Carillion Background
Carillion is one of the UK’s leading integrated support services companies, with extensive construction capabilities, a substantial portfolio of Public Private Partnership projects and a sector-leading ability to deliver sustainable solutions. We employ approximately 20,000 people in the UK, and over 46,000 people worldwide.

Our services include: facilities management, energy services, road maintenance, rail services, remote site accommodation services and consultancy services. We also have expertise in delivering major Public Private Partnership (PPP) projects, including Government buildings and infrastructure mainly in the Defence, Health, Education and Transport sectors in the UK and Canada. Our construction services activity includes building and civil engineering activities in the Middle East.

Carillion is proud to be the biggest private sector employer of apprentices in the UK, employing apprentices across our Construction and Services businesses. Our programme is designed to give apprentices the foundation to build a rewarding career. We offer apprenticeships in construction as well as rail, civil, mechanical and electrical engineering, quantity surveying and office and customer services. In 2014 we committed to employing 5,000 apprentices by 2019.

Carillion is a proud sponsor of the three-year Your Life campaign – promoting Maths and Physics as skills that will drive the UK forward in a competitive global economy. In offering experiences and information to support young people in making informed subject choices post-16, the campaign works year-round to engage young people in activities with STEM employers and careers. In doing so, Your Life proactively engages with pupils, teachers, parents, business and government to work towards increasing the number of young people post-16 studying maths and physics by 50% by the end of 2017.

Carillion is committed to supporting diversity in the workplace and we understand that a workforce which feels included and valued is more likely to be more engaged and innovative. We are proud of the ethos we have instilled into our business and of our commitment to putting inclusive behaviours at the core of what we do. We are pleased that our efforts to promote inclusivity and diversity have been widely recognised; for example, we were named in The Times Top 50 Employers for Women in 2015 and again in 2016. We were also recently shortlisted for The Herald Scotland Diversity Awards.

Examples of our inclusivity and diversity initiatives include our ‘Working Mums Network’ and our ‘Working Dads Network’ which have been set up to support parents as they seek to balance the challenge of parenthood and career, our recently established BAME network and ‘Connect’ our LGBT peer support network, which is due to celebrate its first birthday in February. Connect enables LGBT colleagues to meet, share information and support, and advise the business on relevant issues. We are currently bringing together all of our different internal networks to launch a Carillion Diversity Council which will provide a support channel to share best practice and feedback.

We have attempted where possible to broadly address the Inquiry’s terms of reference, but have only commented on areas where we feel that we are able to do so, and where we feel that we have relevant experience.
Carillion believes that there is a real challenge for the construction industry in particular in finding enough females to fill a range of both graduate level and apprenticeship level positions in STEM areas.

It has been a challenge to encourage students, in particular girls, to leave schools at sixteen to pursue an apprenticeship rather than study A Levels and anecdotally, we have found that this is in part due to stereotypes surrounding apprenticeships ‘that they are only for kids who can’t do A Levels’ or that ‘engineering and construction are only for boys’. We continue to make contact with schools local to our training centres and construction/rail etc sites in order to increase awareness about the apprenticeships on offer however we believe that the focus needs to be on ensuring that young people and women in particular are encouraged to take up STEM subjects and recognise the benefits of developing skill based learning. We believe that Schools and Governors have an important role in this regard.

Research conducted by WISE – a campaign to promote women in science, technology and engineering – shows that only 33% of girls who study maths and science at GCSE level progress into any form of Level 3 qualification, whether this is via A Level, advanced apprenticeship or vocational qualification routes. These figures worsen when you consider that only 7% advance to Level 4 qualifications (through university, higher apprenticeships or further vocational qualifications). Carillion, like many other employers, requires STEM qualifications up to Level 4 for a large proportion of our engineering positions and therefore we absolutely recognise the need to proactively tackle the STEM skills gap. According to research carried out by Kearney, for Your Life initiative and their ‘Tough Choices’ report (2016), 50% of girls show a preference for career paths that involve helping others, while only 11% of 13-14 year old girls have aspirations of being an engineer. We need to demonstrate to this age group the value of engineering in advancing our daily lives, so that engineering is considered relevant and meaningful, not to mention the wealth of opportunities that it brings.

