SPR Newsletter - August 2017

SOCIETY OF PROPERTY RESEARCHERS

Upcoming Technical Events

Upcoming Social Events

Recent Social Event and Site Visit Reports

Recent Technical Event Reports

* Details to follow on the SPR website

Upcoming Events

SPR 30th Anniversary Conference – 7th September 2017
Cass Business School, 106 Bunhill Row, London EC1

2017 marks the Society's 30th anniversary since inception.

To honour this landmark birthday, we are holding a special one-day conference.

The keynote session features three of our Fellows looking at the changing face of property research, followed by a panel about required researcher skills 30 years from now.

A group breakout session will then debate our role in the context of trends that are impacting our profession, including climate change, policy, the internet and demographics.

The closing keynote presentation will be given by Stian Westlake, Policy Adviser to the Minister of State for Higher Education, Science, Research and Innovation.

The day will culminate with celebratory drinks.

Priority sponsors:

CoStar DATSCHA Fidelity International REAL CAPITAL ANALYTICS

Standard sponsors:

GROSVENOR Macrobond

For details of the conference programme and how to book go to
https://spr30thanniversayconference.eventbrite.co.uk

Property Cycles in Continental Europe

Joint meeting with IPF – 14th September 2017

Freshfields Bruckhaus Deringer, 65 Fleet Street, London EC4, 6.00pm

Following the recent presentation by Robin Goodchild on property cycles in the UK, this seminar will widen the scope to consider property cycles in Continental Europe.

Our three speakers will consider the following questions:

- What is driving economic cycles across the major European countries?
- What is the driving property cycles and how do they differ across markets?
- How does the maturity of different markets affect the cycles?
- Why do some markets appear to be continuing with strong growth even after many good years?
- What is the impact of a long-run low interest rate environment and currency movements?
- What is the outlook for European property cycles?

Chair: **Neil Turner**

Speakers: **Andrew Burrell**, Head of EMEA Forecasting and Economics, JLL
Greg Mansell, Head of Research Real Assets, AXA REIM
Kiran Raichura, European Property Economist, Capital Economics

Annual SPR Golf Day – 15th September 2017

Silvermere Golf Club, Cobham, Surrey, www.silvermere-golf.co.uk

Sponsored by: REAL CAPITAL ANALYTICS PROPERTY DATA www.propertydata.com

If you would like to take part, please contact Craig Wright: craig_wright@standardlife.com

New SPR Logo

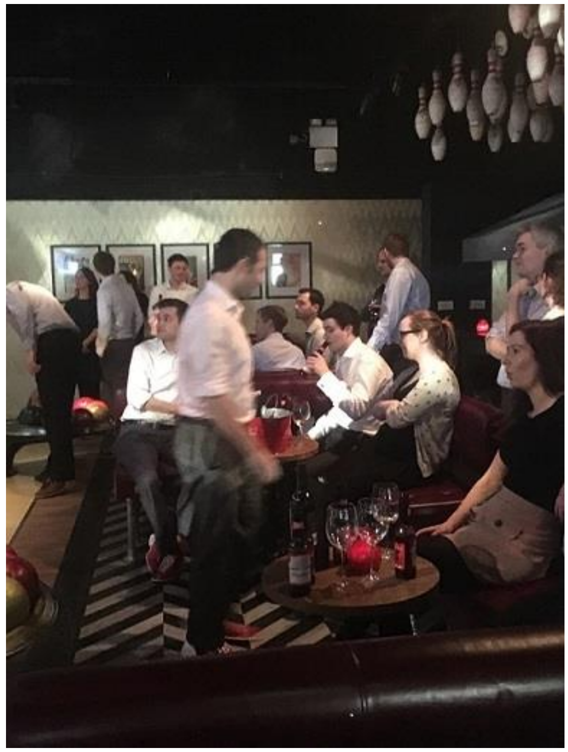
Many of you will by now have seen the new SPR logo, which is slowly being phased in, but has already appeared on our new event banner, marketing materials and templates, as well as in this newsletter. The new logo will be officially launched at the same time as the new SPR website.

