



CUNDALL

Ireland

Our purpose

Cundall exists to create:

The best opportunities for our people
and sustainable solutions for the planet

Cundall is a global, independent, multi-disciplinary consultancy delivering sustainable engineering and design solutions across the built environment. Thought leadership is a key element of our business.

We are continually engaged in self-evaluation to measure and manage our impact on, and contribution to, both industry and planet.



Click on the web icon shown in this document to
link through to more information on Cundall.com



Derry Kearney
Partner

Since joining Cundall, I have seen the business in Ireland grow from a single to a multidisciplinary offering where we have worked on some truly amazing projects in Ireland and across the UK and Europe.

For every project our mission is to play a key role in helping our clients occupy spaces which promote wellness, are energy efficient, sustainable and cost effective to operate.

Cundall is on a journey to zero carbon. We recently achieved carbon neutral as a business globally and now we're setting ourselves a new, even more ambitious goal - by 2030 every project we design will be zero carbon.

The team are active members of the Association of Consulting Engineers of Ireland (ACEI), Engineers Ireland, The Irish Green Building Council (IGBC) and Dublin Chamber of Commerce.

A modern office interior featuring a prominent red staircase on the left and a long, curved red desk on the right. Two women are working: one is sitting on the stairs using a laptop, and the other is sitting at the desk also using a laptop. The space is characterized by its bold red color scheme, light wood paneling, and a large circular white light fixture hanging from the ceiling. The overall atmosphere is bright and contemporary.

Who are we?

About us

Cundall is a leading multi-disciplinary practice of consulting engineers whose focus is on designing environmentally-friendly, sustainable buildings.

Cundall has one of the largest industry leading sustainable design resources in the world and experienced assessors in the most widely used international ratings tools - BREAM, LEED, NABERS, WELL, Green Star, NZEB. Our projects have won numerous sustainability awards.

Over the past year, we have seen a global tide of momentum with individuals, governments, local authorities and now the construction industry declaring climate emergencies and setting net zero carbon targets. This is a challenge to every part of the industry and society as a whole.

Cundall's mission, vision and values have enabled us to be at the heart of the industry's response. Our vision is to be "Agents of change for sustainable world" and "Construction industry thought-leaders". Our Sustainability Roadmap: "One Planet, One Chance" commits us to address our whole carbon footprint. We were certified carbon neutral in September 2020 and were the first consultancy in the world to achieve this Carbon Trust certification.



International practice with a local touch

Since Cundall was established in 1976, our reputation has been built on the foundations of client service, continuous professional development and investment in the future.

