

UK Capabilities in Inclusive Design of the Built Environment



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Ministerial Foreword



As the Department for Business and Trade's Ministerial Disability Champion, I am delighted to introduce this brochure promoting the need for inclusive design in the built environment. As a Ministerial Disability Champion, it is my responsibility to help deliver the Government's commitment to support disabled people in the UK, through creating more opportunities, protecting disabled people's rights and ensuring everyone can fully benefit from and contribute to every aspect of our society.

At the Department for Business and Trade, this means supporting disabled people to fully participate in the labour market and ensuring support for disabled entrepreneurs and disability-led businesses to grow, both domestically and overseas. It also means highlighting UK expertise in specialist areas, such as inclusive design in the built environment, to our global networks.

For non-disabled people, bad design is an annoyance at worst – whether that means battling everyday objects, or getting around buildings and public spaces. For the disabled community, bad design can present a frustrating and demoralising challenge. As such, inclusive design in the built environment should be a starting point for all design projects. While there is still further to go, in the UK we have made good progress in embedding this approach across all aspects of design, unlocking the social, commercial and economic benefits that flow from it. This brochure celebrates that progress and highlights some of the work from UK companies in the inclusive design space.

Design affects all aspects of life and inclusive design principles should be at the heart of the built environment. Good design improves daily experiences and empowers people and communities, ensuring equitable access for all, allowing everyone to participate in everyday activities with confidence and independence.

But there is still a great deal to do.

One of the department's main objectives is to help British companies export their products and services to overseas markets. Through this brochure, we aim to share the UK's expertise in this field with our global networks, helping to drive exports and growth - and more importantly, use this talent to enhance and improve the lives of the disabled community around the world.

Lord Johnson

Ministerial Disability Champion and Minister for Investment at the Department for Business and Trade

Introduction

Inclusive design goes well beyond physical access, as defined by the UK's Design Council. Inclusive design should create environments which work for everybody - ensuring that everyone can equally, confidently, and independently use buildings, transport, and public spaces. An inclusive environment is one which can be used safely, easily and with dignity by all. It should be convenient and welcoming, with no disabling barriers, and provides independent access without additional undue effort, separation, or special treatment for any group of people.¹

Empowering more people to participate actively in society also makes good economic sense. Research from leading disability charities such as the Purple Pound found that there were over 14 million disabled people in the UK in 2020, with a combined spending power of approximately £274 billion per year (including their households).² Unlocking this opportunity for growth is an often-overlooked benefit of inclusive design.

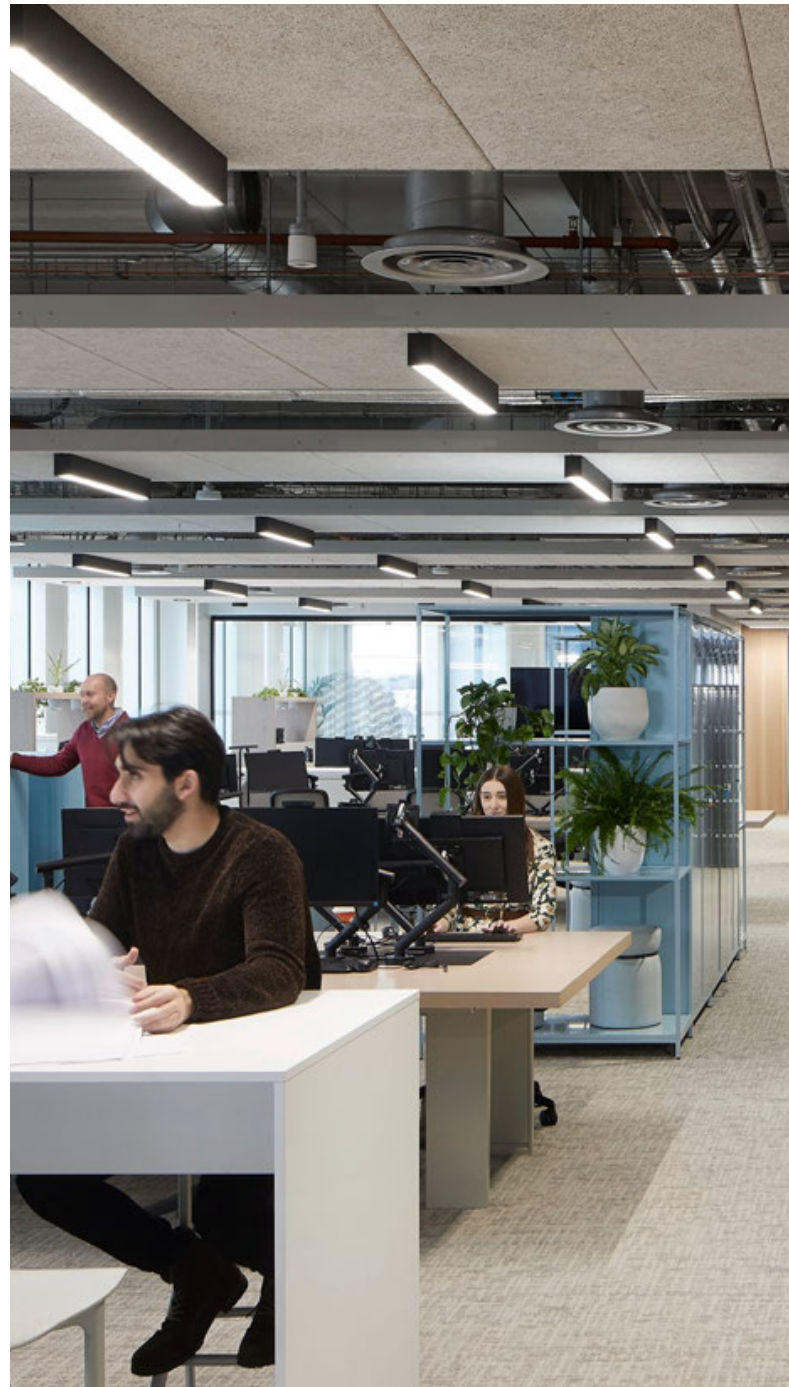
The UK's expertise in inclusive design is supported by our domestic policy frameworks, including the 2010 Equality Act and UK building regulations. The knowledge provided in this brochure is informed by robust standards and fulfils accessibility requirements, providing an opportunity to embed these principles in future design projects.



What is inclusive design and how can we achieve it?

Design shapes our world. As such, inclusive design is essential if we want to create places and spaces that can be used by everyone.

- Inclusive design considers everyone, enables equal access, and provides suitable facilities for every need.
- Inclusive design integrates circulation, communication, and support into every stage of conception, design, and construction lifecycle in the built environment.
- Inclusive design should be considered at every stage of a project's lifecycle. Integrating inclusive design principles as early as possible will result in more successful and inclusive solutions – while reducing the need for expensive late-stage redesigns, alterations or retrofitting. It can help future proof a development and lower the ongoing costs of maintenance over its lifespan.
- Inclusive design should also focus on management, maintenance and support around buildings and places once they are being used - factoring inclusivity into the full lifecycle of design, occupation, and operation.
- Inclusive design benefits from feedback loops and learning from user experience.
- Inclusive design gives developers, investors and building owners the confidence that properties and other assets will not only be commercially successful but meet relevant legal obligations.



