

MAGAZINE2019





Editorial

"The only thing that is constant is change". This phrase was first coined by Heraclitus, a Greek philosopher of the late 6th century BC, known for his principle of change, and for establishing the term Logos as meaning both the source and fundamental order of the Cosmos. Despite the passage of time, this phrase seems to be truer today, than ever before, with structural changes evident in our socio-economic environment, our geopolitical environment, as well as our workplace environment. Businesses are struggling to keep pace with the rapid rate of change and disruption. To keep up, businesses are attempting to diversify into new markets and sectors, and innovate by building products and services to cater to new needs. Businesses are however also taking a closer look at what it takes to be fit for the future, to be more agile, and to be more responsive to change.

I recently discovered a fascinating 'sketch note' graphic that summarises how some organisations are responding to external changes. These businesses have recognised that technological innovation alone is not enough. They have recognised that

innovation is a result of something deeper and is commonly the result of changes in mindset, behaviours, leadership and culture. I am sure we can all cite numerous examples where the articulation of company purpose, the definition of cross-functional team structures, the drive towards greater staff empowerment, or the transition from "needs to know" to improved data transparency, has been pivotal to business innovation and ultimately business success. However, for our purposes the question is, how many of these examples do we know of within the real estate space?

It is critically important that we too look closer at how we respond to the profound changes in our external environments. While we all, on some level, know that change is inevitable, it is often difficult to

embrace, initiate and communicate. This year's CULS Magazine seeks to do just that by calling for articles to address our 2019 theme of "Embracing change: disruption and the future of real estate".

I wish to thank each and every contributor for making the 2019 edition possible, and am most grateful for the articles from five of our Honorary Vice Presidents, including Dame Kate Barker CBE, Professor Sir Malcolm Grant CBE, Liz Peace CBE, Roger Madelin CBE, and Peter Pereira-Gray.

Howard Group, Birketts, and Apache Capital are generously sponsoring and supporting the production of the 2019 CULS magazine, and I am happy to report that feature articles are included for each sponsor.

Special thanks also go to Dominic Reilly (Immediate Past President), Ian Marcus (Incoming President) and Ali Young (Society Secretary) for a very memorable and high-quality 2018/19 programme, and smooth transition to 2019/2020. Finally, I wish to thank Dominic Reilly, Ali Young, Fiona Jones, Louise Sherwin, Martha Grekos and Lauren Fendick for taking the time to help me review over 70 articles featured in this edition and close to 100,000 words of original content.

If you have any suggestions for future content or wish to be involved with CULS in any way, then please visit www.culandsoc.com or contact us on info@culandsoc.com. We look forward to hearing from you.



Werner Baumker Group Director - Property, Howard Group PhD (Cantab), MPhil, BSc (Hons). Wolfson College (2005)

CULS Hon. Press Secretary w.baumker@howard-ventures.com

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Magazine

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If you wish to sponsor CULS in future, do please contact us by email on info@culandsoc.com or contact any of the CULS Committee members.

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We have a very active facebook page, and encourage you to join at www.facebook.com/culand



Both the Cambridge University Land Society and the Silver Street Group have LinkedIn Groups for you to join. The groups are a good way to stay informed and to share your news and views. (Please add Cambridge to your profile to allow the group managers to confirm your group membership.) www.linkedin.com/groups/4258158/

President's Report

wrote in the President's report of the 2018 CULS Magazine that I was looking forward to my last year of Presidency, and very much hoped that I could report in the same happy vein to you in this year's magazine. I'm very relieved to say that my wish has been fulfilled, I have enjoyed my last year of Presidency as much as the first two years, and I believe that the society's members and their guests have enjoyed the range of events that we have organised in the past year.

These events are reported in more detail later in this magazine by the chair of each of our forums, but in totality comprised 18 diverse CULS events, 3 Dinners; our black tie dinner in March at the Oxford and Cambridge Club, the Silver Street Group Dinner at the Farmers Club, and a Dinner at St Johns College which proceeded our AGM; 15 Whitehall Group lunches & dinners, the Whitehall Group Drinks Party and an extremely well attended BREXIT debate & Dinner.

In putting on these events we seek to entertain, inform and challenge both our members and their guests. In relation to the world of real estate we have put on events which have looked at the Cambridge-Milton Keynes-Oxford Growth Corridor, which have explained the value of Place Making, challenged a thesis that Banks lose money in every cycle, and considered how the world of artificial intelligence might change the real estate landscape. We have included visits to a range of properties from the Fitzwilliam Museum and Hever Castle to King's Cross and Canada Water.

During the three years of my
Presidency, the political landscape
has changed dramatically, what with
BREXIT, President Trump, the Gilet
Jaune movement, the election of two
former comedians to form governments
in Ukraine and Italy, and the political
unrest in Hong Kong. The Whitehall
Group considers these issues, and we
are fortunate in having had a very
distinguished list of speakers to address
us and help us understand how this
political turmoil might turn out.

During my time as President we have had a distinguished list of speakers and I want to thank each and every one of them for the contribution they make to our very successful events. The amount of preparation they put in is evidenced in the excellent presentations that they have made, and which were enjoyed by

a broad church of our membership and their guests.

Likewise these events could not happen without the sponsorship of a number of key organisations. Europa Capital, Orchard Street and Tishman Speyer continue to sponsor our website, whilst Knight Frank, Howard Group, Bidwells and Birketts sponsored our 2018 Magazine, and this year Birketts, Howard Group and Apache Capital have agreed to sponsor our 2019 Magazine. We also raise sponsorship as part of our subscriptions from members of the Whitehall group, and we have received sponsorship for a number of individual events, and in this respect I wish to thank Mills & Reeve, Savills, Dentons, the Howard Group, Carter Jonas, Ashursts, Cobalt Recruitment and the many sponsors of our very successful careers fair. I also wish to thank those organisations who generously provide us with the accommodation to host our

Our financial position has improved on the previous year and remains secure. Our income is a combination of membership subscriptions, ticket sales and importantly a considerable amount of sponsorship from a number of key organisations. We do use our surplus to support both the Department of Land Economy and the Faculty of Architecture, we continue to support Franz Fuerst as the CULS Fellow, and to financially sponsor a number of annual student prizes and support a number of individual students in their dissertations. I think we can now consider prudently using more of our surplus in a number of imaginative ways to support the University and its students involved in the wider world of real estate. I particularly want to thank our Treasurer Erik Ruane who has looked after our finances and ensured that the Society is in the strong financial position it now

I also want to thank all of the individuals who make up the CULS committee. Roddy Houston and John Symes-Thompson as immediate past Presidents have been very supportive and provided wise counsel. Lauren Fendick and Paul Clark look after our secretarial and membership issues, whilst each of the forum chairs are responsible for the great diversity of events that we provide. My biggest two thanks are reserved for Ali Young, secretary to CULS and Fiona Jones,



Dominic Reilly Immediate Past President Chair, CULS Sports & Leisure Forum Gonville & Caius (1975-1978)

secretary to the Whitehall Group. Ali and Fiona are well known to all of our members and they are responsible for all the detailed work in putting on the great number of events that we host every year.

Finally, thank you to the committee and membership for the very generous gift of 6 magnums of Saint-Emilion Grande Cru 2015 and an engraved decanter. The wine will be savoured and drank with very good friends, hopefully including a number of you in the coming year.

Professor Colin Lizieri retires later this year as Head of Dept. of Land Economy as does Professor Ian Hodge as Professor of Rural Economy and who was also Head of Department from 2002 to 2011. We were very pleased that Colin and Ian attended our dinner in St John's College after the AGM as our guests. They have every right to be very proud of everything that the Department has achieved in recent years. By way of example for the last MPhil recruitment cycle there was a dramatic increase in applications, 789 applications for the 100 places on offer, at a ratio of 8 to 1 which is high by Oxbridge standards. Also the Land Economy degree "Building and Town & Country Planning" topped the Guardian's University League Table for it's subject area. Colin has been head of the Department since 2016 and is the Grosvenor Professor of Real Estate Finance. Ian has been the holder of the lectureship endowed by the Walter Gilbey Trust since 1983. We wish them well in their retirement.

I am delighted that Ian Marcus has been appointed as our new President for the next year 2019/2020. Ian has a very distinguished career largely in the financial world of real estate, but also brings the experience of being a past president of the British Property Federation and past chairman of the Investment Property Forum. Ian has shadowed me in the last year whilst being on the committee and will I know hit the ground running. I consider I am passing on the Society in fine fettle to Ian as my successor. We continue to improve

the logistical workings of the Society and I would like to think that under my Presidency we have broadened the membership and the range of events that we hold. The most important aspect of our Society is the happiness and wellbeing of the membership and this is, if we have a mission, our key. There is a

greater diversity amongst our younger members and this is an issue which we are well aware of and which we need to address. I am sure Ian will do this with the support of you all.

Thank you to you all with my best wishes.

Incoming President's Inaugural Speech

After three years of hugely energetic and inspirational leadership of CULS given by Dominic Reilly, the torch has been passed to industry veteran, Ian Marcus who brings unparalleled experience of real estate investment banking to the role alongside his many non-executive positions including as a Crown Estate Commissioner, a trustee of The Princes Foundation and senior NED of three listed REITs. Ian delivered a forthright challenge to CULS and the broader industry in his inaugural speech at the 2019 CULS AGM dinner as the newly elected President.

The start of my speech is the easy part. It is to thank Dominic on behalf of all of us directly and indirectly involved with CULS for your superb leadership of the organisation for the last three years, not forgetting your prior years as CULS Treasurer and CULS Senior Vice President

As is the norm in these situations I asked several of your friends and colleagues for war stories to embarrass you professionally and personally. Sadly, I am desperately short of ammunition so I will have to, briefly, outline your outstanding contribution to the society. You have played a key role in sourcing sponsorship for the magazine and website, established the new Sports & Leisure Forum, been a strong supporter of the Whitehall Group as well as taking the responsibility for the somewhat unpopular but entirely necessary task of increasing subscriptions. Your ever present and enthusiastic presidency has encouraged many others to contribute and CULS has flourished under your tenure. On behalf of all of us Dominic thank you very much indeed.

It is 40 years since I first arrived at the Land Economy Department having studied geography for two years prior, so for many I am seen as a dinosaur, but I was reminded recently, dinosaurs leave big footprints. Partly for amusement and partly for embarrassment purposes, I dug out my land economy lecture and revision notes. Contrary to popular belief I did actually attend some lectures and revised for my exams. It is amazing what we were taught, how little I remember and to be honest, how much is relevant for me today. Our class included many who have gone on to become leaders in our industry including Robin Butler, Noel Manns and Michael Brodtman. Michael is the one who definitely went to all the lectures! Others went on to bigger and better things like the student who applied to Professor Cameron to have a TV installed outside the exam room so he could pop out during his land law finals to watch the Derby. The request was disappointingly denied, however he is now managing director at Cheltenham racecourse. My notes revealed I learnt about von Thunen and Ricardian theory, the ideas of Loria & Loach and Cobb Fitzwilliam (1977) Douglas, determination and conditional fees, as well as



Ian Marcus

many statistical formulae I would not even begin to understand today.

But it is not until you leave Cambridge that you realise quite how special a place it is and the legacy and network it offers you for the rest of your career; and of course there is no better way of maintaining that connectivity than through CULS.

But our organisation needs to be proactive; because of the influence and impact of our alumni it can be influential in promoting and socialising important issues affecting our industry. For the current students they need to be aware of the changing environment which they are entering and the broadening of the definition and impact the built environment has on our day-to-day work, rest and play.

Speaking of dinosaurs (his own description), I went to see Billy Joel in concert at Wembley recently. He wrote a song in 1989 called "We didn't start the fire"; now don't worry I promise I'm not going to sing but the song is interesting because it just lists, very melodically, name after name of people and events who have influenced our lives, for better or worse, since World War II. It starts with Harry Truman, Doris Day, red China and Johnny Ray and goes on to mention Joe DiMaggio, Richard Nixon, Marilyn Monroe, Brando, the Catcher in the Rye, Liberace, The Moonshots, Elvis Presley, JFK blown away etc with a constant chorus of: We didn't start the fire, It was always burning since the world's been turning, But when we are gone, It will still burn on and on and on.

I was always an advocate of "real estate is a cyclical business" and have always been cynical and mistrusting of those who say "it's different this time". I still fundamentally believe in cycles but there is so much geopolitical, social and structural change I do believe we need to recognise that the physical and financial landscape is changing faster and in ways we couldn't contemplate when I was attending lectures in Silver Street. Real estate will be profoundly affected by 21stcentury disruption. We are all aware of this but many are not sure how to respond. It's not all about technology; demographics, changes in global power and social norms will provide the backdrop in which we have to operate.

So in a homage to Billy Joel, here is a list of subjects we discuss every day which influence our engagement and involvement in the property industry and yet 40 years ago were not for all intents and purposes in our vocabulary. Please excuse the fact that this is more prose than poetry, and with apologies to Parry's valuation tables did we ever envisage the need to understand: globalisation, sovereign wealth funds, Chinese investment, place making, sustainability, social impact investing, climate change, the shared economy, co-working, modular construction, 3-D printing, cyber risk, AI, data analytics, autonomous vehicles. The list goes on, not to mention popularism, diversity, inclusion and fake news.

In a time when the definition of real estate is broadening to include many "alternatives" and other "real assets" we need to ask: is the RICS current?, are banks relevant?, is the Land Economy degree fit for purpose?

The camaraderie and networking opportunities which CULS offers remain central to our ideals but our members have a broader responsibility to ask why:

- why is it my former boss used to say:
 "we tolerate real estate in the good times and blame it in the bad times"?
- why is it that our reputation constantly refers back to fat cat developers

- more interested in profit than the betterment of the built environment?
- why is it we think a building has a value linked to the length of the lease rather than the quality of the owner and how they look after their customers?

The property industry is changing dramatically in real time and those, whether individuals, companies or institutions as worthy as the University of Cambridge that don't change along with it will be left behind.

I hope that during my year of presidency I will work towards ensuring CULS remains relevant, proactive and at the cutting edge of the changes paramount in our industry while insuring the pillars of friendship and education remain at our core. Can I thank in advance Ali, Fiona, the rest of our volunteers on committees as well as all our members for their patience, help and assistance and continued engagement which is so vital to the ongoing success of CULS. It is an absolute honour to be your president and may I propose a toast to the Cambridge University Land Society.

APEC Forum

he APEC committee enjoys enthusiastic support and again we have new members joining us.

We held our fourth annual planning update half-day conference at Dentons with two Government spokesmen, a wide-ranging presentation on the CaMKoX Arc from some of its creators and a debate on Permitted Development.

CULS again sponsored the ArcSoc (architect students society) summer show and their catalogue this year for the same amount as last year – £2500. A stronger relationship with the School of Architecture is developing well and Dr James Campbell, our contact there, becomes professor and head of department this term: congratulations!

RECENT EVENTS November 2018

Professor David Mosey of Kings College London gave a well attended talk on 'Procurement Post Grenfell and Carillion' hosted by Trowers & Hamlins. David authors









Brian Waters, Rod McAllister and Sue Chadwick

the PPC and FAC collaborative building contracts used by the Department of Justice, City Cirporation, housing associations and many others. Now translated and in use in germany, Brazil and Italy. They are published by the ACA – Association of Consultant Architects, see: www. allianceforms.co.uk.

March 2019

For the fourth annual planning update afternoon conference we collaborated with the London Planning and Development Forum. Other partners were the National Planning Forum,

Planning in London magazine and the Association of Consultant Architects. Ideas and structure of The CaMKoX Arc were strongly featured. About 90 Delegates were welcomed by our hosts at Dentons. Brian Waters introduced the speakers.

The government perspective was given by **Simon Gallagher**, Director of Planning MHCLG (and a graduate of Selwyn).

Professor Tom Holbrook, 5th Studio, outlined the concept and strategy of the government supported CaMKoX Arc. Alexander Jan, Arup Chief Economist considered the governance models including financing and planning powers required for success of this ambitious proposal. Helka Kalliomäki, of Turku School of Economics in Finland offered a European perspective on growth corridors. Robbie Owen, Partner and Head of Infrastructure Planning and Government Affairs at Pinsent Masons concentrated particularly on the role of LEPs and England's Economic Heartland's 'Prospectus' for an National Planning Strategy.

A second government spokesman was **Andy von Bradsky**, newly appointed Government (not just departmental) Head of Architecture who explored the status and government approach to design quality.

The afternoon was rounded off [before drinks!] by a debate:

Permitted Development – In the absence of serious reform we need a 'shadow' planning system

FOR: Brian Waters (replacing Nick Cuff of Pocket Living who at short notice could not be present) SECONDING: Andrew Rogers, Association of Consultant Architects

AGAINST: Hugh Ellis, Chief Executive TCPA; SECONDING: Mike Keily chairman Planning Officers Society.

Lost by 2:1

A full 10 page report of the event from *Planning in London* magazine [planninginlondon.com] may be found here: http://bit.do/e4gsz

May Day 2019

The second School of Architecture Careers Day at the Department was again a success – and the Department was grateful for APEC's pivotal role (special thanks to James Lai). Major architectural firms gave 5-minute presentations to the students (and each other!); these included Foster + Partners, Gensler, CallisonRTKL, Allies and Morrison and Fielden + Mawson. Two got students whom they had recruited at last year's event to do their presentations! There was a good Q&A mainly about visas and post-Brexit work permits.

July 2019

The ArcSoc Summer Show 2019 was held at the Ugly Duck in London Bridge from Friday 5th to Sunday 7th July. CULS again co-sponsored with Foster+Partners and others both the catalogue and the show.

9th July: Tour of the new extension to Judge Business School, the Simon Sainsbury Centre by the architects Stanton Williams. The group appreciated an illustrated talk explaining the concept, a tour and the contrast between the Outram conversion of the old Addenboke's hospital and the coolth of the new extension. Arranged by Rod as his co-chair swansong and followed by AGM and dinner at John's.

PIPELINE

Suggestions for the content and implementation of future APEC events will be appreciated, and host-sponsorship too please.

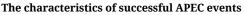
- Logistics after Brexit | after-work talk by Jolyon Drury (Architecture, Pembroke) | Joint event with Commercial Forum (Brian leading)
- Future Living | an afternoon event in Cambridge: an event that links demographic changes and future developments in technology such as drones, driverless cars, AI, robots, and in-place ageing with the potential changes to planning, regulating,





financing and building new developments | aiming for mid- to late-November (Sue)

- Private funding for social housing (Liliana)
- Workplace III | ie a second sequel to the early APEC events hosted by Macquarie
- Allies + Morrison's Greenwich Peninsular Masterplan (Brian)
- Worshipful Company of Chartered Architects' Global Hub Project (Brian)
- WELL Certification of Buildings (Sasha)
- NW Cambridge revisited.



We have had a debate on what makes for a successful APEC event. The broad conclusions seemed to be that:

- The core-CULS membership was not greatly attracted to events without obvious networking opportunities – eg the Spring 2018 Food City event would not have been for those who were primarily networkers so was deferred in the face of poor advance ticket sales.
- events with a CPD-flavour often proved to be of minority interest. Relatively awkward toget-to events (basically anywhere outside the City or West End) haven't drawn the crowds.

APEC's nostalgia events have sparked interest (eg Churchill Revisited on 1 May 2014 – and the St John's Masterplan presentation on 30 January 2018 but they were likely to be very few and far between because they were difficult to think up in the first place; and they were typically highly complex (eg Churchill Revisited was a re-run of the 1959 Design Contest which was conceived by Rod to be part of the college's marking of its 50th anniversary), and requiring of much effort to carry off in a way that did justice to the subject. This one did pull over 100 participants.

FOOTNOTE:

The Architecture Planning Engineering and Construction (APEC) Forum was set up in 2013 and aims to support both the Department of Land Economy and the Faculty of Architecture, the latter particularly needing help with outside teaching by practising architects.

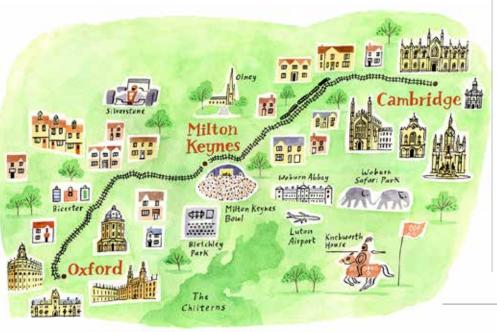
CULS through the APEC Forum is now engaging successfully with the School of Architecture.

SPONSORSHIP

We have been fortunate in having all our events hosted and sponsored so that they more than break even but are keen to generate additional funds to support teaching, faculty and students at the school of architecture and the department of land economy. A sponsor for the Forum would get good exposure. We can deliver at least three powerful events each year. Please be in touch! brian@bwcp.co.uk

Members of the APEC Forum Committee during the past year:

Brian Waters and Rod McAllister (co-Chairmen), Dr Sue Chadwick (new co-Chair, and Host), Martin Thompson (Scribe), Melville Haggard, Mike Adams, James Lai, Sasha Njagulj, and Dr Kevin Stone and new members Liliana Shanbhag and Richard Morton. (+Flora MacLeod of Bidwells on maternity leave). Special thanks to Rod McAllister, recently co-chairman, who is persuaded to remain on committee. And thanks to both Bidwells and Pinsent Masons for hosting us and recent event host-sponsors Trowers, Dentons, Cambridge University School of Architecture and the Judge Business School.



The Whitehall Group

he Whitehall Group, a forum of the Cambridge University Land Society was founded in 2014 by Douglas Blausten. This unique high level policy discussion and thought leadership group is open to Cambridge alumni and those who are connected with the University of Cambridge. Members cover a wide range of degree disciplines. The Whitehall Group is jointly-Chaired by Colm Lauder and James Lai, who along with the steering committee, organise a wide range of events covering macro-economic business and social issues - topics include Foreign and European policy, Education, Social Mobility, Infrastructure, Health, the Economy, Housing, Climate Change, Drugs, Transport, Conservation and Heritage, Mental Health, Devolution, Science and Technology, the Middle East and Russia. The Whitehall Group holds approximately 15 events a year, mostly being in London. These lunches, dinners and the Whitehall Lecture are open to all members of CULS and other Cambridge graduates working in relevant fields (space permitting). Membership to the Whitehall Group is sponsorship based and members are able to alternate with non-Cambridge colleagues and invite guests to join them at events when capacity allows. Since its creation in 2014 the Whitehall Group has hosted in excess of 60 speakers, served over 1,000 meals and had approximately 1,200 people register for the distinguished Whitehall Lecture series. The Whitehall Group enjoyed a senior industry evening event in May entitled 'Assessing where next for Brexit'. This private evening debate was followed by a dinner for approximately 50 members and their guests under the Chatham House Rule.

Healthcare Hub Series

This series of 6 lunches was kindly hosted by Carter Jonas. Speakers for this series included Rt. Hon. Stephen Dorrell - Chairman, NHS Confederation; Lord Prior of Brampton - Chairman, NHS England; Richard Murray - Chief Executive, The Kings Fund; Ian Ellis – Chairman, NHS Property Service Ltd. and the then Chairman of NHS England - Professor Sir Malcolm Grant CBE.

Other events in the 2018 / 19 calendar of events included: Elmar Brok - European Parliament; Richard Graham MP; Tim Neal



Colm Lauder Goodbody Whitehall Group Chair Wolfson (2011)



James Lai CallisonRTKL Whitehall Group Vice-Chair Wolfson (2007)

RICS; Dr. Robin Goodchild - La Salle Investment Management;
 Rupert Younger - Finsbury Communications; Sir Peter Heap - former British Career Diplomat;
 Professor Laura Diaz Anadon - Dept. of Land Economy, University of Cambridge

The eighth Whitehall Lecture

'The Future of Capitalism' presented by Professor Sir Paul Collier CBE, FBA will be given on Tuesday, 15th October. We are grateful for the support of Lazard & Co. Ltd who will host this event. These thought leadership lectures are all published and are available online via the CULS website (Articles tab).



Lord Prior speaking during the Healthcare Hub Series

Planned forthcoming events for 2019/2020

Details for all future Whitehall Group events are included on the CULS events planner towards the end of this magazine

If you would like further information on the Whitehall Group please contact Fiona Jones, Group Secretary (fionajones.wg@culandsoc.com)

Rural Property Forum

he Rural Property Forum has had a quiet year whilst the agricultural sector's experts and commentators have often been second guessing what comes next in relation to Brexit. In last year's version of this Magazine I recall suggesting the Agriculture Bill was rumoured to sail through Parliament in early 2019; at least I didn't make the same prediction for the UK's departure from the EU. Those in the industry will be aware the Agriculture Bill did not escape the turmoil of Brexit, the ongoing malaise of Parliament and ultimately the Queen's speech in October proposing the Government would introduce a new Agriculture Bill (albeit with same main aims).

On more than one occasion this year I have pencilled in – and then postponed - a "post-Brexit" panel debate on what the short, medium and long-term outlook for UK agriculture is. Readers may be pleased to learn such an event is now firmly lined up for late January 2020, by which time we can only hope (but not expect) there is a little more policy certainty to guide our commentators and industry experts. I am certainly not billing it as "post-Brexit" just yet. There is an excellent line up of panellists emerging, which is a reflection of the topic and the appeal of CULS as a forum for debate. Members will be sent details of the event shortly after this Magazine's publication.

Aside from the Agriculture Bill, readers may want to keep an eye on the Environment Bill (Policy Statement issued 15 October). The Bill certainly seems capable of capturing the public's attention with some interesting proposals, including "biodiversity net gain" which represents an emerging opportunity for landowners and farmers to be paid by developers for creating biodiversity. To me this seems akin

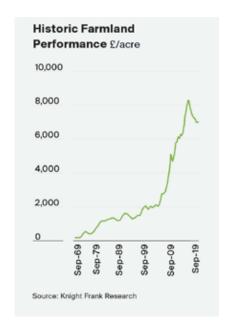
to the "polluter pays" principle I learned about as a Land Economy student. At times the environment took centre stage in the media in 2019; whether brought about by policy, extreme weather events or Extinction Rebellion, I am confident it will take centre stage again during 2020.

Amongst all the political deadlock and uncertainty, it might be of interest

James Shepherd, MA Cantab MRICS Partner, Rural Asset Management Knight Frank LLP Chairman, CULS Rural Property Forum Magdalene (2006-2009)

to readers to learn that the farmland market has suffered a significant decline in supply. As of early October there was a 44% fall in the annual quantity of land (in acres) being marketed in the Farmer's Weekly. Notwithstanding this, according to Knight Frank's Farmland Index, the average price of bare agricultural land in England and Wales has dipped very slightly. Over a 10 year time period, the average price of farmland remains in the mix with the performance of other assets, including UK residential property and the FTSE 100. Like me, I am sure many of you will be keeping a keen eye on how policy could change that alignment in years to come.

For those interested in finding our more about the Rural Property Forum, hosting an event or helping this Forum's Committee, please do get in touch with me directly.





-0.8% 3-MONTH CHANGE

-1.0 %

-9.0%

PRICE CHANGE

40%

3,630%

Silver Street Group

he Silver Street Group ("SSG") is a group for younger members of the Cambridge University Land Society ("CULS") which provides a unique social and professional networking forum for those who have graduated from Cambridge University in the last fifteen years. We host a series of popular events and career development opportunities for those embarking upon a career in property bringing together students and recent graduates with industry leaders and providing support and guidance on how to make it in the property world.

The SSG committee comprises Sophie Pickering (Chair), Tat-Kei Lo, Hugh Sancroft-Baker, Sally Monson, Alan Crampton, Philip Latham and Lydia Karayianni who have helped to organise a series of well attended events this year including our Christmas Drinks at the Oxford and Cambridge Club, a number

of informal drinks events in Mayfair and our Annual Dinner at the Farmer's Club.

Christmas Drinks

Every Christmas, the Silver Street Group invites it's members, new and old, to re-unite, reminisce and relax over winter warmers. Dec 2018, the members of SSG swapped the pub for the Princess Marie Louise room at the Oxford and Cambridge Club, Pal Mall – not too shabby I hear you say!

60+ members were met with Prosecco, nibbles and an array of drinks, the opulent room filled with familiar faces and the reunion felt reminiscent of formal halls at some of Cambridge's more traditional Colleges. Christmas drinks are a great opportunity for members and their guests to catch up, reflect on the year gone and share resolutions for the year to come. We would like to express thanks to the Oxford and Cambridge Club staff for



Sophie Pickering Senior Associate, Ashurst SSG Chair Newhall (2007)

their excellent service and gratitude to our sponsors Knight Frank, Cloudscraper and Cobalt Recruitment for subsidising costs.

Annual Dinner

Following a very successful Annual Dinner last year we were pleased to welcome SSG members back to the Farmer's Club in Whitehall for a wonderful evening of celebration. The evening kicked off with a champagne reception on the terrace overlooking the River Thames and ended in the Club bar which has been witness



Philip Latham (Palmer Capital), SSG Committee Member

to property and farming debate for decades. Cobalt Recruitment, GreenOak Real Estate and Ashurst LLP kindly sponsored the evening as we celebrated another year of fantastic events and the introduction of new members to the Silver Street Group.

Key events to come

Christmas Drinks 2019: Please join us for drinks at the 0&C Club in December 2019. Details to follow in November.

We Work Event: Property talk and drinks to be held at a We Work venue. Details to follow in due course.

Sports and Leisure Forum

he Sports and Leisure Forum was created to put on events that, like a can of Heineken, mean we can reach parts of the Society not previously reached. In March 2019 we continued our programme of providing an after-dinner debate to follow our London dinner at the Oxford and Cambridge club. The Motion, "The Chartered Surveyor will be replaced by Technology" was proposed by Charlie Wade, the UK Managing Director for VTS, the real estate industry's leading leasing and asset management software company. (Charlie has also contributed an article to this magazine). The motion was opposed by Andrew Hynard, the Chief Executive

of The Howard de Walden Estate. Their speeches were considered but provocative, and after some observations and comments from the floor a show of hands provided a comfortable win for Charlie Wade in supporting the motion.

We held our annual golf day at Burhill Golf Club and participated in a 5 way match organised by the Old Fitzwilliam Golf Society at Mid Herts Golf Club. David Mortimer has written in more detail in this magazine about these two events. We know there are plenty of golfers out there, so please make yourself known to David so you can be included in future golfing events and swell the numbers.

Whilst we have had fewer

events this year than last year, four events are in the pipeline which we hope our members will enjoy. Following the successful in conversation with Mike Brearley event, we have organised a similar event where Sarah Winckless MBE, a Cambridge graduate and successful former British rower, will be in conversation on Thursday, 7th November. We are also planning an evening of darts at a London "Flight club" and a quiz night in a London pub, these events are likely to take place either side of Christmas. We are also hoping to organise a private tour of the newly opened stadium at White Hart Lane and are planning a revisit next summer before the championships to the AELTC



Immediate Past President Gonville and Caius, (1975 -1978)

at Wimbledon, now that the work to install a roof over the Number One Court has been completed. So please keep an eye on our website for these events which we hope will appeal and that you will come and join us.

Thank you to the committee of the Sports & Leisure Forum, Huw Stevenson, Hannah Durden, David Mortimer and Gordon Wood for their involvement and help in the events we have put on this year and what we are planning in the coming year.

CULS Golf Society

he Society ran two events during the year, with several golfers competing in the 'Fitz Five-way' at Mid Herts Golf Club in May. Fitzwilliam's well-established society has been a regular opponent for CULS over the years, and always hosts an entertaining day. This year we were joined by alumni teams from St John's and Jesus, alongside a team from St Peter's at the Other Place, who I assume must have been treated kindly by the handicap committee as they came away with the team title.

In September we returned to the picturesque Burhill Golf Club in Surrey for the annual Society Day. I was particularly pleased to welcome several new golfers this year in addition to the many returning faces. Although we were somewhat rushed to the first tee after an excellent lunch, the weather held fair and the Old Course was in fantastic condition on a sunny afternoon. The overall winner was debutant Sheel Raithatha (Selwyn, 2012), with a very creditable 37 stableford points. Sheel also picked up the driving competition,

whilst your author collected the nearest the pin award by default as the only one to hit the green. The Ladies' Plate was well contested this year, with another new member, Louise Elmes (Fitzwilliam) taking home the silverware, netting 31 points off a very strong handicap of 5. As usual, the Society continues to look for new members. and after a good sprinkling of debutants this year we are well placed to build our numbers going into 2020.



David Mortimer Head of Senior Debt, ICG-Longbow Robinson (1998)









CULS Membership

Paul Clark

CULS Hon. Membership Secretary

n addition to providing high quality social, networking and learning opportunities the Land Society plays an important role in support of the staff and students at the University. Members' subscriptions help us to put on a wide range of events, link students to mentors and to support high quality research at every level.

Membership fee income is also essential to creating long term stability for the Land Society. Our fees contribute to the running costs of the Society including administration, marketing and the general organisation of our events. These running costs are not immune from the forces of inflation but we do our best to keep the rates as low as is practical.

Given the significance of membership income, in 2017 the Committee voted unanimously to increase membership fees for some members.

As an acknowledgement of the relatively London-centric events programme, the current rates for membership are:

- Full members who live or work within 100 miles of London (measured from Charing Cross station) now pay a fee of £75 per year (including VAT).
- Full members who live and work beyond 100 miles of London have been given the option to remain at £55 per year (including VAT), rather than move on to the new full rate.
- Concession, International and Over-65s fees are £20 per year (including VAT).
- Students remain free during the course of their studies and for the first year post-graduation.

As your Hon Membership Secretary, may I kindly invite each of you to visit www.culandsoc.com to check that we hold up to date information on you and that you are paying the right rates?

If you would like a standing order form to update your subscription with your bank, please email Ali and she will send one to you. culandsoc@alibrinkley.co.uk

Do get in touch with me if you have any questions.

Honorary Vice Presidents of CULS

Dame Kate Barker CBE; Douglas Blausten; Stuart Corbyn FRICS; Professor Sir Malcolm Grant CBE; Spencer de Grey CBE RIBA; Ian Henderson CBE; Roger Madelin CBE; Jeremy Newsum FRICS; Liz Peace CBE; Peter Pereira-Gray; Mark Preston



2019 Past Presidents Dinner (including David Garforth-Bles, Dominic Reilly, Colin Dunkerley, Emma Fletcher, Robert Peto, Roderick Houston, Gerald Parkes, John Symes-Thompson, David Massey, Caroline Holmes, Clive Coward).

CULS Past Presidents

Mr	Peter	Poole	CBE TD	1963
Mr	Paul	Joseland		1968
Professor	Alan	Gillett	OBE	1969
Mr	Philip	Harris		1972
Mr	James	Stirling	KCVO CBE FRICS	1975
Mr	Clive	Coward		1976
Mr	David	Short		1977
Mr	John	Lea		1980
Dr	Derek	Nicholls		1983
The Rt Hon Lord	Richard	Inglewood	DL	1984
Dr	Robin	Goodchild	PhD FRICS	1986
Miss	Adele	Charles		1989
Mr	Robin	Bishop		1991
Mr	Robert	Peto		1993
Mr	David	Doubble	OBE	1994
Mr	Jim	Hasler-Winter		1995
Mr	Christopher	Robinson		1996
Dr	David	Massey		1997
Mr	David	Garforth-Bles		1998
Mr	Peter	Morrish		1999
Mrs	Caroline	Holmes		2000
Mr	Colin	Dunkerley		2001
Mr	Michael	Ford		2002
Mrs	Heather	Hancock		2003
Mr	Douglas	Blausten		2004
Mr	Philip	Wragg		2005
Mr`	Andrew	Waters		2006
Mr	lan	Mashiter		2007
Mrs	Emma	Fletcher		2008
Mr	Gerald	Parkes		2009
Miss	Jennifer	Buck		2010
Mr	James	Pavey		2011
Mr	Roderick	Houston		2013
Mr	John	Symes-Thompso	n	2014-2016
Mr	Dominic	Reilly		2016-2019

Evidence-based policy-making?

hen the Review of UK
Housing Supply was
published in 2004, I would
have been amazed to
hear anyone refer to it 15 years later.
It has certainly proved a more lasting
touchpoint than the 2006 Review of
Land-Use Planning, even though the
latter introduced changes to planning for
major infrastructure that have to a large
extent endured.

When asked to undertake the Review, my knowledge of the planning system was negligible (some may think it still is). Among a large pile of reading, which for complicated reasons I worked through in the backroom of a pub on a bleak day in the Fens, PPG3 was by far the most surprising document. On first acquaintance, it read as both unduly constraining overall and also (for density and car-parking in particular) too insensitive to local circumstances. Over the eleven months of frantic work which followed, this view was modified to some extent by a greater appreciation of just why planning matters.

In the context of both Reviews what did 'evidence' mean? It started with a wide reading of the literature and a look at past policies - to judge the successes and failures. A close look at relevant data - which identified weaknesses particularly in the housing data. (Some of these weaknesses regrettably still exist - data often used for modelling has some puzzling short-term moves and data on permissions can be hard to verify.) New academic work was also commissioned - though the slow process of government procurement tended to mean that by the time the contract was let there was little time for the work to be carried out. And of course, there were calls for evidence and some public opinion polling.

All that said, the conclusions of the *Reviews*, perhaps inevitably, also reflect an element of personal preference and the political context in which they take place. A government reviewer wants to produce recommendations which are taken forward – push too far and there is a risk of the whole review being discredited and dismissed.

A minor irritant about the housing *Review's* long life in the media is that often the target of 250,000 new homes in England each year is attributed to it – in fact that came along with the Government Green Paper in 2007, and was rather part of the Labour government's response. A more

important frustration has been watching the policy proposals move in and out of favour.

In April 2004, the Labour Government warmly welcomed the Review; but it wasn't until December 2005 that a full response was forthcoming, and I can testify that getting to this response was quite an uphill struggle. Many of the recommendations were adopted, including significantly a concern for affordability measures in planning housing numbers, a stress on local authority land supply and, dear to my personal views, an increase in funding for new social housing. PPS3 was less prescriptive on density and car parking. Other recommendations were not in particular the proposal that local authority funding should be made more responsive to increases in the local housing stock.

The arrival of the Conservative government in 2010 brought big changes with the welcome streamlining of planning policy represented by the NPPF. It also introduced the New Homes Bonus, which has proved a useful incentive for cash-strapped local authorities. However, in other ways the new policies were a setback for the Review's agenda, with cuts in the social housing program and a move away from regional spatial strategies (RSS) to focus on localism as a better way to set planning targets which were better supported by local voters. This has meant the loss of some ability to look at environmental issues and infrastructure capacity across wider areas.

Over subsequent years, however, policy has moved back towards leaning more heavily on local authorities to up their home-building plans, and there has been some success in encouraging local authorities actually to have upto-date plans. Less successful has been the attempt at planning across local authority boundaries – sometimes resisted by the local authority themselves, and sometimes treated erratically by planning inspectors.

In the meantime, my own journey into housing continued with becoming a non-executive director of Taylor Wimpey – where I am now towards the end of a nine year stint. This has been a very rewarding period – and served to confirm the views about the importance of land and land values for a homebuilder, as argued in the *Review*. The *Review* also suggested

that constrained supply meant the sector gave inadequate consideration to the customer; and in response the HomeBuilders Federation launched a Customer Satisfaction Survey. It is very pleasing to note that the percentage of those who would recommend their builder to a friend has risen from 77% in 2006 to 87% in 2018. The industry would not claim that all is perfect, but at least customer satisfaction is now a key priority.

Many people would point to the ongoing 'housing crisis' and say that meant the Review was a failure. Without falling back on the argument 'but of course you don't know the counterfactual' I would argue that its key successes have proved to be: the widespread (though not universal) acceptance of the argument that supply really matters; a shift in planning policy to include a greater role for economic factors; and, an appreciation in Whitehall of the importance of different planning guidance for different places. Too much should not be expected from any one review.

It's not until you try it that the full difficulties of policy-making become clear. To do it well means starting from a good understanding of past policy successes and failures; careful exploration of any proposal for unintended consequences; and being prepared to argue over and over again with those who saw themselves as losers. Indeed, in the end I've come to the depressing but maybe realistic conclusion that a policy review which, on balance, does a little good and avoids making matters worse, should count as a great success.



Dame Kate Barker CBE NED Taylor Wimpey

Healthy Planning

he historical origins of the planning system are most often associated with the work of Ebenezer Howard and his *Garden Cities for Tomorrow*, concerned primarily with enabling relocation from the congested Victorian slums of England's industrial cities. The time has come to acknowledge the parallel significance of Edwin Chadwick's² Public Health Act 1848 and the importance of public health issues such as water supply, drainage and the provision of water closets as equally important founding principles of modern planning.³

The post-war legislative era in Britain heralded a collective commitment to social welfare and a new era of social leadership and the National Health Service was launched contemporaneously with the establishment of a comprehensive system of town and country planning. This town and country planning system, with its nationalisation of development rights, remains the most dirigiste amongst democratic nations and has not been matched since. However, despite its great success in the containment of urban settlement and maintaining the beauty of England's open countryside, planning has done little to alleviate the problems of acute deprivation, cyclical unemployment, social isolation and, now, the failure of the High Street. It is too limited in its scope, under resourced, and slow to adapt.

The Beveridge-model NHS4 remains the most communitarian model of universal healthcare provision at a population level: free of charge at the point of clinical need with its ideological origins fiercely protected. It took on the major health challenges; primarily infection and communicable disease, and the discovery of penicillin and the array of other antibiotics that followed, have converted much infection from a life-threatening disorder into a manageable condition. It is also struggling to keep up with modern life and proving unable to serve a population dealing with chronic diseases, age and deprivation. The increase in demand for health care, coupled with rising costs of drugs, labour and medical equipment, mean that this model of healthcare is not financially sustainable in the long term.

Both the NHS and the planning system were radical for their time and remain significant outliers today but both are showing their age and neither have adapted well to change. Their paths have

flowed concurrently over the past 70 years, with surprisingly little interface, yet the circumstances of modern urban life – its homes, roads and open spaces - inevitably have a direct bearing on the health of the population. The time has come for their reintegration.

The case for integration

Four noncommunicable diseases: cardiovascular, respiratory, cancers and diabetes, account for over 80% of all premature NCD deaths.5 The burden of NCD disease falls unequally. While life expectancy for the population overall has risen by 10 years over the past 70, life expectancy amongst the most deprived decile of the population is significantly lower and the difference in *healthy* life expectancy is even more marked and these effects are amplified by a steadily ageing population. The factors contributing to the rise of noncommunicable disease are numerous and hugely complex. The contribution made by the formal systems of healthcare may be as little as 15%, with genetics and environment making up the remainder. The exact relationship depends on engaging with the still-disputed nature-nurture debate,6 but it is not unreasonable to assign a 40% attribution to environmental and lifestyle factors.

Some of our current health issues are capable of being solved by new technologies where breakthroughs in our understanding of human biology are moving hand in hand with advances in data science. Genomics is moving into mainstream NHS clinical practice in England while artificial intelligence including machine learning and deep learning is starting to transform clinicians' ability to predict, diagnose and treat disease. But all new discovery and technology comes at a price and neither of these developments have had much impact on the development of strategy to promote prevention of ill-health in the first place.

The NHS is already trying to solve the problem by moving towards closer integration of health and social care services. It is also experimenting with moving from a hospital based model to a place-based model where funding is focussed on the prevention of ill-health and its treatment – so far as possible, out of hospital – at an earlier stage. We need to take this further, to consider how the planning and healthcare systems can work together on the common goal of



Prof. Sir Malcolm Grant¹ CBE

reducing the incidence of ill-health across the population.

Integrating planning and health is a complex task for a number of reasons: The environment is just one of many variables that have an impact on human health – for example air quality has a demonstrably significant detrimental impact on human health.7 Health is not yet recognised as a "material consideration" in planning decisions as a matter of course.8 New settlements provide the principal opportunity for embedding health-promoting innovation but represent a tiny proportion of new housing stock and are no help to deprived communities. Finally, human behaviour is not necessarily determined by physical settings.

It is though important to try because the built environment can make it very difficult to lead a healthy life. It is too often designed so that cars are either essential or more convenient for travelling between home and school or work, and to shops, services and entertainment, contributing to sedentary lifestyles and air pollution.9 Low-density living and a lack of good community facilities are associated with increased social isolation10 and a lack of appealing green space reduces levels of physical activity and mental wellbeing; childhood obesity is clearly associated with accessibility of fast-food outlets11 and the densities of physical activity facilities are associated with lower levels of adult obesity.12

Integration through healthy planning

The Five Year Forward View, published in 2015 by NHS England, sets out proposals not only for the better integration of healthcare as mentioned above, but also for the promotion of healthy new settlements. This has been carried forward by two further strategy statements: the review of the Five Year Forward View published in 2017, and the recently published Long Term Plan for the NHS (February 2019).¹³

The Healthy New Towns program, established by NHS England in 2016,



Site	Region	Approx. number of new homes	Туре	
Fylde	North	1,400	Greenfield	
Darlington	North	2,500	Mixed	
Halton	North	800	Brownfield	
Bioester	South	6,000	Greenfield	
Whitehill & Bordon	South	3,350	Brownfield	
Cranbrook	South	8,000	Greenfield	
Barking	London	10,800	Brownfield	
Northstowe	East	10,000	Greenfield	
Ebbsfleet	South	15,000	Brownfield	
Barton	South	890	Greenfield	

Demonstrator sites

set out to review how health and wellbeing could be planned and designed into new places. Our three priorities were: - planning and designing a healthy built environment;- creating innovative models of health care; and encouraging strong and connected communities. 10 sites were selected, each with different approaches to promoting healthy living.

Although each of the sites was different, some common principles of value emerged:

- Planning ahead and in partnership with local government health providers, developers, housing associations and community groups
- Planning for integrated health and care services, including integrated health centres
- Involving the communities through a wide range of social connections and social media
- Designing compact neighbourhoods that are not dependent on cars and open environments designed for wellbeing
- Maximising the opportunities for active travel and enabling healthy eating, play and leisure
- Developing a Quality Mark to raise the standard of new homes, including criteria for natural light and ventilation, space and accessibility
- NHS England also set up a Healthy New Towns Network of developers and housing associations.

Healthy planning - next steps

The demonstrator sites show what can be achieved through an integrated model; we need to roll it out nationally as a fundamental ambition for all new settlements. The NHS long term plan commits to this. New guidelines have recently been published, 14 capturing the ideas that have emerged from work with 12 developers and the demonstrator sites who are committed to creating

communities that embrace those principles. *Putting Health into Place* sets out how local communities should plan and design for a healthy built environment.

Public Health initiatives can work. Because of a 40 year public health campaign the proportion of adult smokers in the population in England has fallen from over 60% to around 17% today. But public health campaigns also have their limits - smoking remains the leading avoidable cause of ill-health and early death.

The planning system is not the answer to all of these challenges. And it would be naïve to assert that there is a model of architectural determinism can ensure that people live healthier lives. And yet we have it within our power to reverse some of the mistakes of previous planning eras, to break down dependence upon the motorcar and the fast food shop, to enhance community strengthening and the ability of citizens of all ages to live together in a mutually supportive way, and to provide decent and healthy housing for the population.

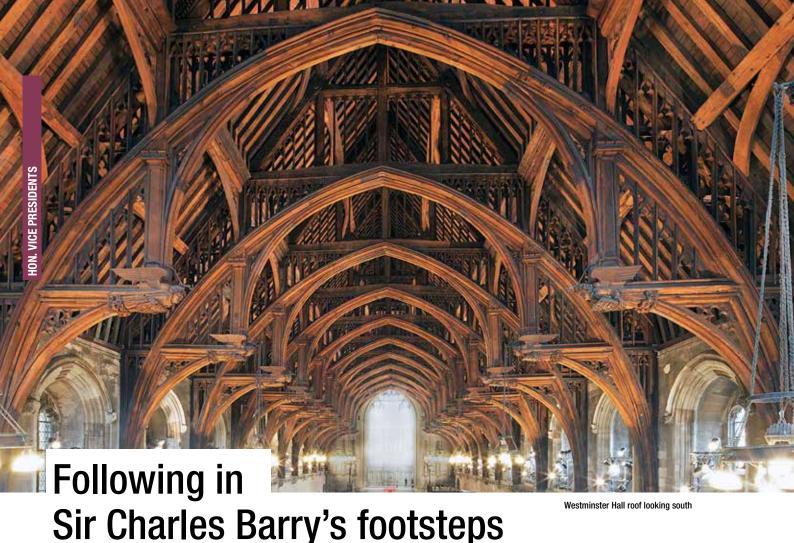
The funding crises that healthcare systems face across the globe require innovative approaches in order to reduce the burden of ill-health and to tackle the problems of health inequality. There will never be a workable approach for addressing complex social problems such as population health without the close alignment that this process has started to develop, between all the institutions and instruments that have the capability to effect change.

There is still an enormous emerging opportunity to reintegrate health and planning – each powerful in their own way but with an even greater potential for change once combined. Building upon the radical foundations of 1948, both the NHS and planning system must merge around the notion of a place-based rather

than institution-based model of funding and providing healthcare, engaging with local government and other public and private agencies to tackle inequalities and the causes of ill-health; and a reinvented health-based approach to planning, especially in the design, development and curation of new settlements.

Footnotes

- Written in a personal capacity, and the views expressed here are not necessarily those of NHS England. I should like to pay tribute to the many colleagues at NHS England and beyond who have contributed to the development of the NHS Healthy New Towns programme over the past 4 years. I served as Chair of NHSE from 2011-2018 and chaired the HNT programme from the outset.
- 2 Chadwick was not an engineer, but a lawyer a graduate of UCL, no less - and a close friend of Jeremy Bentham. He had researched and self-published in 1842 the Report on The Sanitary Condition of the Labouring Population of Great Britain, which had a dramatic impact on public and political opinion in relation to urban conditions.
- 3 For a brief history see Grant, Malcolm, Urban Planning Law (Sweet and Maxwell) 1982. 9.
- 4 Social Insurance and Allied Services (Cmd. 6404), November 1942 chaired by Lord Beveridge,, which proposed radical reforms in order to address the "five giants on the road of reconstruction": "Want... Disease, Ignorance, Squalor and Idleness"
- 5 https://www.who.int/news-room/fact-sheets/detail/ noncommunicable-diseases
- 6 For a recent contribution to the debate see Plomin, Robert, Blueprint: how DNA makes us who we are Allen Lane, 2018
- 7 See further Smart Streets: Report of the Commission on London's Roads and Streets. Chaired by Sir Malcolm Grant. Centre for London 2017: https://www.centreforlondon.org/ publication/street_smarts_report_of_commission_londons_ roads and streets/
- 8 Health is a theme that runs through National Planning Guidance (https://www.gov.uk/guidance/health-andwellbeing#achieving-healthy-and-inclusive-communities) and also the current edition of the National Planning Policy Framework (June 2019), where it is highlighted in chapter 8, Promoting healthy and safe communities, as an objective of planning policies and decisions. There is an emphasis on enabling and supporting healthy lifestyles. especially that where this would address identified local health and well-being needs. The NPPF also advocates planning positively for the provision of shared spaces and community facilities, taking into account the delivery of local strategies to improve health, social and cultural well-being for all sections of the community, and guarding against the unnecessary loss of valued facilities and services. These are all long-term concerns for the planning system, but the guidance still falls far short of driving health improvement as a central consideration in planning for new settlements.
- 9 Public Health England (2017). Spatial planning for health: an evidence resource for planning and designing healthier places.
- 10 Mental Health Foundation (2016) Fundamental Facts about Mental Health.
- 11 Hamano, et al (2017) Association between childhood obesity and neighbourhood accessibility to fast food outlets: A Nationwide 6-Year follow-up study. Obesity Facts 2017;10:559–568
- 12 Mason, et al, (2017) Associations between fast food and physical activity environments and adiposity in mid-life: cross-sectional, observational evidence from UK Biobank. The Lancet Volume 3, No. 1
- 13 https://www.longtermplan.nhs.uk
- 14 https://www.england.nhs.uk/ourwork/innovation/healthynew-towns/ (September 2019)



hatever you may be thinking about the current state of our Parliamentary democracy, there is no doubt that the Palace of Westminster is an iconic structure, known and even revered the world over. Indeed, I have always thought 'Mother of Parliaments' (notwithstanding its misquote) to be a fitting description – and one that applies as much to the physical fabric as what goes on inside it.