UK & Ireland

Belfast
Birmingham
Bristol
Dublin
Edinburgh
Glasgow
London
Manchester
Newcastle

Europe

Bucharest
Frankfurt
Madrid
Warsaw
Wrocław

MENA

Doha
Dubai
Riyadh

Asia

Bengaluru
Chennai
Hong Kong
Manila
Malaysia
Shanghai
Singapore

Australia

Adelaide
Brisbane
Melbourne
Perth
Sydney

Associated offices

Denmark
Sweden

Cundall stats



29

Global offices



1976

Established



1200+

People worldwide



Projects delivered in

50+

Countries



500+

Awards won



All projects will be
net zero carbon by

2030

CUNDALL

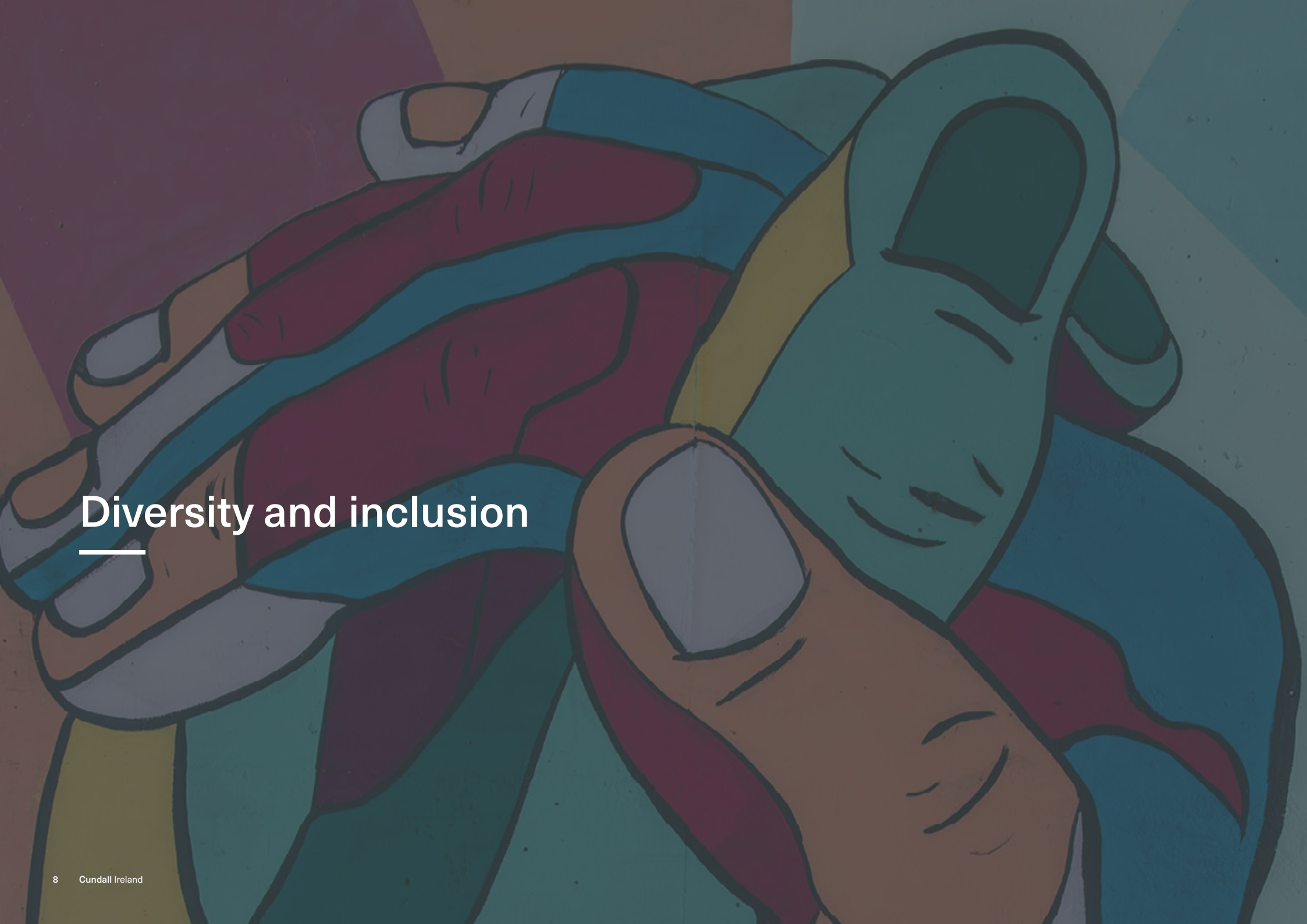
Irish offices

Ulster hospital, Belfast, Northern Ireland © Donal McCann

Cundall has been delivering projects in Ireland since 1999 and in that time we have built up a strong reputation for excellence in engineering.

With offices in Dublin and Belfast, we deliver state-of-the-art projects throughout the island of Ireland. Our clients enjoy working with us and the fact that we consistently win repeat business with 70-80% of them is testament to this.



A stylized, abstract illustration of two hands holding each other. The hands are rendered in various colors including teal, maroon, and light blue, with thick black outlines. The background consists of large, overlapping geometric shapes in shades of teal, maroon, and light blue. The overall style is modern and graphic.

Diversity and inclusion

Cundall communities

Our global diversity and inclusion strategy, Valuing Diversity, was launched in 2020 and commits us to being the most inclusive consultancy in our industry. This is a commitment that shapes who we are and what we do.

At Cundall, we are not only committed to a culture of inclusivity internally, but also to influencing change in the industry for the benefit of all.

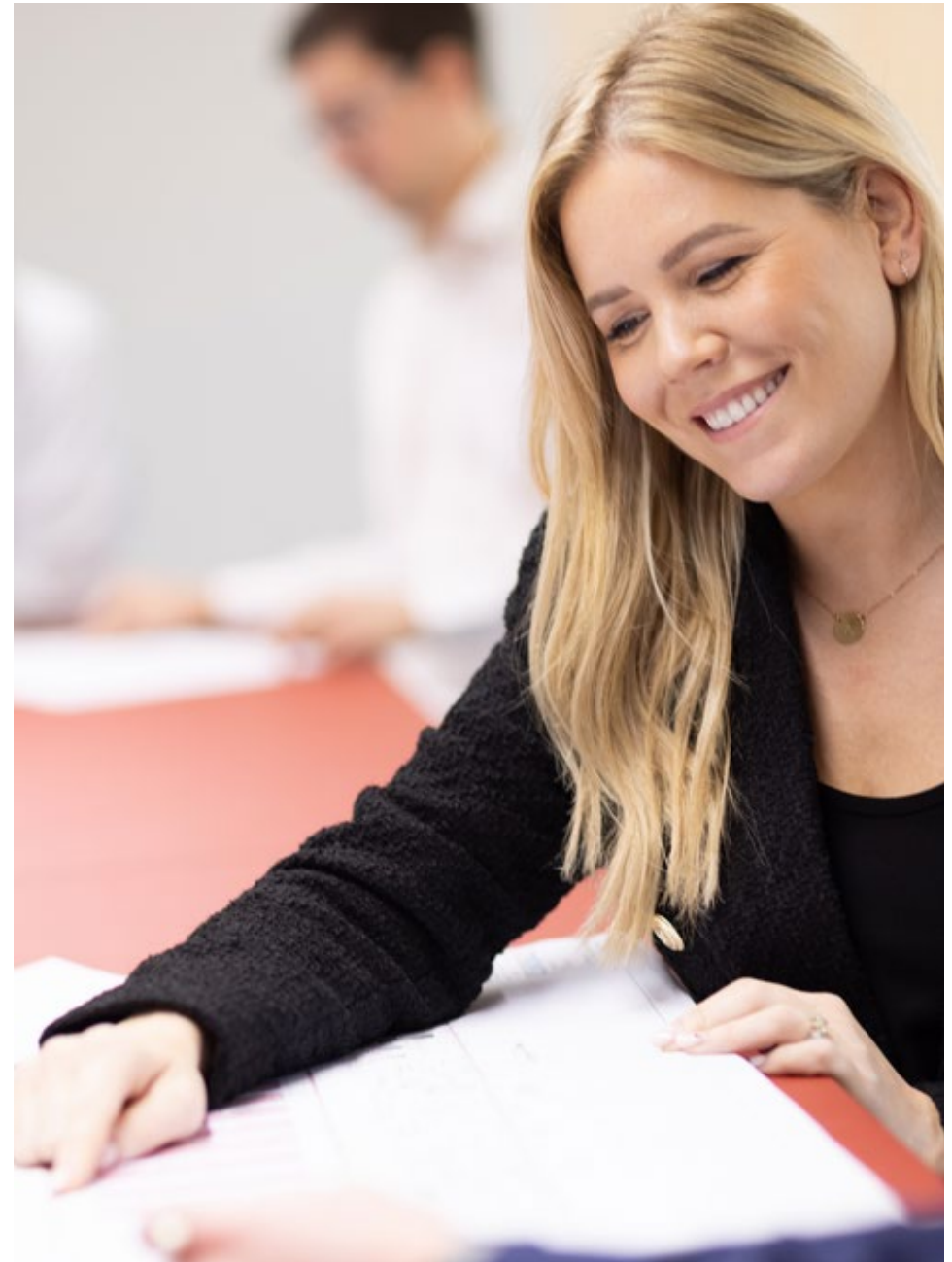
Whether through the work we do on ourselves to identify and remove structural barriers to equality, or our involvement with local communities to widen participation in engineering, we are active in our pursuit of a fairer future.

Awareness and training

Since the launch of our strategy we have facilitated a wide-range of training for staff at all levels on subjects including privilege, bias, meritocracy, micro-aggressions and bias.