Case study listing

Direct Access Consultancy



Direct Access Consultancy are an international award-winning accessibility and inclusion consultancy working with Architects and Design teams on a wide variety of projects. Rather uniquely, they are a team of 17 disabled people with studios in Nantwich in the UK, Boston in the United States and Dubai, United Arab Emirates. Any consultant can pick up guidance and quote measurements – it is the lived experience of disability that makes the difference.

Dubai Expo

Established in 2004, Direct Access started international projects in 2018 as the Universal Design and Access Consultants for the world exposition Expo 2020 Dubai. Initially undertaking a benchmarking review of different access standards, this informed audit programmes of the construction and fit-out stages for the thematic districts, thematic pavilions and public realm. They introduced several firsts to the region including Changing Places (enlarged accessible washrooms) and quiet spaces for neurodiverse visitors. Direct Access continues to operate in the Middle East working on a variety of iconic construction projects in Diriyah Gate and Qiddiya areas of Saudi Arabia and as the Access Consultants for Expo City, host of COP28.



United States

In the United States, Direct Access is delivering a pilot housing accessibility programme in Vermont to enable disabled people to be more independent by going beyond minimum standards. In Massachusetts, Texas, Arkansas and Missouri they are enabling municipalities to improve access to public facilities in accordance with the Americans with Disabilities Act.

Europe

In France, their accessibility audit work with the transport operators in Lyon has improved accessibility at key interchange stations and design appraisals of the new Metro Line B extension at Oullins Centre and Hôpital Lyon Sud (South Lyon Hospital). In Ireland, County Cavan commissioned Direct Access to develop a tourism and recreation accessibility guide supported with recommendations for access improvements. This involved consultation programmes with disability stakeholders to identify what they thought were priorities for accessible locations. Direct Access are working with the United Nations International Organization for Migration on their new headquarters in Geneva, Switzerland.



UK and Ireland

The sectors that Direct Access operate in are just as diverse as the countries, ranging from education to transportation infrastructure to museum and heritage. They are the Access Consultants in the UK for the Royal Armouries developing accessible experiences both in person and online to the oldest UK museum established in the 15th century. At the other end, working with modern Grade A offices in Canary Wharf.

www.directaccessgp.com/uk

BDP is a leading international practice of architects, engineers, designers and urbanists who believe that inclusive design is fundamental to creating spaces for everyone. They also provide advisory services on accessibility, wellness, inclusion and social impact through their specialist consultancy, Human Space.

With over 60 years of experience designing inclusive projects in all sectors, BDP's global portfolio embodies the diversity of the communities it serves.

The University of Wales

BDP's wayfinding team developed a strategy that supported the university's accessibility guidelines. Considering a wide range of disabilities, their goal was to make the sign system inclusive. BDP installed assistive listening systems for the hard of hearing in rooms and meeting spaces, lectures, classes, and reception desks. Red and blue painted zones at each end of the building and large white identifying level letters provided clear signals for orientation. A series of pictograms was custom designed specifically for the university, depicting a diverse range of facilities, genders, and ethnicities.



Axess Condominiums, Canada

Capitalising on a growing need for accessible housing in the region, this 2-22 storey tower development offers a vibrant new community that seamlessly integrates design strategies for people living with cognitive and physical disabilities, young families, and those ageing in place. Design features include suites designed to a higher standard for accessibility, an area of refuge with daylight access on every floor which also serves as community space and sensory garden.



Geylang Serai, Singapore

BDP GDP were tasked with redesigning Singapore's Geylang Serai cultural belt. Their winning design incorporates sheltered areas, enhanced accessible paths of travel, comfortable and dynamic outdoor furniture systems, innovative smart wayfinding systems such as positioning technology, and in-ground pavement lighting sensors to enhance safety and pedestrian flow. By designing spaces that connect the modern neighbourhood with the area's heritage, the team aimed to create a new market where multiple cultures and generations can thrive and utilise smart technology to make their way around a beautiful, well-organised shopping district.



100 Broadview, Canada

BDP's solution for the 100 Broadview Avenue lobby effectively uses universal design on a number of levels to welcome those with vision loss and all levels of mobility. Vibrant, high-contrast pathways give visual clarity, while a bold, orange feature ramp accommodates mobility devices of various widths, such as strollers, bicycles and mobility devices.



Other initiatives

The company has also run a series of initiatives advocating for inclusive design. Most recently they have produced a report on Social Equity in the Built Environment, a book on Design for Inclusion Ideas and a variety of podcasts and webinars - which can all be found at:

www.bdp.com

PriestmanGoode (PG) is a multidisciplinary design company focused on defining a better, more sustainable future, following a human-centred approach. Best known for their work in transportation, the studio has been transforming everyday experiences for over 30 years. Through this experience, PG brings a unique perspective in maximising spatial layouts and improving passenger experiences, especially those with accessibility requirements.

The following examples of work with operators and manufacturers around the world take ideas from initial design concept, to manufacture and validation at every stage - through clear communication and engagement with stakeholders from regulators, passengers and user groups.

VIA Rail Canada's new Corridor Fleet

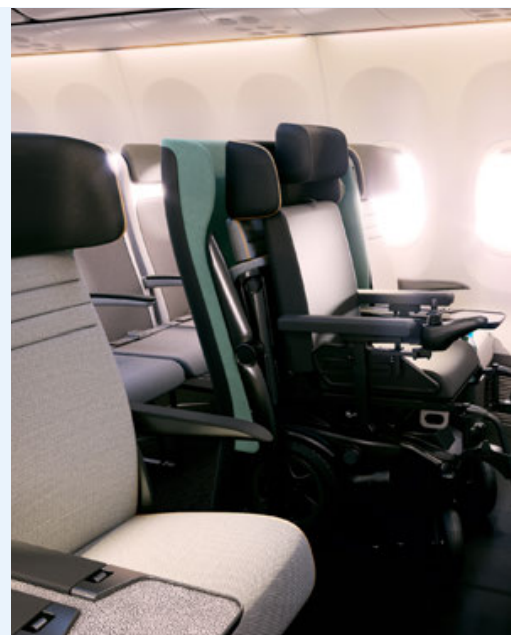
Designed by PG, the new fleet sets a new standard in accessible, barrier free passenger rail. The cars offer a fully accessible travel experience with features such as onboard wheelchair lifts, 5 Mobility Aid Spaces (MAS) per train set, large accessible washrooms and Braille embossed signage. The exact requirements were gathered through extensive and detailed engagement workshops with local passenger groups.



Air 4 All

As well as client work, PG has a long history of self-initiated and collaborative design projects that focus on accessibility and inclusivity in travel experiences.

Air 4 All is a system that revolutionises air travel for passengers with reduced mobility, by enabling powered wheelchair users to remain in their own wheelchair for the entire journey. This reduces the risk of damage to wheelchairs in stowage, and removes the indignity and discomfort experienced by passengers with reduced mobility when they are moved from their wheelchair - which is built to their specifications - to an aircraft seat.



Proteus

Proteus is a collection of ideas for rail interiors that offer more flexibility and improved comfort for both commuter and leisure passengers. The project was funded by the UK's Department for Transport and responds to evolving patterns of travel following the global pandemic, with the aim of attracting more passengers back to rail.

