Outlook for
Energy and Infrastructure
2017

Europe: key investment trends.
Some 77 per cent of respondents stated they are ‘optimistic’ about the infrastructure pipeline during the next 12 months.
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This report provides insight into energy and infrastructure investment trends in Europe. It was written in collaboration with *The Lawyer*, acting on our behalf. The findings in this report are based on a survey of 100 senior executives in Europe, including fund managers, debt providers and corporates. The survey was conducted in mid-2016.

To supplement the survey findings, interviews were conducted with the following executives:

- **Eelco Holst**
  Director of Structured Debt, ABN AMRO

- **Peter Ellersiek**
  Assistant Vice President, Allianz Global Investors

- **Laurence Monnier**
  Head of Strategy and Research, Alternative Income, Aviva Investors

- **Renaud de Matharel**
  CEO and Managing Partner, Cube Infrastructure Managers

- **Kunal Patel**
  Head of Structured Solutions, DONG Energy

- **Khalid Naqib**
  Former Senior Investment Officer, European Investment Bank

- **Perry Noble**
  Infrastructure Partner, Hermes Infrastructure

- **Harry Seekings**
  Director, Infrastructure, InfraRed Capital Partners Limited

- **Mark Hottenrott**
  CIO, Morgan Stanley Infrastructure

- **Mark Corben**
  CFO, Tideway (the trading name of Bazalgette Tunnel Limited)

- **Torsten Böger**
  Managing Director, VIFG

Issues discussed include:

- the outlook for the infrastructure pipeline;
- emerging assets grabbing investors’ attention;
- the implications of Brexit on the investment landscape;
- new models for infrastructure projects;
- an assessment of government infrastructure initiatives;
- the evolving debt market; and
- risk and asset management.

We hope you find the report interesting. We would be happy to discuss any queries you might have.

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Welcome to Freshfields’ Energy and Infrastructure report 2017. This report presents detailed analysis of a survey of over 100 investors in European infrastructure and insight from a series of interviews with senior dealmakers.

Despite a distinct lack of deal flow relative to the large number of investors that are now targeting infrastructure, survey respondents are upbeat on the deal pipeline in the coming months and years. Some 77 per cent of respondents stated they are ‘optimistic’ about the infrastructure pipeline during the next 12 months, while 96 per cent are bullish on the pipeline during the next 10 years.

Survey respondents also reported that investment in brownfield infrastructure will heavily outweigh greenfield investment during the next 18 months — 39 per cent of respondents said acquisitions of operating infrastructure will be the most common type of infrastructure-related deal during the next 18 months, significantly more than the number that expect transactions relating to greenfield projects to be most common.

‘39 per cent of respondents said acquisitions of operating infrastructure will be the most common type of infrastructure-related deal during the next 18 months.’

This is partly a symptom of the lack of greenfield deal flow and also because many institutional investors prefer the low-risk, robust revenue streams that brownfield projects provide.

In terms of sectors, survey respondents are particularly attracted to energy infrastructure. Some 44 per cent said renewables is their investment priority during the next 12 months and 46 per cent said renewables is their number one priority in the next 10 years.

Faced with an increasingly competitive investment environment, many investors are exploring opportunities in new regions and sectors. Which new asset classes might investors flock to? A significant three-quarters of survey respondents stated they expect a strong pipeline of energy storage projects to materialise in the next 10 years. Respondents also frequently mentioned they expect smart grid, distributed generation, energy efficiency and data storage projects to develop into robust project pipelines in the next 10 years.

Investors are also targeting new countries that have traditionally been outside their comfort zone. Indeed, 21 per cent of respondents expect the CEE region to provide their greatest deal flow during the next 10 years. This places it third in Europe in terms of expected deal flow behind only the UK and Germany.

Of course, many European investors are now looking outside of the Continent for investment opportunities too. Three-quarters of survey respondents that are targeting overseas opportunities are eyeing the US. They will be keenly monitoring opportunities that may arise in light of President Trump’s vocal support for increased infrastructure investment.

No discussion of infrastructure investment in Europe can be complete without mention of Brexit. While 78 per cent of survey respondents believe investment in UK infrastructure from Europe will decrease following the vote, the general consensus is that the impact is far from clear and will be determined by a number of important policy decisions in the next two years.

This report also explores a number of infrastructure investment themes, including alternatives to the long-established PPP model, the impact of some key European initiatives such as the EFSI and the PBCE, the deeper and more diverse debt market, and asset and risk management.
Infrastructure deal flow has decreased markedly during the last five years. Investment in European PPP projects alone has declined from $23bn in 2010 to only $5bn in the first half of 2016, according to data compiled by Inspiratia. Investment in other types of infrastructure has followed a similar trend.