These are the two versions of the logo. We hope you like them!

SPR Newsletter - August 2017

Recent Social Events

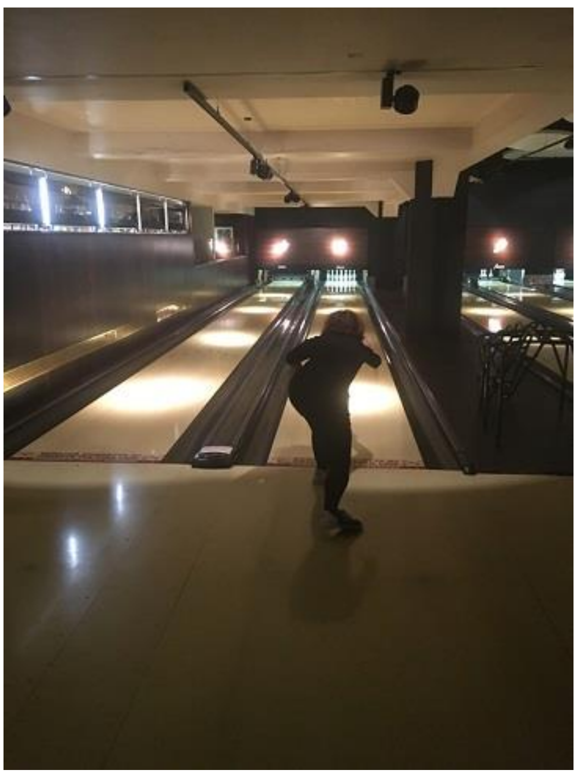
King Pin Bowling – 22nd February 2017
All Star Lanes, Spitalfields Arts Market,
95 Brick Lane, London E1



The first SPR social of 2017 was King Pin Bowling at All Star Lanes. This event was as always particularly good for new members to meet new people and network.

The mixed company team made up of Fergus Hicks, Matthew Hall, Jeremy Marsh, Sean Rymell, James Purvis, Michael Green and Ben Burston was victorious, with the SPR's very own Treasurer, James Purvis, winning the individual prize for the most points! The next highest scorers were Matt Hall and Greg Kane.

Meanwhile Ruth Hollies (below) was singled out by the official photographer for her exceptional bowling style.



Annual Quiz Night – 27th April 2017
Pavilion End, 23 Watling Street, London EC4

Sponsored by: PROPERTY DATA www.propertydata.com

The team from Savills won the coveted SPR quiz trophy for the third year in a row, closely followed by those from Colliers International and JLL.

Andrew Marston again excelled as quiz master. He added an innovative 'countries' round this year, in which each team selected an egg containing a country from a jar. He then asked them a question relating to the country picked. Unfortunately no-one picked the egg containing a golden ticket, which would have given them a spot prize.

There were also awards for the best team name, a competition that was tied between three teams with 'Mugwump' related names. This was the same day that Boris Johnson referred to Jeremy Corbyn as a "mutton-headed old mugwump."

All of the prizes were presented by Mark Pickering and Chris Bullock from Property Data.

Ping Pong Madness – 17th May 2017
Bounce Faringdon, 121 Holborn, London EC1

Sponsored by: DATSCHA

Thanks to Datscha's generous sponsorship, members were able to combine an hour on the ping pong tables with a sustaining array of drinks and canapés, both during and after the play. Many took the opportunity to network and socialise well into the evening.

A number of prizes were given to reward quality play on the ping pong tables. Scott Cabot of CBRE received the award of 'Smash Hitter', while the award for 'Backhand Supremo' was given to Joel Suissa of Remit Consulting. Meanwhile, Leslie Schroeder of CBRE took the title of 'Future Olympic Champion'.