PG took a pragmatic approach to the brief, balancing ground breaking ideas with the constraints of existing rolling stock. The design team started with analysis of existing layouts before proposing a range of options that improved access, particularly for passengers with reduced mobility, whilst maintaining the overall seat count as closely as possible. The outcomes of the design process were warmly received by various passenger groups through a live demonstrator in London's Marylebone Station over a 2-week period.



www.PriestmanGoode.com

Shaping a Sustainable World

The Handley House story is a remarkable one. What began life as a small team in rural England 75 years ago is today a unique offering of data driven design delivered by Pragma and Benoy. With its headquarters in Newark, Nottinghamshire, the Handley House group is a global business with a vision to shape the world using data and design.

P R A G M A

Pragma is the leading commercial partner in retail and mixed-use, workplace and travel. It specialises in commercial strategies and advice for decision makers at all stages of the asset lifecycle.

BENYOY

Benoy has expertise in Architecture, Interior Design and Branded Environments and Masterplanning and Landscape, designing spaces and places that enrich human interaction.

Our team of landscape architects, architects and urban designers put people at the heart of their work. With an understanding of human experience, combined with the principles of sustainable design, the team create beautiful, inclusive and sustainable spaces for the communities they serve.

For branded environments, a multidisciplinary team of designers create wayfinding and placemaking that enhance people's experience of the world around them.

Together, our people are working in communities to understand what makes a liveable city in the 21st century, and how to create more inclusive and equitable spaces.

Throughout 2023, there were several emerging design trends around the world which have shaped the delivery of creative and commercial solutions across Europe, Asia-Pacific, the US and the Middle East.

COVID-19

The first trend is a legacy of Covid-19 which is the expansion of biophilia in retail, work and public environments. The pandemic triggered a major reconnection with nature. And with the lifting of lockdown restrictions and the repopulating of offices, malls and hospitality venues, developers are seeking to 'bring the outdoors indoors' by embracing biophilic design. Jewel Changi Airport in Singapore is a prime example, with a live rainforest and waterfall at the heart of a luxury retail complex.

Investment in outdoor and ground-floor space is also of critical importance for enabling an accessible infrastructure. For example, plans that include seamless paths and ramps instead of steps make it a user-friendly space for those with mobility issues.



Experience

The second trend is experience, with retail, aviation and hospitality now fully reopened. Across sectors, experiential design is a key driver of engagement, helping to boost footfall in retail, attract talent into workspace, and secure bookings in travel and hospitality. People are looking for physical space to provide a powerful and positive brand experience, such as the food and beverage offering in [Benoy's Iconsiam project] (<https://www.benoy.com/projects/icon-siam/>). Through brand-led, experiential placemaking, design can help to forge a sense of place, bringing interiors to life and enabling people to feel more connected to the space around them.

With a core focus on service, comfort and convenience, developers can create vibrant destinations that inspire and delight. The Mercedes-Benz Motorhome project follows this model, creating luxury hospitality-based experiences in the heart of an automotive environment.

Experiential living makes this the time is right to consider communities of inclusivity rather than separation and isolation. There is significant evidence that predicates social connectedness as a key indicator of emotional well-being and happiness. With the over 65 population predicted to rise by 31% over the next 15 years, this demographic will be a critical part of all urban projects and an economic and social driver. The teams in Handley House are creating age-inclusive designs that increase and improve social value by responding to diverse consumer needs such as touch, hearing, memory, vision and the like. A focus on open space, air quality, noise and amenity in our designs means that the places we are creating are ever more suited to an ageing generation as well as the younger and family demographics traditionally catered for. By creating developments which cross generational divides both the physical and mental health of its communities are enhanced as well as lowering the risk of loneliness and early onset dementia. Two ever increasing challenges wider society is facing.



Local Identity

The third trend taps into localism and individualism, where brands can build distinctive design narratives that help to reinforce local identity and pride. In the UK, through initiatives such as the Northern Powerhouse and the Towns Fund, there has been a vigorous celebration of local heritage and history. And with regional distinctiveness remaining high on the political agenda, the expectation is that localisation will become further entrenched within the design landscape.

Finally, the real estate sector needs design that works hard. Soaring energy costs are likely to influence people's utilisation of building interiors for some time to come. Design therefore needs to consider how organisations and individuals heat and power the spaces they inhabit, and how efficiency gains and savings can be made. Maximising the use of motion sensors and insulation, energy efficient lighting and materials, are just some of the small but impactful interventions that can be made.

More than ever before, we need to create cities that don't segregate or discriminate. The key 'liveability challenge' for designers is to create more democratic urban landscapes that promote equality of access and opportunity.



www.handley-house.com

FaulknerBrowns Architects is a creative design studio experienced in making buildings and places where people do better. Their portfolio of work covers sport and leisure, education, civic and community buildings, as well as commercial projects and large-scale masterplans.

With studios in Newcastle, Dublin and Vancouver, FaulknerBrowns' team of over one hundred architects, designers and technologists use their experience to question traditional typologies, challenging what a building might look like, how it might be used, and the ways it can impact society. In 2022, their thoughtful, community-orientated architecture earned them the Architects' Journal 'Architect of the Year' award.

Britannia Leisure Centre

This award-winning leisure facility in London, shows FaulknerBrowns' approach to inclusive design in action. The project combines swimming pools, a gym, sports courts and rooftop pitches, and was designed to improve health and wellbeing for the local community in Hackney, which experiences significantly higher health inequalities than other London boroughs.

Engaging local people was key. Local residents of all ages were invited to share their views at 59 community events, plus consultation with local sports teams, school children and disability groups. The design team also developed creative partnerships with local groups including Hackney's LGBTQ youth group and counselling service.

FaulknerBrowns' proposals were drafted using their feedback and ideas, creating London's most inclusive and accessible leisure centre – featuring accessible changing areas, pool pods for wheelchair and ambulant users and a pool with sensory and interactive light features for use by special educational needs (SEN) groups.

By engaging local people in the planning process and ensuring the benefits of movement are accessible to all, Britannia Leisure Centre has increased local participation in fitness, swimming and sports by almost 200%.

