level of M&A activity has been stable in 2018, with 197 deals compared to 203 deals in 2017. This corresponds to 40% of the global M&A activity with a total deal volume of 53.8b USD in 2018, the European construction sector accounts for almost half of the global deal volume. In line with the global trend, the M&A activity in Europe is stabilizing and the focus on home markets is returning.

Increased market value

Based on the information available in MergerMarket, the average disclosed deal value increased to 271.8m USD in 2018, up from 55.7m USD in 2017. The average value in 2018 is significantly higher than the average disclosed deal value in the years preceding 2018, in which the average deal value did not surpass the 120m USD. The total deal value for 2018 is influenced by the record deal of toll road operator Abertis. A bidding war started in 2017 and resulted in a record deal of over 19b USD in 2018 by a consortium formed by ACS S.A., Atlantia SpA and Hochtief AG.

Focus on local markets

After years of cross-border deals taking a share of around 40% of total deals, the focus of firms has shifted more towards their home country, with the share of cross-border deals declining to a third of total deals in 2018. The absolute number of cross-border deals has declined to

65 deals in 2018, down from 70 deals in 2017. Moreover, only 11% of acquisitions by European construction firms is done outside Europe. Altogether, these numbers indicate that firms are focusing on opportunities close to home.

Rise in private equity driven deals

After years of stable PE activity, accounting for an average 22% of deal activity, the share of private equity driven deals increased significantly, to 29% in 2018. In absolute numbers the PE driven deals have more than doubled over the last five years. This is in line with the general trend in the PE sector, which has reached its highest level in a decade.

Strategic deals

A rise in PE driven deals results in a decrease in the share of strategic deals. Strategic deals can be divided into two main categories: core deals and diversification deals. The absolute number of core deals shows a significant decline: 83 core deals were listed in 2018, compared to 110 core deals in 2017. This is also reflected in the share of core deals compared to the total deals in the industry, which dropped to 42.1% in 2018 of the total number of deals, down from 52.5% in 2017.

Figure 3 shows the share of diversification deals has been stable over the period 2015 to 2017, after which it shows a significant increase resulting in 29% of the total deals in 2018. This reflects a stable increase to 57 deals in 2018, up from 30 deals in 2014.

Number of deals

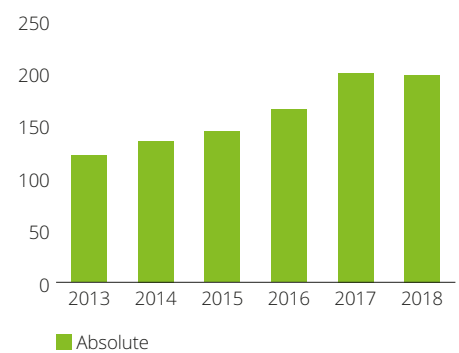


Figure 18 - Total number of deals per year

Cross border deals

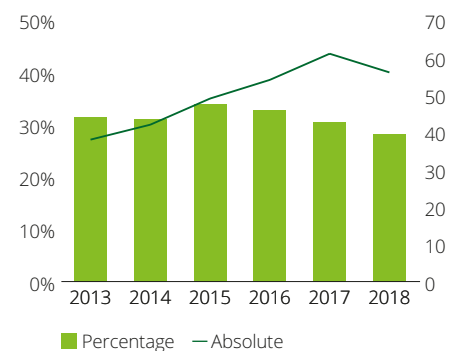


Figure 19 - Share and number of cross-border deals per year

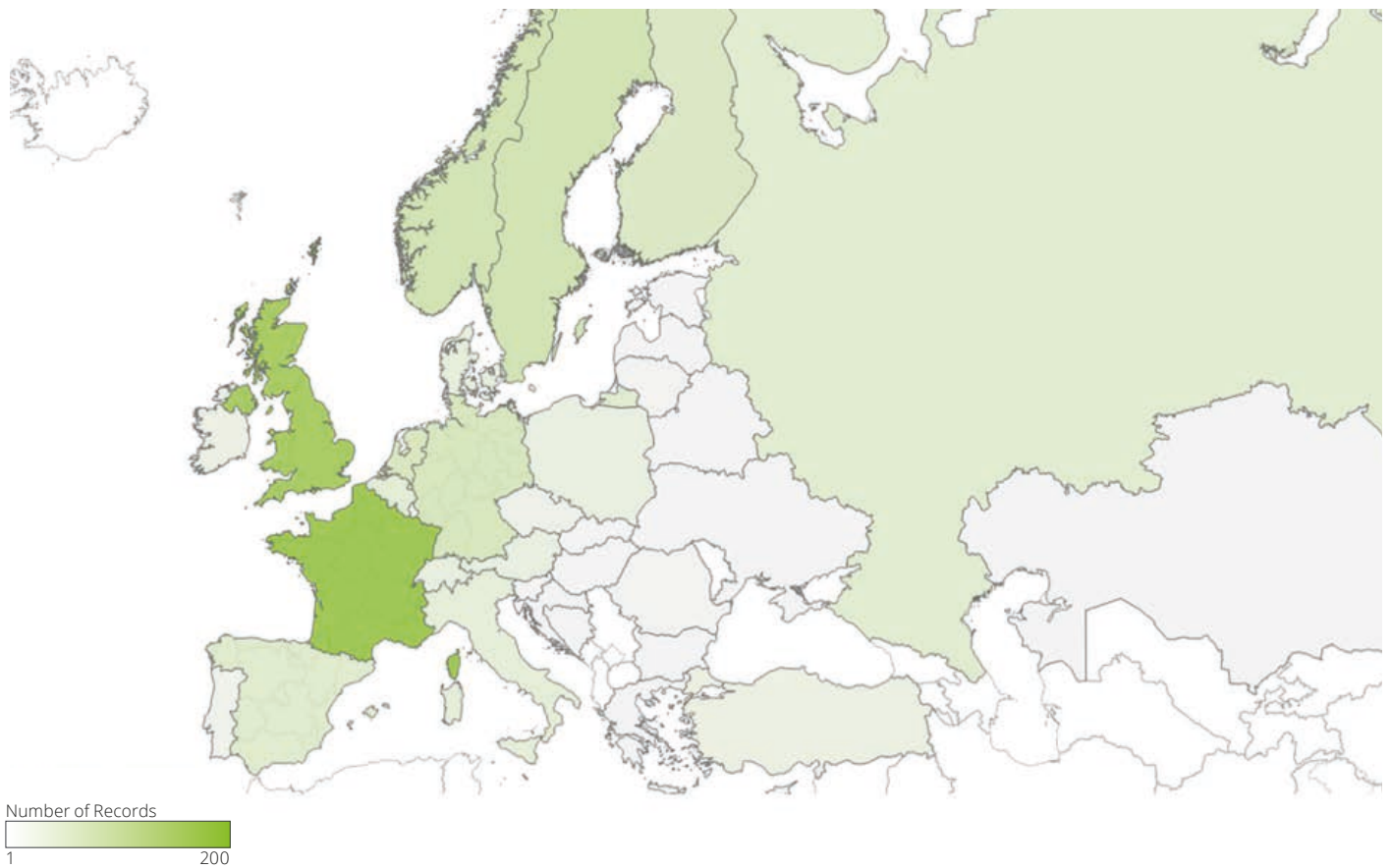


Table 20 – Map of Europe showing the number of deals per country over the period 2013-2018 (Source: MergerMarket)

Shaping trends

Increasing private equity interest

PE is finally gaining traction. Since 2013, levels were stable at around 20-25%. Last year showed a significant increase to 29% of the total deals. Strong construction performance and hunger for more exposure to yield-producing assets have driven this growth. What’s more, the ongoing ‘institutionalization’ of construction as an asset class offers improved liquidity and transparency; investors view construction as an asset class with strong yield potential, with intrinsic value and, particularly in short-duration lease properties, as a hedge against inflation.

Margins remain under pressure

Supply chain pressure has been a key challenge within construction markets throughout Europe over the past years. While the first signs of pressure on the supply chain were observed mainly in Northwest Europe, supply chain pressure has now spread throughout the continent following the recovery of local markets.

In Poland the significant increase of prices of the construction materials and costs of labor have had a significant impact on the margins realized, resulting in negative results for construction companies over 2018. In Ireland, supply chain pressure continues to be the key challenge, mainly due to sharp increases in labor costs, a shortage of (skilled) workforce and escalating costs of building materials. In Belgium the vacancies in the construction sector hit 16,530 in Q4’18, reflecting the scarcity of skilled personnel. Also in France, Greece and the Czech Republic, a lack of skilled personnel hampers the profitability of the sector.

Private equity deals

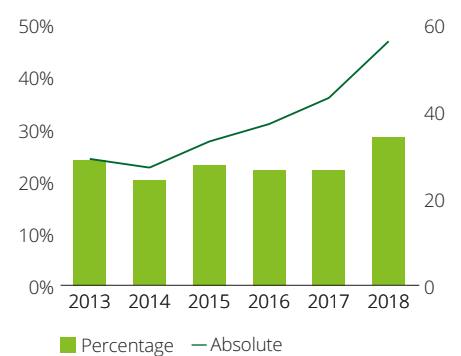


Figure 21 – Share and number of PE deals per year

The pressure on margins is not only due to labor and material costs inflation and a lack of personnel. The European construction markets continue to be increasingly competitive, resulting in pressure on margins. In Spain for instance, the number of interested financial investors and infrastructure funds is increasing, thus resulting in a decreasing potential return.

