

# EDUCATION BY DESIGN



DESIGNING  
FOR PEOPLE

STEM – Institutes  
of Technology

Passivhaus – designing  
for the future

Design Research – designing  
for student needs

**ATKINS**  
Member of the SNC-Lavalin Group

# From the editor

This year has been a time of hesitation and adaptation: as we go to press these are still uncertain times in the UK, and these are likely to continue regardless of how the political winds blow. However, there are many things to focus on and also to engage with: there is hope that the responses to the Auger report will finally bring some much needed investment into the FE sector; a concerted focus on Mental Health in pupil and student life is now becoming mainstream; our universities are still thriving, evolving to adapt to the new economic realities and attracting first class students; in Scotland there is a big wave of investment in early years Education, whilst in Wales the focus is shifting to an exciting new curriculum.

All of these themes are influencing our work now and in the future, from the design of Passivhaus buildings to the investment in Institutes of Technology, the new Welsh curriculum to the work we are carrying out in Design Research. This is an exciting time for the Education Sector in the UK, and we look forward to investigating, exploring and responding to these with our colleagues and clients. If you have any comments on these articles please do get in touch.

**Helen Groves**  
Architectural Director

 [Helen.Groves@atkinsglobal.com](mailto:Helen.Groves@atkinsglobal.com)



**Claire Dickson**  
Senior Architect

Claire has worked on a wide range of education projects over the past 10 years. She is an experienced project architect with expertise in designing for special educational needs and is dedicated to creating welcoming spaces that provide safe, secure and stimulating learning environments.



**Simon Kneafsey**  
Associate Director

Simon is an experienced architect through the whole spectrum of educational design. After many years as a director in an architectural practice, Simon then spent four years leading the Monmouthshire County Council 21st Century Schools programme, giving him an unrivalled expertise in understanding the Local Authority viewpoint; prior to joining Atkins in 2018.



**Paul Gott**  
Associate Director

Paul is an Architect with 19 years' experience in the design and construction industry. Through his current work at the University of Leeds, Paul is developing his passion for the Passivhaus design approach and the need to shine a light on the true performance of our building designs and usage, embrace the need to lower carbon and energy use and to rise together to meet the climate challenge.



**Catherine Ward**  
Associate Architect

Catherine is an Associate and experienced Project Architect with over 18 years' experience working within the educational sector. She has a significant interest in creating buildings that contribute to environmental, social and economic sustainability whilst aiming to develop design solutions that are functional, carefully composed and interesting whilst responding to both the client's needs and to the local context.



**Helen Groves**  
Architectural Director

Helen is a highly experienced architect who leads our national education team. She is passionate about the importance of well-designed education buildings, and works with our clients to develop successful briefs that create exciting and engaging learning spaces.



**Caroline Paradise**  
Head of Design Research

Caroline applies knowledge from other industries to advance design across numerous sectors, including higher education. During her career, she's explored new construction methods through materials science and has applied neurosciences to better understand human responses to the built environment.



**Symon Cusack**  
Agile Technical Director

Symon has over 18 years' experience as a Change Practitioner across a range of sectors, most recently focusing on Agile working. Having worked with organisations both big and small, Symon appreciates, first-hand, the complexities and cultural challenges associated with adopting new ways of working.

## Structural & civil engineering

Building, maintaining and improving university buildings

## Architecture & masterplanning

Designing education places and spaces with the future in mind

As the UK's largest design consultancy working in the education sector, we bring universities, colleges and schools an unparalleled range of services and the ability to mix these services together to create great places to teach and learn.

## Building services & surveying

Helping you get the most from your property investments

## Landscape & geotechnical

Creating sustainable and inspirational outdoor spaces

Building surveying  
Civil engineering  
Landscape architecture  
Masterplanning  
Mechanical engineering  
Structural engineering  
BREEAM advisors  
Maintenance management

Interior design  
Whole life costing  
Flood risk assessment  
Building conservation  
Ecology  
Sustainability management  
DQI facilitators  
IT design  
Lighting design

Heritage archaeology  
Planning, approvals, environment  
Access consultants  
Fire engineering  
Energy planning  
Carbon footprint analysis  
Inclusive design  
Transport planning

# SEND design for all ages

Most SEND schools accommodate wide-ranging ages and abilities. The children and young people who attend them often spend their entire educational life within one school. As designers, we have an opportunity to create spaces that are equally appropriate for 3 to 19 year olds and that adapt to their changing and developing learning support needs.