Culture and traditions

To meet the objectives of our strategy it has been necessary for us to challenge how things are done at Cundall. This extends to our use of inclusive language, the widespread adoption of flexible working, and an increased emphasis on leadership accountability and transparency.



Sustainability

Eden, New Bailey, Salford, United Kingdom © Simon Buckley / Muse

Sustainability

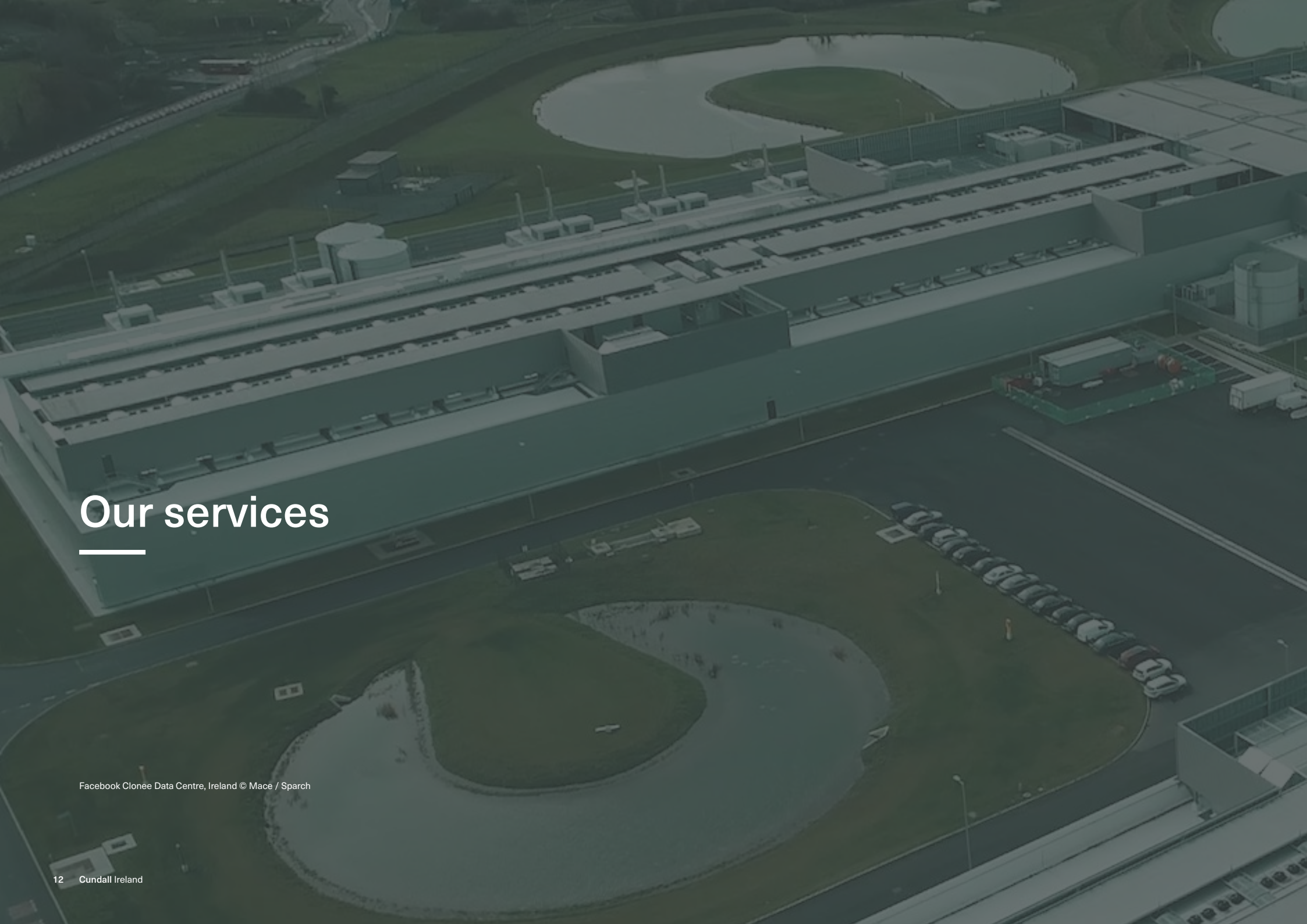
We are committed to collaborating with our clients and industry to deliver energy and carbon solutions necessary to keep global heating below 1.5°C. After 2030 Cundall will only work on design projects that are zero carbon.

Strengthening Cundall's commitment to designing for a sustainable world, the initiative will be rolled out over a nine-year period. We recognise that not every project can achieve zero carbon today and we will work with our clients and industry to make this transition as fast as possible.

Zero Carbon Design 2030 is a global initiative that engages everyone in Cundall - every office, every discipline and every level - to deliver zero carbon solutions. We will develop training programs, tools and guidance for our teams, and will share our knowledge with industry.

By December 2027, we will report on and meet science-based intensity targets for our designs. This will relate to Cundall's projects where we design something that exists temporarily or permanently.





Our services

Facebook Clonee Data Centre, Ireland © Mace / Sparch

Cundall services



Building services engineering

We offer an end-to-end service, extending from initial planning to construction fit-out, plus lifetime facilities management.

Our mission is to help design sustainable buildings which are more energy efficient and cost-effective to operate. Integration with our in-house specialist teams enables us to devise the best possible solutions to ensure our clients' buildings are sustainable and future proof. Our approach is focused on offering best value by: analysing client needs, considering possible design options and delivering the most appropriate for location, development and budget.



Critical systems

Our dedicated critical systems team offers a fully inclusive consulting service. This includes site due diligence and acquisition, design delivery, construction monitoring, research and development projects, client reference designs, and plant / system upgrades. Our proactive team takes a holistic approach to critical systems and data centre projects to meet our clients' objectives.

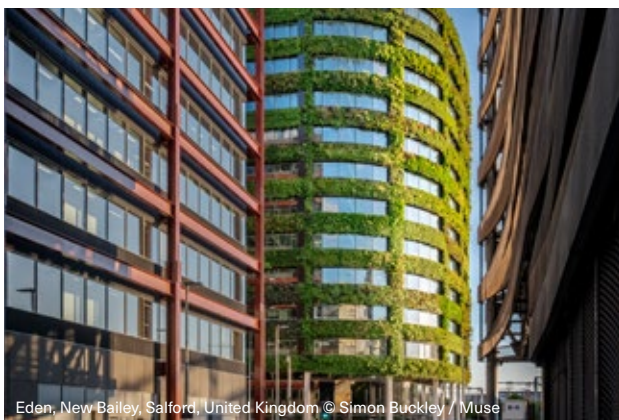
We have an enviable reputation within the industry for technical excellence and innovation. Our clients are confident we will consistently deliver industry leading critical systems and data centre designs.



