AECOM

Built to deliver a better world

review

AECOM Ireland Annual Review 2016

Cover photo:
Lagan Weir Bridge,
Donegall Quay, Belfast.

AECOM services: Architecture, civil and structural engineering, mechanical and electrical consultancy, resident engineering, cost management.

Image courtesy of Rory Moore Photography.

AECOM Ireland Annual Review 2016

Capital Dock,
Sir John Rogersons Quay, Dublin 2.

AECOM services: Cost management, environmental services.

Introduction

2016 — New business dynamic accompanies robust recovery

Last year was good news for Ireland's economy. With the low euro continuing to boost the export market, the Republic of Ireland's (ROI) economy grew by around six percent, making it the fastest growing economy in the European Union for the second year running. It means the ROI economy has reached pre-recession growth levels, with the strongest growth focused in the Greater Dublin Area.

Northern Ireland's economy in the same period also grew by two percent. Of course still good, but whilst it would appear that the rising tide is lifting all boats, the disparity between regions is clear.

This continued surge in growth in Dublin and across the Island of Ireland means that those looking ahead at procuring projects in 2016 can expect rising tender prices and shortages of resources in certain areas. In fact, many specialist contractors in façades, steel and concrete already have their books full well into 2016.

For the survivors of the worst recession in living memory the appetite for renewed growth is definitely present, but this time the approach to risk will almost certainly be different. It may also be difficult for tier one contractors to deliver the likely number of major projects, with large international contractors still drawn to the vibrant London market. The short-term solution to these capacity issues will be dependent on returning emigrants, a new wave of European migrants, and tier two contractors rapidly increasing their resources and output. Successful Northern Ireland contractors who have expanded into Scotland and the rest of the UK may also consider redirecting some of their efforts back to Ireland.

The Republic of Ireland government can be congratulated for managing the economy to the current point. However, there still remain significant deficits in social infrastructure; none more prevalent than that of housing. In this sector, there has clearly been a lack of foresight, hence the need for swift implementation of the recently announced policies and programme for delivery.

In Northern Ireland, the recent agreements in the assembly are positive and should trigger the release of a number of social infrastructure projects as well as investment prompted by the proposed reduction in corporation tax.

Built to deliver a better world, it has also been a year of growth for AECOM — we are now the world's No. 1-ranked engineering design firm*. Experts in all phases of the development lifecycle — design, build, finance, operate and manage — the diversity of our capabilities and global network of 85,000 professionals delivers innovative solutions that improve lives.

In Ireland, we are now over 600-strong with the full range of skills to support Ireland's booming economy — from the outset of the planning and environmental aspects of projects, through to design and construction. Constituent parts of the business have a deep history here, with the project and cost management business having its origins in Patterson Kempster & Shortall, who were already over 50 years old in 1916 and were involved in the reconstruction of O'Connell Street in 1917. Today, we continue to work with some of the island's most ambitious and forward-looking clients, helping to cut through complexity, and transform the communities in which we live and work.

Here's a slice of what we've been doing over the last year and analysis of some of the key trends. Let's now look forward to what will hopefully be another promising year for the industry. Our sleeves are rolled up and we're ready to go.

John O'Regan
Programme, Cost, Consultancy Lead, Ireland

john.o'regan@aecom.com

**According to Engineering News-Record 2015 rankings.*

Institute for Lifecourse and Society, NUI Galway,
University Road, Galway.

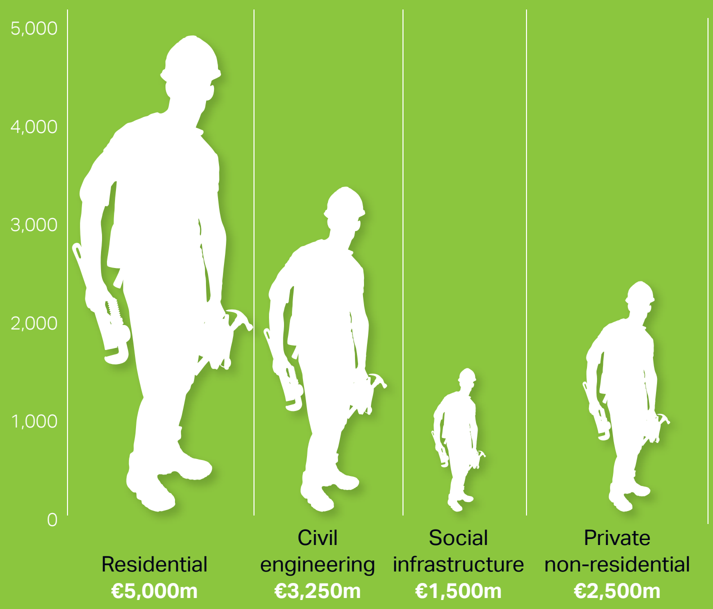
AECOM services: Project management, cost management and employer's representative.

Image courtesy of Neil Warner Photography.

Industry review: Republic of Ireland

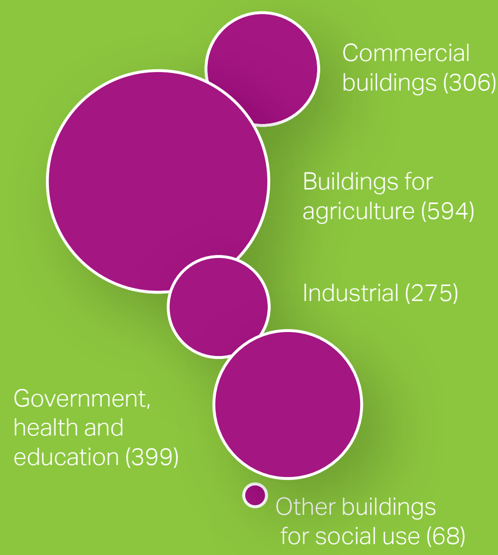
Key statistics at a glance

Construction output breakdown 2015
AECOM estimates (€m)



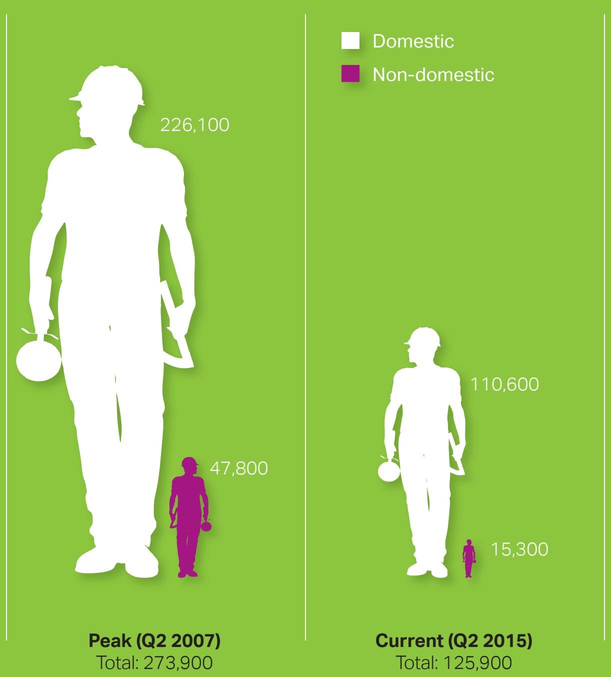
Non-residential planning permission granted July 2014–June 2015 ('000 sq m)

Source: Central Statistics Office



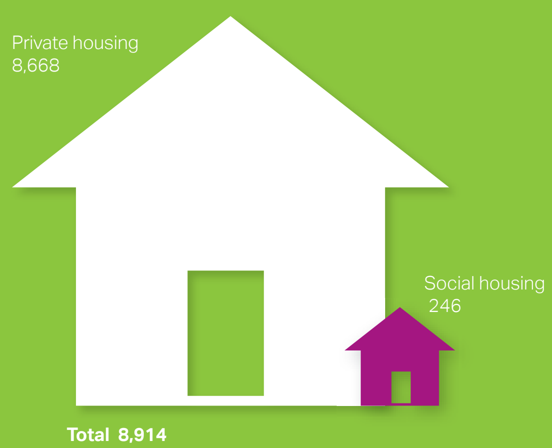
Employment in construction sector
Domestic construction workers and non-domestic construction workers

Source: Central Statistics Office



House completions January-September 2015

Source: Department of Environment, Community & Local Government



2015 performance and medium-term outlook

The sporting analogy of 'a game of two halves' could possibly be applied to the construction industry in 2015; however, whilst it is most commonly used to describe two periods of contrasting fortunes, its application here is of a more subtle nature.

We saw the industry gradually return to growth in 2014 after the dramatic drop between 2007–2011 and this growth pattern has continued in 2015. We would estimate the value of construction output to have been circa €12.25 billion in 2015, a 14 percent rise on 2014.

However, whilst the first half of 2015 continued in a similar manner to 2014, we started to see some stress fractures appear in segments of the industry during the second half of the year. In particular, a number of capacity concerns have arisen in the Dublin market which in turn can have a knock-on effect nationally. Curtain walling and façade system specialists would appear to have very strong order books arising from the increase in commercial and multi-storey residential schemes which are on site or have obtained planning permission. Combined with similar demand pressures internationally, the impact can be programme delays and/or, increased prices over and above standard industry levels.

In a similar context, we would have capacity concerns heading into 2016 in respect of main contracting and specialist contracting (mechanical and electrical). Specifically in respect of high value fast-track projects and highly serviced €100 million+ projects in the Foreign Direct Investment (FDI) sectors. The primary reason for this concern would be the limited number of entities considered capable of delivering on projects of this nature and the resultant tendering in a restricted list. During the downturn a considerable number of the larger organisations went out of business and others scaled back significantly, thus the willingness and ability to ramp up will undoubtedly be a factor in the coming years.

In Figure 1 we see double digit growth in output in the last couple of years and it is anticipated to continue in 2016. Whilst employment has also increased strongly, it can be seen that it is less volatile. There is a risk, and some signs in the last 12 months, that if this lack of equilibrium continued or widened, it may cause a spike in tender prices.

