SUSTAINING GROWTH

AECOM Ireland Annual Review 2018
Central Bank, Dublin.

AECOM Services: Cost management, structural engineering, facade engineering.

Hufton + Crow
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AECOM Services: Cost management, facilities management
Introduction

While some big issues remain for Ireland’s construction industry, from Brexit and its potential impact on new construction project demand to the availability of resources and tender inflation, the future looks positive.

So, what trends shaped the industry in 2017 and what challenges, risks and opportunities lie ahead for Ireland’s economic and construction output in 2018?

In this year’s edition of AECOM’s Ireland Annual Review, our analysis shows that even despite great political uncertainty, Northern Ireland’s (NI) construction industry output in the 12 months to Q2 2017 grew by 11.6 per cent in value terms compared to the previous 12 months, mostly through infrastructure projects and private investment in Belfast particularly, with 2018 set to be another stable year for the industry.

The value of construction output across the Republic of Ireland (ROI) rose by circa 18 per cent in 2017 and is expected to increase by 14 per cent to approximately €19.5 billion in 2018. Twenty seventeen saw increased construction activity extending beyond the Greater Dublin Area.

The growth in construction output in the ROI has been focused on the commercial and Foreign Direct Investment (FDI) sectors. Infrastructure continues to lag behind. The residential sector and transportation and utilities infrastructure have not kept up with the demands of a growing economy.

There are plans and initiatives in place to address Ireland’s infrastructure shortcomings; however it is hard to identify which projects, due for completion in 2018, are going to significantly alleviate immediate pressures.

It is very positive that there is an 18.5 per cent increase in value terms in the public sector capital programme budgeted for 2018. There is a concern around the delivery of this significant increase. Do the various government departments have the shovel-ready projects available to implement the planned increase in public capital spending in 2018? The pace of development of public infrastructure is likely to continue to be hindered by a lack of internal resources, a challenging planning process, inappropriate procurement routes and time consuming approvals structures.

North of the border, the political context remains uncertain at best and perhaps worryingly challenging in reality, both in terms of the suspended Assembly and the wider Brexit context. The latest Westminster budget was relatively positive for the Province and alongside the additional £1 billion earmarked for it as a result of the DUP negotiations, the potential for infrastructure spending is there, but not moving anywhere fast.

The positive news is that the opportunities for economic growth and increased foreign direct investment are great and dynamic approaches to addressing challenges are making a difference.

The Republic of Ireland Draft National Planning Framework sets out the need for Metropolitan Area Strategic Plans for the five cities. These five Plans will go across local authority boundaries. The recent success of the Dublin Docklands Strategic Development Zone shows that where demand exists, developers can respond quickly. But to achieve similar success in the vital residential sector, suitable statutory processes and advanced physical infrastructure across utilities and transportation are needed.
Meanwhile, Belfast is managing to maintain a relatively upbeat spirit and is pressing ahead despite the various economic and political clouds that lurk on the fringes. Large infrastructure projects such as York Street Interchange, Belfast Transport Hub, and the new Belfast Rapid Transit System are all moving forwards. While in the private sector, tourism, the two universities and a recent lack of Grade A office accommodation are driving a level of commercial busyness not seen since the 2007-08 watershed.

For our 2018 Annual Review, we have surveyed clients, consultants and contractors from across Ireland’s construction industry to identify trends in innovation, technology, sustainability and regulations and anticipated business activity and industry challenges. While the majority of respondents report that they are very positive about 2018, with 61 per cent anticipating an increase in business, they also anticipate that resources, tender prices and statutory consents will be the biggest challenges to construction projects in 2018.

On the following pages we touch on many of the key issues affecting Ireland’s construction industry through close analysis of construction sector performance across the ROI and NI and include interviews with the Ireland Strategic Investment Fund’s (ISIF) Head of Infrastructure and Credit Investments, Donal Murphy and Belfast’s US Consul General, Daniel Lawton, touching on challenges and opportunities ahead around innovation, foreign direct investment and growth across the industry. We also include thought leadership interviews with AECOM experts looking at the benefits of water sensitive urban design and the regeneration potential of Ireland’s many brownfield sites.

The challenges faced by the construction industry today reflect the continued growth of the Irish economy itself. This can only be a good thing if harnessed. AECOM is looking forward to playing an important and influential role at the centre of this ongoing growth.

We hope you enjoy the read and we look forward to partnering with many of you from across the industry to continue delivering transformative projects that support Ireland’s sustainable development and regeneration, throughout 2018 and beyond.

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INDUSTRY SPOTLIGHT
WITHIN THE INDUSTRY, KEY ISSUES INCLUDE: THE AVAILABILITY OF RESOURCES; TENDER INFLATION; THE ADOPTION OF NEW TECHNOLOGIES; AND BREXIT’S POTENTIAL IMPACT ON NEW CONSTRUCTION PROJECT DEMAND AND ON THE GENERAL INTERNATIONAL ECONOMIC OUTLOOK.
Despite Ireland’s relatively small geographical size, the construction industry in both the ROI and NI is being shaped by a number of trends, and is no doubt being heavily influenced by current political and economic changes happening both at home and internationally.