In several countries, construction prices are expected to stabilize or drop over the coming years. We expect the shortage of (skilled) personnel to remain a major challenge for improving margins for the construction industry throughout Europe. Focusing on digital construction might become an essential strategy.

Increasing focus on diversification

In search for better margins, construction industries can divert their focus to adjacent markets. Over the past few years we have observed a stable share of diversification deals ranging between 20-25%. A significant increase in the share and total number of diversification deals was recorded in 2018. It seems the European construction industry is increasingly focusing on diversification to boost margins. Considering the ongoing supply chain pressure, we expect this trend to continue in the coming years.

Diversification deals

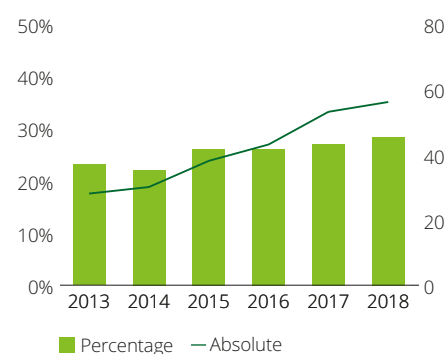


Figure 22 – Share and number of diversification deals per year

Bidder Origin	Description	Deal Value (USD m)
Italy	A consortium formed by ACS S.A., Atlantia SpA and Hochtief AG has acquired Abertis Infraestructuras, S.A.	19,000
Germany	Gebrueder Knauf Verwaltungsgesellschaft KG, a Germany-based holding company that produces building materials through its subsidiaries, has acquired and delisted USG Corporation, a listed US-based company that operates as a manufacturer and distributor of building materials	6,304
Turkey	Three private investors have acquired 25.4% stake in Enka Insaat ve Sanayi AS, the listed Turkey-based energy and construction company	1,087
France	Ardian, a France -based private equity firm, has acquired a 40% stake in Nuova Argo Finanziaria S.p.A, an Italy-based company engaged in the motorway construction sector, from Gruppo Gavio SpA.	875
Russia	Mr. Arkady Rotenberg has acquired a 94.20% stake in Mostotrest OAO, a listed Russia-based company that operates as a transport infrastructure construction company.	896
United Kingdom	Legal & General Group Plc (L&G) has increased its shareholding in CALA Group (Holdings) Limited, a UK-based company engaged in building residential properties, to 100% by acquiring the 52.1% stake which it did not previously own.	749
United Kingdom	Breedon Group plc has acquired Lagan Group Holdings Ltd, a UK-based supplier of building materials and construction services, from Kevin Lagan.	652
Spain	Globalvia Inversiones, S.A.U., a Spain-based company engaged in developing and managing infrastructure projects, has acquired a significant stake in Itinere Infraestructuras., a Spain-based toll motorways company and provider of construction and engineering services	609
United Kingdom	Two UK-based private equity firms along with Sun Hung Kai & Co Limited have acquired Parmaco Production Oy, a Finland-based company offering space and halls on rental	460

Table 3 – Selection of deals in 2018 (Source: MergerMarket)

Europe | Outlook per country

The following pages highlight the local construction markets in Europe. In this section we take a closer look at the European construction market based on the opinions and views of local Deloitte specialists on the short and medium term outlook.

Austria

In 2018, the Austrian construction industry grew in line with the general economic upswing. Growth is forecasted to continue over the upcoming years, however, growth rates are expected to decline throughout the near term future.

Growth is primarily promoted by increasing price levels in the construction industry, which grew by 3.5% in 2018. This is notably above the inflation rate of 2.0%. Expectations indicate that this trend is likely to continue and will have a favorable impact on revenues in the construction industry.

Within residential real estate, the continuing increase in population, especially in the capital Vienna, along with increasing property prices are main drivers of the development of construction volumes but also of real estate transactions.

Construction activity for non-residential real estate is traditionally closely linked to the development of the economic cycle. Additionally, governmental budget plans include a strong increase of investments into educational buildings.

Civil engineering is characterized by an above average growth of construction activity in the telecommunication sector, mainly promoted by the expansion of the broadband network, which is backed by the national government. Also investments into the transport infrastructure, particularly the railway infrastructure, are planned to be increased until 2020.

Overall, construction volumes have grown by 2.3% in 2018 and are expected to grow further in the upcoming years. Construction investments are anticipated to grow by 1.5% in 2019. This figure is below the figures from previous years, which can be attributed to the anticipated decreasing dynamism regarding residential real estate as well as a decline of the general economic development in Austria. Civil engineering is expected to develop more favorable in the mid-term future.

Belgium

For FY18, the construction industry is expecting a growth of 3.7% versus 1.6% for the total Belgian industry. Annual revenues grew to 71.5b EUR in 2018, up from 67.8b EUR in 2017. In any case, we observe a steady market recovery from the recession and the outlook is positive.

Construction businesses' profit margins remain low but have improved somewhat in 2017 and 2018, further improvement is expected in 2019. Low margins are mainly due to the fragmented market, definitely compared to the neighboring countries. In some more specialized niche markets however, profit margins can be higher.

Due to the rebound, larger construction companies have less leverage than in the past to play off smaller subcontractors on price, pass on price pressure and/or impose longer payment terms on them as a cheap source of financing. This is specifically problematic for larger businesses that negotiated their current order portfolios in more difficult times. In terms of new employees we see a large number of open positions in the construction industry, which cannot be filled (16,530 vacancies at Q4'18).

This scarcity poses a threat to the further development of companies in the construction industry.

Residential construction: growth is supported by low interest rates and higher incomes. However, it is also hampered by more difficult and slower approval procedures of building permits since this task has become a local responsibility. At the same time, high energy efficiency requirements make building processes more expensive. It has pushed people to request their building permits in 2018, to still enjoy the old regulations. In some areas (e.g. Antwerp), the market runs the risk of overheating due to oversupply of new, overpriced buildings. A rather negative outlook for the future.

Commercial construction shows lower margins due to market saturation, while the growth of e-commerce also negatively affects investments. In 2018, the Belgium government issued a record high number of building permits, mainly due to the stricter regulations to come into effect in the future. Again, a rather negative outlook for the future.

Public construction benefited from election-related projects in 2018. Several large infrastructure works have taken capacity out of the market. Public construction investment volumes (especially in infrastructure works) is still low, compared to neighboring countries. However, in September 2018 the government announced it will increase investments in the future. A positive outlook for the future.

We expect that given the further professionalization of the market driven by digitalization, more complicated projects, and the need for scale to remain profitable and obtain necessary WC and capex financing, further consolidation will hit the construction sector. In addition, some of the larger companies will possibly look into adjacent markets to increase their profitability, this will drive a further focus on vertical M&A.

Czech Republic

The construction output in the Czech Republic grew by approximately 12% in 2018 (note: the statistical office still has not published the numbers, so this is an estimate based on Q3 results and approximation). The total output is still 15% below 2007 results and does not reflect the economic cycle. This is mainly due to poorly preparing for big infrastructure projects and very lengthy permit processes, which sometimes take 10 years or more. Construction prices went up sharply during 2018. This was due to an increase in wages but also a rapid price increase in construction parts and materials. Margins, though, showed only minor growth. They continue to be 4-5% on average.

Human capital, resources and subcontractors are the key challenges the construction sector faces these days. Wages are growing and there is a lack of quality workforce. The price of construction materials is increasing as well. Especially in Prague it is very difficult to find a land plot suitable for development with permits. The main effect of these consequences is a rapid increase of property prices.

Digitization and robotization will have a significant role – not only in structure planning, an area in which this technology has already been used -, but particularly in the construction process as such.

France

The general trend of the construction sector in France was good in FY18, with an overall increase by 7%. This can be broken down as follows by subsector:

- Residential building activity grew by 2% (vs 5% in FY17) but with a slowdown of new projects launched in FY18.

- Nonresidential building activity showed a growth of 7% in FY18
- Public works activity grew by 10.5% in FY18, fueled by large urban projects (such as Grand Paris Express) but with significant discrepancies between urban and non-urban areas.

Based on the profitability of the three major players in France (Bouygues, Vinci and Eiffage), the net profitability of the sector remained stable in FY17 compared to FY18, between 2% and 3%.

Human capital resources is a key issue for the sector with a clear lack of experienced workers (in particular with regards to energy technicians and public works). This results in a continuing increase in salary, which in the long run may impact the dynamics and the profitability of the sector.

As indicated, the residential sector has been growing in FY18, benefiting from the dynamic in previous years, but the number of new construction projects launched has slightly decreased compared to FY17. However, the sector is also sustained by renovation projects in relation to energy efficiency programs. The overall trend remains positive at this stage. The trend in the nonresidential is still good, with a 7% growth in FY18. Public works activity is sustained by several large infrastructure projects such as Grand Paris Express.

The M&A landscape in France has remained relatively unchanged over the recent years. We do not expect any major changes in the coming years.

Germany

In 2018, the construction industry in Germany contributed to 5.3% of the GNP of Germany. At 10.3%, the share of the GDP used for construction investments was almost twice as high. The construction sector accounted for 5.6% of total employment.