Despite this trend, survey respondents are bullish on the short- and long-term prospects for the infrastructure pipeline – 77 per cent are very optimistic or optimistic about the infrastructure pipeline during the next 12 months and 96 per cent share this view with respect to the next 10 years.

**1. Deal flow – survey data reveals cause for optimism despite downturn.**

How optimistic are you about the infrastructure pipeline during the next 12 months?

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<th>Percentage</th>
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<tbody>
<tr>
<td>1 Very optimistic</td>
<td>18%</td>
</tr>
<tr>
<td>2 Optimistic</td>
<td>59%</td>
</tr>
<tr>
<td>3 Pessimistic</td>
<td>21%</td>
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<tr>
<td>4 Very pessimistic</td>
<td>2%</td>
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How optimistic are you about the infrastructure pipeline during the next 10 years?

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<thead>
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<th>Percentage</th>
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<tbody>
<tr>
<td>1 Very optimistic</td>
<td>32%</td>
</tr>
<tr>
<td>2 Optimistic</td>
<td>64%</td>
</tr>
<tr>
<td>3 Pessimistic</td>
<td>4%</td>
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**77%** are very optimistic or optimistic about the infrastructure pipeline during the next 12 months

**96%** share this view with respect to the next 10 years
In which European countries will the infrastructure pipeline be largest in the next 12 months?
(Please rank your top three countries, with one being the most active country.)

In which European countries will the infrastructure pipeline be largest in the next 10 years?
(Please rank your top three countries, with one being the most active country.)

Why are survey respondents positive on the infrastructure pipeline despite the steady decrease in investment during the last five years? One reason is the sheer volume of investment needed to meet Europe’s infrastructure needs in the coming years. Action plans for infrastructure, at both the country and EU levels, should help to bring projects to market.

For example, the UK’s National Infrastructure Plan, announced in late 2013, outlines £375bn of investment in national infrastructure during the next two decades. With much of the eurozone still in an economic malaise, it is also hoped that governments will promote infrastructure investment in order to stimulate economic growth.

Survey respondents are most optimistic about the UK infrastructure pipeline. Some 39 per cent of respondents expect the infrastructure pipeline to be largest in the UK during the next 12 months, more than the number selecting Germany (22 per cent), Central and Eastern Europe (CEE) (15 per cent) and Turkey (6 per cent).

Survey respondents are more bullish on the project pipeline in the CEE region during the next decade — 21 per cent expect the project pipeline to be largest in the CEE region during the next 10 years. That said, more respondents still expect the project pipeline to be largest in the UK (selected by 28 per cent).
Of course, a clear distinction needs to be made between investment opportunities relating to greenfield and brownfield projects.

Some 39 per cent of respondents expect acquisitions of operating infrastructure to be the most common type of infrastructure-related deal during the next 18 months. A further 22 per cent mentioned traditional project finance and 19 per cent mentioned refinancing. At the other end of the spectrum, few expect bonds (selected by 7 per cent) or securitisation/portfolio financing (selected by 6 per cent) to be the most common deal type during the next 18 months.

How do you expect the volume of the following transaction types to change in the next 18 months? (For each transaction type, please select one answer only.)

These statistics crystallise the challenge facing many infrastructure investors in mature markets – there continues to be secondary market deal flow but a diminishing primary deal pipeline.

‘There are various reasons why the UK represents 20 per cent of the global infrastructure market; it is not a random event,’ explained Perry Noble, Infrastructure Partner at Hermes Infrastructure. ‘It has a long history of private sector involvement in infrastructure provision, with Victorian investment in railways, exploitation of North Sea oil and gas, PPP, privatisation under Thatcher and so on. There are a lot more assets already held by the private sector relative to the size of the market than in most other countries including the US. On the other hand insufficient investment in primary infrastructure means a shortage of secondary opportunities; there just aren’t enough new infrastructure deals.’
Survey respondents expect the type of infrastructure-related deals to be different across Europe. Some 31 per cent of respondents expect most investment in greenfield projects to be in the CEE region during the next 10 years, more than the number that selected the UK (23 per cent), Russia (15 per cent) and Turkey (15 per cent). In contrast, the UK was most frequently selected to secure most investment in brownfield projects during the next 10 years.