Within the industry, key issues include: the availability of resources; tender inflation; the adoption of new technologies; and Brexi’s potential impact on new construction project demand and on the general international economic outlook.

Over the past decade or so, we have highlighted dramatic swings experienced by the industry in the ROI. Here we look at some of the current key industry trends and statistics from across the country.

**Sectors**

Two thousand and seventeen saw Dublin’s commercial market continue to strengthen, with developers and investors continuing to see strong demand for office accommodation. Currently, a considerable number of commercial properties are still under construction, a sizeable proportion of which may have pre-let agreements in place prior to final completion.

The strength of the commercial sector has implications for others, such as residential; greater commercial property demand means more workers, each needing accommodation. The residential sector is also under pressure to provide a significant volume of affordable housing required to address ROI’s general local authority and homeless housing lists, both of which have grown significantly due to years of under-investment.

Demand for student accommodation is a further residential pressure point, which has been increasing for some years. Since the demise of bedsits — the traditional affordable housing option for a sizeable cohort of third-level students — across Ireland since 2013, students have been competing more and more for family-type rental accommodation, significantly increasing activity in the student accommodation sub-sector in each of Ireland’s main cities.

Tourism and leisure sector performance remains strong with retention of the nine per cent VAT rate in Budget 2018 providing the sector with further confidence. Transactions and investment in the hotel sector continued in 2017, which should lead to continued construction industry activity. Similar to tourism and leisure, the out-of-town retail sector saw a number of transactions in 2016-2017, bringing with it potential investment and construction activity over the coming years.

The public sector remains a key pillar to activity across the industry. Public Capital Programme output in 2017 increased...
by 10.3 per cent in value terms to €4.28 billion, while Budget 2018 will provide just under €5.07 billion for 2018, which would represent an 18.5 per cent value increase: the challenge will be whether the public sector can deliver this.

**Regions**

Two thousand and seventeen saw signs of increased construction activity extending beyond the Greater Dublin Area (GDA). Outside Dublin and the Mid-East, the cumulative floor area of planning permissions granted in the first six months of 2017 increased by around 10 per cent compared with the same period in 2016. In the Regions, 50 per cent of the cumulative floor area of permissions was granted for residential construction, 23 per cent for agricultural developments, and the remaining 27 per cent being granted for other public and private sector building projects.

When we compare the two broad regions — the Border, Midlands and Western region, and the Southern and Eastern region — in terms of construction activity, the cumulative floor area of development granted permission correlates much more to population than geographical area. On a geographical area basis the split is 47 per cent : 53 per cent respectively, whereas the population split is much more uneven at 23.9 per cent : 76.1 per cent. As noted, the cumulative floor area of planning permissions granted in the first six months of 2017 correlates almost exactly to the population split at 23.8 per cent : 76.2 per cent.

Furthermore, the 2017 publication of the draft National Planning Framework: Ireland 2040 Our Plan, has been a welcome development in setting out a long term vision and has the potential to map ROI’s future development and construction activity over the next two decades.

**Tender prices and construction costs**

Both the 2016 and 2017 AECOM Annual Review Survey results reveal that respondents believe tender inflation to be the second most significant challenge to construction projects, second only to resource shortages. The two challenges are clearly inter-related.

Competitiveness of the construction industry will play a part in ROI’s continued economic growth. But the rate of tender price increases seen over the past few years would not be ordinarily sustainable. Of course, we are not in ordinary times; we are coming off the back of the most significant construction sector crash in a generation.

Competition for resources is likely to continue in 2018, which will continue to put pressure on tender prices. As with 2017 when we saw a seven per cent increase in the AECOM Tender Index, tender increases in 2018 will vary across the GDA and the Regions. AECOM projects a 7.5 per cent rise in Dublin and its environs, and a five per cent rise across the Regions. With an average increase of 6.6 per cent across ROI, 2018 will see tender prices finally recover to levels seen before the 2006 crash.

The residential sector, which historically has been the key driver of output, has been struggling to respond to the housing crisis. Two thousand and seventeen has seen some movement with the number of commencements increasing in the first eight months of the year to 4,055 — a 25 per cent increase from a very low base for the same period in 2016.
Construction costs are set to increase, with the Sectoral Employment Order (SEO) having come into force in October 2017, which grants a 10 per cent increase in labour rates. The demand for resources since June 2016 means that it is highly likely that an element of this has already been incurred. However, the SEO will see further upward pressure in labour rates. Material prices showed a 3.2 per cent increase in the 12 month period to August 2017, which is stronger than the 1.4 per cent recorded in 2016, and along with the labour rate pressures, are a contributory factor in tender price increases. We anticipate construction costs will increase by around 3.5 per cent in 2018.

Employment
Construction industry employment continued to rise in 2017, as output increased, and as the economy edged closer to an unemployment level of five per cent or less, which is broadly considered full employment. Overseas labour and returning Irish citizens who left the ROI due to the downturn will be crucial to future employment growth across the industry.

The Central Statistics Office (CSO) Q2 2017 employment figures indicate a 10,500 increase in construction employment in the previous 12 months which equates to a 7.5 per cent increase. Recruitment will continue to be a challenge across the construction industry, especially in the residential sector, as it is typically more labour intensive.