Joel Suissa – Backhand Supremo

Leslie Schroeder – Future Olympic Champion

Summer Drinks, 13 July 2017

Balls Brothers, Hay's Galleria, Tooley Street, London SE1

Sponsored by: cobalt recruitment, REAL CAPITAL ANALYTICS

The ever-popular SPR Summer Drinks was again held at the covered terrace at Balls Brothers, Hay's Galleria.

In addition to the usual drinks and canapes, the event also included a Gin Infusion Masterclass taught by two experts, where members could select their own fruit, herbs or botanicals, and use the gin infusion gun to individually create their own flavour, then pairing this with the best tonic for their creation.

SPR committee member Cléo Folkes quickly learnt the arts of the gin infusion master herself and educated/entertained others by passing on her skills.

Cléo Folkes, gin infusion master

SPR SOCIETY OF PROPERTY RESEARCHERS

Recent Site Visits

Placemaking in Marylebone with the Howard de Walden Estate, 7 March & 6 July 2017
Howard de Walden Estate, 23 Queen Anne Street, London W1

Report by Joanna Turner

The SPR tour of the Howard de Walden estate in March proved so popular that a further visit was arranged for later in the year.

The visits began with a presentation of the estate's 300 year history and its current character, given by Julian Best, Property Investment and Strategy Director, Jenny Hancock, Creative Director and Steven Hudson, Retail and Commercial Property Director.

They explained that the Howard de Walden family sold off a substantial chunk of their estate in the 1920s, leaving them with the existing 1¼ square miles in Marylebone. People tend to associate their estate with retail, but medical assets now account for more than 30% of their income.

The medical assets provide diversification within the portfolio, as the income is less cyclical and more defensive than for the office and retail assets. There is a focus on developing or improving medical facilities, not just in Harley Street, but also on other parts of the estate – for example, the newly developed state-of-the-art Clearwater Court Medical Centre. Many "health tourists" come here for high quality, specialised medical care.

Retail represents about 15% of the portfolio, with tenants – including anchors such as Waitrose and the Conran Shop – paying around £100 Zone A. The estate treat these holdings very much like a shopping centre, with active management and a focus on achieving the right tenant mix. New tenants are carefully selected from a long waiting list.

They have also been developing some high quality office space in recent years, attracting rents of £80-85 psf. Some of these are let to medical occupiers. The estate's current strategy is focused on placemaking around Harley Street and Wimpole Street. They are passionate about having a vibrant

community for tenants to live, work and spend their leisure time in. This means organising community events such as the Summer Fair in Marylebone in June. They also provide rental concessions and community leases to keep tenants who fulfil a community or important service role.

The presentation was followed by a guided tour of the whole estate. Feedback from SPR members who attended each visit was very positive, with many surprised at the importance of the medical tenants in the portfolio, particularly in relation to the retail component.

For more information, visit http://www.hdwe.co.uk

Recent Technical Events

Meeting reports written by Tim Horsey

Research Briefing: *Brexit's Impact on the London Office Market* 7th March 2017

Schroder Real Estate IM, 31 Gresham Street, London EC2

Although there was relief that the much anticipated post-referendum crash didn't materialise in 2016, **Sam Moore**'s overall assessment of Brexit's potential impact was overwhelmingly negative. The Managing Director for Economic Consulting at Oxford Economics indicated that business investment had been falling for a while by the time of this meeting, and that the uncertainty surrounding the Brexit process was likely to reinforce this. Oxford Economics' view was that a free trade agreement for goods, but one with non-tariff barriers, would be the most likely outcome after two years of negotiations.

Moore proposed that if this kind of arrangement were to be combined with a generally populist approach in government policy, by 2030 UK GDP would be 3% lower than in a scenario envisaging a customs union and liberal policies. One of the key assumptions underlying the lower forecast was that net migration would be restricted to less than 100,000 a year. Given London's reliance on financial services and an international workforce, it is likely to be particularly affected, with annual growth set to be 0.5-1.0% lower up to 2030 than without Brexit, and with 100,000 fewer jobs being created in the capital. Still, London should still see the strongest office-based employment growth of any major European city, he suggested. This growth, with some 750,000 new employees, would also be the fastest for any UK region.