‘There are various reasons why the UK represents 20 per cent of the global infrastructure market…’

<table>
<thead>
<tr>
<th>Which European countries will see the most investment in greenfield infrastructure projects in the next 10 years?</th>
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<tr>
<td>1 Central and Eastern Europe</td>
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<td>2 UK</td>
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<td>3 Russia</td>
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<td>4 Turkey</td>
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<td>5 France</td>
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<td>6 Germany</td>
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<th>Which European countries will see the most investment in brownfield infrastructure projects in the next 10 years?</th>
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<tr>
<td>1 UK</td>
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<td>2 Turkey</td>
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<tr>
<td>3 Central and Eastern Europe</td>
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<tr>
<td>4 Germany</td>
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<tr>
<td>5 Other</td>
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Infrastructure related to power generation, transmission and distribution will dominate deal flow in the short and long term, according to survey respondents. Participants are particularly attracted to renewables – 44 per cent indicated renewables is their top sector for investment in the next 12 months and 46 per cent said renewables is their number one investment priority during the next 10 years. This is more than the number targeting any other sector.

2. Energy and transport will dominate infrastructure investment.

Infrastructure related to power generation, transmission and distribution will dominate deal flow in the short and long term, according to survey respondents. Participants are particularly attracted to renewables – 44 per cent indicated renewables is their top sector for investment in the next 12 months and 46 per cent said renewables is their number one investment priority during the next 10 years. This is more than the number targeting any other sector.

In which sectors are you planning to invest in infrastructure projects most in the next 12 months? (Please rank your top three sectors, with one being the most active.)

Renewable energy
Energy utilities (excluding renewables and nuclear)
Gas and electricity transmission and storage
Waste
Rail
Road
Airports and aviation
Water utilities
Nuclear
Ports and shipping
Telecoms and media infrastructure
Stadia
Hospitals
Schools

The strong appetite to invest in renewables may at first seem surprising given the significant cuts to subsidies in Europe’s major renewables markets during the last five years and the resulting decline in the volume of renewables projects coming online.

That said, the huge volumes of capacity that have been installed in the last five years has created a robust pipeline of secondary market deal opportunities. ‘The reduction of subsidies is particularly affecting the primary market of new added capacity,’ confirmed Peter Ellersiek, Assistant Vice President at Allianz Global Investors. ‘The secondary market has definitely become more liquid in recent years and will continue to do so in the future.’

Institutional investors in particular now appear to be comfortable with the risks of investing in renewables projects and are increasingly investing directly into assets, at both the construction and operational stages.

Danish energy company DONG Energy has been particularly successful in attracting investment in construction-stage offshore wind farms. Kunal Patel, Head of Structured Solutions at DONG Energy, explains how the company has achieved this.
‘We generally wrap construction risk when we divest a project,’ he said. ‘So ultimately a lot of institutional risk investors see those wrapped construction-stage projects almost as a pre-financing of an operational project because we really limit the level of construction risk they face. Given our experience in the sector, we are comfortable with the various stages of offshore wind construction so are happy to take on those risks ourselves and provide a lower-risk, lower-return investment proposition to investors.’

Power aside, survey respondents frequently stated they are targeting investments in transport-related infrastructure — 20 per cent said rail- and road-related infrastructure are amongst their top three sectors for investment, while 16 per cent said investments in airports and aviation are amongst their top three targeted sectors in the next 12 months.

‘There are a surprising number of road projects given how mature the European market is,’ confirmed Laurence Monnier, Head of Strategy and Research, Alternative Income at Aviva Investors. ‘These deals are in the Netherlands and Ireland, but less so in the UK. Transport and power are definitely the backbone of infrastructure across Europe, much more so than social infrastructure, which was the case in the UK a few years ago. For example renewables has risen significantly in the last five years. It now dominates the market but is driven by political agendas. The regulatory landscape determines how many new deals there are, but even in markets where there are fewer new deals there are still active debt and equity opportunities as consolidation is taking place.’

‘20 per cent said rail- and road-related infrastructure are amongst their top three sectors for investment, while 16 per cent said investments in airports and aviation are amongst their top three targeted sectors in the next 12 months.’

In which sectors are you planning to invest in infrastructure projects most in the next 10 years? (Please rank your top three sectors, with one being the most active.)

- Renewable energy
- Gas and electricity transmission and storage
- Energy utilities (excluding renewables and nuclear)
- Waste
- Water utilities
- Airports and aviation
- Road
- Hospitals
- Schools
- Rail
- Nuclear
- Telecoms and media infrastructure
- Stadia

[Bar chart showing the ranking of sectors]
Increased competition has caused investors to look outside of their core areas of focus for opportunities. So as part of the survey we also quizzed investors on whether they expect any new asset classes to materialise into a significant project pipeline during the next 10 years. Mentioned by three-quarters of survey respondents, energy storage was most consistently highlighted.

