Sustainable development report 2017
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Awards 2017
- BOST Business Partner of the Year – Keltbray Demolition & Civil Engineering, Stoney Street
- Bounce Back Breaking Down Barriers Award – Nathan Tate
- Considerate Contractor’s Scheme Performance beyond Compliance – The Broadway
- Considerate Contractor’s Scheme Performance beyond Compliance – Curzon Street
- Considerate Contractor’s Scheme Performance beyond Compliance – Stoney Street
- Considerate Contractor Gold Award – Keltbray Demolition & Civil Engineering, Bartholomew Close
- Considerate Contractor Gold Award – Keltbray Demolition & Civil Engineering, 21 Moorfields
- Construction Investing in Talent Award – Best In-House Recruitment Team
- Construction News Ground Engineering Specialist Award – Keltbray Piling
- Construction News Summit Tech Sprint Team Award – Ioannis Voutsoukis
- Costain Contractor of the Month Safety Award August – Keltbray Aspire
- Costain Contractor of the Month Safety Award September – Keltbray Aspire
- Costain Contractor of the Month Safety Award October – Keltbray Aspire
- Costain Contractor of the Month Safety Award November – Keltbray Aspire
- Costain Contractor of the Month Safety Award December – Keltbray Aspire
- Costain Rail Sustainability Community Work Award – Keltbray Rail
- Green Apple Gold Award – Keltbray Demolition & Civil Engineering, London Bridge
- Land Securities Community Employment 18–30 Award – Babak Atashi
- Network Rail’s Major Programme Director’s Award for Outstanding Teamwork on The Greater West – Keltbray Aspire’s Reading Depot
- NFDC Apprentice of the Year Award – Daniel Rabbette
- NFDC Expo – Vintage Award for S20 1958 tipper truck
- Railway Industry Innovation Award, Highly Commended – Keltbray Rail Live Plant Safety
- RoSPA International Dilmun Environmental Award, Highly Commended – Keltbray Environmental
- RoSPA Fleet Safety Gold Award – Keltbray
- RoSPA Gold Award – Keltbray Ltd
- RoSPA Gold Award – Keltbray Aspire
- RoSPA Gold Award – Keltbray Rail
- RoSPA Gold Award – Keltbray Environmental Solutions
- RoSPA Gold Award – Keltbray Remediation
- RoSPA Silver Award – Keltbray Piling
- RoSPA Silver Award – Keltbray Sheet Piling
- The Better Society Awards – Waste Management & Recycling Programme of the Year

Memberships
- Asbestos Removal Contractors Association
- Association of Railway Training Providers
- The British Standards Institution
- British Safety Council
- British Council for Offices
- Builder’s Profile
- CHAS
- Chemist on Call
- CIRAS
- Chemwatch
- Constructing Better Health
- Chartered Institute of Building
- Construction Skills Certificate Scheme
- ConstructionLine
- Construction Youth Trust
- Construction Plant Hire Association
- Federation of Piling Specialists
- Institute of Rail Welding
- National Demolition Training Group
- National Federation of Demolition Contractors
- The 5% Club
- The Green Organisation
- The Nuclear Industry Association
- The Prince’s Trust – Construction & Business Services Group
- RoSPA
- Rail Plant Association
- Supply Chain Sustainability School
- SMARTWaste
- UK Asbestos Training Association
Keltbray locations

1. Esher
   Keltbray Group

2. Ashford
   Keltbray Rail

3. Bathgate
   Keltbray Structures, Keltbray Sheet Piling

4. Basildon
   Keltbray Environmental Solutions, Keltbray Training and Keltbray Aspire

5. Bedfont
   Keltbray Plant, Keltbray Rail

6. Birmingham
   Keltbray Environmental Solutions

7. Crewe
   Keltbray Aspire and Keltbray Training

8. Glasgow
   Keltbray Decommissioning

9. London
   Keltbray Demolition & Civil Engineering, Keltbray Structures, Konstructive Recruitment

10. Preston Brook
    Wentworth House Rail Systems, Keltbray Sheet Piling

11. Rugby
    Keltbray Aspire

12. Thames Road
    Keltbray Haulage, Keltbray Piling, Keltbray Training

13. Thames Wharf
    Keltbray Environmental

14. Pontypridd Office
    Keltbray Environmental Solutions
Message from Brendan

2017 was a good year for Keltbray. We grew turnover by 13% to £418 million, and considering that the UK economy as a whole grew around 1.7%; and the construction sector only 0.7%; this is a result we are very pleased about. This is also against a backdrop of an increasingly uncertain economic climate, particularly in London and the South East, where lack of clarity on Brexit remains a dampener on growth.

As we grow, we remain focused on health, safety and wellbeing. Last year we made significant progress in these areas, and our accident rates may be amongst the best in the industry, but only zero accidents will do, and we must ensure that everyone goes home safe after each working day.

My vision has always been to develop Keltbray into a company that is expert in working in sensitive and highly regulated environments; making sites ready for, and facilitating new developments and infrastructure.

During 2017 we stuck to this strategy by bolstering and extending our existing services, while also expanding our portfolio and growing these services geographically.

We celebrated Keltbray Structures’ one-year anniversary. After just over a year in business, this division made us all proud by securing one of Keltbray’s biggest ever contracts at Battersea Power Station, where we will have a team of 300 people in full swing very soon.

During 2017 we continued to make significant investments in more modern plant and equipment, and despite difficult conditions, including the downfall of a number of construction companies, Keltbray continued to prosper.