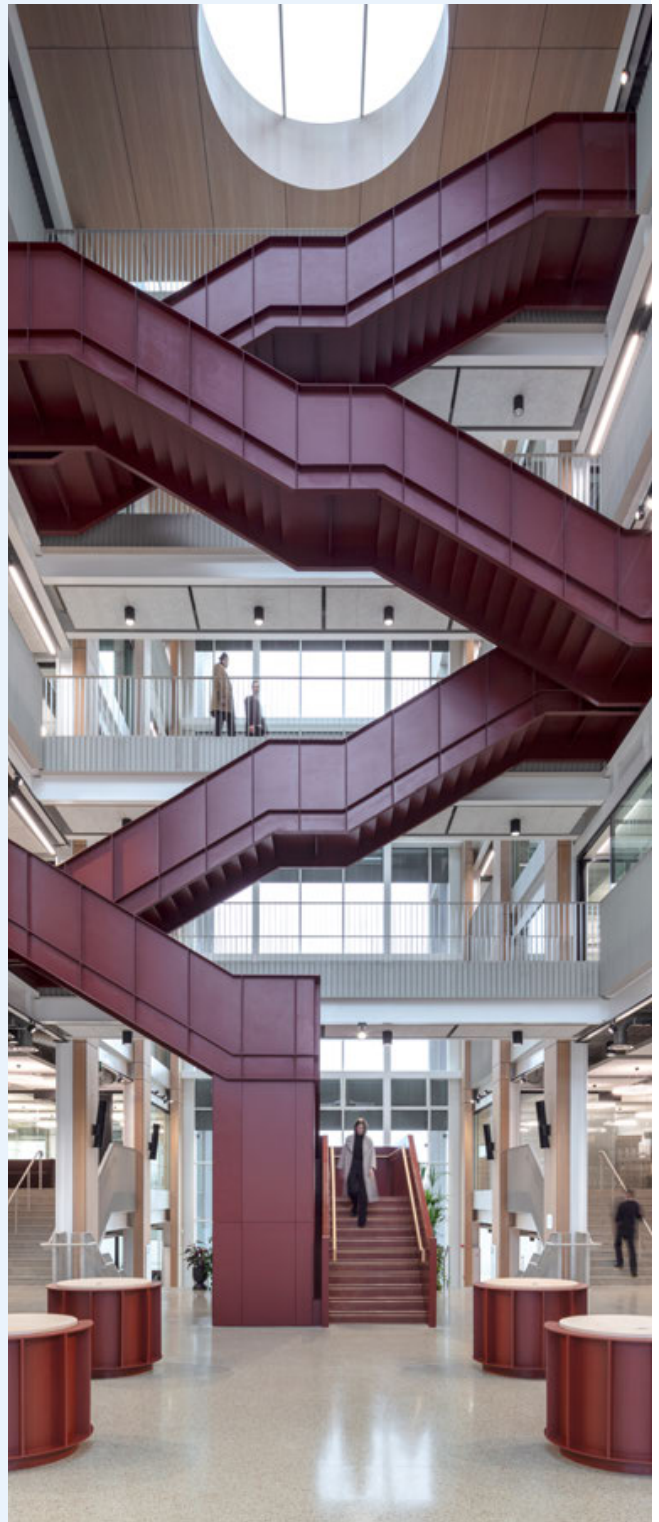


Sunderland City Hall

FaulkerBrowns is known for placemaking as well as architectural design. City Hall in Sunderland UK is a shining example of both. The project is aptly named as it delivers a 'hall for the city', a welcoming place which encourages everyone to share in the city's vision.

Combining a new civic office for Sunderland City Council, private workplaces and municipal services, FaulknerBrowns designed City Hall around a publicly accessible, light-filled atrium - with a café, public IT services and a multi-functional council chamber at ground level. Instead of a traditional reception, mobile staff who are trained to be disability-aware welcome and direct visitors. At the centre of this atrium, an oxide-red, steel staircase inspired by the city's rich history of industrial craftsmanship connects the offices and services above.

City Hall's workplaces were designed to be inclusive and accessible throughout, rich in collaborative settings and highly enabled with digital and AV communication devices to support both office and remote workers. FaulknerBrowns' design set a new standard for post-covid workplace design and regenerative municipal services, and saw the project pick up dozens of major design awards, including the British Corporate Workplace' and 'Best of the Best' at the British Council for Offices (BCO) Awards.



www.faulknerbrowns.com/

BCIStudio creates spaces that are engaging, sustainable, beautiful and accessible to all. Their success is based on collaboration with clients, working in over 40 countries to become experts in local markets and cultures.

The studio is well established, with a diverse, creative and competent team who challenge conventions and value innovation, individuality and creativity.

Research and strategy

With a diverse portfolio of public, commercial mixed-use spaces, BCIStudio have developed dynamic strategies tailored to the needs of each project and client - working closely with international bodies such as the Urban Land Institute (ULI), advising internationally on the ULI's policy and governance

Consultancy and investment

BCIStudio collaborate with governments and developers of all sizes across Europe and the MENA region to help bring developments to life. From large scale new city projects to small scale mixed-use developments, the studio consistently pushes the boundaries on inclusivity, social wellbeing, environmental responsibility and community-integrated governance.

Quality of life is the main driver for the success of a development - because a happy customer leads to a better environment, and the greatest return on investment. As investors shift their focus towards implementing ESG values in their companies and their projects, BCIStudio are dedicated to identifying, measuring and implementing inclusive ESG strategies within the built environment.

The result is a set of unique, structured and scalable strategies that mitigate environmental, social and governance issues of cities, neighbourhoods that ensure all spaces are accessible, inclusive and welcoming to all.

The BCIStudio process focuses on both the macro and micro scale of a development and consists of 4 integrated strategies:

1. Familiarity
2. Community wellbeing strategies,
3. The human measure
4. The social encounter

Alamein City

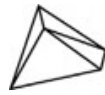
Situated on Egypt's Mediterranean North Coast, this development will accommodate 3 million people across 19,420 hectares, and has seen more than 41.3 billion USD investment to date. The studio advises the Egyptian Ministry of Housing and New Urban Communities Authority on their commercial and urban realm strategies for the development.

BCI Studio have devised a place making strategy and ecosystem that has accessibility, convenience and sustainability at its core – with designated HUBS or local nodes connected by a network of mobility solutions that encourage use of public transport, cycle networks and accessible walking routes. The strategy has eliminated empty and undefined space between buildings and street, forming a framework of public squares, parks and nature reserves. The work extends to the programming of events and activities within these spaces, encouraging full community engagement.

BCI Studio are continually evolving their strategies to accommodate new technologies, predict new trends and prepare cities for the citizens of tomorrow.



www.bci-studio.com



Chapman Taylor is a global practice of award-winning architects, masterplanners and interior designers. Established in London in 1959, with 3 studios in the UK (London, Bristol and Manchester) and 12 more across Asia, Europe and the Middle East. Chapman Taylor creates vibrant mixed-use environments for people to enjoy, from MediaCityUK in Manchester to Global Harbour Shanghai and the 500,000 m² GBA Mall of Qatar.

The company takes a 'responsible design' approach to projects, extending design considerations beyond environmental issues to include the social, economic and ethical dimensions, based on the principles of exemplary placemaking.

People are at the heart of the design process, designing for social and demographic diversity - providing environments that are convenient and enjoyable to use for everyone, without barriers.

Their commitment to inclusive and accessible design ensures that everyone can access the buildings they design with dignity, comfort, convenience and confidence.



muvi CINEMAS, KSA

muvi Cinemas is the first home-grown cinema brand in the Kingdom of Saudi Arabia. Established in 2019, with headquarters in Riyadh, Chapman Taylor are designing and delivering all of its state-of-the-art cinemas, with 22 locations completed across KSA and several more under design.

Currently, facilities for disabled people can still be limited in KSA. Outside of the home, there are sadly few leisure experiences adapted for disabled use. Taylor Chapman wanted the cinema to be an experience open to everyone. Creating an inclusive cinema experience can only be beneficial - for those people who are physically impaired, getting out of the house and being part of a social experience can positively impact their mental health.

By its very nature, cinema design poses challenges to accessibility. Floors are not flat, due to achieving good sight lines, and the environment is dark. The new designs ensured that from the cinema's front door, the journey for a wheelchair user, or person walking with walking aids, or partially sighted person, is a level experience. It's clear how to access the space, through the use of wayfinding, contrasting materials and coloured handrails. For the hearing impaired, muvi installed a hearing loop into each screen, that can be tuned in via a hearing aid.

It will only be a small percentage of people who will have different accessibility requirements, but they deserve to be included in the design. Taylor Chapman are driven to achieve an international standard and the best possible offering from day one. Inclusive design is paving the way for equality of access to the cinema experience in KSA.



www.chapmantaylor.com/

Society of British and International Interior Design (SBID)



While interior design can imbue a building with delight, it can also cause problems. The best interior design considers all potential users - the very young, the very old, those with physical, visible and non-visible disabilities.

Vanessa Brady, CEO and Founder of the SBID champions the use of innovative design techniques for inclusive environment.