Respondents also expect the emergence of other new energy-related infrastructure to create investment opportunities during the next 10 years. Some 8 per cent expect a significant pipeline of smart meter-related infrastructure to emerge while 4 per cent each expected deal flow related to smart grids, distributed generation, electric transportation and energy efficiency to materialise.

Peter Ellersiek, Assistant Vice President at Allianz Global Investors, explains why storage assets are attractive. ‘Our new fund can target storage infrastructure on an opportunistic basis,’ he said. ‘There is a fundamental need to store electricity. As the market of producing electricity becomes more volatile and intermittent, matching demand and supply becomes harder.’

Interviewees also mentioned that the number of investment opportunities related to data centres is steadily rising. But, as with storage, these new asset classes bring with them new risks that have to be managed.

‘The new thing for us is data centres,’ confirmed Eelco Holst, Director of Structured Debt at ABN AMRO. ‘It’s new but the technology has been around for some time, so it’s attractive to banks. The financing packages tend to be around €100m. The risks are around the availability of power. The data centre needs to operate with 99.999 per cent power availability to ensure continuous server operation in these facilities. So technical design and O&M are very important.’

Although not a new technology, interviewees also mentioned that a robust pipeline of deals is being created by the decentralisation of the provision of essential government services to local authorities. As a result, many local authorities are issuing requests for proposals for local infrastructure projects.

Renaud de Matharel, CEO and Managing Partner at Cube Infrastructure Managers, explains where these opportunities are arising. ‘Public transport used to be a nationally centralised operated business,’ he said. ‘It was first opened up and decentralised in the UK but other European countries have followed. Germany was next and with many central governments being debt ridden others will follow. For example local train services in France are due to be delivered in 2019. Competition has been introduced on trains between major cities in Italy as well. There are infrastructure investment opportunities around this for new players. Deutsche Bahn has lost 15 per cent of its market share in the last 20 years.’

### What will be the most important emerging infrastructure asset class to materialise into significant project pipelines in Europe during the next 10 years?

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Percentage</th>
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<tr>
<td>Energy storage</td>
<td>72%</td>
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<tr>
<td>Smart meters</td>
<td>8%</td>
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<tr>
<td>Smart grids</td>
<td>4%</td>
</tr>
<tr>
<td>Distributed generation</td>
<td>4%</td>
</tr>
<tr>
<td>Electric transportation</td>
<td>4%</td>
</tr>
<tr>
<td>Energy efficiency</td>
<td>4%</td>
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<tr>
<td>Digitalisation of energy grids</td>
<td>4%</td>
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What impact will Brexit have on the UK and European infrastructure landscape?
It’s too early to provide a definitive answer as the Brexit vote was followed by the usually quieter summer months for deal activity. There is also currently no clarity on the long-term nature of the UK’s relationship with the EU, so making predictions is difficult.

That said, the survey data and interviewees provide some insightful talking points about the potential impacts of Brexit, both positive and negative.

The majority (78 per cent) of survey respondents believe that investment in UK infrastructure from Europe will decrease following the vote. This is for a number of reasons. Many interviewees specifically mentioned that assets with returns linked to GDP growth are now significantly less attractive as the macroeconomic outlook is now more uncertain. However, it is worth noting that the Bank of England has commented it is likely that inflation will increase as a result of Brexit, and we understand many investors think that will go some way to limit the impact on infrastructure investing of the GDP growth slowdown. Others cited the increasing currency fluctuations as a deterrent.

Moreover, interviewees reached a consensus that Brexit does not represent a hammer blow to investment in UK infrastructure because fundamentally the country is still an attractive investment destination. Instead, Brexit is likely to impact individual sectors differently and present unique challenges and opportunities to certain stakeholders.

The Brexit vote could directly impact investment in UK infrastructure if it results in a decline in investment from the European Investment Bank (EIB), which is currently the largest lender to UK projects. The EIB invested £5.5bn in the UK in 2016, slightly less than the record £5.6bn invested in 2015. It has been particularly influential in encouraging investment across a range of sectors, including water, social housing, universities, transport and large offshore wind projects.

It is uncertain how Brexit will impact EIB investment in the UK as there are no provisions for a member to exit the EIB. The EIB has stated that the UK will remain a shareholder of the EIB until EU member states decide otherwise. This will likely be discussed as part of negotiations for the UK withdrawal from the EU.

The UK might become a more attractive investment destination if the government decides to support infrastructure investment as a means to boost growth in light of the uncertainty caused by Brexit. ‘In terms of supply, the government is trying to continue supporting infrastructure activity through procurement as a way to help the economic environment,’ explained Khalid Naqib, former Senior Investment Officer at the European Investment Bank. ‘I am aware that a couple of transactions have been delayed because of the uncertainty regarding Brexit but we expect them to go back to the market pretty shortly. Overall the supply picture is positive in the UK market despite Brexit.’