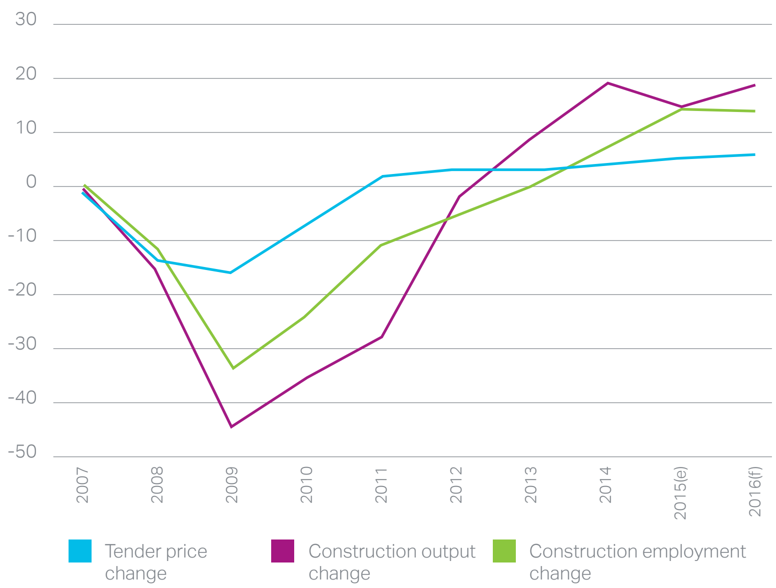
Two key developments in 2015 included:

- The Office of Government Procurement (OGP) instigated consultations with industry in respect of the Public Works Contracts (PWC) and the proposed interim measures to be implemented in the near future.
- The residential property market has come under significant strain, particularly in the greater Dublin area, and throughout the year the pressure has also mounted in respect of social housing.

In summary, confidence has returned to the construction sector and economy generally as evidenced by the Ulster Bank Construction Purchasing Managing Index Report, whose October results indicated a sharp increase in new business which was central to improvements in activity, employment and confidence. However, our note of caution in last year's Annual Review — that the upturn has been concentrated in the greater Dublin area — continues to hold true. Notwithstanding this, we have seen the beginnings of recovery in the regions with an increase in the number of enquiries, along with previously shelved projects being revisited. This all bodes well for 2016 and beyond.

Figure 1

Change in tender prices, and construction output and employment (%)



Employment data source 2007-2014: Central Statistics Office

Sector performance

In any recovery there is a train of thought that a rising tide lifts all boats and indeed 'everything else being equal', the general principle of an economic recovery benefitting all should apply. Of course the 'everything else being equal' is the difficult piece and, just as reflected in the rate of recoveries in the regions referred to earlier, the performance of different sectors, and as a consequence the construction activity in same, also varies. In the following sections, we take an overview of the key sectors and the outlook for 2016.

Public sector
The public finances have shown good recovery in 2015 with employment up and consumer spending increasing, leading to increased tax revenue as well as a reduction in social welfare payments. However, coupled with this, the growth in the economy in 2015 of circa 6 percent increases the potential amount of borrowing in absolute terms which the government can take on in 2016. The Irish government's Budget 2016, which was preceded by the publication of the government's six-year Capital Plan 'Building on the Recovery: Infrastructure and Capital Investment 2016–2021' included a -1.5 percent decrease on 2015 in exchequer capital investment. The investment plan shows increases in subsequent years to 2021, see Table 1 opposite. Figure 2 below illustrates the split across the key capital spending departments.

An increasing area of importance is non-exchequer capital spending arising from the re-commencement of the public-private partnerships programme and spend by semi-state bodies. In the case of the latter a significant proportion of capital spend can relate to supply of plant and equipment, nonetheless semi-state activity is an important contributor to the construction industry.

Residential
The residential sector would still appear to be in a dysfunctional state. Since the economy came out of the crash it has been struggling to cope with the stresses of oversupply in some areas, undersupply in others and in particular a severe shortage of social housing provision. Social housing has suffered from years of under-investment, an increase in demand from a growing cohort of would-be purchasers unable to meet the Central Bank's revised mortgage lending ratios, housing benefit individuals/families unable to meet rising rent in the private sector and the homeless.

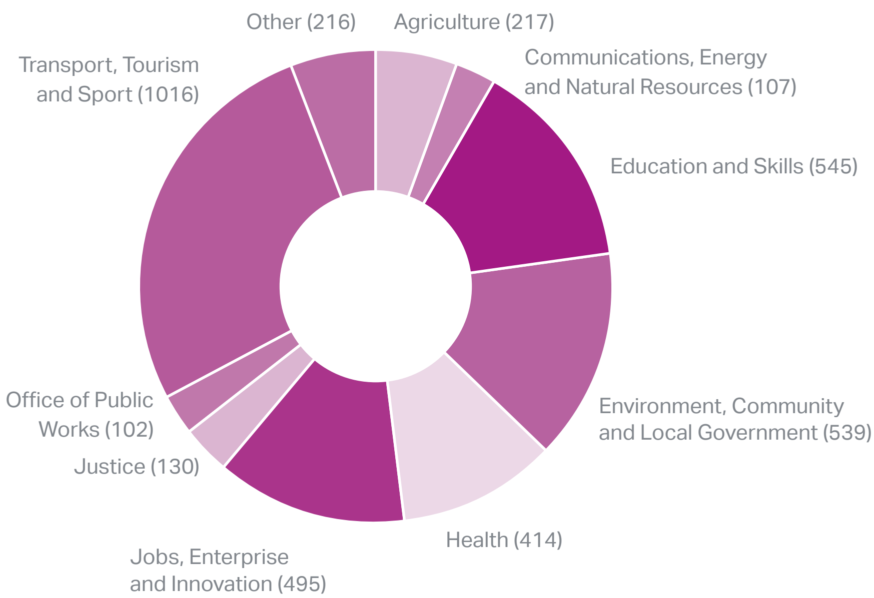
In the first half of 2015 we started to see the cost of developing new residential units start to make economic sense when compared against the cost of buying surplus stock. In addition, the better located and quality surplus stock or work in progress which was idle in the immediate aftermath of the crash had been purchased at that point, thus a shortage was emerging in key markets, particularly in Dublin. However as noted above, with rising rents exasperating a social housing problem a public debate ensued in the second half of the year leading to general uncertainty.

In response to this growing problem, the government announced a series of measures in early November aimed at bringing stability to the market. These included rent reviews every two years as opposed to every year. They also introduced measures aimed at

Figure 2

2016 exchequer funded public capital programme (€m)

Source: Department of Finance Budget 2016



West Cork Arts Centre,
Uillinn, Co Cork.

AECOM services: Project management, cost management, employers representative.

Image courtesy of F22 Photography.

priming supply by reducing the costs of development, with rebates on levies of starter homes in Dublin and Cork, and standardising apartment standards.

Undoubtedly the number of completions in 2015, estimated to be circa 12,000 units, was adversely affected by the uncertainty of the second half of the year. We expect the recent measures will first and foremost provide a level of certainty and an impetus to kick start some residential development however, given the Central Bank restrictions on lending ratios and the rebates being on units under €300,000, the bulk of the development will be in the starter home market.

Finally, it should be noted that we had a number of reminders in 2015 of the legacy quality issues that lay undiscovered during the building boom which demonstrates the importance of the current building control amendment regulation requirements.

Commercial market

The pending shortage of large footprint commercial offices led to a noticeable increase in office floor space granted planning in 2014. A number of these schemes were advanced in 2015, and we expect this trend to continue through 2016 and 2017 as Dublin city centre Grade A accommodation remains in short supply, with the majority of that under construction being pre-let. Investment funds continue to be active, and we anticipate they will continue to seek out opportunities for further acquisitions and to maximise the value obtainable through re-development where necessary and achievable.

Outside of Dublin new build activity is restricted. Demand for space is increasing and similar to Dublin, large, good quality accommodation is limited.

Table 1

Multi-Annual Capital Investment Framework 2016-2021 (€m)

	2016	2017	2018	2019	2020	2021	Total
Agriculture, Food and the Marine	217	208	208	208	208	208	**1,257**
Communications, Energy and Natural Resources	107	107	137	192	192	192	**927**
Education and Skills	545	599	623	654	700	700	**3,821**
Environment, Community and Local Government	539	623	709	685	700	700	**3,956**
Health Group	414	454	473	550	570	600	**3,061**
Jobs, Enterprise and Innovation	495	525	490	500	500	500	**3,010**
Justice Group	130	157	118	150	160	160	**875**
OPW	102	102	127	137	147	157	**772**
Transport, Tourism and Sport	1,016	1,015	1,167	1,238	1,607	2,000	**8,043**
Other	216	180	178	286	216	183	**1,259**
TOTAL	**3,781**	**3,970**	**4,230**	**4,600**	**5,000**	**5,400**	**26,981**

Source: Department of Finance Budget 2016

Newcastle Promenade,
Newcastle, Co. Down.

AECOM services: Landscape architecture, civil engineering, structural engineering, quantity surveying and resident engineering.

Industrial

Similar to the residential sector, the crash resulted in a large stock of vacant units and as a result investors or occupiers can purchase units at a lower cost than new build and even allowing for modifications, can obtain better speed to market.

Thus, construction activity in the industrial sector in 2015 has been almost entirely owner occupier new build and/or expansion of existing facilities. With exports continuing to grow strongly in 2015 (17.5 percent increase in first nine months of 2015 compared to same period in 2014) and a steady stream of new announcements from IDA Ireland backed foreign direct investment, the prospects for construction activity in the industrial sector are strong.

Retail

Consumer spending in 2015 continued on the upward trend and boosted confidence within the sector. This confidence in turn has helped to boost retail construction activity with expansion plans announced for out of town locations such as Liffey Valley, Dublin, continued expansion of budget supermarket chains, and investment in renewing a number of high street brands and forecourt convenience stores.

Notwithstanding this improved confidence, the challenging financial environment makes capital investment decisions more difficult thus, whilst we would expect further growth in this sector in 2016, it will remain considerably less than that of a decade ago.

Tourism, sport and culture

The tourism sector has become an increasingly important sector in the Irish economy. Estimated to have generated more than €6 billion revenue in 2014 it is a key stimulator of activity in the construction sector. In particular given the number of transactions in the hotel market, new owners and/or operators bring new investment in the refurbishment or re-positioning of the property.