Any issues that arise, such as the practicality of age appropriate equipment and the complexity of adaptive learning environments to the importance of security & safeguarding, need to be addressed so that they don't detract from everyday experiences. These issues make how the building feels and functions, as important as how it looks.

## Adaptive Learning Environments

SEND learning spaces require planning across a broader spectrum of considerations than traditional arrangements. The learning environment needs to adapt to ever changing day-to-day needs, to ensure that no matter what challenges pupils face, they have access to spaces that are stimulating and engaging. Demand on space (m<sup>2</sup>) in all schools is a key issue. Learning spaces must adapt throughout the day to meet the needs of a variety of users and staff need to know that they have access to the facilities they require to teach and support their students. A space that may be Early Years play in the morning could become Post 16 therapy in the afternoon. Some pupils with sensory impairments may need extra space and additional 'clues' to help them negotiate their environment independently. Some may require practical, sensory or physical experiences to support their communication and imagination development. Life skills spaces play a vital role in allowing pupils to develop

independence and confidence and learn how to relate to others. These can be set up to support all ages and abilities.

Adaptive spaces need to consider localized control over lighting, acoustics and materials to create the right multi-sensory environment. Young people on the autism spectrum can be highly sensitive to colour and sound. Some of these pupils with autism need an environment with a low level of distraction and sensory stimulus to reduce anxiety or distress, whilst others need an energising one. Natural light is vital to enhance a calm atmosphere. However, spaces should be created where light levels can be changed.

## Age Appropriate Equipment

SEND students share the same aspirations as those in mainstream education and want to use the same range of facilities. Students need to feel comfortable, confident and independent, so facilities should be included that everyone can use without assistance; helping to achieve a sense of inclusivity for all, no matter what age or learning level. This could be achieved with strategically located handrails, accessible storage and ergonomic door and cupboard handles. Pupils with physical disabilities may use mobility aids including wheelchairs, standing frames, or horizontal learning stations, all of which can be bulky and require storage. Whether they can move around independently or need support, it is essential to have the

necessary space to enable participation in solo and group activities and for them to travel alongside their friends. The additional requirement to provide these functions for multiple age groups can be challenging and it may be necessary to limit flexibility to zones. Equipment needs to reflect the age of the user, particularly for older years, to enable them to have a sense of progression and a more 'grown up' feel.

## Security and safeguarding

Multi age group school's inevitability causes concerns with security and safeguarding. More frequently we are being asked to look at provision to support young people beyond 19 within the school environment. This has raised some questions about collocating adults with very young children, regardless of an individual's developmental age. The ideal scenario is to enable 19 to 25 year olds with Education, Health & Care Plans to access Further Education and to support them within the community. However, for some this may not be manageable, and we need to produce solutions that allow them to remain at school. Discreet access control zoning and site masterplanning help can to provide necessary separation, without creating a sense of segregation.



**Claire Dickson**  
Senior Architect

*Designing SEND for a multiple age group requires thoughtful planning, to ensure everyone has access to the facilities, experiences and outcomes they deserve.*



# New curriculum for Wales 2022



These are exciting times to be a citizen of Wales as it strives to be the best place to live in, learn in, work and do business all within a changing globalised world.

The new Welsh Curriculum and the Well-being and Future Generations Act are key to achieving this outcome for Wales, the four purposes of the new Welsh Curriculum are aligned with the seven wellbeing goals of the act both focussed on delivering real and sustainable change to current and future generations within Wales.

We do not just see the 21st Century Schools Programme in Wales as purely a new school build programme but an opportunity to work alongside our educational clients to look at doing things "differently", whether it is in the management and maintenance of the new school (OPEX) to providing digitally enriched, agile and adaptable educational environments, we see all of these elements as integrated and fundamental to a successful educational investment legacy.