The problem is that the greater part of that physical fabric is very much as it was when it was built in the 1840s following the disastrous fire of 1834. And the rebuilding that occurred following a direct hit on the House of Commons in an air raid during WWII, actually made matters rather worse since everything that could be was lined with that 'miracle' material called asbestos.

The result is that the Palace of Westminster today is in a parlous state that is only just about kept safe for use by a rapidly rising maintenance bill (£29.2 million in 2010, £74 million in 2017/18) and 24 hour fire patrols to detect early signs of trouble. The sewage ejector system is a magnificent piece of Victorian engineering that frequently doesn't do what the name implies and ought to be in the Science Museum; the 98 vertical 'risers' installed as part of a state of the art Victorian air conditioning system have now been filled with so much cabling that nobody

quite knows what connects where; falling masonry leads to areas of the Palace being cordoned off to protect workers and public (that's why the Victoria Tower currently has a 'skirt' of protective scaffolding); and the rodent problem is so bad that deputy Speaker Sir Lindsey Hoyle recently called for the recruitment of a fleet of felines.

The need for a substantial refurbishment has been talked about for a number of years but for various reasons has been put off. Finally, however, in 2016 a Joint Committee was established to examine the options put forward in an extensive report by a Deloitte-led consortium and concluded by recommending the total decant of both Houses to enable a major restoration and renewal project to take place. This was debated and voted upon in January 2018 - and passed in the Commons by a majority of just 16.

Since then planning has been proceeding at speed and as part of that process something called a Sponsor Body has been set up in Shadow form to act as the interface between the Parliamentary end users of the Palace and the Delivery Authority that will in due course be responsible for the physical refurbishment phase. Both the Sponsor Body and Delivery Authority will be established formally through an Act of Parliament that is expected to receive Royal Assent in the Autumn. This is to guarantee their independence and to



Liz Peace CBE

Non-Executive Director at RPS plc, RDI REIT plc and Howard de Walden, and the Churches Conservation Trust and Chairman of LandAid, the Architectural Heritage Fund, Old Oak and Park Royal Development Corporation, the Government Property Agency and the Shadow Sponsor Board for the Palace of Westminster Restoration and Renewal project.

protect against the trials and tribulations faced by Sir Charles Barry when he carried out the rebuilding project in the 1840's when he was reputedly answerable to a huge number of different committees and groups within Parliament and Government.

I was recruited to chair the Shadow Sponsor Board in August 2018 and working with my Board colleagues – three MPs, four peers and four independents – and supported by our Sponsor Body, we are currently engaged in setting the strategic scope of the project, looking at everything from disability and wider public access, to sustainability to the potential for an innovative new logistics set-up. Heritage is, of course, vitally important and we are conscious of our responsibility to preserve the beauty and integrity of the Barry (and Pugin) design. We are, however, also mindful of the need to ensure that this project will provide a suitable home for a modern working Parliament and whilst the wood panelled corridors, committee rooms and chambers will be put back very much as they appear today it is important that the facilities and systems behind them support a modern working legislature.

I am frequently asked about the cost. Deloitte in their report gave a very broad indicative figure of £3.9 billion for a complete decant and full refurbishment but we won't have a more robust cost estimate until we have completed all the preparatory work for our Business Case which is expected to go before Parliament in Autumn 2021. What is clear is that the greater part of the cost will be for the renewal of the Mechanical and Electrical (M&E) systems which are absolutely essential for the future safety of the Palace and the people who work in it. I would like to think, however, that we can also seize the opportunity to improve





Steam systems and electrical cabling are often laid on top of one another, presenting a risk to safety and of failure, and the growing backlog of work has left the Palace with a potentially catastrophic mix of aging services

many other aspects of the Palace, not least the working environment for the 2,000 or so people who support our Parliamentary democracy and the experience for the hundreds of thousands of visitors who, for whatever reason, come to the Palace every year.

I appreciate that the eventual cost, whatever it is, represents a huge sum of money. But there is genuinely no alternative since even if Parliament moved to a modern building in either London or elsewhere in the UK – something which was in any case rejected by the Joint Committee - the Grade 1 Listing and World Heritage Site status of the Palace would require that it be maintained and looked after and that is going to require a fundamental overhaul of its fabric and M&E in order to put right the years of neglect and 'patch and mend'. What I can say, though, is that the

Sponsor Body and Delivery Authority will be driven at all stages by the need to ensure value for money; once we have a sensible cost estimate approved by Parliament that will be the figure against which we will have to deliver.

There is one other challenge we have to overcome, even before we get started on the main Palace of Westminster, and that involves creating a suitable temporary home for both Houses of Parliament. On current plans the House of Commons will move into a redeveloped Richmond House at the northern end of what is known as the Northern Estate, adjacent to the Ministry of Defence, and the House of Lords will go into the Queen Elizabeth II Conference Centre. But neither of these are quick or easy projects which means the decant is unlikely to be complete before the mid 2020s. If the Restoration and Renewal Project of the main



Angel of Westminster East Side

Palace of Westminster then takes, as currently predicted, up to eight years, MPs and Peers will not return until the mid 2030s. It is a sobering thought that as far as the Commons goes, a substantial number of the MPs who will step into the newly refurbished chamber are probably still at school today!

At the beginning of this article I referred to the 'Mother of Parliaments'. I suspect this is likely also to be the 'mother of refurbishment projects' but for the reputation and standing of the United Kingdom I believe it is essential that we get it right and ensure a safe, secure and fit for purpose home for our working democracy. I feel privileged to be a part of this project and I look forward to working with the many others, from the property and construction industry and elsewhere, who will be supporting this massive endeavour.

'An important word (and behaviour) to guide our future'

fficiency is the (often measurable) ability to avoid wasting materials, energy, efforts, money, and time in doing something or in producing a desired result. In a more general sense, it is an ability to do things well, successfully, and without waste. Has there ever been a better or more necessary time for the Government (or a University?!) to consider a new overarching department to help in so many of the issues confronting the country and the world? A counter point to this idea is that efficiency is built into the decision making in our daily life and the policy decision making of the powers that be. That's all OK then? Setting up any new oversight process would therefore be less efficient! I disagree. Pausing, reviewing, questioning and taking an overview of our decisions might, in many instances, suggest a better more efficient way forward. Proper planning and preparation at the outset of course is best but it is amazing how many bad decisions still seem to get made.

Let us look at a few matters that are high on the agenda of Real Estate. Land use, transport, energy use/CO2 emissions, personal consumption and our industry's consumption, disruptive technologies, 'Smart Places', and the cost and financial returns of real estate.

Land use and transport (my perennial bugbear): With the estimate of the UK land mass actually built on as 5.9% (Corine Land Cover Inventory) and with the actual emotive 'concreted over' land area estimated at less than 1%, how is it that we, the population, perceive our country as being over developed?

Most people's daily life involves travelling in some form and I would argue strongly that it is our experience of this travel, the joy, ease, comfort, cleanliness, congestion, crowding, air quality, noise, reliability, safety and cost that provides us with our views of the built environment around us. I have been lucky enough for many decades to have made my daily commute into Central London by 'the most efficient' transport known to humanity - the bicycle. I pass each morning 100s of metal boxes taking up thousands of square feet of real estate, pumping out poisonous fumes into children's lungs, requiring 100s of horse power to take one person in a vehicle usually

with 4 empty seats. The occupant might of course be on their way to an important board meeting to discuss efficiency and carbon reduction targets for their business! I have also spent many hours in sailplanes / gliders and hot air balloons flying above 'the over developed' south east of England. Almost every non pilot that I fly with at some point, usually early on in the flight, asks 'where are we?' The green (brown and yellow) carpet of fields and woods below and all around give no clue as to where we are. The 'small' (sometime quite large) distant town has to be pointed out. Often the villages below go unnoticed.

This is not another essay on land use planning but just a reminder to us all that when we plan or comment on plans to develop and expand our built environment, the density, the mix of uses, the intensity of uses, (which of course influences the efficiency of public transport) the walkability and the realistic cycle desirability are key factors. All obvious of course; so, see if you can find the new railway station where the proposed Oxford to Cambridge railway intersects with HS2? There is currently not one proposed and 'we' are proposing 1m new homes in that 'belt' of land.

'Well-located mixed-use development, cycle and walkable neighbourhoods with great public transport' is neither rocket science nor a new mantra, but just look around you and look at what is still going on. A Ministry of Efficiency would surely have something to say?

Disruptive technologies over the past few centuries, from the railways to the automobile, have shaped our built environment in dramatic ways. Particularly with the automobile, the 'private sector' barons/entrepreneurs from Henry Ford and Rockefeller led our societies to the current car dependent land use model that so many of us experience (and some enjoy) today. Governments followed the disruptive technologies of the day with laws and infrastructure to support, encourage and enhance the use and effects of these new and popular disruptions.

Today we have our own disruptive technologies that enable communication instantly to and between millions and allows the collection of huge amounts of data. This has among other things spawned the 'sharing economy' with its potential for the greater efficient use of



Roger Madelin CBE Joint Head of Canada Water, British Land Commissioner of the Independent Transport Commission

resources. Governments can follow or lead. What are they doing?

Currently with 'Uber' they are following; more cars are arriving back on urban roads. A Department of Efficiency might look at our road space and do something different with this amazing technology? We are in an interesting 'place' when we clamour to ban the zero emission (assume the electricity is CO2 neutral!) electric scooter from our roads in favour of keeping the 2ton 4X4s (I do of course have a 4X4 but I promise I don't use it in town!). I realise that these are difficult political, economic, land use and societal issues.

Energy use, CO, emissions and consumption. Flying in a sailplane for hundreds of miles across the landscape and climbing as fast as a high speed lift to '000s feet above the ground has always made me be in awe of the power in the environment around us. The sun. the thermal air currents and the wind. The UK's progress to 'decarbonising' the electricity grid is more impressive than thought possible a few years ago. As I write this, I see that our electricity in the UK is being produced from 25% nuclear, 23.7% wind, 22.8% gas, 12.1% solar 7.2% biomass, 2% hydro and 7.2% imported. (Grid Carbon the 'app' is recommended to see what is happening in the UK and 'electricity map' to see our neighbours performance). This is a great direction of travel in the UK. Shame on some of our continental partners, and don't even ask about most of the other huge and growing economies to our east.

Electrification of our buildings and transport would appear to be the right policy direction but without continued or 're-energised' efficiency measures for our existing building stock we will find our $\mathrm{CO_2}$ reductions targets very hard to meet. No gas connections to residential from 2025 is probably a good thing but

changing the gas supply to the existing stock will be challenging and a great business opportunity? The Ministry for Efficiency will be busy.

Reducing consumption generally, changing our diet, reducing packaging and waste, all feature regularly in our daily news feeds. The new Ministry could be very effective 'selling' its mantra of Reduce, Re-use and Recycle and producing policies and legislation to effect change.

So, onto Real Estate; What building use type is the most inefficient? I actually don't know but I'd guess residential. We currently have more bedrooms per head of population than ever in the UK but also a shortage of homes? How many rooms in your home (if you are lucky enough to have one) are used in a day? For what percentage? More of us lucky enough to own homes now have spare bedrooms. Gone are the days for most of our families in needing siblings to share rooms or taking in a lodger to make ends meet. (I am aware of the 'people like

us syndrome' and many families are of course still struggling in overcrowded accommodation).

What is your domestic space used for when you are not using it? I suspect the Ministry of Efficiency will keep well away from this matter as the logic would lead to all of us ending up in one room homes/shelters that are actually still the shelter used by well over a billion of the world's population today. AirBnB does suggest how 'sharing' can be acceptable with modern expectations or norms. The Department of Efficiency and maybe some Local Authorities and Housing Associations may wish to look at adapting or expanding this model and fitting a legislative framework around it?

As for retail and workspace, there are already businesses involved in the optimisation (efficiency) of space -'Appear Here' in Retail and WeWork to name but two. At British Land our own flexible office business Storey and our increasing use of 'Smart' (data collection) is enabling us to work closer with our

occupiers to optimise their space and share some facilities with others. We are also exploring the idea of extended hour retail spaces. Real examples we are working on include a ceramic and glass shop by day, with ongoing glass blowing, manufacture, courses, and meals in the evening using the furnace to cook, gallery spaces on the walls, teaching areas for multi community/ business uses at different times of the day, evening and week. Also, we will be setting up at Canada Water 'workers canteens', turning into a community learning restaurant in the late afternoon, and then a restaurant for the discerning public in the evening. At a larger scale we are working with two higher education organisations about designing a new building with 'shared' space from the start. More efficient for them, less cost for them and a decent return for us.

The Ministry of Efficiency will be busy and Real Estate has many new opportunities to become more efficient and to prosper from it.



Canada Water Masterplan, British Land

Making CPD accessible to all

Disruption seems to be going on all around in almost every aspect of life. The general idea behind all of this disruption is that it is a good thing and is driven to make our lives easier, simpler, cheaper or some other assumed benefit.

ne area that has not yet been disrupted, but is about to be, is Continuing Professional (and Personal)
Development (CPD). And not before time in my view.

QDooz, in which I am a private investor, plans to disrupt CPD and not only make it easier, simpler and cheaper, but

also much make it much more fit-forpurpose for this modern world. It will focus on a person's 'soft skills' and individual character qualities. QDooz will teach people the soft skills people need to DO, and the character Qualities they need to BE – to succeed in all aspects of life – and in the work-place in particular.

It is often said that one is hired for one's hard skills but success or failure in a career is then defined by one's soft skills. It is extraordinary then that CPD almost entirely focuses on gaining 'hard skills'. Soft skills can be learned too, and character qualities understood and enhanced, yet as business decision makers, we tend only to offer these insights to our prospective leaders through expensive and difficult to access coaching and mentorship programmes, not to everyone.

Imagine all of your staff having access to CPD accredited soft skill and personal quality development at very

low cost. How much more efficient and productive might your organisation become?

As an employee, how much would you like to be able to ignite your potential in your chosen path? How much would you like to have a proven record of your investment in yourself and in the development your soft skills and qualities to show your employer?

QDooz engaged Britain Thinks (one of the UK's leading independent market research firms) to investigate what the members of PMO's (Professional Membership Organisations) thought about CPD. The results were rather shocking.

The overall conclusion from the research described CPD as a 'necessary evil'. An annual 'fine' on being a member of a PMO. Expensive, disruptive (due to the time required to be 'out of the office' and away from their business), not 'fit-for-purpose' ('I can google the answer at my desk, I don't need to go on a course'). The list went on...

You will have your own views. I have been lucky that CPD has not been a chore for me, but I know it is for many. My gripes with it are that it has been, until now, almost entirely

focused on gaining 'hard skills', and one had to go on expensive training courses to gain credit with CPD for any soft skills learning. I was lucky to have been offered that. Few are so fortunate.

Thankfully, as a result of QDooz and the vision of David CM Carter, the founder and a mentor by background; all that has now changed.

QDooz makes accessible to everyone key personal development and learning opportunities, and all the content is CPD accredited for those that value it. For the first time to the best of my knowledge, CPD is available by App, when commuting, when sitting in your favourite armchair, or even down the pub (though I do not advocate this especially!).

I passionately believe in education; it has provided for me far more than I could reasonably have hoped for or expected. But hang on a moment; that statement is not really true, is it.

We are all born with extraordinary potential. Something happens to us as we move through life. We get that magic educated out of us, parented out, communitied out, churched out, work-placed out. We get put on the straight and narrow path of conformity and told to grow up, act our age, fit in, be

responsible. David and I believe that we need to re-engage with that potential. Ignite it again; become the people that we were born with the potential to become.

The best solutions to human problems eventually become our essential tools. Inventing the wheel opened huge possibilities. Education then, is something we cannot do without. It is my judgement that education, delivered at the right time and place, in the modern manner will become indispensable. QDooz is potentially an extraordinary solution.

Today, we know that all too often, graduation means student debt and little else.

We have heard that technical skills are not enough. We have been told that soft skills are the job currency of the future. That they're more important to progress than the hard skills learned in formal education and in the workplace. Yet they are difficult to acquire.

People also know business as usual is no longer good enough. We know that to

effect big change, we have to make small changes in ourselves. This is why the self-help section in book shops is the fastest growing - and why those that have access to elite coaches and expensive courses are grasping every chance. Those that can, have begun their journeys of expansion.

It is my bet that one small, simple act of self-improvement every day can start us on the journey. The maximum value in QDooz may be not for readers of CULS - we are educated and privileged and have choices and are, on the whole, doing very well. But there is a cohort in society that is being left behind.

That is why Total Jobs, with 19 million members in the UK, and UCAS, with 1.5 million members, and several Professional Member Organisations are partnering with us to change the way soft skills education and personal development is delivered and made available.

For those that will appreciate it, QDooz is a disruptive new source of CPD accredited learning for those of us that are required by our PMO to invest time, effort and money in keeping up to date. We should do that, but at the same time, ignite our potential to BE so much more. www.qdooz.com



Peter Pereira Gray
Managing Partner and Chief Executive Officer of the
Investment Division of the Wellcome Trust
Honorary Vice President of CULS.



Cambridge Land Economy Advisory Board (CLEAB)

The Cambridge Land Economy Advisory Board, (CLEAB), exists to support the Department of Land Economy through being an interface with the broadly defined property industry, and with a view to sustaining and enhancing the outstanding excellence of the Department of Land Economy's world-class research and teaching.

CLEAB comprises around 40 leading practitioners from industry, and often works with the Cambridge University Land Society ('CULS') that represents the many Cambridge graduates involved in the industry. CLEAB and CULS strive to ensure their efforts are coordinated, and with much success.

CLEAB promotes the Department, as appropriate within the UK and overseas. It provides industry input on, and suggestions for, appropriate research topics for the Department as well as input into the curriculum.

CLEAB hosts an annual dinner in Cambridge for the second year Tripos students to meet with key figures in the industry to discuss market conditions and various career options. In partnership with CULS, CLEAB supports a successful mentoring programme for over 100 students. Also, in partnership with CULS, CLEAB holds an annual careers fair in the autumn which is attended by around 150 students each year. The fair is the main property fair in the University careers calendar and provides job opportunities and internships for students across a range of disciplines.

Over the past several years, CLEAB has provided financial support for the Department for a variety of projects or roles including the annual Department trip to China, a number of field trips, a Doctoral Studentship, a Lectureship and a Departmental Assistant.

CLEAB is a unique entity within the University. Professor Sir Leszek Borysiewicz, former Vice-Chancellor of the University of Cambridge wrote of CLEAB:

"Through mentoring students approaching a notoriously challenging job market, through the strategic advice to the Department of Land Economy that helps to ensure their priorities remain those of the real world, and, most of all, through the generous financial support that CLEAB has given to and facilitated on behalf of the Department – the Board is making a significant contribution to the subject, and to the University as a whole."

For all enquiries, please contact Ali Young: ali@cleab.org www.cleab.org

Substitution and the end of real estate?

n Next plc's annual report this year, Lord Wolfson equated the relatively recent rise of online shopping with the consumer shift towards buying groceries in supermarkets in the 1970s. In doing so he points to the substitution of one format by another that has taken place throughout history. Looking at this through the lens of a retailer however, his focus avoids a critical dimension for real estate investors that has far reaching implications.

Change driven by technological innovation and shifting consumer preferences has always existed, and explains human progress. In real estate, agriculture created cities, whereas religion and government created large buildings, and trade and commerce created our high streets. More recently we have seen these formats shift; from the 1960s shopping malls, to the 1980s business parks, and now the urban tech campuses. The new replaces the old, but real estate's monopoly role in housing human activities remains. Until now. The paradigm shift in recent years has been that the format substitution comes from the digital world; a place of infinite supply where real estate is not required. Digital activities are taking over. Whilst e-commerce is the obvious example, this trend prospectively affects all areas of real estate. Digital communications allow one to work from home and visit your doctor via video link; universities having begun in earnest to deliver their courses online, and libraries are being replaced by the internet.

The nature of the threat

The appeal of the digital world is clear. Firstly, it costs less. In contrast with the physical world, where resources are finite, digital supply is potentially infinite; hence information goods tend to have a marginal cost of production of zero. If you are Netflix and you have already sold one million subscription packages; then the fixed costs have already been defrayed, and the 1,000,001th subscription package costs essentially nothing to produce. The corresponding benefits of scale also dictate the need for such businesses to grow quickly, which drives the steep adoption rates for digital models.

Secondly, doing things in the digital world tends to be more convenient. If I can work from home, then I don't need to commute. If I can buy online, I don't need to drive to the shops, pay to park, and risk that the item I came to buy isn't in stock. If I have an online



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medical appointment I don't need to sit in a germy waiting room. And if I choose to go shopping at three in the morning after most places are shut; no problem, I can do it online. This doesn't sound great for real estate does it?

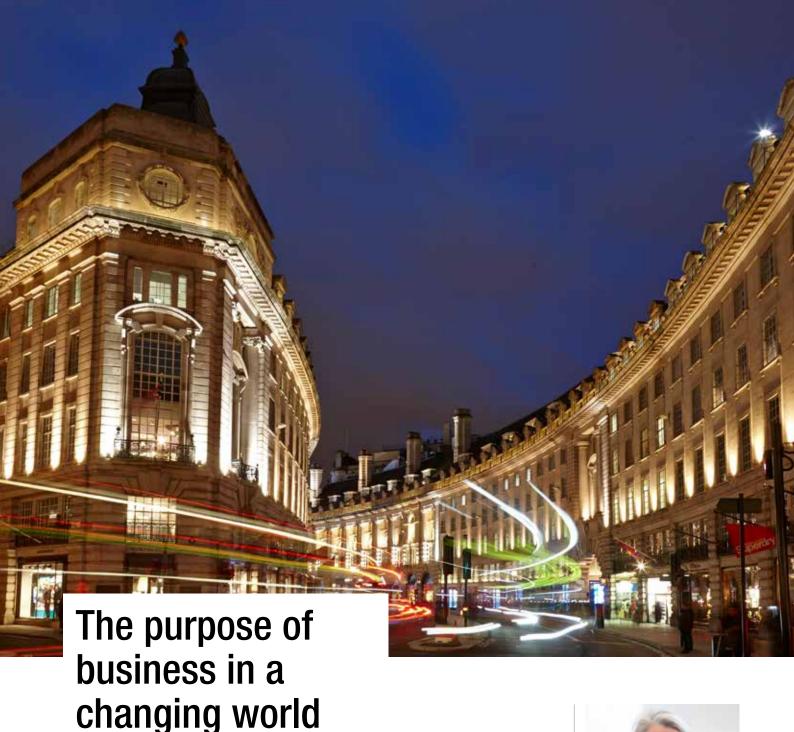
Defences against the threat

The good news for investors, is that there are, I believe, two clear defences to this trend. Firstly, our bodies (for the time being) remain in the physical world, so we need places to sustain them there. For instance, we will always need a place to sleep (so residential feels robust). We need places to produce nutrition (farms) and energy (minerals and power), and we need places to patch ourselves together (hospitals) and experiment (labs). As our population continues to rise, these factors aren't going away.

Secondly, the advantage of convenience is a limited one. It is 'hygiene factor'; a quality which management theorists believe can create demotivation or dissatisfaction when absent, but of itself is not capable of creating positive motivation when present, whether that be motivation to work, or motivation to buy. The kind of higher order activities which humans crave: social interactions, being part of a team, creating connections and experiencing the world are (for the time being) more enjoyable when carried out in person in the real world. This provides a reason for people to look through the physical world's associated inconveniences. However, they will only do this if our real estate, and the activities which it houses are providing value added experiences; something significantly better than can be found online. Picking stock off shelves or sitting at a desk all day doesn't

For this reason, we should anticipate that the nature of the activities carried out in real estate will change in the coming years. They will be more exciting and more focussed on social interactions. The other activities will gradually migrate into the ether. So, while real estate continues to play an important role, it will need to adapt to the changed nature of these activities or risk irrelevance and commoditisation. This change brings with it obsolescence risk, but also real opportunities for those willing to lead the market with new formats.

Advice to real estate investors? The largely passive world of real estate investment needs to pull up its collective sleeves, operationalise and become customer-centric. Lessons about delivering excellent customer experiences need to be learned from other industries. A cursory glance reveals that these propositions are built on: service provision, personalisation, end-to-end management, and data, data, data. In this final regard the digital world perhaps offers the physical one a branch to which it should cling.



It was during World Green Building Week and with the UN Climate Action Summit taking place in New York, that I found myself sitting down to start writing this piece. So it's unsurprising that my thoughts were dominated by the climate change and the role that we, as businesses and as people, have to play in tackling its devastating impacts.

his year we've already seen school children walking away from their desks to join climate strikes, 16-year old Greta Thunberg berating world leaders for their continued inaction and our Government declaring a climate emergency. It has been a landmark year for the environmental agenda. And so it should be. We can no longer dance around the issues which are going to impede our future.

What I found most striking about this surge of action is that it's the people, be that consumers, customers or investors, who are proving to be the most powerful force in driving change. Not only are people changing how they live, the brands they choose and the places in which they spend time, they are also taking on and calling out the corporate world. New scrutiny is being laid



Judith Everett Chief Operating Officer The Crown Estate

on business practices and whether they are 'doing the right thing'. Public trust in businesses has been steadily declining over the last decade, but it's the spotlight of public opinion which has compelled the business community to take action.

There is now widespread



recognition that we need a fundamental reassessment of the role of business in society. Whatever your industry, it is no longer enough just to generate returns for shareholders. After all it is those same shareholders who have, in many cases, become so distant from the businesses they invest in as to be unable to see clearly what's in the long-term interests of that business, let alone society as a whole.

The pursuit of profit, without a broader lens and at whatever cost, is not a sustainable business model. Nor is it likely to endear a business to today's increasingly discerning consumers.

People are demanding that businesses be good corporate citizens, and that they take responsibility for their actions and impacts. Even more than that, businesses are expected to make a positive contribution to customers, communities and broader society.

So, what does this mean for the future of business? I believe that the answer lies in purpose. Not as a brand strapline, but as a fundamental underpinning of how a company sets its strategy. Purpose should be

hard-wired into a business, it will determine why a business exists, who a business is here to serve, and how it measures its value and impact in a more rounded way. That requires a long-term outlook, not a focus on the latest quarterly and our annual figures. The new UK Government Code creates a framework for us to demonstrate this to our stakeholders, but we have to make sure this is followed meaningfully, not bilaterally.

As a business that can trace its linage back to 1066, The Crown Estate is used to thinking long term. We manage our assets on behalf of future generations, rather than for short-term returns. This approach is embodied by our purpose: brilliant places through conscious commercialism. Our ambition is to do more than just to create brilliant places, we want also to create shared value to deliver positive outcomes for the customers, communities and stakeholders who use our spaces.

Yet we, just like the rest of the business community, must challenge ourselves to do better if we are to keep and build the trust of the people we serve. Being a truly purposeful business will demand a deeper understanding of the needs, aspirations, challenges and opportunities facing shareholders and employees, communities, customers and other stakeholders. This is an ever-moving feast, one it'll be challenging to keep pace with, but crucial that we do. This isn't about understanding how people want to shop' or 'where they want to work', it's about deep and meaningful insight into what really drives them as individuals, what their needs, hopes and aspirations are. After all, business don't want offices. They want successful, engaged and productive employees. This may seem a subtle difference, but it is an important difference.

What then does this mean in the context of climate change? We must redefine the role of business here too and reconsider our purpose. As the UK's position as a leader in carbon intensity reduction is under threat. Decarbonisation of the energy sector has been the main driver in our emission reduction success, and as someone who started their career at Shell, I'm proud of the impact that renewables have played in achieving this.

In 2000, working in Shell

Renewables, I have vivid memories of being in awe of the scale of the UK's first-ever offshore wind turbines, when I visited the two 2MW demonstration turbines off the coast of Blyth, Northumberland. Fastforward to today and there are now more than 1,900 turbines in UK waters supplying 8% of the UK's electricity needs, as well as delivering skilled jobs for a new generation of technical specialists. I'm also proud of the role The Crown Estate has played in enabling the growth of offshore wind in the UK. We have worked in partnership with Government, industry and stakeholders to realise a four-fold increase in capacity in the last decade. But a move to renewables can only do so much.

Our progress has slowed and dramatically so, it is predicted that we could miss our carbon targets from 2022 onwards. There is an urgent need to tackle carbon in our buildings and transport, among other areas. After all, the built environment accounts for 40% of UK carbon, both through operational emissions and embodied carbon. We are also one of the sectors most vulnerable to the impacts of climate change. We need to start designing and developing with the whole lifecycle of an asset in mind. Particularly if we are to ensure business continuity and retain long-term asset value. This means aligning our buildings to the changing ways people use them.

Our ability to respond to an increasingly unpredictable world is one of the most pressing concerns. The last four years were the four hottest ever-recorded, but our weather is becoming more extreme across the board. Our cold weather is becoming colder, our wet weather is becoming wetter, and with these variations comes even greater demand for energy as we look to heat, cool and protect ourselves in response.

Understanding the future

needs of our cities and people, and factoring this into our buildings and their ability to respond is going to be fundamental. But how do we do that in a way which is efficient, responsible and seeks to minimise our impact, while also increasing our resilience? Technology and data will play a crucial role. We are now able to understand our buildings in greater detail, both their performance now and how they might perform in the future. That is not just about enhancing efficiency. It should inform how buildings are designed and enhanced throughout their lifecycle, and how we innovate our approach to keep pace with the changing needs of our customers and the environment.

The importance of supporting innovation was one of the factors which led us to relaunch our **Development Sustainability** Principles this year. In doing so, we brought innovation to the heart of all our future developments, asking our partners and supply chain to challenge us and work with us to redefine what is possible within the built environment and with our developments. We've also expanded our view of what sustainability means. There's a continued focus on climate resilience and circular economy, of course, but we also want health and wellbeing, and social value to have equal importance. We want our developments



to be catalysts for positive change in the communities they serve.

There's no doubt that working with the blank canvas of a new development opens a world of possibility for sustainability, but we've got to push ourselves to work harder with what we've already got. Particularly given that 80% of the buildings that we'll be using in 2050 have already been built.

As the owners and managers of Regent Street for over 200 years it is a challenge we know well. Our experience has taught us that working with existing buildings does present obstacles, often unexpected and unique to the historic building, but that does not

mean that balance cannot be achieved.

We also know there's no one-size-fits-all solution for incorporating sustainability into the fabric of a city or a building. It has pushed us to become more creative and find new ways of doing things. Our redevelopment of 7 Air Street, moments from Regent Street, is just one example. With the use of low-energy air conditioning, LED lighting, rooftop solar panels and innovative energy technology, it is designed with future users and flexibility in mind, bringing new life to a historic building. These innovations also led to it being the first listed building to achieve BREEAM Outstanding status.

Experience has also taught us that we shouldn't restrict ourselves to what we can influence directly. By looking to where we can use our convening power, whether through our supply chain or partnerships, or by supporting our customers and consumers to make their own changes, we have the opportunity to amplify our impact. Take Wild West End, our initiative bringing together central London landowners and The Wildlife Trust to create a green

'highway' of planted rooftops and window boxes, street greenery and pocket parks to support biodiversity in the West End. An example of the power of partnership in action.

Perhaps one of the best lessons we've learned is the importance of building an understanding of where we were struggling, as much as where we were succeeding. The process of measuring our impacts has enabled us to assess the broader, not just financial, impact of our activities, and to make more rounded decisions and start helping inform our future path. So too can sharing insight and experience across peers and partners help to drive forwards our collective progress.

Of course, none of this is easy. But we set the tone from the top, having Board-level discussions about sustainable income streams and what climate conscious investment could look like, looking to find ways to integrate responsible business behaviours into our own business models, to ensure we become more resilient and sustainable. What's essential is that action is taken, be that big or small, we cannot wait until tomorrow.



Bricking it: Why trust in developers and the planning system is at rock bottom

In this article Craig McWilliam unveils the stark results of research into trust in developers and the planning system and how we can dig ourselves out of this hole.

he country needs to build more homes. This is a statement that most people agree with. But it has also never been harder to deliver the homes the public wants to see.

Too often there is a standoff between communities, developers and councils that stalls development and the many wider benefits it can bring beyond new homes.

At the heart of this sits a huge trust deficit in planning and development in the UK. A lack of trust that holds us back from delivering the homes and critical infrastructure we need to support a growing population and economy.

At Grosvenor, we wanted to better understand this deficit, and commissioned the largest ever canvassing of public attitudes towards the planning system and its key actors – the private and public sector. We surveyed councillors, businesses and over 2,000 people to help us understand the problem and see whether any solutions would emerge.

You can read our research here: www.grosvenor.com/ our-businesses/grosvenorbritain-ireland/rebuildingtrust

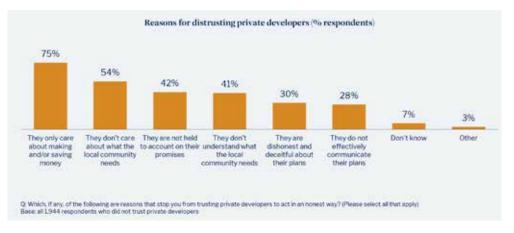
The results are stark. Just 2% of participants in our national survey of over 2000 people said they trusted developers to act in an honest way in large-scale development.

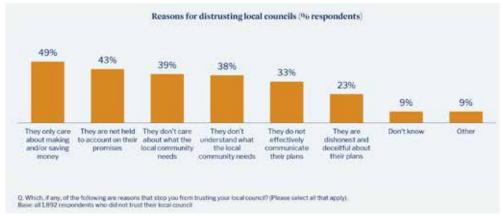
Developers, including ourselves, have evidently failed to communicate the costs and benefits of large scale development, and still struggle to talk about the necessity of taking on risk and making a profit to deliver wider societal and environmental gain.

The picture is little better for local authorities. Asked whether they trusted their local council to make decisions on large-scale developments in the best



Craig McWilliam Chief Executive, Grosvenor Britain & Ireland St John's (1993)









interests of their area, just 7% of respondents agreed.

For developers, the key driver of public distrust is the perception that they only care about making a profit. For local authorities, the reasons are broader based, but a considerable number of participants cited councils' only caring about making or saving money, while many believed that councils are not held to account on their promises.

These findings are a significant wake up call to all involved in large-scale development – the public doesn't trust any of the key players in the process.

So how to go about rebuilding trust in this vital area of public life?

We need to do more.

More as a developer
ourselves, and as a sector,
accept our responsibility and
historic failures and better
explain what we are trying

to achieve and how we are delivering on our promises.

More also needs to be done to support local councils in their efforts to shape their area and new development plans for the communities they serve.

We don't have all the answers. And we know that we can only rebuild trust if more of us accept that we need to change and act accordingly.

As a first step, at Grosvenor

we have made a series of commitments that will see our business that address the major findings of the research and drivers of distrust. We will:

- 1. Make it easier for the public to weigh the value and costs created by a development. As an experiment this year we will detail in plain English the anticipated social and environmental benefit created for a community locally and more widely, alongside our expected financial risks and returns;
- 2. Increase transparency in the consultation, decision making and design process for development by enabling scrutiny from an independent and objective commentator as a largescale development is designed and delivered;
- 3. Help communities better understand how to get involved and influence developments by developing a gold standard for consultation against which the business can be held accountable by councils and local communities.

Enhancing transparency

We are preparing proposals for the Cundy Street Quarter a mixed use inclusive redevelopment in Belgravia, London which will deliver more open market and affordable homes as well as new community facilities.

We know that communities want early and deeper input into development proposals and to understand how their voices have been heard. To enable this process to be more clearly understood, we have adopted a new proptech platform which reduces barriers to engagement. Built ID enables a wider range of participants to vote on key elements of a proposal and gain continual feedback on their input and influence in the decision making process.

Our process is also being covered by an independent journalist in a series of articles looking at the scheme, the process, differing points of view – including objectors - and benefits.

Follow @DaveHill or @OnLondon to find out more.

Deepening engagement

The Oxfordshire Cotswolds Garden Village will be a new neighbourhood delivering 2,200 new homes and a science park in West Oxfordshire.

Our approach to planning and design is community led and as part of our consultation programme, we recently ran a three day interactive design charette. Attended by over 100 people including local residents and groups, the themed workshops allowed the community to translate site constraints and opportunities into deliverable design solutions and, with the help of specialists, themselves produce design sketches which will now inform our masterplan. 95% of attendees felt that the charrette was 'useful' or 'very useful; people felt that they had been listened to by the project team and that a great deal was achieved in a short space of time. The charrette also helped to highlight concerns and which benefits local people see as priorities for their new community.

What happens next?

We are committed to meeting the call for greater transparency and openness. The system will work better for us all when more people are engaged in, and understand, the process and factors involved in the planning process.

Working with others in our industry, the public sector and civic organisations we also want to cultivate broader behaviour change that addresses the drivers of mistrust our research found. While we work on delivering our own commitments, we are bringing together a working group to develop a 'manifesto' of joint pledges against which we can be judged. The prize – more homes, new jobs, better places – is worth fighting for.

A Long View of Stakeholder Engagement

rom the vantage point of having been a founder director of two public property companies, more than 20 years apart in their original listing dates, I see significant shifts in both corporate approach and philosophy. One of the most marked is the widespread pre-occupation of both the economic press and the investment community in relation to "stakeholder engagement". With sluggish economic growth, rising inequality and the environment under increasing pressure, there is a growing call for big business to pull its weight. This is best exemplified by the recent statements from the Business Round Table in the US to broaden their corporate focus from shareholder value to encompass wider stakeholder groups.

I became a founding director of Chelsfield Plc in 1984, which is where I met my long-term business partner Nigel Hugill. Chelsfield went on to have a significant and lasting impact on the London and provincial skyline promoting a wide range of schemes including the White City Shopping Centre (now Westfield), Stratford City and Paddington Basin as well as a new town centre at Merry Hill in Dudley. The business became a public company in 1993 and was ultimately sold in 2004.

It was at Chelsfield that Nigel and I fashioned our approach to stakeholder engagement across its portfolio and whilst, even as a Plc the obligations to engage with wider stakeholders in those days were light touch, we instinctively felt more comfortable engaging properly and firmly believed it would deliver better long term value growth for all concerned.

Back then we were clearly not alone in taking this approach, with the Arlington business parks of the 1980's and Countryside's development of new communities in the 1990's both putting great effort into the wider community. That said, it was not the norm.

In 2009, Nigel and I started Urban&Civic. This time we were seeking to create new large scale communities which in time we would be proud to take our respective grandchildren to and we have continued to employ much of the hard



Robin Butler Managing Director of Urban&Civic

learned logic and approach we had pioneered at Chelsfield. This time the approach is modernised and more targeted and now as a Plc once again (we listed in 2014) more highly regulated and transparent.

Over this 20 year public company time horizon, the key differentiating factor between businesses that "get it" and those that "do what's needed" appears to me to stem from a long term alignment with the development extending from conception and planning right the way through delivery, working with stakeholders and the surrounding community. With such a long dated view, it is not only possible to leverage the significant investment required for the widest possible social impact





and value, it is economically rational to do so. This can be clearly illustrated by the need to invest in jobs and skills where as a development grows that same development requires relevant skills in increasing numbers.

Alconbury Weald – Huntingdonshire

When we acquired Alconbury in 2009, to say that some people doubted its potential to become a new mixed use settlement would be an understatement. For the previous 10 years the former Cold War airbase had been promoted for rail freight connected distribution uses and had become a cause celebre in the planning world for all the wrong reasons. The site was not in the local plan and suspicions ran high in early meetings with all stakeholders.

The fact that Alconbury was consented in 2013 for 5,000 homes, 3m sqft of office and light industrial floorspace, three primary and one secondary school together with significant green, grey and community infrastructure, achieving comprehensive stakeholder support (including CPRE and the 5 local Parish Councils) as well as Enterprise Zone status along the way, represented an example of what can be achieved through an open collaborative approach.

Delivery of the site has very deliberately built upon the issues raised by stakeholders during its promotion. Ensuring that a 15 to 20 year project played its part in the growth of the area as a whole was a key concern with the potential for generational impacts. As such, the following jobs and skills initiatives, which extend far beyond local authority planning requirements, have been put front and centre with the delivery of homes and workspaces:

· EDGE is a jobs and skills partnership we

set up with other local stakeholders to help businesses at Alconbury and beyond recruit and develop the people they need. EDGE works with local training providers, careers advice services, local authorities and the Job Centre to connect companies building and operating at Alconbury with local job seekers. Since opening, EDGE has supported nearly 750 people in seeking employment and secured 321 into employment, self-employment, and work-based learning.

 iMET is an advanced technical training centre, based at Alconbury, conceived from an identified need to deliver higherlevel training for the manufacturing, built environment and science & technology sectors. We gifted the land to the project and sit on the board, with the physical development fully funded through the Cambridgeshire and Peterborough Combined Authority Growth Deal. There are already currently 21 apprentices at iMET, with the number expected to double

- next year. A series of short bespoke courses designed with businesses to fit their working patterns have also been designed to enable accessible lifelong learning in these fast changing sectors.
- Working with local schools also enables us to support the next generation of learners. From curriculum projects with schools, to work experience on site and an annual careers fair, we use the diversity of life across a development to let young people know about everything from design and planning, to engineering and construction, to landscaping and facilities management. Our careers fair is now regularly attended by over 800 students and our work experience programme has successfully secured summer placements with our engineering consultants Stantec with students subsequently heading off to study Civil Engineering.
- We are also working with the Construction Industry Training Board (CITB), to look at tailored programmes to provide site-ready and work-ready people for our housebuilders and contractors. The setting up of an on-site construction skills training centre at Alconbury Weald as a pilot



which we intend to rollout more widely, is enabling hands on training, side by side with housebuilders, to support direct routes to employment in construction. From a standing start at the start of the year, the CITB-funded Centre has so far supported 180 learners, with 69 now job ready and being supported into employment.

Working across the north of Huntingdon, St Neots and the wider Fenland area for the last 7 years has meant we have learnt a lot, which we are now applying to the delivery of Waterbeach (just north of Cambridge) and Wintrigham (St Neots). For Waterbeach in particular this will involve becoming a key partner in the Cambridge City Homeless projects which focus on supporting young people out of homelessness and into sustainable employment. Equally, with two key former military sites among our projects, we are also working with military veterans as part of our commitment to the Armed Forces Covenant and supporting veterans to



transition to civilian life, ensuring they understand how in demand their life skills are especially to the construction industry.

Indeed, with the growing scale of our projects (we now have over 40,000 residential plots and six new settlements in delivery) Urban&Civic now employ a full-time in-house lead dedicated to supporting skills development. With the backdrop of 15-20 years of

build out at each scheme, we have an opportunity to use the knowledge gained from one project and the scale of overall delivery to support many more people to find their own pathway to long term employment.

At Chelsfield we sought to do the right thing for both the shareholders and the wider stakeholder community. Much of this went unreported. We are now more experienced and targeted in our approach and the benefits and outputs are much more quantifiable. The 20 year visible corporate shift I see stimulating wider engagement is largely business as normal for us. Successful large scale development has always been more than just delivery. In this regard the corporate world is playing catch up and we welcome that.





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Established in 1935 and with headquarters in the centre of Cambridge, the Howard Group is a leading regional property investor and developer. The Group also provides growth capital funding, strategic and management support to mid-sized businesses across a diverse range of sectors.

CEO, Nicholas Bewes joined the Howard Group in 1999 and has overall responsibility to the Board and Shareholders for the management of the Howard Group of companies, encompassing Howard Property Group and Howard Capital Partners. Prior to joining the Howard Group, Nicholas worked with The BOC Group for ten years, where he held various management positions.

www.howard-ventures.com



Nicholas Bewes
CFO, Howard Group

Stewardship: Fostering success, significance and sustainability as a family owned company

ovo Nordisk is a global healthcare company with more than 95 years of innovation and leadership in diabetes care. Its mission - to 'defeat diabetes' - centres around a commitment to the long-term production and supply of a low cost insulin to patients in low and middle income countries where ordinarily it can be challenging to access reliable and affordable supplies. This 'Access to Insulin Commitment' now covers 78 countries, home to a third of the world's diabetes population.

At the heart of Novo Nordisk's business is the conviction that the formula for lasting success is to stay focused, think long-term and to do business in a financially, socially and environmentally responsible way. To hold itself to account against these principles, Novo Nordisk manages its business in accordance with the Triple Bottom Line theory. Anchored into the company's Articles of Association, the theory is applied to ensure business decisions balance financial, social and environmental considerations, enabling Novo Nordisk always to keep in mind the best interests of the patients it serves. This approach was years ahead of its time and in deciding to do something that would make a real difference and following it through, the organisation has created

a hugely successful, sustainable and profitable business.

Responsible ownership

The inner workings of a Danish pharmaceutical company may feel far removed from the bustle of Cambridge; more specifically Regent Street, home to the Howard Group. However, the Novo Nordisk way of doing business particularly resonates with me.

Most striking is the fact that financial performance is not ultimately what defines the business; rather it is responsibility - financial, social and environmental – which implies a strong sense of stewardship alongside ownership.

As a family-owned company, stewardship and responsible ownership

"Continuity gives us roots; change gives us branches, letting us stretch and grow and reach new heights."

Pauline R. Kezer

is something we talk about a lot. What does being a responsible owner mean in terms of our behaviours, our relationships and our outlook as a family? These considerations run deep, to the point at which they influence the way in which we bring up our children, the next generation, to appreciate that they have a responsibility and an obligation, not a birth right. The way we talk about what we do is very much about stewardship rather than entitlement; looking outwards and thinking about the responsibilities we have been entrusted with and considering how best we can take those forward. We are trustees of the Howard Group business, not owners with an entitlement.

Colin Mayer, the Peter Moores
Professor of Management Studies at the
Saïd Business School at the University of
Oxford and author of "Prosperity: Better
Business makes the Greater Good" uses
a very interesting quote: "The purpose
of business is not to produce profit;
the purpose of business is to produce
profitable solutions to the problems of
people and planet and in the process it
produces profit."

During the course of this year, we have spent time considering this very point; if profit isn't the sole aim and isn't the purpose of the business, what is? How do we define our purpose as a long-term, family-owned, steward of a business? How can we make a difference and in doing so enrich the lives of people around us rather than the focus being to deliver ever increasing returns to shareholders? Running in parallel we have also been exploring how we instil this in the next generation to ensure that this remains deeply embedded within the family business ethos.

Passing on the business "in better shape"

There's a well recognised mantra within family businesses, which is that "each generation tries to pass on the business in a better shape to previous generations". Unsurprisingly that is certainly what we, the third generation of the Howard Group family, aim to do. However, for us, "in better shape" doesn't necessarily mean more profitable, or doubled in size; it means having a profound sense of purpose and a real understanding of how we can use what we do to better society and make a real difference to the communities around us.

So, in reality, what does this look like?

The Howard Group has enabled us to do a lot of things, outside our more 'visible' remit as property developers and investors. For example, we are currently working on a programme around homelessness, within which we are working together amongst the property community to highlight the issue and take positive steps to improve the lives of those young people experiencing homelessness in our community. We don't pursue such initiatives in order to measure their impact so that we can

communicate it - if we did, I would question whether we were doing it for the right reasons. The reality for us is that a number of the initiatives and projects the Howard Group is involved in are just because they are inherently the right things to do. That said, I personally also recognise the benefit in getting the balance right and that by sharing the outworking of some of these projects we can encourage others to become involved or perhaps think a little differently about how they might also have a positive, and importantly longterm social, environmental and financial impact.

Working collaboratively

The bringing together of others to work collaboratively for positive change is, I believe, also part of our role as stewards of our business. We have a responsibility to take a leadership role, using some of our inherent strengths to encourage others to join us, enabling us collectively to make a bigger difference. We are in the privileged position of being able to bring people together to effect change as well as encourage and create a space for collaboration. We do this in various ways, including functions to bring clients, staff, partners and stakeholders together, as well as via our involvement in the family business arena and more recently the homelessness initiative mentioned above. It's very rewarding to help initiate conversations and connections, which otherwise might not have been made and to be part, in a small way, of the resulting relationship.

Looking to the future

As we look towards the fourth generation, we are trying to establish an

environment where we hold things quite lightly in terms of expectations, believing that it is incredibly important for each generation to have a chance to reflect, review and consider where they feel the business needs to go, without restriction or influence from the current stewards. In the past the focus has been solely on the Howard Group, but in reality the Howard Group, encompassing Howard Property and Howard Capital, is part of a much larger framework of assets and activities. Rather than thinking about that piece in isolation we want the next generation to be free to think about the whole and to evaluate their response as stewards of everything we do, be that commercial, charitable or philanthropic.

I'm personally very invested in the thought that the Howard Group can and should evolve through the generations. The Group will not necessarily be in its current shape, doing what it currently does for the next 100 years. Looking back, as we approach our first century, the Howard Group has been through a whole range of diverse businesses and varied industries, with today's organisation looking very different from the business created by our founder, CAEC Howard, in 1935.

I imagine that 100 years from now we will look very different again. Our role in handing on to the next generation is to enable them to have an opportunity for reinvention, to discover where their passions lie and where they feel they can make a real difference. As the current stewards of the Howard Group, it is our responsibility to ensure the next generation has the knowledge, support and guidance they need to make those decisions with confidence.