Homing in on London's office markets, **Mark Stansfield**, Managing Analyst at CoStar, confirmed that negative evidence was starting to emerge here as well, with leasing rates having been on a downward trend since late 2014 and vacancy ticking up. However this could in part be due to the normal cycle, as office construction was continuing apace in Central London. Meanwhile the investment market seemed to be bucking this trend, with a distinct revival in foreign demand in Q4 2016, and Chinese and other Far Eastern players contributing to the revival. But investors may also be getting more discerning, avoiding pockets of vacancy and focusing on prime assets. West End yields have started to move out somewhat, although this probably reflects Brexit bringing forward a correction that was expected anyway. London offices still look appealing given the lack of stock, continued overseas demand and the relative attractiveness of property.

The strength of interest from Asian investors was difficult to rationalise in the view of **Mark Callender**, Head of Real Estate Research at Schroder REIM, who spoke as a panellist. Occupier markets were likely to become more difficult over time, particularly with the potential changes in regulation and loss of passporting rights that could result from Brexit, combined with restrictions on the inflow of the foreign IT workers on whom London depends so heavily. But some locations might hold their own, he suggested – for example the areas around Kings Cross and Waterloo stations.

Mat Oakley, Head of European Commercial Research at Savills was equally sanguine, arguing that it was difficult to talk the London market up at the moment. He stressed the importance of not forgetting the capital's long standing problems – especially the high cost of living and housing – in the excitement of Brexit. This is becoming an increasing concern for large employers, as many graduates are choosing to stay away from the capital. Still, big IT firms like Apple, Amazon and Google continue to demand space in London, despite the possibility of recruitment difficulties post Brexit. And when the downturn really takes hold, there should be opportunities for counter-cyclical development for those with the funds to do it.

Joint Meeting with Long-Term Infrastructure Investors Association (LTIIA): *Finding Synergies between Property and Infrastructure Research*, 24th March 2017

Legal & General IM, One Coleman Street, London EC2

Kindly hosted by:

Infrastructure and real estate are now frequently mentioned by investors in the same breath, often under the heading of alternatives or real assets. Opening this half-day event, **Alan Synott**, Managing Director, Global Head of Product Strategy at BlackRock Real Assets, stressed that their common characteristics – such as reliable income and low correlations with other asset types – are increasingly recognised. This means that sharing research techniques and insights across real estate and infrastructure could potentially help both while revealing more about the differences and synergies between them. It was appropriate that the event was hosted by Legal & General Real Assets, who have recently brought these two asset types under one managerial roof.

Dave Lowery, Senior Analyst, Infrastructure at AXA Investment Management – Real Assets, set the scene with a wide ranging profile of infrastructure investments in Europe. He proposed that the supply of infrastructure had been limited in the recent past, leading to a decline in quality relative to other regions – there was ground to make up if needs were to be met by 2030. Infrastructure development has been declining, in part because governments have invested less. Lowery identified water supply, transport, data centres and renewable energy as key sectors where needs would be pressing, partly due to the quality of legacy assets and partly the potential impact of technology. Private investment would be needed to meet the shortfall in public finance, a fact already reflected in the growth of infrastructure funds, which have grown at a similar rate to real estate investment since the GFC.

But infrastructure encompasses a huge range of risk and return characteristics, reinforcing the need for performance measurement and the benchmarking of investments. Reviewing its development in this area relative to real estate, **Declan O'Brien**, Infrastructure Strategist at Legal & General Investment Management Real Assets [check] explained that it was lagging at present due to the varied nature of the assets and relatively small sample sizes for different types of infrastructure.

There was also a problem with the credibility of infrastructure valuations given the small number of transactions in the market, but this situation should improve as institutional investment grows and infrastructure comes on to investors' balance sheets. Current benchmark providers include Prequin, MSCI and IBox (for debt), but these services are very much in their infancy.