Civil and structural engineering

We provide structural and civil engineering design services with our renowned analytical creativity and ingenuity. As a result, we have a high level of repeat clients. To deliver maximum value to our clients, we aim to be involved in projects from the very outset, which allows us to contribute to the development of fully integrated solutions.

This creates the greatest benefit and minimises the risk to budget and programme. Our approach is to use 3D modelling software to assist with integration on all our projects.



Eden, New Bailey, Salford, United Kingdom © Simon Buckley / Muse

Sustainability

We are positioned at the forefront of sustainability in the built environment. This is because we take a refreshingly positive approach to engineering design, fostering collaboration and creativity. We are driven by the consideration of people.

We know going green and commercial pragmatism can happily co-exist and use this knowledge on all our projects. We provide a service to suit all aspirations, as we are familiar with the latest energy and environmental legislation, green ratings and delivering zero carbon buildings.



Security consultancy

Our local security team work alongside our the global team to deliver the detailed design for physical and electronic security systems.

Cundall provides advice on identifying security threats and risks, and engineering design services to scope any required solutions (both physical and electronic). We ensure that security solutions are realistic and cost-effective.



Fire engineering

Our fire engineering team is well-known in the industry for taking a proactive design and development approach to fire protection systems.

Working closely with you, we ensure your buildings are compliant with the latest legislation. We design safe environments without compromising the overall architectural intent and desired functionality.

We ensure that each building we design complies with the latest fire safety guidance and legislation.



Other services



BIM



IT and audio visual



Lighting design

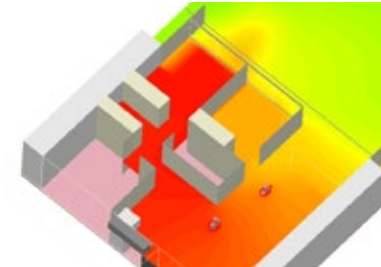
Geotechnical and geoenvironmental

Our services span feasibility / desk studies, specification, procurement and reporting of ground investigations. We also produce performance specifications, detailed design elements, construction advice and prepare verification reports.

Utilising an integrated, risk-based engineering approach, our chartered engineers, geologists and environmental scientists advise on the key ground risk issues that may impact your scheme. We balance both the geotechnical and environmental requirements to ensure a cost-effective and technically robust design.



Acoustics



Computational Fluid Dynamics (CFD)



Vertical transportation

3D concrete printing

In 2023, we began working with HTL to pioneer a new method of 3D Concrete Printing (3DCP) using ready mixed concrete in Ireland. The key differentiator in the development was working with EN206 compliant concrete mixes to deliver 3D Concrete printed structures that are compliant in Ireland. This innovation allows for an alternative digitised approach to construction for housing developments and low rise schemes.

This award winning, fully regulatory-compliant approach was rolled out on the first 3D construction printed scheme in Ireland. The residential demonstration building was delivered using COBOD International A/S 3D construction printing technology.

This initiative has served as a cornerstone for the entire housing construction sector, enabling future projects to benefit from a uniform and regulated approach to 3D concrete printing.



“

The judges were impressed by the highly impactful innovation presented, which has the potential to address major logistical and environmental issues faced by the construction sector in the country. It is evident that this technology has the potential to revolutionise the construction industry.”

Engineering Excellence Awards



Our projects

5-6 Earlsfort Terrace, Dublin, Ireland © IPUT Real Estate Dublin



6 EARLSFORT TERRACE



Facebook Clonee Data Center

Clonee, Co. Meath, Ireland

This hyperscale data centre in County Meath covers an area of over 80,000m² and consists of three single storey data centre buildings each housing four data halls with plant at roof level, a ground-level stand-by generator yard and administration building.

This data centre consists of three single-storey data centre buildings each housing four data halls with plant at roof level, a ground-level stand-by generator yard and administration buildings. The site covers an area of approximately 80 hectares including internal roads, several 3-4m high landscape earth mounds, attenuation ponds and general

landscaping areas. In addition, two access roads into the site are constructed. Two of the data centres, known as CLN1 and CLN2, contain eight data halls in two wings. The project is a departure from Facebook's US Plan of Record, in that it utilises Indirect Air Cooling, rather than the Direct Air Penthouse format deployed on previous Facebook Data Centres.



Client Facebook

Architect Nicholas Webb Architects

Imagery © Mace and Sparch



7 St Stephens Green

Dublin, Ireland

Cundall's office fit-out is a symbol of commitment to healthy and sustainable design in every aspect of the business. It embraces the principles of the international WELL building standard and was also designed in line with our net zero carbon commitment.

Designed by Studio Ben Allen and delivered by Cundall Dublin's in-house consultants, the new office is a symbol of Cundall's commitment to healthy and sustainable design in every aspect of the business. Situated overlooking the historic St Stephen's Green in Dublin's bustling centre, the office embraces the principles of the international WELL building standard and was also designed to achieve net zero carbon certification.

Key features include 100% recycled bespoke office furniture with sit/stand desks for all staff, circadian lighting to emulate the colour shift and intensity of natural light, and the integration of planting within the structural aspects to give refuge and a sense of place.



Client Cundall
Architect Studio Ben Allen
Imagery © Donal Murphy





Riverside Two

Dublin, Ireland

Cundall were engaged by the client to undertake a Wholelife Carbon Reduction Feasibility study and produce a strategy to optimise the existing buildings energy use and propose new systems to reduce carbon consumption for implementation.

This office building in a prime location extends 7,000m² and comprises seven floors over basement car parking. We were engaged by the client to complete a whole life carbon reduction feasibility study, resulting in a strategy to reduce carbon consumption and optimise the building's energy use.

