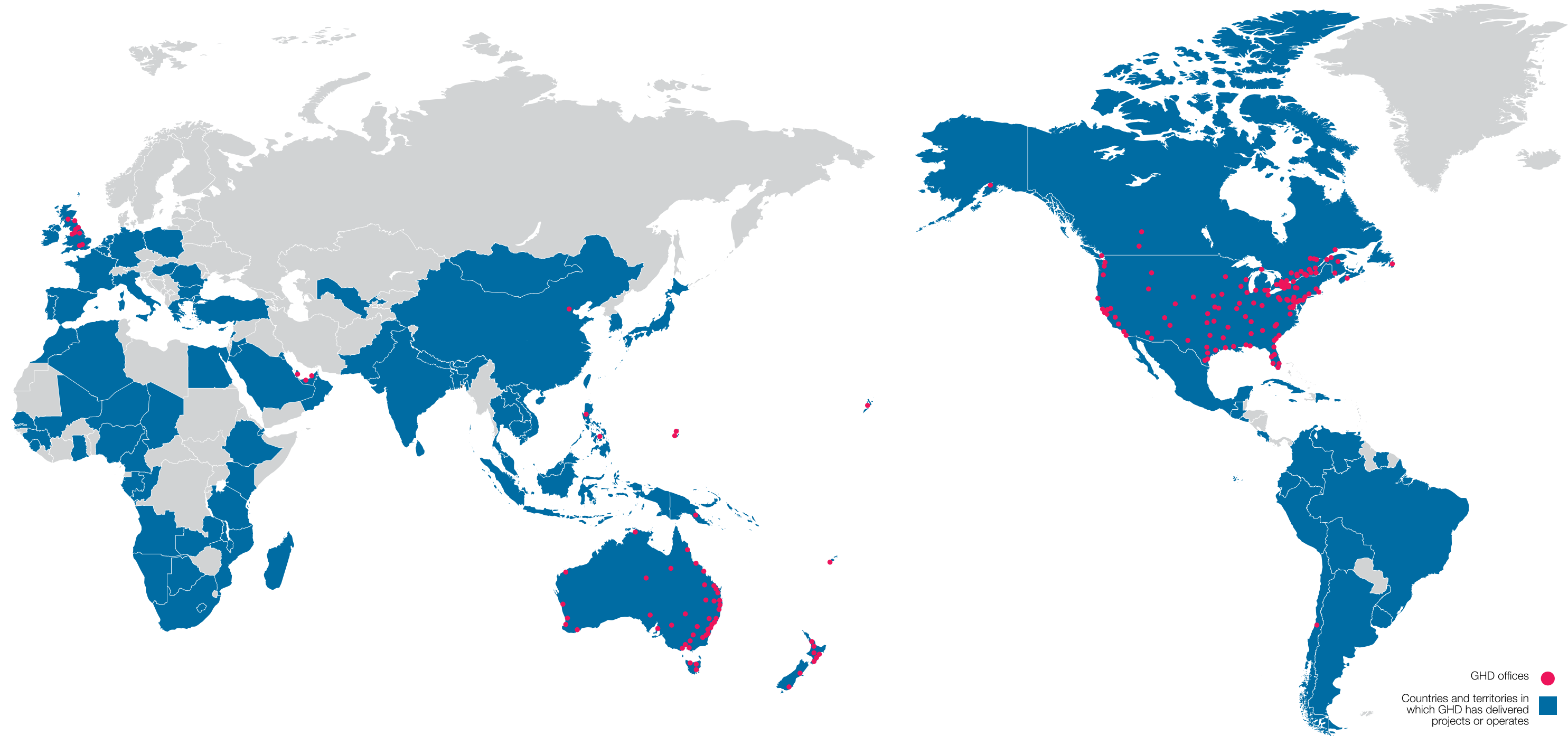




2018 ANNUAL REVIEW

Global reach



AUD1.9



billion
revenue

USD1.5



billion
revenue*

*FX rate is AUD1.00 = USD0.782. This was GHD's average USD rate for FY18.



75+
services

200+

offices



10,000+
people



Projects in
135+
countries



1 connected
global
network

Chairman & CEO message



Rob Knott
Chairman

Ninety years is a significant milestone; it represents the span of a lifetime for most people. While our business has evolved and expanded over the years, a constant theme has been an intrinsic set of human needs: for people to feel safe, to belong, to imagine, to create, to learn, to serve and achieve.

A common purpose unites people around a cause, a community or a company. That sense of purpose has never been so evident as this year, as we celebrated the passion of the people who have contributed to our history and recognised the talents of all the people who drive our success today. In recognising the proud legacy of what we have accomplished, we also reflected on the resilience and technical ingenuity of GHD people who skilfully adapted to the shifting demands of time.

Every day our engineers, architects, scientists, planners, consultants and technicians make a tangible impact on the communities in which we live and work. And it is the stories of our 10,000+ people that bring to life how GHD's connected global network genuinely thrives.

GHD has proudly delivered lasting community benefit for almost a century. Our people have achieved this alongside our clients through times of war and peace, through booming economic cycles and periods of market uncertainty, through times of drought and catastrophic weather, through capital investment cycles and times of austerity, and now through a time of digital innovation and disruption. It is with the confidence of our history, our deep technical excellence and an ability to adapt that we now embrace the complex and changing demands in each of the markets we serve.

Achieving Organic Growth

Revenues for the 2018 financial year grew to AUD 1.9 billion (USD 1.5 billion), an increase of 12 percent on the prior year. The focus on organic growth with selective acquisitions has more than doubled revenues over the past four years. Thanks to successful diversification, our global business now generates 57 percent of revenues from North America, Asia Pacific and Europe and Middle East.

Employee Ownership

The sustained growth year on year in total shareholder return in 2018 has continued to underpin a strong demand for employee ownership. Driven by our global Principal and Associate model, GHD continues to attract and retain outstanding professionals who are highly motivated to invest and lead and as a result, inspire others to become owners. The global recognition of our owner leaders as Principals and Associates, reinforces the distinctive 'owners mindset' culture in which more than 25 percent of people are material owners of the business.

Serving our Clients

Our goal to be an industry leader in client service is gaining momentum. While 91 percent of our surveyed clients regard GHD as accessible and responsive, we remain committed to continuing to listen and respond to what our clients need. Enhancing the ways in which we are able to closely interact with our clients, through the evolution of our project delivery platforms, will be key to the delivery of exceptional client service. The calibre of the submissions for our Client Service Awards is a great testament to the ongoing focus and success in championing our clients' needs.

Culture of Safety

While our overall safety performance continues to surpass industry averages, we are not satisfied with an increase in our Total Recordable Incident Rate per 200,000 hours worked. Despite maintaining a high level of positive interactions, this has increased to 0.24 from 0.23 in the last year. As a result, we are applying a fresh focus to better understand the human factors that directly impact safety behaviour.

Investing in Ideas

The creativity of our diverse multidisciplinary teams around the world has continued to impress. We are accelerating organic growth by encouraging our people around the world to "think big", developing new services, products and partnerships that benefit our clients, while creating new revenue streams for the business. Our approach to supporting fresh ideas and services recognises that, in order to become successful, new opportunities often require initial funding and a risk appetite to try new things. The Chairman's Technical Excellence Award went to Stephen Waldvogel for his emergency water quality treatment solutions for the Finger Lakes region in New York. The Technical Excellence Awards again proved a powerful platform to showcase our technical authority across a vast array of projects, and providing innovative solutions for our clients across the world.