Vanessa commented:

“We have made a concerted effort to find out why more expansive and exciting ranges of interior design products do not exist for disabled communities instead of what was often a dull and uninspiring offer. The answer was frequently associated with bulk purchase and price (rather than focus on creativity) and a lack of forethought given to how the product and environment might improve the well-being of the people using these facilities.”

The industry has worked to improve the suitability and range of products available for inclusive environments, with the private sector often leading the way. SBID has encouraged bathroom manufacturers to bring out a ‘healthcare range’. Vanessa believes that homes can also be future-proofed with good design, to cater to needs for people with disabilities or health conditions and impairments, and an ageing society.

SBID has worked with the Dementia Society, Stirling University and several community care establishments to consult on the needs, investment and general improvement in design of products for use by disabled people and with private hospitals.

The UK is leading the way in awareness and procurement of inclusive design for products and buildings use. For example, new build private hospitals now pay attention to the detail of design products. Choosing chairs that are the right depth to be easy to get out of. Basins no longer have grab rails but include within the porcelain ‘cut-out’ grab rails in ergonomic friendly design. This increased focus on the more granular detail of design and how products are developed to cater for a more inclusive environment will help enhance the aesthetics and improve the well-being and lifestyle of those using them.

www.sbid.org/

Medical Architecture is a specialist architectural practice combining strategic planning and evidence-based design to create therapeutic environments that promote wellbeing and recovery.

Formed from the Medical Architecture Research Unit in 1991, the practice is solely focused on healthcare architecture, with a rich history of research, innovation, and industry firsts. The practice defines industry best practice in healthcare design, creating better outcomes for patients, carers, and medical professionals. Employing a large team of dedicated healthcare designers, the practice is based in London and Newcastle upon Tyne, with a diverse portfolio of projects in the UK, Europe, North America and Australia.

Through experience and specialist expertise, Medical Architecture adds value at the strategic and business case end of healthcare projects, helping to develop a clear vision for their client's estate. They then realise this vision through therapeutic environment design, combining architecture, landscape, and interior design, with detailed clinical planning. This creates great spaces to be in, and effective places to operate – drawing upon decades of evidence on the impact of design on wellbeing and recovery.

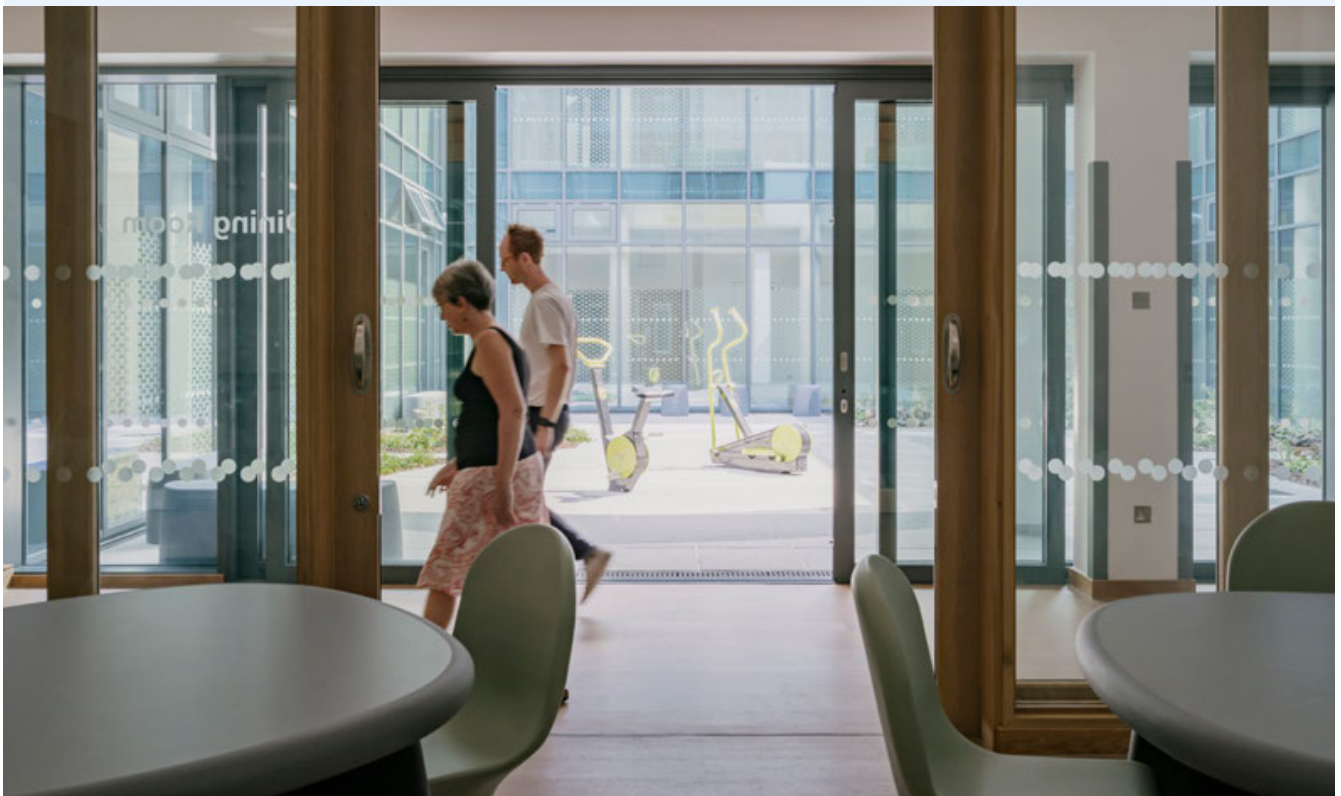
Medical Architecture define their work in a number of core areas of healthcare, mental health, acute health, and community health.

The practice has a 30-year record in developing mental health facilities for adults and young people, across a variety of diagnoses. Design plays a major role in creating a positive experience of mental health services and supporting patient recovery.

Blossom Court

Completed in 2020, Blossom Court represents a new approach to design for mental health, with modern therapeutic spaces that promote direct and independent access to outdoor space. The unique two-storey arrangement sees four wards stacked around two terraced courtyards, creating a positive focal point for patients, and an abundance of natural light. A calming interior with views to nature enhances the therapeutic environment, promoting patient wellbeing and recovery, and improving the working lives of the healthcare staff.

The practice also has a long track record of designing high quality acute care facilities that deliver improved outcomes and a positive patient experience. The approach is the same whether engaged for a major new project or a multi-phased reconfiguration of existing buildings.



Newcastle Hospitals

Completed in 2019, Medical Architecture completed an estate strategy for The Newcastle upon Tyne Hospitals NHS Foundation Trust, providing a clear vision for their estate and a guided framework which supports their leadership in sustainable development. The result is a fully costed and plotted 10-year programme of works, including a new £225 million specialist clinical block for which the practice is currently developing the design.

The practice has also been instrumental in pioneering innovative building types for integrated community healthcare. Bringing together multiple services in a single site, care can be delivered to patients close to home, in environments that promote a proactive approach to health and wellbeing.