Besides benchmarking, another area where measuring performance has an important role to play for infrastructure is regulation. For example, European Solvency II regulations for insurance companies, which have only recognised infrastructure as a distinct asset class since 2016, require a 30% capital buffer to be held by investors who adopt a standard formula approach rather than using their own models. **Eugene Zhuchenko**, Executive Director of the LTIIA, argued that this requirement is so high because the historical performance data used by the regulators has been narrowly drawn, due to the lack of larger samples of high quality information. He proposed that this called for a collective effort from infrastructure players to pool their data. The LTIIA is itself working on assembling a European performance database, which currently covers more than 3000 assets across the continent.

Few would dispute that it's even more important to have reliable performance data for the purposes of investment allocation decisions across asset classes. In the final presentation of the morning, **Bernie McNamara**, Head of Global Real Assets Investment Solutions and **Pulkit Sharma**, Head of Global Portfolio Construction for Real Assets, both from JPMorgan Asset Management, stressed that this was critical for an alternative asset type like infrastructure that would depend on evidence of its diversification benefits to gain greater acceptance.

JPMorgan's allocation framework, which is based on a division between core and non-core assets across all asset classes, nevertheless already suggests that real assets have a significant role to play in portfolios, given their low correlations with the main asset classes and also between infrastructure and real estate inside the real asset basket. Therefore, having infrastructure in the real asset allocation can reduce downside risks while maintaining the expected return; this was also the case relative to the overall portfolio. But allocating to real assets could also mean making a trade off with lower liquidity and operational complexity.

In the lively audience Q&A that made up the last hour of the event, there was a strong feeling that investors were ready to allocate more to infrastructure but that the product available could be more attractive. One problem is that government has a big influence, not just over the price of the investment but also the subsequent income stream. Infrastructure clearly has some way to go before it reaches real estate's level of maturity. Steps in this direction could be the development of more open ended rather than closed ended funds; there is also a growing understanding that leverage can damage the diversification benefits of the asset, though there was also a suggestion that banks were finding infrastructure lending relatively unattractive due to the current low margins. It may be a better time to be a borrower than a lender.

SPR Technology Seminar: *Wake up to the Potential of Blockchain in Real Estate – 26th* April 2017

Datscha, 5th Floor Henry Wood House, 2 Riding House Street, London W1

Sponsored by: DATSCHA

This was the first of a series of SPR events for 2017 investigating the potential impact of technological change on real estate.

Simon Tucker, self-styled blockchain-guru at Curation Corp, began the seminar by explaining the basics of blockchain: at root, it is a generic distributed database technology that allows for peer-to-peer interaction. But its main uses so far have been as an enabler of financial transactions, most famously as the foundation of BitCoin. Its potential advantages include increasing the transparency, efficiency and cost effectiveness of transactions, and the possibility of removing third parties from the process. It should make for open deals that are neutral between parties, with full external disclosure. This technology has many different applications and ultimate formulations. Tucker argued that it would undoubtedly have a big impact, but exactly where is yet to be clear. Industries need to focus on what it could do for them and take ownership of it.

For real estate, part of the adoption process will undoubtedly involve learning from other industries that are further down the road. **Miguel Neumann**, COO & co-founder at DXMarkets, offered some observations based on his experience in the wider

financial sector. So far many of those involved with blockchain have been focussing on the technological challenges rather than its applications – we are at a similar stage to mobile phones ten years ago. Blockchain is in some ways comparable to a title deed in real estate, implying that deals could become far simpler and more standardised, while having stronger attribution and minimal potential for error. Neumann suggested that it might lead to a more distributed structure of real estate ownership, with more syndication and covesting, as well as more developed secondary markets. If blockchain takes hold, it will inevitably mean dramatic product innovation.