Construction output
Output continued to grow strongly across the ROI’s construction industry in 2017. Public Capital Programme spending came in at €4.3 billion. This represented a 10.3 per cent increase in value terms on 2016. However, when seven per cent tender price inflation in 2017 is taken into account, it only represents a 3.3 per cent volume increase. Construction employment in the twelve months to the mid-point in 2017 was up 7.4 per cent—which all combines as a firm indicator that activity in the private sector was booming. We estimate construction output in 2017 to be €17.1 billion. Of course, as stated above, the distribution of output growth is not even across the region and the Dublin area saw the bulk of the increased activity. One of the more interesting anecdotal measures has been The Irish Times’ Dublin ‘crane watch’ figures, which suggest the number of cranes visible across Dublin increased from 34 in February 2016 to 60 in February 2017, rising to 68 in September 2017.

As noted previously, the Government has...
included an 18.5 per cent increase in the value of the Public Capital Programme in Budget 2018. It remains to be seen if this will be delivered. In the private sector we anticipate continued growth, albeit modest in percentage terms, following a strong 2017.

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AECOM estimates that the value of construction output will increase by 14 per cent to approximately €19.5 billion in 2018. Assuming a 10 per cent per annum increase thereafter, it would be expected that construction output would equate to 12 per cent of Gross National Product (GNP) around 2020/2021.
AECOM estimates that the value of construction output will increase by 14 per cent to approximately €19.5 billion in 2018.
Towards the end of 2016, the construction industry was just starting to accept the idea of life outside of the European Union (EU).

There was an expectation that trade talks would get underway quite quickly, which would help bring certainty to an industry just picking itself up from the worst recession in over 100 years.

At the time, NI had a fully functioning executive, with a fledgling opposition: there was hope this would bring stability and certainty when we needed it most.

Twelve months on, and we have no more certainty on what a trade deal with the EU might look like, never mind how the border with our closest neighbour might be managed. The NI Executive collapsed in January 2017, fresh elections were held in March and yet we still don’t have a local government. The politics have changed almost beyond recognition.
NORTHERN IRELAND

Despite this uncertainty, the industry has experienced another year of growth, which has accelerated to an annualised rate of 8.3 per cent in volume terms since Q2 2016. The majority of this growth has come from infrastructure works and from private investment in Belfast particularly. The shortage of Grade A office accommodation in Belfast is still an issue. However, the private sector has started to address this, with a significant amount of additional square footage coming to market throughout 2018.

One of the biggest and most exciting redevelopment schemes expected to come to market in 2018 is the £400 million Sirocco site in east Belfast. The site comprises over 16 acres of undeveloped brownfield space right in the city centre, with proposed offices and commercial, retail, residential and high-quality public spaces certain to have a significant positive impact on Belfast’s future.

Aside from private sector investment, Belfast City Council continues to develop its Leisure Transformation Programme, while the Department of Infrastructure continues to spend on its major road programmes.

There is a realism that the infrastructure sector has suffered because of legal challenges relating to the environmental impact of these new projects. However, the judicial review on the A5 to the North West, which essentially stopped project progress, has been completed. The project is due to move forward in 2018. Similarly, construction of the A6 (Randalstown – Castledawson section) has now started after the successful overturning of a judicial review.

Meanwhile, the York Street interchange is progressing, although it is experiencing some procurement challenges, which will hopefully be resolved in a timely manner. This project will transform one of Ireland’s busiest sections of road and is essential to Belfast’s future competitiveness as a capital city.

Given the political impasse, the Westminster government has produced a budget for NI that essentially increases spending by around 3.1 per cent, so that in real terms, it will be equal to 2017.

The £1 billion additional funding agreed between the Conservative government and the DUP, in return for the DUP support in parliament, has not yet been fully realised due to the stalling of the NI Assembly. But at the time of writing, the first phase of funding was being planned for release. Ultimately, the overall package will have a significant positive impact on public sector capital spending when it is made available.

Meanwhile, house prices in NI, which are usually seen as a barometer for confidence in the wider economy, continue to recover with an average annual increase of six per cent to Q3 2017.

As with 2017, even despite political headwinds, we project further growth within the construction industry and some inflation as a fallout of the continued reduced value of sterling. In summary, even despite such uncertain circumstances, 2018 is set to be another stable year for the industry in NI.

Figure 7: Construction employment Q3 2016 to Q3 2017

Figure 8: 2016 Construction output and 2017 estimated increase

Figure 9: H1 2016 : H1 2017 percentage sector output change

Source: Based on Northern Ireland Statistics and Research Agency data.
When considering building costs, you should check if costs include:

- value added tax (at the applicable rate in each jurisdiction)
- professional fees
- inflation
- fit-out
- landlord fit-out/landlord credits
- furniture
- planning levies, fees and charges
- demolition and disposal of any deleterious materials
- abnormal ground conditions

The figures quoted are for mid-range buildings in the Dublin and Belfast areas at January 2018 prices. It is possible that tenders will be received outside these ranges dependent on a range of factors including scale, complexity and specification. Professional advice should be sought for specific projects.