I believe the key to our success is our investment in our people and equipment, in innovation and our continuous diversification.

While the economic outlook looks uncertain I am an optimist, but remain pragmatic. We have a good pipeline of work, and will continue to drive our growth by operating sustainably, by optimising integration and efficiency, and developing our diversification strategy.

Brendan Kerr
Chief Executive Officer,
Keltbray Group
## Highlights

<table>
<thead>
<tr>
<th>Growth</th>
<th>13% growth in turnover; more than 12% ahead of market</th>
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<tbody>
<tr>
<td>Investment</td>
<td>Invested around £10m in plant and machinery</td>
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<tr>
<td>Leadership</td>
<td>Broke into top 50 in the Sunday Times Top Track 250 league table; climbing 17 places</td>
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<td>Awards</td>
<td>Won 32 local, national and international awards</td>
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<tr>
<td>Innovation</td>
<td>Constructed first ever road rail vehicles combining elevated mobile platform and lifting crane</td>
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<td>Incidents</td>
<td>Reduced Accident Frequency Rates by 7%</td>
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<tr>
<td>People</td>
<td>Grew workforce by 11% to 1473</td>
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<td>Training</td>
<td>Invested £2.25m in training and development</td>
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### 2017 HIGHLIGHTS

#### Development
- One in 15 employees is an apprentice, intern or trainee

#### Placements
- Provided work placements for 57 disadvantaged candidates (up 50%)

#### Fundraising
- Increased fundraising initiatives by 11% to £323k

#### Compliance
- Amongst the first to comply with NRMM Low Emission Zone requirements

#### Emissions
- Moved 320,000 tonnes of construction material by barge
- Barging saved 17,000 tipper trucks movements

#### Environment
- SmartWaste cut reporting requirements by 50%
- SmartWaste cut reporting costs by 40%

#### Recycling
- Diverted over 99% of our construction waste from landfill

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Over the past four decades Keltbray has grown into a £418 million Group of UK-leading specialist companies

Increasingly over the last 40 years, Keltbray has been a key player in developing and maintaining Britain’s built environment; be it our railways, or our homes, or our schools, hospitals or offices.

The company was first established in 1976 as a small earth and groundworks company, and has over the past four decades grown into a £418 million Group of companies that provides engineering, construction, demolition, piling, decommissioning, remediation, rail, reinforced concrete structure solutions and environmental services.

Today Keltbray is a UK-leading specialist contractor that offers a portfolio of services that is unrivalled in the UK.

We are experts in operating in highly regulated environments; making sites ready for and facilitating new developments and infrastructure.

In 2017, Keltbray’s CEO, Brendan Kerr, was named one of 17 leaders with the biggest impact on construction, and opened the door to Build UK, where Keltbray is one of the first specialist contractors to become a member and work with contractors and the specialist supply chain to drive positive industry change.
Mission

We see it as our goal to ensure client value through our direct delivery model, innovation and applying the highest standards of health, safety, quality and care for the environment; whilst maintaining the wellbeing and resilience of our employees.

Our Values

At Keltbray we are committed to being a responsible business, and fundamental to this are our values.

In late 2017, these were reviewed and re-evaluated in consultation with the people across our business; in focus groups and engagement sessions involving employees from site operatives to Board level, to reaffirm the values that keep us moving in the right direction.

On the back of this review, these are the values that were identified as our four key cornerstones and act as principles for our business:

**Health, Safety and Wellbeing**
Creating a culture where health, safety and wellbeing are at the forefront of everything we do.

**People**
Train and develop our people to build a valued and positive workforce.

**Relationships**
Communicate openly with our clients and stakeholders to build long-term, valued relationships.

**Innovation**
A cutting edge approach to driving efficient, safer and sustainable delivery of our works.

**Can-Do Attitude**
Demonstrate a positive attitude and a willingness to ensure success in every challenge we face.

At Keltbray we are committed to being a responsible business, and fundamental to this are our values”
At Keltbray we understand the role our projects play in developing sustainable local communities, where we aim to leave a positive legacy.

We also work with clients to ensure compliance with BREEAM, which is BRE’s environmental assessment method and rating system for buildings, LEED; the world’s most widely used green building rating system, or by using CEEQUAL; the Certifying The Civil Engineering Environmental Quality methodology. Depending on requirements, Keltbray will also ensure compliance with the Code for Sustainable Homes CSH, or optimise the low carbon environmental rating for non-domestic fit-outs, referred to as SKA Boosting.

By working in partnership with our clients, we have the opportunity to deliver high performance projects and infrastructure that create environmental, social and financial value for them and the communities they serve.

At Keltbray we also understand the role our projects play in developing sustainable local communities, where we aim to leave a positive legacy by operating considerately, and by supporting the local economy through our supply chain, and by providing work and training opportunities aligned with local needs and priorities.
Focus areas

The 2030 Agenda for Sustainable Development is a global agreement to eradicate poverty and fight inequality and injustice. It was agreed by world leaders at the UN in 2015, with a focus on the 17 Sustainable Development Goals (SDGs) which the UK has committed to deliver domestically.

Keltbray is focusing on the following seven of these:

- Zero hunger
- Good health and wellbeing
- Decent work and economic growth
- Industry innovation and infrastructure
- Reduced inequalities
- Sustainable cities and communities
- Climate action
Keltbray has a long tradition of supporting charities and local community not-for-profit initiatives as part of our corporate social responsibility. In 2016, The Keltbray Foundation was established to bring the Group’s corporate giving under one umbrella and develop a more effective and proactive, longer-term strategy.