The announcement in the Autumn Statement of a £23bn National Productivity Investment Fund, which will be targeted at innovation and infrastructure in the next five years, indicates this is the case. Announcements regarding Hinkley Point C and the third runway at Heathrow also create a sense of momentum and that the government is supportive of infrastructure investment.
The consensus from interviewees is that there is no ‘one-size-fits-all’ model that can be adopted and replicated across multiple infrastructure projects.
Between the mid-1990s and mid-2000s, a huge number of public sector projects were financed and constructed using the private finance initiative (PFI) or public–private partnership (PPP) model. First developed in the UK, PFIs were then used as a model to fund public projects with private sector capital across Europe.

However, a series of government figures, especially in the UK, have since rejected PFI on the basis that it is bad value for taxpayers’ money and saddles the public sector with too many risks. Many governments across Europe are now working with the private sector to identify new models that facilitate private investment in public projects.

The consensus from interviewees is that there is no ‘one-size-fits-all’ model that can be adopted and replicated across multiple infrastructure projects. Instead, bespoke models will need to be used that are appropriate for the specific risks and structures of individual projects. The obvious disadvantage of bespoke models is that it is complex and costly to create a new structure for each project.

‘Government has done a good job of trashing PPP so needs to come up with a different model to attract private sector investment in infrastructure,’ explained Perry Noble, Infrastructure Partner at Hermes Infrastructure. ‘The jury is still out on this and it’s not straightforward. Bespoke models are great but are complex to execute and hard to replicate, so you don’t get transaction efficiency. The whole point of the PFI model was that it generated transaction efficiency and consequently attracted a great deal of private sector investment, whether you liked it or not.’

Examining the successful bespoke structures established for flagship public infrastructure projects provides some guidance towards the important ingredients for successful future models. The structure for the Thames Tideway project is a good example. As outlined in the case study overleaf, the structure of this project demonstrates how collaboration between the government, the regulator and the private sector can mobilise significant sums of capital.
The Thames Tideway Tunnel project, also known as the 'super sewer', is a 25km sewer tunnel under construction that will help protect the tidal River Thames from overflows of untreated sewage. The £4.2bn project is the largest in the history of the UK water industry.

Main construction started in 2016 and the project will take up to seven years to complete. The project will be designed and built by Bazalgette Tunnel Limited (BTL), which itself is owned by a consortium of investors comprising Allianz, Amber Infrastructure, Dalmore Capital and DIF. BTL is independent of Thames Water and the government.

The project reached financial close in 2015 and has enough capital or capital commitments to cover the total construction cost of the project.

Mark Corben, CFO of Tideway (the trading name of BTL), explains how the project was structured in a way that made it attractive to investors.

Q. Given the scale and complexity of the project, how did you create a project model that was attractive to investors?

A. A key decision was made early on that given the size and complexity the project wouldn’t be financed by Thames Water, but by a new special purpose company, Tideway, the special purpose company, has a dedicated management team and certain regulatory and contractual protections that don’t apply to Thames Water.

Once this decision had been made, three further important decisions were made. One was on the contracting strategy and the decision to go with target price Main Works contracts. Based on the experience of Crossrail and the Olympics, we decided this was the right way to share risk with the contractors. It was clear that fixed-price-type contracts would not offer value for money for a tunnelling job of this nature.

The next key decision was to base the funding of the company on the UK water regulatory model with certain enhancements to reflect the company’s risk profile. This enabled us to offer the market something that was familiar and that they could understand.

Q. What risks did the government insure?

A. There are several limbs to the Government Support Package. The first is the insurance package that sits behind the commercial insurance. Then there is the financing package so that if there are significant cost overruns or market disruption the government can provide financing. There is also a package providing investor compensation in the event of discontinuation. So there are some very targeted elements dealing with risks that are very unlikely to happen.
Q. What were the main components of the financing package?

A. Equity was secured at financial close in August 2015. Our shareholders committed circa £1.3bn of equity and put together a £1bn revolving credit facility. The £700m from the EIB and the £450m we have raised from our bond platform pretty much finances us all the way through construction. We will opportunistically look to put more long-term debt on but we have enough to finance construction now. The bond financing was long dated and index-linked so very much matched the cash flows of our asset. Ultimately we were able to secure very competitive terms.