Again, Dublin features strongly in this sector with room rates increasing as the bed shortage intensifies. As such there will be an appetite for building new hotels or extensions in the Dublin market. Regionally the focus is more likely to continue to be transactional. Following on from the huge success of the Wild Atlantic Way, Failte Ireland have embarked on a significant investment programme providing grant assistance to a range of projects to promote their new initiative — The Ancient East. This will provide an important stimulus to economic activity and in turn construction.

Civil infrastructure

In the recent government "Capital Plan 2016–2021" a capital investment envelope of €9.6 billion was identified for the next seven years.

Of this, €6 billion relates to investment in national, regional and local road networks including a 2016 capital programme with provision for the maintenance of circa 2,000 kilometres, and improving over 2,000 kilometres of local and regional roads. In addition a number of key national route schemes such as the N17/N18 Gort to Tuam will continue, and new projects like the New Ross bypass and Gorey to Enniscorthy route will get underway.

The seven year programme also includes €3.6 billion for public transport. The headline project in this sector is Metro North which is planned to be operational by 2026/27. The current seven year plan includes the completion of the LUAS cross city project, the re-opening of the Phoenix Park tunnel and completion of Dublin city centre re-signalling programme.

The Irish Water €1.77 billion Capital Investment Plan 2014–2016 is on-going and we are now seeing regular announcements of contracts being awarded for a range of schemes across the country including Roscommon, Kildare and Donegal announced in the first week of the year. The recently published Water Services Strategy Plan lays out Irish Water's short, medium and long term goals over the next 25 years.

The recent onslaught of bad weather has brought the subject of flood defences back front and centre when similar events of 2009 are still fresh in people's memories thus we will undoubtedly see efforts to accelerate a number of the schemes which have been progressing through planning and design.

Construction costs and tender prices

Competitiveness is key to sustaining any recovery and the Irish construction industry has, whether by necessity or design, maintained tender inflation at modest levels over the last five years. Of course the ability to do this is heavily dependent on costs similarly being contained. We review the trends emerging in 2015 and look ahead to anticipated activity in 2016.

Construction costs

The euro was weakened against both sterling and US dollar through 2015 which put pressure on the price of imports. Notwithstanding this, the overall level of increase in construction material prices averaged 1.1 percent in the 12 months to September 2015. This included a range of price increases including stone at +9.3 percent, bituminous macadam and asphalt +6.4 percent, lighting equipment +5 percent, decreases of -6.3 percent in sand and gravel, and ready mix concrete -2.4 percent.

Since the Supreme Court ruled against the system of Registered Employment Agreements in 2011 there has been a degree of uncertainty in respect of labour rates. In response to this the government introduced 'The Industrial Relations (Amendment) Act 2015' in August. It provides for the establishment of Registered Employment Agreements and Employment Regulation Orders (ERO). It is likely that industries such as the construction industry will move to introduce ERO's, and we have seen examples of this in October when two ERO's were introduced for the security and contract cleaning sectors. It is also likely that there will be pressure to increase pay rates in 2016 in conjunction with the establishment of an ERO.

We anticipate that construction costs will on average increase by circa 2.5 percent in 2016.

Tender prices

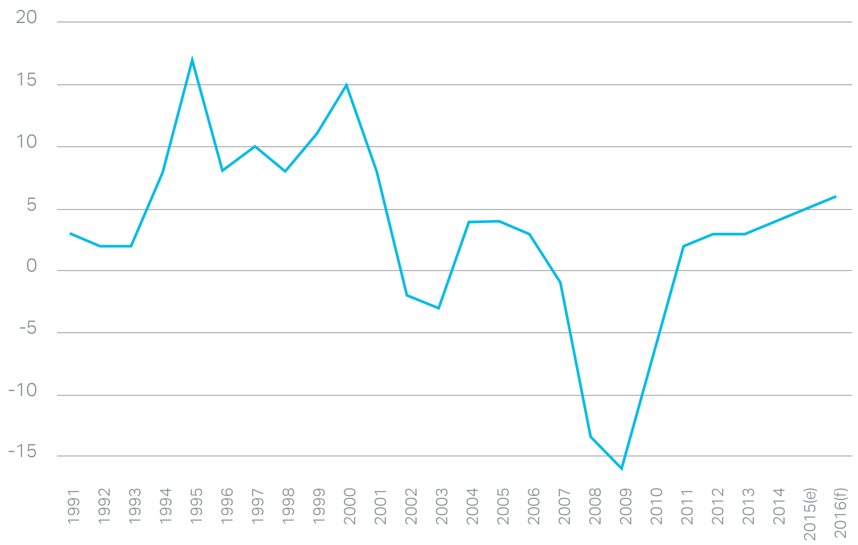
As noted earlier and illustrated below, tender price increases over the past five years have remained at modest levels. This has contributed to restoring sustainable competitiveness after a number of years where the prevalence of abnormally low tenders was a feature of the industry.

It is important however that the competitiveness and value for money that has been available over the last couple of years is not eroded with high inflation rates. In that regard 2015 saw tender price increases of circa 5 percent which, if exceeded or repeated over a number of years, would reduce that competitive advantage. Similar to the cost index, tender indices represent average figures, and individual elements and location factors will combine to generate same. Among the cost drivers which have shown most volatility have been preliminaries for both main contractors and specialist sub-contractors. In addition, contractors approach to risk and pricing of same has hardened over the last 12 months.

Looking forward to 2016 we anticipate that tender price inflation will continue at an average of circa 6 percent with variation dependent on location. The regions should have inflation of circa 5 percent whereas the greater Dublin area will have circa 6 percent–8 percent.

Figure 3

AECOM Tender Price Index (%)



Visit Belfast,
9 Donegall Square North, Belfast.

AECOM services: Architecture, interior design, civil and structural engineering, mechanical and electrical, project management, cost management.

Image courtesy of Rory Moore Photography.

Industry review: Northern Ireland

York Street Interchange,
Belfast.

AECOM services: Engineering design, digital media.

Northern Ireland

The Northern Ireland (NI) economy is expanding at an annualised rate of 1.3 percent to Quarter 2 2015. This is lower than the United Kingdom (UK) and Republic of Ireland trend, but growth none the less. The brighter side of this statistic is that construction contributed up to 1 percent of the total 1.3 percent growth. The economy has still some way to go to get back to the peak output achieved in 2007/2008, and a sustained recovery will remain dependent on recovery in the UK and the Republic of Ireland.

Having lost twelve months in deadlock, the recent political agreement on departmental spending and devolution of corporation tax will allow business and government departments to better plan their capital expenditure for the future years. It is hoped this will give both business and government fresh confidence to push shovel ready projects out to market. In our opinion, it cannot be overestimated the positive effect of reducing corporation tax to 12.5 percent from April 2018 will have on private investment in NI.

Grade A commercial office accommodation remains in short supply in Belfast and this is driving rental costs up. Headline rentals are up approximately 20 percent over the last twelve months with less attractive rent free periods or contributions. The market is beginning to respond to this with the construction of new space in Belfast; however more space will be required over short and medium terms.

Retail space in NI still has relatively high vacancy rates, however, there is an obvious recovery taking place in Belfast with the change in rating policy — therefore town and city centre locations are becoming more attractive again.

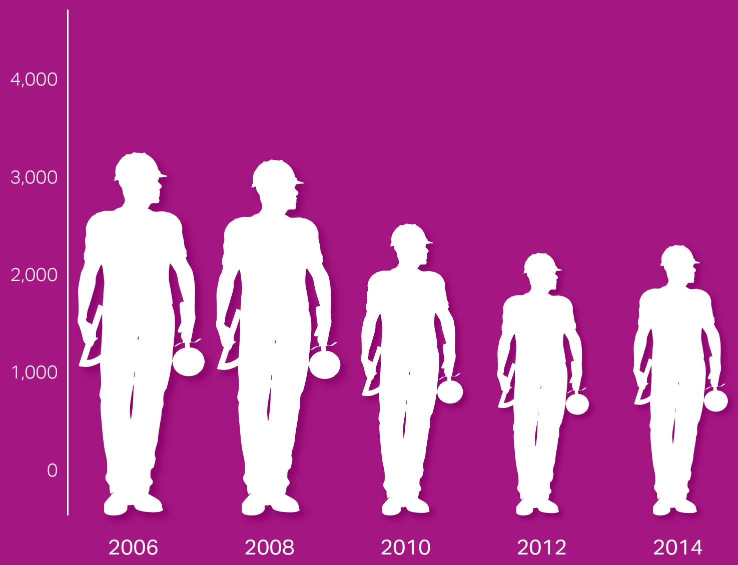
There has been some consolidation amongst building contractors which is thought will lead to more sustainable companies for the future. As with last year the local tier one contractors have built successful relationships in Great Britain and much of their work is now centered on delivering within that market. To an extent this has led to the contractors being more selective about the opportunities they are tendering for locally. It is likely this will encourage some inflation within tender prices over the next twelve months.

The residential market has started to gain momentum with house prices up more than 10 percent year-on-year and this trend looks set to continue. It is noted that house prices are still significantly below their peak of 2007/2008.

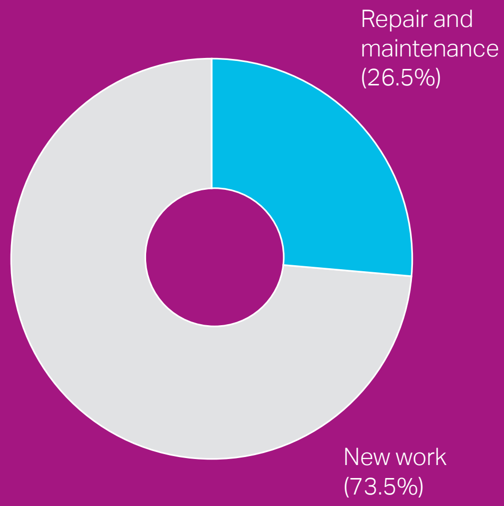
In conclusion, it is expected that the recovery in the NI construction and property will continue at a modest but sustainable pace.