Behind the Keltbray Foundation is a committee that meets bi-monthly to consider charitable initiatives and internal and external applications for support. This consists of people from a cross section of the Group’s business units.

During 2017 the Foundation oversaw more than £323,074 worth of support towards good causes, and following a review of Keltbray’s charity partnerships, the company decided to take action against food poverty.

**FOOD BANKS**

Keltbray joined forces with local food banks at nine locations across the country. While the initiative is national, it is Keltbray’s regional offices and businesses that own the local relationships with their food bank.

Group Board Director, Paul Deacy, who heads up The Keltbray Foundation, said: “Supporting our local foodbanks seems like a common sense continuation of our strategy to support underprivileged groups, such as former offenders and long term unemployed with training and work opportunities, given that many of these individuals also have other issues to contend with, like poverty and homelessness.”

Evidence shows that food poverty is a growing issue here in the UK and that more than 500,000 people now rely on food parcels. According to the Food Foundation, one in five Britons live below the poverty line and struggle to eat regularly. This shows that local foodbanks have become essential for the poorest families.
During 2017 the Keltbray Foundation oversaw more than £323,074 worth of support towards good causes. Keltbray staff across the country have responded with great generosity, with many offices making significant monthly donations and providing a much-needed lifeline for families who might not otherwise be able to cover the basics. Food collection has been particularly successful in Keltbray Aspire’s Crewe office, where local coordinators Gill and Sally now handle monthly donations of around 100 kilos of food to the Alsager Food Bank.

“Last year we provided 384 adults and 443 children with essential, daily food. We rely on public donations like this to help local individuals and families in crisis throughout our area, so your donations do make a huge difference to people’s lives,” said Food Bank Co-ordinator for Alsager and District Foodbank, Tracey Abbott.

Keltbray has renewed its commitment to local Food Banks for 2018. Beyond this, 2017 support also included partnerships with Museum for London Archaeology (MOLA), the Construction Youth Trust and a range of smaller charities, such as The Lullaby Trust, St Marks Hospice, Springboard Opportunities, Crash, The Lighthouse Club and many other not for profit organisations.

CHARITY SUPPORT £

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<th>Year</th>
<th>£0</th>
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A MAKEOVER FOR THE ABBEY CENTRE

As part of our commitment to the communities in which we work, Keltbray’s support for volunteering dates back to 2015.

At one of last year’s events, 13 people from Keltbray swapped the day job to volunteer at The Abbey Centre in Westminster, where they cleaned up the garden and re-potted plants. They also gave a lick of paint to the stairwells.

Armed with fresh paint rollers and many in protective suits donated by Keltbray Environmental Solutions they put in a solid day’s work.

Communications Co-ordinator, Tim Harding, was one of the volunteers: “The folks at the Abbey Centre were an absolute delight to work with, and provided a delicious lunch from their café. I can recommend it if you’re ever in the area, especially for the great cake selection. We all had a great time, and it was lovely to hear from the Abbey Centre’s directors just how much it meant to them for us to put in the work,” he said.
BUILDING BRIDGES IN MALAWI

Further afield, sponsored by The Keltbray Foundation, Keltbray Rail’s Head of Rail, Mark Carroll, and Operations Manager, Bill Peak, travelled to Malawi to provide engineering support and complete the ‘Bridge to Kapeya’ which was washed away during floods last year.

Restoration of the bridge was vital to restore the community’s basic quality of life at Smile Malawi Children’s Orphanage founded by railway Civil Engineer Elspeth Baecke.

Elspeth designed a simple brick arch and stone footbridge, which could be built from locally sourced materials and constructed under the guidance of engineering and construction staff from the UK, with the help of crowdfunding and donations.

“Over the six days we were there, we achieved all we had set out to achieve, despite challenging conditions. The experience was humbling and rewarding, with time spent in the evening after work having fun with the kids. We also tutored local workers in construction techniques and used simple safety techniques to minimise risk on site where possible,” said Mark.
Good health and wellbeing

Last year Keltbray made significant progress in the area of health, safety and wellbeing, as our accident frequency rate continued to reduce by 7% in 2017. But, while our accident rates are amongst the best in the industry, only zero accidents will do, and we remain focused on ensuring that everyone goes home safe after each working day. Keltbray’s capability is a sum of its parts, including its equipment, processes and people, and so to work safely, we must develop a balance between these three elements to improve. Only last year, Keltbray invested more than £10 million in innovations and plant to ensure our equipment is the most modern, efficient and flexible, but that it is also more user friendly, with improved control and safety systems.

In 2014 Keltbray established a Behavioural Engagement programme for employees to improve dialogue, develop our safety culture and minimise risk. Since then the initiative has grown to become an integral part of our decision-making process, and it is now helping to shape the future direction of the way we work.

EXTENDING BEST PRACTICE

Last year Keltbray started offering its Behavioural Engagement services more widely to companies in the construction industry as part of a tailor-made package designed to positively influence the way people think, make decisions, and act. “These services have helped us improve safety awareness, promote positive decision making and ensure staff have a better understanding of health and safety regulation. They have also helped us unlock knowledge and confidence within our workforce to foster improvements in the areas of safety, risk, responsibility and how we make choices,” explained Keltbray’s Workforce Engagement Manager, Sam Taylor.