Jean Bishop Integrated Care Centre

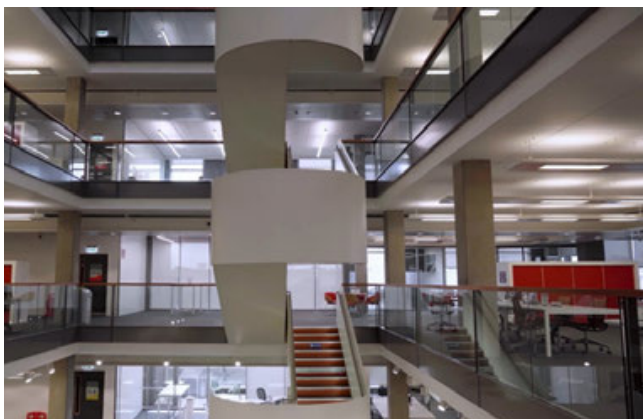
Completed in 2018, The pioneering Jean Bishop Integrated Care Centre is the first of a new class of NHS facilities in the UK to cater for the needs of an increasingly elderly population, providing out of hospital care and reducing the need for hospital admission. Adopting an entirely new way of delivering health services, the centre brings together a range of specialist services to provide a more holistic approach to health, care, and social support. A welcoming heart to the building, with clear wayfinding and open and transparent views to landscaping, supports the wellbeing of patients, staff and visitors.



TOCA is a London based RIBA chartered practice delivering architecture, project management, access consultancy and related services. The company's founder and director Dr Teri Okoro is a Fellow of Royal Institute of British Architects (RIBA), chartered architect and National Register of Access Consultants (NRAC) registered access consultant, and UK Design Council (UKDC) expert on inclusive design.

In addition to design audits of proposals, existing building audits and preparing inclusive design briefs for UK and international clients, TOCA delivers training and facilitated workshops. Its broad experience of inclusive consultancy within infrastructure and multiple other sectors is complemented by ISO 9001 and ISO 14001 certification.

Successful inclusive design requires a holistic approach. As such, TOCA advocates maintaining a thread on inclusion, from original vision to design approach, team and consultation undertaken through to delivery - ultimately resulting in successful outcome, ongoing use and management of assets.



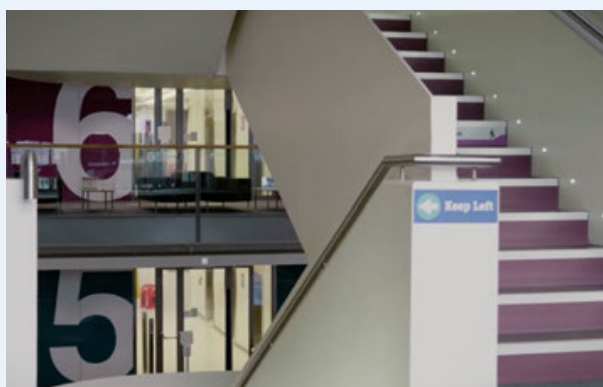
5 Pancras Square, London

The design won an Inclusive Environment Award for its delivery of great outcomes for users. Part of the Kings Cross redevelopment, the multiple uses within 5 Pancras Square as council offices, library and sports centre bring together a wide range of users within a single hub. It delivers on access but is extremely successful with its wayfinding.

Wayfinding is integrated within the building fabric from arrival through to final destinations. Its multiple entrances are prominent externally, while various devices are used to assist visitors and users internally. This helps users who may be daunted by the building size and various uses. Colour and scale are universally understood, assisting navigation for the visually challenged and non-native language speakers alike. Inclusion caters for physical, neurodiverse and a range of other disabilities - both staff and visitors. The project approach at 5 Pancras Square and its assembly of the team with a focus on inclusion from inception, were vital contributory factors to its success.

TOCA delivers inclusivity within its designs and through its inclusion and access consultancy role, working alongside the design team. It also advises on enhancements of existing building assets and adjacent public realm. The company pre-emptively identifies and eliminates barriers, promoting solutions that work for a diverse range of people. Project reviews from an inclusion perspective, including a gender-focus are undertaken through direct appointment or as an expert for organisations (as the UKDC and the Mayor for London). The company has delivered inclusive design seminars for RIBA to UK architects and to staff at several asset management and infrastructure companies.

The practice's commitment to inclusion extends beyond design. Inclusivity in project management practices is also advocated and good practice shared with urban authorities and infrastructure companies in the UK and internationally. TOCA welcomes international enquiries.



www.toca-uk.com

Design Insider recognises the exceptional expertise of commercial interior designers. It supports their work by publishing the latest knowledge, products, projects, news and events from within the commercial furnishing sector and by instigating conversations with the people who lead our sector. Design Insider is the media partner of Commercial Interiors UK, the business association for the UK's contract furnishing industry. Design Insider is pleased to highlight the inclusive offices designed by SpacInvader as an example of UK design excellence showcasing the designer's accessible infrastructure expertise.

www.designinsiderlive.com



Stopford House, Stockport

Stopford House was purpose-built in 1975 to accommodate a wide range of council services. Designers SpaceInvader reviewed the Brutalist-style, 6-storey building to assess future fitness for purpose - proposing a strategy of modernisation through re-use and refurbishment to save costs and keep the project's embodied carbon low. Thanks to a newly-reduced footplate – achieved through the accommodation of hybrid and agile working - other real estate elements were then released for alternative council services. This included CAMHS, a dedicated children and adolescent mental health service on the building's ground floor.

The offices were then redesigned by SpaceInvader with a focus on inclusivity, accessibility and wellbeing. New accessibility infrastructure included circulation that allowed for a 1500mm width in most places for wheelchair turning, whilst power-assisted doors permit ease of access. Designated tea-points incorporate a knee recess under the sink, with a shallower sink for wheelchair users. Before the refurbishment, Stopford House had perimeter power only, with all settings restricted to walls. The addition of a 170mm high raised access floor allowed power to be supplied throughout the floorplate, offering new flexibility. Ramps provide step-free access throughout the space, with balustrades and handrails added to comply with Document K Falling Standards.

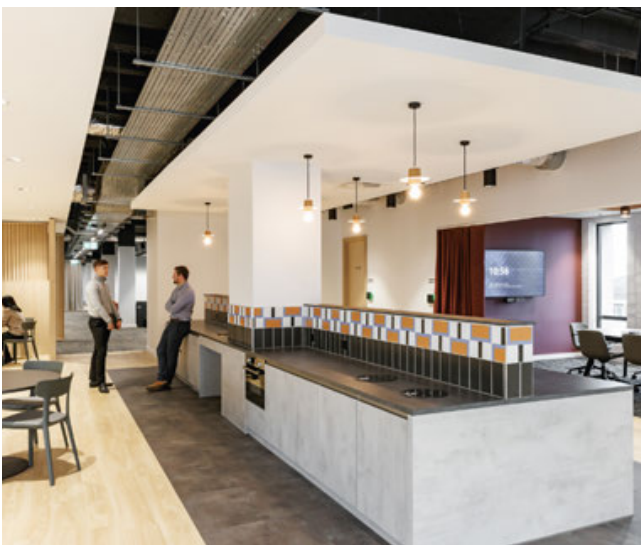
Where heights weren't adjustable, a variety of fixed higher and lower options were included. New tables incorporate both poseur and lower counter heights, with furniture also encouraging mobility around the office to help prevent back problems from sitting in the same position too long.

Neurodivergent colleagues were supported with a range of settings allowing them to work in the most suitable ways. 'Wobble rooms' are new safe spaces where employees can de-stress after difficult conversations or to take a moment. Mindfulness spaces have curtains that can be drawn for a semi-private setting – or used for colleagues who prefer quieter work environments. Open-plan settings are interspersed with settings that are less stimulating, such as desks with acoustic surrounds and moveable acoustic screens and whiteboards, particularly appreciated by autistic colleagues.