The built environment plays a considerable part in achieving all the goals of both the Act as well as the new curriculum. The design, organisation and management of the new school can make its users happy, feel well and productive learners but also a well-designed environment can offer opportunities for delivering on the wider communities' needs.

## Meeting the needs of the new Curriculum

This new curriculum requires innovative ways of looking at educational environments and settings that are supportive of the learners of the future, however these environments need to be relevant,

functional and future-proof. The links between pedagogy and the building design are well understood: accommodation can inhibit the ability of the school in its teaching and learning and ultimately this has an effect on outcomes. A well-designed school will enable its community to achieve its full potential by having the right types of space for the group size and for the activity they are undertaking. A well-considered design will ensure all aspects of the learning environment support learning in an appropriate atmosphere.

So how best to achieve these more creative and engaging environments within the constraints of any capital project? It is simple, new school environments are a part of delivering on the vision of the school and the community it serves but not the only one, schools need to be designed with education understanding and curriculum delivery first.

The curriculum will evolve over time, both the Curriculum for Wales 2022 and the local approach to it and so we will build in flexibility around these spaces enabling new approaches to be followed when they are required.

## Delivering the curriculum over time

The implementation of the new curriculum will not happen overnight, and neither should it: any development which sees it as revolution rather than evolution is putting insurmountable challenges in its path.

The curriculum will evolve over time, both the Curriculum for Wales 2022 and the local approach to it and so the importance will be in providing a structured path for development of the building. The new curriculum is focussed on developing the learners of the future, and this will manifest itself in many ways, among which:

- Students who can learn independently and in teams
- Students who are comfortable using digital tools for learning and support
- Students who can think creatively, rather than respond to a purely didactic method
- Students who show their commitment to the sustainability of their community and the planet

The physical spaces required for the above will include traditional classrooms, but also a variety of alternative and innovative spaces, which could include: agile spaces adjacent to classrooms, small group spaces, tech pods for interactive work, flexible LRC and cafe areas which can encourage individual and group working. These must all be wrapped with a digital solution which includes hardware and software which will enable all students to experience and engage with the best of technical futures.

In order to reach this destination, we build in flexibility around all spaces enabling new approaches to be followed when they are required.



**Simon Kneafsey**  
Associate Director

# Passivhaus

A CARBON NEUTRAL APPROACH AND RENEWABLE ENERGY GENERATION

We are in the midst of a climate emergency, on a knife edge from which there may be no return. As a worldwide collective we have a responsibility to act, and every positive action will help to reduce our impact on our planet.

Behind the headlines, there is a ground swell of support demanding that we change our ways and support a more sustainable future.

As an industry there is overwhelming evidence that our traditional building regulations compliance approach is, at best, failing to address the performance gap between design intent and actual operational reality.

Sustainable building design is built into our ethos and has been part of the way we operate for a considerable time. We recognise that the drive to Zero Carbon, now enshrined in UK law for 2050, and with even more ambitious targets for local and regional authorities, puts an even stronger emphasis on this. Reducing our carbon footprint in both building construction and through efficient building energy need & use, is a key area we can dramatically enhance how our buildings affect our environment.

Early engagement workshops regarding sustainability should be used to establish sustainability and carbon reduction aspirations for each project and set clear energy and environmental targets. Sustainability budgeting is about taking into account the whole life cost of design and development decisions early in the feasibility process. They become built into our design, not add ons.

A Passivhaus system is one which can offer best alignment with the Design for Performance approach. Recent research by the University of Oxford has proved that projects which have been carried

out under this method deliver significantly more accurate energy usage predictions than other methodologies, from design to reality.

Passivhaus in many ways epitomises a natural evolution for us as designers, combining building physics, with pragmatic tools and fundamental design principles such as building form and utilising natural solar gains through considered orientation. This approach dovetails with our principles of designing out plant and equipment, benefiting the client in reduced capital expenditure and delivering buildings that are cheaper and simpler to maintain and use less energy.

The fact that Passivhaus is a comfort standard as much as an energy standard, an often-overlooked principle, is a vital link to reinforce that buildings are systems for living and working, and not just a collection of efficient building fabric and plant.