Connected Thinking

Enhancing innovation across our global connected network continues to be a key focus. For example, GHD Digital is assisting our clients unlock the potential of digital technologies to generate value for their businesses worldwide. Through GHD Advisory and through global programs such as Smart Seeds, we continue to assist our clients to think differently about customers, products and services, business models, talent pools, organisational structures and the ecosystem their businesses rely on. We are also re-imagining our own systems infrastructure in core business areas so that we can proactively respond to GHD's growing workforce and better serve our clients' needs.

Agile Learning

Our growth this year has been concurrent with an accelerated drive to propel accessible and common learning experiences for all our people, consistent with our objective of making GHD a great place to learn. We launched a Global Executive Development Program (GEDP) to enable our leaders to better meet the evolving expectations of an agile organisation. In strengthening our learning culture, we also delivered a series of talent exchange programs designed to enhance collaboration across our growing technical talent pools.

Operational Highlights

Australia

- Strong growth in transport infrastructure and defence projects

North America

- Early success in diversification strategy with robust delivery in the transport market

APAC

- Strong financial performance in Pacific region countries
- Growth in mining sector across Argentina and Chile

UK/EME

- Solid growth of the Power market and our Dubai office opened



Ashley Wright
CEO

Outlook

In a future dominated by digital transformation and artificial intelligence, it will be our creativity, client focus and technical authority that will be the difference. Drawing from a legacy of success, we will now focus on shaping our own future to develop a new agile business strategy that is adaptive and resilient, a strategy to fulfil the needs of our clients and the ever evolving markets we work within.

Rob Knott
Chairman

Ashley Wright
CEO

Our performance

GHD has harnessed the passion of employee ownership. Over the past four years, our revenue has more than doubled and the company has grown to more than 10,000 people across 200 offices around the world.

While benefitting from strong demand for infrastructure investment in both Australia and Asia Pacific, the company is also successfully diversifying its global operations, with North America, Asia Pacific and Europe and Middle East now generating 57 percent of revenue. GHD Advisory and the new GHD Digital business are identifying innovative ways to create value for our clients.



Insights from our GM - Client Services

With deep market experience across Europe and North America and having worked in more than 20 countries in a range of senior leadership roles, the energetic Catherine Tobiasinsky shares some of her insights on client service.

“I see a huge opportunity to apply ‘value chain’ acumen by thinking obsessively not just about what our clients want but also to think about what our customers’ customers need (either internal or external), ensure that we understand this, and then deliver the benefits to all the customers in the chain,” Catherine says.

“There is a clear shift in the market currently which reflects a growing desire to work with consultants who can communicate succinctly the disruption in the market and bring that thinking, along with potential solutions back to the client, responding to all buyer types.

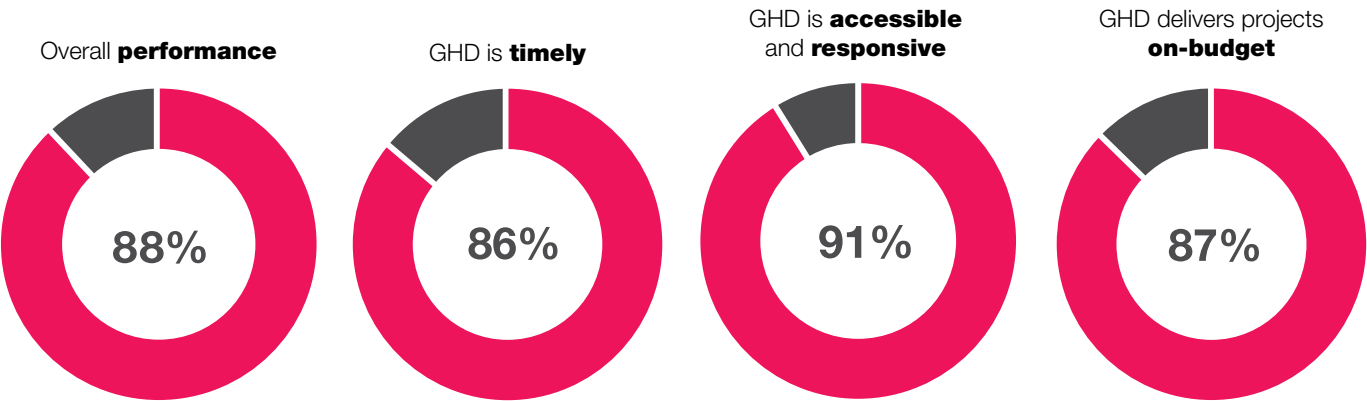
“Our Client Services transformation roadmap is already beginning to help re-shape our thinking on critical strategic levers such as: client & market strategies, thought leadership and our pivotal role as a technical authority.”

Client service-led

Client service is a powerful mix of what we do and how we do it. We’re really focused on what it is like for clients to work with us and technically excellent solutions are a must.

The feedback we receive helps us to understand the things we do well and the ways we can improve to become a trusted partner and an industry leader in client service.

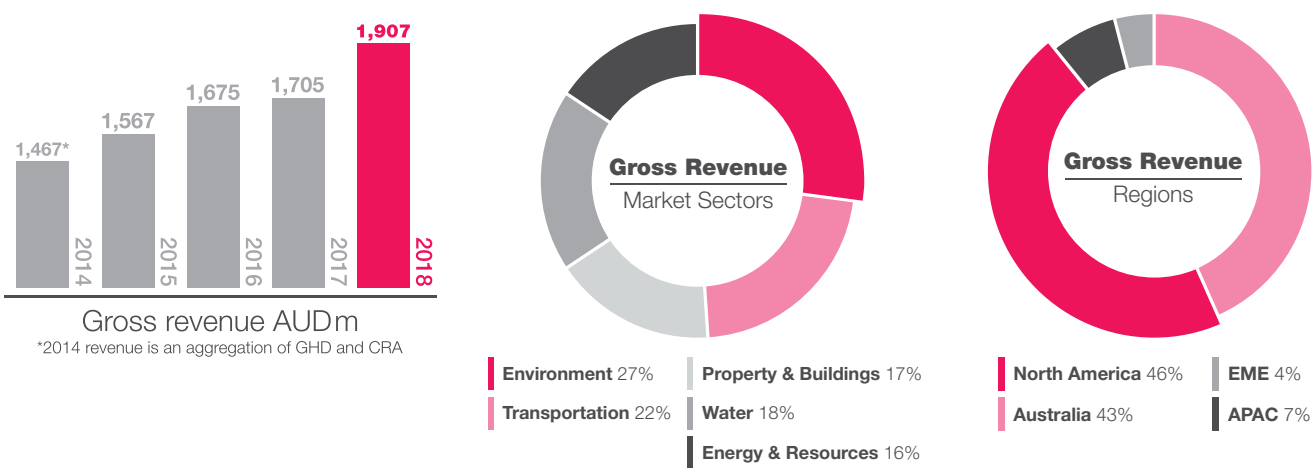
As a global and learning organisation, we actively seek out feedback, measure and report on it. The aggregated data below is part of our continuous improvement drive.