In 2018, construction companies generated sales of 127b EUR, an increase of 11.3% compared to 2017. The increase can also be assigned to higher construction prices, which rose by 5.6% in 2018. In addition to cost increases for building materials, the significant 5.7% increase in collectively

agreed wages made a significant contribution to this development. Despite the price increase, the industry still recorded sales growth of 5.4%.

All segments of the construction sector contributed to industry growth, but the most dynamic development was in commercial construction, which was 12% above the previous year's level. The construction sector benefited from increased investments by the Industry and Deutsche Bahn. Residential construction also grew significantly with a 10.8% increase in sales. The increased demand for housing - especially in urban areas - due to continuing migration, higher incomes and low interest rates continue to have a positive effect on residential construction activity. Yet also construction companies focused on the public domain reported sales growth, though slightly below industry-average at 9.5%.

Residential construction has been the most important market segment for years. In 2018 the market segment accounting for 61% of all construction investments. The importance of public-sector construction has declined significantly over the past decades, accounting for only 12% of all construction activity in 2018. The share of commercial construction remained relatively stable at 27%. Per capita, investment in 2018 amounts to 3,386 EUR per inhabitant.

In 2018, 347,292 permits were granted for the construction of houses, maintaining the 2017 level. About 87% of the permits concerned new-build homes. In 2017 and 2018, growth was particularly strong in apartments in multi-family houses, where the number of permits even tripled. The drivers of this development were: persistently low mortgage interest rates, a stable labour market, growing disposable incomes of private households, increasing migration to Germany, rising rents and the interest of investors in investments of stable value.

From 1995 to 2018, prices for construction services rose by only 34%, while the Finishing Industry was able to push through a 52% price increase. Consumer prices rose by 38% during this period. The rates of

change in construction prices are regularly attributable to strong price increases for building materials and energy. This also applies to current market developments. For instance, from 2016 to 2018 the producer price index for bitumen rose by 67%, the price reinforcing steel bars rose by 30%, while the price index for energy was only 8%.

Greece

Greece's construction sector is expected to recover over the 2018-2022 period, with an estimated compound annual growth rate (CAGR) set to accelerate to 4.7% from -2.4% in 2013-2017. The positive activity is further boosted by Greek government decisions to facilitate private sector investments opening the way for the clearing of the country's infrastructure backlog – the result of the multi-year recession. The total construction project pipeline in the country, including all major projects valued above 25m USD, amounts to 67b EUR, 47.5% of which are in pre-execution and execution stage since November 2018.

The housing market has stagnated during the recession period in Greece due to limited liquidity and a large offering of houses. During the last couple of years, demand for residential real estate has increased, mainly due to the effect of short-term leases (e.g. Airbnb), the attractive Golden Visa program in Greece, and the introduction in the market of new players (Russia and China), combined with the lack of new construction over the 10-year recession. As an outcome, residential property prices according to the Bank of Greece increased by 1.6% in 2018, accelerating by 4.0% in Q1 2019. This trend is expected to be enhanced further, driven, also, by the booming Greek touristic industry.

The local commercial real estate market showed solid signs of recovery during 2017 and 2018, mainly driven by renewed lease activity and investments in prime assets of higher specifications. In this context, prices for office and retail properties increased by 7.0% and 4.3% respectively in 2018 compared to 2019. The market recovery is expected to continue and is seen to shift to the exploitation of secondary real estate stock. Major changes occurred in

the sector lately, including, the merger of Eurobank Ergasias – Grivalia Properties and the sale of NBG Pangea, amongst other.

Greek REICs, international and national investment funds are actively involved in the acquisition of prime real estate assets (including hospitality, commercial, residential and development projects) in prime locations across the country.

The financial crisis may have delayed the development of the country's infrastructure for several years, but this appears to be changing at a fast pace. Several privatizations, new concession projects and PPPs have been announced or are in a premature tender stage spanning a variety of sectors including motorways, airports, school buildings, ports & marinas, street lightning, etc. (i.e. sale of 30% of Athens International Airport, Kalamata - Pulos motorway under PPP, Crete's Northern Motorway Axis and Ultrafast broadband PPP).

Ireland

2018 was another strong year for the Irish property market, with construction output totaling €20.8bn. Forecasts for 2019 all indicate a continuation of these growth trends across each sector of the real estate market. The largest concentration of activity is understandably focused in Dublin and its surrounding counties. Development across Ireland has benefited of late from the allocation of significant funds by international institutional investors, through acquisitions, developments and new property funds. The international inward flow of funds is likely to continue as these investors seek margins which are largely unobtainable in many parts of Europe.

High cost inflation remains a key challenge facing the sector, with sharp increases in labor costs, a tightening in the supply of new workers, and escalating cost of building materials. The supply chain has been affected by labor shortages, cost inflation of building materials and high activity/demand, increasing the price chargeable by subcontractors.

The Irish construction sector has minimal M&A. In recent years two housebuilders

have listed on the stock exchange, Cairn Homes and Glenveagh Properties respectively. A number of direct lenders have entered the market to meet demand once met by commercial banks. These have been particularly active in supporting residential development across Ireland and their presence is likely to remain for the foreseeable future.

A pipeline of consolidation in the construction sector is not widely anticipated at this time. M&A activity is likely to remain more focused on the buying and selling of individual real estate assets and portfolios. This is driven by large capital flows into Irish real estate as an asset class by global institutional investors seeking to invest in the market.

Italy

Professional bodies that represent operators in the construction sector in Italy, such as ANCE (the Italian National Association of Civil Contractors), reported that investments in the construction sector increased in real terms, while they were forecast to reach 128€bn during 2018, 2,8% more than 2017. Looking forward, ANCE has reported that investments in the construction sector will reach 133€bn in 2019 (3,9% more than 2018) but it will be a very challenging period for the construction sector (8% of Italian GDP) as it is strongly influenced by the general economic conditions of the country.

One factor is having a positive effect on the sector: the improvement of access to credit by the companies seeking medium-long term access to loans. The amount of loans for housing construction recorded, in the first nine months of 2018, reported an increase of over 1,6% - the first increase following 10 years of contraction.

The number of tenders issued for public works has increased as well in 2018 and has now reached over 23,000 with a value of around 25€bn. This is an increase of +14,2% in the value of tenders issued since 2017.

In 2018, the non-payment of invoices continued to stress the sector and a number of large Italian construction companies have found themselves

in liquidity crises. This has had a significant impact on both suppliers and subcontractors in the market. They are now very cautious in accepting new projects with long payment terms.

In general terms, the larger Italian companies operating in the construction industry are focusing on diversifying and increasing their activities overseas to strengthen their order book both: geographically into developing markets such as Africa and Asia and also into well established markets that require infrastructure investment (e.g. USA). Compared to 2008, the foreign sales of the top 35 Italian construction companies operating abroad has more than doubled, to 14b EUR during the last 10 years. For larger Italian companies (turnover greater than 500m EUR), the overseas market represents around 83% of the production value. This drops to around 74% when considering the whole sector.

Construction firms in Italy are continuing their focus on maintenance and renovation projects that help to provide a level of income stability in a volatile sector.

The construction sector is generally considered to lag behind other sectors in relation to the use and implementation of innovation and digital integration. Innovation is generally being led by smaller companies. They are more agile in adopting new technology, which services are subsequently provided to the larger construction companies.

Italy's economic conditions are expected to remain essentially the same over the coming year. It is also anticipated that the construction sector will follow this trend, so the potential deal flow is likely to match previous years.

The Netherlands

Over 2018, the Dutch construction industry showed an accelerated growth of 6.5%. For 2019 and 2020 growth is expected to continue, though it is expected to level off. Mainly the residential construction market remains positive. After 2020, the Dutch construction industry is expected to hit calmer waters. The years of market recovery have led to the market volume to

grow to pre-crisis levels. However, due to the strongly increased construction costs, margins continue to be under pressure, mainly in infrastructure. The infrastructure sector faces structural market issues regarding public tender projects, with an imbalance in risks and rewards. The government and the sector are looking for new ways of working. Meanwhile new rulings in environmental law – regarding nitrogen emissions – gather like dark clouds above the industry, threatening thousands of projects, small and large alike.

The positive market environment results in Dutch construction companies mainly focusing on core activities in the local market. Diversification particularly focuses on project development. The strong market opportunities have also led to a slight decrease in interest in maintenance. Only the largest construction companies rely and focus on internationalization strategies for growth. In 2018, Trebbe Groep acquired Giesbers Bouw. Both companies belong to the 50 largest construction companies in the Netherlands.

Over the years, supply chain pressure has resulted in renewed interest of construction firms in industrialized processes. Specifically in the infrastructure market, the interest in digital construction to increase efficiency is high. Dutch construction firms tend to make small investment in innovations, focusing on cost savings and efficiency in their own processes. Little by little, Dutch incumbents are shifting their focus to innovation through M&A. For instance, Dura Vermeer and Vorm Ontwikkeling have invested in the PropTech start-up Healty Workers, which focuses on creating smart offices. TBI acquired Soltegro, an IT company focusing on automation and engineering. For the coming years we expect more investment in digital and tech related businesses, and investments in industrialization in both the Infrastructure and the construction sector.

Norway

The outlook for Norway is good, primarily driven by continue strong growth in infrastructure projects. Margins are generally under pressure. Many large and complex projects combined with increased competition are key drivers.