‘Besides being the most hazardous industry in the UK, there are more suicides in construction than in any other industry.”
Office for National Statistics

Work towards the safety and wellbeing of our workforce
PHYSICAL HEALTH AND WELLBEING

Further good news was that KML Occupational Health, which Keltbray also established in 2014, and which has been at the forefront of looking after the physical health of the Group's workforce increased its service activity by 300% in 2017. This means KML last year delivered more than 4,439 health assessments versus 1,457 in 2016, and that 2% of these (92 cases) were referred for future investigation by medical experts.

This growth was supported by investment in new, state of the art medical equipment for enhanced portability, technology and clinical team expansion. KML is also now offering its services to external clients.

Keltbray recognises what a significant role wellbeing plays in minimising the risk of incidents; reducing absenteeism and therefore improving productivity. To this end the Group also supported the UK’s largest ever ‘safety stand-down’ campaign; Stop. Make a Change. This was a safety campaign organised by the Civil Engineering Contractors Association (CECA) and backed by the Health & Safety Executive.

STAND DOWN

With a focus on fatigue, mental health, respiratory illness and plant safety, Keltbray marked the launch day on 18 April 2017 with an extended stand-down at the National Temperance Hospital site, where 60 people from HS2, Costain, Skanska, Artel and Keltbray participated in workshops focused on those four areas. They also visited KML Occupational Health’s Clinical Mobile Unit. Keltbray’s Harry Dolan was on hand to provide face fit tests, while Ian Arnott demonstrated Keltbray’s new demolition simulator.

Following the launch, the stand down was rolled out to thirty-eight sites across the Group ensuring that over 1,400 of Keltbray’s people had the opportunity to absorb and discuss the Stop. Make a Change messages.
“Last year Keltbray completed the roll out of a new system, Curotec, to help keep operators’ exposure to vibration equipment within safe limits”

**CUROTEC ROLLOUT TO CONTROL VIBRATION EXPOSURE**

Last year Keltbray completed the roll out of a new system, Curotec, to all of its Demolition and Civil Engineering sites, to help keep operators’ exposure to vibration equipment within safe limits and reduce the risk of developing Hand Arm Vibration Syndrome.

Keltbray carried out a trial of two different systems before procuring the Curotec system. Curotec works in the form of a small personalised monitor, ‘Curo’, no bigger than a computer mouse, which clips onto the vibrating tool and records each operator’s trigger time exposure to vibration. A traffic light system then advises the user of their exposure threshold, and when the red light illuminates, it warns the operator that they have reached their maximum daily vibration limit.
Keltbray Training instigated a trial to explore the relationship between the human mind and heart.”

**TRIAL TO IMPROVE WELLBEING**

In 2017 Keltbray started working with Vector Equilibrium to improve wellbeing and communication, and help our people on site be more effective at problem solving by increasing personal and organisational coherence.

Keltbray Training instigated a trial to explore the relationship between the human mind and the human heart by researching what is referred to as heart/brain coherence. This involved the utilisation of a system of science-based and scientifically validated, coherence-building skills designed to help bring the 50 participants’ physical, mental and emotional systems into balance to improve their ability to focus, and reduce stress and fatigue.

This trial, which also included representatives from HS2 and the Costain-Skanska Joint Venture, is based on the Institute of HeartMath’s methodology. It involves a mixture of coaching and intervention and follows a Construction News mental health survey published last year which revealed that 55 per cent of workers had experienced mental health issues, and that 42 per cent had suffered these issues at their current place of work.

With the establishment of KML Occupational Health in 2014, Keltbray has been at the forefront of looking after the physical health of its workforce. This trial is a natural progression in how we evolve the care for our people and bring their physical health into balance with their mental and emotional wellbeing.
Keltbray’s strategy is to operate as a specialist contractor, employing, managing, training and retaining its own employees, investing in high value and specialist plant, and utilising where possible its own internal design expertise. This gives the Group the capability to manage complex projects with a higher risk profile or in highly regulated market sectors.

During 2017 the Group restructured its reporting streams from four to three. The principal activities of the three streams include:

1 **Specialist Contracting Services (SCS)**

   Demolition, structural and geotechnical engineering, reinforced concrete structures, design of permanent and temporary works, piling and sheet piling, asbestos removal, soils remediation and waste treatment, and supply of plant and haulage services.

2 **Infrastructure & Rail**

   Civil and rail engineering, permanent way (track), plant hire and piling, overhead line electrification engineering design, installation and plant hire.

3 **Group Services**

   Labour agency hire and recruitment, training and development and occupational health assessment.
GROWTH AND EXPERTISE

Keltbray is one of the few contractors which can provide an integrated, entirely in-house service across the breadth of the activities above, and in 2017, the Group climbed nine places to number 38 in the Construction News top 100 UK contractors. It also maintained its position as the largest demolition contractor in the UK. It was one of the largest specialist contractors in the Construction News Top 100, and continued its diversification strategy, which saw the company break into the top 50 private mid-market growth companies in Britain for the first time in the 2017 Sunday Times Top Track 250 league table.

The Group grew its turnover by £48.1 million (13%) from £369.4 million to £417.5 million. Profit levels were maintained and Keltbray improved its cash position. Operating profit at £23.8m (2016 £24.4) and profit before tax £23.3m (2016 £23.6m) were slightly below the previous year, while operating profit margin reduced to 5.6% (2016 6.6%) due to tightening trading conditions and an increase in overhead costs reflecting investment in management, systems and infrastructure to manage the growth in turnover and to provide a robust framework for future growth.