2019 saw the successful completion of Mount Pleasant Halls student accommodation, St Edmund's College, Cambridge. Read the full case study at http://howard-ventures.com/case-study/mount-pleasant-halls-cambridge/



The Age of Responsibility

uch is written of the huge possibilities in front of us, heralded as the fourth industrial revolution. However, I wonder if history will remember this era primarily for technology or something else. We are witnesses to massive advances in technology -AI, autonomous vehicles, faster data resources, smart batteries, robotics and more will change our lives. However, we now realise that this growth brings other climatic and social impacts, which are beginning to attract greater focus. We are concerned about social issues - equality, discrimination, health, wellbeing and fairness. Equally, we are concerned (or at least many of us are) about climate, food and water sufficiency. Technology may help us find answers, but the questions keep coming. I believe we may be witnessing the dawn of the 'Age of Responsibility'.

A sustainable future means longer term thinking than current short-term investment models or, the change possible in four or five years of elected offices. As I was preparing for this piece two headlines struck me: firstly, the impact of deforestation of the Amazon; secondly, Verizon's first green bond issue was eight times oversubscribed - the most popular security Verizon has ever sold. As voting populations become more vocal, central governments will have no choice but to respond to those that put them in power. A report by the Global Investment Alliance suggested three dozen central banks recently declared that they will consider environmental factors when regulating banks.

The 2018 Forum for Sustainable and Responsible Investment reported "one in four dollars invested in US capital markets included sustainability in its investment approach".



Andy Martin CEO of BNP Paribas Real Estate Advisory UK Trustee of the Urban Land Institute Former Chairman and Board member of the Investment Property Forum



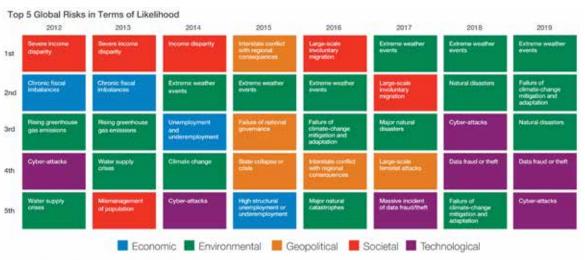
Gross returns as at 31st July 2019 (MSCI World is based on key 23 global markets and MSCI ACWI adds in 26 emerging markets)

Investors are responding because consumers, the purchasers of investment products, are demanding it. For many years, the argument was that green strategies did not pay back. The Morgan Stanley Institute for Sustainable Investing analysis of returns from nearly 11,000 mutual funds over a period from 2014 to 2018 indicated this was not the case. What's more, sustainable funds experienced a 20% lower downside deviation to traditional funds.

So, what is the relevance to real estate? The World Economic Forum January 2016 report, indicates buildings consume around 41% of the world's energy and contribute over 20% of greenhouse gas emissions (other reports say 30%). Significantly, estimates suggest these emissions will grow a further 56% by 2030. The challenge is the 260 million new homes, 540 million sq. metres for 60 million new jobs in industry anticipated in the world's 750 leading cities. In this Age of Responsibility that must be a clarion call for change in practice, making the sector a focus for those demanding it. Responsibility has a value impact.

Research into respective performance of green versus all asset benchmarks is limited but growing. The important thing is that investors want this information and are demanding it. MSCI publishes a Global Green Building Index drawn from its global listed indices. This provides some listed performance comparables between global indices, those with an environmental focus and then filtered to the same for real estate. The comparison of the real estate indices can only be regarded as indicative as they do not

Annualised returns %	3 year return	5 year return	10 year return	Since Nov 28 2008
MSCI Global Green Building	10.73	9.56	13.82	15.47
MSCI World Real Estate	5.41	6.62	10.49	7.02
MSCI World	11.04	7.66	10.49	11.65
MSCI ACWI IMI	10.5	6.99	9.98	11.65



How perception of risks change - The World Economic Forum Global Risk Report 2019

Source: World Economic Forum 2009-2019, Global Risks Reports.



have geographical weightings applied, so not like for like.

There are plenty of case studies which underwrite the good economic sense of adopting a better greener building strategy. However, whilst these are relevant, I think the force of the consumer will drive this change regardless.

From the beginning of my career in real estate, the strategies we adopted with our clients were always consumer (or occupier) led. We focused on meeting demand, believing investors would follow, and worked on data to make our case. I still believe this is true today. The equation is simple: customers (occupiers) decide where they will take space, how much they will pay and how long for. They will choose through employee attraction, access to markets and economic criteria. Investors demand stock, which meets this demand.

From the very first occupier survey we undertook in 1985 on drivers of corporate location, the key issue was the "war for talent". It has been the same ever since. Talent is now asking questions about corporate social responsibility and what actions potential employers are signed up to under both CSR and ESG objectives. Those employees are shaping corporate decision making and these questions and, equally, investor decision making too. The corporate consumer of real estate is responding to these pressures through statements about workplace and by actions such as reducing their carbon footprint and improving workplace wellbeing. One of the easiest ways to achieve this is through occupational strategy and through demands of their supplier network to cascade the effect. Increasingly, we are finding pitches now demand a full breakdown of our CSR and ESG actions both as advisors and the buildings we represent.

So how do you assess corporate response? One initiative is GRESB, launched by a number of large pension funds who wanted comparable data on the ESG performance of their investments. This now covers 1,005 entities and over 100,000 assets valued at over \$4.1 trillion. GRESB provides clear measures of individual corporate progress and sector and overall performance comparisons. It is becoming a strong performance measure.

Closer to home, by way of example, what are we doing? As a subsidiary of BNP Paribas, a global bank employing over 185,000 people, we operate under a montage of "the bank for a changing world" from the Board downwards. The business has taken this mantra and its ability to drive change seriously. This includes promoting internal awareness of the actions we can take, affecting strategy to change as well as taking leadership in key initiatives for change. For example, in 2015 BNP Paribas became an early joiner of United Nations' Sustainable Development Goals Standards aimed at "eradicating poverty in equality and justice and to protect the planet to get human beings to live in peace and prosperity by 2030". A tall order, maybe?

What does it mean in practice? For us, actions to affect a 25% reduction in carbon emissions in the last 10 years in our estate portfolio and an aim to be carbon neutral without offsets in the core business premises by 2030. This will involve an immense overhaul of the existing portfolio. In the meantime, the bank achieved carbon neutrality by offsetting. These aims are being repeated in other large global businesses.

In the USA, the Business Roundtable representing \$7trillion of annual revenues announced a shift from maximising shareholder returns as the principal corporate aim, replacing this with a vison to take

broader account of other important stakeholders. New developments are carbon footprint assessed, connected housing allows remote controls to improve energy consumption. Buildings are measured now in terms of wellbeing as well as sustainability.

Our 2019 ESG Global Survey indicated 90% of respondents predicted over 25% of their funds will be allocated towards ESG by 2021. That repeats the findings of the Morgan Stanley analysis mentioned earlier, but this time on a global scale. When asked for motivations to invest in ESG the top responses were in the following order: Improved long term returns; Brand and Reputation; Decreased investment risk. One important criterion, hidden in these responses, is this war for talent, 70% of all millennials surveyed by Deloitte listed their company's commitment to community influencing their decision to work there. Social engagement projects can reduce staff turnover by 50%, so it is meaningful.

Other important initiatives are targeted financing. The bank is now a leading issuer of green bonds and has already substantial interest in real estate related green bonds. Looking at social impact, the loan to one of London's largest housing associations, London and Quadrant (L&Q), incorporated an innovative measure of a margin reduction scheme based upon L&Q's success in helping a target of 600 residents back to work. In the first 12 months of this loan arrangement they have already surpassed that target.

In the Real Asset sector, a \$1.4billion revolving credit facility to Thames Water had a margin linked to Thames Water's GRESB Infrastructure score. The first GRESB linked loan in real estate issued last year was placed by ING. I can see loans for real estate with margins based on carbon reduction attracting growing



interest. There is increasing evidence that green buildings make better investments. The World Green Building Council summarises recent survey results amongst respondents who have engaged in sustainable technologies as:

- Reductions in energy consumption, greenhouse gas emission and air pollutants
- Improvements to occupier wellbeing, satisfaction and productivity
- Strong financial returns for companies owning or occupying green buildings

All of these are measurable and have lasting value impacts but are longer term measures. If the "war for talent" is key for success, bearing in mind occupational costs are a fraction of employment costs, I believe, consumers of real estate will pay the difference (if any) in cost because these pressures have a business value and responding to them is attractive to shareholders. It's worth adding the cost of implementation will only reduce through scale economics and technological advances. Just look at the cost and performance trajectory of photo voltaic panels.

One evident trend is the re-imagination of the way we use space. Place making, in an urban sense, is an essential part of wellbeing and, as we value urban land more expensively, it becomes a much in demand skillset.

Within the workplace or living space, it is also clear there are benefits to be had. The way we work and where are equally important from a productivity standpoint. Wellbeing reform is redefining the workplace, a visit to the Well **Building Institute website** will give more insight. In the 1980's, a big perceived threat to the office owner was homeworking. That threat was never realised as it ignores our need to socialise or be in communities. Now technology gives greater freedom of the choice of place of work on a daily or even hourly basis. Workplace agility allows you to set up your workplace virtually where your mood or activities take you. I returned from holiday to our new workplace

with a vast majority of no fixed positions but set down spaces in villages based on market activity, individual spaces for quiet time or coffee spaces for group or social activity. Based on our analysis, we use well less than 70% of our workstations at any moment in time. We can supplement any special localised requirements with co-working space memberships and other means of joint occupation. We will closely measure the outcome not solely on occupational cost savings but, more importantly, the way our people respond to this new environment. First reports are very positive.

Of course, real estate in a broader context includes all land including agriculture and forestry, key parts of our global warming challenge. Veganism for meat consumption, planting forests for carbon reduction and water retention are big issues and worthy of a broader discussion than could be provided in this article.

In conclusion, technology is important and will greatly change the way we work and live. However, there are huge social and environmental impacts our advances are forcing us to focus on and which, by our actions, may define this era. I was always taught that real estate is a long-term investment activity. Responsibility is equally long-term and will not be disconnected from the decisions we will need to take now for our future.



How will carbon neutral and zero waste buildings become mainstream and will this be driven by government policy or the markets?

rexit woes aside (there I've got the B-word out of the way), I was secretly delighted that Theresa May's parting gift to the country was a zero carbon climate commitment as opposed to a deal with the EU. With the likes of Greta Thunberg pushing for change, it looks as if there is a whole generation with a very different set of principles and priorities coming through. Millennials and Gen Z, with Gen Alpha to follow, will influence the way in which we construct and occupy buildings, not to mention how we travel to and from them (commute under sail anyone?).

The UK built environment currently contributes to circa 30% of the UK's carbon emissions, so we have a significant contribution to make to this net zero carbon target by 2050, if not earlier. Add to this, recent figures released from the Department for Environment, Food and Rural Affairs (DEFRA): in 2016 the UK generated 222.9 million tonnes of waste, up 4% from 2014. Construction and property generates a huge 136 million tonnes of this, over 60%.

Working for a trader-developer, my focus is on build quality and programme along with liquidity once we have completed a scheme. What we are seeing is a new generation of occupiers who are less car-focussed, demanding amenity and community and more flexibility across the board. For those larger corporations with corporate social responsibility policies at their core, the environmental credentials of a building are key. For the smaller occupiers, cost is still king but, with serviced office occupiers controlling much of the sub-5k sq ft market in city centres, the larger conglomerates arguably have a hold on this smaller market too. Efficiencies in running costs are vital to keep the service charge down but this undoubtably has a positive spin-off for the environment due to reduced energy

consumption of more efficient buildings.

Looking first to waste, there is a lot more that can be done to reduce waste and promote re-use and recycling. The Queen Elizabeth Olympic Park provides an excellent case study which looked to design out waste from the outset. They designed for re-use with initial temporary structures then being reduced in size or re-purposed to provide longstanding legacy buildings. Asset disposal policies were employed whereby profit share agreements were entered into with contractors to encourage them to engage in responsible waste management.

The Considerate Contractors Scheme has recently launched a spotlight on plastic use but their encouragement to use waste management plans is not enough. I see the quantity of waste generated on sites daily and it is shocking at times. There needs to be top-down pressure to improve waste management across the industry and strict planning guidelines to push this forwards. BREEAM does provide points for waste management strategies but is not necessarily implemented on all schemes that pass through planning.

Carbon emissions are coming under the biggest scrutiny and we are seeing top-down policies emerging globally such as the Net Zero Carbon Buildings Commitment. This was launched at the Global Climate Action Summit in September 2018 by the World Green Building Council (WGBC), a non-profit organisation dedicated to holding the construction industry to the goals of the Paris Climate Accord. Signatories to the Net Zero Carbon Buildings Commitment have promised to make all new buildings in their portfolios net zero carbon for 2030, and do the same for their existing buildings by 2050. They use energy efficient structures that integrate passive strategies, such as using air flow to cool interiors rather than air conditioning, and often include renewable energy strategies such as solar panels to offset



Development Director at Berwick Hill Properties Ltd. MRICS, MA Cantab (New Hall, Land Economy '02-'05)

the carbon released in their construction process.

The Energy Performance of Buildings Directive (EPBD) under EU legislation requires all new buildings from 2021 (public buildings from 2019) to be nearly zero-energy buildings (NZEB). The nearly zero or very low amount of energy required should be covered to a very significant extent from renewable sources, including sources produced onsite or nearby.

The Committee for Climate Change recommends that building regulations need to be amended to take account of carbon elements (building materials) and whole lifecycle carbon creation of buildings (the way in which the building is occupied), something which the Building Research Establishment is working on with their BREEAM rating.

The City of London has seen Bloomberg's London headquarters win the Stirling Prize in 2018, claiming to be the most sustainable office building in the world. The facade features moveable bronze louvres that can be opened for natural ventilation, and petal-shaped ceiling panels inset with thousands of energy-saving LEDs. But Melbourne's Pixel Building, completed in 2011, claimed a similar accolade: said to be Australia's first net-zero carbon building. The Edge in Amsterdam, occupied by Deloitte, was given the highest ever BREEAM rating when it was built in 2014, generating more electricity than it

At a more local level, we see the planning process forcing the developer to consider the environmental impact of their building: insisting that new builds hit a certain EPC and BREEAM target. At present, we are not seeing carbon calculations across the whole

life cycle (including embodied carbon), but this is going to change imminently. In the draft London Plan, minimising greenhouse gas emissions (Policy SI2), it states clearly that a "development should be net zero-carbon. This means reducing carbon dioxide emissions from construction and operation and minimising both annual and peak energy demand".

The City of London, with other local planning authorities to follow suit, is looking to introduce planning policies which effectively de-risk the planning process if certain environmental and carbon-related credentials are met. In particular they are looking for detailed justification for why a building should be knocked down and re-built taking account of the embodied carbon within the existing structure. If the building is up for wholescale redevelopment then the entire process will be scrutinised to ensure it is as carbon efficient as possible. If both the embodied and operational carbon emissions of the building will be significantly improved then this provides longer term benefits as a result of wholescale redevelopment of a site. If a building does not need knocking down and can demonstrate additional carbon savings we are due to see policies, such as with Permitted Development Rights (PDR), that push these developments through the planning process in a guaranteed period of time. Let's hope the requirements are more demanding than we have seen for PDR schemes.

The 're-purposing' of buildings is increasingly common and the use of circular economy principles are being championed by the Ellen McArthur Foundation. Developers are also looking at flexibility of design: building multi-storey car parks with slab heights which allows them to be repurposed into residential or office buildings as car use reduces in future. Developers constantly need to consider this sort of future-proofing especially in an age where technological advances will force behavioural change within the average life cycle of a building.

Lizzy Westmacott, a trained Passivhaus architect for EPR Architects, has tasked her team with creating a Passive Office. In the UK office market, many air cooling systems are not designed to operate at above 28C which is why, when the temperature really cranks up, your air cooling system often falls over. Whilst this approach won't work in the likes of Dubai, I am challenging my M&E consultants to re-look at the way we ventilate and cool buildings because opening windows and naturally ventilating the space can be the most efficient option. Lizzy is of the opinion that if we want to go down this route developers either face a significant bill for insulated glazing units or, we move away from the glass boxes that we've seen takeover our streets and skylines. Consider the thermal capabilities of a building and keep it temperate by reducing the number of windows and hence the effects of solar gain.

I have no doubt that a strong trend will start to emerge showing that carbon neutral, zero waste buildings will command a higher rent and investment value. Speaking to Guy Glover, fund manager for BMO's UK Property Fund, he explained how the environmental, social and governance (ESG) principles of the fund were a key driver and attraction for his investors. He felt that this was key to liquidity. Very simply, if a building does not achieve BREEAM excellent and an EPC A, but met with all the other investment fundamentals, he would discount the investment yield accordingly. So, for those saying that the extra cost of achieving these environmental credentials is not paying dividend, I suggest they reconsider.



The property industry as a generator of social value and impact

f you ask the public for one word to describe a property developer you get a majority around the words greedy, evil, rich and the like. A recent YouGov poll suggested only 2% of the public trusted property developers to behave honestly. 75% think property developers only care about "making money". In part, this is a reasonable reflection of the sector and in part it is a terrible communal PR failure to communicate the public good that property development can deliver. There are some obvious beneficial outcomes from property development – the workspaces and homes that the sector builds. And there also are ways of engaging in development that can produce more or less social value, both with and without impact on risk adjusted return on capital.

Although the property development sector (sale of public land to developers and procurement of capital works) was deliberately excluded from the UK's Social Value Act during its passage through parliament in 2012, the language of social value, and the measurement mechanisms for quantifying it, are increasingly entering the language of local authorities and starting to influence their procurement of developers on public land and of building contractors. There is a debate to be had about the growing industry around the measurement of social value. On the one hand, 'if you don't measure it you can't improve it'. On the other hand, much that is of real social value is immune to, and even devalued by, attempts to measure it and certainly by putting monetary values on it. "Love for your neighbour" for example.





Chris Brown Executive Chair igloo

At igloo we are in the foothills of this journey, with most of our energy focussed on trying to measure social capital, social cohesion and wellbeing at hyper local level using Office of National Statistics methodologies, whilst also recognising that we have to play the game of ascribing meaningless financial numbers to measures of social value. We have seen some signs that parts of the industry recognise the challenge.

Most major property companies have some kind of corporate social responsibility initiative like British Land's focus on wellbeing and mental health. Some of the speculative housebuilders even have community related activities. We also have a very small number of property developers looking to follow igloo (the UK's first real estate certified Benefit Corporation – B Corp) as profit for purpose organisations and of course we have significant amounts of development undertaken by housing associations, some of which still retain a clear social purpose, though the public probably don't quite bracket them with the wider property development sector. There is a growing real estate environmental, social and governance (ESG) investment sector, and a small impact investment one, that facilitates activities like the letting of homes to homeless people for example, filling a gap left by philanthropy and government funding. But all of this seems to be having little impact with the general public, perhaps because its impact is so limited. The stories about, and realities of, high levels of remuneration for senior executives of large real estate organisations negatively impact the sector's image (as well as wider business) and the reality is that most property developers are profit and remuneration motivated and don't see themselves as having a social mission. However, property developers can actually choose whether to optimise social and environmental outcomes or not.

igloo is working with Nationwide Building Society to support their social investment in 'building society'. Nationwide, as a mutual organisation owned by its members, was encouraged by its membership to investigate how they might help deliver new homes other than by providing mortgages. With a mission of 'building society nationwide' they started in their home town of Swindon by appointing a community organiser, the inspirational Keith Brown (no relation), to find out what the community needs were, in one of the lower income neighbourhoods in the town that the speculative developers were ignoring in favour of green field sites on the edge of town. The outcome is a combination of an environmentally conscious development of nearly 250 homes to create an intergenerational community (in contrast to the very narrow purchaser focus of the out of town housing estates), with 30% affordable housing (the speculative developers are delivering half that) together with a wide variety of community led initiatives ranging from a new Parish Council managed public park to an upgraded school for kids excluded from mainstream education combined with a community centre.

Nationwide have gone much further than a profit motivated speculative housebuilder would have gone to maximise the positive social impact of their investment, to the extent that they are prepared to take a close to zero financial return. Non-financial FTSE100 companies currently hold around £150 billion in cash on their balance sheets earning next to nothing which could be similarly used if Government provided risk mitigation. This raises some very big questions for society. Is the profit driven speculative development model the best way to deliver new neighbourhoods and benefits for the communities that live there? Should these be delivered by not for profit organisations or, more a political question, should new housing deliverers, like other deliverers of public goods like utility companies and railways, be highly regulated or even nationalised? Alternatively, should we unleash the power of communities to build for themselves, in the knowledge that this will produce substantially greater social outcomes on average, as discussed in the 2017 edition of this magazine? Restoring trust in property development may require radical, rather than incremental, change.



Property as a Generator of Social Value

As a human, a citizen, a parent, I want the world to be better (even if this sometimes feels an impossible dream). As a business owner and a surveyor I know that property and property finance has a role to play in this. This was one of the reasons that I first joined the board of United Communities four years ago. UC are a Bristol based, community led housing association doing some inspirational work, directly delivering much needed housing in a city with real affordability challenges, and helping residents with training and employment. We are also innovative, working in partnerships to bring forward developments and pushing boundaries with innovations such as short-tenure, modular pop-ups. United Communities are proud of the work that we do with partners such as Triodos Bank and Cheyne's Social Property Impact Fund, and I'm delighted to have recently been appointed Chair of UC's Board.



James Taylor MA MPhil MRICS Managing Director, ADAPT Real Estate Chair of United Communities Housing Association

Just bricks and mortar?

Mark Ogden

Relationship Manager, Triodos Bank UK

Triodos Bank has been financing housing projects across Europe for over 35 years. At the heart of our lending to the sector is a desire to make property work to generate social and environmental value. We finance housing associations and community led housing projects because they provide affordable housing for the people who need it most, and we also support organisations providing homes for the homeless and dignified accommodation for adults and children with physical and learning disabilities.

We see the housing sector as being a key area in which our customers' money can drive social impact. Here, we share some of the projects that we've been most proud to work with over recent years.

Providing affordable rural housing

Finding affordable housing in rural communities is particularly challenging. Cornwall Rural Housing Association provides accommodation in remote areas of Cornwall and the Isles of Scilly. The organisation focuses on being responsive to the needs of the local communities in which it works, but also generates environmental value with its projects: many developments include energy saving technologies, like solar PV and thermal panels.

Recently, Triodos worked with another Cornish housing organisation, St Ives Community Land Trust. This community-

led group is also working to tackle the lack of affordable homes for local people, focusing on an area where a buoyant second home market often results in residents being priced out. Its flats will not only offer affordable rates, but also lower energy bills for tenants. We see community land trusts as being particularly impactful because they are built on strong co-operative practices and principles of equality; they involve local people and understand the needs of the community.

Combatting fuel poverty

In London, North Camden Housing Co-op is tackling issues of fuel poverty through its recent property development. Through retrofitting a 1980s block of flats to very high environmental standards (similar to 'Passive House' standards for new build developments), this fully mutual housing co-operative has dramatically reduced the energy bills of its residents. With high levels of insulation, triple-glazing and mechanical ventilation with a heat recovery system, the property is an example of cutting-edge sustainable development that has added social value.

Building a beacon of sustainability and social justice

At the University of Winchester, the recent construction of a landmark new building has been a way of showcasing the social and environmental values of the university. Aiming to pioneer a values-driven approach to higher education, the University wanted to create an eco-friendly, inclusive new building. The resulting development in the West Downs Quarter is of a highly innovative design, with a range of sustainability and efficiency features from heat recovery systems and solar photovoltaic panels, to rainwater harvesting and a green roof. While boosting teaching space by 20%, the building will also bring a range of social benefits for both students and local residents, with a multi-use space that features an art gallery, zero waste shop and vegan café.

Supporting homeless young people

1625 Independent People, based in Bristol, is a charity that gives homeless young people a future. By offering practical help, advice and support, it enables young people to live happily and independently, providing them with a safe home but also teaching them valuable life skills. 1625 not only puts a roof over the heads of the young people that it works with, it also gives them the sense of self-worth that has often being lacking in their early lives, empowering them to go on into further education and work.

Refurbishing empty homes

In order to meet increased demands for housing, it is vital that unused stock is brought back into circulation. Leeds Action to Create Homes (Latch) specialises in the refurbishment of derelict and run-down houses in order to provide supported housing for people aged 18-64 who are homeless



or in accommodation need. All Latch's tenants commit to a support programme in order to help them achieve successful tenancies before they move on to independent living. As Latch refurbishes properties, it not only creates sustainable and low-energy housing to high standards, but also provides work experience and training opportunities for local homeless people.

At Triodos, we take pride in being a global pioneer in sustainable banking, using the power of finance to invest in projects that are good for people and the planet. In 2018, we supported 729 community and social housing projects across Europe, providing accommodation for 56,000 people. Through working with organisations like these we aim to show that banking can be a force for good.

Social Property Impact Investing

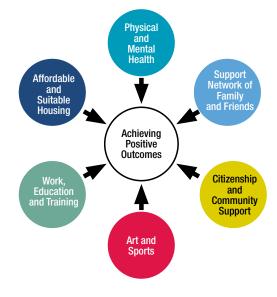
Rebecca Lawley

Managing Director and Co-Head of Investor Relations Chevne Capital

Many of us will be aware that there are investment strategies available that offer lower investment returns in return for some kind of social or environmental benefit. This concept has been around since at least 1758 when the Philadelphia Quakers prohibited members from participating in the slave trade. Today, the idea of profiting from the enslavement of human beings is correctly abhorrent. But to the larger population this was once the norm and unremarkable.

Today's investment community has expanded upon this once-novel principle to encompass a wide range of ethically minded investment strategies. Until recently, the public sector was nervous of private sector interaction given their historical single drive for financial returns. However social impact investment strategies take this one stage further and seek to ensure a meaningful, real, positive social and environmental impact alongside a financial return. Obvious examples include renewable energy, micro-finance and education.

For us, property is the most obvious asset class in which to manage an impact strategy. The roof over our heads is one of the most basic requirements for a stable and fulfilling life, alongside the air we breathe, the food we eat and the support of our loved ones. Our partners in social impact, New Philanthropy Capital, have long lobbied on the importance of housing to the health and wellbeing of everyone. Poor-quality housing severely damages not just physical, but also mental, health. Stable, quality housing is the first step in enabling those



in need of additional support to take the steps they need to make, in the direction they need to go. Without stable housing, children cannot study effectively, addicts cannot progress through recovery programmes and vulnerable adults with learning difficulties cannot access the wide range of support services they require to live independently in the community.

Cheyne has been an innovator in real estate investing for over a decade. Over 5 years ago, we recognised the opportunity to combine our UK property knowledge with an



overarching desire as both individuals and as a firm to generate ethical returns rather than just investment returns, and launched the Cheyne Social Property Impact Fund. At the same time, this met a growing demand from a, perhaps surprisingly, wide range of investors to do the very same – a desire which we see growing each year as the concept of ethical investing has firmly moved from the niche to the mainstream.

Importantly, we recognised early on that there was the opportunity to do so in the UK property space without compromising on attractive investment returns. This is a feature that sets us apart from many players in the impact space where – like the Quakers of 1758 – there is a broad perception that sometimes, impact and financial returns are not fully aligned, and a somewhat concessionary returns objective is a necessity.

How are these dual objectives possible for our UK social property strategy?

The answer is that, while councils, housing associations and charities often don't have the money or expertise to buy or build the properties they need, they can and do commit to long-term property rental contracts. These are highly valued by the investment community, which prizes long-term stable cashflows from high-credit, quality counterparties. By buying or building quality property and leasing it to councils, housing associations and charities, our investment strategy helps

to meet the UK's pressing housing needs whilst also generating cashflow streams with an attractive risk/return profile for which the investment community will pay a premium.

That is the concept. How has this worked in practice?

One of our first investments was working with a charity that cares for individuals with acute learning disabilities. There are far too many vulnerable adults still living in unsuitable assessment treatment units, like hospitals, rather than living normal lives in the community. We assist the charity by acquiring regular houses on regular streets, anywhere in the UK, and adapting the properties to meet the needs of the residents. This has enabled the charity to work confidently with care commissioners at local authorities, comfortable in the knowledge that a specific property will be acquired for the tenant(s) and adapted to meet their needs. This often results in lower overall care bills as the tenants are living in a more suitable environment with a better quality of life.

As an example, in 2018 the Fund acquired a bungalow in East Cambridgeshire which provided accommodation for three residents who had lived in a hospital for most of their lives before moving to unsuitable 'temporary' accommodation for a further 20 years. Now elderly, these adults are happy that their search for more 'suitable' accommodation is finally

over after so long and became our 100th tenants when they moved into their new home in 2018. In the words of the tenants themselves, "May 2018 marked the start of a new chapter in our lives. The move went much more smoothly than anyone expected and we settled quickly. We now have a warm and inviting home in the place where we have lived for most of our lives, in a community which knows and accepts us. What a difference a year makes!"

Looking through a financial lens, how does this investment stack up?

The answer is, very favourably. We receive a rent payment from the charity which translates to a yield of around 6%. By comparison, the current Bank of England base rate is 0.75% and food retailer Tesco pays a cash coupon of around 6% on its bonds.

But a key benefit for our investors is that our rental income grows annually with inflation (CPI to be exact) and is over a period of decades. The key comparison here is UK government inflation-linked bonds which currently offer a negative yield meaning you actually pay to own them.

So, in conclusion, investors are able to receive a favourable balance of financial return whilst making a positive social impact and the private sector is showing how constructive patient capital can work hand-in-hand with the public sector to help address a UK housing crisis that shows no signs of abating.

A Place for Retail

Joint SPR/Cambridge University Land Society Seminar, 13 June 2019

This joint SPR/CULS seminar entitled Placemaking - Unlocking the Value of Retail showed that although UK retail real estate may currently be making headlines for negative reasons, the sector can still have a highly important role to play in making places work and for the surrounding environment, occupiers and other real estate interests.

Opening the seminar, Seb Golding presented research by Savills that showed a positive relationship between residential values and the nearby retail/leisure offer in local neighbourhoods across London. Interestingly, this relationship appeared to be stronger for districts closer to the centre of town.

The other speakers explored some illuminating examples of how these benefits could be created in development placemaking. Katy Ghahremani of Make Architects explained how the retail element of their mixed use scheme at Rathbone Place, just north of Oxford Street, is much more about providing 'halo value' for the whole project than generating revenue in its own right.

Roger Madelin, Head of Canada Water Development at British

Land, emphasised that retail could itself benefit from a holistic idea of place. Canada Water aims to build on the basis of the existing Surrey Quays Shopping Centre, which dates from the 1980s, to create an urban destination in its own right around the theme of water in all its forms. Madelin also drew on his experience in developing Kings Cross in his previous role at Argent, stressing that the retail component, particularly within St Pancras Station, has played a major role in making this a successful business and residential location.

Jorge Beroiz, CallisonRTKL proposed that 'place' needs to have a cultural as well as a commercial rationale in order to entice people to visit and make them stay. Presenting an example of a scheme in Virginia, he noted how the development vision is evolving from shopping centres to mixed use and on towards 'related use,' where the synergies between different activities are seen as integral to the project.

In the panel discussion that followed, moderated by Lucy Greenwood of Savills, it was recognised that placemaking is not an exact science. The time taken by the planning process often means that a vision can take years to put in place, while the speed of technological advance demands a high level of flexibility in the potential uses of any development.

Tim Horsey





Investing to deliver social value in healthcare and education

ne of the themes of this year's CULS magazine is "how the property industry generates social value and impact." Whilst concepts such as corporate social responsibility are relatively new to the business world, the choice between profit and the public interest has been an ongoing conundrum for generations of business leaders. As far back as 1968, the Harvard Business Review notes that 70% of the public thought business struck a fair balance between profits and the public interest, but this had decreased to 15% by 1977 due to a number of corporate scandals in listed American companies.

But does there have to be a choice? Can investing for social good and generating a fair financial return be reconciled and pursued in tandem? Having joined an organisation called the Nexus Group in January 2018, and with social value being core to our investment philosophy, I'm convinced that both concepts can co-exist.

Before immersing ourselves in this debate, it's worth providing some background on the Nexus Group. The Group focuses on improving health and education outcomes through real estate investment, corporate finance, venture capital and publishing. In this article, I explore these focus areas in the real estate context to demonstrate that the property industry can and does play a role in delivering value which benefits both shareholders and society.

Case Study 1: Primary Health Properties PLC ("PHP")

PHP is a private landlord of medical centres, GP surgeries and primary care centres in the UK and Ireland. The company is externally managed by the Nexus Group, is structured as a Real Estate Investment Trust ("REIT") and is listed on the FTSE-250 index. PHP owns c.500 properties worth £2.35 billion which are occupied by the NHS, HSE (in Ireland), GPs, physiotherapists, dentists, pharmacists, opticians and other healthcare professionals. PHP's portfolio serves 5.5 million patients and represents patient's first point of contact with healthcare providers when they start their patient journey. In March this year, PHP completed an all-share merger with MedicX, another listed primary care REIT, adding c.160 properties worth £800m to its portfolio.

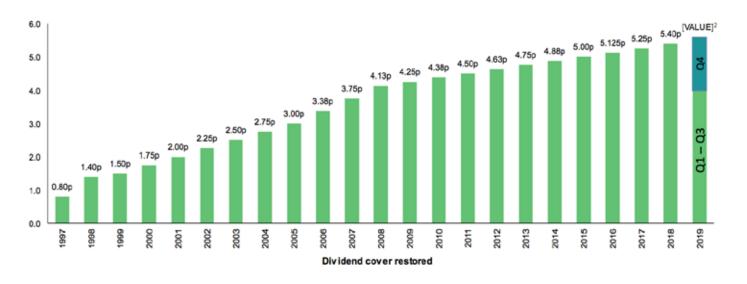
A recent survey by the British Medical Association ("BMA") indicates that half of all medical centre buildings in the UK are not fit-for-purpose. PHP invests to provide modern, purpose-built medical centres which are close to communities, enable better access to primary health care services and provide tangible benefits for health care providers and their patients. For example, we are currently exploring an opportunity to bring together 4 GP Practices, who are currently operating from dilapidated buildings which are not fit-



Michael Griffith
Investment Associate
Nexus Group, the external manager of PHP.
Queens' (2009-2012)



Historic dividend progression



for-purpose, into a brand new, modern, purpose-built medical centre. This will significantly improve the patient experience leading to better health outcomes. In addition, high quality premises can be used by GP Practices as a tool to attract new GPs.

Providing care in the local setting is better for the public purse too, with a typical GP appointment costing the NHS less than half the cost of a visit to A&E. The disparity widens once diagnostic costs or an overnight stay in hospital are added. But does investing in primary care real estate deliver a fair financial return, in addition to delivering social value and value for the taxpayer?

To answer this question, PHP's dividend record is a good place to start. The REIT has delivered 22 consecutive years of dividend growth and, if it was listed in the US, would be only 3 years' from qualifying for Standard & Poor's "Dividend Aristocrats List", a group of listed US companies which have delivered 25+ years of successive dividend growth. Of the 4,300 listed companies in the US, only 57 can call themselves a Dividend Aristocrat with members including McDonalds, Coca Cola and Caterpillar.

Underpinning the dividend growth story is strong property fundamentals and supportive demographic trends. As indicated by the graph below, primary care real estate delivers strong risk-adjusted returns and is one of the few asset





classes which continues to command 25 year leases. With 90% of income secured to government tenants; a portfolio weighted average unexpired lease term ("WAULT") in excess of 13 years; and a vacancy rate of less than 0.5%, the investment case is compelling.

Case Study 2: Property Investment in Education ("The Pine Fund")

The Pine Fund invests in properties let to educational operators including preschool day nurseries ("PSDN") and special educational needs schools ("SEN schools"). Like PHP, the fund provides modern premises located close to communities to enable better access to education. A particularly relevant example of social value creation was the funding of a significant premises extension for a SEN school, allowing the school to expand the range of vital services it offers for children and young adults with special educational needs.

But is there a compelling investment rationale? The underlying property assets in the fund are located in strong catchment areas and let to education providers with profitable operational businesses on long-term, inflation linked leases. Having been established with private equity backing in 2005 and managed by Nexus Group, the fund was sold to a UK pension fund in 2017, having grown to a sizeable portfolio of 33 assets worth approximately £95m. The income return generated through the hold period combined with a successful exit delivered a healthy return for investors.

A winning combination

These case studies support the concept that the property industry can play a key role in delivering value which benefits both shareholders and society. With the right application, investing for social good and generating a fair financial return can be reconciled and pursued in tandem.

As a tangential, but related point Nexus Group's founder and Managing Director Harry Hyman, a Cambridge alumnus (Geography, Christ's 1975-1979) and contributor to this magazine (see the "The PHP Story") also runs an organisation called the International Opera Awards. Commonly known as the "Oscars of the Opera", above all, the purpose of the awards is to raise funds to support the next generation of operatic talent – the Opera Awards Foundation has provided £200,000 in bursaries since being set up 7 years ago.

Nexus Group recently celebrated its 25th birthday. Here's to the next 25 years finding opportunities where shareholder and societal interests align!



Anglo Residential's UK residential fund is currently laying the foundations for £100m+ investment. Anna has also founded Real Strategy, which provides strategic support for investment-focused businesses in the sector, and hosts The Return, one of the highest-rated podcasts in the property investment space.

he UK housing market has a huge problem. There's not enough supply to meet demand, and this trend is set to continue. This imbalance, combined with structural market imperfections preventing correction, has resulted in stark inequalities in, and stemming from, access to property, for tenants, home owners and investors. In this article I'll share 3 ways innovation is helping to reduce inequality, not just for the ultimate consumer (for example tenants), but for small- or medium-sized residential property investors.

But first, in an article about reducing inequality in UK property, why focus on investors at all? Firstly, for so many of us, it's a passion and dream. Investing in UK property has long been seen not only as a rite of passage, but as a signifier and determinant of success for potential investors from around the world. The majority of existing investors have 1-4 properties (52% of landlords had 4 or fewer properties in 2018, according to the Ministry of Housing, Communities and Local Government's English Private Landlord Survey). That figure is falling. But property is still seen as one of the best ways for ordinary

people to preserve and grow their wealth, and build a better future, in a way that they can take control of. Secondly, innovation is being used to reduce market imperfections, and increase efficiency. As a result, the property market can become more responsive to what is needed: more, quality, affordable housing for the people and places who need it.

This article is not about headline-grabbing, shiny objects. It's about affordable, micro innovations, making a small difference for many potential small- and medium-sized (SME) investors - and consumers - at the margin, and facilitating more equal access to the UK residential property market, in line with the UN Sustainable Development Goal of Reduced Inequalities. We must address the problem.

Inequality of opportunity in the residential property market

A shortage of land in areas where there is great demand, planning constraints and regulations, and economic concerns of housebuilders mean that supply is likely to



Anna Clare Harper Co-Founder, Anglo Residential.

remain constrained for the foreseeable future. Growing demand, fuelled by demographic changes like smaller households, living longer and changing tastes make this lack of supply even more of a challenge.

And the UK housing market is decidedly imperfect, in economic terms, meaning it's slow to adjust. Incomplete information, illiquidity, and clunky processes are just a few of the barriers. The results include substantial inequalities of opportunity across generations and geographies, in terms of access to accommodation and to investment opportunities. Disparities in quality and price mean that inequalities are not just about 'have' or 'have-not'.

These challenges lead to social problems - a 'housing crisis'. Rising homelessness statistics (according to Shelter, at the end of 2018 one in every 201 Brits was homeless - an increase of four per cent on the previous year's number) and qualitative reports illustrate the inequality of opportunity to access safe, quality, affordable housing. There is much-publicised dissatisfaction with the state of the housing market. And for my generation and beyond, affordability constraints mean the idea of accessing property as an investment, to build a more secure and certain future, is beyond the realms of possibility, leading to the issue of 'underinvestment'. In the context of an aging population, this could become a big problem.

There is cross-party political will to tackle inequalities on the housing side, which has led to some of the recent regulatory changes in the residential property sector - ranging from encouragement to professionalise through 'Section 24' tax reforms reducing the viability of owning rental properties in your own name, to increased scope of licensing to improve standards.

For ordinary aspiring investors, innovation could be the key to reducing inequality. Because smaller investors don't have institutional budgets for research and development, micro innovations at each stage of the investment journey, solving real problems, are key, in particular in access to deal opportunities, and the ability to manage assets.

3 ways innovation is helping to reduce inequality

- 1. Alternative finance: alternative finance platforms, for example crowd funding and peer to peer platforms are enabling investors to access opportunities, across geographies, and regardless of the time the investor has to commit. This reduces traditional barriers to investing. In fact, investing is becoming as easy as buying on eBay. And the requirement for information to be made public can encourage more professional delivery, both for developments and buy to let investments. So, such platforms are already helping reduce inequalities for potential investors, and facilitating access to better quality, more professionally delivered homes. The tokenisation of real estate has the scope to catalyse this change.
- 2. Information: information asymmetries have for many years affected investors, tenants and potential homeowners. But now, information is more readily available digitally, again at the click of a button. You can find out who owns what for free, via Nimbus. You can find out what the house next door sold for and what else is available via Zoopla or Rightmove, or use a data aggregator such as Property Data. And there's a proliferation of proptech innovators using data more intelligently than ever before interpreting everything from changes in the use of cannabis vs cocaine in an area, to what the use of particular dating apps says about current and future values. Specific algorithms draw on wide-ranging



data sets to forecast which property owners are falling into financial stress, bringing together an owner who has a problem, with an aspiring investor who has a solution. Many of these impressive innovators are opening up the results of their work for free or via low cost subscriptions, meaning geographical restrictions and relationships are no longer such a barrier to information or opportunity.

3. Management - the big inequality here historically has been in terms of standards, and costs. Policies ranging from more licensing to the Tenant Fees Act are creating an environment where professionalisation is essential. Innovation is also helping to reduce friction, improve efficiency and help meet tenant needs more effectively, reducing inequality of standards. For example, apps for tenancy paperwork are making the process more efficient and are also reducing costs - for landlord and tenant. Property management apps connect the tenant customer directly to maintenance providers, reducing office costs and enabling faster responses. Extending these micro-innovations in lettings, real estate is moving from being an industry that sells a product, to one that delivers a Service. And that means the dynamics of the market, and the industry will undergo significant change, delivering more of what consumers (tenants, at one end, and investors, at the other) want and need.

Innovation at each stage of the property investment journey can help deliver investor value, and open up access to opportunities for investors, in a context of rapid change and uncertainty. And, they can help resolve the structural undersupply of quality, affordable accommodation, improving efficiency, quality, and safety, and promoting greater equality of housing opportunities. Embracing change can help everyone involved. But as I've discovered through helping start a Small Alternative Investment Fund in the sector, as well as supporting a number of other property-related businesses with this, strategy is key.

'Sticking plasters' and 'shiny objects' are all around. Innovation should be - and can be - used to add value for all parties and genuinely enhance processes and services, opening up opportunities. And effective innovation requires a clear, strategic focus on resolving real problems. This is true not just for SME investors, but for corporates too. Focussing on innovations that will help improve access, and solve the problem of inequality - for potential investors and tenants alike - is a great place to start.



Drastic change, challenging economics and FUNctional need

n order to meet the many conflicting needs in our society, it increasingly apparent that drastic change will be needed if we are going to build a positive future that not only meets the growth needs of our society, but also makes space for improved quality of life and puts the fun into functional. Across the many projects I am fortunate to be involved in, I've been applying the principle that any new development needs to be multi-faceted, work on many levels, solve economic and social issues, as well as meet commercial and business needs.

There is no secret that in the UK there is a need to sustain economic growth and all

Land Economists know that property plays a lead role to support this. We are at a crossroads where we can keep up with economic need and develop for the future in a sustainable way, or we can continue with 'business as usual' and thereby risk losing economic progress, quality of life and future prosperity.

For each generation, keeping the Great in Britain takes great strides forward. We have much to thank leading historic figures such as Prince Albert who, despite dying at the young age of 42, was a great all-rounder with aptitude in natural sciences, languages, art and music together with a healthy awareness of diplomacy and politics. One could say many

traits of students leaving Silver Street.

Moving forwards as a country we need projects to be 'more Albert' - combining the intellectual with the aesthetic, to produce a legacy to be proud of. Major new developments across the country such as new towns and early work on the CaMKOx Arc project highlight the real need to approach projects from a completely different perspective if they are going to reach their potential, the targets set out by government and future societal need. In my mind this is very much my generation's war effort. No easy task, but desperately needed.

For those not local to Silver Street, Cambridge has

Emma Fletcher Managing Director, SmithsonHill College Years

declared a climate change emergency and we need more projects to tackle this. We have serious issues nationally for transport, housing, water and electricity demand and our university city is no different in needing resilience for the future.

The proposed development that I lead at SmithsonHill focuses on food. It sets out to create something new, both taking into account the sustainability needs of the local area and thinking forward to future needs, not just of the immediate vicinity around Cambridge, but of food supply locally, nationally and globally. Our plans set out to solve current local problems around traffic, sustainable transport and

energy infrastructure, with solutions designed to meet the needs of our proposed development as well as future growth in the area. We've also taken an integrated approach to sustainability, with on-site energy generation, protection of groundwater sources and improvements to ameliorate future flood risk. These improvements are all the backdrop to a development which seeks to house a new UK AgriTech science park cluster, for companies working to use technology to solve problems across the food supply chain, with influence stretching across the globe. I believe that this type of conscientious development is necessary for our future, and applies to the other projects I volunteer with outside the day job.

In my village just to the north of Cambridge, I have been struck by the lack of young people moving in, the impact on our community structure and the knock-on effect this can have on our limited services such as the half-form entry primary school and pub. In 2013 I

helped establish a Community Land Trust to meet that need, delivering eight affordable homes for people with connections to the village. Through this work though, it proved that there are many issues impacting on every community, especially the 'hidden needs' and the real level of our housing crisis. Having been advised there were ten households in need, we were swamped with 27 applications for the homes all bar one being a qualifying applicant. We also became aware of the problems caused by the increased costs of running a home and the serious issue of fuel poverty in rural villages run on oil.

Not only is the oil market extremely volatile but also residents need to buy tank loads at a time, the oil being delivered in large tankers which further adds to our collective carbon footprint and cause chaos in our narrow streets, especially on bin day. Home buyers too are now also hesitant in buying homes in our village and most young people looking to move out of Cambridge look totally

bemused at the concept of a lorry delivering your fuel, again impacting directly on our community structure and aging population.

Together with Cambridgeshire County Council, the CLT have created a project which has secured funding to take small steps towards developing the UK's first rural community heating scheme, which aims to take the whole village of Swaffham Prior off oil onto a renewable ground source heat system. It also has the added benefit of reducing our village footprint by around 70% and removing huge 'not Albert' oil tanks from our gardens. The vision for this project is that it becomes a road map for other oil-tied villages across the UK to follow, reducing rural fuel poverty and improving sustainability across the country. However before anyone says that this is ground breaking it really isn't – our European neighbours in countries such as Denmark and Germany have been working on these systems for over 30 years. We really are seriously behind the curve on this.

Together with co-CULS member Sam Davies we have been developing the concept of a new forest to become an urban lung for Cambridge - in off-setting carbon use by businesses based in Cambridge, by creating much needed carbon capture for the city itself and a new large public access area for future generations to enjoy. We are about to go for our second stage of funding from the Forestry Commission with every intention that the first 350 acres of 'Beacon Forest' will become reality in the next few years.

As Land Economists, as communities, as land or homeowners we need to all take on a more conscientious and holistic approach, looking beyond the basic requirements of planning and the current needs of society. We need to be responsible for curating change (from the very big to the very small) which has vision for the future, space for people and provides the quality of life and FUN for all.



Blurred Boundaries in Real Estate Investment:

The "institutionalisation" of the alternatives sectors

The changing landscape

Rewind 10 years and the institutional investment market was happily focused on offices, retail and industrial – with a little leisure thrown in for the adventurous. Commercial buildings with residential elements were often off-putting to traditional investors, and needed to be carefully ring-fenced so as not to "contaminate" the core asset.

Fast forward to 2019, and the property press is full of headlines hailing joint ventures in Build to Rent, large-scale capital being ploughed into affordable and



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shared ownership schemes, and an increasing appetite for healthcare and senior living investment. The student accommodation sector has reached the point of active trading of established schemes. Beds are no longer something to be feared – they are being embraced by the industry, with even the most traditional of players in the market considering a move into these "alternatives" sectors.

This sea-change, which started out as a slow swell, has been looming larger over the last couple of years. This is perhaps unsurprising when we zoom out and look at the investment market today as a whole. Investors are wary of retailer failure and the perceived uncertain future of older retail schemes. There is a limited flow of good office and industrial stock in the market due to wider economic factors (don't mention the "B-word"). At the same time, investment managers' pockets are full of cash which needs to be allocated - and they are accountable for producing returns.

Are the alternatives sectors becoming mainstream?

Realistically, it is still early days. Taking Build to Rent as an example, the US have a mature and highly-developed "multi-family" investment market. The UK's fledgling steps to emulate this success are building up a young investment market but with strong fundamentals. It is expected that one in four of us will be renters in 2021 according to a recent report from Knight Frank - Multihousing 2017 PRS Research. The Housing White Paper actively encouraged Build to Rent, with a focus on planning policy and affordable private rent. With the Government currently distracted by other matters, private investors are nevertheless entering this market in a big way. According to Savills' research in June 2019, investment in Build to Rent totalled £2.6bn 2018 of which £880m (roughly a third) was made up of institutions.

Similarly, in the senior living world, the fundamentals seem to speak for themselves. Knight Frank's Retirement Living Insight in 2018 reports that the number of over-65s in the UK is forecast to increase by 20% to 12m by 2027, and predicted that 3m retirement living properties would need to be built to accommodate those that would be likely to consider downsizing.

It's always useful to ask the question "if it's such a good idea, why isn't everyone doing it"? Many institutions need others to pave the way into new sectors and create track record before they can justify piling vast capital into less mature real estate sectors. There are however a large number of heavyweights who have embraced these "alternatives" sectors with gusto, holding the doors open for more conservative investors to follow.

There is also a perceived "skills gap" amongst many investors who do not yet have the scale of personnel or experience to tackle a major

beds portfolio or fund. This is leading to exciting times in the world of joint ventures and partnering, with investors becoming more dynamic and



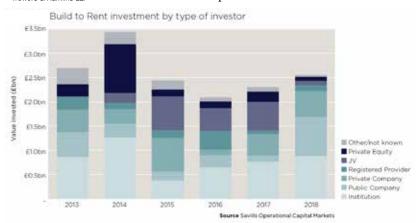
collaborative in their approach to investment and asset management.

What about reputational risk?

Leaving aside financial and market factors, one of the main things to remember is that dealing with beds for individuals carries a higher reputational risk than dealing with workplaces for corporates.