As part of the upgrade, we created an Integrated Environmental Solutions (IES) Virtual Environment (IESVE) model to carry out dynamic thermal analysis and estimate the annual cooling and heating demand. This allowed us to review suitable heat pump technology.

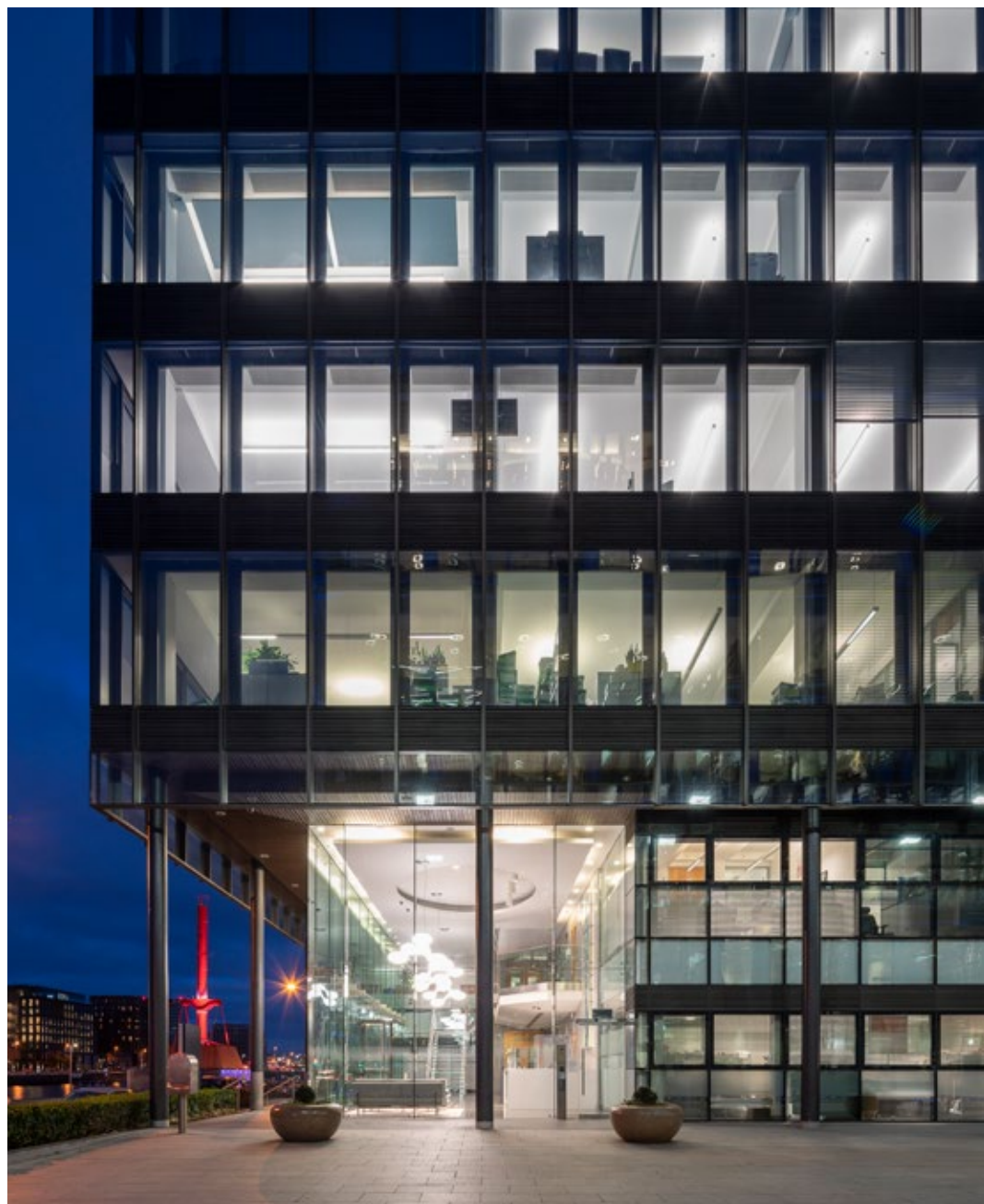


Client IPUT

Architect BKD

Imagery © Donal Murphy Photography







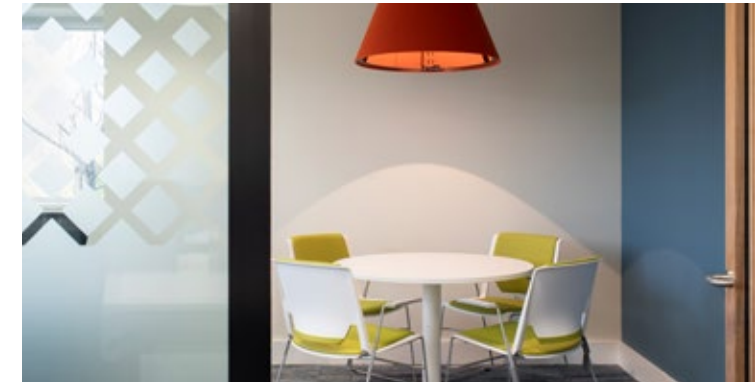
Clonskeagh Square

Dublin, Ireland

This 2,200 sq m 1980s two-storey office building required a complete refurbishment to be upgraded to best practice energy efficiency guidelines. The design includes open plan work areas with cellular offices, meeting rooms, a boardroom and a canteen with foldable walls to add flexibility.

We provided multi-disciplinary engineering services for the refurbishment and advised the client on the most economically suitable green solutions that will allow the building to attain the lowest energy rating achievable with an existing structure. All existing mechanical and electrical services were removed.

The new mechanical systems include a Hybrid Variable Refrigeration Flow (HVRF) system to provide heating and cooling of the occupied spaces. A full Dali lighting control system was installed throughout the building.



Client CWPS

Architect Kavanagh Tuite Architects

Imagery © Kavanagh Tuite Architects





ESW fit-out

Dublin, Ireland

We worked with ESW to provide a high-end design for three fit out projects at their head offices in Airside and Broadmeadow in response to the business' rapid expansion.

The fast-track nature and parallel delivery required us to be responsive and agile, providing a scalable team to meet the short notice design requirements.