Q. How important was the EIB financing package?

A. It is certainly very helpful, although I’m not sure I would say essential. Having a high degree of confidence that you can allocate the capital to a multilateral means you need less from the private sector. This builds momentum and confidence and it certainly helped the rest of the financing come together. The funding for most large greenfield projects comes from customers or taxpayers, and by having a more efficient financing structure you can drive down the costs which ultimately means lower costs to taxpayers or bill payers.

While there are significantly fewer greenfield PFI projects in the market compared with 10 years ago, this structure is still very much underpinning investment in infrastructure in Europe. For a start, the sheer number of PFI projects financed and built during the last 20 years provides a steady stream of refinancing opportunities. In addition, PPP models are still used as a procurement model across Europe. ‘PPP projects are still being procured by national governments, not just in the UK but in Continental Europe such as in Germany and the Netherlands,’ explained Harry Seekings, Director, Infrastructure at InfraRed Capital Partners. ‘It’s still part of the mix, although having said that the market in the UK is certainly not like between 1999 and 2008 when the market delivered an exceptionally large amount of deal flow and lots of funds were able to acquire assets. That rate of assets coming to market in the UK has undoubtedly slowed but on a global scale the pipeline is still reasonable. Projects are now coming from a more geographically diverse mix of countries, which presents more challenges and more ground to cover.’

PFI and PPP projects are still procured by national governments because in many circumstances there is no viable cost-effective alternative. ‘We do value-for-money tests that compare PPP projects to other public alternatives and the PPP model always wins because in reality there is no viable alternative,’ said Torsten Böger, Managing Director at VIFG. ‘A PPP model will deliver a project in four years that the public sector will do in 10 years. The reputation of PPP in Germany is complicated but actually ministers only have one instrument and that is PPP.’
Some $9bn of transport PPP deals closed in the last 12 months and an additional $10bn+ are expected to close in the next 12 months or so.
6. European investors eye the US.

The survey also quizzed investors on whether they are targeting investments outside Europe. Of those that are, just under half are targeting the US.

President Donald Trump has generated significant public interest by repeatedly emphasising the importance of investing in infrastructure both during the election campaign and since. However, in recent years there has generally been a bi-partisan consensus that US infrastructure requires investment. Reflecting this, to address the estimated $3tn infrastructure gap the use of procurement models involving private sector investment has grown.

Investment will be boosted if Congress enacts major new infrastructure legislation and/or other aspects of Trump’s infrastructure and economic plans (such as providing tax breaks to investors) are implemented. Any new legislation will be shaped by Congress, the new transport secretary (a former secretary of labor and deputy secretary of transportation) and the Democrats acting in opposition. Although there are also likely to be opportunities for the new administration to stimulate and/or accelerate activity through its implementation of existing legislation and the adoption of new policy and regulatory initiatives (such as streamlining permitting processes).

Based on comments by the president, the new infrastructure plan will likely focus on supporting new construction of revenue-generating facilities (toll roads, airports, etc) through tax breaks and private equity. Other areas of focus remain to be negotiated.

Investors should also focus on local- and state-level initiatives, as it is the government at these levels that procures most major infrastructure projects in the US. The majority of states now have PPP-enabling legislation and several now have active markets with multiple projects completed, in procurement or planned on this basis. By way of example, New York State Governor Cuomo has recently announced a $10bn+ initiative to upgrade John F Kennedy International Airport, in terms of on-airport development and road access, in addition to mass transit access, with the expectation that a high percentage of the funding will be provided by the private sector.
7. The assessment of European infrastructure initiatives is mixed.

There are a myriad of national and European-wide initiatives designed to boost investment in infrastructure across Europe. The top-level feedback from survey participants is that, while these initiatives are useful, a consistent approach and level of support to infrastructure investment by national governments in relation to specific sectors is more important.

‘There is a huge benefit in government leading the way and setting a direction for infrastructure by making its priorities clear,’ confirmed Khalid Naqib, former Senior Investment Officer at the European Investment Bank. ‘The UK National Infrastructure Plan does have some value in that respect, but what is more important is a consistent support. For example the French government announced big ambitions for offshore wind but the actual follow-up was a lot slower. The UK had large alternative energy ambitions but the subsidy regimes didn’t allow this. The plans and frameworks are useful but what matters is the policy, subsidies and regulations actually matching this.’

The survey questioned investors’ views on two particular initiatives – the European Fund for Strategic Investments (EFSI) and the Project Bond Credit Enhancement (PBCE) initiative.

**EFSI:** The EFSI, a joint initiative established by the European Investment Bank, the European Investment Fund and the European Commission in November 2014, aims to mobilise €315bn of private sector investment during three years. The fund is able to guarantee €16bn of investment and €5bn of its own capital.