The margins are relatively stable and low on average, but large variations can be observed. The margins in property development are strong but they are modest in other construction sectors. The availability of human capital, resources and subcontractors is relatively good. EU regulations facilitate a large inflow of workers from low cost EU countries. The outlook for infrastructure is good. The residential sector is a question mark, but still pressure in the capital (Oslo) due to population growth.

The market is still fragmented with many small and medium-sized companies. However, we observe a large consolidation trend leading to good M&A activity. Our local experts assume consolidation will continue and thus they expect the M&A activity to be relatively strong.

Poland

The construction market in Poland noted a significant recovery in 2017 and 2018 after lower volumes in 2015 and 2016. The recovery is mostly driven by two factors: major public construction projects realized with the inflow of the EU funds (dedicated for years 2014 - 2020 (many of these projects transitioned from design into construction phase) and also good economy factors which has significant impact on commercial sector (including both residential and purely commercial investments). The total market value has increased by 13.3% (in real prices) in 2018 y/y. Further growth in the sector is expected, mostly due to higher volumes in large public projects (rail and road construction).

The slowdown on the market noted during years 2015 - 2016, resulted in a fierce competition at that time between key construction players. Many of the public tenders where bid below the expected budget. Step by step when the backlog of the construction companies was rebuilt the tenders were completed with higher bids. Still, many of the contracts which were won at that time entered into construction phase during 2017 and 2018 or would be entering into realization phase in the coming months. In the current market situation local experts in Poland observed an significant increase of prices

of construction materials and cost of labor, this had significant negative impact on the realized margins. The 2018 showed many construction companies publishing negative results (both at EBITDA and net result level).

Due to significant increase in the construction volumes the market now faces many challenges including in particular:

- Significant increase in the prices of construction materials and cost of labor;
- Low supply of workforce (both experienced and non-experienced);
- Higher finance cost (due to worsening profitability the banks are considering higher risks);
- Higher costs of constructing motorways per km which puts pressure on public authority regarding allocation of additional funds for road projects.

The housing market is doing relatively well, as the demand for new flats is still significant - this is also noticeable in the major cities where demand is often driven by speculative investors (the interest rates are relatively low and investment in residential is still considered to yield a higher profit). This had a significant impact on the pricing and price increases could be noted in many cities, like Wrocław and Gdansk.

Many infrastructure investments are currently underway in Poland. The key focus is now on railways (modernization of existing railway tracks), but also on roads (highways, motorways but also improvement of secondary local roads). Significant investments are also expected in the energy sector (modernization of existing power lines) and in utilities (environmental plants) and transport (recently, the government announced the plan to construct a huge airport hub between Warsaw and Łódź).

The commercial investments market is doing very well. Investors focus on all types of investments: on commercial buildings like shopping centers and offices, but also on the logistics sector - many investments are still underway (this is mostly due to increasing infrastructure quality).

Portugal

In 2018 the Portuguese construction market has reached a volume of 12,5b EUR. The absolute peak of 20,2b EUR of 2002 is still far away. The total construction sector is expected to have a growth of 5% in 2019. The growth is mainly fueled by the residential sector with an expected growth of 7,5%. The non-residential sector is expected to grow at a moderate rate of 2,4%. The operational and net margins are relatively low with 9% and 1% respectively.

A limitation for future growth of the construction sector is the available workforce which has declined by 24% compared to 2011. Project completion will most likely be limited by a lack of workforce which is already present in the case of the construction of the Montijo airport. One of the main drivers of the declining workforce are the higher salaries in the other EU constituents. Unions are demanding increases in wages to keep up with the rest of the Europe in terms of salary.

The construction sector is not the main focus of the M&A activity in Portugal. However, Real Estate firms are in demand and M&A volume of the Real Estate sector has increased by 27% compared to 2017 as a result of foreign acquisitions. Nevertheless, the PE activity has decreased both in terms of value (-51%) as well as the absolute number of deals (-28%). Investments are expected to grow with 4% in 2019 compared to 2018 mainly as a result of increased public investments.

Portuguese companies aim to diversify their activities to reduce the exposure to the core construction activities and to harness different financing sources. Building upon this, investments are expected to focus on five strategic areas (airports, roads, public transportation, seaports and railroads) with a total of 6.1b EUR. Furthermore, Portuguese firms maintain their focus on international markets, with the African continent accounting for the largest share. However, as the sector is also diversifying in terms of geography, the numbers of new contracts are predominantly focusing on Europe (45%) and the Middle-East (20%) instead of Africa (11%).

Digitalization in the construction sector is driven by inhouse adoption of technologies and not necessarily acquisitions. The sector aims for achieving technological maturity by:

- adopting strategic technologies (e.g. BIM, 3D printing);
- digitalizing supply chain and procurement channels (use of collaborative tools such as IoT);
- promoting innovation management and R&D, especially in SME's

In terms of working capital management Portuguese firms are significantly exposed to emerging countries (mainly African and Latin-American) and the account receivables imply additional risk. In the domestic market the larger companies have reduced its personnel structures over the past decades and currently operate through subcontracting smaller specialized companies. This approach allows for better working capital management as subcontractors support a significant part of the working capital needs.

Spain

In 2018, the construction market in Spain accounted for €42,438m, with 105 transactions. Competitive dynamics have maintained industry margins at around 4% - 5% in 2018. The construction sector's gross added value to Spanish GDP rose to €71,083m (5.9% of the GDP), a 7.2% increase compared to 2017.

In addition, the construction sector employed 1.28 million workers as of December 2018, increasing by 11.9% compared to the previous year.

Housing production and housing transactions increased last year. However, this upward trend has slowed down in the last months due to the moderate increase in new built housing sales and foreign transactions.

In spite of the current situation in Catalonia, where some transactions have been put on hold, Spain is considered to be a prime market thanks to good returns and within the country's low risk profile.

Private equity companies have focused their activity on higher value added assets, such as parking or gymnasiums concessions, where, due to the atomization of the Spanish market, a build-up process can take place and operational adjustments are easier to perform.

During 2018, two major construction companies strategies were implemented, depending on companies' financial health:

01. Debt restructuring processes comprising bigger construction groups such as OHL and medium sized groups, such as Comsa-Emte; all of these companies have gone through debt restructuring processes focusing on their core business and divesting their non-core assets.
02. Portfolio rotation strategy: Focus on their core activities and selling their mature assets trying to obtain equity to invest in new projects.

Construction companies currently focus on their core activities, selling their mature assets to obtain equity to invest in new projects and try to do as much construction work as possible. In this respect, the main construction companies are looking for a financial partner to bid for new projects together and try to do as much construction work as possible in order to maximize their ROE.

With the number of financial investors and infrastructure funds interested in investing in the country on the rise, the Spanish market has become very competitive and, thus, their potential return is decreasing.

UK

Construction activity has recently been hit by increasing concerns in terms of the effect of Brexit. There is a mixed view on the supply chain. Some contractors feel relatively sheltered by either traditionally having British labor or due to gradual reduction of European labor in the workforce. Other companies, relying more on European labor, are more concerned about the potential Brexit impact.

The residential subsector is roughly level. London and the South East suffering deflationary pressures whilst other regions holding pricing levels. The commercial real estate output forecasted to drop.

The infrastructure subsector is forecasted to be strong over the next few years, with a healthy pipeline of sizeable projects - £190bn infra projects investment expected until 2021 and a total of over £600bn over the next 10 years.

2018 has shown another steady increase in construction related M&A, characterized by a continued rise in mid-market deals as opposed to a significant number of deals >£250m.

Our local experts expect the M&A outlook to be neutral to down over the near term, as uncertainty increases internal focus. However, they expect a number of "stressed" M&A opportunities to materialize and there to be a continued focus on M&A where there is a market disruption and/or technology angle.

Given the small profit margins, the first set of organizations to have robust foundations and operational efficiencies to invest heavily in technology will be able to become more efficient and effective, hence more competitive and significantly more successful than their peers. There has also been an increasing trend towards increased profitability of smaller tier-two contractors that have retained construction expertise in-house and have focused on a specialist area of construction, e.g., complex groundworks.

Africa & Middle East | Key findings

- Only 58 deals in the African and Middle East construction industry are recorded in M&A
- The growth of the construction industry in MENA is estimated to be the fastest worldwide in 2019, with a rate of 7.5% (in 2018)
- This growth is expected to continue until 2022, averaging 6.8% year-on-year
- In sub-Saharan Africa growth in the construction industry is expected to grow to 3.5% in 2019, up from 3% in 2018
- The transport sector in Africa continues to lead the way with almost 40% of the 482 projects
- China is one of the largest players in Infrastructure financing and construction in Africa, mainly through its Belt and Road Initiative (BRI)
- The construction sector in the Middle-East is leading, with 56% of the volume
- The sector has become highly-competitive and price-conscious, which has resulted in a 'lowest bid wins' model



Africa & Middle East | Infrastructure investments to fuel fast growth

As the Africa and – to a lesser extent – the Middle East have developing economies, M&A in the construction industry is relatively low. The construction industry is mainly fueled by infrastructure investments. This section focuses on the developments and trends in the construction industry in Africa and the Middle East.

Developments in 2017 – 2018

Over the period 2013 until 2018, only 58 deals in the African and Middle East construction industry were recorded in MergerMarket. This is relatively low compared to other global regions and in particular compared to North America, Europe and Asia.