The AECOM indicative building costs should NOT be used for fire insurance valuations or for residual valuations for funding purposes.

If you require a valuation for fire insurance or more specific information, please contact AECOM.
BUSINESS INTELLIGENCE
The constraints of the past eight to 10 years have led to a lack of infrastructure investment, particularly across housing, broadband, renewable energy and transport ... As an investor, ISIF doesn’t just look at which sectors need infrastructure: we assess what is the best way of providing commercial investment into infrastructure and to do this one needs to see how the infrastructure is ultimately paid for."
As a high-profile commercial investment fund that invests commercially to support employment and economic activity in Ireland, which sectors does ISIF see as having the greatest investment potential as we head in 2018?

In 2018 we expect to see a continuation of the high level of investment activity in the areas that were busy for ISIF in 2017 – such as, direct investments into growth-stage companies across Ireland, venture capital funds, renewable energy, infrastructure, financing platforms for small and medium-sized enterprises and, as always, the food and agriculture sector.

A key focus for ISIF investment will also continue to be housing and housing related activities. One of our landmark transactions in 2017 was for the Cherrywood Strategic Development Zone (SDZ), in Dún Laoghaire-Rathdown, where ISIF provided a loan of just over €50 million to finance enabling infrastructure for the site through a bespoke transaction with Hines, the global real estate development and management firm. The enabling infrastructure will facilitate around 4,000 homes and form a cornerstone for the overall SDZ development. We see this investment as a prototype for further investment to unlock strategic land and provide much needed serviced sites for residential development.

What is the current regional spread of ISIF investment?

While ISIF doesn’t have an obligation to invest on a regional basis, we have a real focus on making investments on a commercial basis across Ireland’s regions. We do report on regional investments: our economic impact reporting shows that capital investment and job creation is split almost equally between the Regions and Dublin. Regionally, over the past few years, we have invested in a range of projects including a runway re-surfacing project at Shannon Airport and an urban regeneration project on a former brewery site in a joint venture with Kilkenny County Council. We have also completed investments in regional enterprises such as AMCS — a waste management software company headquartered in Limerick. We have further pipeline transactions including for regional transport infrastructure and direct investments in a Foreign Direct Investment (FDI) company looking to expand its presence in Dublin and the regions.

I think everyone accepts that the constraints of the past eight to 10 years have led to a lack of infrastructure investment, particularly across economic infrastructure such as housing, broadband, renewable energy and transport. Social infrastructure deficits exist too, across education and healthcare for example. Of course, as an investor, ISIF doesn’t just look at which sectors need infrastructure, we assess in particular what is the best way of providing commercial investment into infrastructure and to do this one needs to see how the infrastructure is ultimately paid for. Our infrastructure strategy focuses particularly on investment in infrastructure which is ultimately paid for by end users, such as consumers and corporates. Examples of such investments made by ISIF include student accommodation which is ultimately paid for by student revenue streams over 20 to 30 years and Subsea Fibre Optic cable which is ultimately paid for by cable customers such as internet service providers.
We see Ireland attracting investment in energy-intensive industries such as data centres, and FDI generally. These clients have a significant demand for energy generated from renewable sources. How will Ireland meet this demand and what funding model is likely to be required?

We see a requirement for new investment models to be developed to meet the large energy demand arising from these assets. It is unlikely that Ireland will be able to rely on current models whereby the end user, such as the retail customer, pays for the cost of renewable energy via feed-in tariffs. While this model has successfully supported significant investment in wind generation to date, data centre projects of this scale will require investment models whereby the end user/corporate customer pays for the renewable energy. We see this approach, known as a Corporate Power Purchase Agreement, which is emerging in Europe and established in the US, potentially becoming an integral part of the Irish energy market.

As we head into 2018, what does ISIF see as the biggest risks and challenges facing capital project investments in Ireland?

From an investment capital perspective, a key issue is the nature of capital that is available for infrastructure projects. There is generally plentiful capital available for mainstream projects such as Public Private Partnerships and other projects backed by state revenues streams, tariff regimes or regulated income streams. But there is less capital available for the next tier of projects, where there is an element of usage or market related risk — and in particular where investors need to take a longer term view: this is where we see ISIF playing an important role. More strategically, ISIF is looking forward to reviewing the final version of the National Planning Framework, as well as the 10-year National Investment Plan once published, to ensure we align our infrastructure investment strategy in support of the key elements of these crucial initiatives.

Does ISIF have both international and domestic applicants seeking investment and funding?

We have a broad range of investee companies and funds. We have a significant volume of overseas co-investment partnerships in sectors such as venture funds, technology, renewable energy and small and medium-sized enterprise financing where our investment would be linked with incremental investment or financing activity in Ireland. We also work with many domestic commercial entities like Dairygold and Glanbia, as well as state and semi-state entities such as Universities like Dublin City University, Shannon Airport and local authorities. The range of investees and co-investment partners we see is driven by the dynamics of each sub-sector that we are operating in — one of our key goals is to maximise co-investment and if the co-investment comes from outside of Ireland, all the better for Ireland’s future, as it is capital that the state wouldn’t otherwise benefit from.

How does ISIF assess funding applications — do you use cost benefit analysis or similar tools, as used by government, when considering capital spending?