In Sweden, steps have already been taken that could hasten the coming of blockchain to real estate there. **Ludvig Oberg**, Head of Business Development at ChromaWay, has been working with LHV Bank in Estonia and the Swedish land registry for more than a year now, looking at ways of reducing the complexity of transactions as a first stage. Part of this is developing a smart contract that brings greater standardisation. At present there are several different groups trying to create a blockchain standard for financial transactions, but ultimately only one is likely to succeed – the challenge is to pick the right one.

Patrick Spens, Transformation (Blockchain) & Assurance Director at PwC followed the three main presentations with some pithy observations. He sees four key consequences of blockchain: eliminating the back office, an end to the need for mediation, the availability of immediate proof of purchase, and embedding business logic into the technology. The implications could be huge: some estimate it could save the UK financial services industry as much as $150 billion, while the banks' monopoly of financial transactions could move to technology companies. Spens is a member of the Whitechapel Think Tank that has been set up by the UK government to help maximise blockchain's benefit to financial services.

Security from fraud was a major concern highlighted in the audience Q&A, but the speakers' predominant view was that greater transparency should be helpful, particularly in the context of real estate. A more critical challenge could be identifying the blockchain model that is likely to prevail. Today the largest banks are developing their own systems, and one of these may take hold. All those involved in financial services should therefore watch this space very carefully.

Joint meeting with IPF and Cambridge University Land Society: *The Nature of Property Cycles: Past, Present and Future* – 9th May 2017
Mayer Brown, 201 Bishopsgate, London EC2

An audience of at least 300 drawn from the membership of the SPR, IPF and CULS packed Mayer Brown's lecture theatre for a one-off speech by **Robin Goodchild**, SPR Fellow and International Director - Global Research and Strategy, LaSalle Investment Management.

Opening the event, moderator **Robert Peto**, former Chairman of DTZ Investors and past President of both RICS and CULS, commented on the wide swathe of the business in attendance, including many of Goodchild's colleagues and contemporaries from an illustrious career in real estate research and investment spanning more than 40 years.

The nature and predictability of commercial real estate cycles is one of the most important topics in real estate research. Goodchild began by describing the three most recent UK value cycles, which reached their most dramatic phases in 1972-76, 1987-92 and 2004-09. Each of these periods saw a two-year boom, followed by a three-year decline and then a year of recovery, and were broadly similar in magnitude. Similar patterns have been witnessed in the US and Australia, supporting the view that real estate cycles tie into broader economic cycles, which have their own extensive academic literature.

But Goodchild took pains to emphasise that although real estate cycles may look similar in retrospect, they each have their own unique features, which have provided some "cracking stories," and have formed the frameworks for books by John Plender in the '70s and Alasdair Ross Goobey in the '80s. One clear difference was the level of rental growth, which exceeded 30% in the 1980s boom but was negative running up to the GFC.

What lessons can we learn from this history about the state of the current cycle? Goodchild proposed that the UK did not experience a classic 'boom' in 2014-15, as the value gain of 18% had been insufficient to trigger a bust, and lending to real estate is now relatively muted. This suggests that we are still in the relatively balanced phase between major swings, with the next big boom and bust more likely to take place around 2025, which would reflect a similar time gap to those between the previous three cycles.

This would also leave enough time for the emergence of a new group of senior real estate professionals, who would not have experienced the last major upheaval. Goodchild stressed that the effect of this "loss of collective memory" should not be underestimated.

Richard Barras, co-founder of Property Market Analysis and author of *Building Cycles – Growth and Instability*, one of the leading works on the cycle, agreed with Goodchild that we are still in the recovery from the last downturn.

He emphasised that for real estate the particular shape of the cycle is not just the consequence of the economic cycle, but also the long lead times that are built into the investment and development processes. And thinking about the behavioural aspects of cycles, he proposed that a herd mentality is always likely to prevail given the risk of missing out on short-term profits in a boom, while the heterogeneity of real estate always helps convince individuals that they can acquire assets that will be immune to any market crash.