The largest source of emissions, generally for a building, is from the use of energy; therefore it is fundamental that projects make a positive contribution to the environment by lowering their carbon emissions. On all projects we recommend a simple 'energy hierarchy' should be followed to establish the priority for all energy-related issues.

Firstly, the design of buildings should minimise the need for energy in operation, e.g. reducing heat loss through effective insulation, avoiding cooling requirements, use of thermal mass, building shape and orientation, maximising natural ventilation & heat

recovery systems and utilising natural daylight for lighting. All key drivers of the Passivhaus approach to design. Passivhaus relies upon a management of these items as a holistic approach to develop a balanced building design, rather than a reliance upon a single tactic or tick box exercise of these elements. Key decisions made when assessing the site will affect how the building will perform, and the involvement of all disciplines at the project outset is critical. Secondly, the operation of the building must minimise the need for energy and provide users with energy saving measures. Low energy light bulbs, daylight linking, absence detection controls for lighting and 'A-rated' appliances are essential low carbon measures, but must be used in combination with energy efficient behaviour. Finally, on-site renewables should be considered; displacing a percentage of an energy efficient building's carbon footprint using on-site renewables requires less technology than it would in a building where energy efficiency has been ignored.

Being accountable for our energy usage, and disclosing building metrics from across all building sectors would be a major step forward in supporting a more energy focussed building principles, supported by a Passivhaus design approach.

Now is the time to shine a light on the actual performance of our building designs and usage, embrace the need to lower carbon and energy use and to rise together to meet the climate challenge.



Paul Gott  
Associate Director

# STEM Institutes of Technology



With the introduction of 'T' Level qualifications and the DfE announcement in April 2019 that the first 12 Institutes of Technology had been selected and are due to open shortly, what is the future of technical qualifications and what does this mean for the types of spaces they will require?

The focus on a STEM based curriculum is well documented, particularly in primary and secondary level education, though due to recent curriculum changes, focussed on a narrow set of academic based subjects, many young people still face challenges in taking up subjects leading to careers in this field. These challenges are further compounded by the lack of capacity and suitable facilities available to them at FE and HE level.

Within the overarching context of the Auger Review into post-18 education (Dec 2018), Damian Hinds outlined in his speech of 6 December 2018 a 10-year project of reforms to improve technical education, where Further Education College will play an essential role in delivering a world-class technical education leading to careers in skilled jobs. To support this, £170 million of government investment has been awarded to 12 Further Education organisations, specifically to fund industry standard facilities and equipment.

As a successful recipient of a portion of this funding, Middlesbrough College is in the final phase of becoming an Institute of Technology. To support this, investment in their current estate has been required in the form of an extension to its current STEM facilities, allowing the College to provide higher level STEM based courses for students to progress and gain HE STEM based qualifications (2 year degree courses).

Middlesbrough College started their journey into the world of the STEM in earnest in 2014, with the opening of their purpose-built MC STEM building.

At design stage, the STEM curriculum at Middlesbrough College was in its infancy but very much focussed on providing skills relevant to industry within the local area. The design of the STEM Centre included a series of flexible spaces to facilitate general teaching, laboratory work, small and large workshops. Inherently flexible, in the intervening period since it's conception, the centre's curriculum has flexed and evolved to host a variety of engineering-based courses, including the leasing of space to and investment into the centre by Swagelock, who provide training and onsite inspection services to industry users of their products. Their involvement in the centre is central to reinforcing the importance of the relationship with industry and the value of real-life experience to Middlesbrough's students.

Traditionally, technical and practical qualifications have taken place within purpose built physical environments, designed to replicate workplace settings such as hairdressing salons, painting and decorating or bricklaying booths. However, as the scope of technical qualification increases and becomes more focussed on technology and advanced manufacturing, with course topics such as electronics, parametric modelling and industrial robotics, the demands on the physical environment required to support these subjects becomes less prescriptive.

From lessons learned in their existing STEM facility, a key driver for Middlesbrough College's new extension was that space should be flexible, both in the function it provides and the size of spaces available. The new extension

will therefore provide classroom sized, flexible spaces that can be enlarged as required; in lieu of large, purpose designed workshop spaces. This reflects the increasing requirement for versatility, where spaces can be used from more traditional methods of teaching to facilitating the use of immersive technologies such as VR and Augmented Reality that can replicate industrial processes, methods and sites, in safe and controlled environments and furthermore can be undertaken in almost any type of space.