The SCS business achieved turnover growth of 15% (from £269.4 million to £311.0 million). This was primarily driven by our demolition, civil engineering and piling businesses.

Meanwhile, the Infrastructure and Rail stream increased turnover by 6% (from £100.0 million to £106.5 million).

LOOKING AHEAD

In 2018, Keltbray expects demand for its demolition and civil engineering services to slow down, although it is estimated that this reduction will be partially offset by Keltbray Structures, which ended 2017 with a pipeline of more than £120 million worth of work.

The change in the nature of project spend under Control Period 6 announced by Network Rail last year led Keltbray to review other markets to diversify its client base for overhead line electrification opportunities, and going forward, the company is now working with Aecon to assist them in the delivery of major overhead line electrification projects in Canada.

Keltbray remains committed to the UK rail market, and is also pursuing opportunities in Canada to help build a more sustainable rail business for the future.
As part of its mitigation strategy, to meet the challenging times ahead, the Group plans to continue to diversify into specialist services that are aligned to its existing portfolio, and to strengthen its position in other construction-related sectors, such as residential, infrastructure, industrial and utilities.

NEW MINI PILING CAPABILITY
Keltbray Piling announced the launch of its mini piling capability in 2017. Mini piles are typically small diameter (300mm to 600mm) rotary bored or sectional flight auger piles, drilled to a maximum of 30 metres depth. They are predominantly utilised on sites where access is difficult or restricted, or where environmental sensitivity makes it a requirement.

To support this new service, Keltbray has invested more than £600,000 in state of the art restricted access hydraulic drill rigs and associated equipment, including Klemm 702 & 709 drill rigs. These are compact and very lightweight (4 and 16 tonnes respectively) while still having great capacity and stability.

These can be operated in very confined spaces and can access through openings no less than two metres in height and 750 millimetres in width and comply with the latest emission regulations.

“Keltbray has invested more than £600,000 in restricted access hydraulic drill rigs and associated equipment, including Klemm 702 and 709 drill rigs”
Last year Keltbray Aspire opened a new facility at the Dunchurch Trading Estate in Rugby, Warwickshire. The grade one, 20,000 square foot facility includes office space for 20 people, storage and a state of the art plant maintenance workshop for Keltbray’s 40+ fleet of overhead line electrification road rail vehicles, which is looked after by 12 plant fitters.

This is a major upgrade from the company’s previous facility in Parkfield Road, also in Rugby, which the company had outgrown. Located just off the A45 London Road/ Coventry Road dual carriageway, it provides easy access to the motorway network, and has a substantial yard area.

This new Dunchurch facility is strategically placed with regards to our work on all of the UK’s major rail infrastructure projects; be it in the north, south, east or west. It also meets all of our other requirements, and positions Keltbray well for continued growth in the rail electrification arena and is a boost for our maintenance efficiency in this area.
Keltbray prides itself on being an innovative company. However, in 2017 there was a renewed focus on driving improvements through a more strategic approach to innovation, and to better take advantage of the major growth opportunities that lie ahead.

Based on the belief that innovation will help future proof its business and deliver Keltbray’s goals for growth, the company supports Construction 2025: industrial strategy for construction, where the UK Government sets out its vision for a Britain at the forefront of the global community by delivering projects faster, at a lower cost and by generating lower emissions.

SMART CONSTRUCTION
Keltbray believes the key to its future success lies in research and innovation, digital design, advanced materials and new technology. To keep abreast of future trends and be at the cutting edge of these, the Group is embracing the transition to a digital economy and the rise of smart construction through the development of leaner, smarter, cleaner, safer and technologically advanced construction.

To help capture, harness and promote innovation within the Group, Keltbray appointed Dr Michael Pelken as Innovation and Research & Development Director in 2017. With his track record in award-winning patent development in design, architecture, engineering and construction, Michael was appointed to help to build on Keltbray’s existing innovation achievements, and to identify and drive future research opportunities to ensure we capitalise on these and keep evolving as a business.
IDEAS FRAMEWORK

At Keltbray, Michael’s work is focused on defining and developing a framework for ideas around project delivery, product development and process optimisation, and to put in place a structure for all innovation work streams that progresses these ideas from development to deployment and dissemination.

This means developing a creative culture where good ideas are valued, nurtured and implemented and to facilitate change for the better within Keltbray and beyond. While working with external partners to optimise opportunities and make improvements to the materials, processing or products Keltbray employs, he also aims to make sure commercialisation options are fully explored, and that Keltbray maximises opportunities for development through research and innovation.
RAIL ELECTRIFICATION FIRST

In 2017 Keltbray Aspire invested more than £3 million on six mobile elevating work platform (MEWPs) road rail vehicles for use in the installation of overhead line electrification on the UK’s rail infrastructure.

In addition to the 12-metre reach, the UK-first concept machine features a 500-kilo mobile basket that can rotate 180 degrees and has been equipped with a crane that can lift up to 330 kilos at 12 metre reach; thus removing all manual handling from the installation process.

This offers cost reductions by removing the need for a second lifting machine, and means installers, support staff and materials can be transported to site on the rear of the machine once on the track. This offers greater efficiency in terms of the transportation of materials and staff, and reduces the risk of slips, trips and falls.

“UK-first concept machine features a 500-kilo mobile basket that can rotate 180 degrees and has been equipped with a crane that can lift up to 330 kilos”
Keltbray deployed the AL.SK190 crane to execute the UK’s biggest ever land-based crane lift.