Each fit-out comprised of open plan, private office areas and conference facilities. All design decisions were responsive to the company's needs and reflected their brand reputation, innovation and culture.

Meeting rooms have been designed to create a welcoming environment for clients, while ensuring confidentiality. IT and AV facilities enable the office to communicate globally and a server room has been designed for resilience, efficiency and flexibility.



Client ESW fit-out

Architect Design Folk

Imagery © ADCO





Leinster House Complex

Dublin, Ireland

Leinster House is the seat of the Oireachtas; the parliament of Ireland. We were engaged to provide a security upgrade to the complex which included a new control room, perimeter security analysis and an extensive CCTV network.

We also acted as lead designers for the Building Services working closely with OPW Architectural services. We ensured security solutions were realistic, cost-effective, and maintainable.

By defining security requirements at an early stage, our solutions are not only more innovative and cost-effective but also influence the design process to create a safer and more secure environment for this complex.



Client Office of Public Works



Ulster Hospital

Belfast, Northern Ireland

Award-winning £250m major acute hospital serving the Belfast area comprising a seven storey inpatient ward block and acute services block.

The 30,000m², seven storey inpatient ward block comprises of 288 en-suite bedrooms within 12 inpatient wards, four operating theaters, endoscopy, angiography, cardiac and a pharmacy department. The acute services block, of similar size, comprises 213 en-suite bedrooms within nine inpatient wards, A&E, medical, stroke, renal, nuclear medicine and an imaging department.

Both buildings adopt the same design principles of generously planned, light-filled spaces offering pleasant external views, providing a safe and therapeutic environment for patients, staff and visitors.



Client Health Estates

Architect Avanti Architects and Kennedy

Imagery © Donal McCann





Confidential Technology Client

Dublin, Ireland

A complete 8,000m² building fit out in the heart of Dublin's city centre business region. Our multi-disciplinary team advised the client and the design team on the most economically suitable green solutions that allow the building to attain the lowest energy rating achievable.

The design includes open plan work areas with cellular offices, meeting rooms, board rooms and commercial kitchens, areas with foldable walls to add flexibility.

With today's workplace refurbishments factoring many different design solutions, we prioritised sustainability, energy efficiency, cost-effectiveness, health and wellbeing and agile working environments. By reviewing existing services and, where possible, designing for upgrades rather than full service replacements, the refurbishment minimised waste and capital cost.



Client Confidential

Services Nicholas Webb Architects

Imagery © Confidential





North Range of Royal Hospital Kilmainham

Dublin, Ireland

As part of our extensive M&E design services on the heritage building, we looked at modifying the mechanical heating and ventilation systems to comply with building regulations.

We designed addressable systems throughout such as a lighting control system, emergency lighting along with a smoke fire damper system to make the building compliant with standard regulations. We also analysed energy efficiency, cost-effectiveness, and operational effectiveness for the end users.



Client The Office of Public Works

Architect The Office of Public Works

Imagery © OPW and Gareth Chaney



Profile Park

Dublin, Ireland

The 10-acre greenfield site, situated in Profile Park Dublin, is capable of supporting the phased development of approximately 15MW of data centre space across four separate buildings on a dedicated campus, totally approximately 193,000ft² of space.

The project focused on the first phase of a data centre campus, comprising four separate buildings, which when fully built-out would support a total of 15.3MW of critical load. Each building contains two 978 m² data halls, each supporting 1.9MW across 494 racks.

Cooling to the data halls is achieved using 'Excool' indirect air-cooling units that work through a combination of mechanical ventilation and adiabatic cooling to deliver the coolth to the data hall.



Client Digital Realty
Imagery © Digital Realty





P20 Data Centre

Dublin, Ireland

The campus houses a 10MW data centre that was constructed in the early 2000's. The MEP plant was approaching its end of life and Cundall re-engineered the existing MEP design to provide a resilient solution against an challenging design program.

The refurbishment was to be undertaken while the data centre facility remained "live" and operational. This was a key consideration in the design philosophy and health & safety.

We performed a detailed comparison of cooling technologies such as Air-cooled Free Cooling Chillers (AFCC), Traditional Direct

eXpansion (TDX), Pumped DX (PDX) and Water-cooled DX (WDX). We compared CAPEX and OPEX with a view to calculating the Total Cost of Ownership (TCO) over a period of 15 years. Following this research and analysis, we came to the conclusion that a WDX system be employed throughout the data centre.



Client Confidential



SK BioTek

Dublin, Ireland

SK biotek who are a global life science company who engaged Cundall to provide consultancy services on their Swords site.

As part of our initial survey works we were able to quickly grasp the complexity and varying age of the existing services on the site.

Our task beyond initial survey included preparation of a design package which included extension to the existing MV installation, new transformers and associated switchrooms.



Client SK BioTek



Pfizer

Grangecastle, Dublin, Ireland

Cundall has provided engineering services on the Pfizer campus, where our scope included assessment of infrastructure to ensure its capability for the proposed future expansion.

The project also involved input into the overall project design scope, site inspections while interfacing with contractor and client stakeholders.

The challenges included working in “live” pharmaceutical environment and ensuring sufficient plant access was maintained during the works.



Client Pfizer



PayPal Building 5

Dublin, Ireland

This building plays a strategic part in PayPal's operations in the EMEA region with this office being one of two European Operations Centre's in Ireland.

PayPal was keen to refresh their existing building stock whilst maintaining ongoing operations for the business. Building 5 was one of multiple buildings on the site completed in phases to ensure no disruptions to the day-to-day running of the business.

Revised desk layouts, additional meeting rooms and modifications to existing systems allowed for increased occupancy within the building. The modern aesthetic of the office is more in line with the dynamic PayPal culture.



Client Paypal

Architect RKD Architects

Imagery © mac-group





Killeens Housing Development

Wexford, Ireland

An ongoing development of 63 residential homes approximately 3 km to the south-west of Wexford town which offers significant amenity to the future residents of the site.

The 'Greenfield' site measures 15,900m² in area with the land falling by approximately 5.5 m from a high point at its south-western end to a low point at its north-eastern boundary.

As a design team, Cundall investigated many different forms of structure and tested them from a cost, buildability, sustainability and durability perspective. Initial site investigations

highlighted a weak stratum of sand below a relatively stiff upper stratum. The geotechnical team assessed the investigation results and designed a ground improvement scheme utilising vibro stone columns under foundations throughout.