Peter Denton, Group Finance Director at The Hyde Group, agreed that animal spirits play a big part in any boom, though there may not necessarily be any specific cause that one can identify in advance. There has been a tendency to blame banks for encouraging this behaviour, particularly through the last cycle, but investors were also keen to take the money. These issues have been tackled recently by the IPF-sponsored Vision for Real Estate Finance and work by the Bank of England, which aims to help the economy to survive the next real estate cycle. In 2006 loan-to-value ratios of 80% were considered normal, but today British clearing banks have a completely different attitude, which bodes well for the future.

SPR Technology Seminar: *Built to last? How technology will impact the real estate and built environment of tomorrow* – 7th June 2017
WeWork Moorgate, Fore Street, London EC2Y

The meeting began with a wide-ranging review of the technologies set to have a biggest impact on real estate in the longer term, given by **Tom Carroll**, Head of EMEA Corporate Research at JLL. These include virtual reality, driverless cars and artificial intelligence, all areas in which digital software is leading the process of disruption. From the viewpoint of offices, one of the key aspects is likely to be the kind of organisational change that can result from technological innovation – in particular the contingent workforce, in which footloose consultants play a bigger role, and non-traditional space formats, like the more informal arrangement pioneered by WeWork, an example being the venue used for this SPR event.

Despite perennial comments about the decline of the office, Carroll was positive about its future: this is proving to be a sphere of continuing innovation. As workforces get ever more mobile with their smart devices, there is a premium on providing places where people can come together. But these need to be smart buildings that embody connective infrastructure and allow for dynamic change – the buildings themselves have to encourage innovation in how we work.

Russell Pedley, Director at residential and mixed use specialist architects Assael, spoke on "Technological change shaping the urban realm." He focused particularly on design innovation in PRS residential, looking at the example of Legal & General's new Ferry Lane project in Walthamstow, North East London. This development is innovative for its use of modular construction methods, which he argued have big advantages in speed and quality of construction. He also highlighted the innovative design process, in which the architects only use drawings in the very early stages, after which three-dimensional digital models take over. This means that the building can be modelled in great detail before construction, incorporating all the services and fittings. It also provides a huge amount of data that can potentially be used to optimise subsequent building management performance, although this field is still in its infancy.

Asked to give her own thoughts on the most important tech innovations for real estate, **Alexandra Steed**, Director of Alexandra Steed

URBAN – the first of three panellists at the event – proposed that there is huge potential in her area of activity for information apps relating to the public realm, for instance giving background on the history and future plans for the locale.

Machine learning and online shopping could also ultimately have a big impact in the long-term, according to **Eyal Malinger**, Investment Director at Beringea, in particular due to the depletion of populations dependent on call centres and malls. Meanwhile virtual reality will soon allow remote conferencing to be a far more realistic experience, something that could prove a game changer for offices.

Miro Miroslav, Co-Founder of OfficeR&D, argued that technology is now playing a crucial role in creating virtual communities that allow dispersed individuals to interact and come together, especially as workers. Offices will therefore become more important for the services they can provide than for their workspaces alone.

But technology is also posing challenges for real estate. Malinger noted that the tech cycle is getting shorter and shorter with the increasing pace of digital innovation – this is going to be difficult for buildings to keep up with, implying that there will need to be far more flexibility in how buildings can be used. He also thinks that the pace of innovation will vary from one real estate sector to another: for example, building management systems are far more advanced for commercial space than for residential.

SPR Talent Seminar – 15th June 2017
London School of Economics, Houghton Street, London WC2

This was the SPR's first Talent Seminar for real estate students who are showing exceptional promise.

Six current PhD students were selected to present their research at this event, chaired by **Danielle Sanderson**, where SPR members had the chance to question each of the researchers about their work. After the presentations, **Professor Christine Whitehead** of the LSE and **Steven Devaney** of the University of Reading awarded a prize for the research they judged to be the strongest. This was given jointly to **Milan Vidakovic**, an MSc Student at Cass Business School, for his research on liquidity in Swiss real estate funds, and **Adam Tycha** of the University of Cambridge, for work looking at the impact of immigration on Swedish real estate markets.