INNOVATIVE DEMOLITION AT EARLS COURT

In 2017 Keltbray completed demolition of the Earls Court Exhibition Centres in London, which included many record-breaking achievements. Amongst them was the removal of a 1,000-tonne bridge built over the west London overground train line, where Keltbray worked with Network Rail to develop a new, innovative engineering methodology, which shortened the programme and minimised impact for neighbours.

Further engineering innovation included Keltbray’s unique temporary works system to lower the EC1 1,700-tonne exhibition hall roof, which was constructed above six London Underground tube tunnels.

To demolish the reinforced concrete portal beams below the exhibition centres, out from over the London Underground lines, Keltbray deployed the AL.SK190 crane to execute the UK’s biggest ever land-based crane lift. This shaved two years off the programme, kept impact on local residents to a minimum and reduced the carbon footprint of the project.
In 2017, Keltbray grew its workforce to 1473, up 150 from 2016 (11%) and has actively trained long-term unemployed candidates for over a decade. With the continuing concerns regarding the skills shortage in our industry, this responsibility is not just a corporate social responsibility, but also a strategic part of Keltbray’s long-term vision to widen the talent pool and tap into the diversity of talent that exists in this country.

**WIDENING THE TALENT POOL**

To support this strategy, Keltbray has partnered with not-for-profit organisations such as Bounce Back – a charity focussed on training and employment of ex-offenders – and the homeless charity Cardinal Hume, as well as prisons, schools and colleges.

In 2017, these schemes saw Keltbray donate 1654 hours of construction training to disadvantaged candidates (up 64% from 2016), and 57 work placements for disadvantaged candidates. This means we now have 35 full-time people (2.3%) working with us on these programmes across the Group.

Social enterprise, Novus, delivers learning and skills in over 80 UK prisons: “We know that having a stable job is a critical part of an offender’s journey back into society. Employment provides an offender with a sense of purpose and direction, and has a direct effect on reducing reoffending, cutting the number of crimes committed in our communities. Keltbray’s unwavering commitment to employing ex-offenders puts them on a path to a crime-free future, helping them transform their lives,” said Novus Operations Director, Chris Horton.
DIVERSITY

In the UK, there is drop off in the number of girls studying science, technology, engineering and mathematics (STEM) subjects at the age of 16, and only 12% of women in the construction industry are defined under the STEM classification. While Keltbray’s own figures are only marginally better than the national statistics (13% are women), we are proud to have two businesses within the Group that are breaking this mould. While 40% of Keltbray Remediation’s scientists, engineers or technicians are female, the figure is 27% for Wentworth House Partnership.

Although Keltbray has made some progress towards balancing its workforce, the Group is now actively working to build on this by adopting a more focused approach to recruitment, retention and development, including considering new working practices.

Keltbray is also championing the profile-raising of existing female role models to bring more women into construction, and has ramped up its STEM Ambassador programme to help promote construction to pupils and students as a rewarding and sustainable career path for all.

ATTRACTING YOUNG PEOPLE

In 2017 Keltbray also joined the 5% club. This is a movement of nearly 250 employers focused on creating momentum behind the recruitment of apprentices, sponsored students and graduates into the workforce.

While 7% of Keltbray’s employees are apprentices, sponsored students and graduates on formalised training schemes, Keltbray decided to join this initiative to help put the spotlight on the importance of investing in training and development to fill the skills gap and secure the future of our industry. It also sees the membership of the 5% Club as a way to encourage other employers to make a difference, and support the UK’s ability to compete in increasingly tough global markets.
LEON AT BATTERSEA

During its contract works at Battersea Power Station, Keltbray has worked to meet some ambitious Section 106 targets. These included five new apprenticeship starts, a target that was exceeded by Keltbray employing 11. Although these numbers are important, the real success was the quality of opportunities delivered through training and work opportunities to the most vulnerable groups in the local community.

Working closely with Wandsworth Borough Council, Keltbray developed an innovative entry-level training programme that allowed unemployed residents of Lambeth and Wandsworth (including offenders on day release from Brixton Prison) to access training opportunities.

One of them, Leon, is an ex-offender who left education at 14. Key to him changing his life around has been the training and work placement at Battersea where he is now a valued member of the team and works as a mentor for other vulnerable workers.

“Working with Wandsworth Borough Council, Keltbray developed a training programme that allowed unemployed residents of Lambeth and Wandsworth to access training opportunities”
SCHOOLS PARTNERSHIP PROGRAMME

Last year Keltbray supported a new Construction Youth Trust’s (CYT) initiative to engage young people on the pathway to working in the infrastructure and built environment sector.

This scheme aims to involve 100 schools over the next three years, and Keltbray is supporting CYT to establish long-term relationships with schools in Haringey to connect with young people to help them overcome any barriers they may face and inspire them to take up careers in the built environment sector.

Keltbray sees school engagement as an integral part of the Group’s community engagement strategy. “Given that the construction industry needs to recruit more than 400,000 people each year to deliver the UK’s housing and infrastructure requirements, there has never been a more urgent need to inspire young people. We believe supporting this Schools Partnership approach complements our existing employment schemes and we are excited about the wealth of rewarding and interesting opportunities we can bring to the table,” explained Keltbray’s CEO Brendan Kerr.