A diverse workforce is encouraged through facilities such as a multi-faith room, whilst new unisex WCs accommodate a range of gender identities. New basement shower facilities are individual cubicles, initially being trialled as fully unisex.

Signage and wayfinding also incorporate an accessible approach, most notably for wheelchair users and vision-impaired colleagues. Manifestations ensure sufficient height to avoid collision impact for all users. When deciding upon signage placement, silhouettes of people were used to assess eye level for average heights, including wheelchair users. The chosen Montserrat Black font suited the Brutalist architecture style but, to ensure legibility, was reduced to a lighter weight (Montserrat Medium) in certain areas. Large numerals or letters indicate floor numbers for easier legibility.

The project won Best Corporate Workplace at the British Council of Offices (BCO).



**Project
Space 4-J**

Mott MacDonald is one of the world's largest independent employee-owned consultancy firms, offering global services across many sectors, countries and on projects of all sizes. The company strives to consider social outcomes in everything it does, bringing together diverse skills, experience, and insight, to turn obstacles into sustainable solutions.

The consultancy has the technical knowledge and digital capabilities to shape the future of the built environment. To create a society where no one is left behind, people need to be at the centre of designing infrastructure.

The teams understand the importance of brilliant basics and aligning technical design with best practice accessibility and inclusion standards – taking every opportunity to go above and beyond, to ensure infrastructure is accessible both now and in the future.

University of Derby business school

Mott MacDonald supported the delivery of an accessible and inclusive user experience for University of Derby business school. Taking a journey mapping approach, the team identified the visible and hidden barriers to accessibility and inclusion, considering not only physical accessibility but also how to design for people who are neurodiverse and for people from all social demographics. Specialists identified challenges and opportunities for improvement at each step of the user journey, delivering a design that is appropriate, accessible and inclusive.



University Station, Birmingham

The Mott MacDonald team delivered an impact assessment to identify opportunities to improve the accessibility and inclusivity of the station. Local transport users and university representatives were engaged to understand their needs. These insights were used to develop accessible design recommendations which went beyond physical accessibility compliance, ensuring that anticipated use patterns by a diverse range of students were considered.

JFK airport, New York

Mott MacDonald's accessibility and inclusive design specialists can work with clients to develop solutions which are tailored to a project's needs and budget. On behalf of The Port Authority of New York and New Jersey, Mott MacDonald developed the accessibility inputs for a customer experience manual for JFK airport, and inclusive design assessments were then undertaken for terminal design, ensuring the airport is accessible and comfortable to use by all passengers and staff.

Mott MacDonald's experts are dedicated to people-centred design, drawing on accessibility, diversity, and inclusion best practice – creating solutions which enable spaces to be used to their full potential, transforming the user experience so that nobody is left behind.



www.mottmac.com

The importance of design on society is enormous, playing a pivotal role across all sectors of the economy and influencing the way we live and the products and services we use to help aid our physical and mental wellbeing. In 2019 the design economy contributed £97.4 billion in Gross Value Added (GVA) to the UK economy, 4.9% of total UK GVA (i)³.

Nowhere is the impact of innovative design technology more deeply felt than in its contribution to the UK's economic growth. In 2019 digital design contributed £53.9 billion in GVA, 2.7% of UK total GVA, increasing by 138% between 2010 and 2019, 3 times the rate of the UK's digital sector (ii). This surge in digital design brings with it pioneering and highly advanced skills, which are being used to develop innovative ideas to assist the progress of inclusive design.

It was against this technological revolution and allied to his own sight loss that Julian Jackson decided to launch VisionBridge (visionbridge.org.uk), an independent social enterprise designed to advocate for eye research, promote eye health and champion assistive technology (AT) innovation.

Julian's mission has been to widen access to appropriate technologies for visually impaired communities worldwide whilst promoting emerging technologies that are simpler to use, economically viable and make life easier for those aspiring to use technology across a variety of formats and platforms.

Julian doesn't see AT as a panacea for sight loss but feels strongly that it should be considered as a useful friend especially in areas such as digital wayfinding technology, which he believes is well on the way to revolutionising the degree of accessibility and inclusivity in built environments for visually impaired users as well as eventually other physical and mental disabilities such as dementia, learning disabilities and neurodiversity. Julian commented "I want to remain as mobile, independent, safe and informed as possible as I move around." He strongly believes that "there is a need for regulators, designers, developers, venue owners and operators to be sensitive to the additional needs of their visitors, customers, employees and others and embrace the emerging potential of digital wayfinding applications to fully maximise accessibility and inclusivity for the visually impaired communities"

Looking over the AT horizon, there is no doubt that progress will continue to be made in areas such as:

- vision enhancement
- reading support
- obstacle avoidance
- scene description
- object recognition

However it is in the world of navigation and orientation technology where the fundamental step-change in the quality of life for visually impaired communities will occur.

Haverstock is an architecture and inclusive design consultancy practice that puts people first. Its buildings are designed to enhance people's lives, and make the world a better place. The team strive to ensure their designs improve our communities, with a strong belief that modern buildings should be inclusive and accessible for all.

Linden Farm Supported Living Project

Linden Farm is an award-winning supported living development for ten adults with autism and high support needs. It is designed to provide tenants with an exemplar home environment, while enabling the assistance of supported living care. The principles of inclusive design are embedded into every detail of this project. A key part of the brief was to create a safe yet homely environment for the tenants, who have complex sensory needs. A strong objective was to ensure that the development in no way feels or looks institutional. The masterplan was purposefully designed to maximise the outstanding semi-rural setting, as people with autism can greatly benefit from links to the outside. The homes are anchored in the heart of the site by a rich horticulture and sensory garden framework.



www.haverstock.com

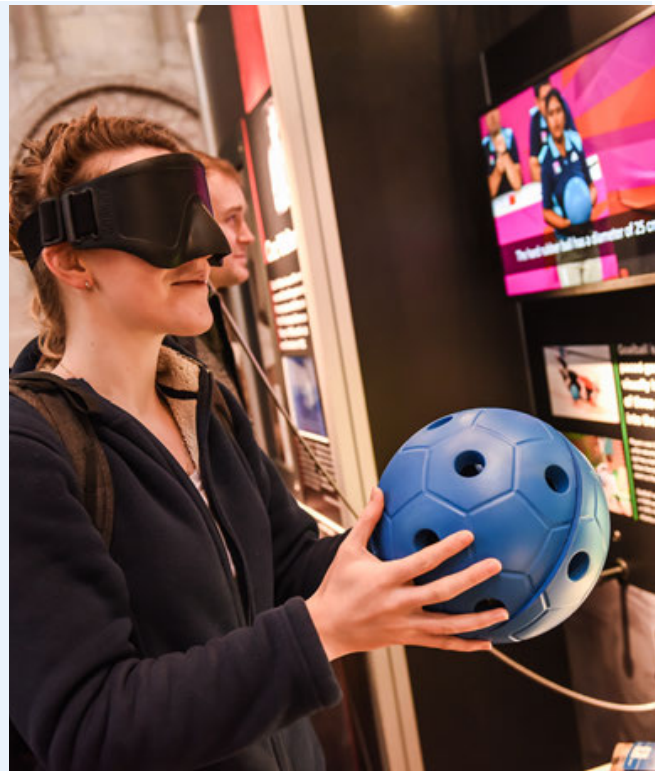
Experiential design agency Mather & Co have over 28 years' experience in creating accessible attractions across the world. Their work experience includes Belgian Beer World, Shrewsbury Flaxmill Maltings, Gretna Green Experience, The Royal Mint Experience, Olympic Museum, Silverstone Museum and Wimbledon Lawn Tennis Museum.