Although, for certain courses there may always be a need to physically replicate a real-life working environment and indeed there will be inherent benefits to this, equally many subjects can employ technology to simulate a specific environment, which in turn has an impact on the spatial requirements. Spaces of this nature will no longer be defined by what physical industrial scale equipment can be accommodated (equipment which is often both expensive to provide and out of date relatively quickly) but rather by standardised rooms (not necessarily large scale) with the appropriate environmental conditions and power and data provision to support immersive technologies.



Catherine Ward  
Associate Architect

# Being human

As designers, the wellbeing of people is a topic very close to our hearts. At the end of the day we are designing for Human Beings and our approach reflects this: it is impossible to design spaces and places for people without holding this tenet at the heart of what we do. I believe that a holistic approach to architecture, one that encapsulates the varied world in which we live, is the only way to design for today's schools, colleges and universities. We should strive to create new buildings and environments that:

**Set new standards** - always looking to step up and improve. This isn't about just creating shiny new buildings, but rather about creating vessels and locations that can be shaped and re-created for the unfolding activities of their users. We must get away from the fascination with the image, the icon, and remember that schools and universities are first and foremost there to nurture thought, learning and research, rather than being architectural playgrounds.

**Are beautiful to use** - and beauty is not just in the eye of the beholder, but rather it is made up of a number of strands including human physiological and psychological responses. Buildings that create joy, be it overt or more subtle, act as magnets to those who use them. Especially in education settings, there is no 'one size fits all' and we must have the conviction to fight against the homogenisation of space and the extreme standardisation of solutions.

**Have a positive social purpose** - of course education is one of the most positive social drivers there is. But we must consider the whole community, not just those who sit within the formal school or university group. Welcoming all into these spaces is a powerful driver for social engagement, and the

way we design for this must transcend the basic needs of perceived security in order to encourage wider inclusion in our society.

**Challenge convention** - it is not enough to stick to the status quo when designing educational settings. When approaching a new design, the assumptions must be pared back to those affecting the human condition of the Users, rather than those that were used on the previous job. This is as true for clients as it is for designers: we are never going to create spaces and environments that suit the specific condition if we don't make the effort to stop, look and truly listen. This takes an effort of will on all sides, but the rewards are self-evident. By adopting a Design for Performance rather than a Design by Input Brief approach, we will create spaces that are wrapped around the needs of the people who are using them, and the wider resources of the planet.

**Strike the perfect balance** - this is the element that lifts great spaces from the pedestrian day to day. Turning standard solutions into these which create a bespoke and tailored response are what makes truly successful designs. We relish the challenge of drawing together all the elements to create a harmonious whole.

The art of creating places which welcome their users and make them feel part of the whole, effortlessly nurture their psychological and physiological needs, and uplift the spirit is not rocket science: it is what design teams can and should challenge themselves to do every day.

The design of Education spaces will continue to evolve, be it through engineering solutions, digital developments or legislative pressures. The human condition, however, will not evolve at the same breakneck speed. We must always remember that at the heart of all our educational settings are the people who use them, and design according to their needs.



**Helen Groves**  
Architect Director



# Understanding the student

Applied research is a core component of our design approach across all sectors we work within. None more important than the Education sector and in particular higher education institutions, for which the drivers influencing design, delivery and maintenance of campuses are broad and in constant flux.

Even before the Auger report, Higher Education Institutions and their estates team have been under pressure to deliver learning and teaching accommodation that both satisfies changing pedagogy as well as improves utilisation and efficiency. This doesn't just apply to formal learning environments as today's student spends an equal amount of time in self-directed or informal study. The 2018 HEPI / Advance HE Student Academic Experience Survey (n = 14,000 students), found that the average timetabled contact hours are 13.7, and average independent study hours are 14 hours, indicating that students are splitting their time between formal and informal learning. But how do the spatial requirements for these different types of learning differ?