We don’t use traditional cost benefit analysis — because we invest rather than spend we certainly use a combination of commercial investment tools as well as economic impact techniques. Because of our double bottom line approach, we look at both the economic impact and commerciality of applications, each on their own merits. Our commercial investment toolkit is the same one that other funders use — cashflow modelling, sensitivity analysis and valuation techniques, for example. Which tool we use depends on the sector, investment type and if it is a direct investment into a company or project, or via a fund. Our economic impact assessment process is slightly different: Gross Value Add (GVA) and employment are the primary measures of economic impact but these metrics often do not capture the wider economic impacts of enabling infrastructure in particular. So, where possible, we look to capture sector specific metrics that are difficult to capture within GVA and employment, for example residential units enabled or megawatts of energy generated.
Novosco,
Titanic Quarter, Belfast.
AECOM Services: Project management, cost management.
NI’s proposition for FDI remains very strong. American investors are attracted to the region because of its strong skill set and talent pool, and that remains. At the same time, I think American companies are impressed by the work ethic of the NI people, and by their loyalty to the companies they work for". 
What does your role as US Consul General in Belfast involve?

My job is to promote stronger political, economic and cultural ties between the US and NI. Working with my team, we aim to achieve the ‘three Ps’:

- Promote transatlantic prosperity — we do this by promoting two-way trade and investment, because in our view, it is mutually beneficial and creates jobs at both sides of the Atlantic; in a rising tide, all boats float.

- Promote people-to-people diplomacy — this is about forging ties between people in this region and the US. My consular colleagues are responsible for providing visas and facilitate legitimate travel for people from NI to the US.

- Promote political ties — this is where we aim to promote peace and reconciliation: the US has been traditionally viewed as an honest broker, and we continue to play that role, to promote greater reconciliation, co-operation and political stability in the region.

The US Consulate General in Belfast is a very special place to be for an American diplomat because it is the second oldest continuously running US consulate in the world. George Washington, the first President of the US appointed Belfast’s first US consul in 1796, so for over 220 years we have been promoting these closer political, cultural and economic ties.

Do you think there is a consensus in the US on the UK’s decision to leave the EU?

Yes, I think the US has accepted the decision of the UK people. But I think there is also consensus that we as a country want a strong and prosperous UK and for it to remain a leader in Europe. We want both the UK and the EU to remain strong leaders within the global community. I think the NI people can be assured that the US will remain a strong, resilient and reliable partner that will continue to promote two-way trade and security across the Atlantic, and political stability in NI.

Is any of this uncertainty having an effect on US FDI in NI?

NI’s proposition for FDI remains very strong. American investors are attracted to the region because of its strong skill set and talent pool, and that remains. At the same time, I think American companies are impressed by the work ethic of the NI people, and by their loyalty to the companies they work for. This hasn’t changed because of the Brexit vote. I also think there are some great opportunities for FDI in areas that the NI seems to be specialising in, such as information technology, cyber security, financial services and technology, as well as the creative arts and legal services. Each of these areas should remain attractive. Conventional wisdom and broad consensus is that businesses don’t like uncertainty, so the sooner answers are provided to key questions, the better.

From what you have seen of our local universities and colleges, do you think the NI workforce has the right skills for the world market?

I have visited NI’s universities, institutions of further and higher education and secondary and integrated schools, and have been impressed by the quality of the education they provide and the skills that they impart on students. American companies tell me they are impressed by this too and in many cases it is what brings them to this region. One of the challenges for the region, and for many Western countries, is shaping the future workforce to meet the jobs of the future; parents can tend to focus on encouraging their children to follow traditional professions, such as law, teaching and medicine, as opposed to science, technology, engineering, mathematics (STEM) and arts, as will be required for the more prevalent jobs of the future. There seems to be a general agreement across the region that there is a need to rebalance NI’s economy. To NI’s credit, it is currently putting a great deal of effort into cultivating a culture of entrepreneurship and innovation, with many institutions such as Catylist Inc and non-governmental organisations like Young Enterprise working with young people to do this. Entities like these are playing a pivotal role in moving the region away from private sector dependence to private sector independence.

Daniel James Lawton
Consul General
US Consulate General, Belfast
Climate change is starting to have a profound effect on people’s lives throughout the world. Do you think the US might reconsider its position on the 2015 Paris Agreement, or propose a workable solution?

When the US President announced his plan to take the US out of the Paris Agreement, until a better deal is negotiated for the American people, he expressed concerns that the prior administration’s commitment to the agreement would harm the American economy and disadvantage American workers. I don’t want to convey a misconception that the US is turning away from environmental policies and activism, but rather that the US does not want to bind its people to overly stringent commitments while other nations, including major competitors, are not taking on similar onerous targets. There are two more important things to emphasise. One is that a great deal of technological innovation being used to improve the environment around the world continues to come out of the US and two, America is a federation and so has different environmental rules in its 50 states. Some of our largest states, including California, are setting very high standards, and other states are following. So, at state level, a great amount of environmental legislation, and lots of innovation, is going on.

Having spent just over two years in NI, and with your term ending next year, what will be your lasting impression of the country and what will you miss the most?