Key statistics at a glance

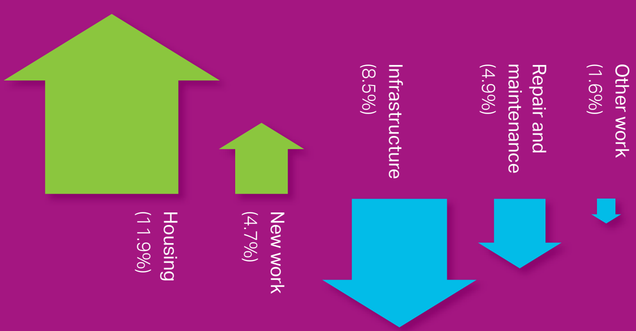
Construction output (£m)



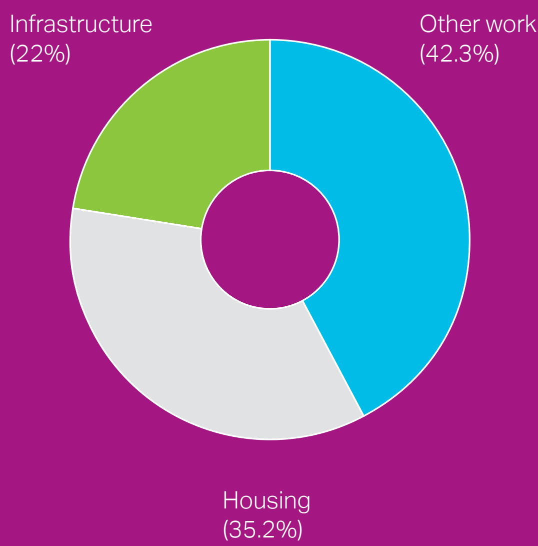
Overall construction output, broken down into new work and repair and maintenance



Sub categories of construction output Q2 2015



Overall construction broken down into housing, infrastructure and other work



Source: Department of Enterprise, Trade & Investment Construction Output Statistics.

Percentages do not always tally to 100 as each category is individually deflated and seasonally adjusted.

Green Room Restaurant,
LIT, Moylish Park, Limerick.

AECOM services: Project management and cost management services.

Image © Bowe O'Brien Photography.

Business intelligence

To assist in understanding the wider economic and political context in which the construction industry sits, and to picture some of the different perspectives, we have spoken to key industry leaders for their thoughts on major questions.

Martin Shanahan,
CEO, IDA Ireland

IDA Ireland continues to be very successful in attracting foreign direct investment. Do you anticipate continued growth in the volume of investments in the next couple of years, and if so, what level of growth do you see as being achievable?

We set out a very clear strategy in March of 2015 with our goals for the next five years. This included 900 new investments, and 80,000 jobs gross associated with those investments, in that period. Ireland by any objective measure achieves much more foreign direct investment than one might expect given our relative size, IDA has always set itself a high bar in terms of attracting investment and we have set ourselves a high bar again.

Within these goals it is also important to state that as well as achieving high levels of investment we have also set new targets around the dispersal of those investments across the regions. We have said we will aim to increase investments in the regions outside of Dublin by 30 percent to 40 percent over the lifetime of the strategy, which again is a stretch target, and that we will achieve the same high level of investment into Dublin as we have in the past five years.

What sectors do you see driving growth in investment and will the United States continue to be the pre-dominant origin of inward investment?

We concentrate on a small number of core sectors; technology, life sciences, financial services, engineering and food. We have been extremely successful in the technology area and Dublin is seen as a tech hub. We see that success continuing with on-going announcements from the large tech companies and a range of small companies, which we expect to be the next Facebook, Google, Amazon, Microsoft etc.

Life sciences, which can be broken down as pharma, bio-pharma and medical devices, is also performing strongly and in particular bio-pharma, where we have seen some really significant announcements, such as BMS, Alexion and Regeneron to name a few. We are also seeing strong performance in the sub-supplies sector such as Abec in Fermoy and Optel Vision in Limerick which supply this market.

About 70 percent of our investments come from the United States, followed by Europe at 20 percent and 10 percent from the rest of the world. We would like to see them all grow in absolute terms but we would like to see Europe and the growth markets of Asia, South America, Russia and BRIC (Brazil, Russia, India and China) countries essentially growing faster which would balance the portfolio.

In recent years IDA Ireland has adopted a policy of developing a number of Advance Units in regional locations. Has this policy been an initiative to meet client requirements for speed to market or an initiative to promote regional locations or both? Is the policy likely to expand in the coming years?

It is a bit of both. Certainly in terms of winning investments the easier you can make it for clients and show that you have a turnkey solution, the more it puts Ireland on the map in the first instance and then the regions the solutions are in. You are right also that there is a regional policy aspect to it, in that we want to attract more investment to the regions.

Just to be very clear the reason we are back in that market of building advance units and office buildings, nine of which are planned over the next three years, is because the private sector has not stepped up to deliver those solutions. The more the private sector can deliver solutions the better, and it is not necessarily an area we want to be actively involved in the delivery. That is not to say we are not in constant discussion with clients about property. We have a large property division in IDA however it isn't just about property, it is also about strategic sites and land availability. We have invested in the acquisition of land banks and utility intensive strategic sites, and that has worked extremely well for us.

Competitiveness and future skills needs are both subjects which the construction industry is acutely aware of and they are often intrinsically linked. How is Ireland performing in this regard and are there any areas of particular concern from an IDA Ireland perspective?

In terms of what we do, attracting foreign direct investment, it is extremely competitive. We are competing with a multitude of countries and I'm not sure it is fully understood the level of competition there is; it is all hard won. In order for us to continue to be competitive we need to ensure we have the talent, the right people and they are aligned through the education system that enterprise needs. There has been good work done in this, but I think there is always room for improvement in that space.

Keeping costs competitive is a really important issue for us and that is all costs, including labour. One of the concerns is, having gone through a difficult economic period where cost competitiveness rectified itself, that now as an economic recovery takes hold we don't become un-competitive again; that is hugely important.

Are there any other infrastructural problems which are emerging as road blocks to investment?

As I look at the pipeline going forward the availability of commercial and residential properties is potentially a limiting factor in the future. If I look at Dublin I can see enough Grade A office accommodation coming on stream over the next 18–24 months which is going to help us greatly. What we need is a steady supply, and not peaks and troughs.

On the residential side it is potentially a limiting factor in Dublin, so what I would say from a competitiveness perspective, both commercial and residential property are very important.

Are there any new areas of interest or initiatives which you see IDA Ireland pursuing in the coming years?

In relation to sectors, one area that we are extremely interested in is convergence between sectors, whether it is pharma and medical devices or technology and financial services.

We are also looking at attracting foreign direct investment in new areas such as marine, arts and culture. The global explosion of the business services sector has been empowered by rapid technological developments, which have allowed traditional services, such as financial and globally traded business, to be dispersed worldwide and new categories of service activities to develop.

In this regard property led investment in managing portfolios outside of Ireland is an area we are focussed on. Technology is having an impact on everything and making a lot of the convergence happen, so where things which were not internationally mobile previously because they had to be done close to market are now absolutely mobile so we look at those trends all of the time.

Professor Neil Gibson,
Director of the Ulster University Economic Policy Centre

2015 saw significant political impasses in Northern Ireland. What impact, if any, has this had on economic activity in Northern Ireland (NI)?

Any form of instability can't be good but we should start by reflecting on the fact that it is now behind us, and the 'Fresh Start' agreement unusually came with a change in policy direction about corporate tax which sent a message that they were back in government with some business-focussed changes.

I think we are actually in quite a good place at the end of the journey in 2015. During the year, the impasses had a marginal effect perhaps on investors who were just about to make a decision. In terms of people already doing business in Northern Ireland it's more tangential. The 2015 growth figures are not hugely affected by the political instability.

What is the Economic Policy Centre forecasting in terms of economic growth in Northern Ireland and the Republic of Ireland for 2016 and 2017?

I would see the prospects for growth as fairly modest for Northern Ireland because austerity is very difficult. We are only arguably in the middle of the journey that the Republic of Ireland has finished. We now have to deal with cuts in the public sector, which is the biggest employer in Northern Ireland.

If Northern Ireland can get to two percent growth, that would be an achievement. I don't think austerity will drive us back into recession territory unless rapid interest rate rises were to come. For so long as our private sector is the size it is, it remains a 'two percent economy' without the potential to match the rates of growth in its southern neighbour.

In terms of the Republic of Ireland, one of the significant risks is money is too cheap for a six percent growth economy and it won't be able to put rates up when it needs to, rather they will go up when Europe needs them. So although these are good problems, overheating problems, they present a different set of challenges.

Do you expect the recent devolution of corporation tax powers from the UK government to the NI Assembly to have a significant impact in terms of Foreign Direct Investment?

There should be some announcements from companies that are already here in Northern Ireland. In terms of new green field announcements, you are expecting more of that effect to come when the power is actually here. If you could go somewhere very close to here where they already have a low rate you would need to have a very compelling reason to go somewhere that will have one in three years.

That said, Northern Ireland has a number of other advantages; it is very competitive from (a) a salary perspective in some sectors, (b) rent, (c) cost of living, and (d) because we don't have the European parent to the same degree that the Republic of Ireland has, we can offer more flexibility which has the potential to be quite crucial and changes the dynamic about what Northern Ireland is.

Our modelling work would suggest that the corporation tax will be a very important driver of inward investment activity and expansion of existing firms. The danger with corporation tax from a Northern Ireland perspective would be if we saw it as the solution to all our problems, it is one part of the tool kit.

Has the economy in Northern Ireland got a two tier market vis-à-vis Belfast and the regions?

Yes it has, similar to that in the Republic of Ireland. However, there has been investment in industry — the agriculture sector has done quite well on the island, and industry such as pharma in the Republic or transport equipment in Northern Ireland around aircraft, heavy machinery/quarrying and tourism. That sectoral composition has been more of a tapestry than people might have thought and has allowed some regional opportunities.

That said, the heavy lifting in job creation remains professional services. Although a two tier market has come to pass, it hasn't been as acute as I thought it would because of this eclectic mix of sectoral growth, and that has to be something that inward investment agencies and government policies continue to promote.

What is the current status in Northern Ireland in terms of availability of finance for both property developers and the consumer seeking to get on the property ladder?

Taking the consumer first, conditions have improved considerably, we are back to fairly normal consumer lending.