"Supporting this Schools Partnership complements our existing employment schemes and we are excited about the wealth of rewarding and interesting opportunities we can bring to the table"
Sustainable cities and communities

Through the many projects we work, we employ innovative and sustainable solutions where possible, to deliver them and help to ensure a sustainable future for everyone.

Increased urbanisation means sustainable development cannot be achieved without transforming the way we manage our projects in these spaces, where disadvantage is often more concentrated.

To minimise impact, Keltbray is particularly focused on safety and sustainable development in terms of transport, green construction methods and collaborative and inclusive planning and management in these areas, to help combat this trend.

COMMUNITY ENGAGEMENT

Keltbray is a long-standing supporter of the City of London’s Considerate Contractor Scheme and the Considerate Constructors Scheme; both of which aim to minimise the impact of construction on the public, the workforce and the environment.

This means we aim to integrate best practice across our business; from replacing lorries with barges to transport construction waste, to FORS gold and the CLOCS standards for our haulage fleet, to minimising operational impact on the public and strategic community relations.

In 2017, an inspector from The Considerate Constructors Scheme commended the team at Chelsea Barracks for its ‘exceptional’ community engagement: “Regular meetings are held with the Residents Association and the community. The site even takes part in a quiz evening at Chelsea Hospital Home for pensioners. Actuals are well below targets for waste diversion and very close to 100%, and the site is trialling fuel additives,” he said.

Our team at Stoney Street scored similarly highly in the areas of ‘respect for the community’, and in 2017 the Keltbray team there was named Bankside Open Spaces Trust (BOST) Business Partner of The Year after supporting the charity that works with residents to design, maintain and protect green public spaces in SE1 with volunteering and resources at local events and festivals, such as The Great Get Together Bankside.
RAISING STANDARDS

Last year Keltbray also achieved Gold Status as a member of The Supply Chain Sustainability School following an external assessment. This reflects our efforts to advance our sustainability practices so they become an embedded part of our business and continuous improvement targets.

In 2017 this meant widening the implementation of BRE’s SmartWaste; an online tool that measures waste, energy, water and the responsible sourcing and use of materials, such as steel and concrete. This allows us to link with other contractors on the projects, so that data can be shared to maximise impact, efficiency and transparency.

Where the tool has been implemented, Keltbray has seen reporting requirements be reduced by 50%, while the cost associated with reporting has been cut by 40%. It has also helped us divert over 99% of our construction and demolition waste material from landfill.

“SmartWaste has been a real game changer for Keltbray, and after implementing it across the Demolition & Civil Engineering division in 2017, Keltbray is developing energy management plans and will be targeting to implement SmartWaste Group-wide by the end of 2018. Moving forward, we are also looking at ways of making data entry more automated and future proof the tool for new forthcoming regulatory requirements,” explained Keltbray Group Environmental Advisor, Claire Fundrey.

“Keltbray is developing energy management plans and will be targeting to implement SmartWaste Group-wide by the end of 2018”
BREAKING NEW GROUND

Last year Keltbray Remediation developed an innovative remediation technique at Worthy Down near Winchester, where the company has been working since 2015 as part of its biggest contract for Skanska at the £280 million Wellesley development, which will provide a new training college for the Ministry of Defence.

To minimise environmental impact and cost, Keltbray developed a remediation technique that reduced the need to export and import large volumes of material for this contract. This involved materials management of over 60,000m³ of excavated construction waste (enough to fill 500 double decker buses!), which was beneficially reused in non-construction areas on site; below proposed sports playing fields.

By reusing the material, the impacted material remained on site, and has been used to help shape parts of the new development. Once the construction arisings were engineered in place beneath the sports pitches, it was covered with clean chalk to form the base for new sports playing fields.
THOUGHT LEADERSHIP

Besides employing best practice and promoting it within our supply chain on projects, as the Group grows, Keltbray has also taken on a more active influencing role in the industry.

In 2017, this involved hosting a lecture for 200 industry leaders at The Institution of Civil Engineers to provide insight into the challenges and benefits generated as part of Keltbray’s major redevelopment of Earls Court, which is an award-winning showcase in collaboration and innovation to minimise risk and disruption.

Last year Keltbray also became one of the first specialist contractors to join Build UK, which was formed to provide a strong and collective voice for the construction supply chain. Build UK members also formally elected Keltbray’s CEO, Brendan Kerr, as its new non-executive Vice-Chair to drive positive change on key issues that face our industry.

In 2017 Keltbray’s Training & Development Director, Holly Price, was also appointed Director of the HS2 Training College and Second Vice President for the National Federation of Demolition Contractors (NFDC) as the Federation’s first female national officer.

Meanwhile, Tim Lohmann, who is Director of Keltbray’s engineering design consultancy, Wentworth House Partnership, was appointed Chairman of the Temporary Works Forum (TWf), and Keltbray Environmental Solutions’ Commercial Director, David Harrison, was appointed Director of the UK’s Asbestos Removal Contractors Association (ARCA).

In 2017, Keltbray hosted a lecture for 200 industry leaders at The Institution of Civil Engineers to provide insight into the challenges and benefits generated as part of the major redevelopment of Earls Court.”
Climate action

In 2017 the government published its Clean Growth Strategy; an ambitious blueprint for Britain’s low carbon future. This sets out some important commitments to making Britain greener. At Keltbray we are fully committed to growing sustainably while aiming to cut greenhouse gas emissions to help protect the climate and the environment which we and future generations depend on.