I have told and continue to tell many people that being an American diplomat in NI is like winning the lottery. My family and I have been warmly welcomed in every part of the country that we have visited, and we have a deep appreciation of the historic and vibrant contemporary ties that the US enjoys with the region. We have especially enjoyed the opportunity to spend time experiencing NI’s parks, cliffs in the north, coastal roads and the Mountains of Mourne: wherever we have gone, we have found tremendous natural beauty. I think the US government will have to take me out with a crowbar! With around 200,000 Americans visiting the NI in 2016, and 90 cruise ships (many American) docking in Belfast Harbour in 2017, it is clear that the people of this region extend an extra warmth and hospitality to visitors.
To NI’s credit, it is currently putting a great deal of effort into cultivating a culture of entrepreneurship and innovation, with many institutions such as Catalyst Inc and non-governmental organisations like Young Enterprise working with young people to do this.”
AECOM Industry Survey 2018

This year, as part of our market research, we surveyed clients, consultants and contractors from across Ireland’s construction industry to identify trends in innovation, technology, sustainability and regulations and anticipate business activity and industry challenges.

Key results from the survey, as shown below and to the right, reveal an overall feeling of optimism across the industry for a good year ahead, despite some expected challenges.

The majority of respondents report that they are very positive about 2018, with 61 per cent anticipating an increase in business.

Northern Ireland respondents with anticipation of level of business to increase is significantly less, at 37%.

Q: Do you anticipate your level of business increase/decrease in 2018?

Q: What is the single most important development in the areas of technology, innovation, sustainability and regulation you would like to see implemented in the construction industry in Ireland?

Q: The primary drivers of innovation in construction over the next 5 - 10 years?

Q: Most significant advances in sustainability in design and construction in the next decade?

Q: Most transformative technology in construction in next 5 - 10 years?
How can government provide support to industry to promote innovation, technology, sustainability and regulation?

Q: Roadblocks to adoption of world class innovation, technology, sustainability and regulation?

Q: Factors presenting biggest challenges to construction projects in 2018?

Q: How would you assess the ‘fitness for purpose’ of current regulations/standards in the following areas?

Q: How would you assess the construction industry in terms of maturity, compared to other developed countries, in terms of these categories?

75% of contractor respondents identified planning as somewhat or wholly inadequate compared to the industry average of 60%.

The inability of An Bord Pleanala and the courts (judicial review) to deal with planning issues quickly is likely to cause FDI not to proceed. We have direct experience of a client considering going somewhere else in response to a planning challenge.”

The primary concerns of respondents in terms of challenges to construction projects in 2018 are resources, tender prices and Statutory consents/BCAR processes.”
Spire, London.

AECOM Services: Construction Services

Courtesy of Greenland
Water sensitive regeneration

Natural water sources and drainage systems are under pressure from increasing rainfall and urbanisation, which could stifle regeneration and economic growth in our major cities. Water specialists Neal Kerr and David McKillen explore five ways developers can use water sensitive urban design to relieve some of this pressure.

We often think of water as costly to manage, dirty or not really ‘a part’ of our lives. But through water sensitive urban design (WSUD), we can source, use and reuse water more sustainably to reduce flooding, improve water quality and enhance the built environment.

By relieving pressure on already stretched drainage systems WSUD can make regeneration and economic growth possible in our major cities. And places and people are recognising that a step change is needed. Through Belfast’s Living with Water programme, for example, the government will be making infrastructure improvements across Belfast to protect it from flooding and to enhance the environment and economy, with elements of new infrastructure likely to be in place across the city by 2025. But building more or bigger can’t be the only solutions.

Through high quality design, WSUD connects the dots between the natural water cycle, built environment and conventional underground water systems to create a more efficient water cycle that also harnesses the potential of green infrastructure to clean and store water, naturally.

To empower economic growth and regeneration — and ensure our cities have a resilient future — WSUD needs to be part of the solution. Here are five ways to integrate WSUD into urban developments and regeneration projects.

ONE  
SuDS – just the start
Sustainable drainage systems (SuDS) and making space for water are two component parts of any WSUD philosophy — but they are just the start.

SuDS such as swales, permeable paving and green roofs decrease the risk of surface water flooding and improve water quality. Space for water can also be created in areas that are not traditionally ‘designed’ to flood. For example blue corridors can be created in existing urban areas through small changes such as increasing kerb heights to make a road or carpark a storage area for floodwater during heavy rainfall. We’re working with Belfast City Council, one of the 100 Resilient Cities, to develop an Open Space Strategy and Blue Green Plan to identify such opportunities.

However, WSUD doesn’t only provide effective, natural surface water management, it also helps solve supply issues too, by considering greywater and rainwater for non-potable water reuse, making the water cycle more integrated and urban centres healthier and more attractive places to live.

TWO  
Retrofitting can work
WSUD isn’t just for new developments; enhancing water management in our towns and cities will only work by adapting what we’ve already got.

For many years, Clandeboye Primary School in Bangor had been affected by recurrent surface water flooding. To reduce this risk without discharging more water into the environment, we worked in partnership with the school and the Education Authority to create a WSUD solution on site. Using swales and ponds to capture overland water flow, while also providing a safe learning and play environment, it will help reconnect people with water.