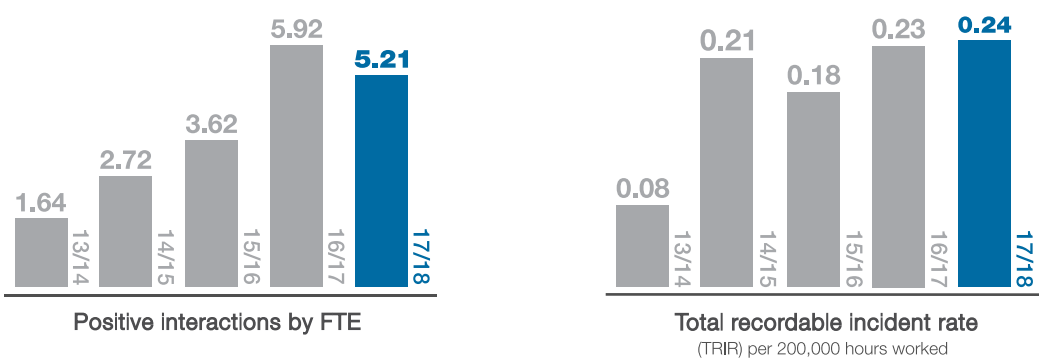
***Source:** GHD eSurveys, FY 17/18

Client satisfaction ratings are produced from our client eSurvey results. For every eSurvey completed by our clients, GHD donates AUD10 to UNICEF.

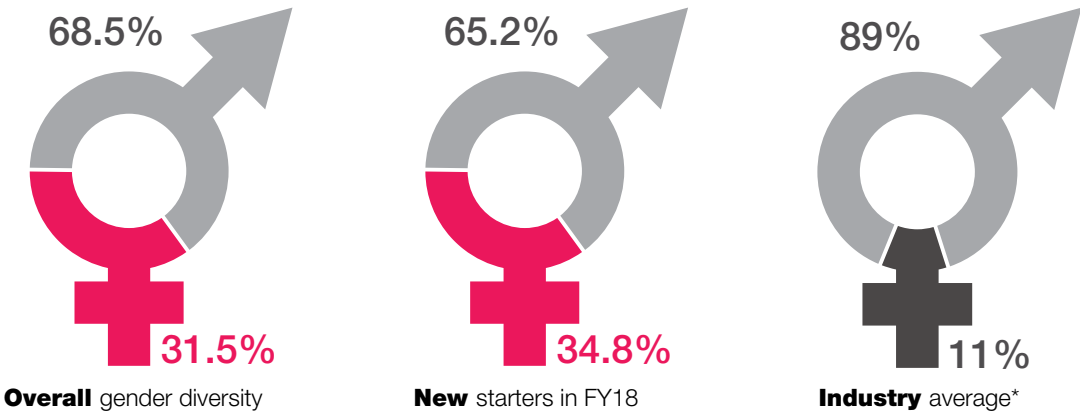
Revenue



Safety



Diversity



***Source:** World Economic Forum, Future of Jobs Report, 2016

Clients and projects

Advisory

Our mission is to drive efficiencies and growth, enabling our clients’ business to be a competitive front-runner.

GHD Advisory addresses the need for business outcomes that challenge the status quo in our rapidly changing environment. Underpinning our approach is the unique combination of creative thinking, sound business acumen and 90 years real-world experience in design, delivery and operations.

We partner with clients throughout the business and asset lifecycle, leveraging our global network to deliver integrated solutions with long-term benefits.



Dalrymple Bay Coal Terminal Regulatory Submission, Queensland, Australia
Client: *Dalrymple Bay Coal Terminal Management*

The Dalrymple Bay Coal Terminal (DBCT) in Queensland, Australia, is a multi-user coal export facility leased to DBCT Management by the Queensland Government. Currently, DBCT is ‘declared’, which means that access for third parties to the coal exporting service is regulated by the Queensland Competition Authority (QCA), under the QCA Act 1997.

Our Regulation & Access team supported DBCT Management in shaping its regulatory submission to the QCA, setting out reasons why the declared status for the coal handling service at DBCT should not continue beyond September 2020.

GHD Advisory provided economic modelling support to DBCT Management, using regulatory-economics principles and real-world considerations that DBCT is not a natural-monopoly facility. This included analysing whether the total foreseeable demand in the market for coal handling services would be met more cost effectively by DBCT alone or in combination with coal terminals in Central Queensland.



Manawatu Gorge, Manawatu, New Zealand
Client: *New Zealand Transport Agency*

Running through the spectacular Manawatu Gorge, New Zealand’s State Highway 3 is an important transport link, connecting the Manawatu-Whanganui and Hawke’s Bay regions. However, this section of the highway has been prone to landslides and has been closed since April 2017.

To support the economic growth of the two regions, GHD Advisory was selected to deliver a business case for an 11.5 km alternative route, with a focus on creating a safer and more resilient road.

The team provided the overall management, facilitation and production of the detailed business case and economic assessment, while the wider GHD teams worked on highway and bridge concept design, environmental assessments, planning assessments and advice, stakeholder engagement, geological mapping, as well as geotechnical assessment.

The final deliverable was a true piece of teamwork delivered under pressure, drawing on teams from across multiple offices in New Zealand, Australia and Chile.

Larrakia Cultural Centre – Feasibility and Social Business Case, Northern Territory, Australia
Client: *Larrakia Development Corporation*

A unique cultural centre is being proposed for the Darwin Waterfront, to transmit and preserve the language and culture of the Larrakia people, the traditional owners of the greater Darwin region, and attract visitors from around the world.

The new centre will be located in close proximity to the sacred Chinute Chinute site, home to a Larrakia spiritual ancestor that manifests itself as a Tawny Frogmouth.

The Larrakia Development Corporation engaged GHD to develop a strategic business case for the cultural centre.

A combined team of GHD, GHD Advisory and GHDWoodhead provided a comprehensive suite of services, including:

- Undertaking a scoping and feasibility assessment to identify the location for the facility
- Helping build political and public support for the initiative
- Outlining the potential opportunities to promote Aboriginal culture and increase tourism in the Northern Territory
- Developing a functional brief for the future design of the cultural centre.



“(The regulatory submission) was very well managed. The consultants were perfectionists who went the extra mile to ensure a high quality submission.”

- Dhofar Power Company, Oman

Clients and projects



GHD Digital helps clients unlock the potential of digital technologies to generate value for their businesses. We assist our clients to think differently about customers, products and services, business models, talent pools, organisational structures and the ecosystem their business relies on.

We combine engineering, architecture, environmental and construction services with our understanding of technologies such as data analytics, location intelligence, cyber security, virtual and augmented reality and mobility to deliver unprecedented value for our clients.



Smart City Framework, Victoria, Australia
Client: *Glenelg Shire Council*

Glenelg Shire in far south-western Victoria, covers a large area around Portland, which is home to Victoria’s second-largest export port built on forestry, aluminium, agriculture and aquaculture.

Like many regional communities Glenelg Shire has challenges around the cost of service delivery, employment growth, retaining young adults and communications infrastructure. Glenelg Shire Council is very progressive and fully recognises the potential of smart technology to help the community achieve three key attributes of liveability, workability and sustainability.

