



Programme for 12 September 2019 - 2

- 11.25 **Session 2.**
- Chaired by **Prof. Paul Olomolaiye**, Pro-Vice Chancellor & Executive Dean, UWE Bristol
- 11.30 **Dr Jim Mason**, Assoc. Head of Department, Built Environment Programmes, UWE Bristol
- 12.05 **James Dadson**, CASLE Africa Region President
- 12.40 **Prof. Sarah Sayce**, University of Reading
- 13.15 – 14.00 **Lunch**

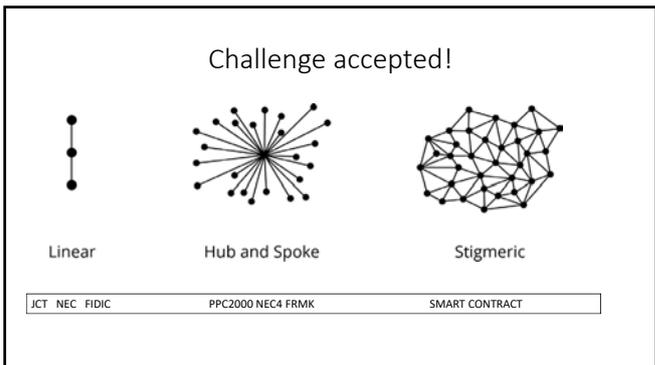
“The Future is already here, it is just not evenly distributed yet” William Gibson

• “A big area where the sector needs to adapt is a shift in the contractual landscape. **New forms of contract must be developed**, and innovative procurement routes based on the whole lifecycle are needed.” Lara Poloni AECOM Chief Executive Building Magazine 28 June 2019

Dr Jim Mason



Jim is Associate Head of Built Environment Programmes in the Department of Architecture and Built Environment at the University of the West of England, Bristol; author of *Construction Law: From Beginner to Practitioner* and writing *Innovating Construction Law: Towards the Digital Age*.