THREE  
Making the business case
The WSUD approach can be applied to a single home, block of flats or offices, street or a whole suburb. But there can be economies of scale by applying WSUD over larger areas. For example, by applying WSUD principles to an entire site, such as the North West Cambridge Development where we are creating the UK’s first stormwater recycling scheme, the cost is around 40 per cent cheaper than doing it plot by plot.

The benefits of WSUD also far outweigh the direct capital cost. For example,
companies, local authorities, individuals and communities collaborate. It’s about working out how to work together, and helping communities understand the importance of WSUD initiatives by engaging them and stakeholders at the start of, and throughout, the planning process. Ultimately, we have to ask: do we carry on with business as usual and see restrictions on growth and regeneration within our urban centers, or do we start to think differently about the ways we manage water? Perhaps the more pertinent question is can business as usual work? The answer is, probably not very well.

Overall, developing more resilient infrastructure and public services is crucial in making the places where we live and work sustainable. Resilience strategies bring with them great opportunities to simultaneously tackle risks and create healthy and engaging public spaces for people to enjoy and lead healthier lifestyles, encouraging activity and inclusiveness, while weaving resilience into the fabric of people’s lives.

To empower economic growth and regeneration — and ensure our cities have a resilient future — WSUD needs to be part of the solution.

SuDS such as swales, permeable paving and green roofs decrease the risk of surface water flooding and improve water quality.
With Ireland’s population set to increase significantly over the next few decades, more jobs, homes and opportunities for continued investment are needed to ensure sustainable growth. Head of Buildings + Places NI, Trevor Leaker and Remediation Consultant Sinead Fitzpatrick look at three ways brownfield site regeneration could help.
Creating space for growth

The Draft National Planning Framework suggests 660,000 more jobs and 550,000 new homes will be needed in the ROI to keep up with the country’s projected population increase of one million to around 5.8 million by 2040. Meanwhile Northern Ireland Statistics and Research Agency figures suggest NI’s population is projected to rise by 5.3 per cent to almost two million by 2024.

To support this growth, Ireland’s cities and surrounding regions will need to remain open, accessible and attractive places to live and do business if they are to remain economically, socially and environmentally sustainable.

With limited land and resources available, regenerating former industrial and brownfield land in and around Ireland’s cities makes sense. While brownfield projects can incur costly upfront site investigations and can take longer than typical developments due to environmental assessment and remediation activities, there are some good reasons to regenerate them. We take a closer look at three of them below.

**Attract new business**
According to The American Chamber of Commerce, Ireland represents just one per cent of the European economy yet attracted 11.6 per cent of all US foreign direct investment to Europe in 2016. Our highly-educated population, competitive cost base and links to EU markets are all attractive to investors, with a number of financial, technological and pharmaceutical companies continuing to set up new ventures across Ireland.

The challenge will be to remain attractive to investors. But with limited category A office space available in Ireland’s major cities, governments and developers need to look for new opportunities and regenerate land for commercial and mixed-use developments.

Expected to turn Limerick and Ireland’s mid-west into a thriving national and international economic powerhouse, the Opera Site — the largest ever single city development project undertaken in Limerick — is a perfect example of a city council’s commitment to transforming a region through developing key, disused sites to attract and retain businesses to the area. Having lain derelict for more than a decade, the disused urban block on a 1.62-hectare site will become a world-class mixed-use development.

The redevelopment of Belfast’s Titanic Quarter, where we worked on the Titanic Visitors Centre and designed the White Star House, is another good example. The 185-acre former industrial site, where the RMS Titanic was designed and built, is now a bustling commercial and residential development and thriving tourist destination. The development has led to the sale of surrounding land and the creation of new business start-ups and thousands of jobs.

**Provide more homes**
With approximately 14,000 brownfield sites recorded in NI alone it makes good sense to make use of this land. In fact, the NI Regional Development Strategy to 2035 Building a Better Future published in 2015 sets a target for 60 per cent of new housing to be located on brownfield sites within the urban footprints of settlements greater than 5,000.

In conjunction with the planning reform, it is anticipated that a greater number of residential developments on brownfield sites will successfully pass though the planning system.
While brownfield sites often require remediation and up-front investment, developers should not be deterred; these sites can be managed and often with straightforward solutions.

Many of Ireland’s brownfield sites are located in prime locations in and around our major cities, with major transport links and utilities already in place—like the Dublin Docklands, which saw major development in the 2000s, with development continuing today, and Cork undergoing similar redevelopment of these types of areas. The planned £400 million Sirocco Quays regeneration project, where we are currently providing multi-disciplinary services is expected to become the largest residential development in Belfast’s city centre. The project will see the former rope works and Sirocco Engineering Works site, a 16-acre industrial plot that has lain derelict since the late 1990s, redeveloped into a new central riverside community with 815 new homes, including rental, private and social housing, restaurants, offices and shops, and could create up to 5,000 new jobs.

Keep communities green
Remediating brownfield sites removes harmful pollutants from the local environment and provides opportunities to protect our green belts — an important part of any sustainable urban redevelopment.