GHD Digital was appointed to prepare a smart city framework, roadmap and governance process. We engaged widely across the community to identify initiatives that are tailored to the region. Our client was particularly pleased with the time our team spent in the community and our open and friendly, collaborative working style. We have since introduced a potential partner who may be willing to fund one of the identified smart technology trials which would enable the Council’s limited available funds to be leveraged further.



The Connected Site, Victoria, Australia
Client: *Level Crossing Removal Authority*

A major rail infrastructure upgrade on the east coast of Australia is facing a number of challenges, including escalating cost pressure, increased resource competition and complex coordination of works.

The Connected Site will evaluate the extent to which the ‘Internet of Things’, pattern recognition, mobility and other smart technologies will be able to enhance safety, improve resource liability and reduce project delivery cost.

So far, GHD Digital has delivered a range of benefits to our client including:

- Identifying savings
- Providing a single point of truth for data across the project
- Facilitating efficient data handling and enhanced information sharing across the project
- Enabling the client to view and access project information on mobile devices
- Minimising site work through timely insights.



Energy and resources are the lifeblood of communities around the world.

With considerable experience in delivering landmark energy and resources projects, GHD offers a broad range of services to the sector, through our globally connected network. From feasibility to performance optimisation, expansion of existing operations, development of new greenfield projects or closure of assets, GHD can assist clients to achieve their desired outcomes.



Expansion of Lithium Carbonate Plant, Argentina
Client: *Orocobre Limited*

At an altitude of 4000 m above sea level in the Jujuy province of Argentina, the Sales de Jujuy S.A. plant at Salar de Olaroz produces lithium carbonate for export to global markets.

Demand continues to grow for this valuable resource, which is used for making batteries as well as ceramics, glass and chemicals manufacturing.

At Salar de Olaroz, lithium brine is extracted from underground bore wells, fed into evaporation ponds, where brine is concentrated until reaching a desired level of lithium. Then, concentrated brine is sent to the chemical plant where it is filtered and dried, resulting in lithium carbonate.

GHD’s role includes:

- Test works to establish design and technological assessment parameter for different processing plant components, with the participation of different equipment vendors and manufacturers
- Detailed engineering design drawing on a variety of disciplines
- Early design and procurement of long lead items.



Tourian FEED, Teesside, UK
Client: *Tourian Renewables Limited (TRL)*

GHD has completed the Front End Engineering Design (FEED) for an innovative project in Teesside, UK, that will make valuable products such as fuels, oils or chemicals from waste plastic.

The project, developed to date by Tourian Renewables Limited (TRL), targets end of life plastics that have no further useful recycling value and will contribute to the goal of reducing the amount of plastic currently being disposed of in landfill sites.

Local GHD experience in supercritical steam and combustion systems, as well as electrical, civil and mechanical engineering expertise, was coupled with process plant design knowledge from GHD’s oil and gas team in Australia.

The project team deployed specialist technical process design knowledge alongside multi-disciplinary engineering capability to develop a robust FEED for the new facility.

This pioneering project will be the first of its kind in the UK whilst the application of technology to achieve the range of end products from the waste plastics feedstock will be a world-wide first. TRL is asset managed by Armstrong Energy, a leading investor and developer of low carbon and other ‘circular economy’ projects.

Clients and projects

Water

For more than 90 years, GHD has been at the forefront of the water industry, delivering sustainable outcomes for our clients across the globe. We're committed to sustaining the communities in which we operate, our integrated water solutions address every element of the water cycle - from catchment to tap - for urban, rural and industrial water applications.



Hespeler trunk sanitary sewer line, Ontario, Canada
Client: *City of Cambridge*

GHD helped the City of Cambridge in Ontario, Canada to implement an innovative trenchless technology solution for the 45-years-old Hespeler trunk sanitary sewer line, which serves more than 35,000 residents.

After assessing the sewer and reviewing potential options, our team identified cured-in-place pipe as the preferred methodology for rehabilitating the 2 km long, 600 mm and 675 mm diameter trunk sewer. This involves installing a soft, resin-soaked, sock-like liner within the existing sewer using high-pressure air.

This solution saved approximately CAD1 million compared to traditional replacement methods, which would have entailed significant costs and approvals challenges, including the need to clear-cut surrounding forestry within an environmentally sensitive area.

Following the feasibility report, GHD developed the detailed design and tender documentation, and secured the necessary approvals. We also provided contract administration and site inspection services.



Novaliches - Balara Aqueduct 4, Manila, Philippines
Client: *NovaBala Joint Venture Corporation (NBVC)*

One of the largest water supply infrastructure projects undertaken by Manila Water, a new tunnel aqueduct is being constructed, traversing one of the world's most densely populated cities.

The Novaliches to Balara Aqueduct 4 (NBAQ4) will enable Manila Water to secure water supplies for Metro Manila and also progressively rehabilitate its three existing aqueducts between La Mesa Dam and its Balara Water Treatment Plant.

NBAQ4 will convey 1000 ML/d of water to Balara Treatment Plants 1 and 2 from the La Mesa Reservoir. The project entails the construction of a new intake facility at La Mesa Reservoir, a 7.3 km long by 3.1 m diameter tunnel, a 30 m above-ground outlet tower as well a mini-hydro power plant, access bridge and road and downstream ancillary pipework and civil roads. The tunnel will be constructed using a TBM (Tunnel Boring Machine), which is the first time Manila Water has used such technology in its history.

GHD was engaged by construction contractor NBVC, an international consortium of companies (Chunwo, CMC Ravenna, First Balfour), to develop the tender detail design and is currently involved in the early stages of construction as NBVC's technical advisor.

Once constructed, the project will provide drinking water to approximately 7 million people within Metro Manila.



Westchester County Water District No. 1 Ultraviolet (UV) Disinfection project, New York, USA
Client: *Westchester County Department of Environmental Facilities*

Westchester County Water District No. 1 serves approximately 175,000 people and is operated by the County Department of Environmental Facilities for the benefit of the Cities of White Plains, Mount Vernon and Yonkers and the Village of Scarsdale.

To implement an alternative water supply that would obtain water directly from the Kensico reservoir required two new, separate UV disinfection facilities, in order to bring the water quality in line with recent federal regulations (LT2ESWTR) and to meet the hydraulic constraints of the existing system.

Cooperation between many stakeholders was necessary to locate two approvable, technically feasible construction sites. Both facilities were designed in the existing hydraulic grade line so that no additional pumping was required. The equipment and controls were designed to be above grade to ease operator access. Exceptional cooperation between municipalities and regulatory agencies facilitated fast tracking of the project, which was necessary to meet the compliance schedule of the USEPA.

GHD identified, evaluated, designed and constructed this enhanced surface water treatment that provides higher water quality and protection for customers, while reducing costs and meeting EPA regulations.



Wickenburg Ranch Water Reclamation Facility, Arizona, USA
Client: *Wickenburg Ranch community*

The 2160 acre Wickenburg Ranch community in Arizona was isolated from the existing water and wastewater infrastructure and needed a robust wastewater treatment system to support its future growth and development. The Town of Wickenburg also wanted a long-term solution that would reduce the amount of groundwater used by golf courses and landscaping for irrigation.

A new 100,000-gallons-per-day (gpd) water reclamation facility has been built to provide Class A+ reclaimed water, reducing the demand on the aquifer by up to 29.2 million gallons annually during Phase 1 operations and by 106.58 million gallons annually during the future Phase 2 expansion.