Despite its strong start — as of July 2016 the EFSI had approved €13.6bn of financing for 97 projects, which are collectively expected to trigger many multiples of this sum in private investment — survey respondents have reservations on its long-term prospects. Some 64 per cent of respondents said the EFSI is effective in mobilising private sector investment in infrastructure. But critically 62 per cent said it will not achieve its target of mobilising €315bn of private sector investment.

To what extent do you agree that the European Fund for Strategic Investments (EFSI) is effective in mobilising private investment in infrastructure?

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<th>1 Strongly agree</th>
<th>2 Agree</th>
<th>3 Disagree</th>
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<tr>
<td>1</td>
<td>3%</td>
<td>61%</td>
<td>36%</td>
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Investment volumes aside, there are also concerns that the initiative is not financing any innovative projects, despite its stated intention to do so, and that the projects it has financed may have been financed without its support. As of June 2016, no financed projects involved a university and only one involved a research organisation.

**PBCE:** Under this scheme, the EIB provides subordinated debt instruments, either in the form of a loan or a letter of credit, to enhance the credit quality of project debt to institutional investors. Survey respondents are divided on the impact of the PBCE, with 54 per cent believing the initiative has thus far been successful.

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<th>To what extent do you agree that the EFSI will achieve its target of mobilising €315bn of additional investment during the next three years?</th>
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<tr>
<td>1 Strongly agree</td>
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<td>2 Agree</td>
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<td>3 Disagree</td>
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<td>4 Strongly disagree</td>
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<th>To what extent do you agree that the Project Bond Credit Enhancement (PBCE) initiative has been successful?</th>
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The influx of new debt providers to the market combined with the subdued levels of deal activity has caused borrowing conditions to become more aggressive.
8. Debt markets have become deeper and more diverse.

The survey data and feedback from interviewees indicate that infrastructure borrowers now have more options than ever before, in terms of both the range of debt providers and the debt structures available.

As would be expected, most respondents (51 per cent) expect commercial banks to be the most active providers of debt to infrastructure in the next 18 months. A further 29 per cent expect multilateral finance organisations and export credit agencies to be most active. But interestingly, 16 per cent expect institutional investors to be the most prominent type of debt provider in Europe.

While institutional investors and banks both provide debt to similar borrowers, they offer a different solution so typically do not compete with each other. Indeed most banks offer short tenors and expect their loans to be refinanced. In contrast institutional investors invest for longer tenors and will typically hold loans to maturity.

‘Pension funds have become more active in the debt market in recent years because it matches their long-term liabilities and it allows them to derive a premium over public sector credit while keeping a low-risk profile,’ explained Laurence Monnier, Head of Strategy and Research, Alternative Income at Aviva Investors. ‘We provide a slightly different product to banks but to the same market, so we both compete with and work with them. Banks typically have short tenor appetites and their loans are constantly refinanced. In contrast institutional investors like us can lend at tenors of up to 40 years and tend to want to keep the loan to maturity. So we may work with banks and might offer a different tranche in the capital structure.’

Borrowers also have a much wider array of choices when it comes to the type of debt products. Some 69 per cent of survey respondents predict that loans will be the most common debt instrument used for European infrastructure in the next 12 months. But the remainder expect a combination of private placements (selected by 14 per cent), high yield (10 per cent) and project bonds (6 per cent) to be the most common debt instrument.

During the next 10 years, more respondents (48 per cent) expect non-loan debt products to be most common.

‘Pension funds have become more active in the debt market in recent years because it matches their long-term liabilities and it allows them to derive a premium over public sector credit while keeping a low-risk profile.’
The influx of new debt providers to the market combined with the subdued levels of deal activity has caused borrowing conditions to become more aggressive. Over three-quarters of survey respondents agreed that the cost of debt decreased and that covenant packages became more borrower friendly during the last 18 months. In addition, 58 per cent of respondents stated that leverage levels increased during the same period.

However, the survey data reveals that borrowing conditions may have now bottomed out. The majority (59 per cent) don’t think leverage levels will increase during the next 18 months, while 64 per cent don’t expect the cost of debt to decrease. Covenant packages are the only area where respondents believe there is scope for debt terms to become more aggressive.
To what extent do you agree with the following statements regarding infrastructure investment terms?

- The cost of debt for infrastructure has decreased in the last 18 months
- The cost of debt for infrastructure will decrease in the next 18 months
- Covenant packages have become more borrower friendly in the last 18 months
- Covenant packages will become more borrower friendly in the next 18 months
- Leverage levels increased in the last 18 months
- Leverage levels will increase in the next 18 months
- Infrastructure debt tenors have decreased in the last 18 months
- Infrastructure debt tenors will decrease in the next 18 months
Equity investment in infrastructure is also becoming more competitive. Almost nine out of 10 survey respondents stated that competition to invest in brownfield assets is higher than three years ago, while 82 per cent said competition has intensified around greenfield investments.