The care sector is an obvious example, where vulnerable people could be involved. Care is heavily regulated and issues can be headline-grabbing, so it's important to keep a close eye on day to day operations. A care home which falls under an embargo affects not only reputation but also income stream and exit strategy, so early and active monitoring is key.

The reputational factor does of course work both ways. We now live in a world where major institutions must demonstrate that they are leaders not just in business, but also in behaviour and conscience. Delivering accessible and affordable high-quality homes, to a population which sorely needs them, has great potential ESG benefits.



Community engagement

The winds of change have reached planning, with community engagement gradually morphing from a tick-box exercise into a crucial part of planning applications.

In order to address the growing need for more meaningful and positive community engagement, Give-My-View had a very clear mission from the offset. We needed to increase community engagement amongst those who had become disenfranchised by traditional consultation and ensure that going forward all demographics influence developments that impact their community.

If we were to achieve this, we had to address the two key issues that deter the silent majority from engaging: accessibility and a lack of trust that their input will have any discernible impact.

Prioritising accessibility

Community engagement can only be inclusive if it is accessible to everyone. Traditional planning consultations take place in person and often at times which are only convenient to a minority of the community. As such a wide range of demographics; including young professionals, working parents, minorities and shift workers, have neither the time nor inclination to engage this way.

Many community members do not have the luxury of attending events and when fluent English or the complexities of planning are not mastered subjects, the barrier to engagement is intimidatingly high.

A key step we took in making Give-My-View accessible was to create visually compelling content which breaks down planning jargon. The impenetrability of traditional consultation websites is a major barrier to engagement. It is no coincidence that the majority of people who've traditionally engaged have come from professional backgrounds in which reading complex documents was a daily feature of life. It can be easy; within the insular bubble of our industry, to presume everyone is as comfortable with such documents, forgetting that we have had extensive training that yielded this comfort.

Even for young professionals who are used to dense documents, few will take time out of their leisure hours to engage with lengthy, static content. Today, we have ever shortening attention spans and are accustomed to visually dynamic

digital experiences, whether it is through social media, digital games or consumer apps. In light of this societal change, our user interface is highly visual with text displayed in condensed, digestible pieces. Strict word limits ensure content is inviting, whilst animated, interactive functionality keeps users engaged. The opportunity to delve into the complex accompanying documentation is there, but content that is gamified and visually augmented always takes centre stage.

Giving communities the freedom to consult in their first language of choice is also a cornerstone of accessible engagement. Give-My View is available to clients in fourteen language; including Somali, Arabic and Urdu, as enabling communities to engage in their first language brings the diversity of viewpoints needed for inclusive development.

Building trust

It is not only accessibility issues that deter communities from engaging with built environment decision-making. Whether the consultation is part of a planning application in their local area or even change management within their place of work or residence, communities often question whether their input will have a meaningful impact, with this lack of trust understandably breeding apathy.

It's important to take communities on the development journey and clearly communicate the compromises and trade-offs that are inherent to successful development. By creating an interactive interface for doing this, we enable community members to feel part of this process, a sentiment that is hard to elicit when they see only the results of a process that happened behind closed doors.

Give-My-View enables local people to vote on aspects of a project, from the best use of the public realm space to the biggest concerns that need to be addressed. However, this voting alone isn't enough to empower communities. To give communities a sense of agency over decision-making, the resulting influenced decisions take centre stage on the platform. As the project evolves, development happens with them, not to them.

We've had a leading developer include affordable maker space and studios in their proposed PRS scheme as a direct result of the community wanting to see the local creative industry better supported. An overwhelming



Savannah de Savary Founder and CEO of

concern regarding air quality has seen a landowner explore innovations in bio-tech air filters. A local council has gained insight into exactly how they can regenerate an ailing market from the demographics whose patronage would bring it back to life.

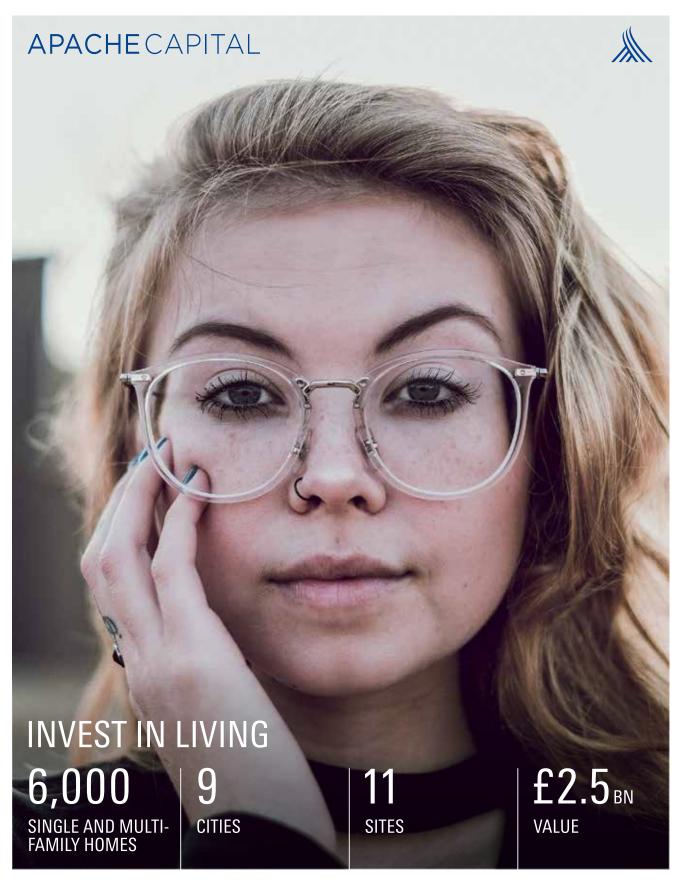
When a client which was a local council made a commitment to retain the supermarket on a major development site, they did so safe in the knowledge that it was a priority for thousands of people in the local community. In turn, the people of that local area saw in the council's commitment, evidence that their voices mattered.

The influence of the community on such decisions not only creates a sense of positive emotional investment for local people, it creates better places that serve the communities they sit within. It is these symbiotic benefits that underpins Give-My-View's value.

It's not just through the prominence of the influenced decisions that we empower communities to feel their engagement will result in positive action. Another way we earn our place within communities' precious leisure time is by ensuring that engagement yields a visible social impact within their local area. We do this by enabling consultation to be "gamified" in order to support local charities and engage demographics who are currently removed from the process.

Points earned by voting and sharing feedback on a scheme translate into money for a selection of local charities or initiatives. If a local community centre is gifted 60% of the community's points, they receive 60% of the funds set aside by the developer or council. Through this gamification, developers invest directly and immediately into the community itself.

By addressing the dual problems of accessibility and trust, Give-My-View generates unprecedented levels of feedback. The stage is set for community engagement that shapes our built environment for the better; however, our mission is only in its infancy and in an increasingly fractured world, the importance of hearing diverse opinions grows by the day.



TRACK RECORD IN STUDENT AND SENIOR LIVING WITH 2,000 BEDS AND A VALUE OF £475M APACHE CAPITAL IS A VERTICALLY-INTEGRATED INVESTOR, DEVELOPER AND OPERATOR OF LIVING REAL ESTATE OUR MISSION IS TO IMPROVE PEOPLE'S LIVES BY USING INSTITUTIONAL CAPITAL TO CREATE BEAUTIFUL HOMES AND SUSTAINABLE COMMUNITIES APACHECAPITAL.CO.UK

Safe as houses: residential property as an emerging defensive asset class

While offices and retail are highly sensitive to market cycles and vulnerable to technological change, residential real estate is proving increasing popular with institutional investors seeking defensive investments that generate long-term, steady income streams writes Richard Jackson, co-founder and managing director of Apache Capital Partners.

or years, people's housing journeys remained largely unchanged and broadly familiar: after leaving your family home, you would spend a few years living in a dingy HMO, maybe university halls if you were lucky or smart enough to go, before scraping together enough money together to buy a home and settle down.

The idea of spending most, if not all, your life renting seemed absurd. Yet that is precisely the future millions of Brits face going forwards, and the housing market is changing profoundly as a result.

The stats speak for themselves. Between 2007 and 2016, homeownership rates fell from 73.3% to 63.4% according to Bloomberg Economics, meaning the UK now has lower levels of owner-occupation than France.

The decline in homeownership has been matched by a boom in private renting: the number of households in the private rented sector increased from 2.8 in 2007 million to 4.5 million in 2017 says the Office for National Statistics. Almost 5.8 million households – a quarter of all households – will privately rent by end of 2021.

Ask the politicians or media what is behind this dramatic growth in renting, and they will often point to high house prices.

No one can deny housing affordability has worsened, especially in the last decade, even if the under-supply of housing has been an issue for longer. Yet as with other types of housing in the UK, there is a major shortfall not just in the quantity but the quality of rental homes too.

One in four PRS homes fail to meet the Decent Homes Standard according to the English Housing Survey and the UK rental housing stock is some of the oldest in Europe. Over a third (35%) of English rental homes date back to before 1919, with the proportion even higher in Scotland and Wales.

Yet there has also been a broader cultural shift away ownership to what some are calling the experience economy. An analysis by McKinsey shows that personal spending on live events and experiences is growing four-times faster than on consumer goods. Why? Growing evidence shows that we innately value experiences more than owning objects.

Psychologically, events

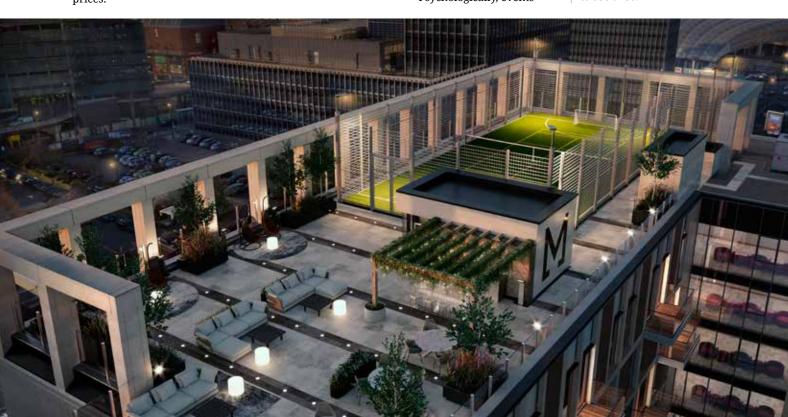


Richard M Jackson MRICS Managing Director Apache Capital Partners

have a more profound impact. We're more likely to anticipate an event positively and remember it more fondly and for longer afterwards. Experiences become part of our life story.

This move from materialism to experientialism is one of the greatest changes in our time, and cuts across all generations, not just millennials. This is transforming how we consume everything from music to food and films, but not yet housing.

Through investments across student accommodation, build-to-rent and later living housing, we are looking to create environments where our residents can share and shape these experiences and memories. We enable the emergence of urban communities within our buildings by providing spaces and services that allow people to socialise.



Our joint venture with Moda Living is delivering over 7,000 BTR homes in nine city centre locations across England and Scotland. We invest, develop and operate the assets with the intention of being long term owner-operators.

Our first building, Angel Gardens in Manchester, welcomes its first residents this October. By providing cutting-edge amenities and focusing on technology and service to improve the customer experience, we aim to keep our customers for the long-term, minimising costly void periods.

BTR isn't proving attractive just to consumers, however. The sector's promise of long-term, steady income streams with indexlinked returns to help match their liabilities is increasingly appealing to institutional investors. BTR also diversifies the risks held in a traditional balanced portfolio.

Despite Brexit, we expect to see investors increase their allocations to BTR as they seek defensive investments in an increasingly uncertain world. Rental demand is also counter-cyclical – people are more likely to rent than buy during a downturn – and residential rents tend to track wages rather than GDP.

The underperformance of traditional investments such as sovereign bonds, typically favoured by institutional investors, as well as mainstream property asset classes such as retail and offices, which are being upended by e-commerce and co-working respectively, is also driving interest in BTR.

As a result, pension funds and insurers are now returning to UK residential, having been banished in the 1970s after the introduction of rent controls. NFU Mutual, alongside Chicago investment house Harrison Street, have invested in our IV with Moda.

BTR is where purpose-built student accommodation was a decade ago, as rising student numbers led to increased demand that universities couldn't satisfy alone. Many of the attractive traits of BTR can be found in PBSA: long-term, steady income streams with counter-cyclical qualities, as people are more likely to study than venture out to work during a downturn.

Having a track record in both sectors, we see BTR following the



same trajectory as PBSA in terms of pricing, with higher capital values driving yield compression as investors get more comfortable with the sector. Our 458-bed PBSA scheme in east London sold to Greystar, Allianz and PSP for a record yield, underlining investor appetite for quality assets in central locations.

Right now, BTR is almost exclusively understood as clusters of rental apartments in major urban centres, echoing the much more mature US multifamily sector.

Yet we see huge opportunity for what the Americans call single-family housing: individual dwellings in rural or suburban locations. Households with children make up 35% of the private rented sector already and alongside over the age of 65 are one of the fastest growing segments of the market and they will need catering for.

The growth of BTR and rise of renting more generally also has huge implications for our emerging senior living sector, which like BTR is demographically and structurally supported thanks to our ageing population but the quality of existing stock is poor too.

As with other areas of housing, we expect a greater emphasis on experience, flexibility and community in Later Living. These three qualities will be the centre of our offering with Audley Villages, where we are delivering one of central London's first retirement living schemes.

The increasingly diverse and specialised nature of UK residential has big implications for housing delivery as well.

Whether it is BTR, PBSA or Later Living, as income-based models, investors will be focused on net operating income and that means reducing gross to net leakages. Improving the quality of build will be key to raising an asset's performance, so expect greater adoption of modern methods of construction in these sectors. In a net zero world, MMC will help real estate – one of the worst offenders when it comes to carbon emissions – meet its obligations.

Yet despite the immense change currently underway in UK residential, in many ways it has more defensive qualities than either traditional property investments such as retail or offices. You can't digitise a bed after all.





Co-Living and Micro-Living: Small Dwellings Are The Next Big Thing



Harry Lewis Analyst Eastdil Secured

he residential sector across Europe has witnessed rapid evolution in recent years, with multi-family and student accommodation emerging as attractive institutional asset classes. Eastdil Secured has been at the forefront of connecting global capital to what is colloquially termed the "beds" sector, exemplified by the recapitalisation of PSP and Greystar's £1.5 billion Chapter Student Accommodation platform by Allianz. Despite the operationally intensive nature of such beds assets, yields have compressed. Prime yields in London's private rented sector (PRS) stand between 3.25% and 3.75%, while student accommodation yields in the capital are currently 4.00% to 4.50%.

For investors seeking a nascent subsector which benefits from a less saturated investment market and compelling fundamentals, co-living and micro-living may prove attractive options. These innovative residential concepts aim to provide an affordable, all-inclusive and flexible solution to city living, trading off personal space for high-quality amenities. According to the British Property Federation, micro living units typically range in size from 215 to 430 square feet and can be self-contained or benefit from shared facilities. Co-living properties have a stronger focus on shared amenities and units range in size between 130 and 215 square feet. In comparison, the average size of a studio apartment in London is approximately 500 square feet – indicating that co-living and micro living represent a materially smaller residential offering.

The strong demand drivers for such compact living options are best understood in the context of urbanisation. Mass urban migration is a persistent global trend with the European

Commission estimating that the world's urban population will nearly double in size in the coming decades, from 4.2 billion people in 2018 to over 8 billion in 2050. A large urban wage premium, heightened access to jobs, and the strong amenity offering of urban locations drive the demand for housing in cities. Land constraints, pressure on rents and the challenge of urban sprawl, which shifts the boundaries of cities - increasing travel times and inhibiting improvements in urban sustainability – must be addressed with forward-thinking housing solutions. The inherent densification of beds within co-living and micro-living buildings indicates that they could provide a strong solution to the challenges facing cities. Consequently, they will likely become an increasingly common feature of the urban landscape.

Growing urban populations are increasingly dominated by millennials, who are expected to comprise a 35% of the global workforce by 2020 - a higher proportion than any other generation. A recent YouGov survey of millennials found that 52% of the age group desire more community activities in their area, while 20% believe that cities offer a superior sense of community. A lack of community heightens the propensity for loneliness, which is increasingly becoming a problem in cities. 52% of London's population reported feeling lonely in a 2013 ComRes survey. And younger generations, often the newest entrants to cities, are disproportionately impacted by loneliness, with Cigna finding that 18-22 year olds are the loneliest age group. Co-living and micro living offerings directly combat this growing issue, often characterised by a significant proportion of space being dedicated to shared facilities and amenities. The Collective, one of the world's largest developers, owners and operators of co-living properties with over 1,600 operational beds, places a strong focus on community; events are frequently planned for members and their proprietary technology includes an app to help the community connect. The focus on utilising communal space and technology to connect residents emphasises that the co-living and micro living sectors represent a favourable residential choice for such age groups seeking to avoid the loneliness crisis in cities and benefit from strong community ties.

As a new generation of adults come to dominate cities, demographic shifts alter the demand for space. The EU witnessed a 19.1% increase in in the number of single person households between 2009 and 2018. The Organisation for Economic Co-operation and

Example of Co-Living Room: The Collective Canary Wharf



Development (OECD) expect such growth to continue: their forecast for Germany between 2007 and 2025 stands at 17%; the United Kingdom between 2006 and 2031 stands at 60%; and France between 2005 and 2030 stands at 75%. This trend is accelerated by the significant increase in the average age of first marriage in countries across Europe. In the United Kingdom, for example, the average age of first marriage for males has risen from 25.3 in 1980 to 32.1 in 2010. The proliferation of single person households and the trend towards marriage occurring at a later stage in life is conducive to the continued growth of sectors focused on compact living.

Agent and Cleaning Fees

Furniture

Utilities, Taxes and Internet
Connection

Unfurnished Apartment, excluding:
Extensive Common Areas
Resident Amenities

Furnished Apartment, Including:
Utilities, Taxes and Internet
Connection
Utilities, Taxes and Internet
Connection
Itilities Fucilities
Flenses Facilities
Flexible Work Space
Restaurants and Bars
Library
Cinema Room
Curated Programs and Events
Events and Games Rooms

Modern Co-Living

What's more, the volume of beds within compact living properties allows landlords to charge a lower monthly rent, whilst achieving a higher income on a per square foot basis. This ensures that co-living and micro living units provide an affordable rental option for residents whilst maintaining attractive returns for investors. Affordability is a pertinent issue across Europe as the prevalence of renting over homeownership continues to grow. In the United Kingdom, the proportion of renters increased from 28.6% to 36.6% of the population between 2006 and 2016 and, in the same time period, Irish renters increased from 22.0% of the population to 30.5%. With surging demand, rental growth has ensued with five European cities - Lisbon (20.9%), Madrid (11.1%), Dublin (7.8%), Barcelona (7.7%) and London (6.1%) – ranking in the top ten cities globally for residential rental growth. Due to their size, co-living and micro living units command a cheaper monthly rent than traditional apartments, easing the pressure of rapid rental growth. Moreover, such properties often provide "all-inclusive" packages, with wifi and utilities included in the fixed monthly rent. Transparency of living expenses, the convenience of a single monthly bill and competitive prices, made possible through economies of scale, further enhance the attractiveness of the units.

Along with affordability, tenants and landlords alike benefit from flexibility in the co-living and micro living sectors. Unit sizes and the efficient use of space allow for various tenancy types, ranging from short-stays, charged at a nightly rate, to 12-month leases. This attracts a growing pool of tenants who comprise transient populations across

global cities. A recent Deloitte survey found that only 28% of millennials seek to stay in their job beyond five years. A reduced sense of loyalty to the workplace coupled with the hyper-mobility of labour means people are increasingly likely to both migrate to new cities for jobs and move more frequently. This has established a burgeoning market for flexibility of tenure and also further highlights the need for a residential offering that helps residents, particularly those who are new to a city and have a limited social network, foster relationships with each other. Such flexibility of tenure is beneficial to co-living operators who are able to employ shrewd yield management to maximise income. Moreover, the mobility of tenants aids the international dissemination of brand recognition, which improves the scalability of compact living platforms. This is exemplified by the global expansion plans of several platforms including The Collective and Medici's Quarters brand. The Collective are expanding into Germany and the U.S., and Quarters are seeking to grow into various European markets including Austria, Switzerland and Spain.

But despite strong fundamentals driving the growth of co-living and micro living, it may be difficult to believe that the investment market will start to flourish in the near future. The nascence of the sectors and inherent operational intensity of the assets may deter institutional capital from making a bet on compact living. However, with investors becoming increasingly entrepreneurial in the well-documented search for yield and a broadening data set of evidence surrounding the operational strength of assets in the sector, such concerns may be allayed.

One such asset that encompasses the enticing potential of co-living along

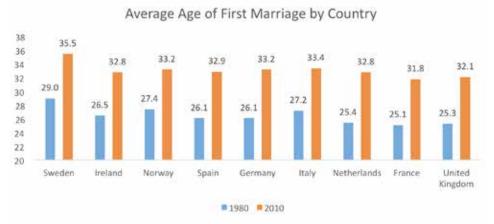


Figure 1 Source: United Nations Economic Commission for Europe, Statistical Data Base

with the institutional appetite for the sector is The Collective Old Oak in West London. The asset opened in May 2016 and comprises 547 co-living units, occupied by a community of members ranging from 18 to over 50 years of age. Residents benefit from high-quality rooms and a plethora of communal amenities including spa, gym, event spaces, cinema, library, co-working space that transitions into a nightclub and a ground-floor restaurant that is open to the general public. The Collective has achieved a significant rental premium on a per square foot basis whilst maintaining a best-in-class, service-oriented offering, at an affordable all-inclusive monthly rate. Within six months of opening, occupancy at Old Oak reached an outstanding 97% and has since increased and been maintained at a level of circa 99%. The operational strength of the asset was realised in the October 2018 recapitalisation and management buyout by The Collective. Following the success of Old Oak, two new assets will be opened in 2019: The Collective Canary Wharf, a 705 unit co-living property, and The Collective Paper Factory, a 125 room short-stay offering in New York.

Looking beyond co-living and microliving also provides affirmative evidence that institutional real estate investors are increasingly willing to take an entrepreneurial view in search of yield. In a 2018 JLL survey, investors indicated that they are seeking to increase their allocation to alternatives from 28% to 34% by 2020 – representing £10 billion of investment across two years. Eastdil Secured has advised on a large number of transactions in non-traditional sectors including arranging the acquisition financing of a more than 800 bed care home portfolio on behalf of Elevation Capital; advising for the acquisition and development financing of an over 950 bed care home portfolio for Fremont Realty Capital; the sale of SACO, a £440 million serviced apartment portfolio acquired by Brookfield from Oaktree Capital; and the sale of Center Parcs Europe on behalf of Blackstone worth over €1 billion. Along with SACO and Center Parcs, transactions in the wider beds sector emphasise the willingness of institutional capital to invest in less mature concepts for example, Grab, backed by Temasek, invested \$100 million into the Indian budget hotel platform OYO and Queensgate Investment acquired Generator Hostels from Patron Capital for €450 million.

Robust fundamentals, proven operating track-records and an insatiable appetite for alternative investments from institutional capital means that small units could truly be the next big thing.





The Collective Old Oak

Gamechanger: How the first offsite construction accreditation could be about to send modular mainstream



Joseph Daniels Chief Executive, Project Etopia

very industry gets swept up in a moment of substantial change or transformation at some point, when a new idea takes hold and revolutionises how things have been done for years.

In the property world, modular construction is about to have its moment. It is not so much a new idea — the concept dates back to the turn of the 20th century and was, of course, used extensively after World War Two. What has altered its prospects in recent years is the technology in play that is helping offsite construction leap from the drawing board to implementation on a scale not seen before.

There are a number of planets aligning that make this turning point for the industry possible.

For starters, negative perceptions of modular methods have disappeared. Consumers, housing associations, architects and those working in the construction industry don't cling to any of the old clichés that originated with the basic prefabs of the postwar years any more. Part of the reason for this is that homes using offsite construction techniques are now popping up everywhere in large enough numbers. Most of them wouldn't look out of place on any housing development and that's certainly true of the houses we are just in the process of completing at Etopia Corby, our development at Priors Hall Park in Corby, Northamptonshire (pictured).

These are high quality homes that use a raft of environmentally friendly tools to reduce their carbon footprint. Our 47 homes are all equipped to produce their own energy, coupled with an earth energy bank/GeoStore system, which stores heat energy while batteries store electricity. This means residents enjoy little or no energy bills.

The scheme embraces the CHESS SETUP (Combined Heat Supply System by using Solar Energy and Heat Pumps). This is a Horizon 2020 programme which aims to implement a reliable and efficient heating system that can supply buildings via renewable energy sources.

All of this meant Etopia Corby was chosen as one of five Building for 2050 research projects funded by the Department for Business, Energy & Industrial Strategy (BEIS) and is a model of how villages of the future can be developed more quickly and more affordably.

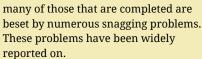
Modern Methods of Construction (MMC), as they are known, couldn't be more necessary. The Government plans to build 300,000 homes a year by the mid-2020s, yet the most recent annual net gain in homes was calculated to be 222,190. There is a long way to go.

What those figures demonstrate is that, even with initiatives such as the Help to Buy scheme, the house building status quo is still unable to produce enough new stock to make inroads on housing shortages. Frustratingly, not only are there too few homes being built,









However, consumers don't want poor quality homes, at any price.

We unveiled our first completed Corby home in August (2019). The superstructures for the first four units were built in just 34 days, a clear demonstration of how rapidly modular homes can be constructed. Brick and mortar builds simply cannot match that rate of construction.

The standards are high too. The panels have been tested to the highest fire, wind and thermal standards, and have been shown to withstand winds in excess of 470mph. They have a thermal efficiency U-value of 0.13, which is superior to the 0.16 U-value for a typical well-insulated wall in a new build brick property. Most importantly, the panels' air tightness is markedly more effective at maintaining heat within the home than traditional build solutions, with an 18% improvement.

Companies are using different MMC systems at present. Our modular homes are built using a panelised system, whereby the panels are constructed in a factory and delivered to the site to be installed by hand.

This has advantages over other offsite methods which involve building complete rooms or buildings in factories and delivering already recognisable sections on the back of low loaders. By using a panelised system, designs are more easily scalable and adaptable to different plot sizes, and the loads





delivered to site are not as large.

Some housebuilders which deliver ready-built homes to site have to limit their size to a width of five metres to comply with road restrictions. This isn't ideal because the width of a road begins to dictate the size of a home. Our analysis shows a panelised system can increase the internal floor area by 15% on the same footprint as a brick build, depending on the design.

What has been gratifying from starting the marketing on Project Etopia's Corby development is that potential buyers have remarked upon how the completed home looks and feels no different to any other house they have been in. This is not a criticism — instead it shows how modular homes stand up against traditional methods. It is simply a different method of building, not a different way of living.

No-one can really tell the difference and that's apparent from the Etopia Corby site, where our homes fit into a much wider jigsaw of new build developments.

When any disrupter enters a market, people will wonder if it is a fad, or somehow doomed to failure. Yet all the signs point to modular construction becoming the go-to method if there is any hope of solving the housing crisis in the coming years.

Social housing numbers have fallen from 126,000 new builds a year in 1980 to 6,463 in 2018. The private sector built more homes in 1959 that it did in 2017.

The Government has thankfully started recognising the potential of MMC to inject speed and growth into the housing sector.





In what was a ringing endorsement, the Ministry of Housing, Communities and Local Government's (MHCLG) report in June said it will not be possible to reach 300,000 net additions by the mid-2020s unless modern methods of construction (MMC) are used on significant scale alongside traditional building methods.

There are, of course, some hurdles. Accessing development finance can be complicated because not all lenders have familiarised themselves with modular housing yet. They are not always aware of the new technologies that ensure modular homes meet — and often surpass — building regulations.

And that question of construction standards, itself, can be difficult to answer, because the industry does not yet have a set of official benchmarks.

This will be changing, as BRE, the world's leading building research centre, is in the process of developing the first ever accreditation for modular homes standards. Project Etopia began building a demonstration home at BRE in early September 2019 designed to satisfy the new standard.

The accreditation by BRE Global, called BPS 7014, has been developed to meet the performance standards required by the likes of BEIS, UK Finance, and Local Authority Building Control. It will be one of the most important innovations in the offsite construction industry for decades and will go a long way to reassuring upstream funders and lenders that MMC solutions will stand the test of time.

This will only be a good thing for the millions of people currently locked out of the housing market.



elf-storage is a niche real estate sector that rents storage units to individuals (approximately 75%) and business customers (approximately 25%). Individuals usually use self-storage during a house move or renovation to store personal belongings, household goods or furniture, while businesses usually store excess inventory, equipment or archives.

Shurgard Self-Storage* is certainly one player leading the charge in this sector, which is increasing in profile as part of the real estate mix.

Demand is expected to continue to grow for residential, as well as business customers, due to societal factors such as increased urbanization and the related decrease in housing space, increased population mobility and the growth of new online retailers, as well as the increased awareness of self-storage.

Understanding people is key to the business

Marc Oursin, Chief Executive Officer of Shurgard Self-Storage*, explains: "We support people through the most significant moments in their life. We take pride in the service we offer and our staff are committed to helping their customers – often at times of big life changes."

"Most of our customers are aged between 25 and 70 years old and about to take that next big step in life, whether that be going to university, buying a first home, renovating, moving in together or losing a loved one. We know that when customers come to us, it can be at a moment of stress and strain, so it's essential that our people give them a good experience."

With 80% of Shurgard's customers being households, understanding people is key to the self-storage business. But it's not just in the face-to-face customer service that Marc Oursin highlights as key to growing Shurgard's market share.

This way of thinking has also led to the development of their technology. In the digital age, the share of their website traffic using smartphone technology has risen from 15% to 60% over the last five years. "We have incorporated a fully integrated automated pricing system in our online platforms, and greater investment in smartphone technology is a key focus for us."

"The world is different than it was ten years ago and how we can meet and talk to existing customers and new prospects on social media has opened up a whole new world of opportunity", Oursin explains. "At the same time customers can still ask for information or book a storage unit simply by phone or by paying a visit to one of our manned properties."

Self-storage potential in europe

The collaboration with the American international self-storage company Public Storage is very positive. "The way customers behave in the US and Europe is similar, but that does not mean

the European self-storage market can be as big as it is in the United States. We are still

playing catch up, and there are challenges in Europe that the US doesn't face."

One of these is that the European self-storage sector was slow to get going, beginning 30 years after the US. Today there are just 2,500 centres in total, compared to more than 55,000 self-storage centres in the US.

Oursin explains why: "In the US, because it's a much more developed market, you have a much larger existing inflow of money coming from external investors. In Europe, investors are only just seeing the opportunity in this market."

The second challenge is the speed of development in Europe. "Unlike in the US, Europe has thousands of years of historic buildings in the cities where the demand for storage space is often at its highest. The complexities associated with building in these historic cities means development takes a much longer time."

"At present, we are the market leader in Paris with 36 centres, and we want this to continue. In the UK, the opportunity in London and the Thames Valley continues, where we hope to add another 10 to 15 facilities in this region. We are continuing to grow in Germany too."

Shurgard strategy for growing

However, as with all development in the real estate industry, expansion takes time and the need to understand a country's laws, languages and people is vital before taking that next step. "We are looking at how we can grow our self-storage footprint, but it is not the only way we can grow."

To tackle these challenges, Shurgard has outlined a three-pillar growth structure to ensure they become the front runner in the sector. Firstly, optimizing their current buildings, making them more efficient and delivering more effective tools for their customers. The second is about finding new opportunities for building new storage facilities in its existing markets across Europe. And finally, looking at targeted bolt-ons and acquisitions.

Through these three pillars, Oursin sees Shurgard as a flexible, forward-thinking organisation with the opportunity to adapt their growth strategy to fit any European country. "Pragmatism is the driving force behind our strategy for growth, adapting one of our three core pillars to suit one of the seven countries we are in. We see it as 21 opportunities for growth – three growth strategies across seven markets – which is a pretty compelling prospect."

* Shurgard is the largest developer, owner and operator of self-storage facilities with 231 self-storage centers and approximately 1.2 net rentable square meters in 7 European countries: the Netherlands, France, Sweden, the United Kingdom, Belgium, Germany and Denmark.

The PHP STORY



Managing Director Nexus Tradeco Limited





A paradigm shift from this . . .



hen PHP (Primary Health Properties) entered the FTSE250 back in 2018 I was thrilled to see the company that I had founded, and still externally manage through Nexus, come of age. Following our merger with Medicx which completed in March we are now in the top half of the FTSE and we now provide accommodation to doctors who have registered about 7.5% of the British population and we have 15 centres in Ireland.

When I look back over the last 25 years at the genesis of the business, it was founded on an insight that I had in the early 1990s that there is often a difference between the counterparty risk and the ultimate payer of the lease rental on a property. When I first discovered that GPs, who are in the main independent contractors in the UK and account for 70% of the tenancy income of PHP, had their rent paid for them by way of reimbursement by the NHS I was sceptical that it was true. I checked it out and it was. I then took another insight that my corporate experience had provided for me that investors, even way back then, had a strong yearning for high quality income. If I could assemble a portfolio of primary care property, leverage it with a sensible level of debt, there should then be enough margin to pay a sensible management fee and pay a sensible dividend (in those days 6%) to investors. To cut a long story short, that is what I did.

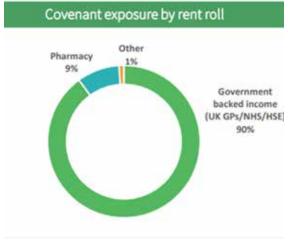
There were a lot of twists and turns along the way

and frankly we were lucky in a number of ways. Sometimes you make your own luck but we all need the benefit of some serendipity along the way. I have also had the backing of a large number of people, many of whom are now friends, who helped me deliver the potential of Primary Health Properties. These rank from stockbrokers to bankers and fellow directors of PHP, my team at Nexus, and those in the NHS who share my vision for investment in primary

We recently completed the all share merger with Medicx, one of our quoted competitors. The enlarged PHP has a property portfolio of £2.35bn and a market capitalisation of £1.5bn. We own 485 assets in the UK and Ireland and we are scheduled to purchase a further £150m of assets in the UK and Ireland over the next twelve months or so. We have a 23 year unbroken record of paying an increasing dividend. If you had invested 25p in the shares at launch in 1996 that would have become a share worth £1.29 and you would have had 80p of dividends a total annual return of some 10% per annum. This is a record that I am particularly proud of.

Of course, primary care is playing an increasingly important role in healthcare systems throughout the world. This is particularly true in the western economies which are facing demographic pressure caused by population growth, increases in longevity, and a greater incidence of chronic diseases like type











....to this.

2 diabetes and obesity. In combination, these put a strain on any healthcare system's ability to cope and of course pay for. The NHS being free at the point of delivery is very much the national religion of the UK with strong cross-party support for it. Moving care out of expensive inflexible hospitals into more locally accessible modern primary accommodation is high on the agenda of both the UK and Ireland governments. We estimate that there is a demand for some £4bn of investment in the UK and €1bn in Ireland. Government itself will have a role to play in this as will the owner occupied market, however, we at PHP stand poised to play our role in the modernisation of the essential infrastructure of the NHS.

This changed role for primary care has been very pronounced. When I first remember going to see a GP at the age of maybe 3 to get the Salk vaccine I sat in the GPs front room of his house. Today this method of delivering care out of the doctor's home is destined to become a thing of the past.

In property terms our sector is very attractive. The lack of alternative use is compensated for by very long leases and government reimbursement. We invest in the medical centres of the future with the average value of each of our primary care centres being around £5m and around 12,500 sq. ft. with our larger assets being £30m and 80,000 sq. ft.! The longevity of the buildings is also very interesting, with our portfolio being 99% let. And with an unexpired lease term on

average of around 13 years, these are assets that can take a sensible level of leverage say 50% with ease.

Highlights of our journey include my first meeting with early backer Christopher Mills in the days J O Hambro, the flotation of the business to AIM in 1996 when we raised £16m in equity, and a £4m of loan stock from RBS. Graduating to the main market, which you had to do to qualify for PEPSs (now ISAs) in 1998, converting to being a REIT in the first wave of conversions in January 2007, and surviving the Global Financial Crisis when our banking partners had problems, ended up being problems for us which we navigated together. Recent highlight have included buying the Prime portfolio in 2013 and most recently merging with Medicx, a deal that I have been monitoring for at least 10 years. On the financial side, we were the first quoted property company to complete a retail bond accessing unsecured money in 2012, and we have just completed our second convertible bond raising £150m on a six year unsecured basis at a coupon of under 3%.

It has certainly been an amazing journey and of course I am grateful to all our advisers and stakeholders who have helped us achieve what we have achieved, to the team at Nexus and to the NHS. And we are only part way there! Onwards and upwards or as they say in Opera, "Avanti"!



GOING GLOBAL – Reflections on 10 years in the UK

It is a privilege to be asked to contribute to the first issue of the CULS Magazine during my friend Ian Marcus's tenure as CULS President. Ian was one of the first people I met when arriving in the UK in 2008. Ian has asked me to share some of my experiences since then, both in terms of living and working in the London property industry and Oxford Properties' strategy - past, present and future (and he said it was ok to make it fun, so here goes...).

et me start with a piece of advice - when your CEO invites you to lunch on a Friday afternoon in a private room at a fancy members club and says, "we need our own guy in London" - be careful! That fateful day was the beginning of a journey that started with my arrival in London 1 September 2008 to open the Oxford Properties office as the first ever employee of our company to work outside of Canada. Little did I know what was to come only several weeks later with Lehman Brothers filing for bankruptcy, which turned out to kick off the financial crisis that was to affect all of us in ways no one could have imagined for years to come – that is up until the current Brexit mess that we find ourselves in, but let me come back to that. I guess the expression "what doesn't kill you makes you stronger" rang true and so we set out to turn the adversity that I arrived to into opportunity.

So why does a successful 50-year-old Canadian property company owned by OMERS, one of the largest pension funds in the land, send one of their most senior executives half way around the world to London to set up a business during a financial crisis when everything at home was ticking along quite nicely? The answer is simple - Canada is a small country (c. 3% of global GDP) and OMERS is a large capital source (c. \$C 100 billion) and we need to generate investment returns ("make money and pay pensions"), that at our scale and need for diversification, was no longer possible to achieve by investing only in our home market.

Starting in the UK was a logical first step for Oxford. There is a popular misperception that Canadians are more like Americans than Brits. My pretty much daily experience travelling in a London black cab did however very quickly confirm that was not to be the case. It usually goes something like this - "where are you from in the States mate?" or "what do you think of your president?" - neither of which I react very well to and usually say something like "he is not my President but she is our Queen too" - this 100% of the time results in an apology along the lines of "so sorry - you must be Canadian – we love you guys!". Friends used to tell me that when they would travel through Europe as university students that they would have a Canadian flag on their backpack and it would immediately change the welcome they received. Guess I must have listened to them because ever since I arrived although I felt it was critical to integrate into the London property community, I have celebrated being Canadian and it seemed to work (probably didn't hurt to have \$C 100 billion balance sheet in the early days after the GFC too...). On the flip side, I think it would have been a big mistake to impose views about how Oxford Properties does things in Canada versus the way things are done here so I decided to adopt a "listen, learn and adapt" approach. Given that I am only one generation away from living in a council flat and that all my ancestors are from the UK and Europe, (in fact everyone in Canada is from somewhere else), this seemed like a good way to show appreciation for this new place that I was about to make my home.

Seven years later, when I had the opportunity to become BPF President (I will come back to that), and speak to the next generation leaders of our industry through the BPF Futures program



Paul Brundage FRICS
Executive Vice President Senior Managing Director — Europe & Asia Pacific, Oxford Properties
Past President British Property Federation
Member Henley Business School Strategy Board
BA (University of Toronto), MA (State University of New
York), Diploma Urban Land Economics (University of British

and Pathways to Property at Reading University, the "kids" of today looked at me in disbelief that Oxford Europe started the way described above only a little over 10 years ago. I am always asked for advice on building a career and what has led to my success over 30 years. The following are 5 things I often share under the caption "things they don't necessarily teach you in a graduate Urban Land Economics program...!":

- · Be curious
- Always put your hand up to do the task regardless of what it is
- · Work harder than everyone else
- Relentlessly pursue winning
- Be humble

Let me share some of the highlights from the last 10 years:

- Meeting her Majesty, the Prince of Wales, and other members of the Royal Family on several occasions (my mother would be very happy)
- Meeting 4 British Prime Ministers (Blair, Cameron, May and Johnson – well at least 1 out of 4 was a highlight...)
- Becoming a British Citizen (at least up until 3 years ago when someone changed the rules...?)
- Becoming the first ever non-British
 President of the BPF (very proud of the
 push for Diversity we achieved / less
 so about getting government to pay
 attention to the perils of Brexit!)
- Sponsoring and actively participating in Pathways to Property at Reading University
- Establishing the Oxford Properties team (Ian introduced me to my new favorite sport of rugby where everyone passes the ball and everyone plays both ways and you go for a pint with the opposing team after the

- match love it as a parallel to how to build a property business!)
- Working with the best partners and advisors in the business
- Completing more than £10 billion of transactions generating a return >20% with notable deals including: The Leadenhall Building, Green Park Reading, London office JV's Paternoster Square, Mid-City Place and Blue Fin, where Oxford is the lead local partner, first investments in Paris and Berlin and entry into APAC with \$A 4.5billion privatisation of IOF last year (and beating Blackstone in the process!).

So, beyond some of my fun comments above, what do I truly believe has been at the root of Oxford's success over the last 10 years. It all starts with having a plan! Our plan for Oxford Europe had 5 components:

- · Macro thesis
- Meet internal cost of capital >10%
- · Lever Oxford global business
- Balance focus with a broad enough "investible universe"
- · Do-ability

Against this plan we led with London office developments. London was the #1 global gateway city at the time and we saw the urbanisation trend only continuing. Due to the GFC there was a pause in development and subsequent shortage which we could capitalise upon. Office occupiers wanted new well located functional space which we developed and levered our global occupier relationships to support great local partnerships and projects. We also stuck to a long-term hold quality asset mindset and stayed away from secondary stock in secondary markets this has served us well. The macro thesis of the impact e-commerce was about to have on traditional retail (also borne out by the number of Amazon packages that started arriving at my home with stuff for my kids) kept us away from commodity like shopping center investments choosing instead to focus on ancillary retail in our core office projects and key luxury streets (The Royal Exchange, New Bond, Regent Street St James and Rue Saint Honore Paris) - this has served us very well! Probably the most dramatic shift in Oxford's global strategy has been our recent capital re-allocation away from offices and shopping centers and into logistics and

multi-family residential in N. America and Europe – "Sheds and Beds". In 2018 we made significant investments in the UK in both sectors through our partnerships with GLP in the Gazeley logistics development portfolio and establishment of our Delancey Oxford BTR venture "DOOR" within the already established Get Living platform. Our current strategic plan sees those asset classes potential representing up to 40% of our global AUM in the next 5 years – I hope we are right...?

So, what is next?

50% of global GDP will be coming out of the APAC region by 2030. India is adding 1 million people per month or 12 million per annum to its workforce and over ½ of these people have university degrees! When we started this last strategic planning exercise I had to beg our Canadian team to put a 5% slice in the pie chart for APAC just as holding place for potential future investments. With the IOF acquisition in Australia referred to earlier, we immediately jumped to above 10% last year and with the noncore sales completed to date we are back to between 5 and 10%. The new target slice in the pie is now 20% for APAC and at time of writing of this article I am about to head to airport to make my 4th trip to the region this year which brings total trips to nearly 20 over the last 3 years (Star Alliance sent me a model airplane recently congratulating me on having flown 1 million miles with them) – I am way too old for this but it is hard to not get really excited by the statistics I refer to above and our early success in the region.

All this leaves is to talk about my least favorite topic – Brexit... If someone had told me when arriving in London 10 years ago, establishing the Oxford business, becoming a UK citizen and falling in love with my new adopted home that we would be staring down the potential catastrophe of a no-deal departure from the EU on Halloween 2019 I would have said you were nuts! During my tenure as BPF president I wrote a regular column in Property Week and spoke to anyone who would listen about the impact I believe this would have for a very long time. I will spare readers of this article a replay of what sometimes came across as a rant but I am a true believer that one must be fully engaged in anything you

chose to do - the difference between engagement and job satisfaction is what you do when you are not satisfied! On any given day my emotions move from anger and frustration to sadness and despair. Unfortunately, during my tenure at the BPF, government officials were consumed with preparing for Brexit and not really interested in engaging in discussions about why we got here in the first place and how the property industry could be a key partner in bringing together the polarisation in the country. As an investor, Oxford began rebalancing our UK portfolio before the Brexit vote, partly because we viewed the market to be long in the cycle but also because of the concern that "Project fear" could become "Project reality"! Based on the last 3 years it feels to me that it is very clear that the uncertainty we are facing has had a significant impact on the country, economic growth and our industry. Oxford sold over £2 billion of UK assets within a year either side of the vote and most of that capital has been reinvested in continental Europe (who would have believed that after the GFC...) and most recently in APAC. These decisions have served us well in meeting the investment objectives and strategy that I outlined above - shame that we could not have done that while continuing to grow the business here the way we did in the early days after I arrived. Fortunately, Oxford is now truly a global company with diverse teams of investment and real estate management professionals in offices around the world - although the world is extremely complex we are very lucky to have choices.

I learned a lot from the first 10 years in London and hopefully many of the approaches we used to build Oxford here will be helpful as we explore the exciting, vast and complex markets around the world in the next 10 years.

The diversity of life as a chartered surveyor

The vision of my future career at 16, when I had to choose what A levels I would sit, was hazy to say the least. The only subject I had any ability in was sport (and that was not a view shared by others who knew about such things), consequently, in desperation, the subjects of English, Economics and Geography were allocated to me.

had always found it difficult get to grips with my academic work. My enjoyment in sport would not give me a career but I did take readily to outdoor life and the action aspects of the school's Combined Cadet Force was where I found something that interested me. I was also fortunate that a Master took an interest in my dithering and gently encouraged me to look at a career in the RAF. At the tender age of 16 years and two weeks I secured my A&B gliding licence making me the youngest glider pilot in the UK at the time. For the next few years I found myself at RAF Halton every Sunday as a civilian giving flying lessons to the cadets out for a day's experience.

My A levels were something of a disappointment with English giving me up and a C & D grade on the other two insufficient to get me onto any University course. Then to the surprise of everyone I won an RAF flying scholarship following a 3-day selection at Biggin Hill. By the time I was 18 and a half I completed the scholarship and by working at a petrol filling station, 6 days a week on 12-hour shifts, I funded my private pilot's licence. The option of a 16-year service commission with the RAF looked like a real possibility and then I found myself with a choice when it was suggested I might try for a pilot's scholarship with BOAC.

However, I was troubled, because although on the surface it looked as if I had salvaged something from a below par school record, I began to realise, just in time that what appeared glamorous and the answer to my future was something of a mirage. It was unlikely I could adapt to the imposed discipline of the armed forces and I concluded that flying a bus around the sky in far off places reducing my ability to play sport would soon bore me. Suddenly I found myself back at square 1 without a clue what I could or should do as a career.

Again, I had some luck and spent an unforgettable 6 months with P&O

on their cruise liners in the purser's office, selling various excursions, entertainment packages and on occasions, dispensing sick bags on the northern hemisphere cruises. I was always dragged into the "end of cruise" ships company spectacular and enjoyed making people laugh as I always seemed to be cast as the fool. It made me realise I was more a people person and could sell when I believed in the product.

The idea of being stuck in an office feared me with dread; I wanted something that would challenge me and at the same time have the time to play Rugby, hockey and cricket, interspersed with squash and cycling as well as keeping up my flying hours. It was just then that my father, who had been patiently watching and waiting for me to make a realistic decision, stepped in and perhaps in desperation, suggested "chartered surveying". From that moment my life changed.

So off to Willesden College of Technology to study for 3.5 years on a course which allowed me to study for the RICS external exams and back to the job at the petrol filling station in the evenings to fund me as no grant was available and I even had to pay for the exams. I found the subjects challenging but interesting and even enjoyed the maths required for valuation. I soon realised that just maybe I had got it right, but the feeling was short-lived.

The problem is that you cannot do it all. I was at college during the day, working every evening at the petrol filling station, playing rugby and cricket at weekends, keeping my flying hours up and started up a mobile disco with a friend I had met at college in the hope it would help me find a girlfriend.

Disaster was of course just around the corner. Not realising how much more effort was required for professional examinations compared to A levels, I failed my RICS Part 1. The college was great and let me complete the diploma course over the next 3 years, but I had to



Professor Graham F. Chase Chase and Partners LLP FRICS FCIArb C.Arb FRSA FInstCPD

resit the RICS exams a year later which I passed but I was now a year behind everyone else.

The property market then suffered its first major crash in 1974 when the secondary banking sector failed, just as I was completing my course and wondering what lucky company would secure my services. Out of some 16 in my college year, only 4 of us secured a job in property and at least half of the cohort gave up and never went into the industry. I had several interviews but quickly realised there were hundreds applying for very few openings. Should I have stayed with my flying career? I was beginning to feel lost and helpless in a world where the doors were firmly shut.

Again, my father came to the rescue and noted a small advert by the BBC for a building surveyor. I applied but was advised there had been over 200 applications and the shortlist of 6 had been filled. I do not know what happened but the next day a letter arrived from the BBC advising I was on the shortlist and to present myself for an interview at No5 Portland Place. I only remember that everyone was very austere and posh, but I must have done something right because two days later I received another letter advising that they had created two positions and I had one of them.

I had a great 4 years at the BBC and although a bit of a square peg in a round hole as I was not a good building surveyor, I survived and learnt my craft as well as completing the RICS exams and the TPC as it was then (now APC).

I was 25, qualified, had met my future wife in the BBC Club and again began to bristle with expectation. Wrong again, the BBC was a wonderful organisation to be with but my profile as a statutory service trained surveyor did not impress the west end commercial agency market where I was desperate to go.

After several approaches to agents where I was soundly rebuffed, I managed to persuade Ladbrokes to employ me as a development and management surveyor. Within a few months I found myself running their SE property region. As a company they were commercial, canny and slick so soon knocked some real-world sense into me. After 18 months of hard-nosed exposure to the tricks of a business that knew how to trade, I applied to Clive Lewis & Partners as a shop agent.

Clive Lewis was the senior partner and I remember being overawed by this larger than life character sitting in an office that was bigger than my flat. As I settled into the chair, in front of a desk as large as a tennis court, Clive had the Financial Times and Sporting Life papers open and was studying them intently. At the same time, he was barking instructions to the broker at the other end of his squawk box phone, none of which made any sense to me. I never found out if he was buying shares or placing a bet on the 2:30 at Wincanton but the figures were not small - as I soon learnt, Clive was a player in every sense.