At Carillion we believe that in order to close our own STEM skills gap we must secure our talent pipeline for the future, as well as keeping our existing staff engaged, well trained and committed to Carillion. We are proud to be Your Life’s corporate sponsor for the construction and business services sectors and have committed to increasing the number of our female apprentices by five per cent over the next five years and developing a tailor made “introduction to engineering and technology for girls” module for schools.

We see this as an important part of our long term strategy to help develop the skills that will enable our business to succeed in 10 years’ time. We know that over the next five years the construction sector alone will grow by 2.2 per cent annually, creating 182,000 new jobs across the sector. We will need talented people who have STEM skills to fill these jobs.

Internally our female engineers set up the Support Network for Operational Women in Engineering (SNOWE) and we have over 40 STEM ambassadors who go into schools to talk to them about being an engineer. Over the last year Carillion have also become involved in tackling the STEM skills gender gap by working with the Women’s Business Council on their STEM working group.

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SNOWE
With only 14% of female undergraduates studying engineering and technology, Carillion recognised the need to take action to increase the numbers of female engineers and equally retain them in the business in engineering roles. So, in 2013 Carillion launched SNOWE to support and offer guidance to our female engineers. The network now has over 100 members and provides a buddying system where members are paired with more experienced colleagues (either male or female) in order for them to listen, support and offer guidance and advice to them about their career.

As SNOWE has grown the network has set up working groups in different parts of Carillion – operating in TPS Schal, Carillion Construction Services, Infrastructure, Rail, and Services. To make communicating and sharing data across the whole network easier SNOWE decided to produce a microsite for all members. Production started on the microsite in November 2016 and it will be launched in 2017.

STEM Ambassadors
Carillion believes one of the biggest reasons that young people do not look towards STEM careers such as engineering (and therefore do not study the subjects needed for these jobs) is due to lack of awareness at school age, as to what it is to actually be an engineer. We have 40 Carillion engineers who are STEM ambassadors and go into local schools, and engage with pupils (and teachers) to explain the role of an engineer. By breaking down misconceptions and explaining the range of jobs that are on offer in engineering it is hoped that more young people will follow this route. Tara McCully, one of our Graduate Engineers who became a STEM ambassador is a strong example of this -

Tara has been a Carillion graduate engineer for two and a half years working on two smaller projects: Seaham South Pier; and Haughton Road Bridge at Darlington; before joining the team on the Morpeth Northern Bypass (MNB) as a ‘setting out’ civil engineer. During her first two projects she was the only female on site barring a part time office manager and on the MNB site she is still in the minority, however this does not bother Tara as in her words “this is what was expected with this ‘male industry’”.

After starting with the team in Morpeth her line manager asked if she would like to be a STEM ambassador and lead on the Engineering Education Scheme linked to MNB. She signed up saying that “it would be a good chance to promote women and young people in engineering”. During her time at school Tara did not have a great awareness of what it was to be an engineer other than it is a good option if you like maths. The message that Tara wants to get across during her visits to schools about engineering is this:

“There is also such a broad range, electrical, mechanical, civil and structural, and within them you can specialise in several areas, even things like management or design. You do need to like maths but you don’t have to be a top student at it, you just need to have an understanding. I think this also scares girls away who aren’t in there top set for mathematics.”

During the Engineering Education Scheme Tara mentored a group of sixth form students from a local school to establish the best way to stabilise the soil for a retaining wall at Fairmoor – a vital part of the MNB project. The scheme is designed to give students a real-life experience of what being an engineer is really like and allowed them to visit the Morpeth Northern Bypass site to take samples which they later used at Newcastle University to test their ideas.

Women’s Business Council
Early in 2016 Carillion were invited to take part in the Women’s Business Council’s (WBC) working group on STEM. The aim of this group was two-fold: to increase the number of girls studying STEM subjects in further and higher education; and to retain women in the STEM workforce and encourage them to seek promotions through their career. A Government Affairs officer sits on the group from Carillion which allows them to coordinate with all of the different strands of the business to give the best presentation to the WBC on how we can have the greatest impact in this area.

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