The largest part of the deals recorded concern bidder companies in South Africa, comprising 20 of the total 58 deals taking place between 2013-2018. In the countries of the Gulf Cooperation Council (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates) a total number of 23 deals were recorded over the same period. Seven deals originated from Israeli construction companies between 2013-2018.

The M&A analysis in this Global Construction Monitor is based on the deals recorded in MergerMarket over the period 2013-2018. Not all deals within the construction industry reach or surpass the 5m USD threshold. As the number of deals recorded in this region is limited, trends and developments cannot be derived from the M&A activity.

Market outlook

Over 2018, the growth of the construction industry in the Middle East and North Africa (MENA) improved to approximately 2%. This growth was mainly driven by an acceleration in activity in the oil industry.¹⁴ A growth rate of 7.5% in 2019 is estimated for the construction industry in MENA, which represents the fastest pace globally.

Fueled by a number of multi-billion infrastructure development projects, this growth is expected to continue until 2022, averaging 6.8% year-on-year¹⁵.

On the back of the economic recovery, construction industry growth in sub-Saharan Africa is expected to grow to 3.5% in 2019, up from 3% in 2018. Over the medium term, growth is expected to stabilize around 4%¹⁶.

Infrastructure main driver of construction

The impact of infrastructure cannot be overemphasized, and the challenges facing governments providing and enabling private sector development and involvement in infrastructure is still important. The transport sector continues to lead the way with almost 40% of the 482 projects tracked being either roads, bridges or rail: the sector continues to grow and so does the role of China on the continent. The Middle-East shows a different picture with just 19% of transport related projects in the pipeline. The construction sector is leading with 56% of the volume.

Shaping Trends

Belt and Road Initiative

The African continent experiences an infrastructure investment gap that hinders countries from realizing their full potential in sectors such as agriculture, construction and housing. The infrastructure investment gap is estimated at 130b USD to 170b USD yearly¹⁷. One of the largest players in Infrastructure financing and construction is China. Their Belt and Road Initiative (BRI) will form a significant part of future infrastructure development, mainly in East and North Africa.

Number of deals

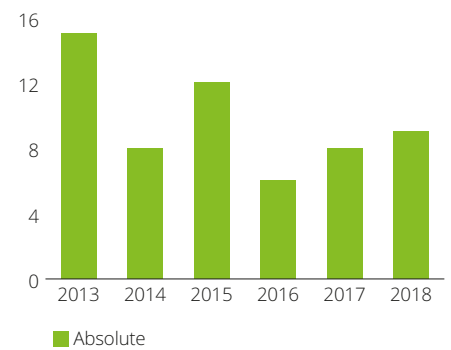


Figure 23 – Total number of deals per year

Cross border deals

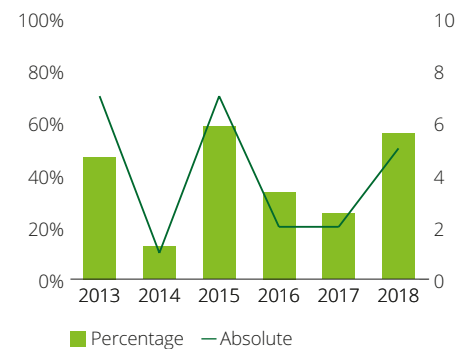


Figure 24 – Share and number of cross-border deals per year

Private equity deals

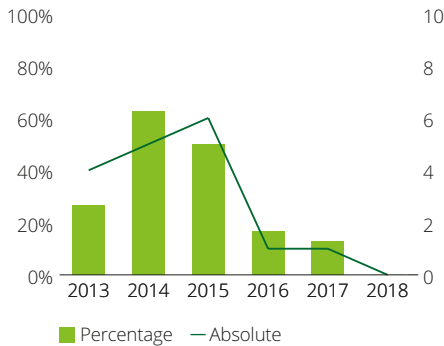


Figure 25 – Share and number of PE deals per year

Diversification deals

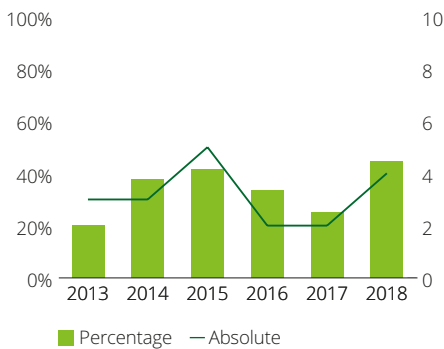


Figure 26 – Share and number of diversification deals per year



Figure 27 – Map of Africa & the Middle East showing number of deals over the period 2013-2018 (Source: Mergermarket)

China’s Belt and Road Initiative (BRI) was announced in 2013. The transcontinental development project purpose is to advance connectivity between Asia, Europe, and Africa and, finally, increase trade, globalization, and connectivity of economies, development, and prosperity along economic corridors. China has participated in over 200 African infrastructure projects to date. Chinese enterprises have completed and there are building projects in Africa that will help to add and repair approx. 30,000km of highways, 2,000km of rail, 85 million tons per year of port throughput capacity, more than nine million tons per day of clean water treatment capacity, approx. 20,000MW of power generation capacity, and more than 30,000km of transmission and transformation lines.

Next to financing and construction, the African continent is expected to benefit from BRI-projects in a broader sense. BRI-projects have, for instance, proven to raise the profile of specific countries for investment. The projects promote intra-regional and global trade and BRI-countries are expected to benefit from technology and skills transfers and spill-overs.

Consult the Africa Construction Trends Report 2018 for an extensive analysis of construction trends in the African continent.

Supply chain pressure in the Middle-East due to financing gap

In the Middle-East region external factors such as reduced public expenditure due to declining oil prices and the lowest volume of project awards since 2004 have had a negative impact on the sector, which has become highly-competitive and price-conscious. This resulted in a ‘lowest bid wins’ model that sees price, over capability and technical expertise, as the deciding factor for awards. This pressure to reduce costs and bid at the lowest price possible often results in disputes and leads to eroded profit margins.

The increased demand for financing in the construction industry is due to contractors indirectly having to fund projects while they wait for payment. There is greater pressure on contractors to accept delayed payment as developers experience funding pressure in their projects. This financing gap has a knock-on effect on the supply chain.

Bidder Origin	Description	Deal Value (USD m)
Israel	Equital LTD, a company engaged in residential construction, property investment and management, oil and gas exploration, and the hotel industry, has acquired the remaining 62.93% stake in J.O.E.L. Jerusalem Oil Exploration Ltd.	2,663
South Africa	Wilson Bayly Holmes-Ovcon Limited (WBHO), a South Africa-based company engaged in providing construction services, has acquired a 60% stake in Russells Limited, a UK-based contracting company	43
Egypt	Hassan Allam Sons, an Egypt-based construction firm, has acquired 60% in Power Generation Engineering and Services Company S.A.E. (PGESCO) from BPE Partners.	24
United Arab Emirates	Dar Al-Handasah Consultants Shair and Partners Holdings Limited (DAR Group) has acquired a 30% stake in GPO Ingenieria, S.A., a Spain-based company engaged in designing and managing the construction of infrastructure, buildings, facilities for industrial use	12

Table 4 – Selection of deals in 2018 (Source: MergerMarket)

Africa & Middle East | Outlook per country

The following pages highlight the local construction markets in Africa and the Middle-East. In this section we take a closer look at the African & Middle-Eastern construction market based on the opinions and views of local Deloitte specialists on the short and medium term outlook.

Angola

Angola had a 307b USD market volume in 2018, with an operational margin of 19% and a net margin of 9%. Recovering from the recession with a projected real GDP growth of 1.2% in 2019, the construction sector will be one of its main drivers (2.1%), alongside diamond production and export, and agriculture.

A shortage in labor is the main concern for the Angolan industrial sector. The last six years, 260.000 workers left Angola, which has a big impact on construction. The most active construction subsectors in Angola are the transport sector (32%) and the real estate sector (25%), leading in the numbers of projects in the region.

Angola is currently in the process of a privatization plan, which could boost future M&A activity. As access to funding by Angolan companies is still limited, private capital is perceived as a crucial matter. Private equity activity is still limited, mainly due to a lack of local PE and the capital constraints that discourages International PE with a greater focus on Africa. Mainly one active PE operates in Angola, named Angola Capital Partners. It has recently raised a new fund. Angola is more focused on attracting foreign investment and not on M&A in the near future. With increasing foreign investments, project profitability is expected to increase.

Most Angolan construction firms focus on other businesses besides their core. They have investments in hotels, schools, agriculture, supermarkets. Angolan construction companies are focused on local markets, as the country still is in need of infrastructure and companies are unable to internationalize. However, in the

last 3 to 4 years they have increased their business in other markets (Africa) as a way to diversify from Angola and to get hard currency to sustain their local businesses. Digital construction is perceived as a future concern, since Angola is still in the infrastructure development stage.

In 2018, Angola achieved some of the most relevant projects in the African continent in terms of value. Three such deals were: Kaombo block 32 (in the Oil & Gas sector, 16b USD), Namibe Refinery project (Industrial Construction sector, joint venture of 12b USD) and the Luanda International Airport (Transport sector, 6,4b USD). The recession in Angola had a negative impact in public investment. In 2018, investments have not only included road rehabilitation and other works, the Public Investments Program increased in value as well, by 16.2%.