A high-quality water reclamation system was selected as the wastewater treatment process that provided the most beneficial reuse. Membrane bioreactor technology was chosen as it requires less daily interaction, while also producing consistent and compliant effluent, even under extremely variable loading conditions. Use of design optimisation tools during the master planning efforts resulted in a symmetrical design that promotes ease of operations and maintenance, while providing sufficient space planning for the ultimate facility build-out at 1.2 million gpd.

Clients and projects



We offer a broad range of environmental services to help our clients develop projects, enhance performance, and close and remediate operations, while managing risks and impacts. GHD has earned a reputation for excellence by offering integrated, practical and innovative solutions to all levels of government authorities, public and private organisations. We focus on helping transform concepts into reality while meeting regulatory, community and environment requirements. Our global network of skilled engineers, scientists, auditors, planners and environmental specialists to assist clients to achieve their goals.



Bayou d’Inde remediation, Louisiana, USA
Client: *Confidential*

A unique underwater installation of articulated concrete block mat, and the application of a sand-water slurry were implemented to remediate industrial contamination in Bayou d’Inde, a major tributary of the Calcasieu River located in southern Louisiana.

Numerous contaminants - mainly polychlorinated biphenyls (PCBs) - had accumulated over decades of industrialisation in in two distinct areas. To address these environmental impacts in tidally influenced bodies of water required innovative thinking, considerable planning, and precise control at the field level.

In the first area, contaminated sediments were covered and isolated with an impermeable concrete blanket. Over 39,400 square yards of articulated concrete block mat were installed over 2200 linear feet of bayou, with a unique design where the panels were zippered and overlapped to create a continuous bank-to-bank cover.

In the second area, over 21,000 tonnes of sand were pumped into 15.8 acres of fringe marshes, areas that are tidally influenced with varying water levels up to 1 foot. A land-based, logic-controlled slurry system was used to create a sand-water slurry, which was applied in a controlled manner using sprayer barges. The sand cover will mix with existing sediments over the next 30+ years, leading to natural attenuation and protecting wildlife.



North East Link Technical Advisory, Victoria, Australia
Client: *North East Link Authority*

GHD is technical advisor to North East Link Authority as it undertakes the Environment Effects Statement (EES) process to gain planning approvals for Victoria’s priority road infrastructure project – an AUD16 billion new freeway connecting the ‘missing link’ in Melbourne’s orbital ring road.

Our team at all levels and across three disciplines on the North East Link project, embedded directly within the authority’s office and sites. Our services include engineering design, technical planning and specialist services across 18 study areas including noise, air quality, landscape and visual, as well as communication and stakeholder engagement – all to ensure the project achieves lasting community benefit as Melbourne’s population continues to grow.

We have collaborated to share more detail than ever before about the planning process, including taking communities along the journey of selecting a corridor and using advanced technology such as Augmented Reality and Virtual Reality to help people understand complex design information.

Saipan dump regulatory closure / Eloy S. Inos peace park, Northern Mariana Islands, USA
Client: *Office of the Governor/Capital Improvements Program*

Saipan, the largest of the Northern Mariana Islands and a US commonwealth in the Western Pacific, closed the Puerto Rico dump in 2003. At the time, the dump had grown to a 90-foot-high mound with an estimated 1.75 million cubic yards of waste, and required remediation to comply with the Resource Conservation and Recovery Act under the US Environmental Protection Agency.

GHD’s Saipan office oversaw the engineering and construction management that went into transforming the landfill into a park with walking paths and lookouts for visitors to enjoy sunsets over the Philippine Sea and Pacific Ocean. The USD27.2 million project included the installation of a thick liner system and extensive stormwater drainage and tribar revetment protection system to drastically reduce the amount of contaminated water entering the lagoon and protect the slopes from erosion.

Features that collect and safely vent landfill gas were also designed and installed. The closure is now fully in compliance with USEPA’s requirements.



“I’ve been working for the City over 20 years and GHD has been one of the best team of professionals I have worked with. Their attention to detail, schedules and client focus has been excellent.”

- City of Fort Lauderdale Public Works Department, USA

Clients and projects

Property & Buildings

The continued development and regeneration of our communities requires a sophisticated planning, design and project management approach. At GHD, we deliver seamless solutions that incorporate planning, economics, engineering, and management to help maximise return on investment.



Photo credit: Trevor Mein

Barwon Water head office, Geelong, Victoria, Australia
Client: Barwon Water

Designed by GHDWoodhead, the Barwon Water head office in Geelong, Victoria, has been named Australia's best commercial building, receiving the Harry Seidler Award for Commercial Architecture from the Australian Institute of Architects (AIA).

The project also received AIA's inaugural National Sustainability Award for the adaptive reuse of two existing 1970s buildings that retained the energy embodied in the concrete structure, while creating a contemporary workplace and a landmark for Geelong's central business district.

The energy-efficient facility is wrapped in a distinctive high-performance façade that is inspired by the city's industrial history.

According to the jury citation, the project created a workplace that "feels vibrant and domestic" while the façade "gives the building an overall sense of purpose – one that aligns with the qualities of a public authority dedicated to providing one of the most fundamental services."

The citation also said the design "sets an excellent precedent for re-using the aged, underperforming building stock located in regional centres throughout Australia."

This level of recognition highlights the value of GHDWoodhead's integrated design offering, which combines architecture with engineering and other services to help clients realise complex projects.



Grantley Hall, North Yorkshire, United Kingdom
Client: Grantley Hall (client), R N Wooler (contractor), Bowman Riley (architect)

GHD is helping Grantley Hall recapture its elegant past as it embraces its future as a luxury hotel, spa and events venue by using our cutting-edge skills, technology and design for the ambitious restoration of this Grade II-listed mansion house in North Yorkshire.

The team is carrying out the civil and structural engineering design against a challenging brief. The work includes restoration of the existing hall and design of a new build facility that offers a spa, elite performance centre, accommodation, and basement office area. GHD has combined traditional structural engineering with leading digital design technology to help guide the client and stakeholders through the design solutions.

This use of building information modelling allowed easy agreement of design alterations and helped the client truly feel the finished facility by walking through the virtual building before moving seamlessly into construction. With the project progressing at pace, Grantley Hall is due to open in spring 2019.

"GHD used industry-leading 3D design technologies and worked collaboratively with our wider team to help us to achieve our project vision and aspirations. In particular, their preparation of live 3D walk-through videos was invaluable and enabled us to 'see' our project, influencing its form throughout the design development phase and well in advance of the construction commencing," says Andrew McPherson, General Manager at Grantley Hall.



Le Petit Paris, Doha, Qatar
Client: Al Asmakh Properties

GHD is providing design and engineering consulting services for the masterplan and approval stage of Le Petit Paris, a mixed-use development located at the Lusail Entertainment City in Doha, Qatar.

The Parisian-style development will cover a total built-up area of 170,000m², including 10 luxury serviced apartment buildings, a 4-star hotel and two standalone restaurant buildings with an underground carpark. To achieve the client's vision for a vibrant urban neighbourhood, the team proposed a land use strategy that will enhance the area, forming a transition zone between the nearby Place Vendôme, currently under construction, and the waterfront boulevard of the Lusail Marina.