C&P had a reputation for working and playing hard with sport at the heart of Clive's employment strategy at that time. Had I drop-kicked the rugby ball into the wastepaper basket and caught the cricket ball at the same time, I suspect I might have been offered a partnership on day 1. I had found my niche, the work was fascinating, all about people, doing deals in the far corners of the UK, and sport a close fit with C&P winning the prestigious Estate Agents 7's on three occasions and the King & Co cricket competition too many times to recount.

My big break came when Clive Lewis told me to attend a meeting with him across the road with Land Securities PLC at that time the largest property company in the UK. I was a bit surprised to be shepherded into the boardroom where (Sir) Peter Hunt and several of his board members were present. Peter was a chain smoker and most of his board members smoked cigars. It was only 11:00am but within a few minutes I couldn't see anyone for the smoke.

I then found out what all this was about as Peter announced they wanted to invest £50 million in a new type of property known as retail warehousing and could we demonstrate how we would be best placed to assist. Clive immediately confirmed it was our bread and butter and that I was the expert in this sector. I had never been in a retail warehouse let alone an expert. After the meeting, with the instruction in our hands, I voiced my concern to Clive that I was not an expert. Clive looked at me in the eye and retorted "of course you are not but you will be in the next couple of months". He was of course right and over the next 10 years we put together a portfolio for Landsec of some £2 billion.

In 1993 Clive Lewis & Partners merged with Edward Erdman, which made me reassess my future. I decided this was the right time to start something new and formed my own agency Chase & Partners specialising in the retail and leisure property sectors. We grew to some 30 people and at our height turned over £5 million reflecting a strong retail and investment property market.

We were very fortunate in that we knew the market across the board in town centres and retail warehousing with leisure and food & beverage thrown in for good measure. We accumulated a client base that gave me a nosebleed every time I looked at it and often had to pinch myself that thing had worked out so well.

We were involved in the development and funding of some 20 shopping centres and numerous retail warehouse, supermarkets and leisure centres. This included the massive Middlebrook development at Bolton by the Emerson group which to this day is noted as the largest retail and leisure park in the UK.

We were retained on the O2 Centre in Finchley by Prestbury and created the first ever multi-level leisure centre working hard to dissuade the tremendously successful Nick Leslau that an American themed shopping centre was not the answer. He and Nigel Wray (of Saracens fame) were two of the best and friendliest businesspeople I have ever worked with. This has led to a long-standing relationship with Chase & Partners being one of the first corporate sponsors of Saracens when the game went professional in 1995. 25 years later and C&P are still sponsoring and in addition I now chair the exciting Saracens Multi Academy Trust with the first year of Saracens High School behind us, the junior school due to open next year and new buildings to follow in 2021.

Again, change was in the air and in 2006 we knew the writing was on the wall. In January of that year we first heard of something called the sub-prime mortgage market which subsequently led to the failure of Lehman Brothers and the near collapse of the western banking sector in September 2008. Nothing would be the same again although surprisingly the retail market showed some recovery from a fall of market rents by as much as 40% during the crises. London shrugged off the downturn with locations such as Oxford Street and Bond Street seeing rental levels grow by over 60% and yields fall below 2% - crazy times as the pound sterling tumbled and London became a centre of tourism and immigration fuelling a growing economy, on a scale never seen

As a specialist firm of retail and leisure agents I and my Partners knew the party was over and on 31st March 2015 the partnership was dissolved by mutual consent. I found myself with a new challenge in a much smaller vehicle of 3 staff and $\frac{1}{2}$ a dozen consultants. It was time to stop chasing the market and diversify away from retail and leisure.

With a stable of some 20 loyal clients I now let offices in central London, sort out problems on industrial estates, advise on failing retail and leisure centres as well focusing on new mixed-use town



centre regeneration projects. I have argued in all 25 annual C&P retail and leisure reports on the market that government policy in protecting retail and making it the priority in town centres is a flawed approach. Retail naturally comes last once people live, work and play in town centres. Statutory and community services should not be located out of town on a ring road junction but in the heart of a centre bringing people and customers to it. With this profile there is footfall and passing trade where consumers can pop into shops – simples.

In property downturns dispute resolution comes to the fore and the current market is no exception. I am very busy on appointments as an Independent Expert and Arbitrator where I sit on both these RICS Panels and at the Chartered Institute of Arbitrators, I qualified after some 10 years as one of only 600 Chartered Arbitrators, have a place on their panel. This has brought forward instructions on disputes in the areas of rent reviews, planning permission onerous conditions, profit shares, residual land values, partnership issues, Pubs Code referrals and service charges.

I have also found in challenging times, the requirement for expert witnesses increases. As a firm rule, I make sure I investigate the position before taking on a brief with the result that I only take on about 40% of those cases brought to me. It is worth remembering that when you are in the court's witness box the other side's legal team only see their job as destroying you and your evidence – not a pleasant experience so never take on something you do not believe in.

Alongside this satisfying and diverse career, I have been fortunate to lead my profession as President of the RICS, Master of the Surveyors Livery Company, a member of the Court of the Arbitrators Livery, The Honorary Surveyor to the Information Technologists and Chairman and now President of the Association of Town and City Management. These posts have brought me into contact with some of the most exciting professionals of my generation as well as Prime Ministers, leading politicians, Kings and Queens of Nation States and the special people on the ground who make the real-world turn.

Despite all this, my early failures as a student have grated and encouraged me to do better in academia. I have lectured to real estate students for over 30 years and was privileged to be made Honorary Fellows of both the London South Bank University and the University College of Estate Management as well as take up the position of a visiting professor at Westminster University.

I may not have flown commercial jets or fast RAF attack aircraft, but I have lived the high life where diversity, interest, challenging circumstances, difficult nuts to crack and academic strictures have all played their part. It has been a most challenging and rewarding career which to date has lasted 45 years and I hope may see me involved for a bit longer but who knows; my future feels as if it is just as much in the balance as it was when I was 16!

Past disruptions,

am no stranger to pioneering change within the real estate industry, and to turning a little disruption into positive results. In many respects, the real estate market is a mirror on the economic and social change going on around us. Our physical spaces – whether for living, working or leisure – reflect our changing needs, demands and behaviours. That's what has always made real estate so fascinating for me. To be successful, the technical knowledge we have needs to be fused with our wider knowledge and insights of whatever is going on around us, to create something valuable and worthwhile. We never stop learning, observing and reflecting.

There have always been new challenges and disruptive forces – we shouldn't be frightened by that. Challenges create the opportunities which fuel our businesses, and certainly our personal thoughts and actions. I learned a long time ago, that personal resilience – alongside determination and persistence – is an important ingredient for survival. A job for life is no more, and I encourage my children to be prepared for multiple careers and many self-re-inventions. That way, life and career changes are more of an evolution, and less of a cliff-edge.

I like to think that Cambridge equipped me well for such a nimble approach, and gave me a priceless network of friends and contacts to prompt my thoughts and questions. So here are a few personal reflections on past disruptions and future challenges.

I was lucky enough to spend the early years of my career working with a group of people who fed my curiosity and encouraged me to have a go. Richard Ellis (now CBRE) at that time (late 1970s/early 1980s) was at the centre of the property investment market, which was still relatively young. We were pioneering many ideas and concepts as we tried to learn from the apparent sophistication of stocks and bonds (the grass always seems greener). Property performance measurement and benchmarking, as well as a rather more thoughtful approach to asset management and development funding were early examples. I quickly found myself hovering between property and finance. As I learned more about financing within the corporate and capital markets, and how risk could be managed and mitigated, I began to realise that there were a number of applications which might lend themselves well to property.

One example was the Property Equity Fund. In 1987, I raised a £100m leveraged equity fund from a group of four equity investors supported by a limited recourse debt facility. This allowed us to be involved in development and investment projects which, at the time, the institutions wouldn't touch, because they were not perceived as being 'prime' - yet they were perfectly good deals. We discovered quite a big market of opportunity – which I called the 'equity funding gap'. Little did I know it at the time, but I was creating one of the first private equity real estate funds. We built into the reward structure the concept of a promote, to align interests between the investors and the fund manager, and other now familiar features.

Around the same time, from 1985 onwards, a group of us started to crack the challenge of fusing property and the

future opportunities

capital markets, by listing a single property on the Stock Exchange. We created a new financial instrument, PINCs - equity securities in single properties, which gave each investor a due proportion of a property's rental income and capital value without intermediate taxation, as if the property was owned directly. The London Stock Exchange allowed PINCs to be listed on the main market. This was a major breakthrough at the time; it offered enhanced liquidity for bigger buildings, as well as opening up commercial property investment to everyone. Sadly, the launch was frustrated by the changing regulatory framework for investment schemes, which caused significant delay, during which time the market suffered a major financial crisis and momentum was lost. My 1988 book, 'Real Estate Finance' describes those exciting times.

Although PINCs did not fly, it paved the way for the introduction of the UK REIT some 20 years later, which created the tax neutral listed property company we recognise today. Coincidentally, another group is now trying to revive single property schemes, creating their own stock exchange to host them. There remain the challenges of valuation and sustaining liquidity, but the idea still has relevance, and we wait to see how it develops.

In the 1990s, my attention shifted to Government and latterly corporate property. Government was experimenting with harnessing the private sector to deliver services as well as major infrastructure projects. Public private partnerships took many forms, not least in the development of new facilities, such as prisons and hospitals. There was particular interest at the time in structuring a full-service ownership and management model which could potentially handle the entire estate of a government department and allow future flexibility of occupation, with less risk to the public sector. I was heavily involved in the first of these, helping to create a business ultimately called Trillium, which successfully bid to take ownership of most of the Department of Social Security's estate (now DWP) and provide full-service, performancebased, management under a 20-year contract. Some 18,000 sq.ft. in 800 buildings, and one of the biggest single property transactions ever seen in the UK. Not a sale and leaseback, but a novel form of partnership, which for the first time, focused everyone's attention on a rigorous estate strategy, the costs of occupation and the productivity of property. A second transaction followed, on a similar scale, for the Inland Revenue and HM Customs & Excise (now HMRC), on which I advised the Government side.

Although there were many benefits, the key weakness in the arrangement was its cost of capital. Government wanted it to be off-PSBR, which meant private sector financing, even though the public sector could have funded it much more cheaply. Ironic to note that the present Government has just announced a programme of hospital-building which will be funded entirely by the public sector, and built by the private

Subsequently, with extensive international travel for Grosvenor and others, I turned my attention to large-scale development and the regeneration of cities. I well-remember writing about the so-called 'inner cities' in the late 1970s



Stephen Barter Chairman, Wilton Capital Advisers Gonville & Caius (1975-78)

as part of my Land Economy Tripos. There was a lot of revisionism going on then, following the post-war comprehensive development boom which had created so many sterile, concrete-ridden precincts, losing the human scale and social purpose of a mixed-use town centre. I became involved in a number of significant placemaking regeneration projects in the UK and overseas, notably King's Cross (as Deputy Chairman of University of the Arts London), Chelsea Barracks and the development of CityCenter, Washington DC (both as UK CEO of Qatari

More recently, I've been working with Government to develop new ideas for our over-shopped high streets. I advised Network Rail and Transport for London on commercialising their stations to become more outwardfacing catalysts for town centre improvement and affordable housing. Now, independently, I'm advising Marks & Spencer, as it wrestles with today's challenge of working out the balance between physical shops and digital services, and how to right-size and modernise its estate. Through its considerable property ownerships, M&S is well-placed to make a major contribution to enhancing the social impact and relevance of mixed-use town centres.

So-called 'smart cities' have become another ambition in our 'proptech' world. I've been helping Waterfront Toronto, a Canadian public sector development corporation, to create a new smart city on 1,000 acres of former port lands on Toronto's lakeshore, (think Canary Wharf but ten times the size). A knowledge partnership with Sidewalk Labs, a sister company of Google, has a plan to harness current and new technologies, to 're-think the city from the internet up', ahead of building new buildings. It's been a fascinating exercise and not without its controversies (data privacy) and economic challenges (funding new infrastructure when the land value gain is mostly longer-term). Proptech encourages everyone's dreams, but making a smart city work on the ground is quite a reality check!

I've been lucky enough to be involved in so many new ideas, and to meet so many fascinating people along the way. As my granny used to say, "education is never

Lessons Learned in Real Estate

I have been involved in working with the boards of companies in stress, distress or indeed insolvency for nearly 40 years. I have also worked with the funding community including banks, asset-based lenders and funds when they have needed assistance in evaluating their options in relation to borrowers who are either in danger of defaulting or have already defaulted. Although not specialising in any particular sector, unsurprisingly my career has involved many companies in the real estate sector, both property owning or operational enterprises.

started my career in the late 70s/ early 80s and have therefore seen a number of cycles and I hope, in advising corporates and their stakeholders, I'm able to use the benefit of that experience to assist them in dealing with their own "choppy waters". Although I had been involved in a number of relatively small real estate cases in the 1980s my first experience of dealing with significant real estate problems was during the early 90s property crash. Specifically, I was involved in a number of projects in and around London's Docklands, culminating in the administration of Olympia and York Canary Wharf where I was a joint administrator and operated "on the ground" from the 30th floor of one Canada Square for nearly 2 years.

Just prior to that I was the administrator of South Quay Plaza3, a 250,000 ft.2 project next door to what was then the new Daily Telegraph building. It was a new build in the enterprise zone and had remained empty since it had been completed. After marketing the building we entered into an agreement with Rotch properties, the then vehicle for Robert Tchenguiz, in which we gave Rotch a three year rent guarantee as part of a vendor package. This enabled Rotch to pay what seemed to us to be a pretty full price and my banking clients were repaid. In those days it was virtually unheard of for an administrator to provide such a significant rent guarantee but in the circumstances of London Docklands in the early 90s, innovative thinking was required.

No sooner had we completed on South Quay Plaza 3 we were asked to get involved in the Canary Wharf project. Even at that time the built space was 4.2 million ft.2 with little more than

25% occupied. The story of Olympia and York is well documented. They had huge developments ongoing in Canada, the US and in London and although they were the developers of very high quality schemes, the burden of servicing their debt pile resulted in simultaneous bankruptcy filings in all three jurisdictions. After 18 months of negotiating with lenders, existing tenants and attracting two major new occupiers, as well as negotiating with the government for the extension of The Jubilee line at a time when government was presiding over a previous austerity program, we sold the Canary Wharf project to its existing lenders who after some years sold on to developers who were responsible for the enormously successful Canary Wharf project we see today. Without the commitment to the extension of the Jubilee line, this project would very likely have failed. As administrators of Canary Wharf, we pledged £400 million as a private sector contribution to the £2 billion total cost of the underground extension and this investment enabled the project to survive. This contribution was factored in by the lenders in their decision to take over the project.

Many years later we were asked to get involved in the Battersea power station project. This iconic London landmark, listed and made famous for its inclusion on the cover of the Pink Floyd album Animals, had been the subject of many developers' grand ideas, none of which had got off the ground. In the meantime, the structure was vulnerable to further deterioration and in 2011 we were asked to advise the lenders on options. Again, critical to any success for this site as a development for mixed use residential and commercial, was the extension of the Northern Line



Partner London Ernst & Young

underground. The mayor of London at the time was a gentleman called Boris Johnson. I'm not sure what ever became of him, but he committed to the Northern line extension and as a result we were able to conduct a sale process for the historic site, which today boasts a very high quality scheme which will be further developed over the coming years. The negotiation for the improved transport links enabled us to obtain a good price for our lender clients - it was well documented that one of the other interested parties was Chelsea Football Club, who were at the time considering the site for a relocation of their stadium.

The consistent theme to unlocking value in each of these projects was the need to think beyond the bricks and mortar that we inherited and to establish what would create a more attractive proposition for new investors. Whether it was improved infrastructure or rent guarantees to provide breathing space for a new investor, in each case a package well beyond the real estate itself was critical. Each of the above cases and many of the other projects I've been involved with have required an insolvency process at the end of what are often exhaustive and protracted negotiations between the borrower and financial stakeholders. However, in many more cases there is a consensual resolution, usually a very significant change to the terms of the company's financial arrangements and often a marked increase in the level of lender supervision of the borrower's activities. I have been involved in many more situations that have resolved themselves consensually but of course most of these situations are not made public for obvious reasons.

My experience of dealing with boards over the past few decades, has led me

to think about some of the lessons that can be learnt by directors and their management teams when they find themselves in a position of financial stress/distress.

The importance of cash

Of course, it's a hackneyed expression to refer to "cash as king", most management teams recognise the mantra but often ignore it in practice. An overdue receivable compromised at 80% can be worth much more in the cash flow than 100% outstanding in the balance sheet; surplus plant or slow-moving inventory which can be sold at distressed prices is far more valuable converted into cash rather than gathering dust. It's very easy for management teams to pay lip service to this, much harder to take the tough decisions. You will always see new "turnaround type" directors, making these difficult decisions because they are less wedded to the old balance sheet.

Taking the tough decisions early

The chances are that if management's judgement is that the time is right to take a difficult decision like restructuring a division, laying off some staff, selling something non-core, then they are right. Often however, management will find half a dozen reasons why a tough decision shouldn't be taken, not all decisions will be good ones but that doesn't mean management should stop taking them. Deciding not to do something can be quite detrimental to a business.

Increased communication

At difficult times it's absolutely critical to communicate well and often with key stakeholders. In an environment where third parties won't necessarily continue to give a company the benefit of the doubt management needs to create trust through communication and ensure there are as few surprises as possible. It is not a crime to make a mistake only to deny it happened. If something goes wrong let people know. In a distressed situation, management pays dearly if stakeholders find out about something important through the back door.

Quality of information

If the quality of financial and operational information is poor, this will initially

irritate and eventually alienate stakeholders. A significant burden of responsibility for surviving through difficult times comes down to the financial management of the company and the quality of information provided. If stakeholders cannot trust the quality of the information they cannot validate the tough decisions that both management and financial stakeholders must take. If stakeholders do not trust the information they will use this opportunity to impose their own advisors on management and the board will start to lose control of the survival process. Also, Murphy's law almost always prevails in a restructuring scenario. When things are going well for a corporate, often the next piece of news is good; the reverse applies in the distressed situation, the next piece of news is nearly always bad. Therefore, managing the expectations of your stakeholders, is increasingly important when in a stressed/distressed situation.

Seek help

This may seem self-serving coming from a restructuring professional, but you wouldn't conduct a legal case without a lawyer or have a tooth out without going to a dentist! Why then, would a company believe that they can work their way through difficult times without recourse to any specialist advice until it's much too late? Involving specialist professionals at an early stage is not abrogation of responsibility for managing the business it is using people tactically who have situational experience, enabling management to concentrate on the areas where they have expertise. Financial stakeholders require a restructuring plan if they are going to support a company that is in stress/distress. The production of such a plan is not a "business as usual" item. It needs to be prepared by those who are experienced in doing so and who financial stakeholders trust even if they are "on the other side of the table". If they don't trust a company's advisors, they will hire their own. Additionally, seek help from non-executive directors. The chances are that between them they have some relevant situational expertise. If they haven't, they will know somebody who has. Their instincts are pretty good, that's how they got where they are and that's why they are on the board. They are there to help management work their way through difficult times.

Downturns and restructuring are not for the faint hearted. Surviving, let alone succeeding, during an economic downturn or during a period of distress for a company, requires tremendous hard work from a management team and its advisors. If individuals are not up to the task, they must be changed, and quickly.

Restructuring is expensive

In the UK, it costs a lot to get out of an unproductive lease; reduce your workforce; extract yourself from a non-profitable contract; terminate an onerous supply contract. Therefore, leaving these decisions until the business is distressed, makes it highly unlikely that funding will be available to undertake these tasks. Management may be perceived as negotiating from a position of weakness. Insolvency may prove to be the only mechanism for achieving such a restructuring. We have recently seen a significant bout of Company Voluntary Arrangements, principally on the high street, which have been unsuccessful because they have been too little, too late. Rarely is it the case that a CVA designed to renegotiate the rent on underperforming leases, is sufficient in itself to enable a business to survive. Too many successful CVAs have seen companies subsequently filing for administration as the company has taken insufficient action to deal with operational issues and sought to rely solely on the re-negotiation of underperforming leases.

Conclusion

At the time of writing, we are in extremely uncertain times;

- Trade/currency wars between the US and China
- A hard Brexit looking quite possible
- The UK, Germany and other EU states on the edge of recession
- Political tensions in a number of 'hot spots' around the world

Most commentators believe we are in for some troubled times economically. Some say it feels eerily like 2006/7. Real estate will always be impacted by adverse conditions. Hopefully the lessons learnt from previous downturns will help management teams deal with whatever we are faced with in the coming months.

IPSX – Reimagining real estate investment

xchanges date back over 400 years and sit at the heart of international commerce and trading. Since the Romans established London as a trading centre, it has always been known for its innovation and for its markets. New stock exchanges, particularly those that are regulated, are rare. On 9 January 2019, IPSX became one of only seven markets in the United Kingdom with 'Recognised Investment Exchange' status, granted by the Financial Conduct Authority.

Although there are more than 250 stock exchanges in the world, IPSX is the first that is dedicated to Commercial Real Estate (CRE) issuers. Whilst a dedicated market is unique for CRE, many other global exchanges have been created for specialist products, such as metals, agricultural contracts, and energy contracts. A dedicated market for CRE issuers ensures CRE investor interest is concentrated in one venue, and any market movements or volatility should reflect the fundamentals of CRE

rather than uncorrelated equity market

IPSX allows real estate owners to retain a maximum 75% economic interest in the underlying building or a group of co-located buildings held and managed by the issuer. The issuer is a commercial management company (a Single Asset Real-estate Company or SARC) that holds and manages the individual building(s) when it is admitted to trading. Investors are buying shares in the SARC.

By focusing on companies holding single assets or multiple assets with commonality, SARCs will have lower operating costs than traditional Real Estate Investment Trusts (REITs) which generally also have investment mandates. Commonality of assets could include single estates with homogeneous planning use, such as an office park, or a single type of asset, for example hotels, across a broad geography.

Aside from IPSX, there is no public market option for trading in securitised,



Ian Womack Senior Advisor IPSX

single asset CRE management companies. Other exchanges offer trading in large multi-asset CRE investment companies, but no exchange gives the astute investor an opportunity to 'stock pick' specific CRE companies with defined and stable assets. Investors generally pay a premium for property companies to make investment decisions on their behalf without the transparency around the investments and their performance.

From an asset owner perspective, IPSX delivers a much wider range of potential investors than a private





market transaction. It gives the asset owner scope to retain and adjust an economic interest over time through a shareholding in the commercial management company.

For the institutional real estate asset owner, IPSX provides an alternative public market option to a traditional private sale, with the flexibility to retain an interest in the asset through a shareholding of the asset owning company.

For owner occupiers, this means that value can be released from a strategic freehold asset(s) without entering into a traditional sale and leaseback transaction or procuring a joint venture partner. Owner occupiers will also have the flexibility to retain an interest in the asset through a shareholding of the asset owning company. Corporate real estate assets can therefore be a source of capital to reduce debt and/or invest in the owner's core business.

The focus of the SARC will be to maximise the value of the asset, bringing asset and property management strategies sharply into focus. This simplified, securitised structure will also enable investors to proxy invest in property more quickly than they would be able to through buying the underlying asset directly, as well as at a lower transaction cost.

Some CRE assets are so valuable that few institutions are able to buy them outright and the private sale process results in only one bidder submitting an offer to buy the asset. An admission to trading on IPSX will allow interest to be shared amongst many investors, including smaller investors who have traditionally been locked out of the CRE market, thus potentially increasing the value obtained for the real estate asset owner. IPSX's regulatory status allows potential investors of all types, including those in the retail markets, to buy shares in IPSX issuers through brokers, retail platforms and wealth managers. Shares in the companies can be marketed around the world to institutional, high-net-worth or retail investors via a traditional IPO transaction.

According to a recent report by Hardman & Co, SARCs are expected to attract investors with diverse strategies and time horizons, which means IPSX liquidity is likely to be high. Hardman anticipates a typical IPSX SARC of £300m may trade £230,000 per day. Moreover,

as some investors will likely run pools of assets dedicated to property companies, which will not be directly compared against other sectors, this should minimise volatility.

Professional investors have become more and more sophisticated in how they analyse and underwrite the future financial performance and prospects for a building when they are considering whether to buy it. IPSX issuers will provide a higher degree of information/transparency for single SARCs admitted to trading on the exchange. With the benefit of more information about the asset and its prospects over the short and the longer term, investors in these companies will be able to decide how much financial exposure they want to a commercial real estate asset.

In order to be admitted to IPSX, the issuer needs to meet the Exchange's Admission Standards. These include the appointment of an IPSX Lead Adviser and Approved Valuer; selling down a minimum 25% of the Company's shares at the point of admission; limiting the debt loan to value in the entity to 40%; and issuing a prospectus approved by the UK Listing Authority or another EEA competent authority.

The original disruptors? The ongoing growth of alternative lenders

Prior to 2008, commercial real estate lending in the UK was dominated by banks. According to the annual lending survey undertaken by DeMontfort University (and since 2017 by Cass Business School), UK banks and building societies represented 70% of the commercial mortgage market in 2007, with the balance largely made up of German and Irish banks. The two largest lenders - HBOS and the Royal Bank of Scotland – combined for a 28% market share.

ince the great financial crisis, a new wave of lenders has joined the market.

These range from global asset managers such as Blackstone; to challenger banks such as Shawbrook; debt fund managers such as my own firm, ICG-Longbow; and smaller niche lenders such as crowdfunding platforms.

To illustrate their growth, it's worth highlighting that in 2008 DeMontfort did not separately categorise these 'alternative' lenders in its reporting; yet in 2018 it was highlighted that such lenders were responsible for 26% of all new originations. Alternative lenders now provide a wide variety of short and long-term funding solutions across the full spectrum of commercial and residential property. UK banks still dominate, but now represent only 40% of the market and falling. The lending market has never been more fragmented and many would argue is healthier as a result.

Structural changes

The most notable change in the market since 2008 has been the retreat of banks, with many of the UK and Irish banks taken into public ownership, wound up or ceasing lending activities. Even after impaired loan books had been largely worked out and the banks financially stable, an increasingly restrictive regulatory environment has continued to curtail lending.

This left a market opportunity for agile new managers. Originally, many of these lenders were smaller and exclusively focused on providing mezzanine finance, filling the funding gap left by the unwillingness of the few banks still open for business to provide senior debt at precrisis levels. Lending of this nature could often command double digit returns.

In time, many of these managers moved into

offering both senior and mezzanine debt together in what is often called a whole loan; again this captured business from banks pulling back from the market, in particular when asked to lend against certain types of assets such as those with value-add or transitional business plans. Lending of this type offered a 'one stop shop', appealing to many borrowers. Thereafter it was a natural next step for managers to provide traditional senior debt in isolation, as bank lending continued to be constrained by regulatory headwinds.

Many participants were (and remain) attracted by the imbalance in demand for and supply of loans. With debt in



David Mortimer Head of Senior Debt, ICG-Longbow Robinson (1998)

shorter supply, the cost (i.e. the lender's credit margin) naturally rose. Outside of prime London, credit margins for a hypothetical 60% loan-to-value (LTV) loan over the last several years have generally been in the 2% – 3% range; in 2006/07 lenders could consider themselves fortunate to receive even 1%.

New capital sources

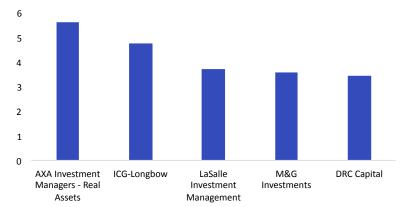
At the same time, as banks were retreating, soaring pension fund deficits and (more recently) a global hunt for yield have increased the attractiveness of real estate lending to new sources of capital.

For many pension



Rothesay Life, an insurer, provided a £689 million loan secured by Goldman Sachs' HQ

Debt Fund capital raising, 2014-2018 (\$bn)







Several 'challenger' banks have joined the real estate debt market since 2010

Source: Real Estate Capital, May 2019

schemes, one way to narrow the funding gap without taking higher risk has been to migrate away from traditional fixed income investments (such as corporate bonds), into private market investments such as lending directly to companies, or real estate owners. These investments are less liquid than bonds but compensate long-term investors through higher returns. Other pension funds have seen real estate debt as a way to diversify their exposure to real estate generally, particularly as growth prospects have moderated late in the cycle.

One such investor was the Tesco Pension Scheme. which made its first direct commitment to a real estate debt program in 2013. Since that time the team has made further investments in the UK, Europe and US on behalf of its Property and Income Generating Assets portfolios. The team note that in the current environment, lending may provide an attractive risk adjusted return compared to equity investment in real estate.

Pension funds have generally invested through dedicated asset managers, with the largest now having sizeable platforms and lengthy track records. ICG-Longbow was established in 2006; DRC Capital, another manager, traces its roots back to 2008, as does the real

estate finance arm of M&G Investments. All have raised over \$3 billion of investor commitments in the past five years, according to Real Estate Capital, an industry journal. The largest debt funds are now capable of writing loans in excess of £100 million, comparable with the banks.

Insurance companies have also found commercial real estate lending attractive, following the introduction of the Solvency II capital regime in January 2016. If structured correctly, real estate loans can be eligible for so-called matching adjustment portfolios, where the predictable cashflows from loan assets can be notionally applied by the insurer against its annuity or reinsurance liabilities, providing capital relief. As a result, the largest insurers, such as Legal & General, have set up teams to lend into the market directly; others, such as Direct Line, invest via specialist managers.

The size and strength of many insurance company balance sheets means they have been able to provide sizeable commitments to borrowers, often of a level not otherwise available in the market. In January 2019 Rothesay Life, an insurer, was able to solely finance a £689 million loan secured by Plumtree Court, the UK headquarters of the

investment bank Goldman Sachs. By contrast, in April 2019, a £625 million loan secured on the HSBC tower in Canary Wharf required a syndicate of six international banks to complete.

Disruption has also come within the banking market itself. Several so-called 'challenger' banks were granted banking licences from 2010 onwards; many have entered the real estate lending market. As an example, OakNorth Bank (established in 2015), has become a notable player in the development finance market, recently completing a £60 million loan to build out three retirement living schemes.

Challenges & Outlook

In a market with significant new entrants, not all will succeed in the long term and already there are signs of pressure on some participants. Metro, a challenger bank, has seen its share price fall over 80% during 2019, following a miscalculation of capital requirements for its loan assets, including commercial property loans. Lendy, a peer-to-peer lender, entered administration in May 2019. According to the Administrators, of Lendy's 54 loans, 35 are in formal insolvency proceedings.

There remain rumours of newer lenders struggling to honour funding commitments and ongoing question marks over the underwriting and risk management approach of smaller platforms.

At the more established end of the market, it would not be a surprise to see investor capital become concentrated in the hands of proven managers running larger funds, reflecting changes already seen in the corporate direct lending market. As smaller lenders struggle against the backdrop of increasing regulatory demands and competitive pressures in the industry, more agile firms may look to focus on niche strategies. Insurers will play a bigger role, as Solvency II becomes further embedded.

There is no reason why the non-bank lending market cannot continue to grow and become as significant a part of the real estate debt landscape as traditional lenders. A diverse property lending market is beneficial for a healthy property market and offers borrowers greater choice. As alternative lenders increasingly become part of the furniture, the question will be: who disrupts the disruptors?

How are the debt markets affecting the real estate universe?



Dominic Reilly Immediate Past President Chair, CULS Sports & Leisure Forum Gonville & Caius (1975-1978)

have written in recent previous editions of the CULS Magazine about the influence of the debt markets on the health of the real estate market. The direction of previous real estate cycles has been significantly influenced by the availability of debt and the ways in which this debt was made available to the market in terms of levels of debt exposure, the pricing of that debt and the sectors to which it was applied, whether in the investment or development spheres. The UK capital real estate market is currently subdued with the political uncertainty that surrounds us, and debt markets are similarly subdued but with sufficient activity to form a view on the future impact on both lenders and borrowers.

The most comprehensive survey of activity is now undertaken by Dr. Nicole Lux at Cass Business School. Cass took on the report from De Montfort University and the publication is now approaching its 20th year. The report for the debt markets in 2018 was released in May and its main conclusions relate largely to a market in a state of equilibrium with no undue pressure on either the lender or the borrower. It points to the influences imposed on the Banks regulated by the Bank of England since the global financial crisis, and with less control on the new generation of alternative lenders. It will be the activities of this group of lenders which must be carefully monitored in the next few years.

Quantitative easing and global monetary policy enacted since the global financial crisis have kept interest rates at all-time historic lows. I have been arguing that the only way for interest rates to move is upwards, but have more recently changed my views given the effect on the global economy of President Trump's US trade war and the political uncertainty surrounding Europe and Brexit. This is evidenced in a comparison with key UK historical interest rates in the period from July 2018 to July 2019 as shown in the table below:

	July 2018	July 2019
3 Month LIBOR	0.75%	0.75%
3 Year Swap Rate	1.1%	0.7%
5 Year Swap Rate	1.2%	0.8%
10 Year Swap Rate	1.4%	0.9%

For the first time in my professional career, in many instances you now have to pay banks to deposit your cash, rather than earn a rate of interest, and it might make more

sense to keep your cash in a very secure safe at home, rather than in the bank. European Central Banks charge -0.4% on their deposits while the Swiss National Bank charges -0.75%. According to Deutsche Bank nearly \$16 trillion worth of global bonds are now trading on negative yields which represents about 27% of the global total. In early August a Danish bank announced the world's first negative rate mortgage which thereby allows house owners to take a home loan and pay back less than they borrowed, at the same time as savers are being asked to pay for the privilege of depositing their money with a Bank. A very weird world, and a scenario which academic business textbooks are yet to cover.

We are going to have to learn by experience. We all know that one of the reasons that property investors borrow against their real estate assets is to enhance their returns on equity through gearing. So long as the annual total return from the underlying real estate asset is more than the cost of the secured debt, the underlying return will be enhanced. However when the annual total return is less than the cost of the secured debt the underlying loss is also enhanced.

The same still applies if interest rates are negative, and you might argue that if the cost of servicing your debt is lower because of negative interest rates, then there is a greater chance that the external debt will enhance your returns, and less of a chance that the external debt will damage your returns.

However the small print of many current bank loans stipulates that the bank will charge the higher of 0% or the interest rate, so if interest rates do go negative the borrower will not benefit. In taking out new loans it will be important to ensure that the condition of this small print is removed, for the borrower to benefit from negative interest rates. The absolute rate of interest charged on the loan is still likely to remain positive given that average margins on real estate loans are in the order of 250 basis points, so interest rates would have to go negative by at least this amount for a borrower to benefit from a negative interest charge.

Let's see how the year unfolds, the turmoil in global and political markets will have to unravel for us to see the further effect on monetary policy and interest rates, and thereby on the returns from UK real estate where the borrower has made the decision to finance part of its activities by borrowing money. More on this next year - watch this space!

Property has a diversity problem. Everyone in the sector has a role to play in changing that



Managing Director, Real Estate Balance

here is a disconnect between boardrooms and those operating at the coalface of the real estate sector when it comes to gender. This is one of the headline findings from a report commissioned by Real Estate Balance this year and carried out by PwC. While the industry is making important strides towards gender balance, there is frustration that the pace of change does not match the significant level of effort being invested, in a clear sign that the journey is far from over. Despite increased support at c-suite level, not enough organisations have adopted diversity and inclusion (D&I) as a business-critical priority.

Real Estate Balance was founded in 2015 by a group of senior industry women, subsequently joined by men sharing a passion for realising a more inclusive property world. We are campaigning to address the gender imbalance in property and we have a vision to see women eventually represent half the senior leadership positions in real estate. We are a membership organisation and our corporate membership currently stands at 80, including most of the biggest names in real estate.

Senior leaders across real estate feel passionately about creating an inclusive property world but this enthusiasm is tempered by frustration at the slow pace of change – a frustration which is also shared many women working in the industry. Our investigation with PwC shows that there is a gap between the aspirations for diversity at board level and the lived experience of women working in the sector.

While progress has been slow, things are definitely moving in the right direction. A similar study carried out by Real Estate Balance and PwC in 2017 indicated a real estate sector struggling to make headway on gender balance. The progress highlighted in the 2019 report is therefore encouraging. In the intervening two years, organisations are more likely to have explicit policies in place on D&I and have action plans and management training underway. In addition, flexible working programmes have increased in availability. This is important because employees are far more likely than employers to see balancing the demands of family and career, along with corporate culture, as the biggest barriers to women's progression within businesses.

Toolkit for diversity

To help managers and professionals working in property promote gender diversity in the workplace, we have a free online resource on our website. With this tool, companies and individuals can download resources, research best practice and learn how to build better balanced businesses. It is based on the best advice and good practice, not just from our own sector but from the wider business community.

The Toolkit has three main themes of 'leadership', 'culture' and 'opportunity'.

· Leadership - changing entrenched attitudes and longestablished practices needs strong leadership. Real change comes with accountability and buy-in from the senior team is a vital first step. Providing strategic direction from the

top demonstrates to all organisation levels that diversity is a business priority

- Culture a balanced corporate culture is one where everyone has a chance to reach their full potential. Corporate cultures where long-established practices and attitudes prejudice women, either consciously or unconsciously, need to be challenged.
- Opportunity this means creating workplaces with fair and objective recruitment and promotions at every level.

The 10 CEO commitments for Diversity are as follows:

- 1 Visibly demonstrate the business case for diversity and promote your commitment within your business, e.g. have diversity champions at Board and senior executive level.
- 2 Gather your diversity data, track and report your progress, using your data to guide your priorities, e.g. publicise your progress/ commitments through your website/report on gender pay.
- 3 Change mindsets by challenging bias/discrimination wherever you see it and licence others to do so. Note: e.g. commit to unconscious bias training using a range of platforms from face to face to online, with measurable outcomes - this is not a tick box exercise.
- 4 Insist on diversity for recruitment or promotion decisions you're involved with, including on panels and in shortlists, e.g. consider interviewers from across different business areas to ensure diversity of questioning and 'blind CVs.'
- 5 Use promotional opportunities for your company to represent a diverse image, e.g. draw employees from a diverse pool for promotional material/events/pitches/training courses.
- 6 Speak on panels only where organisers commit to have at least one man and one woman. Note: Women Talk Real Estate has a directory of women
- 7 Adopt a balanced approach to sponsorship, i.e. both men and women.
- 8 Consider influencing your supply chain, e.g. enquire about D&I policies and performance when tendering or insist on diverse client teams.
- 9 Personally engage with the diverse range of the workforce in your business in order to broaden your perspective.
- 10 Promote D&I in any groups you are members of and share good



CEO Commitments for Diversity

An important early initiative for us, the CEO Commitments for Diversity, sets out 10 actions (listed in this article) that each Real Estate Balance member CEO agrees to take personal responsibility for implementing, with the end goal being a gender balanced property industry in senior and leadership positions. It is an exciting and bold step taken by the CEOs and clear evidence of the determination for change that is being driven at board level by both men and women. Corporate membership of Real Estate Balance is conditional on a personal commitment by the CEO, so as our membership grows, this has the potential to drive transformation in the sector.

Join us on this journey

Gender balance is a journey almost every real estate company is on and which affects every property professional, particularly at senior and management level. No organisation is getting it completely right – even sectors that see themselves as being at the forefront of diversity are grappling with many of the same issues we face. But there are lots of different companies doing different things well. There are clear signs that the sector is ready to move the D&I discussion onto the next level and develop actionable plans to get more women into senior roles.

If you feel motivated to act but are not sure where to start, please do visit our website and download a copy of our report Fast-tracking gender balance across real estate, 2019 at https://www.pwc.co.uk/industries/real-estate/insights/fast-tracking-gender-balance.html. And, while you are there, our Diversity Toolkit is accessible with multiple sources of information. On our website you can also see a list of our corporate members and who has signed up to our CEO Commitments for Diversity.

While the scale of the property industry's gender problem should not be underestimated, it is a challenge which can be overcome. There is important work that still needs to be done and we cannot afford to be complacent about the need for change. We encourage you to join us on this journey.



The world of work is changing. Clients in every industry are now facing the challenges and opportunities presented by this disruption, with much thought going into how work will be completed and by whom in the years to come.

he real estate industry is no different, with a significant impact on the physical workplace anticipated that occupiers, developers and investors will need to carefully consider. Drawing on major disruptors identified by Deloitte – ranging from automation and replacement of jobs to diversity and generational change – we have identified four key trends we predict the industry will need to respond to in 2019.

Chris Robinson Director - Deloitte, Real Estate Consulting, London UK Russell McMillan, Partner - Deloitte. Real Estate Consulting. London UK Ana Virginia P. Canaúba, Deloitte, Senior Manager Valuation and Modelling, Sao Paulo, Brazil.

Location strategy is key

Location strategies have never been more important, whether driven by the need to access skilled talent pools, improve financial performance by moving to lower cost locations, or the need to respond to geo-political events.

In the past, these were often developed in a reactive ad hoc manner. In the future, occupiers need to keep these under constant review to ensure the footprint is optimised and future requirements are anticipated, planned for and can be executed on at pace.

For developers and investors, it is essential they understand the emerging location hotspots and deliver the real estate required into them. This may create additional risks if it involves investing in markets that are still emerging but offers the opportunity to capture demand as it grows.



Real estate must be seen as a value driver

For many organisations, real estate is still seen as a cost that has to be managed. In the future, real estate must be seen as a driver of value. It will do this by providing a physical environment that has the employee



experience at its heart and is designed to promote purpose, engagement, collaboration and innovation. These are all key in helping the organisation of the future respond to the rapidly changing demands of this technology-enabled world.

To achieve this, corporate occupiers must be able to articulate and track the value that the workplace will deliver. For developers and investors, the challenge is to supply the market with buildings that have features that occupiers will value rather than just looking to optimise short-term financial returns.

The way people use space will change

In the past, remote working was promoted to reduce cost. Today, it is staff who are demanding agile working. Both trends drive down the amount of traditional office space required, but as traditional office space decreases, we predict the amount of non-traditional space - space that supports teaming, collaboration and co-working - will increase significantly.

Occupiers need to develop a greater understanding of how they actually use the space. Sensors and other building technologies can help provide insight as to how different types of space are used, which in turn allows buildings to be operated at higher levels of utilisation.

In addition, occupiers need to adopt fit out and furniture solutions that can evolve in a cost-effective manner. This will require a move away from traditional, often rigid, corporate standards

For developers and investors, the challenge is to deliver buildings that have the flexibility in the base build to accommodate a wider range of configurations and anticipate the demand for intelligent building data and analytics.

Flexible office space will become part of the strategic solution

Serviced office space has long had a place in the corporate portfolio, where it has often been used as a tactical solution to accommodate project or overspill space. However, as the flexible office market has become more sophisticated, occupiers are now looking to use this space strategically - such as accommodating high growth digital businesses.

As organisations become more dynamic and the future becomes more uncertain, it is likely that flexible space will play an ever-greater role within the corporate portfolio. The challenge for occupiers is to justify the additional flexibility and increased amenity offered by the space against the cost premium over traditional long-term space.

For landlords and investors it poses a question as to how they capture the premium that occupiers are willing to pay, with many considering a move to shorter flexible lease terms and / or developing their own flexible office brands.

Conclusions

Real estate is an industry where decisions are expensive, committed and long-lasting. Concepts such as innovation and "failing fast" do not sit comfortably with multi-million dollar construction contracts, multi-asset global portfolios, or investor



demand for security and longevity of tenure.

However, the Future of Work is coming and it's clear that it will impact more than just the commercial office market - whether it is automation transforming the operating models of manufacturers or retailers using sensors to gather and harness consumer data in their stores.

For developers and investors, we predict the Future of Work means buildings where the talent of tomorrow will be based. The building of the future needs to be designed around what the occupier will value and it must be flexible and fully enabled for the technology that is needed to manage the workplace of the future.

For occupiers, the focus must be on maximising the value that real estate contributes to the organisation. This can be achieved through the continual optimising of strategic location, the balancing of long and short-term leases, the aligning of the physical and virtual workplace, and placing user experience at the heart of workplace design.

All change in the boardroom

There are many rewarding aspects of my job in searching for, assessing and placing great people into senior roles to help client companies grow. But the conversations I really enjoy are with a Chair or CEO to talk about the board itself; how it needs to be better and different for the company to be more competitive.

Il boards must be strategic in looking at themselves and what they bring to help the business deliver its vision. Just refilling non-executive director (NED) vacancies without a strategic perspective of the existing gaps, such as background, experience, gender on the board is a wasted opportunity.

The boards of 2020 are patently different from the boards of five or 10 years ago but they are still not sufficiently different for companies to contend with the full panoply of challenges confronting a leading Real Estate Investment Trust (REIT) or investment fund manager today. The ABCs for the board now need to focus on the two Ds: diversity and digitisation.

Of course there has been a concerted effort to have more diverse boards, and progress has been made with more women and ethnic minority directors joining a heretofore very dominant Anglo-male led property sector. But the numbers are still woeful. Looking across sectors, only 29% of UK board positions were held by women¹; and only 85 of 1050 board positions on our FTSE 100 companies were ethnically diverse².

Diversity and inclusion (D&I) make sound business sense. It is often cited that diverse boards deliver more successful results. McKinsey's latest research finds that companies in the top quartile for gender or racial and ethnic diversity are more likely to generate financial returns above their national industry medians³. Simply put: "diversity is probably a competitive differentiator that shifts market share."

Why then are there still so few really diverse boards in the property sector? The reason is that the food chain is strangled. Organisational cultures are not changing fast enough to attract and retain enough diverse talent. Without

the pipeline of talent coming through executive roles, we end up with a dearth of options for the boardroom.

Diversity, of course, covers gender, ethnicity, sexual orientation and disability but also varied socio-economic and educational backgrounds, as well as experience outside the property sector to bring fresh thinking and new approaches. It is important not only to have the best qualified candidates for every role, but also to challenge the thinking by bringing in diverse candidates with a range of additive experiences outside the job requirements. It is about creating balanced leadership on the board using the same rigour we apply in getting the mix and balance right on the executive team.

As property companies reinvent themselves into digital, consumercentric, services businesses with or without assets, they require different talent in management as well as on their boards. My clarion call is simple: be bold, be open and take an astute punt. You could be dazzled if you do.

Consider the clicks before the bricks

Digital transformation is starting to lead the property companies' agenda. But how aligned are board members for what's required on that transformation journey?

In our work with a wide range of property companies, we take their pulse through organisational assessments and surveys to see just how ready the management think they are to build the digital future they say companies so badly need. When we play back what we hear about the perceptions of the board's ambition for digital transformation, it can make for unsettling reading - but it's



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also a useful wake-up call. Here are a few quotes from a recent assessment:

'What we are doing now is good but it's not going to move the dial enough, at pace'.

'We need more innovation...we don't have it in-house'.

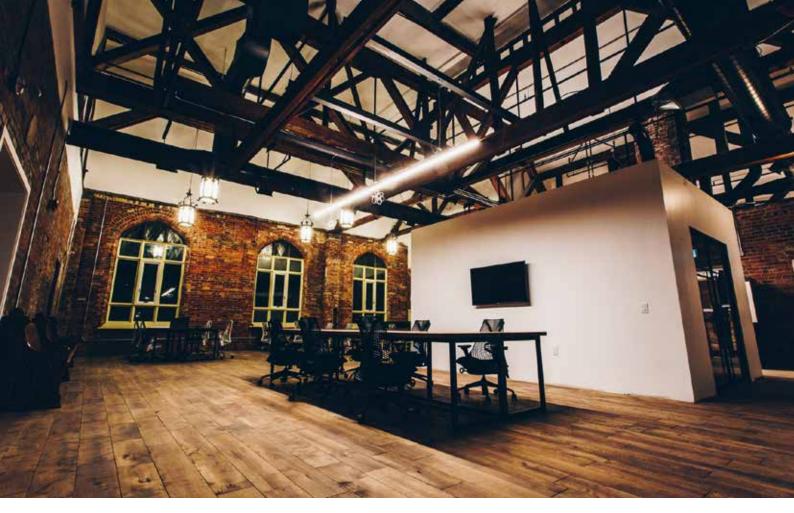
'Let's just say it: we aren't techdigital savvy'.

We are totally unclear who is driving the digital agenda'. 'The board doesn't get the need for urgency'.

'We can't call this a digital business. We are just too traditional'. 'Are we capable of change?'

Honest input from senior management helps us define with them what talent is needed in the business, and equally their readiness as a business to retain such talent and generate the cultural transformation required. It also clarifies what's needed going forward in the boardroom to support the transformation.

In one case our first recommendation was for the CEO to have his own digital coach. And increasingly I am seeing more executive teams and boards benefit from 'reverse mentoring', a concept introduced at Sainsbury's over a decade ago by then CEO Justin King to improve the tech nous of senior execs and NEDs by using their own tech-savvy millennial staff. Our research shows that management boards should encourage learning and experimentation as well as a larger bias towards action and, within reason, a greater tolerance for risk. For instance, the way to leverage the data so needed to fuel innovation is to learn about using data in new ways yourself. So if you don't have one yet, it might be time to find your own milli-mentor to bring you up to speed with all things digital.



New operating models required?

Just as retail, financial services, hospitality, and other sectors are now unrecognisable from five years ago, I don't need to tell you that the property sector is also changing. Any organisation without the consumer at its heart is losing market share. I hear from the best how hypersensitive their organisations are to any friction in the user experience and in their operations overall. Property has always been an entrepreneurial sector, but how intrapreneurial do companies need to become to attract talent to innovate in-house? Board agendas should have topics like culture and purpose in addition to how to acquire and develop the talent their businesses need to imagine, build and deliver what consumers want tomorrow. Case on point: the Business Roundtable, an association of CEOs of leading US companies, recently redefined the purpose of corporations beyond shareholder primacy4.

So what does good look like when it comes to the board itself? My advice: in addition to diversity, seek candidates who have had global remits and have worked in regulated environments like utilities, pharma and financial services. More and more board members will need to come from IT, digital, data, innovation and venture capital backgrounds. Or better still, they will

have led a transformation themselves to add the kind of oversight and challenge necessary to all property and investment businesses leading transformation programmes in 2020 and beyond.

Investors are driving change too. They seem more aware than many boards that being seen as a socially responsible business is increasingly important to business success. Sustainability programmes have to resonate not only with market but also with your entire organisation. Younger generations choose to work for companies that have a focus on purpose, beyond profit. That purpose needs to engage from the top down. Hence, the board must show passion, commitment and integrity with those same goals. As a board member, ask yourself how often you speak out or, better still, act upon the company's purpose or stated objectives on sustainability, diversity or climate change? If the company sends out volunteers to clean up a local river why don't you join them? If you are trying to recruit more diverse talent into the business why not offer to speak about the opportunities in the property sector at an inner city school or local university? Note to self: make a difference in 2020. Become more tech savvy, be a champion for diversity and prove that you are as passionate about purpose as you are about profit.