Middle-East (Gulf Cooperation Council)

Spending levels have been reduced but regional governments are continuing to invest in infrastructure projects. The construction sector is driven by the fundamental role it has as a driver for economic growth and job creation. Moreover, a growing population, tourism and mega events such as the Expo 2020 and FIFA WorldCup in 2022 lift the need for infrastructure.

Projects in the pipeline of the countries in the Gulf Cooperation Council (GCC) amount to over 2.5t USD. The Kingdom of Saudi Arabia is leading the way, taking up almost half (46%) of the volume, followed by the United Arab Emirates with 750b USD in the pipeline.

Although oil prices have risen, it appears that more cautious capital infrastructure spending is now the norm. Future market performance will be determined largely by the oil price, regardless of market reforms achieved.

Private sector capital is expected to play a bigger role in the industry, either through Public-Private Partnerships or fully private projects. The private sector will demand a more mature contracting environment with fairer contracting practices and a more balanced approach to risk allocation.

Given where the Middle-East is in the economic cycle, investors are unlikely to seek acquisitions for the foreseeable future - other than 'fire sales'. However, some construction companies may merge for strategic purposes or to improve their purchasing power.

Morocco

The construction industry value (infrastructure, residential and non-residential buildings) amounted to 6.2b EUR in 2018 and will reach 8.9b EUR in 2027, representing 5.6% of the country's GDP.

Morocco's construction sector growth is supported primarily by a number of big ticket high speed rail and power projects. Fiscal constraints will present the main downside risk. Growth in the construction sector is principally influenced by government investment and the implementation of infrastructure, energy and residential housing projects. Indeed, about 80% of turnover from the sector comes from public projects, especially renewable energy and infrastructure projects (rails and roads), the luxury

real estate sector (luxury residential and resorts and luxury hotels, since boosting tourism levels is central to the government's economic development plan), and the social housing program through to 2020.

The Moroccan construction sector will grow moderately in the upcoming years, by an average of 3.4% from 2018 to 2022. Transport projects will be the main engine of the construction sector growth, 56% of total construction industry value is concentrated in the transport segment, as the government emphasizes the improvement of both international and domestic logistics connectivity.

Rail projects will be the main growth engine within Morocco's transport sector. We expect this to outperform the country's broader construction industry over our forecast time horizon, as the government looks to boost both internal and external logistics connectivity. Gas fired power plants are set to be the mainstay of growth in Morocco's energy & utilities sector in the coming years, in addition to the power plants' growth. Morocco's planned liquefied natural gas (LNG) import terminal will considerably boost the country's efforts to diversify its energy mix away from foreign oil and coal, in light of its national long-term Gas-To-Power initiative.

Moderate growth in Morocco's residential and non-residential segment will largely be sustained by project activity in the commercial and industrial sectors, as the country looks to lay the foundations of a diverse, modern economy. A strong demographic profile will be the main force encouraging residential investment, both by the state and by private companies.

Low level of M&A activity (actual)

As regards the construction activity trend in Morocco (major power projects, luxury resorts, transport and rail infrastructure), M&A activity may increase in the upcoming years. The focus is on core activities related to construction activity. The major part of the business is realized locally. However, Moroccan construction's actors start to diversify their revenue through internationalization, especially in the African Continent. Note also that

international actors (Gulf area, France, Spain, Belgium, amongst others) are based in Morocco and contribute to the value created in the construction sector.

The recent and noteworthy default regards a real estate actor (residential builder) not able to reimburse its lenders and creditors on time. This has resulted in debt restructuring, which explains the subsequent lower levels of credit the banks provide to the real estate industry.

South Africa

The recent construction volume, including the pipeline and order book for construction players in South Africa, has been suppressed by a concerning outlook. The political environment has challenged investor confidence with respect to [FCGE] investments, driven primarily by key facets such as government policy uncertainty with respect to land expropriation without compensation, poor economic growth and the inherent risk of a sovereign ratings downgrade from investment grade status to junk status. These factors have created challenges where investors have been cautious of making substantial, immovable and illiquid investments. Cyril Ramaphosa's positive electoral win in May 2019, however, has mobilised a new phase of investor friendly initiatives and anti-corruption campaigns, which are expected to boost investor confidence and foreign direct investment into the country into the future.

Margins are under pressure as firms are competing for work. This limits their ability to fairly price their offerings. Another major problem has been the pricing model used in SA, which puts all risks in the hands of the construction companies. This is unlike the typical construction contracts in Europe and the US, which use a 'cost plus' system.

The unemployment rate in South Africa stands at 27.7%. Being labor intensive, the construction industry will have sufficient labor at its disposal to implement large scale projects. The difficulty however, is that the industry lacks experienced capacity to deal with mega projects. The industry needs to be reskilled, by re-instating trade schools for construction workers on a large scale. Strategic sourcing

of skills and other project support is not leveraged effectively, where the construction players operate under a plug & play process and system. Key knowledge management processes should be implemented for firms to ensure that lessons are learnt and that key principles are retained prospectively.

Infrastructure activity in general building and civil engineering reduced where 47% of the 85b R in spending cuts hit infrastructure grants to provincial and local government. In 2018, there was a 15% decline in the estimated value of construction tenders awarded compared with 2017.

In line with a drive for margin enhancement and annuity income, a handful of construction players have positioned themselves as residential developers who own stakes in these developments. These players have been well positioned to benefit from the increasing urbanization in large cities such as Johannesburg, Pretoria and Cape Town where there is an increasing demand for middle income housing.

M&A activity in the sector has been reactive, given the poor state of the sector. Many large firms have been forced into restructuring their operations due to poor performance, where they have disposed of non-core operations as a mechanism of reducing debt. Other large firms have been forced into business rescue and are also disposing of non-core operations as a means to effect business turnaround strategies. In general, market participants are working to manage overheads and keep lean as a means of business preservation due to margin pressures and poor-quality order books, where the embedded margins are low.

The current economic environment poses an opportunity for new entrants with a long-term view to enter into the market. They will be able to acquire established businesses, with strong track records and history at a low value, with the potential to enjoy the upside of an economic recovery and an expansion into Africa.

Asia & the Pacific | Key findings

- M&A activity stabilized at 139 deals over 2017 and 2018, after consecutive years of significant growth
- Over the period 2013-2018, the share of cross-border deals has been stable, averaging approximately 16%
- The average cross-border activity is influenced to a large extent by the relatively low average share of cross-border deals by China-based companies (13% in 2018), which is in line with the strong local focus in the Chinese construction market
- PE activity in the construction industry in Asia and the Pacific remains low compared to the global average: approx. 13% compared to 23%
- Construction companies in Asia and the Pacific tend to focus more on diversification compared to other regions
- With the loosening of 'foreign restrictions' for Chinese construction companies, and the Belt and Road Initiative, more Chinese construction companies are expected to focus on overseas markets



Asia & the Pacific | Increasing focus on internationalization

After years of consistent growth, M&A activity in the Asia and Pacific region has stabilized over 2017 and 2018. Construction companies are shifting their focus to overseas markets. This section elaborates on the developments and trends in the construction industry in the Asian and Pacific region, based on M&A activity and market outlooks from our local construction experts.

Developments in 2017 – 2018

M&A activity in Asia & the Pacific has increased strongly over the period 2013-2016: 143 deals in 2016, up from 59 deals in 2013. In 2017 and 2018 the M&A activity in the region stabilized, showing a slight decline to 139 deals recorded in 2018. This reflects the stabilization of the total volume of the deals over the past three years, with an average total volume of 21b USD over the years 2016 to 2018. Accounting for 28% of the total number of global construction deals in 2018, Asia & the Pacific ranks second as an M&A activity region, trailing Europe.

Stable deal value

After a peak of the average value of the deal in 2015, the average value decreased by 325m USD to 149m USD in 2016 and showed a slight increase to 152m USD in 2018.

Cross-border deals

Over the period 2013-2018 the share of cross-border deals has been stable, averaging approximately 16%. Most cross-border deals target construction companies within the Asian continent, as above 90% of the target companies are located in Asia.

The share of cross-border deals lags behind the global and European averages in 2018 (24% and 29%, respectively). The region average is largely influenced by the relatively low average share of cross-border deals by China-based companies (13% in 2018). This is in line with the strong local focus in the Chinese construction market.

The absolute number of cross-border deals increased to 28 in 2016, up from 14 deals in 2014. Over the last two years the number of cross-border deals stabilized, with 28 deals in 2017 and 26 deals in 2018.

Private equity driven deals

PE activity in the construction industry in Asia and the Pacific remains low compared to the global average: approx. 13% compared to 23%. Although last year's average showed a slight increase compared to 2017, the number of PE deals in construction remained the same at a total of 18.

As with the cross-border trend, the regional PE average is strongly influenced by the characteristics of the Chinese construction market. In 2018, private equity accounted for only 7% of the total amount of deals within the construction industry. Over the period 2013-2018, the PE activity averaged approx. 11-12% of the total number of deals in the Chinese construction market. Japan, South Korea and Australia all show similar PE activity, trailing the global average. By contrast, India recorded a share of 30% of PE driven deals in 2018.