The masterplan creates a dynamic and stylish urban precinct, drawing on Neoclassic rules to link two opposite squares and a connecting high street. Recreational landscape areas will be provided in the form of pocket parks and the marina-side boulevard. Architectural features on the proposed buildings and carefully designed street furniture will bring an ambience of historical Paris into the new district of the Qatar capital.



Qasr Al Hosn, Abu Dhabi, UAE
Client: CEBRA Architects

Qasr Al Hosn is the emblematic birthplace of Abu Dhabi. It is the first permanent structure built in the emirate and one that housed its ruling Al Nahyan family for generations.

The fort remained the seat of government until 1966. It has been developed several times and is now partially open to public.

The original coastal desert landscape that surrounded the fort has now been replaced by Abu Dhabi's urban area.

The Abu Dhabi Department of Culture & Tourism (DCT) is developing a new masterplan for the Qasr Al Hosn area, featuring a park inspired by the desert that gives visitors a glimpse of traditional life in Abu Dhabi and recreates the sense of arrival in a coastal oasis.

Through careful conservation and development, the site will become home to a wide variety of indoor and outdoor cultural and social activities.

GHD was selected with its partner, Danish architecture practice CEBRA, through a design competition.

GHD's role includes structural, mechanical, electrical and plumbing engineering design services, fulfilling the role of the Architect of Record and providing post-contract construction supervision services.

A number of offices including UAE, UK, Philippines and Australia have supported the delivery of this landmark project, which is deeply connected to the history of the UAE.

Transportation

Transport needs are inherently linked to land use across social and economic activities. Our teams of globally-connected specialists understand transport challenges in multiple sectors, and provide integrated services throughout the entire project life cycle. We help clients to develop sustainable solutions that balance infrastructure investment with demand reduction, land-use strategies and system efficiencies, to provide a lasting benefit for communities.



Holman Highway 68 Roundabout, California, USA

Client: City of Monterey, Pebble Beach Company, Caltrans, the Transportation Agency of Monterey County, Monterey Bay Unified Air Pollution Control District, County of Monterey, City of Pacific Grove, the Community Hospital of the Monterey Peninsula

The Holman Highway 68 roundabout project implemented a multi-lane, sustainable, low-maintenance, user-friendly roundabout to relieve congestion along Holman Highway, one of the Monterey Peninsula's main transportation corridors. The project replaced a signalised intersection joining the Highway 1 on- and off-ramps to Highway 68 and the famous 17-Mile Drive, which previously caused commuter frustration, increased air pollution, and restricted access to the local hospital, compelling impatient drivers to invent detours through adjacent residential neighbourhoods.

GHD provided project management, traffic operations/analysis, and specialty engineering design. Multiple staging and contingency plans were required to mitigate traffic congestion and confusion, while simultaneously maintaining access for residents and emergency services. The design was optimised to minimise harm to the coastal habitat and preserve over 400 Monterey pine trees, protecting the scenic character of the area. The final roundabout solution had significantly fewer impacts and was less than half the cost of a previously planned project.



State Highway 1 Ellerslie Acoustic Barrier, Auckland, New Zealand

Client: NZ Transport Agency

The Ellerslie acoustic barrier project was initiated by the local community and the New Zealand Transport Agency to mitigate the noise and air pollution effects of more than 100,000 vehicles travelling on this section of State Highway 1.

GHD designed nearly 1 km of acoustic barriers, made up of 233, 3-metre-high panels, sitting on a fibre-reinforced concrete footing, which varies in dimension to fit the narrow corridor.

The core design philosophy was to create a continuous wall with consistent elements, instead of discrete post and panels that usually make up noise walls.

The result is a seamless piece of infrastructure that responds to the overall road corridor, complementing road structures and landscape. The design is inspired by the history of early Maori settlers, who used 'waka' canoes as their main form of transportation. The noise panels incorporate Maori decorative elements symbolising spiritual warning and protection developed by Maori artist and designer Johnson Witehira.

To see more of our projects, visit:
www.ghd.com/projects

Rankings and recognition

- **#29** by revenue in Top 150 Global Design Firms 2018, Engineering News-Record
- **#55** by revenue in World Architecture 100 2018 (GHDWoodhead)
- **Excellence in Water**, NCE 100, New Civil Engineer, UK
- **#16** by revenue in Australia's Top 500 Private Companies, IBISWorld and Australian Financial Review
- **2018 Gold Award**, Royal Society for the Prevention of Accidents, UK

Achievements – Projects

- **Birmingham Resilience Project** – 2018 Bronze Project Innovation Award, International Water Association
- **Ellerslie Noise Walls, Auckland** – 2018 Sustainability Awards: Excellence in Concrete for the Community, Sustainable Concrete, New Zealand
- **Holman Highway 68 Roundabout, Monterey, California** – 2018 Engineering Excellence Award, American Council of Engineering Companies, California; 2018 Outstanding Local Streets and Roads Project Award, California State Association of Counties; 2018 Best Projects Award of Merit, Engineering News-Record
- **Pesticide Container Management in the Pacific** – 2018 Project Management Achievement Award, Australian Institute of Project Management
- **Regulatory Closure of Puerto Rico Dump, Saipan** – 2018 Best Projects Award of Merit, Engineering News-Record
- **Smart Seeds** – 2018 Christian Dahmen Memorial Award for Innovation, Human Resources Institute of New Zealand

Achievements – People

- **Duncan Findlay** – Admitted and qualified as Attorney and Counselor of the Supreme Court of the United States
- **Elijah Suares** – 2018 Rod McGee Medal, Engineers Australia
- **Howard LaFever** – 2018 Civil Engineer of the Year, American Society of Civil Engineers Syracuse Section
- **Kate Macdonald** – Highly Commended, National Association of Women in Construction Excellence Awards, New Zealand
- **Melissa Burns** – Young Engineer of the Year, American Society of Civil Engineers Florida Section
- **Rene Leblanc** – President-elect, International Occupational Hygiene Association
- **Tom Povey** – 'Keep your eye on this one' award, Building Information Modelling Awards, UK

To see more of our achievements, visit:
www.ghd.com/awards



Our history

1928
2018
YEARS

GHD turns 90

Inspired by our 90 years of history, GHD provides engineering, architecture, environmental and construction services to private and public sector clients around the globe. We are transforming the way we work and co-create solutions with clients as we embrace new technologies and respond to changing community needs.

Our history repeatedly shows how relatively small teams of committed people have grown new services in new markets, to deliver exceptional client service and technical excellence in the work they deliver.

GHD's history is also a powerful guide that will help steer our future, as we develop new services, enter new regions and develop new ways of co-creating solutions with our clients.

With over 90 years' experience as an employee-owned organisation, we are continuing our ongoing transformation as we embrace and predict changing community needs.

Celebrating GHD's history

In 1928, Gordon Gutteridge resigned from a safe and prestigious government job to launch a private engineering consulting practice in Melbourne. He was later joined by Gerald Haskins and Geoffrey Davey, whose initials became our company name.

Throughout our history, these three visionary engineers were joined by many talented people at GHD, shaping the future of our business and making a remarkable contribution to the community. Sir Bernard Callinan's story is particularly inspiring.

During the Second World War, Callinan commanded a special guerrilla warfare unit, the 2/2nd Independent Company, during the Japanese invasion of Timor.