On the commercial side, it is more difficult because there is very little support in off-the-shelf finance for speculative build. There is almost nobody in that space and no sign that any of the institutions want to be there. You might see the public sector getting involved to some degree although they will be very cautious; they are not awash with money either to do speculative build. It might involve some public sector underwriting of the risk market. If that is the case it will be a very unfortunate outcome but not one that we could rule out at this time if it takes rapidly escalating rental costs to finally drive investment in the market.

Are there any policy initiatives which you would advocate to the NI Assembly which would stimulate activity in the NI construction industry?

A couple would spring to mind for me; one of the critical changes is planning going to local councils, it is finely balanced as to whether this will be hugely beneficial or damaging to local development. So the executive should be collecting good data on planning permission statistics and quickly decide if we need to give councils any support.

The second thing I would think about is an appropriate rating policy. For example, Northern Ireland has very generous rating reliefs on vacant property; you want to start to think about rising rates quite quickly on vacant properties. More controversial measures might include making existing sites with planning permission but not in productive use more expensive to hold onto. Rates have the potential to significantly influence behavior and consequently economic development. It is a fully devolved matter, and the current systems of reliefs and exemptions is not strategic, and in fact acts as a disincentive to

invest and improve. Radical change in this area could be transformative.

What advice would you give to construction firms in terms of how they can better structure themselves to promote innovation and, in turn, generate higher growth?

Partnerships are critical. I think for all organisations, you will not have all the skills sets within your own organisation necessarily. You will need skills you never thought you would — be it Information Technology, leadership or organisation structure skills — so the conversations that needs to take place are with the local further education colleges and higher education institutions or trying to avail of the multitude of programmes that Invest NI run. Often it takes someone from outside to tell you what you need, so bring in experts to review your firm.

West Cork Arts Centre,
Uillinn, Co. Cork.

AECOM services: Project management, cost management, employers representative.

Image courtesy of F22 Photography.

Clancy Quay,
Islandbridge, South Circular Road, Dublin 8.

AECOM services: Cost management, environmental services.

Geographies

Ireland

The performance of the construction industry across the different regions of Ireland will have a lot of commonality as the underlying general economic performance feeds through the economy. However, regions outside the greater Dublin area are more dependent on public capital spending and thus these regions will tend to lag behind any Dublin based private investment driven development.

We summarise below our overall prognosis and identify some of the key projects in the regions.

Cork and the southern region
The Cork construction industry has stablised and started to grow over the course of 2015, and we are seeing the return of sustained construction tender price inflation. Cork sub-contractors downsized considerably in the downturn and with a few large projects planned in 2016, we are anticipating a shortage of suitable sub-contractors for trades such as concrete, formwork, plastering, façade systems, mechanical and electrical.

On the commercial side, Cork is still lagging behind Dublin; however, 2016 will see the first commercial building of notable size being completed by John Cleary on Albert Quay in Cork City. There are also plans for construction to begin on the old Capital Cinema site and Apple has announced 1,000 more jobs for their headquarters in Cork.

Demolition has started for the redevelopment of Páirc Uí Chaoimh and we can expect construction to start on the €70 million redevelopment in early 2016.

In the residential sector, NAMA is currently building out properties in Carrigaline and other locations. There are also pockets of small private residential developments but these are insufficient to supply the current demand. Viability is still an issue when cost of construction, levies and contributions are factored in, thus the inclusion of Cork in the proposed abolition of development levies is to be welcomed. O'Flynn Construction has announced plans for 10,000 homes in Dublin and Cork over the next eight years. We may also see construction activity in early 2016 on their current sites in Ballincollig, Mount Oval, Belfield Abbey and Crosshaven.

In education, plans for an €18.5 million extension to Scoil Mhuire Gan Smal in Blarney are underway with construction planned to start in 2017.

In healthcare, the Health Service Executive are hoping to break ground in early 2016 with a new primary care centre in St. Mary's Health Campus. On the private side, the Bon Secours Hospital recently announced that it plans to begin construction of the eagerly awaited North Block extension on College Road, Cork.

The foreign direct investment market continues to be a cornerstone of the industry in the regions and we have continued to see a string of IDA Ireland announcements in the region recently including international brands such as Apple, GE Healthcare and Pfizer to name a few.

Below left: Curragh Racecourse,
Curragh, Co. Kildare.

AECOM services: Civil and structural engineering, cost management, mechancial and electrical engineering, fire safety consultancy, project supervisor design process, façade and assigned certifier role.

Image copyright (c) Grimshaw.

Above: Maree National School,
Maree, Oranmore, Co. Galway.

AECOM services: Cost management.

Limerick and the mid-west region

In 2016 construction activity in Limerick and the mid-west is primed to take a major step towards catching up with other regions that experienced economic recovery more quickly. While there is still a reliance on public sector projects, there is also optimism that the levels of private sector activity will accelerate significantly in 2016.

The Limerick City & County Council draft budget includes a capital programme for 2016 to 2018 that will see €219 million spent on major projects in the city. The programme includes proposals to complete vital projects and key pieces of infrastructure such as the Opera Centre and the redevelopment of Arthur's Quay, the 'Hanging Gardens' site on Henry Street and a proposed conference centre on the site of the former Cleeve's factory. Also included is funding for various infrastructure projects such as the landmark Shannon Pedestrian Bridge.

The Limerick Regeneration programme continues apace, particularly in the housing sector. Phase 1 of the Churchfield project in Southill should commence early in 2016 with further projects in Southill, Cosgrave Park, Weston Gardens, Carew Park and Kings Island to follow.

The local third level institutions continue to develop their campuses. Mary Immaculate College is expanding its campus by acquiring and refurbishing the nearby Mount St Vincent complex and is looking to develop a major new learning resource centre to replace the existing library. Limerick Institute of Technology is proceeding with its Campus Masterplan 2030 with the recent acquisition of the vacant Coonagh Cross Shopping Centre for phased re-purposing and fit-out as higher education facilities. The University of Limerick (UL) is currently constructing a 'Single Training Centre' for Munster Rugby, and imminent projects are the extension to the Glucksman Library and the South Campus Sports Pitches Improvement Plan.

In the healthcare sector, the joint venture CERC project with UL is currently under construction and the fit-out of the new emergency department has recently commenced.

The Shannon Airport Authority will be carrying out substantial runway refurbishment works in 2016. Work recently commenced on Shannon Commercial Properties' new €6 million purpose-built facility for a leading global operator and employer in the Shannon Free Zone. This is the first major investment as part of a €21 million first phase of a programme of new builds and upgrades of its property portfolio.

Regeneron is investing an additional €330 million in Limerick creating 200 more jobs, bringing the total investment to €610 million and total expected job creation in the mid-west area of 500 jobs.

Council Chambers,
Galway County Council, County Hall,
Prospect Hill, Galway.

AECOM services: Cost management, assigned certifier role.

Galway and the western region
Private sector construction activity has remained stubbornly slow in the western region through 2015 and the industry has been reliant on the public capital programme as the primary driver of output. It is likely that any growth in exchequer funding for capital projects will remain constrained over the next few years, thus we will need to see an improvement in private sector activity in order for the industry to show an improvement in the region.

2015 saw a number of significant announcements which will impact positively in construction activity in 2016 and subsequent years. Among the most significant announcements was the €850 million data centre announcement for Athenry, Co. Galway. Planning permission was granted in September and it is currently with An Bord Pleanala.

The Galway City Transport Project N6 Route Selection Report was published in August however this much needed infrastructure project is still some distance away. On a more positive note, M17/M18 Gort to Tuam motorway extension and intersection with the M6, near Athenry is advancing well on site.

In common with other regions, other public sector departments have an active public capital programme across the region. Examples include a 75 bed ward block at University Hospital Galway. The recently announced Department of Education & Skills schools building programme including seven school projects to go to site in Galway during 2016 in areas such as Monivea and Lackagh, and a further four planned for 2017. In the third level sector, NUI Galway has lodged plans for a 450 bed student accommodation development on campus.

In the private sector the hotel and tourism sector remains a key economic driver in the region and 2015 was another strong year. The strong dollar and sterling currencies have contributed to increasing numbers and this in turn raises confidence amongst investors. There has been strong activity with hotel transactions across the region and investment in facilities such as the recently completed restoration and refurbishment of Ashford Castle. On the retail side vacancy rates remain very low in Galway city centre and no new significant developments have emerged. 2016 may see the market respond to the growing economy and consumer confidence.

Similarly, office accommodation vacancy rates are in single digit percentages, and this low level of available Grade A accommodation may be making potential businesses look elsewhere. It remains to be seen if the domestic and international investors who have been actively developing commercial property in Dublin will start to invest in regional cities such as Galway which has a combination of strong business base and a highly educated work force.

Central Bank of Ireland,
North Wall Quay, Dublin.

AECOM services: Cost management, civil and structural engineering service, façade engineering.

Image courtesy of Visual Lab.

UK market forecast: A change of mood

Trends and forecasts
With demand outstripping supply, selectivity was the dominant theme for contractors in 2015. This was while enquiries and new orders flowed strongly. Market conditions around the country followed similar trends.

Feedback from every region confirmed the common trend for contractors to decline complex work while more straightforward, less risky opportunities proliferated. Further, commercial positions changed significantly among all the major contractors with regard to overheads, and profit and allowances for risk.

Extra tendering time was more frequently requested, a higher number of projects were negotiated rather than tendered, along with a general reluctance to tender due to the time and cost involved. Difficulties in attracting tenderers resulted in the need for packaging work or using more creative procurement approaches.

But the summer brought the first signs of a shift in mood among main contractors. Like the seasons coming around again, the idea of single-stage tendering or anything other than a negotiated procurement route is no longer unspeakable. The increasingly common complaint with a negotiated or a two-stage tendered approach is that it can take too long to reach a contract agreement.

Activity indicators
Recently published construction output data by the Office for National Statistics (ONS) saw a fall in all work (new work, as well as repair and maintenance) of 1.3 percent on a yearly basis at August 2015, yet the data posted an increase in new work of 3.1 percent over the same period (in constant prices). Fluctuation in monthly data movements therefore continues.