For a number of years we have been supporting the research initiatives of the Higher Education Design Quality Forum (HEDQF), through my leadership alongside a number of other professionals from design consultancies as well as higher education institutions. HEDQF is an independent organisation that exists to promote high quality design across university campuses, buildings and facilities, in the knowledge that this enhances teaching, learning, research and public engagement. Research is a core component of the charity's activities, supporting the higher education sector to create, maintain and deliver high quality

environments through greater understanding and knowledge of how they affect the people that use them.

Although maybe an obvious statement, the student voice is vital to the success of these research initiatives, as it is to deliver all building projects within the sector. HEDQF are committed to engaging with the student community and capturing their perspective across all our research projects. The charity has recently worked with an independent insights consultancy, YouthSight, who maintain a dedicated under-30s opinion panel with 150,000 members, allowing the charity to take another step in this journey.

Last year the charity turned its attention to better understanding the design requirements of learning environments of the future as well as the present, responding to feedback from the sector. With many courses developing new approaches to pedagogy that incorporate blended learning approaches, using methods such as flipped classrooms or utilising virtual learning environments (VLE) students address a significant amount of the curriculum studying either with colleagues or on their own. Learning experiences that take place outside the 'classroom' setting have an increasingly important role.

Whether you call that 'informal learning' or 'social learning', ensuring that the University campus provides successful environments for these

activities is becoming as important as delivering the right number of 'rooms' to satisfy timetabling requirements. Design teams are constantly re-evaluating the success of the physical environments they create to support these informal experiences that range from impromptu to semi-structured.

Although the National Student Survey (NSS) creates a significant presence in the academic year, the learning experience for any student cannot only be captured by contact-time metrics. In order to get greater insight into the way students choose to study, the charity choose to go direct, and ask them. With the help of YouthSight over 1000 full time undergraduate student provided their views across ten questions for this survey on Social Learning Environments.

An overwhelming number of student respondents indicated that they would choose to study in the library and their study bedroom outside taught sessions. This could suggest that there is a preference towards using designated study areas rather than repurposing other spaces such as cafés or break out spaces. Both these spaces are also likely to provide silent or quiet studying environment and in the instance of their bedroom a space they can control.

The survey highlighted that students say they spend on average 45% of their study time on campus as opposed to off campus. Although this is a very slight preference, many

institutions would be keen to reverse this relationship or better still increase the amount of time spent on campus further, epitomised by the term 'sticky campus', prevalent in many discussions about the development of University estates.

When asked about reasons for choosing to study on or off campus it is evident that the decisions are also strongly influenced by whether they are working on their own or with friends and whether they require University resources. The most popular reasons for studying off campus were related to convenience as well as an ability to work on their own, suggesting a perception that there are not sufficient or suitable places to study alone on campus. Although many Universities are providing an increasing number of central desk spaces and computer

access, if these are located in shared or open plan spaces this may have an influence on whether a student would choose to use them for focused work or not. This emphasises the important role that student accommodation and the study bedroom still plays in the learning experience of students.

In a sector where a good number of new buildings have been opened over the last 5-10 years, specifically to respond to a changing pedagogy including informal, flipped or social learning, examining student perception of the range of spaces on offer and what they're good for is critical. Capturing the student voice is imperative whether through user survey or observation, otherwise we're just overlaying a series of often long-held assumptions in lieu of evidence-based informed decision making. If you'd like to see more of

the study commissioned by HEDQF, please check out the charity's website at [www.hedqf.org/research/](http://www.hedqf.org/research/).

Whether as part of my work with HEDQF or leading Atkins Research & Innovation team, I am committed to providing the Education sector with research insights that support the delivery of environments that support learning both now and in the future. Hopefully one day the National Student Survey will also collect feedback on the role of the physical environment in the success of learning and teaching with the higher education sector.



**Caroline Paradise**  
Head of Design Research





# The rise of the digital 'knowledge worker'

In today's digital age, it has never been more important for organisations to unlock the potential of our human resources and unleash the power of the team. Technology continues to present opportunities for transforming how people live and work. But organisational hierarchy in educational settings and the way we think about leadership needs to catch up and join us in the digital age.