At a time when many other Allied units in Asia were forced to surrender, the 'second second' successfully delayed much larger Japanese forces in Timor, withdrew in good order and became operational again in New Guinea.

Callinan returned to GHD after the war, growing the business in Australia and internationally, and diversifying its services. Appointed chairman and managing director of GHD in 1971, he led our company through a period of rapid expansion, and went on to lead a number of other prestigious organisations. Amongst his many awards, he achieved a rare distinction of having a bar named in his honour at the Melbourne Cricket Ground.



L-R: Sonia Adams, Global Strategic Pursuits Leader, Ashley Wright, CEO, and Simone Lanham, Project Assistant



Kumar Parakala, Global Digital Leader

Our people

Empowering our people

GHD's employee owned status is a powerful point of differentiation and helps drive our passion and accountability in how we serve our clients, deliver projects, and pursue new opportunities.

Our employee numbers have grown by more than 11 percent in FY2018, with more than 2500 people joining our business globally. In line with our workforce renewal targets, we also achieved a record for graduate recruitment, with 475 people accepting graduate roles globally. The percentage of female graduates, as a proportion of total graduates, has also increased steadily over the past seven years.

Importantly, this growth has been matched by strong employee engagement levels at 76 percent, up 6 percent from the previous engagement survey and also above the global IBM benchmark of 73 percent. These figures show that GHD is a place for aspiring people to thrive, achieve their career goals, and make a lasting impact.

Diversity and inclusion

At GHD, we want our people to feel comfortable to share all aspects of themselves at work. Our commitment toward diversity in the workplace is driven by a strong conviction that genuine inclusion will deliver greater productivity, creativity, and diversity from deeper pools of talent and through fairer processes for all.

Our people are as diverse as the communities we serve across five continents. Embracing diversity of thought, background and experience helps us develop imaginative and responsive solutions for our clients that create lasting community benefit.

GHD's commitment to diversity and inclusion is embodied within our global strategy and includes: championing gender equality, cultural diversity, reconciliation with Indigenous peoples, adapting to the needs of generational workers as well as flexible working arrangements for our people. Our regionally specific actions continue to position us as an industry leader.

To learn more about diversity and inclusion at GHD, visit:
www.ghd.com/diversityinclusion

Investing in big ideas

GHD is accelerating organic growth by encouraging our people around the world to think big; developing new services, products and partnerships that benefit our clients, while creating new revenue streams for the business.

Our approach recognises that, in order to become successful, new opportunities often require initial funding and a risk appetite to try new things.

An example is the launch of the global GHD Digital business, spanning cybersecurity and risk, digital strategy and transformation, smart technology services, digital innovation, and data analytics.

Other initiatives launched in FY2018 include:

- Commercial partnership with a geospatial company to automate land contamination reporting for the property sector
- Development of industry-specific economic benchmarking tools to inform clients' capital investment decisions
- Strategic recruitment of specialists to expand client service offerings in flood modelling and civil infrastructure, coastal and maritime engineering, power, and operational process redesign
- Pioneering approaches to contain and remediate/remove PFAS contamination in partnership with research organisations and equipment suppliers

These growth initiatives are contributing to the future success of GHD and, even more importantly, unlocking the creative and entrepreneurial thinking of our people.

Smart Seeds

Powered by GHD with industry partners, Smart Seeds is a design-led global innovation program focused on complex challenges. What began as an idea to engage GHD's vacation interns in 2012 has blossomed into a multi-national, cross-discipline program bringing together diverse groups of people to co-create integrated solutions.

In 2018, Smart Seeds broadened its reach delivering school and community programs for the first time in Australia, including participants in North Queensland, Central Australia and the Riverina region of New South Wales. These events provided a forum for local communities to collaborate and develop solutions to their most pressing challenges. In New Zealand, Smart Seeds received the 'Christian Dahmen Memorial Award' for Innovation at the New Zealand Human Resources Awards 2018. The award recognised our innovation program for preparing participants for the future of work and driving collaboration with local industry.

Christchurch became the third city to engage in Smart Seeds in New Zealand joining the ranks of popular programs in Auckland and Wellington. Elsewhere, Smart Seeds successfully continued programs in Canberra, Sydney, Perth and London, UK.

To help realise more great ideas from Smart Seeds in 2019, we are excited to expand the program to provide more opportunities for collaboration and prototyping following Showcase Events in each city.

To find out more or register your interest, go to <https://smartseeds.org/>



Our people in Santiago, Chile



Smart Seeds participants in Wellington, New Zealand

Our people

Technical conferences

During 2018, we hosted more than 300 GHD people at technical conferences around the world, where global representatives of technical communities of practice came together to exchange best practices across our wide range of services. These included:

- Connecting GHD's Approach to Project Management, Construction, Risk and Buildings, February 2018, Vancouver, Canada
- Accelerating our transformation – Leveraging Data and Modelling in our built environment, June 2018, Brisbane, Australia
- Innovative transportation in a technology driven world, September 2018, Auckland, New Zealand
- Build to last: innovative infrastructure, November 2018, Perth, Australia

This unique professional development model is delivered through a series of technical conferences that foster a connected global network, imaginative thinking as well as ensure GHD is closer to our goal of being a leader in client service excellence.

Our model of Principals and Associates makes us attractive to people who want to be invested career-wise, financially and emotionally in the business, be accountable for their performance and inspire excellence in others.

Leadership training and development

Our approach to career planning at GHD encourages the development of a portfolio of skills and experiences, providing the capability for a variety of future roles. GHD works globally to one-team mindset and a change agile organisational culture that aims to unleash the energy of each of our employees,

Learning and development at GHD encompasses a wide range of activities designed to improve the following four areas of business capability:

- Leadership and management development
- Technical capability and project delivery skills
- Clients and business development skills
- Safety and project systems compliance

Connecting talent across the globe



Yasmin Hussein

Yasmin Hussein has travelled from Doha, Qatar to Townsville, Australia to be part of our TalentX program which is a short-term international assignment opportunity for early career professionals, created to help develop broad skills and capability across our global business.

Yasmin cites the cultural knowledge transfer as well as the technical learnings as the key business benefits to come from her experience to date. Fostering mobility opportunities like Yasmin's is a key part of GHD's strategic objective to operate as a globally connected network.



Paula Salinas

Structural engineer Paula Salinas relocated from GHD's office in Santiago, Chile, to Auckland, New Zealand, where she is applying her experience in ports and maritime structures, and seismic assessments to projects around the 'Shaky Isles'.

"Since moving to Auckland, it has been an experience of personal and professional growth," she says.

"Change was difficult at the beginning, but I have been able to meet many good colleagues who have helped me become a better engineer. Since moving to New Zealand, I have fallen in love with this country and with a Kiwi too."



Katja De Guzman

With diverse environmental experience, Katja de Guzman relocated from GHD's Manila office to Nottingham, UK.

The move has further extended our environmental capabilities in the UK, while providing opportunities for Katja to work on a wide range of projects, from oil and gas developments in the North Sea to remediation of former industrial sites.

Katja comments, "Living in England for the past year has brought wonder and adventure for me: my very first white Christmas, British road trips, and visits to the Continent.



GHD Chairman Rob Knott (L) presents Vaughn Campbell (R) as Winner of the Chairman's Award for Technical Excellence 2018



Brian Webster

Brian Webster moved from the Rocky Mountains of Colorado, USA, to lead our business in Australia's Northern Territory.