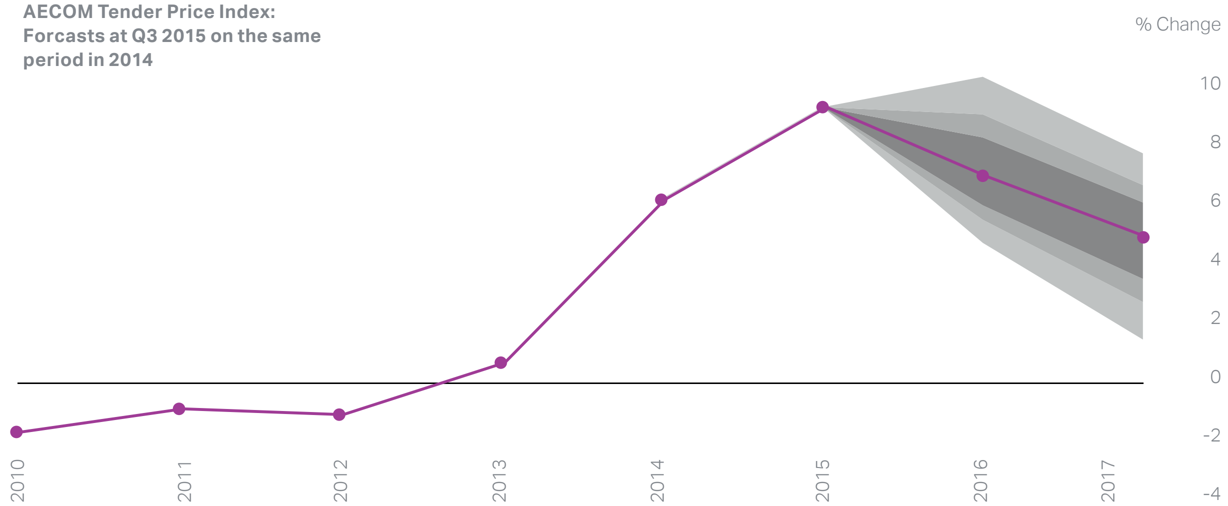
Despite the volatility, the data set comprises a large survey sample and arguably yields sound insights into underlying trends in the construction sector. Removing noise in the ONS data and attempting to mitigate its perceived volatility, rolling quarterly averages recorded similar trends to those at a monthly level, albeit with smaller percentage changes.

Non-housing sectors are beginning to contribute more to overall output, just as housing activity moderates. Output changes are particularly acute in public sector housing, seeing a 29 percent yearly decline in August (in constant prices).

Construction output excluding housing increased in excess of 8 percent year-on-year. That said it is still not enough to offset overall output changes posted in August. This underlines the effect of the housing sector's influence on recent industry conditions.

Looking at the data in more detail reveals the changing fortunes of sector activity. New infrastructure work has increased strongly in the last year, posting a yearly change exceeding 31 percent in August. It now accounts for just under a quarter of all new industry work, up from around 17 percent a year ago. Although the base effects play a part in the yearly change calculation, it is more likely to do with much greater volumes of infrastructure workload emerging in the sector.

Figure 4
AECOM Tender Price Index: Forcasts at Q3 2015 on the same period in 2014



The commercial sector, specifically in London, is set to contribute sound construction growth over the next two years. This expected rise in office construction is the response to demand for new space in London, on the back of positive UK economic developments. Rising rents make the fundamentals for office construction tenable, with rental growth in London predicted to improve further still. Declining availability and rising City and West End rents both support the supply and demand sides of the market. Further tender price pressure can be expected in London as a result of this increase in demand.

Forecasts for construction work over coming years are still positive, although output growth is not expected to be as frenetic as the near double-digit increases seen in the last 12 months. The last 18 months of sustained activity still does not answer the question of whether this is a rebound in activity or a sustainable recovery over the medium and long-term. Nonetheless, increased cyclicality in the industry is very likely to be the noticeable outcome over this and future periods. If higher prices are not to become self-defeating and ultimately damaging to overall output in the medium-term, there should be complementary developments and investment in skills, apprenticeships and training.

Building costs and prices

Despite annual consumer price inflation turning negative again, tender prices continue to rise strongly. AECOM's Tender Price Index shows that building price inflation in Greater London accelerated once again in the first half of 2015, increasing at the fastest rate since 2002 as the construction industry remained in bullish mood. More than this, many price metrics have surpassed those of 2008.

Tender prices increased 8.8 percent on the year Q2 2015. Provisional figures for Q3 2015 indicate an annual change of 9.5 percent over the previous 12-month period. The increase in prices was underpinned by plenty of available work, a lack of capacity and strong labour cost increases (Q3 each year usually sees the implementation of wage awards). This is despite building materials price inflation posting much lower rates of annual change.

Though tender price increases have been remarkable, input cost trends have not moved to anywhere near the same degree. Building materials costs have increased by approximately 1 percent on average over the last 12 months.

Wages continue to climb on the year, though there remains variability across trades. Generally, they are up 5-6 percent over the last 12 months, which is a slightly slower rate of average change than that seen earlier in 2015. AECOM's central forecasts for tender price inflation are 6.1 percent to 8.4 percent from Q3 2015 to Q3 2016 and 3.5 percent to 6.3 percent from Q3 2016 to Q3 2017.

The fan chart (on the previous page) highlights three key criteria: the baseline forecast for the current year and the following year; the level of uncertainty surrounding these forecasts; and where the balance of risks lies.

Michael Hubbard is an Associate in AECOM London and is a specialist cost researcher.

One World Trade Center,
New York City, United States.

AECOM services: Construction management.

Image courtesy of Michael Mahesh.

Thought leadership

Nenagh Town Park and Leisure Centre, Dublin Road, Nenagh, Co. Tipperary.

AECOM services: Cost management.

Image courtesy of Paul Tierney.

Opposite page: Telecity, Data Centre, Dublin.

AECOM services: Contract administration, health and safety advisor.

Image courtesy of Andrejs Sahovs.

Procurement strategies: Think before you leap!

With the construction industry showing strong signs of recovery it is worth considering will it return to the same operating models that existed before the crash, or will it function differently?

Of course it is problematic to make generalisations about the likely path of any industry, and particularly one as broad and volatile as the Irish construction industry, however there are a number of trends emerging which are likely to have an impact.

Unsurprisingly, the single biggest trend emerging is the attitude to risk, both from a client and funder perspective but even more so from the contractor perspective. The approach on the contractor side is seeing a significant reduction in both the willingness and/or ability of contractors to take on risk. One of the ways in which this is manifesting itself in the industry is in terms of procurement, and clients need to carefully consider the strategies adopted as what worked 10 years ago as a strategy may no longer be the best fit.

Equally from a client's perspective attitude to risk is likely to have changed. Whilst an increase in the cost of a capital project over a budget allocation has always been a significant adverse event — depending on the corporate structure — it may now have repercussions which would have in the past seemed disproportionate to the scale of the overrun.

There is considerable change in terms of risk, the availability of finance and capacity of contracting organisations. It is critical that consultants advising clients carefully review the available procurement strategies. This must take into account the conditions current in the market and knowledge of the sector and regional factors.

One particular procurement strategy which has seen a resurgence is that of management contracting. Management contracting has traditionally been selected for fast-track, programme critical projects such as office fit-outs, and indeed it is still being selected for such projects today. However, we are also beginning to see it emerge for consideration in other non-traditional sectors. The reasons for this are linked to the points made above, namely a combination of a client desire to set an early cap on their expenditure and contractors' desire to minimize risk exposure.

The traditional procurement route may involve fully designing a project over six months, tendering over two months and agreeing a contract, at which point the contractors estimator hands it over to their quantity surveyor to confirm sub-contract quotes or often

going back out to the market to get firm tenders.

Under the management contracting approach the client develops the design to a defined stage over three months, after which the main contractor starts to procure the high value packages and once firm prices are achieved for circa 70 percent, a Guaranteed Maximum Price (GMP) is agreed inclusive of the remaining 30 percent. So there are obvious programme benefits and the client doesn't fix its budget until it gets a GMP.

From the contractors perspective it doesn't carry the risk of a tender, which it may or may not be able to match in the market, instead it waits until 70 percent is determined and then seeks to add a premium to carry a GMP on same and the remaining 30 percent of routine packages which it is happy to carry the risk on. The contractor is also assured of its preliminary costs which again are firmed up at this stage and included in the GMP.

So on the face of it, it would appear to be an ideal solution with the added benefit of less confrontation between the parties. However, we would sound a word of caution before adopting this strategy, that being that the imposition of a GMP or Not To Exceed (NTE) cap is likely to result in a premium being included in the budget to cover same. It is unlikely that the subsequent process will eliminate that premium thus ultimately the strategy selection will impact on cost. Finally, we would say that it is the outturn cost, which matters most and eventually feeds into determining value, hence each project needs to be judged on its own merits.

Tomás Kelly, Director,
Cost management and Consultancy.

Congestion relief requires public transport investment

The Greater Dublin Area (GDA) Transport Strategy was released for public consultation in October 2015 and is due to be finalised in 2016. The plan, developed by the National Transport Authority (NTA), proposes a strategic vision for development of the capital's transport network up to the year 2030.

Release of the Transport Strategy is timely in light of the increasing transport network delays being experienced in the city. Traffic levels experienced in many parts of the city are now well beyond those experienced at the height of the 'boom'. On the M50 for example, the monthly average daily traffic volumes between the M3 and M4 have grown by nearly 45 percent between 2007 and 2015 with traffic volumes increasing from 90,000 to over 130,000. This increase in traffic delay has contributed to Dublin being ranked as one of the most congested cities in the world.

The low mode share for public transport in Dublin, a symptom of chronic under-investment for many decades, is a major factor influencing congestion levels. Dublin's current public transport network offers considerably less capacity than cities of a similar size across Europe. In the GDA, 15 percent of trips in the morning peak hour of 8-9 a.m. are by public transport compared to Helsinki (population 1.2 million) where 34 percent of trips are made using public transport.

In addition to recent growth in travel demand, the GDA Transport Strategy is forecasting 39 percent growth in population and employment by 2030 with a corresponding 25 percent increase in travel demand. Although a certain proportion of this growth can be absorbed by the existing public transport network, the road network is likely to experience the highest growth in demand. As a result, increased demand for car travel by 2030 could result in reductions in average road network speeds of 19 percent with overall delay on the road network increasing by 72 percent.