9. **Competition for deals increases as more investors come to market.**

To what extent do you agree that competition amongst investors for greenfield assets is higher than three years ago?

- Strongly agree: 22%
- Agree: 60%
- Disagree: 13%
- Strongly disagree: 5%

To what extent do you agree that competition amongst investors for brownfield assets is higher than three years ago?

- Strongly agree: 31%
- Agree: 56%
- Disagree: 13%
This is partly because there are fewer deals compared with three years ago, but also because more investors, and a wider variety of investors, have entered the market. According to survey respondents, strategic investors will be the most active equity infrastructure investors during the next 18 months, followed by institutional investors and then private equity funds.

Competition has also intensified because investors from all over the world are now targeting European infrastructure. As would be expected, the largest share (79 per cent) of respondents expect most investment in European infrastructure to come from Western Europe (when aggregating respondents’ top three choices). But only slightly fewer respondents (75 per cent) expect most investment to come from North America, while 60 per cent expect most investment to emanate from the Asia-Pacific region.

How are investors responding to the increasingly competitive environment? Firstly, many have started to take construction risk to access higher returns. Over two-thirds said they are increasingly targeting greenfield assets, while 79 per cent said they are increasingly targeting mixed portfolios that include operating, construction and development-stage assets. Some 57 per cent of respondents said they are also increasingly targeting non-regulated assets.

Many infrastructure investors are not yet, however, prepared to invest in traditionally risky jurisdictions to access higher returns — only 32 per cent are planning to ramp up investment in so called risky jurisdictions.
10. Regulatory risk still keeping investors up at night.

The survey also quizzed investors on whether any risks have significantly risen up the agenda. Respondents provided answers ranging from cyber and terrorist attacks to more volatile GDP growth and fluctuating commodity prices.

But while these risks are becoming more important, interviewees frequently mentioned that regulatory change remains the largest risk factor for investors. For some investors, especially those focused on the energy sector, these fears stem from retroactive changes to renewables subsidies in Southern Europe many years ago.

‘We are very wary of Spanish and Italian risk although we are not precluded by rule from investing in these countries,’ explained Renaud de Matharel, CEO and Managing Partner at Cube Infrastructure Managers. ‘This is due to the retroactive cuts to tariffs in the renewables sector in these countries. Our North American LPs are particularly concerned about counter-party risk when a public entity is the sole payer in one of these countries.’

For many investors, regulatory risk extends beyond retroactive cuts to renewables subsidies in Southern Europe. Many are closely monitoring the implications of increases in the cost of public infrastructure services on returns.

‘We are always concerned with identifying risks and mitigating risks and while that hasn’t changed, the prioritisation has,’ said Perry Noble, Infrastructure Partner at Hermes Infrastructure. ‘There is no doubt that there is greater sensitivity around regulatory and political risk than there has been for some time. But to counter this there is less sensitivity around debt financing and inflation risk than previously. Political and regulatory risk isn’t just related to renewables, although clearly this was a focus point for some time across Europe. It’s more general. The cost of infrastructure services right across the board but particularly utilities has increased and so affordability and the politics around that issue have risen up political agendas.’
11. Asset management is rising up the agenda.

Investors in infrastructure have always had to think carefully about asset management strategies. However, the survey data indicates that this is now more important than ever.

Some 86 per cent of respondents said asset management has become a more important component of their investment strategy in the last three years, while 71 per cent said they invest more in asset management than three years ago. In parallel, two-thirds of respondents said they now conduct more asset management functions in-house than three years ago.

‘Across the industry, the decline in interest rates means you need to work harder to create value to achieve your targeted returns,’ confirmed Markus Hottenrott, CIO at Morgan Stanley Infrastructure. ‘So across the board we see a more active approach to asset management now. For example we think it’s important to have some industry expertise on board and involve outside talent. Just because someone is a gas pipeline specialist in the US, doesn’t mean they know about gas distribution in Spain. So we involve specialists, but more to educate our own people.’
Investors in infrastructure currently face numerous challenges. How will Brexit impact the investment landscape? How can returns be maximised when competition for assets is so great? How will the regulatory environment shift in an increasingly uncertain political, economic and social environment?

However, as discussed in this report, there are also extensive investment opportunities in European infrastructure. Many national governments seem keen on supporting infrastructure investment. The debt market has perhaps never been deeper and more diverse. And investment opportunities are arising in new jurisdictions and in new sectors.

Conclusion
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