With extensive experience across the United States, Brian previously led the strategic growth and development of GHD's services for the oil and gas and petrochemical markets in North America.

"My wife, Jill, and I have traded the mountain lifestyle for the tropics and we are trying to learn Aussie slang and sayings," Brian says.

"I have found that the GHD sense of family extends around the world and outside our doors, to include our clients, industry partners and the community."



Chris Hertle

Chris has relocated from Brisbane, Australia to Irvine, California in October as our new Water Market Sector Leader – USA. He was previously Water Market Leader for Australia, and is a chemical engineer with more than 30 years' experience.

"This is an exciting time for GHD as we step up to really grow our water business in the US and Canada, building on our strong footprint in the Northeast and pursuing opportunities on the West Coast and in Florida. We are also improving collaboration across North America and globally, developing standardised design procedures, and working closely with our Advisory and Digital teams to open the door to new clients," Chris says.



David Kinniburgh

David Kinniburgh has moved from Sydney, Australia to London, United Kingdom, to lead our transportation business across the northern hemisphere.

For the last five years, David was leading the strategic growth of our transportation business in Australia, helping GHD secure roles on most major projects across the country.

This is David's third relocation with GHD, each one to take on a new challenge, which he has found extremely rewarding.

Our people in the community

Our Corporate Social Responsibility program, GHD in the Community (GITC), is designed to have a positive social and environmental impact on the communities in which we operate.

GHD people are actively involved in community and partner with many not-for-profit organisations globally. This includes the provision of pro-bono services and the support of a range of community-based enterprises for fundraising, volunteering, workplace support and engagement. Our people consider, formally apply and then nurture GITC partnerships, making this program one of deep interest and genuine personal pride amongst our workforce.

Our clients also play an important part in this global community program by highlighting their challenges or identifying opportunities for our assistance. We are grateful for their involvement which enables us to add value and make a real difference to disadvantaged communities or causes.



Engineers Without Borders in NZ

As a Gold sponsor of the Engineers Without Borders in New Zealand, GHD showcased our work around improving water security in the Pa Enua (Outer Islands) of the Cook Islands. Engineers worked with local government both in Rarotonga and the Pa Enua to provide technical advice, develop plans and design infrastructure to meet the needs of communities and provide them with a resilient source for their water supply.

Projects ranged from the development of water galleries in Aitutaki, to options for repairing concrete water tanks in Mauke, to designing a new water intake in Mangaia. Development of water supply master plans, writing technical standards and providing training material for local staff have also been a focus.



GHD Challenge UK

In September 2018, 80 construction and engineering professionals came together in the Lake District to raise an incredible GBP18,500 for five UK charities; Alzheimer's Research UK, Alzheimer's Society, Candlelighters Trust, Manchester Mind, and Purple Warriors. Over the course of three days, teams competed against each other in a series of mental and physical trials across fell, forest and water in England's biggest national park.

Professional formalities were set to one side and hierarchies forgotten as the teams tackled what is widely regarded as one of the toughest, but most enjoyable, construction industry challenges. Established by GHD in 1997 as part of a combined team building and community outreach program, the biennial challenge has now raised a total of GBP193,500 for UK charities.



Building better lives and shelters

The Bawinanga Aboriginal Corporation (BAC) represents the Aboriginal people of the homelands and outstations in an area of West Arnhem Land, Northern Territory, Australia. GHD partnered with Engineers Without Borders (EWB) to provide the BAC with recommendations on the repair and refurbishment of six shelters BAC built approximately 20 years ago in Darwin.

Through continued discussions and communication with BAC and EWB, GHD was able to gain a good understanding of the challenges being faced, which allowed GHD to successfully carry out a visual structural assessment of the shelters. Making the shelters habitable means the 300-600 homeland residents can make more reasonable choices between accessing services that they need, while still maintaining their important connection to country.



Volunteering for veterans

A passionate team from GHD's Cameron Park and Roseville offices in California volunteered with the local chapter of Habitat for Humanity for their first-ever Veterans Build, an initiative focused on providing homeownership to US veterans, military service members, and their families.

Our GHD people worked on a house being built for the Wirth family. Mark Wirth served 6 years in the US Air Force, and he and his wife, Emily, are now working, pursuing nursing degrees, and raising their two young children, Natalie and Troy. They are also contributing 500 hours of sweat equity to help build their home and were there working on the day that the GHD team participated.

The GHD team got to work alongside the Wirth family and helped with a wide range of tasks, including painting, backfilling the watermain trench to the house, putting up siding, attaching trim boards, and cutting brush.

Habitat for Humanity's Veterans Build also includes programming to help facilitate the transition from military service to civilian life, which includes financial education and financial literacy programs, volunteer and community engagement experiences, and employment opportunities.



Fostering career choices for women

Partnering with Lendlease in Australia, GHD has established a program designed to directly address the gender imbalance within Science, Technology, Engineering and Maths (STEM)-based industries, in which only 23.3 per cent of employees are female. Eleven Year 10 female students from two Melbourne high schools took part in a simulated project over the course of a week, working closely with GHD mentors where the students acted as architects, engineers, project managers, urban designers and environmental scientists.

The program is targeted at avoiding a looming skills shortage within the engineering, design and construction industry. It is based on the principle that positive role models and encouragement can have a significant impact on teenagers' subject and career choices.



Fostering curiosity in the next generation

GHD people all across the world continue to advocate STEM careers, breaking down barriers and talking to children and young people about engineering. We volunteer at local schools to bring STEM subjects to life and demonstrate their value in future occupations. In the UK, our people are working with universities around the country, providing mentoring, workshops and work placement opportunities to pass on knowledge and experience to the next generation of engineers and scientists.

For more information about GHD in the Community, go to www.ghd.com/en/about-us/community.aspx



www.ghd.com

Services

- Advisory
- Agriculture
- Air & Noise
- Aquatic Sciences
- Architecture
- Asset & Facilities Management
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- Aviation
- Bridges
- Building Sciences / Physics
- Chemicals
- Climate Change
- Communication Systems
- Construction Contracting
- Contamination Assessment & Remediation
- Dams
- Data Management Services
- Decommissioning, Closure & Rehabilitation
- Digital
- Digital Design
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- Electrical Engineering (Industrial)
- Emergency Response
- Engagement, Communication & Communities
- EPCM
- Fire & Life Safety
- Food Processing
- Forensic Engineering
- Forestry Management
- Geology
- Geotechnical
- HSE Systems & Industrial Hygiene
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- Hydrogeology
- Impact Assessment & Permitting
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- Minerals Processing
- Mining Engineering
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- Natural Resources
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- Power Delivery
- Power Generation
- Project Management
- Railways
- Renewable Energy
- Resource Evaluation
- Risk
- Road Network Management
- Road Systems
- Security
- Spatial Sciences
- Structures
- Tailings (Mines & Residue)
- Transportation Planning & Traffic Engineering
- Tunnels
- Urban Planning & Land Development
- Waste Management
- Wastewater & Stormwater Collection Systems
- Wastewater Treatment & Recycling
- Water & Wastewater Strategy & Planning
- Water Efficiency
- Water Transmission & Distribution
- Water Treatment & Desalination
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