Client Wexford County Council

Services Building services, civil, structural and fire engineering

Architect Shay Cleary Architects / Cullen Payne Architects

Imagery © Shay Cleary Architects





Dublin Airport

Dublin, Ireland

An international airport serving Dublin and the busiest of Ireland's airports. We have undertaken a number of projects for the DAA and have acted as lead design consultant and appointed to carry out project management, structural design services.

Dublin Airport has the highest traffic levels on the island of Ireland with an extensive short, medium, and long-haul network. The influx of traffic and passengers demanded upgrades to enable more efficient aircraft turnover. daa operates in Dublin and Cork airports in Ireland and has significant overseas business through its ARI and daa International subsidiaries,

in addition to the Dublin Airport Central development at Dublin Airport.

Cundall was appointed to work on a number of projects at Dublin Airport where we provided project management, structural engineering and planning services.



Client daa

Architect daa





The King's Hospital

Dublin, Ireland

This school is regarded as one of Ireland's leading boarding schools and we provided services to aid the design of the homely atmosphere desired for students, whilst offering a comfortable, healthy and inclusive environment.

As part of our ongoing engineering works on this live educational campus, we have been appointed to provide building services to aid the design of the homely atmosphere desired for students, whilst offering a comfortable, healthy and inclusive environment. The new self-contained units of two, four and five-person bedrooms give the privacy and flexibility that students require.

To make the scheme more energy efficient, a low energy variable volume ventilation system has been designed and installed as well as LED lighting throughout the scheme. To reduce overheating in individual rooms, all existing heating controls were upgraded.



Client The King's Hospital
Architect Mola Architects





Kildare Data Centre

Kildare, Ireland

We are providing engineering services for a new data centre on an existing campus in Kildare. This design proposed is the first of its kind and we were hand picked to lead this due to our vast experience in this sector.



Client Confidential

Architect Cantrell Crowley



5-6 Earlsfort Terrace

Dublin, Ireland

We undertook the CAT B fit-out of the ground and first floors of this 2,500m² office space. The buildings went on to achieve WiredScore Platinum and LEED Platinum.

Automatic lighting controls and digital controls for the HVAC system provide energy efficient cost saving solutions for the two main energy uses in office buildings: air conditioning and lighting.

The existing services were retained or recycled where possible and combined with new and relocated services to offer an integrated solution. Ventilation was upgraded to accommodate the increase with new ducted services routed through the building, thus minimising the impact on the net lettable floor space.



Client Office of Public Works

Architect Cantrell Crowely

Imagery © Donal Murphy Photography





Leeson Lane

Dublin, Ireland

A new seven-storey office connecting to a historic Dublin building, Spruce House, where Michael Collins was prepared for burial before lying in State in 1922. The building will be a flagship design for the client and marks their largest building in the city for many years.

Among the design solutions incorporated into the site were customised breakout meeting areas and collaborative workspaces to allow for the tailored working styles of the occupants.

The building design fully complies with the current Part L/ NZEB requirements. As part of our scope we have carried out a comparative study of emerging multi-function heat pump technologies to meet the 20% renewable ratio requirement to achieve NZEB.

Client Office of Public Works

Architect OPW Architectural Services

Imagery © OPW Architectural Services



Kilmainham Gaol and Visitors Centre

Dublin, Ireland

Kilmainham Gaol has been at the centre of Irish history since. We worked on numerous projects in the Gaol and provided services to allow the Courthouse to be converted to a visitors centre for the complex in advance of the 1916 centenary celebrations.



Client The Office of Public Works

Architect The Office of Public Works

Imagery © Donal Murphy Photography



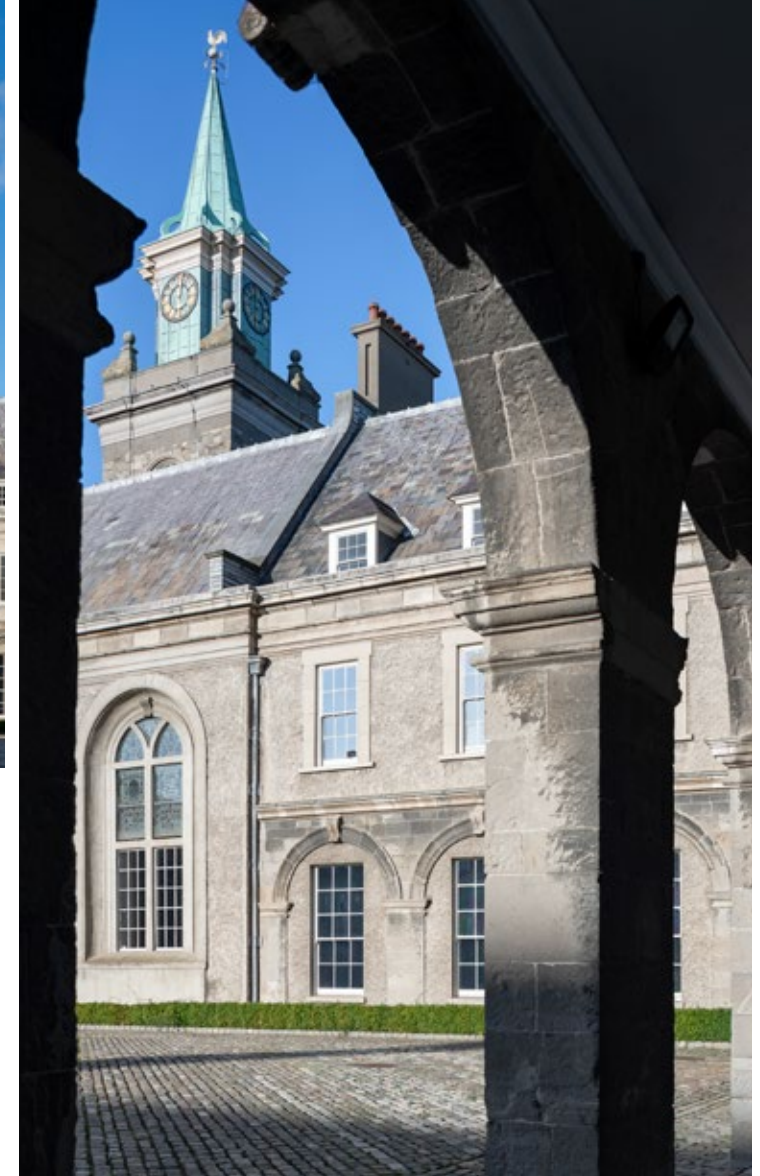
Royal Hospital

Kilmainham, Dublin, Ireland

This iconic landmark was built in 1690 and is now home to the Irish Museum of Modern Art. Since 2001 we have worked closely with the Office of Public Works to deliver various schemes to this hugely exciting, iconic landmark.