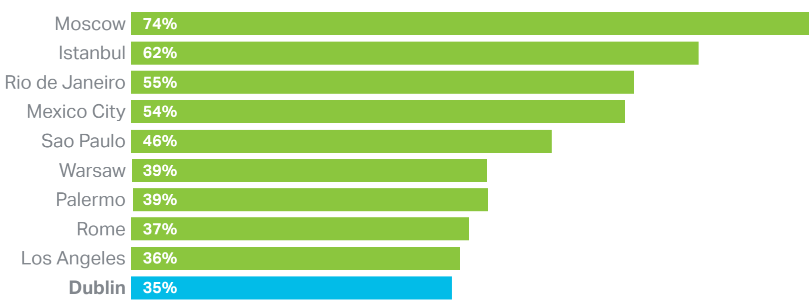
Clearly, the scale of this growth could have adverse economic impacts on Dublin, where there is limited potential for significant increase in road network capacity, therefore heavy investment in public transport infrastructure needs to be urgently prioritised.

Now, rail schemes such as Metro North which were put on hold during the recession are being reviewed for future delivery. Since the scheme was put on hold in 2011, AECOM was commissioned by the NTA to undertake a fresh review of public transport options for a north-south corridor from the city centre to the airport and Swords, including Metro North. Six potential schemes for the corridor were shortlisted which included light rail, heavy rail and bus rapid transit. It was concluded that light rail infrastructure still presents the best opportunity to respond to travel demand along the corridor and would generate the most benefit for the existing transport network, economy, environment and communities.

A variant of Metro North was recommended by the study which includes less tunnelling and less stations than the original scheme. These amendments have reduced

Figure 5

World's most congested cities (% = congestion level)



Source: Tom Tom Global Traffic Index 2014.

New Metro North: Key facts

- 17 kilometres in length
- 14 stations, six of which are underground
- Travel time of 19 minutes from the city centre to the airport and 30 minutes to Swords
- Demand of 30 million passengers per year

The M50 Layout Changes,
M50, Dublin.

AECOM services: Intelligent Transport Systems (ITS), highway engineering

These amendments have reduced the cost estimate for delivery from an estimated €3 billion to €2.4 billion. The 'new Metro North' alignment runs along the same alignment originally proposed from St. Stephens Green to Swords via Dublin airport. The scheme will provide access to a significant residential catchment as well as many important trip generators such as Swords Town Centre, the airport, Ballymun, Dublin City University, Mater hospital and Dublin city centre.

In September 2015, the Minister for Transport, Tourism & Sport Paschal Donohoe confirmed the government's commitment to the scheme through the announcement of €3.6 billion investment in public transport up to 2021 which includes advanced works for the new Metro North.

Although some amendments have been proposed to the scope of the original Metro North, the alignment has largely remained unchanged and therefore still corresponds with the policy context adopted by the regional planning guidelines for the GDA, Dublin City and Fingal development plans. Each of these plans has firmly embedded Metro North within transport, land use and economic development proposals.

The 'Metro North Economic Corridor' was proposed in the Fingal Development Plan 2011-2017 as an area which should facilitate an area of 'high density, employment generating activity focusing on key sectors including IT, financial and business services, science and technology, and health and education'. The use of 'clustering' is proposed to concentrate employment along the corridor to maximise cost efficiencies and economies of scale, innovation, partnership opportunities, improve access to raw materials and availability of a skilled workforce.

Along the corridor, development within a number of areas is subject to the delivery of Metro North. This includes a significant amount of housing stock as well as commercial development within the South Fringe and Swords areas. One third of the proposed new housing stock in Fingal has been designated towards Metro Economic Corridor zoned lands where the plan estimates that an additional population of almost 20,000 can be accommodated along a one kilometre radius of the Metro North alignment.

Uncertainty about the future development of Metro North has impacted progress to date in unlocking this land for development and, in the interim, development has occurred in areas outside the 'Metro North Economic Corridor' which do not support sustainable travel patterns. Following the recent announcement of an estimated 2026 completion date, there are continued concerns about the timing of potential development along the corridor. There are also concerns that a response to increasing travel demand within the corridor is needed much sooner than the timeframe proposed.

With development plans for Fingal and Dublin City currently being reviewed, there is a need for solid commitment to the delivery of the new Metro North. This commitment should be demonstrated by an early commencement of planning and design of the scheme, but also in opening up land for much needed new communities and employment opportunities.

Elaine Brick is an Associate in the AECOM Transportation Team.

The changing workplace

Top and above: Hewlett Packard, European Software Centre,
Ballybrit Business Park, Galway

AECOM services:Project management, employers representative, project supervisor for design process.

Image courtesy of Paul Moane.

It's a well-worn saying but it's true - no matter which industry, sector or part of the world you're in, change is a constant. Coupled with this, change is getting harder to predict, and in many arenas, happens at an exponential rate. New companies spring up seemingly overnight. Products and services that were revolutionary two years ago are rendered obsolete if they don't adapt to market changes fast enough.

Change management

Identifying the need to change the workplace is one thing, but its implementation is often fraught with challenges, and few change efforts are entirely successful. They often take more time than is anticipated, they can negatively impact morale and they often cost a great deal in terms of money, time or emotional upheaval. AECOM's work with clients in this regard is centred on aligning people, technology and the physical space to create a climate for change.

Whilst traditionally the working environment reacted to organisational change, the most forward thinking organisations now recognise that it can be a powerful enabler for change. Seeing the workplace as a tool in the transformation toolbox, means organisations like National Grid and Rolls Royce are constantly working to identify change opportunities within the organisation and aligning their behaviours, technology and workplace strategies in support of them. This can mean anything from seeking ways that the workplace can support the desired leadership qualities and capabilities within the organisation, exploring how the workplace can help respond to a changing regulatory environment, or using the workplace to change how teams operate and make decisions in order to increase the speed to market.

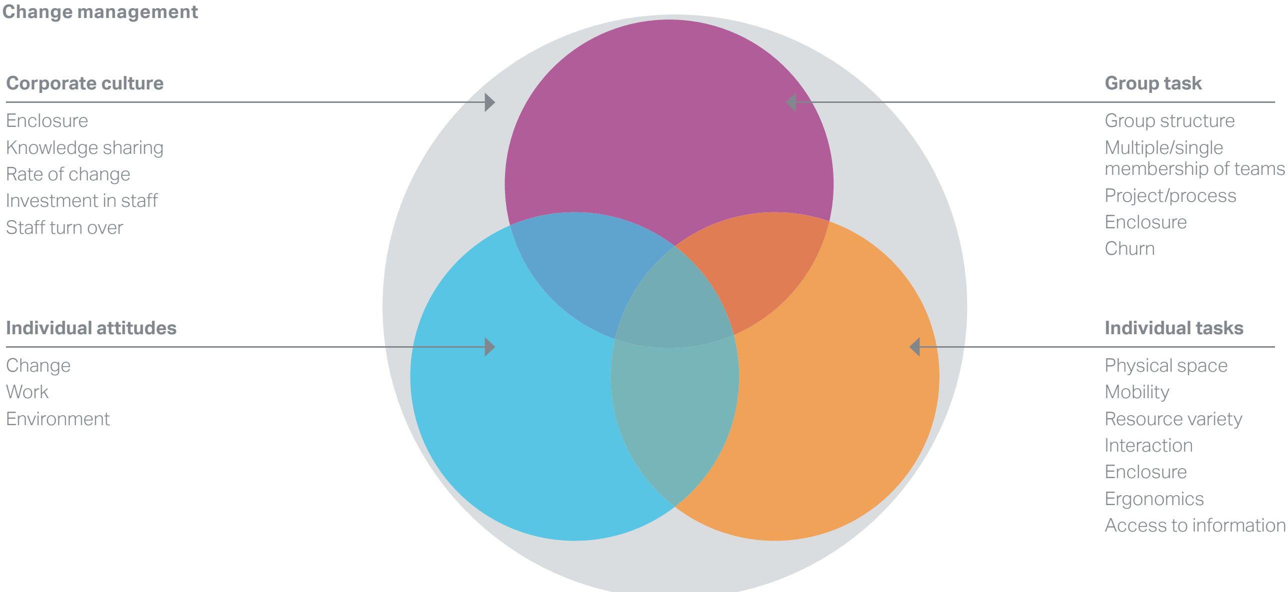
But no change can be successful if it isn't managed successfully. People tend to have deep emotional attachment to existing ways of working, and this can lead to resistance and suspicion of change. The lost productivity due to disengaged employees far outweighs the investment up-front in managing change well. By investing time in the process of change, an organisation is not just preparing for the upcoming event, but increasing the overall change capability across the organisation, meaning people are more able to respond to the next, inevitable change coming down the line.

Workplace consultancy

AECOM's Workplace Consultancy converts knowledge to value by maximising the return on space and its use. This helps inform strategic decision-making and generates project briefs.

Figure 6

Change management



LIT Strength and Conditioning,
Nenagh Road, Thurles, Co. Tipperary.

AECOM services: Project management, cost management.

Image courtesy of Bowe O'Brien Photography.

The drives for undertaking projects can vary but frequently include:

- optimisation of space utilisation;
- workplace to fit work practices;
- design for the knowledge economy;
- implementation new ways of working;
- measurement of the effectiveness of buildings;
- change Management.

Optimisation of space utilisation
Even the most hard driven work environments don't achieve 100 percent desk utilisation, typically utilisation is 40 -75 percent, but does this mean flexible working is viable?

Undertaking observation and activity studies can determine utilisation levels and work patterns. From these, the requirements for workstations and other work-settings, including meeting room sizes and numbers can be quantified.

This can result in considerable space savings or in the provision of more appropriate work-settings.

Workplace to fit work practices
The work practices of most organisations have been undergoing technology and work process driven changes. These are often not well reflected by the physical environment that is often built around outmoded technology, furniture and ways of conceiving the work process. The use of activity studies, questionnaires and workshops can build an understanding of the physical requirements of the work practices undertaken. With this knowledge, appropriate work-settings can be designed.