The other participating students were **Michel Haddad**, University of Cambridge, who presented research on financial contagion in the G20 countries; **Melanie Zhang**, University of Reading – on foreign investment in the London office market; **Sariye Akcay**, Henley Business School – on institutional elements in residential mortgage markets; and **Michelle Tong**, University of Reading, on the elasticity of space supply and its relationship with rent levels.

Professor Whitehead commended all the participants for the quality of their research and the high standard of their presentations.

SPR Technology Seminar: *From Big Data to Smart Data,* 6 July 2017
AEW Europe, 33 Jermyn Street, London SW1

Kindly hosted by: AEW

Before any discussion about big data, it is always important to define the topic, as views change about what it means. For **Nick Wright**, Head of Business Development, Real Estate at KPMG, it: now means using large amounts of data efficiently in the interests of the business. But he suggested that for real estate big data is currently a bit like teenage sex – everyone is talking about it but no-one is doing it. For example, a lot of tech companies were at MIPIM this year, explaining to both investors and occupiers of real estate how technology could help them. Potentially there are big gains to be made, not only in increasing efficiency, but also in enhanced insights. Still, Wright argued, there needs to be a change in organisational culture if technology is going to

really take hold, in particular moving from a research to a strategic role. Nevertheless, there are areas where technology is starting to play a bigger role in real estate businesses, for example in valuation.

Herculano Rodrigues, Associate Director of the Javelin Group, helps retailers make most of the data technology that's now becoming available – much of which they are generating themselves, in ever larger quantities. He proposed that real estate data isn't yet big, but there are more sources available to use and software companies are starting to bring them together. For example, Alteryx are combining data from Oxford Economics, CBRE and internal rental for one retail client. Meanwhile, the growth in online sales means that many retailers are turning into data companies, though few are attributing web sales to stores as yet. Of those technologies now entering the mainstream, IOT, AI and car automation will all have a big effect on retail property data, creating vast amounts of it as they play an increasing role.

Focusing on the practical applications of large datasets in real estate investment, **Matthew Richardson**, Director of Research, European Real Estate at Fidelity International, described his experience in bringing technology to bear on this area over the past ten years.

His philosophy is that investment is about using information and converting it into knowledge via analysis, in order to achieve attractive returns for investors. For real estate this means using a lot of data, as the asset class has so many moving parts. At Fidelity the investment business was unable to do this alone, so they worked with the data services department to develop solutions that could deal with the wide range of data sources involved. The two most important projects were to create a sophisticated cash flow model and to generate a market sentiment index based on publicly available sources.

Richardson believes that real estate now urgently needs to address its "data deficit" relative to other asset classes as it matures and becomes part of the global investment spectrum. This will lead to the rise of the "real estate quant," who will bridge the gap between the techies and the strategists.

There are few examples of big data in the real estate arena as yet in the view of **Dan Hughes**, Director, Data and Information Product Management at RICS, who spoke as a panellist. But while there may still be a long way to go before it arrives, real estate people are definitely getting much more familiar with the idea. He agrees with Richardson that its key features are the "volume, velocity and variety" of the data that will eventually be involved.

Mark Bruno, Managing Director at Datscha, concurred, insisting that much education was still needed before the idea of "Proptech" really comes to fruition. Bringing together all the data sources now available will be a five to ten year challenge, and will demand as much change in business organisation as in technology. Firms will also have to overcome the temptation to sit on their data rather than expose it to the wider investment community.

Much of the subsequent audience discussion considered the practical aspects of implementing big data in real estate. This would partly be a question of those in leadership positions committing their organisations to the task, something that should get more likely as younger generations of professionals come through.

Hans Vrensen, Head of Research & Strategy at AEW Europe, who chaired the meeting, suggested it was important for organisations to remain agile.

For him this means making developing technological solutions on a small scale before applying them more widely.

It was encouraging that – based on a show of hands – about a third of the firms in the audience now have an innovation committee. But most recognised that real estate is still in the foothills of this climb.