We have delivered several schemes with RHK since 2001, including hydraulic lift replacement works, fire, security and gallery lighting upgrades, installation of the new arts lift and a variety of office refurbishment works. Additionally, we provided building services upgrades to the five-level North Range - the development's event space.

These works included the full upgrade of fire, lighting, emergency lighting, security, heating and ventilation systems throughout the area.



Client The Office of Public Works
Architect The Office of Public Works
Imagery © Donal McCann





Croke Park

Dublin, Ireland

As home to the Gaelic Athletic Association, Croke Park has hosted iconic moments in Irish sport and history. We have been involved in a number of upgrade projects and take our involvement in this key part of Irish history seriously and feel that it is an honour to be involved.

We are currently working on various projects at Croke Park. More than just a stadium, it is the home of Gaelic games, a concert venue and, alongside the Aviva Stadium, it holds a special place in the hearts and minds of Irish people. Croke Park are going through a process of upgrade their existing lighting and emergency lighting systems throughout the stadium.



Client Gaelic Athletic Association

Contact us

Derry Kearney, Partner
+353 1513 7127
d.kearney@cundall.com

Cormac Farrell, Director
+353 1571 3032
c.farrell@cundall.com

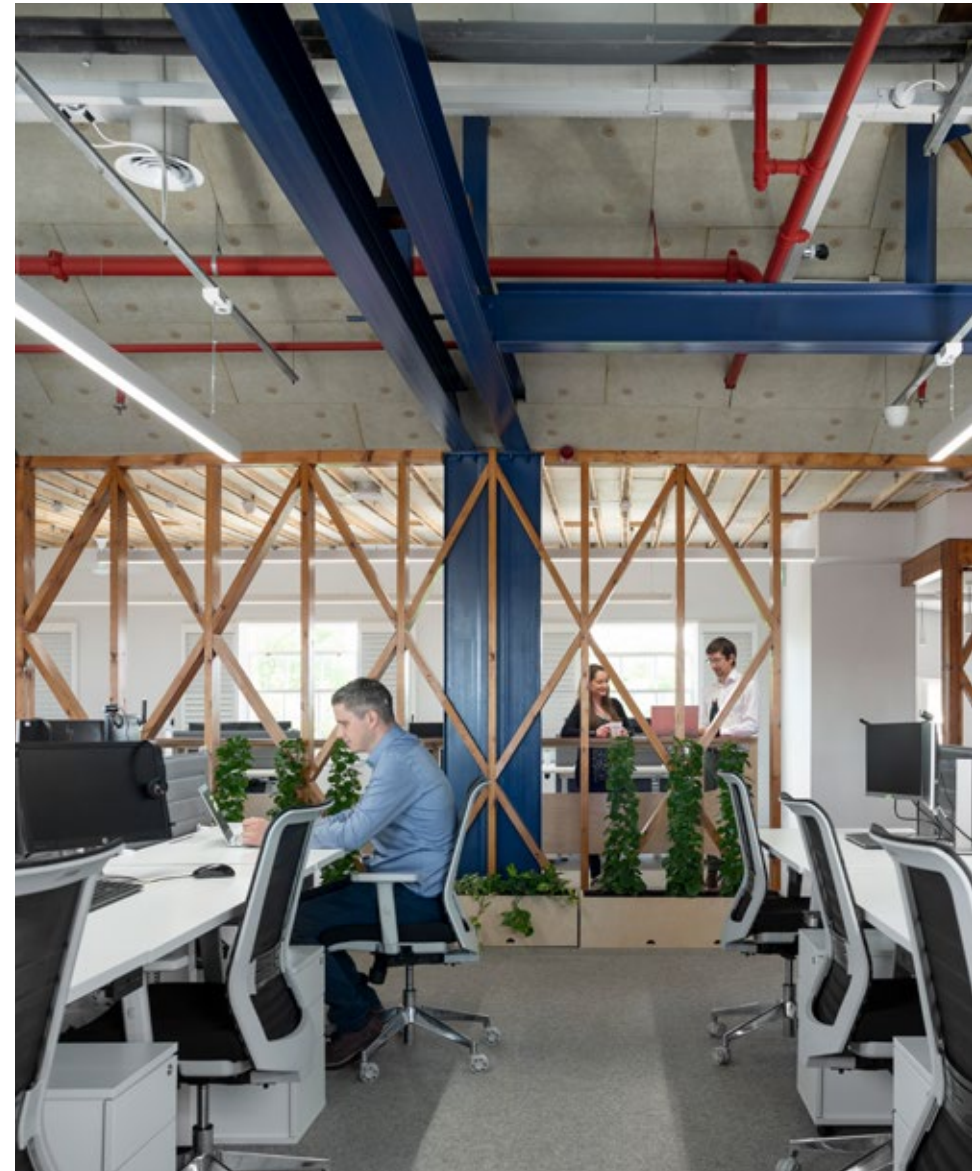
Gerard Doyle, Director
+353 1571 5641
g.doyle@cundall.com

William Dolan, Director
+353 1513 7134
w.dolan@cundall.com

Yvonne McNally, Associate Director
+44 28 9521 6644
y.mcnelly@cundall.com

Dublin
2 Dawson Street
Dublin
D02 VK75
Ireland

Belfast
Unit 2, College House
Citylink Business Park
Albert Street
Belfast, BT12 4HQ
Northern Ireland





CUNDALL

www.cundall.com

Asia Australia Europe MENA UK & Ireland

Designed and produced by Cundall graphics and marketing