Number of deals

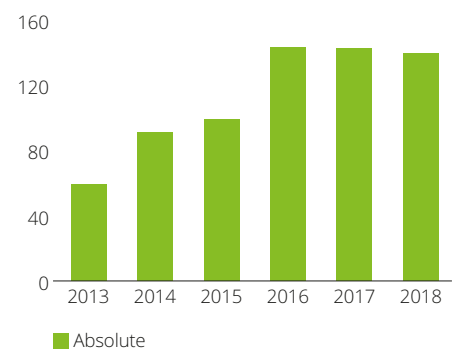


Figure 28 – Total number of deals

Cross border deals

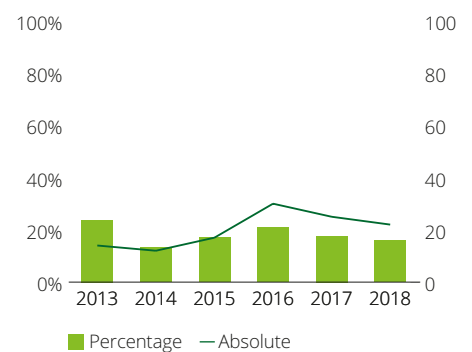


Figure 29 – Share and number of cross-border deals per year



Figure 30 – Map of Asia & the Pacific showing the number of deals over the period 2013-2018

Strategic deals

With relatively low PE activity, the share of strategic deals has been strong over the period 2013-2018, averaging 85% of the total number of deals. Following the increasing M&A activity, the absolute number of strategic deals has increased to 134 in 2017, up from 51 in 2013. 2018 showed a decline to 118 recorded strategic deals.

Construction companies in Asia and the Pacific tend to focus more on diversification compared to other regions. Diversification deals accounted for over 54% of the deals in 2018, continuing the upward trend from 39.7% in 2013. High levels of diversification driven deals are foremost observed in China (65%, 2018), Japan (53%, 2018) and South Korea (82%, 2018). These local markets are characterized by a dominance of domestic and international conglomerates such as Doosan, Samsung C&T (both SK), Daito and Sekisui (both Japan), which rely strongly on non-construction revenues.

Shaping trends

Increased focus on internationalization strategies

Over the past six years cross-border M&A activity in Asia & the Pacific has been relatively low, averaging 24% of the total number of deals in the construction industry. We expect the focus on internationalization to pick up in the coming years, fueled by increasing possibilities for Chinese construction companies to go abroad and the urge of South Korean and Japanese construction companies for growth markets.

With the Belt and Road Initiative (BRI) focusing on infrastructure investments in Africa, more Chinese construction companies are expected to focus on overseas markets. Some of the leading construction companies are already carrying out engineering and construction projects in Africa and other regions. Because of these developments, regulations and financing in foreign capital markets will be more familiar for the Chinese construction companies.

Private equity deals

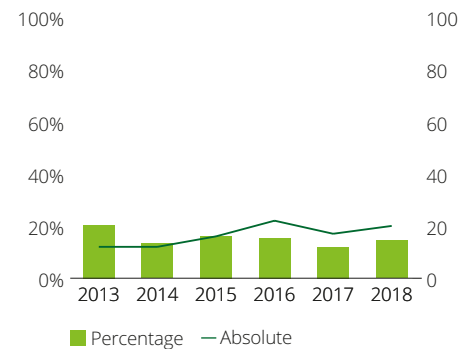


Figure 31 – Share and number of PE deals per year

Diversification deals

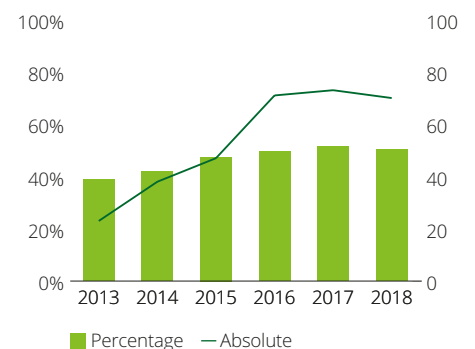


Figure 32 – Share and number of diversification deals per year

Meanwhile, top tier construction companies in Japan and South Korea are increasingly focusing on overseas markets, spurred by limited growth opportunities in their local construction markets due to, respectively, population decline and slow recovery from the economic downturn.

Both Japanese and South Korean companies show a specific interest in developed markets in Europe and North America. Overseas M&A is an option for these companies, though they also focus on an equity investor role in overseas Public Private Partnerships.

Bidder Origin	Description	Deal Value (USD m)
China	Shanghai Lingang Holdings Co., Ltd. has agreed to acquire a 65% stake in Shanghai High-tech Zone United Development Co., a 55% stake in Huawan International Logistics (Shanghai) Co and minority stakes in various other firms.	2,654
China	A group of investors has acquired stakes in China Railway No. 2 Group Co., Ltd., China Railway No.3 Engineering Group Co., Ltd., China Railway No.5 Engineering Group Co., Ltd., and in China Railway No.8 Engineering Group Co., Ltd.	1,547
China	Shandong Hi-speed Company Group Limited has acquired a 60% stake in Hubei Wujing Highway Development Co., Ltd. from Shandong Hi-Speed Group Co., Ltd.	1,118
Japan	A group of investors led by SoftBank Vision Fund L.P. has agreed to acquire an undisclosed stake in a US-based provider of solutions for building development, design, and construction, for a consideration of USD 865m.	700
Japan	Orix Corp, a Japan-based financial services group, proposed to acquire the remaining 32.53% stake it does not already own in Daikyo Inc, a Japan-based real estate company.	604
South Korea	HDC Holdings, the South Korean conglomerate, has agreed to acquire 30.01% of the shares in Hyundai Development, a South Korea-based construction company in which HDC Holdings has a 7.03% stake.	540
Australia	Transurban Group, a listed Australia based company engaged in the development, operation, and maintenance of toll roads, has agreed to acquire A25 (Montreal toll road and bridge).	528

Table 5 – Selection of deals in 2018 (Source: MergerMarket)

Asia & the Pacific | Outlook per country

This section highlights the outlook of the construction industry for some of the countries in the Asia & the Pacific region. The outlook on the short and medium-term developments is based on the insights of our local construction industry experts.

China

In 2018 the national construction sector of China reached a total output value of EUR 3.083,6 billion, up by 9.9% compared to 2017. In the third quarter of 2018, China's construction enterprises numbered 90,215 companies.

In 2017, the gross profit margin of the infrastructure construction business of China's five listed leading enterprises (including China Railway Construction, China Transportation Construction and China Metallurgical) is about 10% on average, and the net profit margin is about 3% on average.

The working capital in the Chinese construction sector mainly depends on the equity investment of initiators, government-related institutions, financial subsidies and Public Private Partnerships (PPP) funds.

Currently, China's construction industry is entering a new transition period. It is expected that China's construction industry will continue to transform and upgrade to attract more foreign investment in the domestic market¹⁸. The scale of foreign investment has been increasing in the past decade.

Commercial real estate developers and insurance companies are active in other continents, aiming at developed markets in Europe and the United States. The Chinese commercial real estate developers acquire mature high-end overseas commercial real estate through equity acquisition. Investors include residential property developers such as Vanke and Oceanwide Holdings, who have acquired a number of commercial real estate projects in the UK and the US respectively.

The main forms of internationalization of China's construction industry are direct investment (greenfield investment), overseas mergers and acquisitions, overseas financing¹⁹. More Chinese investors are expected to allocate their assets overseas as the Chinese Yuan faces depreciation pressure and with the US Dollar expected to appreciate further.

With the loosening of "foreign restrictions", foreign capital will continue to play an important role in China's construction industry, local builders will continue to enhance their scale advantages, and the market competition pattern will continue to change²⁰.

With regard to the long term strategy towards digital construction, the Chinese construction industry will promote BIM and other new technologies. The industry is expected to have a large increase in the transaction volume of technology enterprises. The technical upgrading direction of the construction industry is to focus on the research and development of intelligent and green buildings and building automation systems. The traditional construction industry will realize a new leap in technology, management, system and mechanism. In recent years, Building Information Modeling/Management is developing rapidly in China.

Japan

Over the last several years, the market volume for investments in the Japanese construction industry has been stable, at around 500b USD (550b USD in FY2018). In FY2018, these investments were divided over Government: 220b USD; Housing - Private: 160b USD; and Other - Private: 170b USD.

The gross sales margins for the top tier construction companies in Japan have improved due to the increase in demand to 14% in FY2017, up from 7% in FY2013. As a result of the increased demand, a shortage of domestic labor is identified and the construction companies expect to utilize machines/technologies and foreign labor to mitigate this trend.

The top tier construction companies usually engage in Public Private Partnerships and Design Build Finance Maintain (PPP & DBFM) as a contractor and focus on their core activities instead of diversification.

From a long term perspective, due to the population decrease in Japan the top tier construction companies are seeking mergers and acquisitions overseas rather than in the domestic market.

With regard to the long term strategy towards digital construction, the top tier construction companies intend to develop these digital construction technologies internally. However, the companies do intend to partner up with tech companies to develop these new technologies.