We’re designing a remedial strategy, bringing in a natural capital approach, to turn a five-hectare former landfill site close to Derry/Londonderry into an open green space for the local community to enjoy. Having previously worked with the client to conduct site investigation works to identify risks posed by the site to human health and the environment, we are now using our findings to design a sustainable ‘fit for purpose’ remedial solution.

Because remediation targets for public open spaces are less stringent than those for residential or commercial developments, regenerating land for recreational use typically leads to time and cost savings for clients.

Creating a future for Facebook in Ireland
Global networking giant, Facebook, employs over 1600 staff in Ireland — its biggest footprint outside Silicon Valley. After setting up its European Headquarters in Dublin in 2009 with 30 staff, it is expanding with a new, sustainable data centre in Clonee, County Meath, on former agricultural land. As one of the most energy-efficient and modern data centres in the world, it’s packed full of cutting-edge technology and powered by 100 per cent renewable wind energy.

The €200 million building is a significant investment for the community, providing up to 2,000 jobs during construction. As Ireland’s economy continues to flourish, this project reinforces the message that the country is an attractive place to invest in and to do business.

We helped Facebook on this journey with the initial site selection phase, followed by environmental impact assessment and planning applications, through to ongoing construction supervision and environmental oversight.
AECOM
IN IRELAND
AECOM teams across Ireland undertook a range of activities and raised money for charities in their communities. Examples of these activities are summarised below.

Rally for Haiti
AECOM supported former championship rally driver Ronnie Foreman as he travelled across ROI and NI on a charity road trip. AECOM teams in Dublin, Belfast, Galway, Limerick and Cork welcomed Ronnie as he arrived in the towns and cities on his Rally for Haiti, to increase awareness and support for the people.

Mizen to Malin 2017 Charity Cycle:
- 380 miles (612km)
- 11 counties
- 3 brave (crazy) cyclists (Gary Benson, Andy Patterson and Andrew Kirk)
- 2 days
- 1 epic adventure

Fundraising in aid of Perinatal Trust Fund NI (Royal Jubilee Maternity Unit and TinyLife).

Our Commitment

Rally for Haiti 2017
AECOM’s John O’Regan with Ronnie Foreman, Galway City Mayor Noel Larkin, Tractoch Collins (Actavo) & members of the Rally for Haiti Team

Mizen to Malin 2017
Image left: AECOM’s Gary Benson, Andy Patterson and Andrew Kirk (left to right).
Beechill Pretty Muddy team
A team of women from our Belfast office took part in the Pretty Muddy 5K in aid of Cancer Research. The team braved the mud and tackled all the obstacles put in their path, all with a smile! To raise funds, the team hosted several coffee mornings, serving up sausage baps, homemade scones and tray bakes.

Sustrans’ Active Challenge
AECOM took part in Sustrans’ interactive employee competition for cycling and walking which encourages people, groups and organisations to increase their cycling and walking journeys and submitting details online with the chance to win prizes.

We have won this competition for three years in a row with the survey results showing we saved 1,063kg in carbon emissions compared with making the same journeys by car. By being more active, our participants lost a total of almost 233,700 calories — the same as 927 doughnuts!

Dragon on the Docks
In August 2017 AECOM took part in the inaugural Dragon on the Docks charity boat race event held at Grand Canal Dock, Dublin. Over 720 competitors from over 60 companies from Ireland’s leading property, financial, and legal sectors battled it out.

Seventy five per cent of money raised went to the Dublin Simon Community, with the balance distributed to local charities in the Grand Canal Dock area.
1 Brown Thomas, Dublin.
AECOM Services: Cost management

2 Belfast City Council, Belfast.
AECOM Services: NEC Project manager & employer’s agent

3 Bon Secours Interventional Cardiology, Galway.
AECOM Services: Cost management

4 Canopy to Main Entrance, Ulster Hospital, Dundonald, Co Down.
AECOM Services: Structural engineering
Emma Stewart Photography

5 Human Biology Building, NUI Galway.
AECOM Services: Cost management
Neil Warner Photography

6 Horgans Quay, Cork.
AECOM Services: Public Realm & Landscape Visual Impact Assessment

7 Conway Square, Newtownards, Co Down.
AECOM Services: Landscape architecture, civil engineering, mechanical and electrical engineering, town planning, cost management, project management, principal designer.
Rory Moore Photography

8 Main Street, Bangor, Co Down.
AECOM Services: Landscape architecture, civil engineering, mechanical and electrical engineering, town planning, cost management, project management, principal designer.
Rory Moore Photography

9 Letterkenny Court PPP, Letterkenny, Co Donegal.
AECOM Services: Independent Tester
Neil Warner Photography
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About AECOM

AECOM is built to deliver a better world. We design, build, finance and operate infrastructure assets for governments, businesses and organizations in more than 150 countries. As a fully integrated firm, we connect knowledge and experience across our global network of experts to help clients solve their most complex challenges. From high-performance buildings and infrastructure, to resilient communities and environments, to stable and secure nations, our work is transformative, differentiated and vital. A Fortune 500 firm, AECOM had revenue of approximately $18.2 billion during fiscal year 2017. See how we deliver what others can only imagine at aecom.com and @AECOM.