In line with the legally binding global climate deal to reduce global warming to below 2 degrees Celsius, we measure and report our energy consumption as part of the Energy Saving Opportunity Scheme (ESOS) which is governed by the Environment Agency.

In 2017, Keltbray consumed 63,562,266 kWh worth of energy used to heat, power or light our plant, machinery and buildings, and to transport people, goods, materials and waste. This meant that total energy usage was up by 1% from 2016, although at £168,154 kWh per £1 million of Keltbray’s turnover, it was in fact down by 1.24%.

By measuring the energy consumption in our offices, the transport of our people and goods and our industrial processes we are able to identify opportunities where reductions can be made.

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**ENERGY CONSUMPTION**

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<th>Total use (kWh)</th>
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The UK has had a legally binding commitment to reduce carbon emissions by 80% by 2050

UK Green Building Council

13 CLIMATE ACTION

OUR ACHIEVEMENTS

Reduce CO₂ and other emissions

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The UK has had a legally binding commitment to reduce carbon emissions by 80% by 2050

UK Green Building Council
**FLEET MANAGEMENT**

In 2017 we completed the fitting of telematics devices to our fleet, which now counts over 700 vehicles, including cars, vans and heavy goods vehicles (HGVs). As a next step we will be working to integrate mileage requirements and fuel cards with a view to accurately monitor fuel usage, establish reduction targets and key performance indicators.

We continued to make progress towards our goal of reducing company car emissions to below 150 grams of CO\textsubscript{2} per kilometre, and 90% of our company cars have now been capped at this level to increase efficiency and reduce fuel costs.

Our commitment to transport by barge, where possible, also continued, and in 2017 Keltbray moved 320,000 tonnes of construction material by barge to restoration sites. This saved around 17,000 tipper trucks movement, and each fully loaded barge generated 64% less CO\textsubscript{2} and 15% less NO, than a fully loaded euro 3 compliant eight-wheel tipper truck. By carrying materials by barge, we also reduced congestion, noise and improved road safety.

**PLANET AND EQUIPMENT**

Last year Keltbray was one of the first companies to successfully pass a number of certified external audits for compliance with the Non-Road Mobile Machinery (NRMM) Low Emission Zone requirements in London. These requirements aim to improve air quality by reducing key pollutants, such as Nitrogen Oxides and Particulate Matter from burning fuel such as diesel, petrol and natural gas.

“Although this is a tiered directive, we and a number of our clients are now working towards ensuring that our plant meet some of the stages ahead of the 2020 deadline to demonstrate good practice. To ensure compliance, we retrofitted over 20 machines with custom made dcl units. Although this was a considerably bigger investment compared to using generic bolt-on units, we found that the fixed design relative to kilowatt output was not suitable for our demanding demolition environment.

“Our investment in retrofit technology means that we get full life value from our fleet, whilst maintaining environmental and NRMM compliance with best available technology,” explained Keltbray Group Environmental Manager, Altin Lleshi.
As part of its commitment to the new regulations from the Greater London Authority to reduce emissions from construction equipment across the capital, Keltbray was first to adopt a new Solum crane foundation solution following trials at Broadgate last year.

Keltbray is involved with a significant number of projects that require the use of large mobile cranes. To lift heavy loads safely, cranes must deploy outriggers and it’s essential they spread the load evenly. In the past, the largest cranes required heavy steel plates for the outriggers to sit on, but these often required a second crane to be used on site to lift them into place.

“The Solum foundations are modular and spread working loads over an increased footprint. They balance strength and load capacity, which means even the largest unit can be moved by hand. This means they can be delivered with the crane and set out manually in just a few minutes, saving all the emissions associated with the second crane.

“The speed with which the outrigger foundations can be set up also saves hours of emissions from the crane with it on site for less time. Specifying Solum for our crane operations minimises the need for additional equipment and demonstrates that we are always on the lookout for new and innovative solutions to help cut emissions,” explained Keltbray Group’s Lifting Operations Manager, Steve Leyton.
CARBON OFFSETTING

Keltbray has joined forces with more local schools as part of efforts to offset the carbon generated by its projects.

While the team at Earls Court facilitated tree planting for pupils at Deptford Park Primary School to offset carbon generated by staff for their commute at The Broadway project, Keltbray provided trees to coincide with the opening of a nature garden at Wembley Primary School in London.

The project pledged to donate trees to the school with Carbon Footprint Ltd to offset the 44 tonnes of carbon associated with the Broadway workforce’s daily commute.

The event saw the children from the school’s nature gardening club help representatives from the Keltbray project to plant the trees. The children had also made art, which was on show in the garden, to celebrate the occasion.

At the official opening of the garden, the children and Keltbray representatives were joined by Headteacher at the school, Mr Fenton, the school governors, Cllr Bhagwanji Chohan, The Mayor of Brent, who cut the ribbon.

“

The project pledged to donate trees to the school with Carbon Footprint Ltd to offset the 44 tonnes of carbon associated with the Broadway workforce’s daily commute”
Focus areas

The 2030 Agenda for Sustainable Development is a global agreement to eradicate poverty and fight inequality and injustice. It was agreed by world leaders at the UN in 2015, with a focus on the 17 Sustainable Development Goals (SDGs) which the UK has committed to deliver domestically.
Keltbray is focusing on the following seven of these:

2 Zero hunger
3 Good health and wellbeing
8 Decent work and economic growth
9 Industry innovation and infrastructure
10 Reduced inequalities
11 Sustainable cities and communities
13 Climate action