South Korea

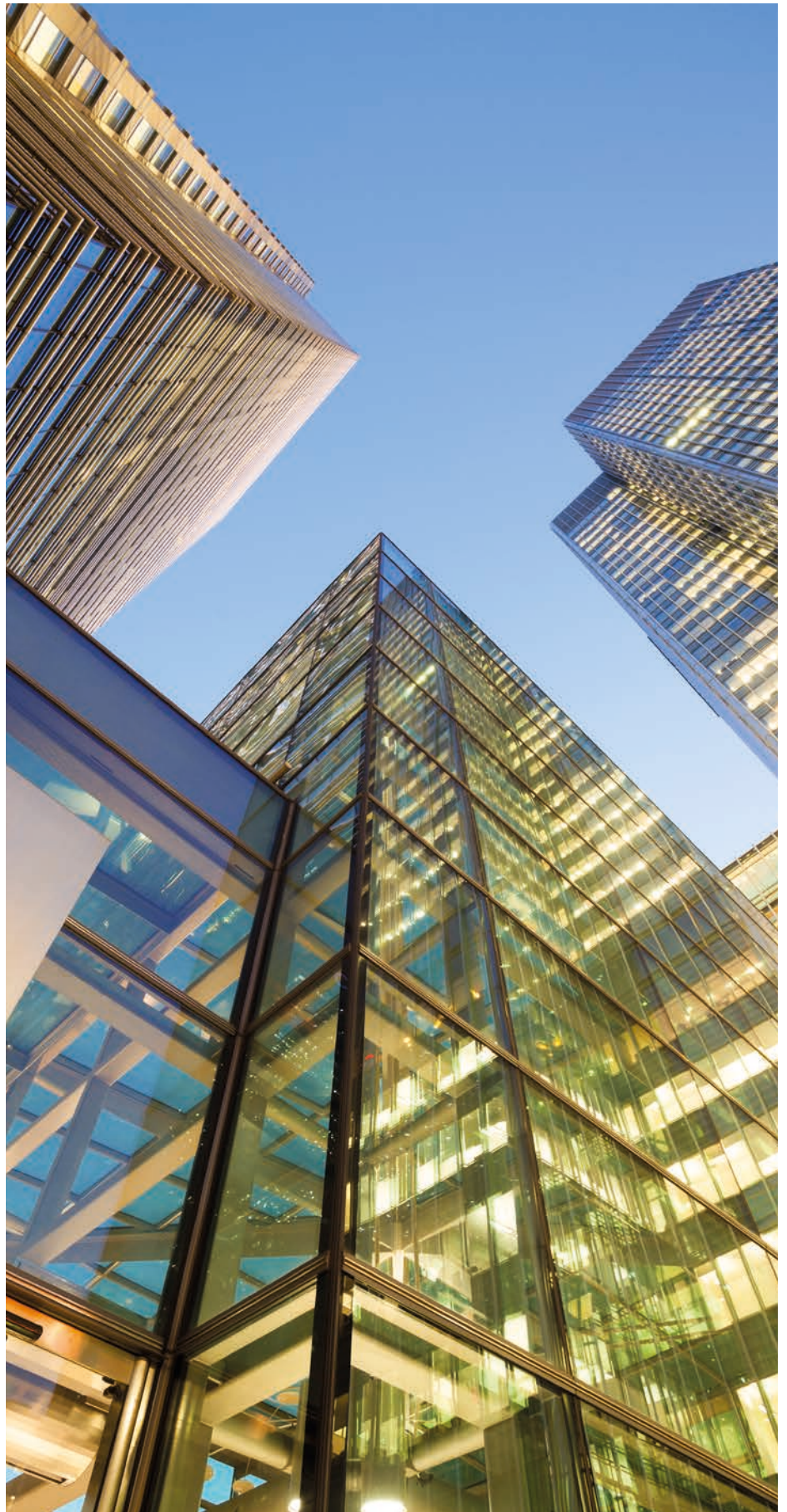
South Korea's construction market volume was 104b EUR in 2019, 6,8% lower than in 2018. Due to new regulations on the residential market, the overall margin of the domestic construction sector has declined. The South Korea construction market is currently recovering from the recession and has a hard time recovering from this period. As a result, the level of M&A activity in South Korea's domestic construction market is low, and it is expected that the activities continue to be limited.

The profitability has declined continuously due to a lack of infrastructure and housing projects. Medium-/small-sized construction companies are struggling to survive and experience difficulties in their cash flow management.

Larger construction companies would be able to overcome this period, as they are part of conglomerates. In 2018, most big deals exceeding 100b EUR involve transactions between group companies, such as Hyundai, Hyosung and Lotte.

Furthermore, companies in the South Korean construction market are diversifying their work scope. Initially, the companies focused on an Engineering, Procurement, Construction (EPC) role only. Right now, the developing project developer competency is the top priority for South Korean construction companies. It is expected that the companies are looking for medium-sized companies with good track records in the local Public Private Partnerships market.

Besides, the construction companies focus on exploring new markets (developed markets), including North America and Europe. The companies try to take an equity investor role in overseas Public Private Partnerships projects. However, overseas markets that are not former markets (Middle East, Southern East Asia) have not been found yet.



Study methodology and data sources

This study intends to provide insights into the construction industry based on global M&A activity from 2013 to 2018, retrieved from publicly available data recorded in MergerMarket. The criteria applied in this deal analysis are described in the table below.

MergerMarket applies a 5m USD deal value threshold to be included in their dataset. When the deal is subject to a minority stake (less than 30%), the threshold of the total deal value is 100m USD. When the

deal value is not available, a threshold of a minimum revenue of 10m USD of the target company is applied. This means smaller M&A in, for instance, digital start-ups or add-on design services are not always recorded in the database and not within the scope of this analysis.

Based on the dataset, a preliminary M&A analysis is constructed followed by a consultation of our local construction sector experts and construction sector leaders to provide input on the

M&A analysis and the latest trends, developments and outlook regarding the local construction market.

In order to provide a common base we have converted the deal value from all deals to US dollars. Most trends and insights are comparable on a global scale as the majority of analysis has been carried out based on the number of deals rather than the deal value.

Bidder Origin	Description
Deal value	A deal is included when the deal value is greater than or equal to 5m USD. When the deal is a minority stake (less than 30%) the deal is only included when the total deal value is greater than or equal to 100m USD. When the deal value is not disclosed, the deal is included when target revenue is greater than or equal to 10m USD
Deal year	Year of announcement
Period	2013 to 2018
Sector	A deal is included when target and/or bidder industry sector in MergerMarket is construction and;
Subsector	subsector in Mergermarkt is Construction Services, Heavy Construction and/or Residential Builders
Cross border deal	A deal is considered cross-border if target dominant country differs from bidder dominant country
Private Equity deal	A deal is considered a Private Equity deal if bidder subsector is Venture Capital/Private Equity, Fund Management or Principal Finance
Strategic deal	A deal is considered a Strategic deal is bidder subsector is not Venture Capital/Private Equity, Fund management or Principal Finance
Core deal	A Strategic deal is considered a core deal when bidder and target subsectors are equal
Diversification deal	A Strategic deal is considered a diversification deal when bidder and target subsectors differ

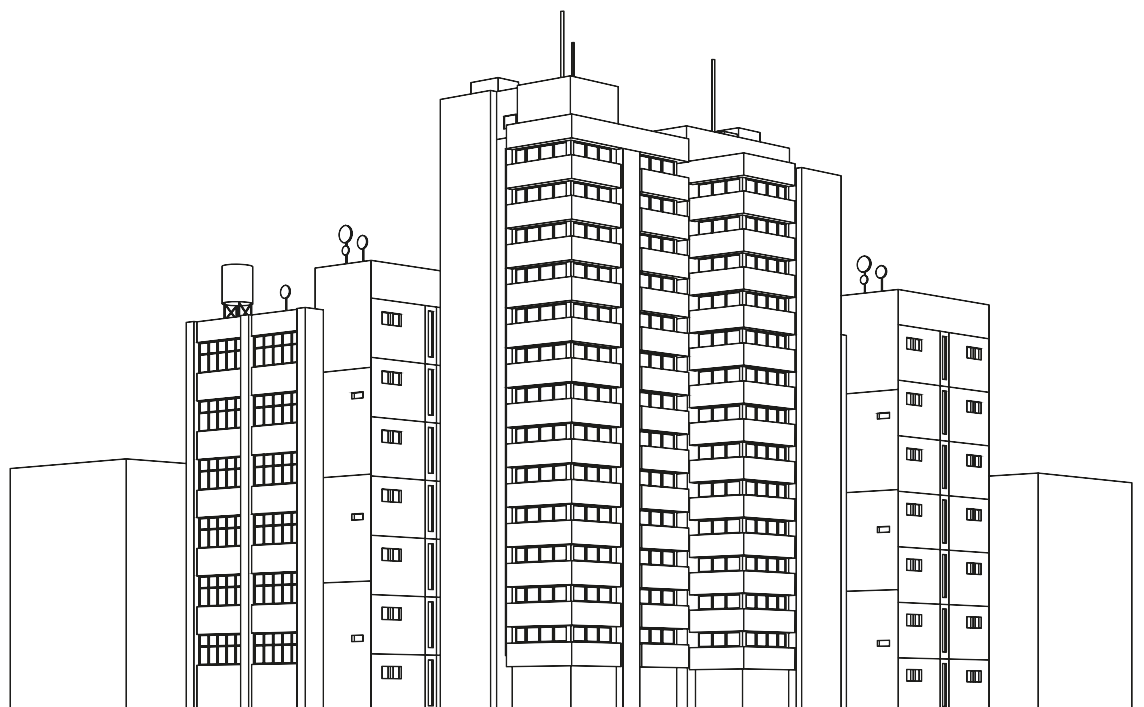
Table 6 – Criteria M&A analysis

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