Our recent "Boardroom of the future'

survey shows that investors see digital transformation more of a top boardroom priority than their corporate counterparts, who still think the focus of the board needs to be on succession planning, building relationships with the executive team and executive compensation. Only 11% of board respondents felt leading the digital transformation of the business was part of their role.

Investors and boards agree that the biggest challenges to business are the increased pace of digitisation, talent scarcity and cybersecurity risks. But investors also worry about the increased expectations for companies to behave in a socially responsible way, and they are concerned about companies' ability to seamlessly adopt AI technologies.

When it comes to the critical skills and experiences required for members of future boards, traditional companies highlighted experience with enterprisewide organisational change, digital transformation and talent strategies.

- 1 Hampton-Alexander Review, 2018
- 2 Parker Review, Ethnic Diversity on UK Boards, 2017
- 3 McKinsey & Company, Delivering through Diversity, 2018
- Business Roundtable, Business Roundtable Redefines the Purpose of a Corporation to Promote 'An Economy That Serves All Americans', August 2019



Strand, Trafalgar Square, Managed by Metrus



Adrian Sayer
Managing Director & Head of Property
Management
Matrix

In the hierarchy of property disciplines, the management department is often seen as playing second fiddle to agency, development or lease advisory departments. That perception is rapidly changing. Over the past 5 years there has been a sea change. The return on property investments have reduced and that, together with the almost revolutionary change in occupier mentality (particularly in the office sector) with the trend for shorter, more flexible occupation has created a challenging environment that requires high quality property management to deliver a nimble, innovative and proactive approach.

Change is happening in two ways. Firstly, in the approach to different occupation periods and types of services being offered to tenants and secondly, changes to the firms that are providing the services required by investor clients to deliver the service provision.

The past decade has seen a polarisation. A series of mergers between property management companies, large and small has resulted in some substantial operational entities. These "big players" wrestle with overhead targets to provide a volume service on narrow margins, often decentralising or placing accountancy and service charge functions overseas, arguably not to the benefit of service levels. This leaves a niche in the market place where smaller businesses have flourished as some investors look to maintain best in class service levels and expect managers to provide the flexibility to hold meetings at short notice and provide a bespoke service led by highly experienced personnel. This is the strategy we adopt at Metrus and has proved very important to our customers, who also see the need to

remunerate property managers directly rather than just relying upon third-party service charge fees.

Property management professionals now form a fundamental part of the property ownership team, particularly with complex and expensive commercial property. Increasingly at Metrus we are involved prior to purchase as part of the legal and financial team ensuring a smooth transition between owners or investors. Furthermore, recent legislation combined with loan and banking regulations have created many new duties for today's property manager.

New anti-financial crime regulations introduced in 2017 means that any new client has to be properly identified, not only on a corporate but often to an individual beneficial owner level. This has been particularly in the spotlight in relation to offshore tax-haven registered entities. As it turns out, these entities are usually very well organised and understand the nature of due diligence being applied to them. As a result, they will often have packs ready so that they can carry out property transactions and appoint property managers with minimum fuss. Surprisingly perhaps, it tends to be the wealthy UK national who objects to having their identity verified rather than the offshore trust fund.

The General Data Protection Regulation (GDPR), requires property managers to ensure they are protecting the personal data of not only their clients, but also tenants and other users of managed properties. Treading the regulatory tightrope of making sure CCTV can achieve its objective of assisting in crime prevention, has to be balanced with requests to view extracts that are either unrelated to that objective or too vague to remain reasonable, is an increasing burden. The intervention of the ICO into the face recognition technology being used at the Kings Cross development, prompted by the Mayor of London demonstrates this paradox.

Anti-modern slavery legislation is a recent example of the trickle-down effect putting the pressure on property management companies



Royal Exchange, Managed by Metrus

both large and small. FTSE 250 organisations are now expected to audit suppliers to ensure they are not, purposely or otherwise, allowing modern slavery to take place. It is a huge potential burden. The way of dispersing this burden is to require others to do this in your stead. New management instructions from large corporate organisations often require a commitment to audit, for example, cleaners, maintenance firms and security companies at no extra cost.

Client or parent company refinancing frequently requires property management firms to sign a duty of care agreement with a bank or other fund providers who are actively involved in the setting of property management standards. Duty of care deeds often take precedent over the management agreement between manager and client, such is their influence. Lenders increasingly see the property manager as their independent eyes are ears with a duty to ensure stability of their investment. At Metrus we recently had a proposal for a Duty of Care deed where a bank wished to retain absolute control over whether the managing agent could serve notice to terminate the management agreement. We had to decline the instruction. As RICS members, it would have placed us in a position where we would have been powerless to terminate when faced with a breach of RICS regulations.

With the emergence of fintech and legaltech, the breadth of knowledge required of property managers is extending to areas beyond traditional property management. At the time of writing, technologies such as Blockchain look set to disrupt the property sector, meaning identity verification and property transactions will occur in hours or minutes rather than months. Duty of care deeds and management agreements will need to be in place and approved almost instantly to match this and the speed of transactions could make property as easily tradable as shares, leaving the property manager never really knowing who his client is, despite the increased legislative requirement to "know your client".

By contrast, despite the explosion of the technology advances in other sectors, adoption of technology at a building level appears to be slow to progress. Whilst we have seen "smart" buildings being developed and widely publicised, the existing stock of commercial property remains

relatively primitive. Landlords often lack the capital to invest in technology that won't necessarily provide a tangible return. Whether occupiers want tried and tested services or technologically advanced services that, until they become the norm, are more expensive and difficult to maintain remains a question. Once a tenant is in situ, the trend for shorter leases means they are unlikely to want to invest in new technology themselves.



There has been some progress, at least in larger, high value buildings. A good example of new building technology is the development of new access control systems. Access can now be gained to a building by utilising the NFC ability of a smartphone and QR codes, instead of using a traditional access control card.

Similarly, there have been advances in energy management through the deployment of Building Management Systems. This is not always straightforward however, as there can be multiple systems for the different elements of the property with no single cohesive access point where all such systems can be brought together harmoniously. Until such a platform exists it is difficult to see how energy technology in existing commercial property will move forward at the same pace as other sectors.

The future may well see property managers front and centre in the new hierarchy of property disciplines. If property becomes a fast-traded commodity and leases provide ease of movement for tenants, the property manager becomes the one constant, ensuring safe, comfortable accommodation for tenants and a sustainable well-maintained investment for owners.





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he traditional landlord and tenant relationship is changing. While good quality office space will always remain desirable, new operators have entered into the market and modern occupation models have shifted expectations. The result? Commercial landlords and property investors must now work harder to attract and retain successful tenants. In this article, we highlight trends that are causing disruption to the 'traditional' landlord and tenant relationship and the challenges which need to be met.

Flexibility

Commercial landlords will be well aware of the general trend towards shorter lease terms. Where the average term of an office lease may have been 20 years in the 1990s, today 5 years is not uncommon.

While longer leases are certainly not extinct, there

is evidence to suggest this trend is well established, and reflects structural changes in the UK economy, not to mention political and economic uncertainty in the face of Brexit. While that brings welcome flexibility for tenants, it also brings some uncertainty to landlords, who are faced with changing occupiers on a more frequent basis.

Personalisation and employee welfare

With new businesses come new working practices.
Collaboration and coworking are now embedded in the modern working environment: for better or for worse, the 'open plan' office and importance of communal, social and welfare space is here to stay, at least for the foreseeable future.

Expectations as to the facilities that a workplace should offer continue to rise. Commuting habits and environmental

responsibilities require catering for cycle storage and availability of public transport links. The possibility of remote working means the size of space businesses require could fluctuate daily. The modern workplace is evolving, and the traditional separation of work and home is narrowing.

How does this affect landlords? Landlords need to appreciate that their tenants increasingly want their property and working environments to reflect their organisation's values and ethos. And that requires flexibility in terms of what a tenant can do with its space.

The tech boom

When it comes to reshaping the landlord and tenant model, technology and connectivity is playing a key role.

The provision of secure, reliable and fast internet connectivity is a competitive advantage in a crowded marketplace. Tenants expect



to be able to 'plug-in-and-go', and to minimise the time and costs associated with getting online, often shifting the onus of ensuring the availability of this technology onto the landlord.

Speed and cost

Small and medium businesses need to be nimble. They want their property to be the same. The time and costs associated with a traditional property transaction can be disproportionate. Simple, short term agreements, agreed and signed without lengthy negotiations, are desirable to many. So are fixed costs. Landlords and their advisors are pressed to react and adapt accordingly.

Environmental impact

Environmental sustainability is fixed and high profile on the political agenda. The running and management of buildings - through heating, cooling and electricity use - accounts for a significant proportion of the UK's carbon emissions. Commercial landlords will now be familiar with restrictions on letting 'sub-standard' residential and commercial property, and can expect a trend towards those restrictions getting tighter.

But landlords are also expressing their own priorities, for instance, whether by committing to achieving net zero carbon emissions, reducing the use of plastics and increasing recycling, lowering energy use or investing in renewable energy, landlords are using their initiative to influence and support the direction of change in a positive way.

Conclusions

The UK economy is shifting, and the property industry needs to keep up. Businesses want flexibility and personalisation. They require pro-active and



engaged landlords who appreciate their values and allow them space to breathe and evolve. They want their employees to be happy and productive, and they care about their footprint on the environment. Technology is driving, enhancing and speeding up the impact of these ever-moving priorities. While this may be disruptive to the traditional landlord and tenant model, it also presents opportunities for

those bold enough to embrace the changes.

There is a fine line between flexibility and risk in a number of these areas. But no matter which side of the landlord and tenant relationship you are on, a good solicitor and other advisors can work in tandem to advise you how to deal with the changing environment, and ensure that your best interests are protected.



Data, Data everywhere – how to crack the Enigma...

Introduction

The Cambridge Analytica scandal caused worldwide reconsideration of Big Data - in the wake of that episode we have all become more cautious - and perhaps more negative - about data and its benefits. On the other hand, 80 years ago a meeting between Alan Turing and the Polish Cipher Bureau facilitated data sharing that led to breaking the Enigma codes1. Data is clearly both a useful and a risky commodity.

Data is also an essential element of the planning and development process. As the world becomes smarter, it will be harvested and shared in ways that are increasingly innovative and diffused. Its proliferation will be beneficial in diversifying the ways in which the public is engaged and may also offer new commercial possibilities, but could also create new risks for anyone planning, building or managing 21st century buildings.

This article examines the new opportunities as well as emerging concerns and suggests how we can take most advantage of the new world while avoiding unintended consequences

The new digital world

A recent report of the National Infrastructure Commission noted that: "Data is now as much a critical component of national infrastructure as steel, bricks and mortar."2 Data is already saturating both national and local government - there is a government digital service,3 a digital land team at MCHCLG4, a GLA intelligence and analysis unit⁵ and a 'Digital Greenwich' team.6

This exponential increase in interest in the digital world is increasingly relevant to the built environment - not just in the traditional sense of the paperwork associated with development proposals but in the fabric of the buildings themselves. At the Centre for Digital Built Britain for example, the Building Impulse study looks at ways in which buildings can be made more resourceefficient, healthy and productive

through real time environmental monitoring⁷, while another area of research aims to build sensors into office walls that interact with wearable technologies to improve the listening environment for anyone who is hearing impaired.8

Digital benefits

Studies like those at the Centre for Digital Built Britain promote the benefits of data - and there is no doubt that this brave new world of digital twins offers significant benefits. Work by Dr Gemma Burgess⁹ promotes **Building Information Modelling** or BIM as a way to test issues and resolve problems in the virtual environment, which reduces design errors and conflicts, facilitates the use of sustainable materials and save costs by providing more information more quickly than ever before.

An increasingly connected world is also likely to transform, and improve, consultation and engagement and the proliferation of data also makes it easier to share knowledge and produce collaborative responses to problems. Allmendinger and Sielker¹⁰ propose that use of 3D modelling significantly improves the public engagement, particularly in relation to tall buildings, and Sir Andrew Dilnot's introduction to the Geospatial Commisssion's annual plan¹¹ recommends that geospatial data should underpin planning processes as well as transforming public and private services. The Connected Places Catapult has commented that "Connection is what drives innovation in placemaking" and the Government's digital land team is working on a number of projects including shared data resources ranging from compulsory purchase orders to the energy performance of buildings.

Digital regulation

Anyone familiar with the UK planning system is also aware of the existing requirements that relate to its



Sue Chadwick Strategic Planning Advisor for Pinsent Masons LLP

associated data. The local authority has always, for example, been required to place planning documents on a public register, 12 to publish committee papers in advance of a meeting, minutes of the meeting itself and to keep those documents available for public inspection. 13 Once submitted, applications are – and always have been - open to public scrutiny and comment while public consultation and engagement is practically baked in as a required part of the process. Since 2004 there have been specific requirements, arising from the Aarhus Directive, that require public authorities to make the environmental information that they 'hold' available and give members of the public the right to see it.14

The Data Protection Act 2018 sets out a number of principles to guide the collection, processing and use of personal data by both public and private sector organisations and these rules were extended last year following implementation of the EU General Data Protection Regulation, providing enhanced rights for individuals concerning their data and more stringent requirements on the processing of special data. Sitting alongside the GDPR are the Privacy and **Electronic Communications Regulations** setting out privacy rights relevant to e-communications, the most recent version of which came into effect earlier this year.

In terms of the future, it is likely

that the government will implement many if not all of Judith Hackitt's recommendations following the Grenfell tower tragedy. Developers will be required to create and maintain a golden thread of building information held in a specified format including plans, a detailed specification in relation to how fire and structural safety risks will be managed, and a 3D digital model of the building 'as planned'. This will be submitted to the new building safety regulator at the first and second "gateways": planning permission and before construction. It must be reviewed and updated throughout the construction phase.

Digital issues

As the technological revolution gathers pace, issues around data are only going to get more complicated. 5G will extend the scope of what can be collected, and make video messages as easy to send and receive as texts are now. The Internet of Things will pervade rather than simply invade our environments, so that roads, buildings, and houses are connected within themselves and with each other - and as the use of wearable technology and biometric sensors increases, they will connect to us physically. Developments in AI will mean that this process of data collecting and sharing will be increasingly autonomous. Harari notes that with the right upgrades, even a Kindle can "know what made you laugh, what made you sad and what made you angry"15 - in the future this knowledge could be shared with your fridge, your car and even the bus stop outside your home.

Technological change is increasing the scope and speed of change to the extent that buildings will soon be smart enough to collect and process data on their own. This is already the case in the "Edge" building in Amsterdam where every employee is connected to the building through a smartphone app. This is promoted as an employee benefit – but as applications like this proliferate and include biometric and locational data they will provoke difficult questions about privacy and consent.

Further risks arise from the increase in scope of way in which data is collected and the types of data included, particularly where processes undertaken by humans can be streamlined through algorithms operating without human supervision – as they will when the data is collected through sensors attached to

or embedded in buildings. Relying on algorithmic data sets may include the creation of inferred data, and make it difficult to guarantee anonymity. Where the data set is based on previous biases or over-reliant on one particular subset of the population, its use could amount to a discriminatory practice. For any organisation proposing a new building with facial recognition built into security or entry systems, the need to ensure algorithmic equity should be a primary concern:

Biometric data is classified as special category data under the GDPR and is protected by Article 8 of the European Convention on Human Rights as part of an individual's right to a private life. The Tesserae Project, published in May 2019¹⁶ used Garmin Vivosmart 3, a dedicated app, Bluetooth beacons and social media tools to measure workplace performance, psychological traits and physical characteristics. This study is a clear indication as to the future of data collection – and the complexity of the regulatory issues arising.

Staying ahead of the regulatory curve

Despite these challenges, no one involved in planning and development can ignore the digital revolution – the likely corporate and commercial benefits of future modelling and enhanced engagement are too great to ignore. The key question is how to future proof developments so that they can take advantage of current and future benefits of digital developments without exposing themselves to risk.

At Pinsent Masons we promote three concepts for good data management: comply, contract and collaborate – built into the life of a building and evolving with its life cycle from conception at the planning stage to fully operational maturity.

- Comply: planning applications should be reconceived as digital embryos. We think there is enormous potential to take advantage of this stage of evolving development options to bake in good data management by including a data privacy impact assessment document with the application. This document should also include mitigation measures to mitigate any impacts identified.
- Contract: there is a strong movement for opening up data for economic and societal benefit – we support and promote this as there are clearly many situations where

- sharing the right data brings benefits for everyone. At the same time we understand that legitimate commercial interests should be properly protected.
- Collaborate data trusts are beginning to emerge as a way of allowing a number of parties to engage with how they collect manage and share data¹⁷ and we have worked with the ODI on the early stage pilots. In the future, there may be scope to secure documents like this through securing a planning obligation or planning condition in the same way as we would any other element of public infrastructure.

- 1 https://www.warhistoryonline.com/world-war-ii/polishmathematicians-role-in-cracking-germans-wwii-codesystem-xb.html
- 2 https://www.nic.org.uk/wp-content/uploads/Data-for-the-Public-Good-NIC-Report.pdf
- 3 https://www.gov.uk/government/organisations/government-digital-service
- 4 https://digital-land.github.io/event/
- 5 https://data.london.gov.uk/blog/gla-intelligence-and-analysis-unit/
- 6 http://www.digitalgreenwich.com/
- 7 https://www.cdbb.cam.ac.uk/CDBBResearchBridgehead/20 18MiniProjects/2018MP_Overend
- 8 https://www.cdbb.cam.ac.uk/CDBBResearchBridgehead/20 18MiniProjects/2018MP_Agarwal
- 9 https://www.cdbb.cam.ac.uk/system/files/documents/ BIMandUKHouseBuildingFinalReportforCDBB.pdf
- 10 https://www.cdbb.cam.ac.uk/system/files/documents/ UrbanPlanningandBuildingInformationManagementInterim. pdf
- 11 https://www.gov.uk/government/news/geospatialcommission-outlines-its-2019-2020-priorities
- 12 Town and Country Planning (Development Management Procedure) (England) Order 2015 (SI 2015/595) Part 9 Clause 40
- 13 S100 H Local Government Act 1972
- 14 Environmental Information Regulations 2004
- 15 Yuval Noah Harari, Homo Deus: A History of Tomorrow
- 16 http://www.munmund.net/pubs/CHI_CS_TesseraeLessons. pdf
- 17 https://theodi.org/article/data-trusts-gla/



n December 2017, the new Electronic Communications Code came into force to make it easier for network operators to install and maintain electronic communications apparatus such as phone masts, exchanges, cables and cabinets on land. Under the Code, operators have rights to install and maintain apparatus on land and those rights include rights to upgrade and share their apparatus. If these rights cannot be agreed between landowner and operator then the matter is determined by the Upper Tribunal (Lands Chamber) ("the Tribunal").

It is clear that the operators have been keen to test the reaches of the new Code and difficulties in reaching new Code agreements has led to stagnation in the market. As a result, there has been a plethora of cases in the Tribunal, has an obligation to decide many of these cases within 6 months. It is clear from its decisions that the Tribunal recognises the wind of change brought in by Parliament and is willing to blow it forcefully through property interests. This article highlights some of the recent decisions of the Tribunal over the last 18 months and their implications.

Public interest over property rights In one of the first cases under the new Code - EE Ltd and another v Islington London Borough Council [2018] UKUT 361 - the Tribunal noted that a property owner who is "deprived of the right to do as they wish with their own property and made to accept a price that is lower than they would like... can be said to have sustained an infringement of their property rights which is prejudicial". Nonetheless, it accepted the need to impose Code agreements because of the public interest in having high quality communications services available.

Here, concern for the public interest in avoiding a break in mobile coverage allowed operators to secure interim rights to relocate their apparatus to a new site at Threadgold House despite fairly limited evidence in support of their application. The Tribunal was satisfied that money would be adequate compensation for any prejudice caused to the landowner by the imposition of the order and rejected the suggestion that the works would cause prejudicial disruption to the occupiers of the flats within the building. It also made it clear that an operator only needs to produce modest proof that it has satisfied the tests set out in the new Code in such applications, which may be determined without a hearing.

A right of access to survey

Operators also secured a positive outcome in Cornerstone Telecommunications Infrastructure Ltd v University of London [2018] UKUT 356 (LC), where the Tribunal found that a



Emma Humphreys Partner Charles Russell Speechlys



Georgina Redsell Senior Associate Charles Russell Speechlys Fitzwilliam (2002- 2007)

right of access for surveying purposes is a "Code right" under the new Code. This may not change much on the ground for now, but greater access powers could be on their way following the government's recent consultation on proposals to amend the new Code. These would allow operators to force access against uncooperative landowners where a service request is made by a tenant, using a Magistrates' Court-issued warrant of entry.

At what price?

The next noteworthy decision concerned the amount landlords should be paid when they are required to allow the installation of communications apparatus on their properties (EE Limited &

Hutchison 3G UK Limited v The Mayor and Burgesses of the London Borough of Islington [2019] UKUT 0053 (LC)). EE and Hutchison sought a long-term agreement to allow them to keep their apparatus on the rooftop at Threadgold House. Prior to the introduction of the new Code, the parties had reached agreement in principle at a rent of £21,000 per year; however, the agreement was never completed. The rent proposed to the Tribunal by the operators was £2,551.77 per year, whereas the landowner sought a rent of £13,250 per year.

Applying the valuation assumptions provided for in the new Code, the Tribunal confirmed that any value attributable to the operator's intention to use the site as part of its network should be ignored. Taking that "no network" approach, and noting the lack of demand for rooftop space for a commercial purpose unconnected to telecommunications, the Tribunal concluded that the nominal value of the rights was £50 per year. However, it held that the consideration in the case should also take into account matters such as wear and tear to the common parts as a result of the operators' presence, the use of the building's fire safety systems and a contribution towards the cost of future roof repairs. On this basis (and in the absence of any service charge provisions in the proposed agreement), the Tribunal decided that the appropriate consideration for the proposed Code rights would be £1,000 per year. Nevertheless, it ordered that the consideration for the imposed agreement should be the same as the sum sought by the operators in their Tribunal application, namely £2,551.77

On the question of the separate

compensation available under the Code for any loss or damage sustained as a result of the exercise of the Code rights, the majority of the landowner's claims were rejected as too contingent or lacking in evidence. However, the Tribunal agreed that compensation should be paid by the operators in this case for:

- reasonable legal and valuation costs incurred in seeking to agree terms (but not in resisting the proposed agreement or seeking to settle the case); and
- the temporary use of the owner's land at ground level (and possibly also undemised parts of the roof) whilst the apparatus was installed.

The Tribunal noted that the landowner could bring further claims for compensation in the future in the event that additional loss or damage could be proved.

What about a landowner's redevelopment plans?

One of the grounds on which a landowner can resist a claim for Code rights by an operator is if the landowner intends to redevelop the land in question. In the case of EE Limited and Hutchison 3G UK Limited v the Trustees of the 1968 Combined Trust of Meyrick Estate Management [2019] UKUT 164 (LC) the landowners planned to put up their own mast instead of the Claimants' mast.

The Tribunal had to determine whether the trustees had a settled intention to carry out the redevelopment and, if so, whether their motive was to prevent EE from claiming Code rights. Using the principles relating to the opposition of business lease renewals under the Landlord and Tenant Act 1954, the Tribunal applied the Supreme Court's new "acid test" in S Franses Limited v Cavendish Hotels Limited [2018] UKSC 62, namely: would the landlord still carry out the redevelopment if the tenant left voluntarily?

The Tribunal ultimately decided that the landowner had a reasonable prospect of carrying out the intended redevelopment because it had the financial means and planning permission to do so. However, the scheme was found to be unviable and the Tribunal considered it doubtful that trustees, with fiduciary duties, would waste money on it. Furthermore, the Tribunal found that in reality the development plans had been conceived purely in order to defeat the claim for Code rights and therefore the claim for Code rights succeeded. This shows that a

landowner's intention to redevelop must be firm, settled and unconditional to resist the imposition of Code rights.

A final note on conduct and costs

The Tribunal has issued a number of warnings to both landowners and operators in respect of their conduct in Code cases. In Cornerstone Telecommunications Infrastructure Ltd v. Central Saint Giles General Partner Ltd & Another [2019] UKUT 183 the parties, having incurred costs in excess of £100,000, agreed an order at the door of the Tribunal to allow CTIL access to the Respondents' land to carry out a survey. The Tribunal held that the Respondents had been successful in the claim but was critical of both parties' conduct. In the circumstances, the Respondents were awarded only a small part of their costs in the sum of £5,000.

The Judge made the following comments:

"....The Tribunal wishes it to be known by other parties who refuse access to their land or buildings for surveys that, whatever the outcome, they cannot expect to recover costs on the scale incurred by the parties in these proceedings. Equally, the Tribunal wishes to make it clear to operators, as it has done in the past, that they cannot simply demand unquestioning cooperation from property owners. The Claimant's wooing of potential site providers has become a little less rough, but its technique still has a long way to go."

What next?

There is, of course, a real difficulty for our economy and society in trying to achieve the right balance between the increasing demands for better connectivity (including from many tenants) and the need for flexibility in the use of buildings and their redevelopment. Code operators will, no doubt, be keen to build on their recent victories and perhaps use their difficulties in securing new sites to try to obtain more enhanced rights from the government. However, most decisions covered here are being appealed. Many property owners will hope that further Tribunal and appeal decisions will provide improved clarity on the operation of the new Code and perhaps even some reassurance concerning the balance to be struck between the parties' interests.



Disruption in the real estate legal tech world and what we can look forward to in the future for the property industry

The following article is based on an interview between Omega Poole and Nick Kirby, July 2019.

Interviewer: Omega Poole, Partner & Head of Real Estate Debt Advisory, Mishcon de Reya, Trinity (1998)

Interviewee: Nick Kirby, Managing Associate in the Real Estate at Mishcon de Reya (MdR). In addition to real estate legal work he is one of MdR's Tech Champions, a mentor for startups in Pi LABS¹, a company investing in early stage ventures in the property tech space, and for participants in MDR LAB², MdR's own legal tech incubator which includes a Real Estate category for ventures providing solutions that assist real estate lawyers and clients in investing, developing and managing Real Estate. Nick was named in The Lawyer Hot 100 2018 in the 'disruptors' category and has spoken at legal and PropTech events including the legal innovation event, Lexpo '18 in Amsterdam and Future:PropTech in

London, delivering one of the key note speeches.

OP: Coming from a traditional real estate transactional background I'm intrigued to find out how new PropTech ideas might transform how we transact and deal with real estate. In addition to practising as a property lawyer, you are a mentor for start-ups taking part in MDR LAB and a "Tech Champion" for the firm. How did this come about?

NK: Much of my work when I started 12 years ago as a junior lawyer was doing due diligence for shopping centre acquisitions. This typically involved multiple lease reviews. Leases were manually divided into batches and parcelled out to team members to individually review and report on. Often, lawyers would have to manually compare documents to check for similarities. The work was very repetitive and I thought there must be a way to use tech to improve it.

We identified an external product used by insurers to check that their policies were issued without amendments, and repurposed it to make the lease review process more efficient. This was the start of the journey and I now dedicate 20% of my time to tech initiatives within the firm.

OP: Why do you think that the property industry has been relatively slow to embrace potential improvements from tech?

NK: There has been resistance to adopting new tech and a perception that it will take too long to get to grips with. Why change the way that transactions have been done successfully for years and years? Technology needs to be well targeted at really well understood problems; if it isn't it can be difficult to persuade companies of the value proposition. A good starting point is to try and get a detailed understanding of current processes and problems.

OP: You've also been directly involved in developing products. Tell us about this and the 'problem' you were trying to solve.

NK: About 5 years ago I discovered the Land Registry offered the title register

and documents via API . Together with a developer in our IT team and some budget from the firm, we created a product which enabled us to send a digital request to the Land Registry and receive title information in digital form with data points, such as 'proprietor', labelled so that the information could be readily extracted into an excel document for analysis or a word template as a summary.

Removing the manual data extraction step seems like a small change, but cumulatively it created meaningful time and cost efficiencies allowing us to focus on the actual legal analysis. We could also quickly identify appropriate information and run reports for clients delivering meaningful insight to our clients much earlier. As you know part of our firm's 10 year vision is to be 'technologically transformed' in order both to be more efficient and better at providing a client service, and to be at the forefront of what's going on in the legal tech space, and this type of product supports this goal. The arrival of our Chief Strategy Officer, Nick West, in 2016 enabled the firm to take a more holistic approach, think differently and improve the way we work more broadly and to drive transformation. There is now a diversified scene of external products that can be helpful including internal products which allow us to capture lease data digitally and deliver it to clients as data and external products that allow us carry out our due diligence faster and better.

OP: What does your role as "Tech Champion" involve?

NK: This is really about changing behaviour. Within the firm we have four associates tasked with championing specific products. We've already shifted mind-sets so that colleagues ask for help with "medium hard" problem where there is also pressure on fees, rather than just the very difficult problems that they immediately realise they can't solve without assistance from technology. It is much easier to help if we can intercept issues early in transaction life-cycles.

OP: What is MDR LAB?

NK: MDR LAB is a LegalTech incubator established three years ago. It is at the core of our strategy to deliver change within our firm. It is also how we find new technology to help us change the way we work in the near future. The 2019 cohort includes six early stage companies, from concept to early revenue, who have joined a ten week programme working alongside our lawyers and other business experts from within and outside the firm. It enables the participants to

test their products with real life users and to help them focus on building products around really well understood business problems. We've found that the fact they don't have the same preconceptions about how things are 'supposed to be done' also challenges the way our business thinks about tech. For example start-up Orbital Witness developed an on-demand service for profiling legal risk in property transactions by combining property data and user-driven analysis. It is now used as a due diligence tool. It has won over half a million pounds of R&D funding, including through Innovate UK's Industrial Strategy Challenge Fund⁴. Over 100 of our real estate practitioners got involved in its development and we had three times the volunteers requested for the pilot and really great usage stats.

OP: What in your view are the main areas ripe for disruption in the real estate industry more generally?

NK: The first is how we transact, which fundamentally has not changed for decades. There are huge inefficiencies in the industry. In the residential market alone, an estimated third of transactions don't complete at a rough cost of £1,500 to each buyer and seller, and there is even more lost productivity if foregone and waived fees are taken into account. In addition the Land Registry's digitisation initiative will ultimately impact property transactions and searches. We have also been working with a select group of collaborators, including HMRC, banks and conveyancers, to help the Land Registry trial blockchain transfer technology as part of the Digital Street project. HM Land Registry's stated goal is to become the world's leading land registry for speed, simplicity and an open approach to data.5 This is a grand statement and in my view will require a number of sensible projects by market participants, being a mixture of start-ups and industry specialists, to think creatively and deliver this. It might start with internal digitisation then external digitisation, e.g. tokenisation of real estate.

The second main area is leasing. Historically office tenants have not moved frequently. Moving can take three to four months and require significant management time and resources. This contrasts starkly with the process for securing serviced office space which can be completed much more quickly. As some businesses mature out of serviced offices and look to more permanent space solutions, there may be an expectation mismatch which could potentially drive change.

OP: What advice would you give anyone looking to explore a new PropTech idea?

NK: Find the problem first and collaborate. Real estate (like law) is a traditional industry which will be transformed steadily in small steps and by gradually changing mind-sets. Start-ups that have done well collaborate with industry participants, rather than working in isolation to address an issue that the industry doesn't recognise. Prove what you can do to help and be cautious about overpromising before you can deliver it. Set out your vision in a road map to help clarify your aims.

OP: Looking to the future, if our own kids grew up to be real estate lawyers, what do you think they will do differently and will there even be such a career?

NK: I think the legal industry will look very different. Our business will be tech-enabled from top to bottom allowing us to process information very quickly with high quality legal advice layered on top. We would be able to streamline client communications and potentially use different types of documents so that, for example, contractual clauses could be viewed through a matrix. We have already seen the evolution of tech such as Donna⁶ through MDR LAB which looks to provide features that Microsoft Word, for example, currently can't offer.

OP: If you could project forward say ten years, what do you think will be the main changes in how people in the property industry do business?

NK: I certainly think we will be able to have end-to-end negotiations without emails and there will be a lot more transparency. Once a transaction is made completely digital, multiple parties will be able to agree terms in parallel. Both transactions and property management will be a faster digital journey and our approach to leasing will be very different.

- 1 https://pilabs.co.uk/
- 2 https://lab.mdr.london/
- 3 Application Programming Interface an API is a software intermediary that allows two applications to talk to each other.
- 4 https://www.ukri.org/innovation/industrial-strategy-challenge-fund/
- 5 https://hmlandregistry.blog.gov.uk/2019/05/24/could-blockchain-be-the-future-of-the-property-market/?
- 6 Founded in 2017 and based in Sweden, Donna is an Al-powered assistant for lawyers, which improves the speed and accuracy of legal contract reviews. Available as an easy to download Microsoft Word add-in, Donna is designed to work alongside lawyers to boost productivity and reduce risk. Donna is also training a Neuro-Linguistic Programming

Opportunities in commercial real estate (CRE) are there for the taking

n our day to day lives, using technology has become second nature. Whether you're hailing a taxi, comparing hotel rates, or navigating a new city – these days you'd be hard-pressed to find an A-Z or a Yellow Pages. However, it wasn't so long ago that these simple tasks were manual, time-consuming and required a lot of thought and preparation. The efficiency that technology has brought to our everyday lives is indisputable.

But now imagine it's your first day at a new job — a graduate role at a reputable real estate company. You're met by your new employer with a stack of paper files full of leases, printed excel spreadsheets, and even handwritten notes. The difference between your digitally-enhanced everyday life and your new workplace is jarring.

Having worked in the CRE industry for over 13 years, I know first-hand that it's a very successful industry and a fantastic one for any graduate starting a career. However, it's undeniable that the way this industry conducts business hasn't modernised. While the world around us, including many other industries, has been impacted by technology, CRE hasn't fully embraced these digital solutions – until now.

CRE is now firmly in the midst of a digital transformation that's only going to continue to accelerate. However, not all tech is created equal. What we've seen at VTS is that technology thrives when it addresses a specific pain point or need. Property technology (proptech) companies need to be capable of adding real value today — while, of course, also offering an exciting vision for what might be possible in the future.

At VTS we've always had a clear vision. Our software reduces deal cycle time today by 41% and doubles conversion rates by simply eliminating the manual process, centralising deal and portfolio information, and helping to nurture tenant relationships. As a result, we have over 10 billion square feet of office, retail, and industrial space managed worldwide on our platform. In London alone one in every three sq ft of office space is managed on VTS. We're focused on delivering for our clients today, while also looking to the future with the launch of our new online leasing marketplace, Truva, to add even more value down the road.

Even though VTS is a rarity in the CRE technology industry as one of the few technology companies to reach unicorn status (valued at over \$1 billion); in comparison to the wider landscape of tech companies, we are not unique. We aren't the first tech company to successfully scale or the first to provide a solution that transforms the traditional methods of working. CRE is also not unique in the challenges it faces. It's not the first industry to go through digital transformation, and it certainly won't be the last. However, the leading players are in the fortunate position to learn from the mistakes of neighbouring industries that have already faced disruption — the impact of which has also been felt by the CRE industry. For example, Amazon's '1-click' ordering has revolutionised how we shop by providing an extra layer of convenience for users, directly impacting the built environment, traditional high street retail and last-mile logistics.

It's important to remember that these new technologies don't need to be viewed as having a negative impact. This is

something CRE is starting to realise. While businesses were once hesitant to modernise, they're now embracing new solutions and adapting to the changing landscape. There's no reason to wait for the inevitable change when businesses can control the disruption from within

So how does a CRE landlord positively engage with digital transformation? It's been said many times before, but the key



Charlie Wade Managing Director, UK

is data. The ability to aggregate, standardise, and interpret data will set CRE companies apart. Data is extremely powerful and provides the information needed to modernise, enhance working processes, and ultimately lead to more insightful, strategic decision-making. The industry has always craved data in its traditional format, for example, rental evidence, demand and supply dynamics. However, the power of technology will allow the mass aggregation of traditional data points whilst generating new insight, data points and analysis.

Forward thinking CRE companies have acknowledged that there is opportunity in taking this data driven approach to managing portfolios. This change in mindset has been driven by a number of factors that will continue to impact CRE:

The customer-centric approach

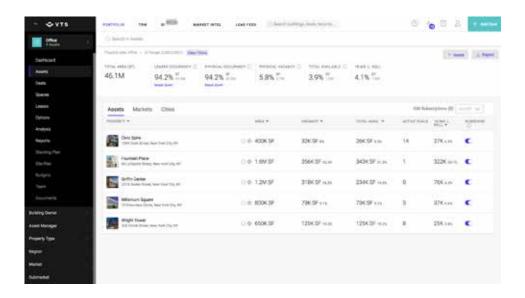
What does the customer really want and how well are you servicing this need? The end consumer for CRE is the tenant and they are making decisions about where to take space based on their experience and the quality of service. By closing this feedback loop with real-time information, landlords can respond faster, identify trends in deal wins and losses and see retention stats, which is valuable knowledge in today's environment.

Investor mindset

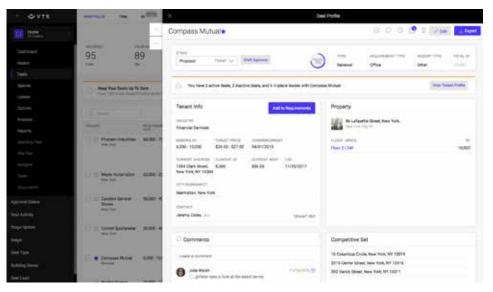
Investors deploying their capital into CRE are demanding greater transparency and real-time information. This can no longer be an industry that bases portfolio decisions on "gutfeel." In order to achieve the ROI investors of today are looking for — and the greater transparency and real-time information that come with it — landlords need to be able to pull data, share information, and report faster to remain competitive.

Disruptor impact

New players are breaking the rules in the office sector, e-commerce is changing the retail landscape, and the new demand for industrial space is transforming the way CRE landlords think about operating. Technology and the use of real-time data bridges these gaps as landlords are provided with immediate insight into the latest market demand and







trends, new tenant requirements and the potential tenants viewing their vacant spaces so they can optimise their portfolio accordingly.

A perfect storm is brewing from a combination of a bottomup, top-down and right through the middle pressure on the industry to adapt to these changes — and adapt quickly. The pace of this transformation will only increase and new socioeconomic and political events will only put further pressure on the industry. As these trends unfold, technology and the data that underpins it will become increasingly important. The fabric of real estate is changing for good and I for one am participating in this transformation with excitement and optimism. As the "Amazon effect" continues to be applied to CRE, the opportunities are vast and the future bright. Remember, transformation starts slow and then happens fast.

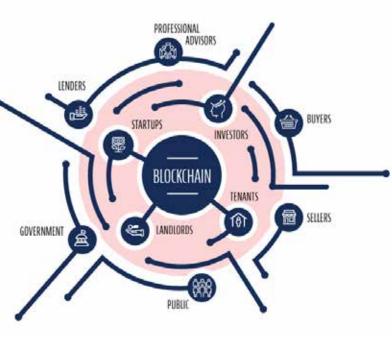
Blocks and Mortar:

Is blockchain set to disrupt the real estate industry?

What is blockchain?

Blockchain is a peer-to-peer, decentralised and immutable form of distributed ledger technology (DLT) which consists of validated blocks of data that are linked in a time-sequenced chain. When anyone sends data through an 'encrypted link,' that mode of encryption is through 'prime number factorisation.' This established way of encryption underlies 'bitcoin' and 'blockchain.'

Who are the relevant stakeholders?



Faster Transactions?

Land registries across the world receive, store and process vast amounts of data, and HM Land Registry is no exception: its land register contains more than 25 trillion titles, showing evidence of ownership for more than 85% of the land mass in England and Wales.

As part of its ongoing research and development project, Digital Street, HM Land Registry has partnered with software companies and blockchain specialists in order to explore how blockchain could help lead to a faster, simpler and cheaper



Stefanie Price Senior Associate Baker & McKenzie LLP

land registration process.

The trial and use of smart contracts, or programmed computer code that acts as an execution mechanism allowing contracts to self-execute could trigger, for example, the almost instantaneous transfer of title on receipt of the requisite funds. In theory, terms agreed between the parties are written into code, which then exists on the blockchain network. The transaction would then play out as per instructions written

into the code, reducing the need for third party input and transferring title from party A to party B in a traceable and irreversible manner.

The use of smart contracts also has the potential to greatly reduce post-completion costs and paperwork by enabling automatic updates to title registers, rather than waiting for lengthy application forms to be prepared by conveyancers and processed manually by land registries. The large-scale deployment of smart contracts within the industry remains a long way off, however the willingness of land registries to embrace and trial the technology hints at a new framework for future real estate transactions.

Registering registers

Investigating title to property can be a laborious process, with incomplete records and missing documents aplenty. Advocates believe that blockchain could be used to underpin secure and open land registry, allowing users and advisors alike to access ownership history records and track past, present and future registrations through access to immutable grouped or linked records.

Doubters cite previous security breaches of underlying code behind cryptocurrencies as a reason to question the validity of a blockchain-based safe space for confidential property records. In order to combat such security concerns, registries may look to adopt a permissioned DLT system, whereby access rights to information are controlled, and only certain parties may access records or finalise transactions. Much like an intranet system, a land registry could reserve access rights to sensitive documents. Such a step could help regulated entities and big business embrace blockchain from a security perspective.

Case Study: The United Nations Development Programme in India

Creating a credible, centralised and secure record of information is key to the UNDP's development of a land registry, underpinned by blockchain technology, for the city of Panchkula, in the state of Haryana, India. Many land registries across the world rely on historic paper records and are subject to questionable claims to land ownership. This uncertainty leads to a lack of transparency, delays, disputes and legal fees. The creation of a reliable record of property ownership where there had previously been none, may work to increase inward investment into the local property market.

The UNDP reasons that its Indian pilot project will bring powerful and validating change to record keeping by: creating a traceable and authentic history of transactional records; permanently and securely linking credible records to the system to avoid tampering or forgery; and allowing records to be seen by any party, at any time. However, registries must continue to exercise caution as, so long as inaccurate data is input and the platform's protocols are followed in its entry, the same inaccurate data would be accepted by the network and added to the blockchain. A registry will still only be as good as the data fed into it, and so developing registries will also need to put in place a system of quality control measures to make sure only clean data is added.

Countries as diverse as Sweden, Ukraine, Honduras, Ghana and Georgia are investigating how blockchain may be harnessed to improve the functionality, transparency and security of their registries and land processes, with the latter currently using blockchain to process all government property transactions and having successfully registered more than 100,000 documents.

Money talks: making payments

Real estate transactions invariably require money transfers to take place, either simultaneously or in sequence. These transfers require documenting and can involve substantial costs and numerous participants, particularly if the transactions require foreign exchange charges, mortgages or involve multi-jurisdictional elements. Blockchain enthusiasts believe new technology could change all this.

Take a simple mortgage. Provided the property in question is registered on the blockchain platform, the time taken for a lender to diligence the property would be reduced, and the parties may execute a readily available, pre-determined smart-contract loan document, reducing the need for offline contract negotiation. The parties to the mortgage could track its progress in real time on the platform and remove interference from intermediaries, whereas real-time funds transfers may be pre-programmed to take place from one ledger to the other across the platform, therefore reducing delays, risk and email traffic.

Currently, blockchain-based payment solutions are being piloted, with the hope that payment systems will slot in alongside the use of smart contracts to simplify and speed up money transfers.

Tokenisation: trading in real estate

Tokenisation is the digitalisation of tangible real estate assets and one of the more headline-grabbing applications of

blockchain technology to date. In short, tokenisation is a form of securitisation which aims to represent ownership of physical real estate assets online and then sell units in them using blockchain-based capital markets.

Advocates of tokenisation claim that it may allow the issuer access to a global, 24 hour real estate investment market, whereas critics argue that the return profile of real estate assets and the lack of interest from institutional investors, perhaps in part fuelled by doubts around the promise of large-scale disruption on short timeframes, will limit tokenisation of real estate assets to a very small number of investors and test cases.

Tokenisation could make use of smart contracts to automate dividend payments and compliance with platform regulations, however the security of blockchain platforms is still a concern for many, given past high profile blockchain hacks and security breaches. If fraudulent activity makes it into the system, who is in charge of the safeguards to stop it, and who programmes those safeguards?

With only a handful of tokenised real estate offerings made so far, the practice appears to lag far behind the theory. However, with the comfort that, if shares in a building are somehow stolen the building itself would still exist as a tangible asset, the real estate industry may need to keep a keen eye on the tokenisation of real estate in the years to come.

Legal and regulatory challenges

Wherever blockchain offers up answers, there seem to be further questions to be considered. How will disputes be resolved and which legal framework will apply to blockchain users, the protection of their data and the transactions conducted using blockchain platforms? How will regulatory regimes and bodies approach blockchain? How can security be guaranteed on an open system of ledgers?

In addition, key questions around liability for errors in the self-executing code of a smart contract, as well as the formal mechanism by which the terms of a legal contract may be definitively linked to the underlying code of a smart contract, remain outstanding. To top it off, lawyers will no doubt be concerned as to how and whether computer code will be able to untangle and process the elastic concept of "reasonableness".

Conclusion

It is certainly conceivable that blockchain technology could be used to automate many aspects of a real estate transaction, saving a lot of time and money in the process. The creation of a secure, transparent and immutable record evidencing property ownership would be a game-changer in countries with underdeveloped or developing land registries, bringing stability to real estate ownership and feasibly making it more attractive to investors.

For all the promise, blockchain requires long term investment and development to make it out of the test lab and into the high street. The technology is still in its early stages and it is likely to be a matter of years, not months, before we see public and private bodies rolling out blockchain solutions to real estate problems. Developers, start-ups and registries are making plenty of noise about blockchain, yet it remains to be seen whether investors, regulatory bodies and the general public will sit up and listen in what is often a slow moving and conservative industry!



The economic and cultural renaissance of the West Midlands continues apace. Growth is strong and optimism is high. We are at the forefront of change and on the cusp of great things.

Steve Swingler Special Correspondent West Midlands Combined Authority utside London, the West Midlands remains at the top of the UK league table for exports, job creation and foreign business investment and has a trade surplus with China and the United States. The West Midlands is a global player in autonomous vehicle research and hosts a premier tech and digital centre with strong automotive and advanced engineering sectors. In 2021 Coventry will be the UK City of Culture and in 2022 Birmingham will host the Commonwealth Games.

In 2016 the region sought to better harness this renaissance by establishing the West Midlands Combined Authority "WMCA" with an elected Mayor at its helm made up of 18 Local Authorities and four Local Enterprise Partnerships; all working together to take powers away from Whitehall and put them where they belong, in local hands.

Our new-found regional influence is driving a 30-year, £8bn investment package over transport, housing, skills, digital technology and more, to build a healthier, happier, better connected and more prosperous West Midlands

And devolution is working. Since May 2017 we have secured a further £1.7bn of new funding including £600m dedicated to

cleaning up brownfield land for housing and commercial development, signifying our massive potential for growth and faith by Government and investors that we can deliver.

This is helping to fund major transport infrastructure projects with new tram and rail lines as well as major road improvements to enable the region to get the maximum benefits from HS2 and help unlock long-dormant pockets of land for new housing. This is crucial given the need to build 215,000 new homes by 2031 to meet future housing and economic demand. That's why we are also at the forefront of developing new, modern construction methods so we can build more homes at pace while training local people in the skills needed to construct them.

All this provides a once-in-a-generation opportunity for growth – and we are seizing it.

But the WMCA is also focused on making sure all our diverse communities actually feel the benefit of this economic and cultural renaissance. That means people have the skills needed to take advantage of the new jobs being created – jobs that will require different skill sets for a new, digital age.

Our role as the UK's first large scale 5G test bed can help achieve this and drive forward

our cutting-edge industries particularly around autonomous vehicles and life sciences where we have a genuine advantage. We are laying down the foundations to grow the new industries that will create the jobs of the future.

Our commitment is therefore clean and inclusive growth – which means jobs, skills and development opportunities that benefit all of our communities to give everyone the chance of a worthwhile job, a good home and a decent quality of life.

This matters in the West Midlands because we are the most diverse UK region outside London and the youngest in Europe. Our population is entrepreneurial and eager to realise their potential. Our most powerful asset will always be our people and with eight universities and world-class research institutions we are brimming with bright graduates from around the world. 52,000 people graduate in the region each year, with most staying to create businesses and new opportunities.

Our population is highly diverse. For many decades people from around the Commonwealth have come to call the West Midlands home. That diversity doesn't just give the region a great cultural and culinary scene; it provides powerful personal connections to the rest of the world.

But it's important we turn our diversity into a strength by putting in place a new approach that's about inclusivity and opportunity for all. Last year we launched our Leadership Commission to ensure our leadership becomes more representative of the people it serves. Its report – "Leaders Like You" – reinforced our understanding of many longstanding issues and made clear recommendations for action.

Greater diversity brings fresh perspective and alternative ways of looking at an increasingly globalised world. Together we can generate greater prosperity and less disaffection amongst excluded groups.

The economic and cultural renaissance of the West Midlands must be shared with everyone.



Cable Street

Cityscape from Aston





In looking at the property trends in the UK regions, these largely mirror the national trends and are perhaps best dealt with under the various sectors, mainly from an investment perspective.

David Allen FRICS
Director, Holt Commercial

Retail

West Midlands retail activity is limited and certainly rebasing of rents is very commonplace. The absorption of first Merry Hill and then Bull Ring has had a long lasting effect on the areas surrounding them.

Birmingham, where I work, has not been immune to the impact of the trials and tribulations of mid-market restaurants experiencing trouble, but these have quite often been replaced by independents and newer brands. A more worrying situation is the high level of vacancy in once vibrant market towns and suburban shopping centres. This may need direct local authority action and more imaginative collaborative solutions.

The significant developments in Birmingham will be the promotion of the new retail scheme at Martineau Galleries by Hammerson after many years of inactivity and, equally, the repurposing of the House of Fraser building owned by Legal & General.

Retail warehousing is struggling in places but the fundamental attractions of open planning permissions and food anchored schemes with significant leisure components to increase "stay time" are still attractive to investors. As witnessed by the M&G purchase of Selly Oak in Birmingham and the refashioning of Gallagher Retail Park at j9 of the M6 following its sale.



Office

Office has shown considerable investment activity and interest and has commanded good sharp yields.

This is due, partly, to the interest and latterly substantial commitment by WeWork and Regus amongst other serviced office operators in taking occupational space with little new accommodation actually available in the immediate pipeline.

The prospects for rental growth are therefore dependent on large schemes being brought forward which we all know is problematic.