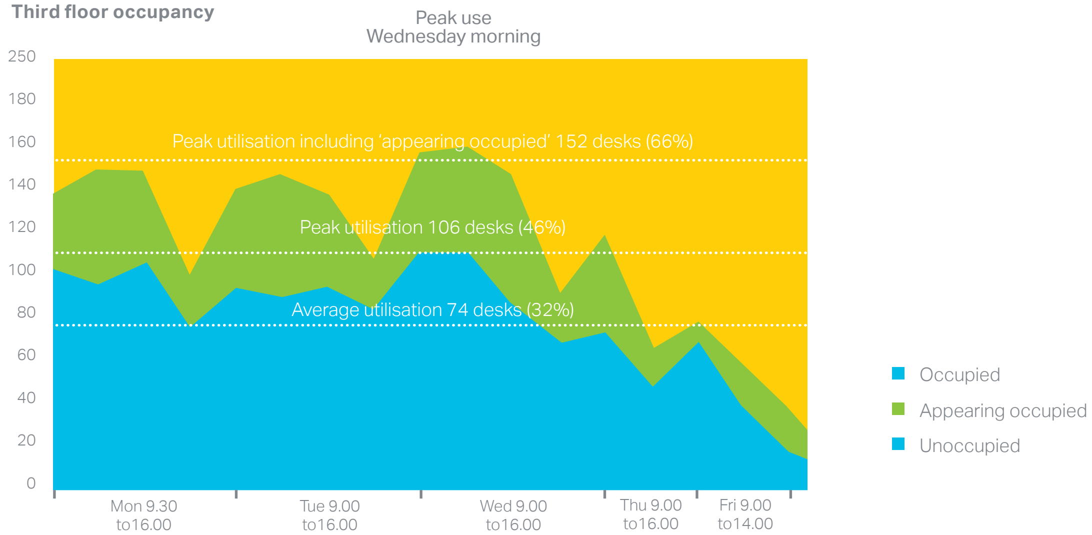
Implementation
It is also useful to undertake attitude and opinion surveys in conjunction with other workshops and questionnaires that can yield useful information and provide positive communication for change management programmes. Trial work environments can be very valuable ways of demonstrating how a new environment will work as well as acting as test beds for furniture products and IT systems.

It is also important to work closely with client's HR teams to prepare multi-media presentations and focused contact with staff to get the benefit of their experience of staff sensitivities, to keep in line with other initiatives in the organisation, and to ensure the best possible outcome for that specific business as it implements its latest change in the workplace.

John Harrison, RIBA, Architecture, Interior Designer + Space Planner.

Figure 7

Portsmouth, Leech Building, United Kingdom: Third floor occupancy



Indicative building costs

Indicative building costs		Republic of Ireland € per square metre	Northern Ireland Stg £ per square metre
Healthcare			
Hospitals		2,000 – 3,200	1,800 – 3,500
Primary care centres		1,700 – 2,100	1,200 – 1,800
Nursing homes		1,700 – 2,200	1,100 – 1,800
Education			
Primary schools		1,150 – 1,450	1,100 – 1,200
Secondary schools		1,150 – 1,450	1,100 – 1,250
Third level		1,650 – 2,650	1,200 –2,100
Commercial Offices			
Shell & core (landlord fit-out)		1,550 – 2,400	1,100 – 1,650
Owner occupier		1,800 – 2,850	1,400 – 2,500
Offices fit-out	Basic	350 – 700	220 – 450
	Medium	700 – 1,000	450 – 800
	High	1,000 – 1,250	800 – 1,000
	Top	1,250 – 1,950	1,000 – 1,900
Shopping centres			
Shell & core		800 – 1,300	600 – 1,200
Mall		1,600 – 2,800	1,270 – 1,500
Fit-out		950 – 1,700	600 – 1,600
Residential			
Apartments		1,350 – 1,750	900 – 1,500
Apartments (12–16 storey)		1,800 – 2,400	1,450 – 1,900
Social housing		1,100 – 1,550	750 – 1,050
Sheltered housing		1,100 – 1,650	800 – 1,050
Housing (suburban housing)		950 – 1,300	700 – 1,100
Industrial			
Warehouse/factory shell		650 – 850	550 – 800
Factory (basic)		800 – 1,150	600 – 1,200
High spec factory	Shell & core	1,000 – 1,400	700 – 1,100
	Fit-out	750 – 1,250	500 – 900
Leisure			
Hotels	3 to 4 star	1,600 – 2,300	1.200 – 1,800
	5 star	2,300 – 3,400	2,200 – 3,500
Swimming pools	60% wet/40% dry	1,850 – 2,400	1,800 – 2,200
Car parks			
Multi-storey		400 – 700	350 – 650
Single basement		575 – 950	450 – 800
Double basement		800 – 1,250	600 – 1,000

The figures quoted are for mid-range buildings in the Dublin and Belfast areas at January 2016 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.

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

AECOM Ireland

AECOM Programme, Cost, Consultancy growth
During 2015, our Programme, Cost Consultancy team were pleased to announce the appointment of Jason Hobson-Shaw and Tomás Kelly as Directors.

Based in Dublin, Jason has a wealth of experience in the delivery of complex healthcare projects and fast-track commercial projects. Tomás is based in our Galway office and over his 19 years with the company has led the delivery of our cost management service on a wide range of projects as well as leading our research department and providing specialist consultancy advice to clients.

In addition, Mark Smith and Colin Cleary were promoted to Regional Director, and Nick McPhilemy and Ciaran Timpson joined AECOM Ireland as Associates.

We are pleased to announce the promotion of David Coleman, Patrick Dooley and James Fee to Associate in January 2016. These promotions continue to strengthen our project and cost management team which has been to the fore in delivering projects for more than 150 years in Ireland.

Front row: Mark Smith, Colin Cleary, Greg Flynn, John O'Regan, Jason Hobson-Shaw

Back row: John Lombard, Nick McPhilemy, Tomás Kelly, Ciaran Timpson

AECOM win Active Belfast Challenge!
During 2015 the AECOM Belfast offices won 1st prize in the 250–499 staff category. The Challenge aims to get as many people as possible choosing to take more of their journeys by walking, cycling, motor cycle, using public transport and lift-sharing. Journeys for work are also included e.g., cycling to a meeting.

From left: Dr Eddie Roonie, Public Health Agency, Dr. Gary Benson, AECOM, Fiona Mooney, AECOM, Claire McLernon, Sustrans Northern Ireland.

AECOM expanded offices
AECOM have continued to expand its operations in Ireland following the merger with URS. In Dublin the design disciplines moved offices to Adelphi Plaza in Dun Laoghaire, Co. Dublin. Our Galway office has also moved to larger offices at Galway Technology Park, Parkmore, Galway (see contact details for all offices in our centre pull-out).

A number of the AECOM Island of Ireland management team at a recent meeting in our Beechill offices, Belfast.

Oweninny Wind Farm,
Bellacorrick, Co. Mayo.

AECOM services: Landscape architecture, digital media.

Current projects include:

- A24 Ballynahinch Bypass, Co. Down
- A6 Randalstown to Castledawson, Northern Ireland
- Athy Distributor Road, Co. Kildare
- Baggot Street Office Development, Dublin
- Bon Secours Hospital North Block Extension, Cork
- Brown Thomas, Dublin & Cork
- Capital Dock Mixed Use Development, Dublin
- Castlebar Hospice, Mayo
- Central Bank Headquarters, Dublin
- Churchfield Housing Phase 1, Southill, Limerick
- Clancy Quay Residential Development, Dublin
- Coláiste Chiaráin, Limerick
- Confidential Data Centre, Dublin
- Connemara Visitors Centre, Galway
- Cork City North West Primary Care Centre
- Courts Bundle PPP, Ireland
- Curragh Racecourse Redevelopment, Co. Kildare
- DCU Block F Teaching Block Extension
- Dropbox Office, Dublin
- Dublin Airport Capacity Development
- Dublin Airport Terminal 1 Arrivals Upgrade
- Dublin City Council Ballymun Boilerhouse Repurpose Working, Dublin
- Ebrington Development Framework, Derry-Londonderry
- Endoscopy, Physical Medicine & Oncology Extension, Naas General Hospital, Co. Kildare
- EY Offices, Dublin
- Failte Ireland Capital Development Programme
- Foynes–Limerick improvement scheme, Limerick
- Goodbody Offices, Galway
- Human Biology Building, NUI Galway, Galway
- Grangegorman Development Agency New Primary Care Centre, Dublin

- Hybrid Cardiac Cath Lab and New Orthopaedic Theatre, Our Lady's Children's Hospital Crumlin, Dublin
- IT Tallaght Campus Development
- JP Morgan Chase, IFSC, Dublin
- LinkedIn Headquarters, Dublin
- LIT Campus Development, Limerick
- Mary Immaculate College Development, Limerick
- National Centre for Hereditary Coagulation Disorders Outpatient Clinic (NCHCD), St. James Hospital, Dublin
- Omagh Integrated Primary School, Co. Tyrone
- National Forensic Mental Health Services, Portrane, Co. Dublin
- National Gallery of Ireland Extension & Upgrade, Dublin
- Palm Court Regeneration, Limerick
- Residential Development, Bettystown, Co. Meath
- Royal Belfast Hospital for Sick Children, Royal Victoria Hospital, Belfast
- Royal College of Surgeons Ardilaun House Upgrade, Dublin
- Sligo Hospital Surgical Block, Sligo
- St. John's Nursing Home, Dublin
- St. Patrick's School, Shannon, Co. Clare
- UCC Innovation Building, Cork Science & Innovation Park, Cork
- UCC Student Hub, UCC Campus, College Road, Cork
- UCD Newman House, Dublin
- UCD Student Accommodation, UCD, Dublin
- University of Limerick Library Extension, Limerick
- University of Limerick Pool & Arena Extension, Limerick
- Woodvale and Shankill Housing Refurbishment, Belfast
- University of Ulster Magee College Teaching Block, Derry-Londonderry
- Workday Offices, Dublin
- York Street interchange, Belfast

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 companies have annual revenue of approximately US$18 billion. See how we deliver what others can only imagine at aecom.com and @AECOM.

See the AECOM Ireland profile fold-out in the centre of this document for full contact details of our management team and all our offices on the Island of Ireland.

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