According to Peter Drucker, hailed as the father of modern management, "knowledge workers are individuals who know more about the work that they perform than their bosses". In this context, how can a team leader attempt to oversee or even coordinate the technical activities of people who are infinitely more capable than they are of defining the tasks necessary to accomplish their mission and provide clients with what they expect?

Author and motivational expert Daniel Pink's attempts to answer this question in his book, Drive. According to Pink, the problem is with the incentives that businesses provide to try and motivate their staff. Pay aside, he states that there are three things businesses can do to really unlock workers' potential:

1. Give staff a clear purpose so they can understand how they contribute to the bigger picture.
2. Provide the tools and training to enable workers to feel they are mastering their profession.
3. Give empowerment and autonomy for staff to come up with solutions to clearly defined problems.

Smart organisations embrace a culture that embodies the above be they businesses, schools or universities. The resulting rise of the knowledge worker can be evidenced by the organisations who are now recognising and rewarding key workers to the same standards as their senior managers. No longer does the only option for promotion mean moving away from 'doing' in favour of becoming a people manager. Now, talent is able to progress up the pay scale while exploiting their digital mindset and skills like design thinking, entrepreneurial approaches to learning, and agile and lean delivery.

To support this new structure, digital organisations are changing the way projects and teams are managed. Work is being allocated to established teams rather than individuals in temporary project structures, creating a 'team of teams' approach. Organisations are also identifying the value of the agile Product Owner model, whereby a team member is responsible for identifying priorities and enabling the team to self-organise around the work, rather than having a figure of seniority who allocates tasks.

This team-level enablement and empowerment is key in unlocking the potential of digital knowledge workers. Decisions are still made based on a clearly identified vision and list of priorities, based on a deep understanding of each customers' needs. But the move away from an autocratic 'command and control' culture leads to an environment where team members are free to work with autonomy and innovate to find the best solution for the customer and the organisation.

For large, established organisations, championing the rise of the digital knowledge worker will mean a cultural transformation that will likely cut to the very core of their business model. But done successfully, an organisation will reap the many rewards of empowering staff to develop their own skillset while putting the clients' needs at the heart of their work.

Can you afford not to unlock the potential of your digital knowledge workers?



**Symon Cusack**  
Agile Technical Director

# Showcase



#1

## #1 Richmond upon Thames College

We're helping regenerate the existing college site into a 20,000m<sup>2</sup> development including a state-of-the-art further education college, a Sports Hub and a STEM Hub, within a wider masterplan

## #2 Poole Gateway

We're taking a Human-Centred Design approach to our designs for the University, creating new buildings and landscapes with staff and student's wellbeing at their heart. Poole Gateway Building is a £19m landmark scheme which will strengthen the university's outstanding international reputation in the fields of Media and Communication, and Science and Technology.

## #3 Bournemouth Gateway

We're designing the landmark building at the 'entrance to Bournemouth'. The building will soon be the new home of the University's Faculty of Health and Social Sciences featuring state-of-the-art teaching space, clinical skills labs and facilities to develop students for a career in the health profession and creating a knowledge transfer hub in the heart of the campus.

## #4 Institute of Health and Wellbeing, Glasgow University

With a focus on sustainability and wellbeing, we're creating a new Institute of Health and Wellbeing facility for the University

that will support the needs of all building users and will create an interdisciplinary research and teaching home for education, and health and wellbeing.

## #5 Arcadia Nursery, University of Edinburgh

We are breaking the mould in terms of our educational design, creating excellent environments for children to thrive in. We've designed and delivered a new-build 70 place nursery on a green field site at the University's Easter Bush campus on the outskirts of Edinburgh.

## #6 Leeds SEMH School

Our design for three new facilities is helping to redefine SEMH provision across Leeds. The schools improve the standard of educational facilities for vulnerable young people, providing supportive environments that allow each student to thrive and achieve their personal goals.

## #7 Chesterton Secondary School

Using our holistic approach we helped the school to understand what additional spaces were needed to increase their capacity. Our design bridges the divide between the school's 'old and new' by giving the school a shared two-storey atrium, main entrance and reception block.



#2



#3



#4



#5



#6



#7

We believe  
good design  
has the power  
to transform  
people's lives



atkinglobal.com  
snclavalin.com