Secondary supply has been considerably reduced with interesting refurbishments by the likes of Circle Property and others and the increasing Permitted Development Rights change of use to residential especially outside the inner ring road in Birmingham. This has been mirrored in other localities to a lesser degree and perhaps the one area that is still struggling is out of town office accommodation, although where facilities have been provided strong demand has been shown, for example Blythe Valley in Solihull.

Industrial and Logistics

The continuing theme within the West and East Midlands is the continuing demand by institutions both overseas and UK-based for prime logistics investments.

Yields of sub five per cent are consistently obtained for a variety of lot sizes. Whether the massive increase in land values can be sustained when rental growth is not as great remains to be seen. The cloud on the horizon might be the impact of Brexit on the automotive supply chain and indeed the fortunes of JLR both a large direct and indirect influence.

Alternatives

Completing the 'beds and sheds' investment forecast made by many for 2018 and 2019 has been the Private Rented Sector (PRS) about which I wrote in the 2018 edition of the CULS Magazine. Very few schemes have actually completed although there are now a number in the construction pipeline due for delivery soon backed by well-known institutional names.

Other alternatives which have proved extremely successful in investment terms have been out of town drive-thru restaurants where long leases and indexed proof income can be obtained from very good covenants such as Costa, Starbucks, KFC and McDonald's. This has proved extremely attractive to family trust and smaller pension scheme buyers.

The current challenges post-Brexit, whatever the outcome, will be accommodating increased build costs both for new developments and especially for refurbishments. Imaginative schemes will continue to be attractive as they will stand out from the remainder of the stock attracting occupiers who wish to retain and attract quality staff. What were 'nice to have' additional facilities in buildings such as showers, small gyms, bicycle racks and coffee shops are now a 'must have'.

Conclusion

So what will be the new trends? In my view, these will include asset management of retail parks with the greater emphasis on those that are in secondary positions becoming either trade park style or indeed 'last mile' logistics. In addition I think we will see retail in secondary locations and especially suburban locations going over to other uses such as doctor and dental surgeries, albeit this will require a level of car parking that quite a number of such properties do not currently enjoy.

External factors in the West Midlands include the positive effects of the Commonwealth Games in 2022 and UK City of Culture in Coventry in 2021 and as far as the Birmingham business community is concerned completing HS2 (as I write a government review has been announced).

All-in-all, there is no great surplus of stock other than in affected retail areas which will remain the main challenge for the industry – and socially – over not just next year but the coming years.

To make sure this article did not turn in to a rant I left out comments on void rates, local authority investment purchases, long leasehold and CVAs and their impact on landlords!

Finally all of my views could be seriously altered depending on the political machinations between now (end of August) and 31st October.



An Unintended Consequence of Brexit?

At the time of writing the 'Big Issue' around the political world is Brexit, and so much is changing as well as being written that it would not be very helpful or enjoyable to spend more time on the topic here.

hat, however, may be more worthwhile is to spend a little time on one of its main causes – this I think is undisputed now - the sense of alienation and disenfranchisement of a substantial section of society. On one level at least it hardly matters whether the population is right or wrong about this because the phenomenon is there.

With the benefit of hindsight, it is clear that the political approach and the public sector models for evaluating public expenditure contained an inbuilt bias towards favouring the richer and in particular the richer and more densely populated parts of the country. This in simple terms hinges around evaluating the return of the investment without properly recognising it is easier to make money and generate a return in a prosperous locality than one which is less so. Now, of course, there are exceptions to every rule, so while it is a general proposition which holds true much of the time, it does not do so invariably. Having said that, the less well-off parts of the UK – in particular parts of the North and Midlands of England, which do not have the benefit of the Barnett Formula, feel especially aggrieved.

It is an irony that during my time as a member of the European Parliament, some years ago now, a number of the great cities of England tried to establish their position in the EU system to put themselves on the same equivalent basis as their great continental counterparts who had a 'de facto' recognised standing on their own account.

In this context Whitehall and the London establishment did its best to thwart this in the interests of the integrity of the Nation State. Had this not occurred it might be that the surge of disaffection which powered much of the impetus for Brexit would not have been so powerful.

As someone who has spent part of his life engaged in political life based in the North of England, it is interesting to look at what may be emerging in response to this, because any government has to recognise a strong surge of populism in any particular sphere because to pretend it does not exist will lead, inevitably, to problems.

Currently, amongst other things I chair the Cumbria Local Enterprise Partnership. Now LEPs were established a decade ago as a replacement to the Regional Development Agencies, which the Coalition Government wished to abolish. Since then they have survived but in many cases without much of an apparent role or recognition by the public. Now,



Lord Richard Inglewood Hutton-in-the-Forest Trinity (1969 – 1973)

however, it seems that the Government may deploy them both individually and in groups, for example, the Northern Powerhouse 11, or Midlands Engine to be an instrument of economic policy and a conduit for disbursing public money. Now while it is true local government plays a part in LEPs, it is supposed to be subordinate to the business/private sector involvement.

As at today there appears considerable uncertainty about what such a role might not least because going down this political route may well weaken the role of Central Government. That is something which gives it concern.

The last two or three years have seen Whitehall, quite rightly, tightening up LEP governance, but having done that it will be interesting to see what role the LEPs then may play in the workings of the, about to be launched, Shared Prosperity Fund.

This matters because there is a general recognition of the desirability of recharging the energy of our great English cities in an effort to regain much of their Victorian energy and vigour. There is a general consensus, however that might be expressed, about doing this. Over the last twenty years or so, this has been focussed on structures and forms of regional devolution and giving regional bodies and development agencies, or even assemblies, considerable autonomy. However, whatever the particular successes of individual initiatives, collectively they have not become embedded in the generally accepted way of doing things in this country.

But is this going to change? And will it be Brexit that is the midwife? There are those who argue that a hard Brexit would bring about the end of the Union between England and Scotland, with Northern Ireland leaving the UK as well. Sadly, I would not bet against it. But in the more parochial context of England is it going to bring about a longer-term change in the relationship between London and the English regions? Regardless of what happens on the 31st October and the kind of Brexit, if any, we shall have, it looks to me as if that may be one of the things to emerge from the current political turmoil.

My Story - The Most Humbling Experience

any of you out there are aware of the Silver Street Group, the younger membership arm of CULS. I have the grand honour of being the Inaugural President and was well known for my loud personality and love of life. I was so proud of the work we were doing bringing younger members into CULS and then, I just disappeared. It was the end of summer of 2008, the markets were nose diving hard and fast. I had just made Senior Analyst, and had been told that I was being sent out to Beijing and Singapore to help kick start the REF platform in Asia Pacific. Things were on the up for me.

A health scare a year before, when I collapsed from exhaustion (after a 22 hour meeting) whilst having a quiet pint with a fellow Cantab, made me realise I needed to calm down. But alas by the summer of 2008 my immune system was struggling and I was knocked sideways by Glandular fever and Tonsillitis. Most of us were working very hard and playing even harder. Some were not even playing, just chained to their Canary Wharf desks, night and day. I regularly used to eat three meals a day at mine. Saturday and Sunday school were practically mandatory, if you wanted to make it. I had taken 2 weeks holiday but I spent most of it in bed with the infections (due to my immune suppression which has only recently been diagnosed). The normal routine blood tests for infections came back clear.

(If you have immune suppression, your immune system does not mount a 'normal' response. So the blood tests which look for Cytokines (Protein chains) come back clear, no immune response I.e. No Cytokines means to most doctors, no infection. I also have very low levels of Natural Killer cells. Even when I was in deep sepsis last year, I did not have a temperature but thankfully a last minute massive dose of intravenous antibiotics saved my life. My Mitochondria are also disfunctional they are effectively the batteries in the body. Mitochondria produce the energy in the body called ATP (Adenosine triphosphate). I am living proof that ME is not Yuppy Flu but a serious multi system metabolic disease. In 2018 Prof Julia Newton from Newcastle University (in collaboration with the other place) proved clinically that people with ME simply do not produce ATP effectively but there is still so much to understand why.)

Back to the City - I felt guilty for being off sick for two weeks as the industry were firing many people. I came back to work very prematurely (my choice) but I still had a fever and was struggling to get to the office - my legs were on fire. Three days later, after a meeting, I collapsed into my chair at my desk. My chair saved me and my pride! I rested for two days and got back to my family home in Cornwall. This was the start of the end for me.

My local GP knew I had a problem but he couldn't run any blood tests and had absolutely no treatment to offer me. This is not unusual - the NHS has virtually no resources to diagnose and treat ME, even though in the UK alone 250,000 people have it. Then a series of medical errors and medical conflicts of interest completely changed the course of my life. I was mis-prescribed an anti-dizziness drug for an inner ear infection and I should have been on it for 2 weeks, not 8 years. The side effects have ironically been extreme dizziness and sickness! Very basic bloods were finally run and a CAT scan was done, all came back clear. At the time, if you complained of fatigue and the routine bloods were clear you were then simply diagnosed with ME and told it's mental health! I refused to accept this diagnosis.

Over the next 8 years I was virtually completely paralysed and unable to speak - essentially I was over dosed on antidepressants by the doctors (but I wasn't depressed and it made me worse) and I ended up in hospital with a feeding tube to keep me alive. Post blood sepsis last year, I was weighed at hospital and although eating constantly, I was down to 60kg. I'm 6'3" and normally more like 90kg,

It has been truly horrific, but also the most humbling experience. To cut a long story short, I refused to take the medication after years of getting absolutely no help. Even if there was a private option, there are no doctors with the expertise. Now that I have removed the medication, cleared the ecoli which was just eating me alive and sorted out a serious Vitamin D deficiency - I am now fighting back very hard indeed. I have a private specialist physio called Jen Cardew, she's one of the few ME physio specialists in the UK, she just happens to live in the same village. She is helping me learn to walk again and I am in intensive training, using a combination of functional physio and yoga.

This is 180 degrees away from my former life. I have lost ten years, friends have moved on, close friends have got married, had kids and moved up the ladder. I am just focused on trying to walk again and making sure others know my story and understand the full impact of giving your all at work and at play. But God help you all because I'm going to fully recover and make a comeback, watch this space! You can follow me on Facebook and Instagram, I post training and yoga videos most days. If you don't know me but are interested please message me (martinwiseman2017@yahoo.com). Play to Win and Never Give In! It's my motto, it's how I have always lived - it just has a new meaning now.



Martin H Wiseman MPhil Real Estate Finance (2005)









v involvement with church architecture began early when, as a choral exhibitioner at Corpus and the only architect in my year there, I was a sitting target to do a lot of the donkey work for the chapel re-ordering which was then under discussion. My main labour was to produce a survey drawing of one bay of the interior, including Blomfield's dark oak roof. This was taken away by one of the fellows, Malcolm Burgess, who reappeared a few days later with my drawing, coloured in a riot of sky blue, peach and gold which has enlivened the chapel ever since.

In two very significant ways though this experience was fundamentally different from most church architectural work. First, most parish churches struggle financially and second, extraordinary as it might seem, the Byzantine processes of decision making in a Cambridge college are simplicity itself compared to processes for buildings under

the direct guardianship of the Church of England. These days, as an architect and a churchwarden I have an unusual dual perspective on these problems and others.

About 30% of all the Grade 1 listed buildings in England are parish churches (about 4,000 of them) and my own church, St Etheldreda's in Hatfield is one. It is a large and splendid building - you may well have spotted it from the train, up on the hill next to Hatfield House - and, as with all such churches, the only regular maintenance funding comes from the congregation. We are quite lucky with a regular and growing attendance of over 100 but many magnificent churches are in tiny villages with dwindling congregations. This is clearly a major problem right now for the many parishes concerned but it is also a looming crisis for the whole country that we have no sustainable source of funding for such a large portion of our heritage. When you need to find half a million pounds for roof repairs, coffee

mornings and church fetes are never going to be the answer.

Congregations may not have the funds to maintain their marvellous buildings, but they are not allowed to ignore the need to do so. Every church must be inspected once every five years by an architect or surveyor - the dreaded quinquennial inspection giving them, at least in theory, a better level of protection than non-ecclesiastical listed buildings. Quinquennials are not great business for the professionals and often result in dozens of recommendations which are never implemented, but they are better than no protection at all and they are at least getting safer. I recall using an un-restrained 48-foot ladder for roof inspections which can now be done using drones.

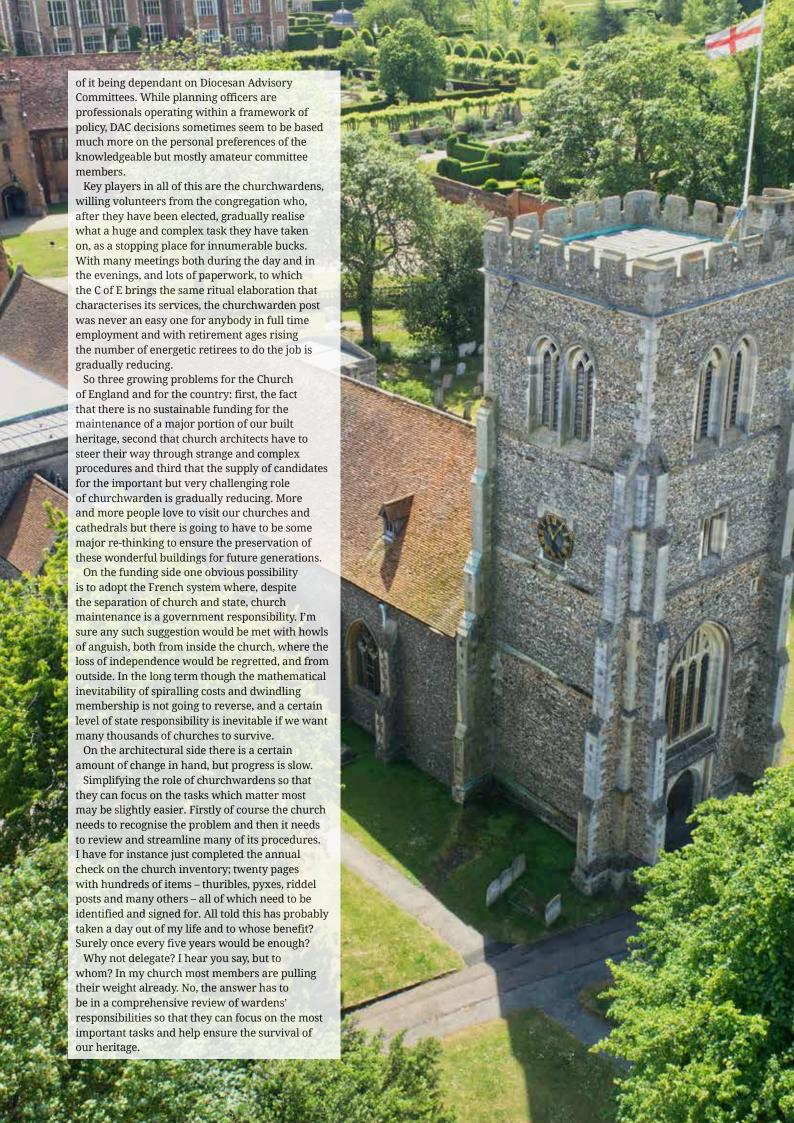
Enhanced safeguards also apply whenever work is needed or if any sort of change is proposed. There is very little which can be done without at least a letter of authority from the Archdeacon and work of any significance is



Richard Morton Director BMArchitects

likely to require a faculty, an arcane alternative to listed building consent. For an architect who has painfully gained experience of normal planning and listed building procedures, entering a whole new world of archdeacons, chancellors, consistory courts and faculties can be a baffling and frustrating experience. It can all feel a bit like plunging through a wall at Kings Cross and finding yourself in Hogwarts.

Not only is the faculty system very different from normal planning procedures, it is also less predictable, much



How to Revolutionise Your Exercise Habits for Business

Many roles within business can be extremely demanding, whether it's as a senior manager, executive, business owner or partner at a firm. Working in a high-pressure position can take a lot from an individual, requiring time commitment, constant focus, leadership and the many responsibilities that come with

s a result, many people end up putting the needs of their profession before their personal wellbeing, which ends up impacting on their exercise, nutrition and overall health. Shortcuts are taken, meals and exercise sessions are skipped and keeping healthy seems like less of a priority. Habits like these, of course, become hugely detrimental to an individual's physical and mental health and can be tough to remedy without the right guidance, self-motivation or support from others.

PGPT has had many years of experience working with busy professionals in a wide range of industries, helping them to revolutionise their health and fitness habits in order to improve their quality of life both outside and inside the workplace. If you have found yourself feeling low on energy, unmotivated, out of breath or prone to illness, then you should be asking yourself: "Is it time for me to prioritise my fitness?"

The Importance of Exercise You probably know already that physical exercise both releases 'happy chemicals' (like serotonin and endorphins) and reduces 'stress chemicals' (like cortisol) in the body. This balance not only helps you to unwind and sleep easier, but also keeps your alertness, focus and productivity at their highest. Being less stressed and having a better quality of sleep is also beneficial to your long-term mental health - something that far too often goes overlooked in service of more hours spent at the office. Exercise can also benefit the immune system. For people in important roles within their

organisations, being at the top of your game and avoiding sick days is vital. Regular exercise (supplemented by plenty of sleep, hydration and a good diet) will make you more likely to stay healthy and illness-free, so that you avoid taking unnecessary time off. To give yourself the best shot at developing an effective routine of exercise, here are some of our tips that you should follow:

Lifestyle Tips that Will Revolutionise Your Exercise Habits

- 1. The first step is to make the time for daily exercise, not just find time. This could be in the mornings before you go to work, during your lunch breaks, at the end of the day, or even during your commute to the office (through cycling, running or even simply power-walking). The key is to choose a time and place that suits you, stick to it and make it a priority. Book in your workouts on your calendar as if you were setting up work appointments. If the sessions don't work as part of your daily activity, change things until you find a routine that works!
- 2. If starting a fitness routine has always
 - been daunting for you, then choosing an exercise you find enjoyable will make it easier to get into a regular training routine. Even if it's something as simple as following a Youtube 7 min

fitness workout in your living room, once you start doing a regular exercise you are actually motivated to do, then trying out tougher or more varied training sessions will be even easier.

3. The third piece of advice we have is to realise the importance of accountability; Tell family members about when you're training, have a personal assistant pencil it into your diary, arrange with a friend to work out together or even simply set an



Peter Gaffney Founder, PGPT (www.pgpt.co.uk)

alarm on your phone. The more people that know about your goals, the more support they can provide and the more accountable you become. This can help you commit to your training sessions when your self-motivation is low or you're tempted by excuses not to exercise.

4. Finally, try to cut down on your caffeine intake. While your daily coffee may be the saviour of those early morning meetings, this only creates an artificial feeling of alertness. Cutting down on caffeine will go a long way towards helping you feel the energising benefits of exercise and help you wind down for quality sleep more effectively.

Should You Use a Mobile Personal Trainer?

One of the things we've learned over the years at PGPT is that people in high-pressure, high-responsibility jobs often have lots of determination and drive, but when it comes to exercise and fitness this is often underutilised.

That's why
we specialise in
mobile personal
training, which
provides the same
high standard of
exercise coaching,
programme
planning, advice
and accountability,
but with the added
convenience and
flexibility of being

able to run training sessions almost anywhere and at a time that suits the client. This helps to encourage self-discipline and motivation when it comes to exercise: there are no longer any excuses or reasons not to commit to a good and consistent routine.

If you've been looking to revolutionise your approach to fitness and begin investing in your health, then hiring a mobile personal trainer may just be the solution you need.



Are wildlife buffer zones successful as a shared use class in Northern Botswana?

The threat to human lives is under-stated in Northern Botswana's buffer zones

The startling frequency of the loss of human life due to conflicts with elephants (Human Elephant Conflict) in the Maun area of Northern Botswana was an unsettling fact that I came upon whilst enjoying an otherwise surreal safari experience in the Chobe, Moremi and Okavango Delta this summer. Our knowledgeable and experienced guide, KD, happened to be a consummate conservationist, a wild-life researcher and part-time academic. We spent eight delightfully immersive days of studying and watching a pack of the endangered African Wild Dog in one of its few remaining habitats. We also had several close encounters with mighty southern African elephants whilst they foraged through Mopani trees close to our tents. KD is an activist stakeholder in the Maun region and is part of a lobby to have the current ban on selective hunting lifted and regional quotas for safari hunting re-instated. The ban took effect in 2014 following findings from an aerial survey covering c.98,000sqkm of N. Botswana (The Great Elephant Census) that was carried out by Elephants Without Borders in collaboration with Botswana's Department of Wildlife & National Parks. Today, Botswana is the largest single stronghold of elephants in the world, with a well-resourced and managed antipoaching strategy and with approximately a quarter of its land mass designated as protected nature reserves and national parks. A vast majority of the elephant population, c. 129,000, is located in Northern Botswana, and the results of the 2014 census noted a stable population since the previous survey carried out in 2010. However, a massive decline of c. 60% was noted in other species of plains game and hence the government declared a ban on all selective hunting licenses. Consultations are underway and it is expected that the ban will be lifted later this year.

Consumptive tourism is perceived as a major source of local income

My initial reaction was that of a protectionist elephant lover, who wishes to see the likes of Walter J. Palmer (slayer of Zimbabwe's Cecil the Lion) forever banned from inflicting harm on the fragile biodiversity of this region for the sake of their egotistical pursuits. However, there is well-documented evidence that supports the success of trophy hunting as a major source of income for local communities. An article published in the South African Geographical Journal (Mbaiwa, 2018; Okavango Delta Institute, University of Botswana) focuses on the negative human, social and economic impact of banning safari hunting in N.Botswana. Citing the Social Exchange Theory, Mbaiwa argues that in addition to human welfare and support of incomes, wellmanaged, consumptive tourism like selective hunting can provide an important source of income for conservation initiatives that can reverse the depletion of endangered species. Typically, the hunter is charged on the basis of a user play-user pay-model, with singleuse licenses averaging at \$70,000 in South Africa. A reasonable annual quota would have the potential to ease tensions from HEC by reducing reliance on agricultural income from land shared with wildlife. The rationale is that solitary, old male bulls tend to be the most common adversaries in the buffer zones, and they would be a worthy price to pay for saving human lives. The ban is singled out as a major failure of the government's management strategy for the greater Maun area.

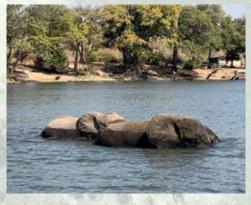
Can Botswana adopt a methodology that adequately reflects the value of its unique ecosystem?

Whilst the lifting of the ban may take some of immediate pain away, there is an argument for communities to lobby for a suitable approach

to valuing their land and its unique position on the globe as a carrier of the largest population of a keystone species. The objective would be to strengthen their ability to drive new pricing mechanisms and new sources of nonconsumptive, non-invasive income that properly reflects the value of their land and their unique ecosystem.



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Wolfson (1990)



It is also worth mentioning that trophy hunting is a sport in decline - research from the US Fish & Wildlife and the US Census Bureau shows that only 5% of Americans over 16 years of age are involved in hunting (2016) - a proportion that has halved from 50 years ago. Changes in consumer preferences and attitudes are expected to lead to an accelerated decline over the next decade. Moreover, safari hunting is not quite consistent with a 21st century image for a country's wildlife tourism industry.

The successful management of buffer zones hinges on the creation of new income streams

An interesting publication by WITS University, lead authored by Blignault* (2008) on the economic value of elephants and ecosystems that contain elephants uses the Total Economic Value framework to determine use and nonuse values of elephants. Whilst existing policy tends to focus on Use Values that include consumptive income (hunting, ivory, game meat, hide) and non-consumptive income (viewing, photography, game park entrance fees, contribution to taxes and levies), the author draws our attention to Option or Insurance values that would generate future income from conserving elephants today, and to Non-Use Values that include beguest values, and existence values. The latter is defined as the willingness to pay for the conservation of the ecosystem just so that it continues to exist. The local community in the buffer zones in Maun would argue that the destructive characteristics of the elephant as a forager, a threat to human lives and a destroyer of trees and of cultivated crops should also be reflected in the TEV framework. Nevertheless, the opportunity lies in developing an appropriate framework that uses available data and a methodology for quantifying the value of buffer zones in conserving the biodiversity of the Okavango Delta. The successful management of the zones lies in creating future, non-invasive income streams that will deter encroachment and will allow for a more sustainable co-existence of humans and wildlife. Some interesting options may include local data gathering and wildlife research, anti-poaching training schools, highend educational tourism, photojournalism, improved implementation of licensing and royalties for commercial use of wildlife photography, and virtual safari hunting if they

 * Elephant Management, A Scientific Assessment for South Africa (2008), James N Blignaut, Martin de Wit



Kilimanjaro

hen I retired from CBRE in July 2018 I had a long and varied "bucket list" of things I wanted to do. However, the most important and pressing urge for me was to travel in Africa – I was born in Nairobi, Kenya and had spent my early childhood there. This was the spur that pushed me to organise a great adventure with my wife Lou, my brother Richard and some other willing friends, to travel from Mt. Kilimanjaro near Arusha in Tanzania to the Cape of Good Hope in South Africa.

We ended up driving over 7,500 miles through this giant continent, crossing six countries in two and a half months. Our plan was to travel through rural areas and out of the way game parks less often visited by tourists. We would be driving our own vehicles without guides and camping in remote locations some of which would have no water, power or any other facilities at all. The terrain would be a mix of relatively lush savannah around the Rift Valley in the early stages, changing to hot dusty deserts and rugged mountains the further south we went. The skies were huge and the sunsets gorgeous and we all really liked the baobab trees. But always there were mosquitos, tsetse flies, scorpions and any amount of other creepy crawlies to contend with, and so we had all been careful to have the required vaccinations and carried appropriate medical supplies.

Starting in October 2018, we made our way south west



to Cape

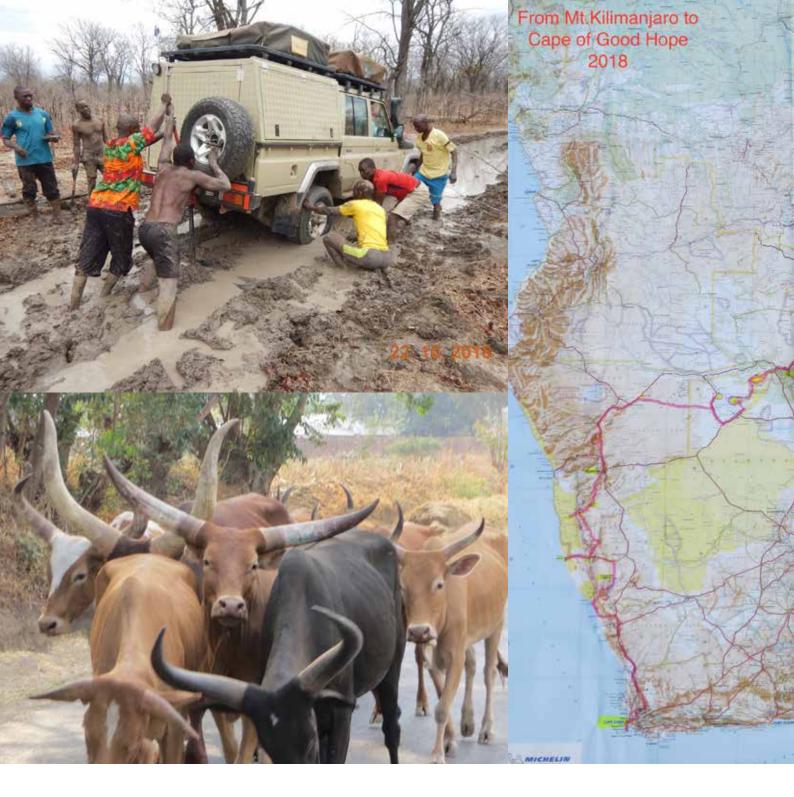
through Tanzania in the first week or so visiting Manyara, Tarangire and Ruaha game parks and the capital Dodoma before crossing into Zambia at the busy border town of Tunduma. The size and number of pot-holes on the Great North Road really have to be seen to be believed and this made the going very slow. We had many close brushes with large lorries seemingly on the wrong side of the highway. In North Luangwa, a really remote area, we had our most tricky situation after a day or more of torrential rain turned the dirt roads into a quagmire of black cotton mud. We got well and truly bogged down and had to call for assistance from some park rangers. The rescue team took 6 hours to arrive and they themselves had got stuck on the way to reach us. We eventually crossed the Luangwa river to safety just before dark camping directly on the other side in what was an unscheduled stop.

Back on the road south we left South Luangwa and made a four day detour into Malawi spending some time in the capital Lilongwe and two nights on the idyllic Domwe Island at the southern end of Lake Malawi. The latter is a fresh water marine reserve also known as the "Calendar Lake" as it is 365 miles long and 52 miles wide.

Back in Zambia we rejoined the route down to the lower Zambezi river, skirting south of Lusaka, and on towards Victoria Falls where a group of other friends including David Tudor of CBRE were joining us for two weeks. By this stage we



John Symes-Thompson Pembroke (1977-1980) CULS Past President



were familiar with baboons, buck and elephant walking rather close or even through our campsites - but we were still very wary of the much less popular visits by hyenas and hippos at night. Hippos can be especially dangerous to travellers if they are surprised during their nocturnal grazing trips. We used infrared cameras to check on any camp visitors.

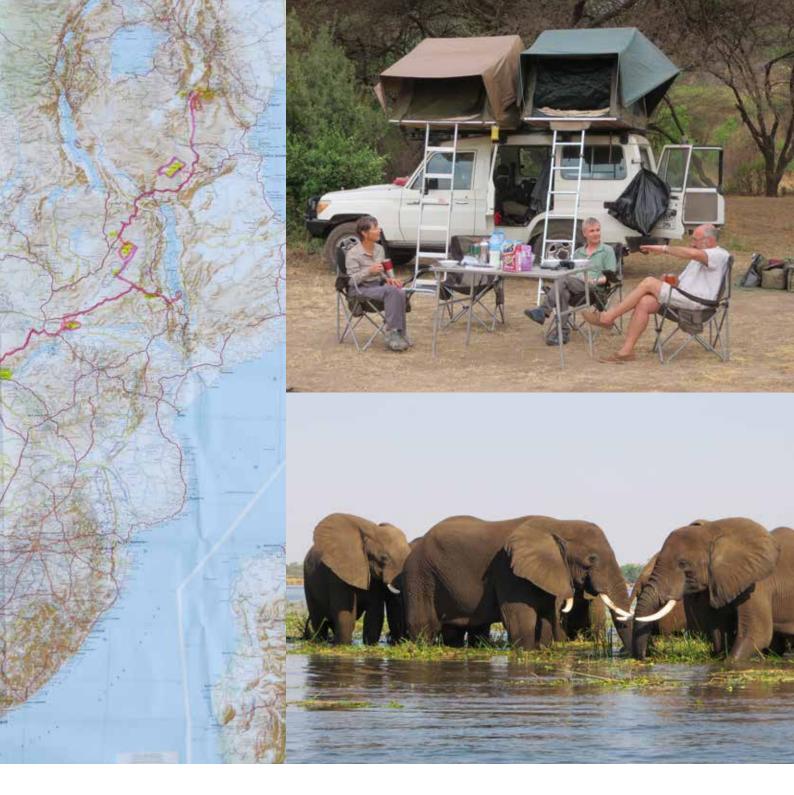
After visiting the magnificent Victoria Falls from both the Zambian and Zimbabwean sides we pushed on, crossing the Zambezi via the Kazungula ferry into Botswana, and driving on to our next stop on the banks of the river

Chobe. Typically we drove for around five to six hours a day always on the look out for game, and often discussing the merits of navigation by map, GPS or Satnav: usually a combination of all three was required to establish the route. From Chobe we moved down to the Okavango Delta on very rough sandy roads passing through Savuti and Maun. In the Delta the marshy flood plains support an amazing variety of fauna, and the bird-life in particular was fantastic. We had to cross many smaller rivers on rickety wooden bridges, most of which only took one vehicle a time, and were pleased to

help rescue another vehicle which had stopped mid-river on one of the crossings with no useable bridge.

In mid November we crossed the border into Namibia travelling through "Bushman Land" on what was possibly the longest and hottest day of all. We then headed south to Okonjima reserve where we spent two days and were lucky enough to track both leopard and cheetah.

Our next stop was in Windhoek, the capital of Namibia where we had a couple of days of respite, and restocked the vehicles. From here the trip took us south to a camp bordering the vast



300m dunes of Sossusvlei at the edge of the Namib. This is the oldest desert in the world famous for its large dunes and ancient clay pans with their dried, blackened tree skeletons, which are themselves over 900 years old. Several long driving days later we pass through Luderitz on the west coast, and Aus, eventually reaching Fish River Canyon, which is apparently second in size only to the USA's Grand Canyon, being 160km long, 11 km wide and 550m deep.

Much of the land around us at this stage is strictly off limits, being the Namibian diamond fields run by De Beers. Our vehicles are searched thoroughly by soldiers looking for illicitly smuggled diamonds before we cross the Orange River at Sendelingsdrift, arriving at last in South Africa. We spend two nights on the banks of the river and then venture over the amazingly steep and rugged Hell's Pass leading out of the Richtersveld Park and onwards to the Western Cape. There we see some strange zebra-like Quagga, extinct since 1883, but recently rebred using old DNA on a private game reserve.

Further on we pass through the Stellenbosch wine producing area and arrive in Cape Town from where we finish the trip down to the Cape of Good Hope via Chapman's Drive. We spend a week in Cape Town visiting the harbour area, Nobel Square, Parliament and Bo Kaap (which is rather like Spitalfields in London). We also take a boat out to Robben Island where Nelson Mandela was imprisoned for 18 years – a very moving experience.

After 10 weeks on the road we board our flight back to London weary but happy we will back in time for Christmas! Overall the trip had been a test of our courage and teamwork, our navigational skills (we had got lost many times) and our ability to enjoy the moment despite many setbacks.

Department Update

I'm pleased to announce that Professor David Howarth will take the reins as Head of Department from January 2020. David, Professor of Law and Public Policy is a long-standing member of the Department (bar a short spell as MP for Cambridge) and bridges the business, law and economics divide in true Land Economy fashion. I will be continuing as Grosvenor Chair of Real Estate Finance (at least until the University's retirement policy kicks in a few years down the road). With only a few months left of my tenure as department head, it would be nice to reflect on the changes we've seen over the last four years - but I fear that I will continue to have to firefight and butterfly from task to task rather than muse!

We have seen some more staff changes over the last year. Dr Nicky Morrison left us to take up a Professorship in Sydney - she will be sadly missed. We were fortunate to be able to replace her quickly, with Dr Franziska Sielker taking up the planning and housing lectureship in the new academic year. Franziska's main area of research is spatial governance: how to manage urban and rural land where economic and political interests overlap and cross territorial boundaries. Her work has an important policy dimension and she has been in demand as an advisor to governments across Europe. More recently, she's been working on technology, innovation and urban and regional development, including work on the Cambridge region as part of the Digital Built Britain programme. The interaction of technological development and governance is key to understanding how regional policy can be effective in a rapidly changing economy.

We also welcomed Dr Li Wan as the new Chinese Urban Development lecturer (the post funded by a generous donation from Dr Justin Chiu). Li's expertise lies in spatial modelling of cities and infrastructure. After completing his PhD (in the Architecture department at Cambridge), he has been working in the Centre for Smart Infrastructure and developing models for cities in China, in Korea and in the UK. His knowledge of modelling and the use of large digital data sets will be very valuable for both our research and teaching and complements Dr Elisabete Silva's work with the Interdisciplinary Spatial Analysis Lab (LISA) and with Dr Thies Lindenthal's big data work as part of our growing emphasis on technological change and transformation of urban land and property markets.

Also joining us on a School-funded fixed term lectureship in real estate (belatedly recognising some of the budget surplus the Department contributes to School finances) is Dr Li Ling (Christina Li). Christina will add much needed resources to the real estate group. She completed her PhD at the University of Hong Kong in 2017 (focussing on developer decision-making, timing and risk and on property pricing) and more recently has been working with Dr Helen Bao on behavioural economics, finance and land markets. That research, looking at the role of technology in changing behaviour, is offering fascinating insights into the process of urban change in China and other rapidly urbanizing markets.

October sees the formal retirement of Ian Hodge, Professor of Rural Economy and former head of department. Ian has been very much a pillar of the Department for many years and we hope to be able to retain his skills and knowledge going forward – they will be hard to replace. Peter Tyler, Professor of Regional and Urban Economics is also approaching his retirement date and we have been given permission to replace both positions at lecture level. We are thus going through quite a demographic shift in the Department. This has also been reflected in some turnover in the admin team (this summer we said farewell to our long-standing receptionist Jane Scott, for example); we have been able to recruit to vacant posts but it can be challenging to recruit and retain in Cambridge's vibrant economy with competition from the tech and bio-medical sectors.

2018/19 proved a calmer academic year than its predecessor, despite the external political and economic turmoil. Both undergraduate and postgraduate programmes recruited well and progressed smoothly through the year. For next year, the MPhil and MSt programmes both hit their target numbers. For the Tripos, our number of applications and offers were higher than usual but early indications are that a number of candidates may have missed those offers. Other social science programmes are facing similar issues, in part due to the reforms to A-levels that are only just working through the system. We are still anticipating a strong intake in October 2019, nonetheless.

It has been another strong year for research in the Department – I seem to spend much of my time approving new research contracts. One of the most rewarding aspects of research life here is the convening power of Cambridge and we have hosted numerous international conferences and symposia over the year, with topics ranging from

international environmental law through biological economics to regional science, behavioural science in urban studies and real estate finance. With the 2021 Research Excellence Framework looming, it is exciting to see how the academic work is translated into policy impacts in public and private sectors. For me, that brought a visit to the Bank of England and a briefing session for their market risk and resilience teams as part of the IPF Long Term Value project, with many of our researchers similarly engaging with international bodies, governments and the professions.

I had hoped to bring positive news of the new building, but here the story gets gloomier. The University's concerns about its revenue position and capital programme has led to freezes on much of its development programme - including the proposals for the New Museums site. This creates a problem since we may still need to vacate Silver Street before a new home is ready for us. We are urgently exploring other options for a permanent solution and CULS have been helpful, alongside CLEAB, in pushing the University to give our situation full priority. More imminently, the Mill Lane lecture rooms will come out of service over the next few years. We have been able to pressure the University to continue to maintain the lecturing space, but some of the AV is pretty primitive and hardly appropriate for a world-leading academic institution in the twenty-first century. The overall financial positon of the University has also led to budget squeezes for the Department – as noted earlier, while we are technically financially very profitable, the balance does not translate directly into a cash budget

As ever, I should finish by thanking CULS and their membership for all the support that has been offered over the year. It's important to stress that small sums make big differences! A research grant for a student, a discussion with a mentor, a chance encounter at the careers' fair, a CULS prize on the CV, a business idea gleaned from a CULS event: any or all of these can be transformative. We really

appreciate the efforts that the Society makes to support the Department and to maintain the wider network that is the Land Economy community.



Head of Department Grosvenor Professor of Real Estate Finance Fellow of Pembroke College

Machine Learning, Building Vintage and Property Values

Sometimes, all you need is a bit of luck. Erik Johnson (University of Alabama) and I had explored a new way to integrate images from Google Street View as an additional input to automatic real estate valuation systems. Writing up the working paper,1 we were looking for relevant policy implications beyond the mundane goal of boosting price prediction accuracy. We struggled. But then the head of UK's Building Better, **Building Beautiful Commission** went on the record, claiming that Britain's housing supply constraints will evaporate if only developers build "as our Georgian and Victorian forebearers built ... All objections to new building would slip away in the sheer relief of the public".2 The research we had done enabled us to put this refreshing view to the test (and to add a policy dimension to the paper).

In a nutshell, our approach automates a process that those of us who have been trying to find a place to rent or buy are surely familiar with: To learn more about a potentially interesting home, one looks it up on Google Street View and tries to infer additional information from the images of the building itself and also get a feeling for the neighbourhood. Street level images are a rich data source, answering many questions such as: How big is the property and garden? How old is it? Is the exterior well-kept? Has the house charm? Is it's architecture pleasing to the subjective eye? And much more. The challenge is to automatically identify the correct building on Street View, take the best possible picture and to classify the property in several dimensions using computer vision (CV) and machine learning (ML) techniques.

Extracting images of individual buildings from Street View was a bigger challenge than expected. Google's address information are often relatively broad guesses in the UK. Try finding for example "84 Vinery Road, Cambridge, CB1 3DT" on Street View to experience the problem yourself. Based on exact maps from the Ordnance Survey we solve this more technical first step and collect front images of practically all residential homes in Cambridge.

In the ML application, we initially focus on training a classifier for the vintage of buildings. According to colleagues from the architecture department, local houses can be classified into seven broad eras: *Georgian* (c1714–1837) houses

feature key characteristics such as sash windows, fan lights above doors, the use of stucco on facades, often wrought work grilles, railings etc. In the Early Victorian era (c1837-c1870s), a growing taste for individualized embellishment led to the development of elaborate features such as carved barge boards or finials. The development of sheet glass led to sash windows becoming more affordable, and, increasingly, wider. In the Late Victorian era (c1870s-1901), bay windows became more and more widespread, and increasingly substantial. Edwardian architecture (1901-1910) tends to be less ornate than late Victorian architecture. The Interwar period (1918-1939) saw



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Director of Studies for Land Economy at St
John's College

Table 1: Confusion matrix – Predicted vintage vs. ground truth Note: Recall is the share of buildings from a ground truth category being predicted correctly (diagonal in mid panel) and Precision is the share of buildings predicted to belong to a category that are indeed from that category. The F1-score is the harmonious mean of Precision and Recall: F1-score = 2 Recall * Precision / (Recall + Precision)

Predicted	Ground truth							
	Georgian	Early Vic.	Late V./Edw.	Interwar	Postwar	Cont.	Revival	
Georgian	284	109	77	38	14	23	22	
Early Vic.	50	1755	427	86	86	56	34	
Late V./Edw.	10	172	3260	213	56	21	29	
Interwar	10	46	254	5884	997	56	54	
Postwar	1	17	48	514	3914	74	40	
Cont.	3	50	63	101	333	855	69	
Revival	3	29	45	139	145	98	501	
Georgian	79%	5%	2%	1%	0%	2%	3%	
Early Vic.	14%	81%	10%	1%	2%	5%	5%	
Late V./Edw.	3%	8%	78%	3%	1%	2%	4%	
Interwar	3%	2%	6%	84%	18%	5%	7%	
Postwar	0%	1%	1%	7%	71%	6%	5%	
Cont.	1%	2%	2%	1%	6%	72%	9%	
Revival	1%	1%	1%	2%	3%	8%	67%	
Recall	0.79	0.81	0.78	0.84	0.71	0.72	0.67	
Precision	0.50	0.70	0.87	0.81	0.85	0.58	0.52	
F_1 -score	0.61	0.75	0.82	0.82	0.77	0.64	0.59	

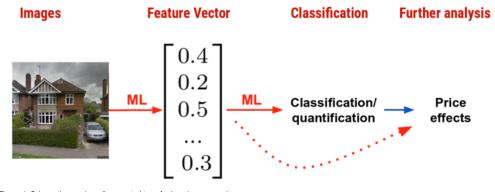


Figure 1: Schematic overview of suggested transfer learning approach
Note: Feature vectors generated by Inception V3 have 2,048 dimensions which favours a ML approach (in contrast to e.g. multinomial logit regressions) in the classification step.

the cost of building construction fall, amidst a drive to provide better housing for the working classes. New housing types were being favoured. The *Postwar* (1950-1980) era continued on this path, with an embrace of high-rise as well as low rise housing. Facades vary greatly between brick, tiling, pebbledash and render. Our cut-off year for our *Contemporary* era to begin is 1980. *Revival* are contemporary buildings trying to emulate historical architecture. It should be self-evident, that the sheer amount of details and variations defies a simplistic classification approach.

We suggest a transfer learning approach in which the images are first translated into high-dimensional feature vectors using an existing CV model ($Inception\ V3^3$). A classifier is then trained to categorise the buildings into vintages, based on the feature vectors (Softmax). A true innovation of our approach is that we include information on neighbouring buildings into the classification, exploiting spatial dependency in building vintages.

Two final-year architectural students classified a large sub-sample of approximately 25,000 images from our data set of Cambridge houses. This is a much larger sample than ultimately needed. In our case, each category requires less than 250 samples to reach almost fully diminished training accuracy for additional observations. We greatly exceed this number so that we can compare the out-ofsample convolutional neural network predictions to the groundtruth as assigned by the experts. This allows us to examine the power and size of the assignment tests. In addition having both human and machine classification for a large sample of the data allows for a robustness checks on the machine comparisons. The accuracy of the automatic prediction is high (Table 1): A machine can relatively reliably tell different building vintages apart, even Revival styles are detected. All comes at modest cost, classifying the universe of buildings in Cambridge takes only seconds on a contemporary laptop.

Coming back to the claim made by *Building Better*, *Building Beautiful* on historic aesthetics being valued by the people: If that were true, buyers should prefer revival architecture over more contemporary designs. Also, buildings with adjacent buildings in historic or revival appearance should command a price premium. How hard we look, we cannot find any evidence for such a preference in real transaction data. After controlling for a house's location, size and quality, modern designs are as sought after as replicas of old styles. Not surprising, reviving the good old times will not solve the housing shortage.

We have to speed up the publication of our paper as much as we can, or we risk losing our policy relevance again: The chairman of the helpful government commission has been fired in the meantime – for reasons not related to our research, though.

- $1 \quad \text{https://github.com/thies/paper-uk-1} \\ \text{vintages/blob/master/text/manuscript_assa.pdf}$
- 2 Scruton, Roger. 2018. "The Fabric of the City." Colin Amery Memorial Lecture. Policy Exchange.
- https://policyexchange.org.uk/wp-content/uploads/2018/11/The-Fabric-of-the-City.pdf.
 Szegedy, Christian, Vincent Vanhoucke, Sergey loffe, Jonathon Shlens, and Zbigniew Wojna. 2015. "Rethinking the Inception Architecture for Computer Vision." https://doi.org/10.1109/CVPR.2016.308.



Source: http://www.floodlondon.com/central-london/

Have Real Estate Markets Joined the 'Extinction Rebellion' Yet?

As the world reels from a swelling tide of worldwide weekly protests against climate change, -over six million people participated in last week's protests- the impending threat of sea level rise to cities and buildings has taken the spotlight

Professor Franz Fuerst

Professor of Real Estate and Urban Economics Director of the Graduate Programme Director of Studies and Fellow Commoner at Trinity Hall CLILS Fellow

Dr Georgia Warren-Myers

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of the public debate. Many of the worlds' major cities are situated on coastlines and rivers systems which house 40% of global population (in 1990), and by 2050 2.4 billion people will populate these areas, 80% within cities (Kummu et al., 2016). These coastal cities will likely be threatened directly or indirectly by sea level rise due to climate change (Neumann et al. 2015). Approximately 10% of the world's population situated in low-elevation coastal zones below 10 metres in elevation (McGranahan et al., 2007) Predictions for sea level rise are uncertain, as many forecasts are based on anticipated projections of reductions in carbon emissions and have varying consideration of factors that may amplify the effects of predicted sea level rise. Yet pessimistically, current approaches to mitigation are not meeting targets and future targets of the world's greatest polluters is at odds with a culture of economic growth, rising middle class consumerism and exponential population growth. As a result, sea level rise is not necessarily an uncertain event, more a known event that is occurring presently, albeit slowly, but will likely increase more rapidly in the future. The more pressing question, is what effect will this have economically, and one of the most exposed areas for consideration is property.

An opportunity and key driver for change in the property sector will be through identifying properties at risk and property value implication from firstly sea level rise and then the varying degrees of risk from other cumulative flooding effects. As demonstrated in the flood literature (Beltran et al., 2018), floodplain identification demonstrates a significant discounting to housing values; consequently, through provision of better information to purchasers of sea level risk and flooding should be more accurately incorporated into pricing (Chivers and Flores, 2002). This will propel the need for more investigation and structures to assess risk and create risk minimisation strategies and adaption to minimise the future impact of these events. In time, understanding of risk, risk mitigation strategies and adoption approaches or lack thereof, will influence investment and occupation decisions within the sector leading to future implications for market value and insurable values. However, as demonstrated in the flood literature and Ortega and Taspinar (2018), recurrent events of inundation and frequency will likely be the strongest drivers of discounting.

As part of a research project using data from Melbourne, Australia, we set out to demonstrate the relative implication of information asymmetry for a case study area, by examining the discounts associated with the floodplain identified areas compared to sea level rise inundation.

To do so, we use a unique combination of GIS database; planning and flood information; rating authority valuation data; and residential sales data to investigate the consideration of sea level rise and flood discounting in current value estimates for housing. Further examining knowledgeable actors in the market of flood plains and the market perception of discounts associated with flood prone properties or stigma of known areas.

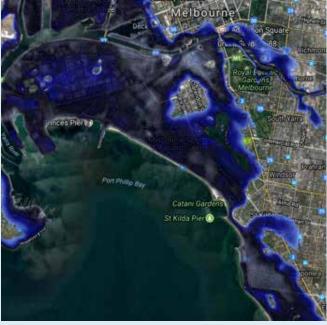
One of the main results of our hedonic pricing regressions is that flood risk designated properties are discounted compared to non-flood risk identified properties. The model specification controls for a very large number of dwelling characteristics not normally included in residential regression analysis due to data limitations; locational and neighbourhood amenity elements; and the effects of

premiums associated with beachfront coastal properties. This result is not surprising and in fact supports the findings of many similar studies of current flood risk around the world. However, we do not find any empirical evidence to suggest that discounting also occurs in relation to future sea level rise. This is understandable in the context of sales prices, because at present consumers' are not provided with any information that might affect their decision-making in relations to sea level rise and the perceived risk to their property. The lack of current information available to both potential purchasers, owners and valuers could create future liability and responsibility issues in the future. For property valuers, if they are not accurately reflecting the current markets' perception of flood risks of properties within the municipality; the estimation of the sea level rise effect may be much greater. This does have implications for policy implementation, as the market may have a stronger reaction and subsequently lead to a stronger discounting of at-risk properties.

The example of Australia demonstrates to other regions of the world that the increasing frequency of substantial precipitation, extreme storms and winds, creates both short-term discounts and long-term impingement on capital growth. Consequently, it is not unlikely that the effect of sea level rise will have a significant effect on property values, those directly affected will face discounting and subsequent total loss; and those properties not directly inundated will face the costs and losses associated with increased flooding. Future changes to regulation, legislation or even environmental considerations are likely to affect real estate markets and pricing in most urban markets. To gain greater understanding of the likelihood of the impact on property, measures need to be put in place to identify, ascertain and quantify risks in order to demonstrate strong reasoning for implementing mitigation and minimisation strategies for property assets. By connecting the value to the profiling of sea level rise risk identification process, this can be considered by property stakeholders and governments and result in subsequent action; however, these stakeholders need to be able to understand and quantify the risks posed.