The agency aims to develop designs and content that is relevant to people's lives regardless of their subject knowledge, social and ethical backgrounds, mental health, literacy levels or learning difficulties. The 4 areas of accessibility that Mather & Co consider in their design are:

- Physical
- Emotional
- Intellection
- Social

Physical accessibility

The company ensures their designs support visitors with all physical accessibility needs. Mather & Co worked with the National Paralympic Heritage Trust to develop several touring exhibitions. Within the exhibition, Mather & Co designed a tactile map and handrails that support people as they navigate around the space. Mather & Co found that handrails set at 75 degrees were the perfect angle for visitors to comfortably use touch-tactiles and read braille, so this became a key feature in the exhibition design. 90% of users felt that this exhibition was the most accessible they had visited in the UK.



Emotional accessibility

Emotional accessibility includes ensuring designs support mental wellbeing. Providing spaces to recoup and relax, providing spaces to get involved with groups/communities, providing opportunities to share stories. Mather & Co are currently working on Ipswich Museum development, due to open in 2025. The design will be incorporating several areas where communities and individuals can use the space for more than just browsing objects and stories - allowing visitors to find different forms of wellbeing, from quiet time, self-expression, and sensorial experiences, to human engagement. Mather & Co aim to fight against isolation and loneliness by introducing group work and community spaces to provide a space for people to come and not be alone.

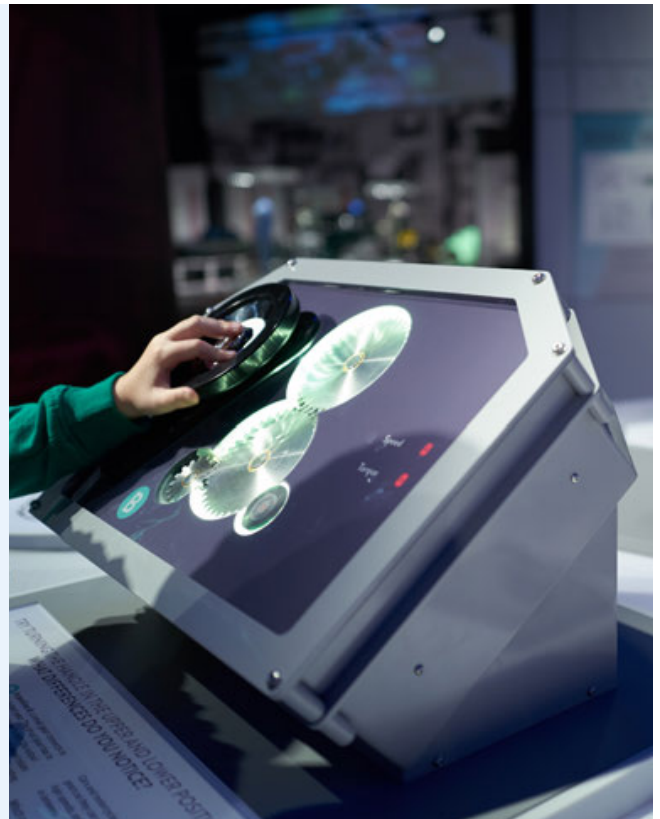


Intellectual accessibility

Mather & Co seek to support a range of intellectual needs within their designs, by introducing a range of interpretation methods to make learning more accessible, ensuring that content is told in an accessible way. Silverstone Museum and The R&A World Golf Museum, both designed by Mather & Co, allow the ability to explore skills through interactivity, tapping into a kinaesthetic learning style which is more accessible for many visitors.

Social accessibility

Social accessibility ensures designs that supports communities in feeling represented and understand how the stories are relevant to them. Working with communities, exploring under-represented stories, highlighting why it's relevant to us today. Mather & Co are working on the Glencoe Folk Museum redevelopment, where they underwent a consultation process with the local community to explore what they felt was unique and important to tell about their small community. The voices of the community will appear directly in the displays – allowing visitors to meet the people who have continued to build and protect the collection and represent their stories.



www.matherandco.com

Useful sources of information

Trade Associations and Industry Bodies

The Design Council

 <https://www.designcouncil.org.uk/>

The Royal Institute of British Architects (RIBA)

 <https://www.architecture.com/>

Society of British and International Design (SBID)

 <https://www.sbid.org/>

Design Business Association (DBA)

 <https://www.dba.org.uk/>

Commercial Interiors UK (CIUK)

 <https://www.commercial-interiorsuk.com/>

The National Register of Access Consultants (NRAC)

 <https://www.nrac.org.uk/>

The Access Association

 <https://accessassociation.co.uk/>

Other sources of useful information:

Institutes

University College London's (UCL's) Bartlett series

 <https://www.ucl.ac.uk/bartlett/inclusive-spaces>

College of Occupational Therapists, genHOME project

 <https://www.rcot.co.uk/about-us/specialist-sections/housing-rcot-ss/genhome>

Useful links

<https://www.designcouncil.org.uk/news-opinion/inclusive-design-beyond-accessibility>

<https://www.designcouncil.org.uk/our-work/news-opinion/introducing-our-new-inclusive-environments-hub/>

<https://www.thenbs.com/knowledge/bs-8300-designing-for-disability>

<https://www.pbctoday.co.uk/news/building-control-news/understanding-disability-access-in-the-built-environment/35090/>

<https://riseadapt.co.uk/us/>

<https://www.gov.uk/government/publications/access-to-and-use-of-buildings-approved-document-m>

Inclusive design – assets and advice

- **Centre for Accessible Environments** [Centre for Accessible Environments \(CAE\)](#) has been a leading authority on inclusive design for over 50 years. It provides consultancy, training, research and publications on building design and management to meet all user needs, including disabled and older people.
- The UK leads on the creation of relevant inclusive design guidance. [PAS 6463 Design for the mind – Neurodiversity and the built environment](#) published in September 2022 provides expert guidance on the design of the built environment. This includes the needs of people who experience sensory or neurological processing difficulties or differences. It will provide information for designers, planners, specifiers, facilities managers and decision-makers on particular design features which can make places more inclusive for everyone, in particular by reducing the potential for sensory overload, anxiety or distress. - www.bsigroup.com/en-GB/standards/pas-6463/

Endnotes

- 1 Catherine Horwill and Elli Thomas. 'Inclusive Design, Beyond Accessibility' UK Design Council Architecture and Built Environment team, October 2019 <https://www.designcouncil.org.uk/our-work/news-opinion/inclusive-design-beyond-accessibility/>
- 2 Disability facts and figures, SCOPE, 2021, 2022, <https://wearepurple.org.uk/the-purple-pound-infographic/>
- 3 Source: (i) and (ii) 'Design Economy people, places and Economic Value Report' Design Council <https://www.designcouncil.org.uk/our-work/design-economy/>

Notes

[illegible]

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Department for Business and Trade

The UK's Department for Business and Trade (DBT) has overall responsibility for promoting UK trade across the world and attracting foreign investment to our economy. We are a specialised government department with responsibility for negotiating international trade policy, supporting business, as well as delivering an outward looking trade diplomacy strategy.

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