Current situation



2.7m seal level rise scenario

Real Estate Research Centre and Masters in Real Estate

The real estate research centre continues to be very active with academic research, a number of projects for industry and initiatives to encourage dialogue between academia, industry and the public sector. We continue to be very interested in working further with industry.



Nick Mansley Executive Director, Real Estate Research Centre Department of Land Economy



The Masters in Real Estate

It is hard to believe that this year brings the fourth cohort of part-time Real Estate Masters students. It has flown by, maybe because it is such a joy teaching super-engaged, fun groups that ask lots of interesting questions. The next cohort brings together experienced professionals from around the world (China, Canada, HK, Japan, Middle East, Taiwan, UK, US etc.) and so hoping for more of the same.

One of the key things about the programme is a chance to discuss and look at some of the key challenges and opportunities facing the industry. We have a number of themes that run through the programme including risk management, technology and its impact, sustainable buildings and cities. These are integrated into the core teaching, site visits and guest speakers.

In terms of the disruptive influence of technology and new business models we look at this across the industry from the perspectives of operators/investors, contractors/developers and advisers/ consultants/brokers. This includes looking at the role of technology in the business models of the likes of WeWork and Workspace. These businesses highlight firstly the importance of getting their online presence right in terms of interaction with prospective occupiers but perhaps more importantly the critical nature of ensuring technology works well for their customers. We also look at how technology is influencing

the development of projects like 22 Bishopsgate (Axa) where it has helped address some of the design and sustainability issues of the project e.g. off-site consolidation of deliveries to reduce the transport impact. Another area we look at with the students, and hope to do more so in the future, is offsite manufacturing/engineering in construction projects - whilst at the moment these still don't have a compelling cost advantage the scope for additional productivity gains from scale as well as the huge reduction in snagging problems means I expect to see this become increasingly important going forward. Similarly, the role of building information modelling and systems is something that we've worked on with the students and see becoming more widespread.

The challenges to generate a more positive social and environmental impact is a recurring theme across the course. With the students we look at a range of issues from how this is influencing occupiers in terms of their choices, how it is affecting investment performance and how developers and contractors are responding to the challenge as well as the public sector perspective in planning and regulation. These issues come to life in some of the bigger mixed use schemes we visit like Earls Court (CapCo), Kings Cross and Paradise Birmingham (Argent Related).

It is wonderful to have leading industry figures e.g. Toby Courtauld (GPE), Simon Carter (British Land), Jo

Allen (Frogmore), Lars Dahl (Norges), Jenny Buck (Tesco), Andrew Thornton (Principal), Roger Orf (Apollo) give the students their insights on leading real estate businesses and managing risks in real estate.

We continue to very much welcome support from CULS members with presentations, cases and site visits. We are also keen to get as many good applicants as possible – so if you think there are people in your organisations that would like to have a deeper and broader understanding of the real estate industry and build their technical and leadership skills please encourage them to apply.

Research Projects

Over the past year we've conducted a number of industry research projects. We have been working on a major study for the Investment Property Forum, with Bank of England involvement, on different approaches to assessing long term value in real estate. This has included looking at what indicators are useful for identifying when the risk of a significant drop in real estate values is high. It has been a challenging project both conceptually and technically but hopefully by the time you read this the report will be ready and the IPF will have sent out a date for the presentation of the findings. We recently presented to senior staff at the Bank of England on the work that has been done and this was extremely well received. It seems



likely that this will feed into the Bank's Financial Stability Report in due course.

A range of other research is ongoing both academic and with industry. A priority for me over the rest of 2019 is to finish off a number of research papers including specialisation and its impact on fund performance; Asia Pacific funds and drivers of performance; and the role and performance of secure income real assets in pension portfolios.

Other Activities - Work

Outside the Department I am really enjoying my other commitments. I continue to Chair the Lord Chancellor's Strategic Investment Board and advise the Official Solicitor and Public Trustee. I have taken on another role as adviser to the BAe Systems Pensions Scheme which in part is a throwback to some of the things I was doing at Norwich Union in the late 1990s/early 2000s in terms of looking at alternative assets to help meet liabilities. I am also serving on the investment committees of funds investing in the industrial, retail and residential sectors which has been fascinating in terms of the different issues these funds are facing.

Other Activities – Play (Triathlons)

One of the motivations of stopping doing one full-time job was to allow me to work more flexibly and one of the great joys over the last six years has

been doing triathlons and duathlons in beautiful scenery. I had an amazing trip to South America last December - in the run up to a big race I don't think they advise cycling over 1000km in the Andes but my excuse was that it was far too beautiful to stop cycling! The race was the Patagonman which got quite a bit of press coverage back in the UK because Louise Minchin from BBC Breakfast did it. It was in a beautiful bit of Patagonia in Chile – wonderful lupins in the meadows and spectacular jaggedy peaks. The race started in the dark with jumping off a ferry into deep dark water - quite intimidating. I was quite relaxed in my 4k swim and as usual well behind others when I got out. I had a bit of tummy trouble which held me back for the first 45k of the bike leg but then I got going and had a good ride - 6.19h for 180k with 2300m of climbing. The run was brilliant - pretty much all on dirt trail or sandy path. After I had tried to keep my shoes dry when crossing a stream at about 4k I had to laugh at 5k when we had to run thigh high through a river. The terrain included some pretty steep climbs on sandy soil in places but was generally kind with gorgeous views and whenever I was wilting a bit of downhill or wind assistance to keep me going. I finished overall in 28th and 1st SuperVet but most importantly managed to do the whole thing with a smile on my face and feeling relaxed and happy. Just to round it off I saw a condor on the way back to the hotel from the finish.

2019 has been tricky with injuries and

it has been a fine balancing act between doing enough to be fit enough to race and not ever training too hard so injuries flare up. I was expecting to come last in the European Middle Distance Duathlon Championships in Denmark given my injuries and oldest in the age group but a combination of keeping it steady and more importantly cycling the route the evening before (so I didn't go wrong) meant that much to my surprise I came 5th! I did a ridiculous race in Wales cycling from Beaumaris on Anglesey to Snowdon - run up and down it - cycle to Cader Idris run up and down it – cycle to Pen Y Fan in the Brecon Beacons - run up and down it and then cycle down to Swansea. I knew it would be a long day - but I didn't expect continuous heavy rain, fog and strong winds. I can understand why the Welshwoman who finished ahead of me calls her coaching company - "Love the Rain coaching!". No photos just one toenail down to show for my efforts. The last race was another epic in Sweden - Swedeman. This was a similar format to the Patagonman. The swim came out by the largest waterfall in Sweden which was spectacular. The cycle was long (200k) but fairly straightforward. The marathon run was particularly challenging - not just mountains but bogs, rocks, snow and tricky technical trails. I was doing quite well but I fell over hard on the run and hurt myself so was pleased just to be able to finish this one.

Planning for growth - the application of a new spatial equilibrium model for Cambridge and Beijing

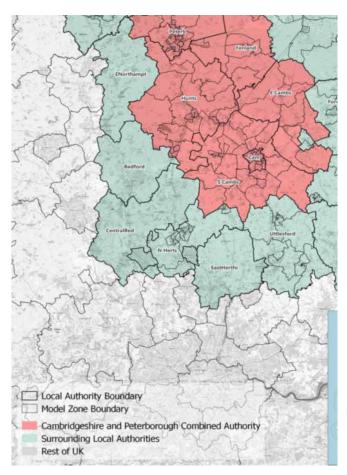
How many new houses are needed? How will their location in relation to jobs affect transport? What will this mean for the local economy and the wellbeing of residents? Policymakers, private investors and academic researchers all aspire to answer these crucial questions and the outcome of such decisions will affect the future of our cities.

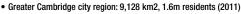
The emerging data and digital technology are transforming how we plan, construct and manage our cities. Data on buildings, green spaces, housing, jobs, businesses, services, means of transport, congestion, rents, wages, prices and perceptions of wellbeing shed a new light on the operation of urban systems and their interdependences. Digital simulation models thread different strands of information together thus enabling a systematic approach for city planning and management.

This short article introduces the application of a new spatial equilibrium model (LUISA) developed by Cambridge scholars for supporting the strategic planning of two fastgrowing city regions - the Greater Cambridge in the UK and the Greater Beijing in China (see Fig. 1). The presented model has the ability to process developments in housing, transport and jobs as one integral system and its analytical power can be empirically tested using historic data in a recursive manner. The model does not predict a single future for the study region; on the contrary, it models alternative development scenarios based on consistent growth assumptions. These scenarios provide opportunities to investigate the long-term impacts of different development options, which facilitates policy debates over complex trade-offs.

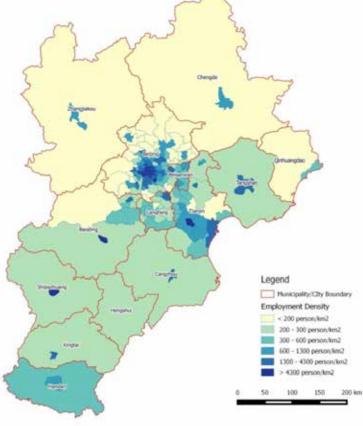


Dr Li Wan University Lecturer in Chinese Urban Development Department of Land Economy BArch, MPhil, PhD (Cantab)





- Population growth rate (2001-2011): 0.7% per annum for UK; 1.1% for Greater Cambridge
- 263 zones for Great Britain with 194 core zones in Greater Cambridge



- Jingjinji city region: 215,870 km2, 106m residents (2011)
- Population growth rate (2000-2010): 5.2% per annum for Beijing
- 209 zones with 130 core zones in Beijing

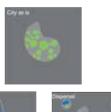










Figure 2 Alternative spatial strategies for Cambridge (Source: CPIER Final Report, 2018)

Greater Cambridge case study

Greater Cambridge is an economic hot spot where growth has outpaced the rest of the UK throughout the past decade. But the economic success comes with a price: house prices have soared – the city's average house price is now 16 times the median salary; worsening traffic congestion and air pollution is threatening the vitality of the city; and public services are being put under strain by the growing population.

To quantify the possible futures of the Greater Cambridge city region, the modelling research started with a 'business as usual' scenario, assuming that the region grows according to current trends of employment growth and local plans for housing. This scenario showed that even a modest rise in jobs would lead to considerable wage pressure in Cambridge and South Cambridgeshire and an unmanageable amount of incommuting which would choke growth. The LUISA model was

then used to explore a range of alternative spatial strategies that aim to balancing the growth of employment, housing and transport infrastructure (see Fig. 2):

- **Densification** concentrating new employment and housing within the city boundaries: this can accommodate the largest amount of jobs and people around existing and new rail hubs, but could risk worsening congestion and air quality in spite of convenient public transport access;
- Fringe growth extending urban areas around the edges of the city: this brings the highest financial returns with more modest building construction costs, but needs to use Green Belt land and will increase car use;
- Dispersal encouraging growth to go to market towns or newly created settlements beyond the Green Belt: this could spread the growth and gain social and environmental benefits, but would rely on the willingness of companies to move away from current centres of high productivity;

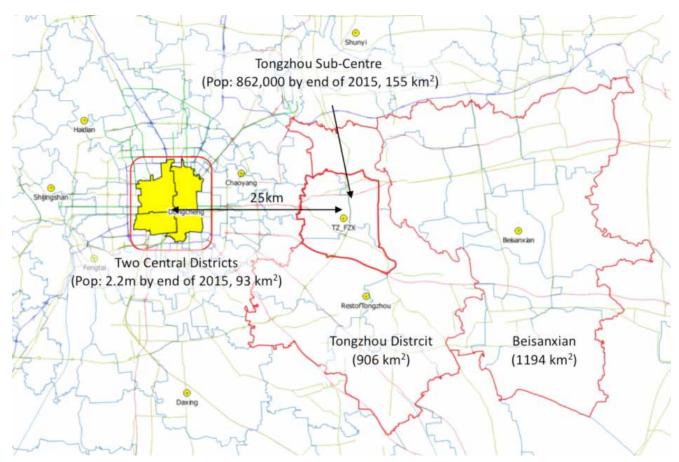


Figure 3 Location of the new sub-centre in Beijing

A₀

Trend (Continuation of Concentric Growth)

- · Housing and business floorspace growth allowed in all areas
- · No transport accessibility improvement (proportional growth with the population)

Δ1

Zero Net Growth in Central Districts + Boosted Floorspace Development in Sub-Centre

- . Total floorspace stock in central districts remains at 2015 level, with zero net growth to 2030
- · Policy-oriented floorspace growth assumed in the Sub-Centre (magnitude agreed with the local planners)
- No transport accessibility improvement

A2

A1 + Moderate Transport Improvement to the Sub-Centre

- Based on A1:
- Average travel time to/from Sub-Centre decreases by 1.0min during 2010-2020, and 2.0min during 2020-2030

A2a

A1 + Enhanced Transport Improvement to the Sub-Centre

· Based on A1:

Average travel time to/from Sub-Centre decreases by 3.5min during 2010-2020, and 7.0min during 2020-2030

A2a4

A1 + Significant Transport Improvement to the Sub-Centre

Based on A1:

Average travel time to/from Sub-Centre decreases by 7.0min during 2010-2020, and 14.0min during 2020-2030

Figure 4 Scenario design of the sub-centre development in Beijing

• Transport corridors – developing new sites for jobs and housing along existing and new fast public transit services that emanate from Cambridge: this offers space for continued growth of existing business clusters while unlocking potential of new sites that could attract growth, but this requires the highest infrastructure investment.

Detail modelling results are presented in The Cambridgeshire and Peterborough Independent Economic Review (CPIER) Final Report¹. Based on the Greater Cambridge model, I am working with the Cambridge Centre for Smart Infrastructure and Construction (CSIC), Centre for Digital Built Britain (CDBB) and the Cambridgeshire County Council to develop a city-level digital twin prototype for understanding the journeys to work in the Cambridge subregion.

Greater Beijing case study

The Greater Beijing (locally called 'Jingjinji') city region in China faces a similar challenge though at a different scale – areas of fast economic growth often find housing and infrastructure unable to keep pace. Imbalance of these elements has led to high house prices, long-distance commuting, traffic congestion and deteriorating social equality in Beijing. To tackle the overpopulation in central Beijing, the municipal government is establishing a new sub-centre in Tongzhou District, which is approximately 25 km to the east

of the historic centre (see Fig. 2 & 3). The planned population of the new subcentre is 1.3 million by 2030.

A recursive-dynamic spatial equilibrium model was developed to understand and simulate the landuse and transport development in the Greater Beijing city region. The model builds on development data of the past two decades (2000-2018) and is able to reproduce the historic development trajectories subject to exogenous macroeconomic and demographic growth and one-off events. The key modelling question specified by the local planning authority is to explore what land-use and transport strategy may achieve the planned population in the new subcentre. A total of five scenarios were thus co-designed with local planners and tested using the model (see Fig. 4).

The scenario design follows the law of the single variable and therefore the role of key policy variables (e.g. the level of transport improvement) can be examined through scenario comparison. One of the key model findings is that the sub-centre is unlikely to achieve the planned population under the Trend scenario and stringent development control in central districts (zero net floorspace growth) is essential. Transport improvement to/from the sub-centre will boost the growth of the sub-centre, particularly the employment growth, but outbound commuting from the sub-centre to central districts remains significant.

Planning cities requires a comprehensive vision derived from

inter-disciplinary insights – advanced data analytics and urban system modelling have played and will continue to play an important role in support of decision making with quantified and robust policy simulation. The modelbased scenario analysis enables all stakeholders to understand the strengths and weaknesses of each policy option, negotiate the difficult trade-offs, and strive for a balanced approach to sustain the growth. My colleagues across the University and I are expanding the urban modelling research in both UK and international city regions such as Chengdu (China) and Seoul (Korea).

¹ The CPIER modelling study is led by Dr Ying Jin at Department of Architecture, University of Cambridge. Dr Li Wan is the lead of modelling and data analytics.

Towards a more productive debate about land ownership

Periodically, a public debate erupts about the distribution of land ownership, often prompted by the publication of a book that seeks to reveal all. Most recently, Guy Shrubsole (2019) in 'Who owns England?' has searched deeply for the evidence and concludes that the distribution of landownership is not much different from that prevailing in the 19th century as shown by the 'New Doomsday Survey' in 1873. In practice, the lack of data makes it hard to reach a clear conclusion and, as many have before him, Shrubsole argues for better public information on ownership. In response, large landowners cry foul. Ownership is a private matter and others have no right or legitimate interest in the

The distribution of property ownership is unfair. There is nothing 'fair' about one person being born into a large inheritance and another having nothing. Or we might look at the influence of random events in history, taking Andy Wightman's (2010) position expressed in his book on Scottish landownership 'The poor had no lawyers'. The title says it all. Political theorists often look to the justification for ownership offered by John Locke who argued that we gain rights in land by mixing our labour with it. While this might seem to work in the historic European settlement of the American West (but certainly not from everyone's point of view even there), it is not clear what it could mean in a contemporary crowded and contested country. Indeed, Locke himself qualified the justification, arguing that ownership by one person applies only where there is "enough, and as good, in common [left] for others".

More pragmatically, we might adopt a Kantian perspective, that property is held and enforced through a social contract entered into by citizens that relies on the coercive power of the state to enforce the rights and duties of ownership. This accepts that we collectively enjoy social benefits from the institution of property. An effectively working economy and society depends on secure and reliable rules, including property rights. But it also implies that the nature of that property can change over time, although clearly the degree and rate of any change will depend on who holds the capacity to influence the state. Society has to make some sort of

compromise between equality, or at least equity or fairness, and efficiency. (This is not to suggest that there is a simple trade-off between them). Different societies come to different positions and the regular dusting off of the ownership debate represents one aspect of society keeping the question under review.

But perhaps the gross question of ownership is too coarse an approach towards a more complex question. Ownership brings sets or bundles of rights and duties and the single term 'ownership' lacks precision. If we see ownership as part of a social contract that allows those holding property to enjoy privileges that others cannot have, then it is legitimate to ask whether the way in which ownership is arranged delivers an outcome that is in some sense good for society.

The way in which land is used has profound implications for all of our lives: for climate, water quality, food supply, biodiversity, public access and much more. So we can ask then what pattern of rights and duties is capable of delivering the best outcome for society. And the answer to this question varies over time. If our overriding priority is the delivery of food supplies, as was the case during and subsequent to the Second World War, then giving farmers complete and secure rights over their land, together with financial support and technical advice made sense in the pursuit of a modernised agricultural sector and increased production.

But the world has changed. The 'success' of efforts to intensify production, to mechanise farming, to exploit economies of scale and 'improve' land through drainage, removal of hedges and ponds and reseeding and fertilising the uplands has led to major losses of wildlife, diminution of landscape quality and pollution of watercourses. In response, issue by issue, some changes have been made, partly by offering payments to landowners to change their management and partly by changing regulations that define the nature of ownership. Rights to farm in ways that pollute rivers, to inflict damage on Sites of Special Scientific Interest or to burn straw have been curtailed. Public access to some areas has been increased. But many would argue that we need to go further and faster.



lan Hodge Professor of Rural Economy

So what are the implications of the climate emergency? We have witnessed shifts of ownership in the past as the social judgement as to what land uses are acceptable shifts in response to a wider appreciation of the consequences of land uses. Land represents the major store of carbon under private ownership and land uses can either release it into the atmosphere, stimulating faster climate change, or can sequester it and mitigate climate change. Under current arrangements landowners are free to make this choice. They are not obliged to restrict greenhouse gas emissions and can be paid to enhance the carbon store through Payments for Ecosystem Services schemes, such as the Peatland Code.

Does this remain the best approach to ownership? Can we leave landowners free to allow carbon to escape from their land through poor management and then be willing to pay them to reinstate it through a Payment for Ecosystem Services scheme? Or should there be a duty on landowners first to conserve the carbon that is locked up in their soils? If we follow the pattern of the past of pollution becoming socially unacceptable and regulation following, then the position can be expected to change. We may see a duty on landowners to conserve carbon in their land. But first we need to have better measurements and a wider public debate as to what standards we should expect landowners to attain.

For reasons we might applaud or decry, the gross debate about who owns how much land is rarely productive. But the debate about who takes responsibility in addressing critical environmental challenges is pertinent and urgent. We should do more to focus on that.

The economic value of mountain bike parks: **Bike Park Wales**

Aloysius was financially supported by Cambridge University Land Society in meeting the financial costs of the research for his final year dissertation.



Aloysius Ng Analyst, The Blackstone Group, Real Estate Acquisitions St. Edmunds (2016-2019)

orest lands provide multiple use-values, ranging from the provision of marketable commodities like timber to intangible services like the amenity value of recreation. In the UK, the multiple-use values of forestry are advocated for by the 'Balanced Objectives' of the UK Forestry Standard (UKFS), which prescribes recreation and woodland ecology alongside timber production as determinants for sustainable forestry management (UKFS, 2018). Yet, forestry land's multiple use-values have led to competing pressures for it in the UK. Lack of integration between agriculture, forestry and recreational sectors make it difficult to manage these competing demands (Scotland's Environment, 2011), whilst the impetus to create amenity woodlands in the UK has never been stronger (Bateman et al, 2013) given the extensive demand for outdoor recreation in the UK. More than ever, policymakers are challenged with ascertaining the optimal use of public forests.

My dissertation sought to identify the use-value of mountain biking in the Gethin Woodlands Centre, South Wales (UK). Two research questions are proposed. Firstly, what is the recreational value of mountain biking at Gethin woodlands? Secondly, what influences the Willingness to Pay (WTP) among bikers for an environmental charge and trail expansion initiatives?

These questions have useful policy implications. Identifying the value of a recreational activity like mountain biking within forest lands provides a metric for positive analysis of land use allocation of public forestry. Ascertaining the WTP of mountain bikers for an environmental charge and trail expansion initiatives provides insight into the drivers of environmental and economic sustainability at such sites. The strength of Bike Park Wales (BPW), the trail centre in Gethin Woodlands, as a case study is multi-fold. As a purposebuilt trail centre part-funded by public funds, the amenity value provided by BPW represents the welfare contributions of such investments. Furthermore, by being nested within Gethin woodlands, a predominantly productive forest, the use values of BPW determines the multiple-use value of Gethin woodlands. Furthermore, BPW has been credited for boosting the economy (BBC, 2017) and improving the perception of the nearby town, Merthyr Tydfil, which was previously known for employment collapse and crime (Guardian, 2010).

To estimate recreational value, I rely on the Travel Cost Method – a revealed preference method of valuing recreational uses of the environment based on the premise that the time and travel expenditures people incur to visit a site represents the "price" of accessing the site (Clawson & Knetsch, 2011). The validity of TCM in valuing recreational sites like BPW is underpinned by the following assumptions

(Gillespie et al, 2017). First, that all users obtain the same benefit equal to the travel cost of the marginal user. Second, the consumer surplus of the marginal user is zero. Third, that travel cost is a reliable proxy for price and that people's reaction to entrance fees is the same as their reactions to travel costs.

To ascertain users' willingness to pay, I adopted the Contingent Valuation Method. The CVM uses a survey to construct a hypothetical market in which people can state their preferences for variations in recreational amenities, with an aim to estimating the use value such changes (Bateman et al, 2002). Based on the hypothesis that one's WTP would be related to identifiable traits, I augmented the CVM with market segmentation techniques where I collected user data on demographic, motivation and involvement measures.

This study's data was collected through on-site surveying. Permission was first sought and granted by BPW, before a survey was designed to combine the TCM and CVM methodologies. Alongside the on-site surveying, I also interviewed staff at BPW, including Rowan Sorrell, the Founder and current Director of BPW, to understand the role of BPW in the UK mountain bike scene qualitatively. During the survey period, 420 surveys were issued and 383 collected. In total, 366 surveys were usable.

The recreational value of mountain biking at BPW is substantial, with an annual net and gross consumer surplus of £7.13m and £10.33m respectively. The per-day net and gross consumer surplus of £89.12 and £129.12 respectively also indicate the significant consumer value placed on BPW. These findings have policy implications on land use allocation, recreational site design and forestry management. From a land-use allocation perspective, this paper establishes that mountain biking is a viable use of public forestry lands in the UK and should take its place as a legitimate claimant to land use amongst competing and substitute interests. An example of a competing interest of land use is illustrated by the ongoing phenomenon of trail access conflict between hikers, equestrians and mountain bikers (Alleyne, 2008). By identifying mountain biking's recreational value, this study provides a metric for comparative and positive analyses between competing users for public policy regarding land

By demonstrating the considerable (86%) WTP for an environmental charge, this research implies a measurable demand for offsetting one's carbon footprint when traveling to a recreational site. From a site management perspective, an environmental charge lends credibility to a site's claim as a pollutant free pursuit within public forestry. By identifying the characteristics of recreationists that are related to

pro-environmental behaviour, my findings guide the possible implementation of such a charge by marketing an environmental charge to environmentally conscious visitors while developing educational campaigns for other segments.

The WTP results for trail building initiatives reveal that demand for new trails exists within a segment of skilled, adventurous and challenge-oriented mountain bikers. Given that 42% of respondents unwilling to pay more than the existing day pass price, this suggests that a uniform price increase may risk inducing dissatisfaction or reduce accessibility of the site amongst those with budget constraints. Thus, strategies aimed at increasing the economic sustainability of such sites through trail building initiatives should consider tailored offerings within specific recreationists' segments.

It can be concluded that mountain biking at BPW produces a considerable consumer surplus, at £129.12 per trip and £10.33m per year in gross terms. These values are higher

than previous studies on mountain biking sites, such as in Glentress, Scotland (Moran et al, 2006) and Moab, USA (Chakraborty & Keith, 2000). While these estimates are unique to the geographic and infrastructure attributes at BPW, it provides a useful metric for land use allocation amongst competing uses and development projects. More generally, it makes the case for recreational activity as a credible and legitimate form of land use to society. With demand for outdoor recreational sites in the UK expected to rise in the future (Foresight Land Use Futures Project, 2010), it is important to recognise the potential of such sites to be economically and environmentally sustainable, as well as possibly engendering environmental consciousness through recreation. Overall, this study establishes that mountain biking recreationists receive substantial benefits from the sport, and is likely an economically competitive use of public forestry land.

Transport demand management strategies: the case of tradable parking permits

Joelle was financially supported by **Cambridge University Land Society** in meeting the financial costs of the research for her final year dissertation.

radable permit systems have been implemented in a range of schemes, such as the EU Emissions Trading Scheme. Yet, tradable permit schemes on the individual level in the context of transport has only been applied on a theoretical level. With increasing car dependence and negative environmental impacts from car-use, this study conducted a lab-in-the-field experiment to determine whether a tradable permit scheme can be used in parking policy to reduce car ownership.

This paper thus sought to answer two questions regarding a tradable parking permit scheme. The first question is whether such a scheme is feasible. The Coase Theorem predicts trading permits results in an efficient allocation of parking permits. However, if individuals make decisions under bounded rationality instead of rationality, the operation of a tradable parking permit scheme may deviate from outcomes predicted by standard economic theory. In particular, the allocation of parking permits would be inefficient due to hoarding, speculation and inefficient trade volume. This paper therefore tested the assumption of rationality in a tradable parking permit scheme.

The second question concerns a tradable

parking permit scheme's effectiveness as a transport demand management (TDM) strategy. TDM aims to encourage sustainable transportation by minimising private vehicle use and increasing reliance on more environmentally friendly modes of transport. Thus, the effectiveness of a tradable parking permit scheme should be assessed by examining whether such a scheme ultimately lead to substitution of private car ownership with non-single occupancy modes of transport.

Methodology

This paper explored the two issues by conducting a lab-in-the-field experiment with 415 Chinese participants living in dense Chinese cities where parking is constrained. This cross-sectional study was carried out through an online self-administered survey and distributed via TurkPrime's Prime Panels. It consisted of two parts: part one presented participants with graph sequences showing artificially created historical parking rights prices, and part two collected sociodemographic information and participant lifestyle habits.

Part one of the questionnaire was designed to find out the feasibility of a tradable parking permit scheme. Participant willingness to pay (WTP) and willingness to accept (WTA) were elicited by setting out trading scenarios. Participants decide whether to keep or sell their parking right in response to 24 historical trendlines of parking right prices (eg. Graph 1), and the price they are willing to pay or



Lucy Cavendish (2016 - 2019) Currently pursuing an MSc in Comparative Social Policy, University of Oxford.

accept if they traded their parking right. The WTP and WTA provided by participants in response to the trendlines were used to test reference point dependency and the existence of the endowment effect.

The effectiveness of a tradable parking permit scheme was tested by examining the extrinsic and intrinsic factors that contributed to a participant's decision to sell their parking right and give up car ownership. Extrinsic motivation, in the context of social comparison, was tested by including four betweensubject treatments: one control and three experimental treatments. Upon completion of the graph sequences, participants in the control treatment were asked whether they would sell their car and parking right. Participants in the three treatments were given a scenario each, telling participants that their colleagues, neighbours and relatives have respectively decided to sell the car and parking right in favour of public transport.

In addition to social comparison factors, socio-demographic and lifestyle habits information were collected in part two for inclusion in a regression analysis to determine if other intrinsic factors such as environmental consciousness influenced the decision to sell the car and parking right.

Results

To answer the first issue of feasibility, an OLS regression model on reference point formation reveals buyers place more weight on the highest price than the lowest price whilst the opposite was found for sellers. This indicates that participants see the parking right as a means to obtain a parking permit. As such, to be confident in securing the bid for a parking right, buyers in the experiment looked at the highest price. On the other hand, sellers placed greater weight on the lowest price over the highest price. To the sellers, who do not own cars, the parking right is treated as an exchange good. Consequently, the fact that sellers are currently endowed with a tradable parking right did not matter in reference point formation. Instead, the expected utility is simply any value from selling the parking right.

A linear regression analysis subsequently conducted indicated that there is no endowment effect in the sample. Treating the parking right as an exchange good explains why the endowment effect was found to be absent in the sample. This finding supports Koszegi and Rabin's (2006)

theory that how a good is conceptualised, as an exchange or consumer good, moderate loss aversion for that good. Because exchange goods are only held for the purpose of resale, there is no emotional attachment to the good. In contrast, consumer goods derive value from utilisation and are not easily replaceable, thereby increasing attachment to the good. An individual is likely to find greater discomfort in giving up a good which he or she is emotionally attached to, leading to greater loss aversion in the case of consumer goods than exchange goods. Since parking rights were seen as an exchange good, any loss aversion on the seller's part was reduced, or even cancelled out. This result bodes well for the feasibility of a tradable parking permit scheme in reality.

The second issue on effectiveness was tested using a logistic regression model. The model showed that extrinsic motivation to give up car ownership did not have any impact on the individual's decision to sell their car. In fact, comparison between neighbours had a negative relationship with the likelihood of selling the car in a tradable parking permit scheme. Instead of being positively influenced to reduce car ownership as more neighbours gave up their cars, the sample showed neighbour actions to give up their car were seen as a market signal to continue car ownership.

On the other hand, intrinsic motivation of internalised pro-environmental norms proxied by environmental habits was found to increase the likelihood of giving up a car. This suggests tradable parking permit schemes as a TDM strategy cannot work in isolation. Increasing intrinsic motivation of those in the scheme is required.

Conclusion

In response to car ownership becoming more ubiquitous and the environmental effects of emissions becoming increasingly pronounced, parking policy can be influential as a transport demand management strategy to encourage modal switch. With regard to feasibility, parking rights were found to be treated as an exchange good. Thus, there is little to no endowment effect inhibiting parking rights trading.

A tradable parking permit scheme is most effective in switching decisions when an individual has a high level of internalised norms regarding the negative environmental impact of habits. The finding that Chinese participants treated neighbour peer effects as market information, resulting in a greater likelihood of keeping the car in a tradable parking permit scheme when neighbours sold their cars, could be a limiting factor on the scheme's effectiveness. Therefore, a policy for tradable parking permit schemes should not emphasise nor publicise the proportion of residents who have decided to sell their car and permit. Instead, investment in quality public transport and policies that help internalise pro-environmental norms should run in tandem with a tradable parking permit scheme.

This study is, however, limited as it did not manage to simulate a market for parking rights. Results with greater accuracy could be generated if trading reflecting the competitiveness of the parking rights market between participants in real time is conducted. Despite limitations of this paper, findings from the experiment shows that tradable parking permits schemes, as a quantity control instrument, have potential to encourage reduced car ownership.

1 Köszegi, Botond, and Matthew Rabin. "A Model of Reference-Dependent Preferences." The Quarterly Journal of Economics 121 (2006): 1133-165.

Urban design and NIMBYism: Eldercare Facilities in Singapore

Vernise was financially supported by Homerton College and Cambridge University Land Society in meeting the financial costs of the survey undertaken as part of the research for her final year BA Land Economy dissertation.

ot-in-my-backyard syndrome, or NIMBYism, refers to strident local community opposition to the siting of locally unwanted land uses close to them. This article is based on my dissertation inspired by the prominent cases of NIMBYism against eldercare facilities that arose in Singapore in 2012, and sought to understand if urban design could be used to change the perception of Singaporeans on such facilities. Using Kampung Admiralty, an award-winning development which was developed by the Housing Development Board, and named World Building of the Year at the 2018 World Architecture Festival, as a case study, the dissertation sought to answer the following questions: 1. Does NIMBYism against eldercare facilities exist in Singapore today? 2. Can urban design reduce NIMBYism? 3. If so, which urban design features are most important in reducing NIMBYism? 4. Is the KA model replicable elsewhere?

A range of methods were used to examine how urban design can reduce NIMBYism. Firstly, a literature review and newspaper content analysis were conducted to better understand the contributory factors to NIMBYism. Secondly, a site visit to KA was conducted for collection of data regarding urban design features of KA, as well as for direct observation of who was using the space and how it was being used. Thirdly, a nationally-representative survey of 90 people in Singapore was conducted. This was used to ascertain the level of NIMBYism that still existed in Singapore, and to determine which urban design features were most likely to reduce NIMBYism. Lastly, interviews were conducted with Professor Fung John Chye, academic at the National University of Singapore's School of Design and Environment, and director of the Centre of Ageing Research in the Environment, and with Mr. Goh Soon Kim, project architect for KA from WOHA.

The dissertation first analysed the factors responsible for NIMBYism using a framework set out in Petrova (2013), which divided various concerns held by existing residents of surrounding areas into visual and landscape concerns, socioeconomic concerns, and procedural factors, with environmental concerns seen as irrelevant in this context. A Friedman's test with Dunn-Bonferroni post-hoc test was conducted on results from the survey, which when combined with insights from the interviews, concluded that NIMBYism sentiments still exist in Singapore today, albeit to a lesser degree. Nursing homes, for example, continue to face more stigmatisation than other eldercare facilities.

Given that NIMBYism continues to exist in Singapore, the effectiveness of urban design in reducing the syndrome can then be analysed. Design features observed in Kampung Admiralty during the site visit are analysed from a theoretical perspective as to their effectiveness in reducing NIMBYism. This can be through direct and indirect channel, meaning, it changes the perception of eldercare facilities firstly in the minds of those who interact directly with it and secondly, in the minds of those who hear about it through word-of-mouth or through media reports.

Reduction of NIMBYism through the direct channel can be achieved through the creation of spaces for intergroup contact, i.e. the contact hypothesis (Allport, 1954), through reducing risk of property devaluation, and through participatory planning. An example of an urban design feature with a direct effect is the plaza situated on the ground floor of Kampung Admiralty. This reduces NIMBYism through the contact hypothesis, which refers to the argument that by bringing minority and majority groups together, high quality interactions fill in the missing or incomplete information group members

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may have, which forms the basis for their stereotyping, which then reduces prejudice between the groups (Christian, et al., 2014). Kampung Admiralty's Community Plaza fulfils all the factors Whyte (1988) famously identified to contribute to a lively plaza, and from observation during a site visit to the development, the plaza was indeed the liveliest place in the development. Such well-designed plazas can help reduce ageism as the elderly become involved in the community fabric. There are more opportunities for the groups to interact here as all age groups feel comfortable and have reason to use the plaza. Even if there is no direct interaction, reduction of prejudice can be achieved through imagined contact, i.e. that simply imagining interacting with members of another group can have effects comparable to face-to-face contact (Christian, et al., 2014; Turner, et al., 2007). The elderly are also more involved in activities and can be seen in the active ageing process, which can help to reduce fears of ageing in younger users.

Beyond reducing NIMBYism in the surrounding neighbourhood, urban design can also be used to influence the perspective of the rest of the population, i.e. through the indirect channel. This is done through symbolic aesthetics and participatory planning. An example of this effect can be observed in the awardwinning architectural design of Kampung Admiralty, as a form of symbolic aesthetics. Symbolic aesthetics refers to the appreciation of the associational meanings of the environment. The HDB develop iconic, architecturallyinteresting public-housing, such as Pinnacle@Duxton, and KA periodically. While these are not uncommon, the decision to develop an award-winning eldercare facility is likely intentional. This is because "places of high aesthetic tend to become landmarks (beyond) their roles in the individuals activity-system" (Heath, 2013). Social importance can be expressed through scale, execution quality and complexity (Heath, 2013). This would thus indicate to Singaporeans the social significance of eldercare facilities.

This theoretical analysis is then supported by the results from the survey. The results indicates that in the short term, direct effect from reducing risk of property devaluation is most important for nearby residents, whereas the features more likely to reduce NIMBYism in the long-term, be it through the direct or indirect effects, are less important. The importance of this convenience in reducing surrounding NIMBY sentiments is clear from the fact that it was highlighted by Mr. Goh as one of the main reasons neighbouring residents welcome the development. The strong presence of F&B and retail outlets, as well as sufficient consultation with residents prior to its construction may mean that any NIMBY sentiment was sufficiently compensated for, allowing the development to proceed.

In the long-term, however, it is reducing overall NIMBYism that is important. Both interviewees found that the plaza may be the most effective urban design feature in terms of encouraging community engagement in the neighbouring residents. The design of the space facilitates the potential for community engagement. However, they warn that physical design cannot itself determine if people interact.

Thus, the KA model can be considered a tentative success in changing the perception of eldercare facilities in Singapore through urban design. NIMBYism continues to exist in Singapore, albeit at a reduced, more nuanced state than in 2012. Urban design, as in the KA model, can help to further mitigate this. It's most important features are arguably the retail and F&B outlets, participatory planning, and the Community Plaza. There are possible limitations in terms of the replicability of the KA model elsewhere in Singapore, given its status as a testbed for retirement kampungs concept. However, the model's success through the indirect effect may mean that it need not be replicated exactly. The need for a transport node to support the amenities thus may not be necessary. Instead, there may be more focus on community engagement features such as the plazas and the co-location of childcare and eldercare facilities in future developments. Petrova, M. A., 2013. NIMBYism revisited: public acceptance of wind energy in the United States. WIREs Clim Change, Volume 4, pp. 575-601.

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Low Carbon Economic Corridors for India

Recently retired from Land Economy, where he directed the Cambridge Centre for Climate Change Mitigation Research, Douglas is currently Professor Emeritus at the University of North Carolina, and Director of Cambridge Science and Policy Consulting. His time is divided between San Diego (California), Cambridge and Kyoto (Japan). He continues to advise governments and businesses in those countries on their sustainability and climate change policies.

n my personal reflection in the 2018 CULS Magazine, I brought us to sunny Southern California. Today I want to take us to India, using the story of a recent project to design economic corridors linking the major cities of India. The goal is promoting much needed economic growth in a way that does not throw India onto the high carbon path we took in the West. The project described here was nominated for a British Expertise Award.

Giving credit where it is due, this work was done through my connections to Pell Frischmann, a leading environmental and engineering consultancy with feet equally in the UK and India. The project was the brainchild of Tushar and Rewati Prabhu, with my role being technical support to ensure that the ideas put to developers and government in India would truly deliver on the low carbon ambitions found on the tin. That support was based on methods developed during my time in Land Economy (graduates of the department will recognise them from the modules I taught on climate policy and sustainable community design).

In climate policy, we strive to lift billions of people from the bottom of the economic pyramid even as we decarbonise the global economy. Few in the world live the kinds of economic life we have in the US and UK. The majority live under or close to poverty levels. This is neither sustainable nor moral. The people of India need and deserve economic growth. Since they are so poor, they currently produce very little carbon per person, a fifth of that in the UK and Southern California. As economic growth takes place,





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however, their emissions will grow rapidly as they buy consumer goods and travel in personal cars and use more energy. Climate change will be made worse unless they can get onto a path of development radically different to the one we used.

Economic corridors allow for this development to take place along routes that link points of production, shipping, housing and consumption of goods. If that transport is by traditional means of trucks riding on roads and burning petrol or diesel, India's carbon emissions

could easily double or triple over the next decade. The challenge posed to us was to find a way to allow this economic growth using corridors that are low carbon.

We began by looking at a dozen metrics of sustainable performance, including per capita carbon emissions, carbon intensity of power production, water consumption and waste generation/recycling. For each of these, we developed a sliding scale from worse to best practice around the world. The aim was to develop the corridors using technologies that would leave India in the top (best) quartile of countries on each metric even as economic growth took place. That is a tall order for a nation struggling to provide for basic transport, much less the most sustainable - and at times costly - options that we would put forward for the corridor.

Fifteen design features were examined, ranging from placing solar and wind farms along the verges of the corridor, increasing use of electric trains and trucks, Roll On/Roll Off transport systems for goods and Intelligent Vehicle Highway Systems. Both the carbon reduction potential and the investment payback period were calculated for each option. These were summarised in a colourful graph with carbon reduction on one axis and payback period on the other. The investment 'sweet spot' was in the upper right of the picture, with high carbon reduction and short payback.

As you might guess, none of the technologies by themselves ended up in this sweet spot. They failed on one or the other of the measures. So we looked at bundles of technologies, where the technological and financial weaknesses of one technology would be offset by the strengths of another, much like having a diverse portfolio of investments. The eventual winner combined:

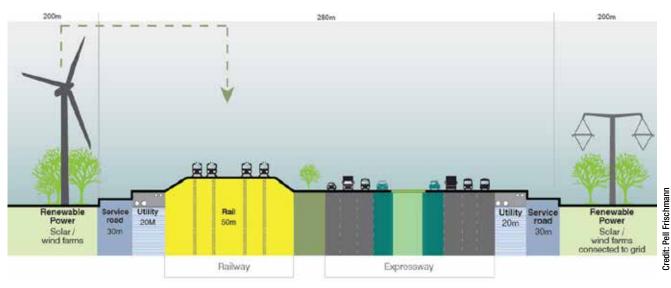
Co-located roadway, railway, power and ICT lines

- Dedicated lanes for low-carbon and high occupancy vehicles
- Toll for fossil fuelled low occupancy vehicles
- Solar/wind zones within verges to power railway and potential export to Nodes
- Green buffer for carbon sequestration
- Service stations with electric/biodiesel vehicle fuelling/charging

This bundle of strategies provided all of the transport needs of the corridor while reducing carbon emissions by more than half compared against the more traditional 'fossil fuel vehicles on roads' option.

This technological and environmental work was then followed by a survey of the policy innovations, governance structures and modes of finance that would be needed to deliver on this vision. Two challenges are found here: (1) many agencies control the different aspects of the corridor (rail, power etc), and they are not going to automatically play nicely in coordinating their authority and (2) CAPEX and OPEX costs sit in separate budget streams, while investment in low carbon systems only looks good from the perspective of TOTEX. The hunt continues for the governance and finance structures that can deliver, relying in part on the Green Climate Fund and forward-thinking financial institutions who want a stake in the emerging West-East Economic Corridor that will link western Africa to China, with India at the heart.

It should be clear why India was interested in this work. But why did the UK want a stake? The hope is that we will be the home for many of the innovations to deliver this vision of low carbon growth in India. UK firms would profit from developing these innovations and rolling them out across the developing nations, all of which face the development problems of India. Watch for news as these plans move to reality.



CULS Property Careers Fair Promoting Property Careers at Cambridge

CULS Property Careers Fair, 24th October 2019, sponsored by Cambridge Land Economy Advisory Board (CLEAB), Deloitte Real Estate, Eastdil Secured, Knight Frank and nuveen

"Will our video interviews be assessed by a real person or a robot?" That was the most surprising question asked at the 2019 careers fair.

Whilst recruitment methods are clearly changing quickly, demand for Cambridge graduates is not. Many sectors market very heavily to Cambridge graduates and it is sometimes hard to see beyond these options as a student. Those already studying land economy are already in the know about the potential benefits of a property career. But we also seek to reach beyond the department to attract talent into the industry. So, it was particularly pleasing to hear feedback from an enthused geographer now convinced that property was right for her.

Ian Marcus and Jon Zehner kindly shared their career insights and reflections. The importance of networking and building relationships was emphasised, as well as the need for greater diversity within the industry to fully understand the needs of customers. Ian shared his basis for decision making on career roles; (i) Am I working with good people? (ii) Is it fun? and (iii) Is it intellectually stimulating? Wise words, which were very well received.

A broad range of employers attended; including surveying and town planning consultancies, investment banks, developers, lawyers and lenders. Opportunities in the public sector were also promoted through Homes England. We are always seeking to expand the range of companies attending – particularly those offering international positions and roles relevant to the content of the planning, regeneration and environmental policy courses. If your firm has not attended before and would like to join us next year, please don't hesitate to get in touch.

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Attendees Benson Elliot

Bidwells Birketts British Land **Brydell Partners** Cambridge University Careers Service Carter Jonas **CBRE** Cushman & Wakefield Deloitte **Eastdil Secured** Gerald Eve Grosvenor **Knight Frank** LaSalle **Orchard Properties** Homes England nuveen Savills Turner and Townsend Wells Fargo



Louise Sherwin Director, Real Estate, Deloitte CULS Honorary Careers Officer Girton (2001-2004)







CULS Student Prizes

Prize	Awarded By	Amount	2013- 2014	2014- 2015	2015-2016	2016-2017	2017-2018	2018-2019
Undergraduate								
The Noel Dean Prize for best overall performance in Part II (3rd year TRIPOS)	CULS	£750	Sixiang Xu	Leo Kirby	Aleksandra Pedraszewska, Newnham	Samuel Porter	Lucy Merrill// Dana Poon	Ryan Pringle (Trinity)
The Gordon Cameron Memorial Prize for best performance in Paper 7 (Regional Economics and Policy)	CULS	£500	Ms Luting Chen	Joseph Strange	Arshad Balwa, Homerton Shilpita Mathews, Gonville & Caius	Gabriela Stoimenova, Ruthanne Soh	Patricia Behling	Aadil Siddiqi (Trinity Hall) Yi Lim (Fitzwilliam) Clara Calderbank (Robinson)
The Mike Turner Prize for best per- formance in Paper 15 (Advanced techniques in finance and investment for real estate)	CULS	£500	Sixiang Xu	Rebecca Daniels	Aleksandra Pedraszewska, Newnham Sally Monson, Clare Ben Fryza, Jesus	Beatrice Chan	Rohan Choudhuri	Alex Bird (St Catherine's)
The Jeffrey Switzer Prize for best performance in Paper 14 (Planning Policy and Practice)	CULS	£500	Stephanie Richards	Richard Alty	Zachary Freud, Fitzwilliam	Harry Lewis, Sarah Galley, Shilpita Matthews	Kevin LI	Pao Maneepairoj (Christ's)
The CULS Prize for best overall performance in Part 1B	CULS	£500	-	-	Ayrton Dhillon Selwyn	Ariane Dupas	Patricia Behling	Aadil Siddiqi (Trinity Hall)
The Nigel Allington Prize for Best overall performance in Paper one	CULS	£250				Patricia Behling	Anna Kelsall	Nicholas Sweeney (Jesus)
Postgraduate: MPhil Real Estate Finance								
The Douglas Blausten Award for the best performance in the Real Estate Finance MPhil dissertation.	CULS	£500	Adam Isaacs	Florian Unbehaun	Miss Quanzhi Yang	Maximilian Exler		Miss Isabel Ottewill of Hughes Hall
The Alistair Ross-Goobey Award for best performance in the Real Estate Finance MPhil	CULS	£750	Lucas Endl	Florian Unbehaun	Mr Luke Duckworth St Edmund's College	Philip Latham		Mr Daniel Riahi of Hughes Hall

CULS Committee

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James Lai	Committee Member	CallisonRTKL	Associate Director
Colm Lauder	Committee Member	Goodbody	Senior Real Estate Analyst
Noel Manns	Committee Member	CULS Real Estate Finance Forum	Chairman
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James Shepherd	Committee Member	Knight Frank LLP	Partner
Brian Waters	Committee Member	BWCP Architects	Principal
Honorary Vice Presidents	CULS Position	Company	Position
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Mark Preston	Honorary Vice President	Chief Executive, Grosvenor Group and Executive Trustee, Grosvenor Estate	

Upcoming CULS Events

Thursday 7th November 2019 5.30pm for 6pm	Conversation with Sarah Winckless MBE	c/o Carter Jonas One Chapel Place, London W1G 0BG
Wednesday 13th November 2019 7.45am - 9.30am	IPSX - The New Way to Invest in Real Estate	c/o British Land, York House, 45 Seymour Street, London W1H 7LX
Thursday 21st November 2019 5.30pm for 6pm	Denman Lecture given by Dame Helena Mor- rissey DBE 'Beyond Political Correctness: Addressing the True Diversity Challenge.'	The Bateman Auditorium, Gonville & Caius College, Cambridge CB2 1TA
Thursday 28th November 2019 7.45am - 9.30am	Market Trends 2019	c/o BDO 55 Baker Street, London W1U 7EU
Wednesday 4th December 2019 12.30pm	Whitehall Group Lunch with George Pascoe- Watson, Chief Adviser, Portland Communications	c/o Taylor Wessing LLP 5 New Street Square, London EC4A 3TW
Thursday 23rd January 2020 12.30pm	Whitehall Group Lunch with Lord Kerslake	c/o The Savile Club 69 Brook Street, London W1K 4ER
Wednesday 12th February 2020 12.30pm	Whitehall Group Lunch with Lord Hannay	c/o The Savile Club 69 Brook Street, London W1K 4ER
Wednesday 26th February 2020 7pm for 7.30pm	Whitehall Group Dinner with Rt. Hon Nicky Morgan MP	c/o The Savile Club 69 Brook Street London W1K 4ER
Thursday 27th February 2020	Geopolitical Trends	c/o GL Hearn, 65 Gresham Street London EC2V 7NQ
Wednesday 11th March 2020 12.30pm	Whitehall Group Lunch with Rt Hon. Lord Heseltine	c/o The Savile Club, 69 Brook Street London W1K 4ER
Wednesday 18th March 2020 2pm - 6pm	Annual Planning Update	c/o Dentons UK and Middle East One Fleet Place, London EC4M 7RA

Please book tickets online (www.culandsoc.com) or contact the Society Secretary
Ali Young
01638 507843
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No grass growing under our feet. And definitely no beating around the bush.

















































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