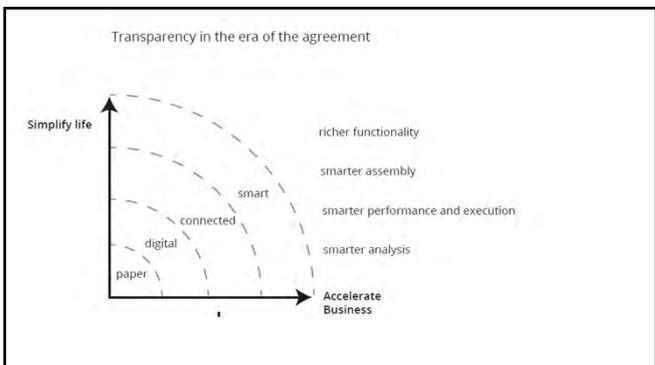
Presentation by
Dr Jim Mason

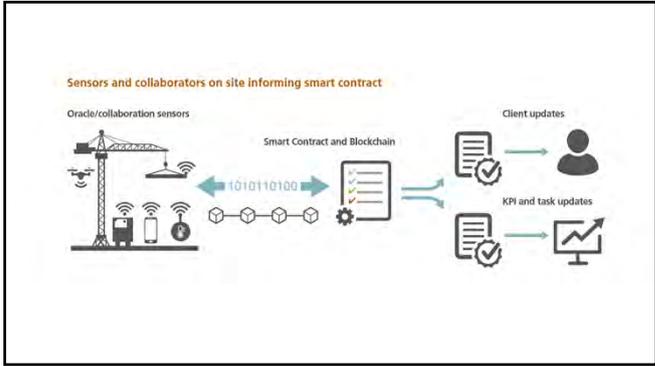
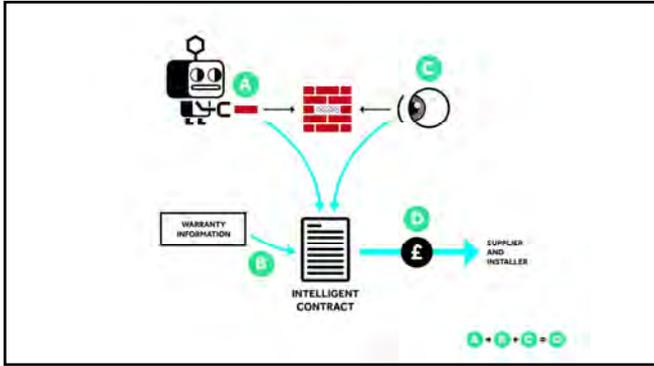
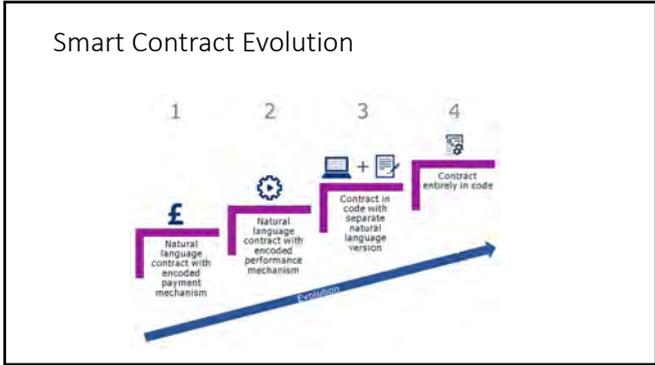
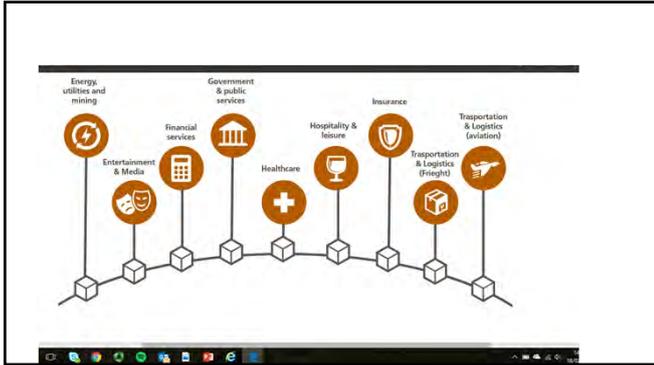
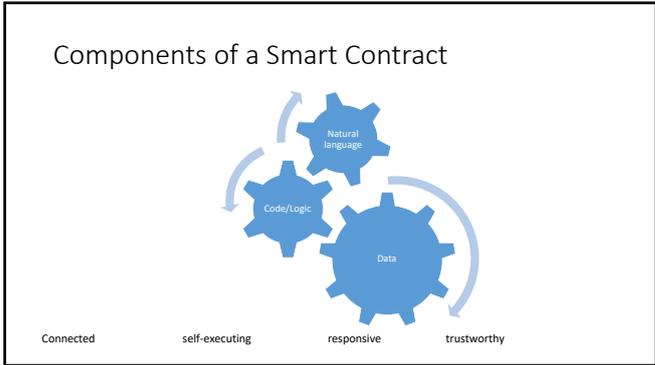
Associate Head of Built Environment Programmes

CASLE Golden Jubilee September

Smart Contracts and the Future of Professional roles

London, 2019



Changing nature of professional roles (Susskind)

- Increasingly capable machines will take on many tasks that have been the historic preserve of the professions
- Disintermediation
- Role of middle man and gate keeper will be under threat
- For the current beneficiaries of the work – good tidings – a world in which expertise is more accessible and affordable than ever before
- Reintermediation
- Find another home in the supply chain
- Disaggregation

James Ebenezer Kobina Dadson



James is a Fellow and Past President of the Ghana Institution of Surveyors; CASLE Africa Regional President; Chartered Surveyor. He is a Chief Land Administration Officer and Technical Director for Lands at the Ministry of Lands and Natural Resources in Ghana.

What will there be left for the professional to do?

- *“The difficulty lies, not in the new ideas, but in escaping from old ones, which ramify into every corner of our minds.”*
- John Maynard Keynes
- Beware of technological myopia and AI fallacies and arguments for the status quo
- Keep an open mind
- The least likely future of all is that nothing much will change.
- It is all about the pace of change
- THANK YOU. ANY QUESTIONS?



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Presentation Outline

- Welcome to the Land of Gold
- Historical Perspective of Land Administration in Ghana
 - Legal/legislative interventions
 - Institutional interventions
 - Organizational interventions
- Change and Its Catalysts
- Current trends and challenges
- Future projections
- Concluding remarks

WELCOME TO THE LAND OF GOLD

- An agrarian economy
- Total land 23.8535 million Hectares (238,540 km²)
- About 30.42 million people
- Agriculture contributes about 36% (GDP) and is the main source of livelihood for most Ghanaians, especially in the rural areas.
- To many Ghanaians, land is of critical social, cultural and religious significance. It is widely regarded as a deity and a heritage won for the living by their ancestors in the various ethnic communities.



Legislative Interventions

- Legal regime for land administration in Ghana consists of constitutional provisions, policy instruments, statutory enactments, judicial decisions, common law principles and customary laws.
- Few colonial legislative interventions
 - Crown Bill, 1894
 - Public Lands Bill,
 - Concessions Ordinance, 1900,
 - Stool Property Protection Ordinance (Ordinance No. 22 of 1940)
- Colonial legislative and policy interventions
 - Amass land for the state
 - Making indigenus/customary institutions less powerful

Land Administration in Ghana

- Land Administration in Ghana operates within a plural environment:
 - statutes and customary laws and norms;
 - public and indigenus institutions;
 - traditional values and corporate norms operating side by side.
- Since colonial era, a number of institutions and statutes have been established to govern land.

Title Registration Journey

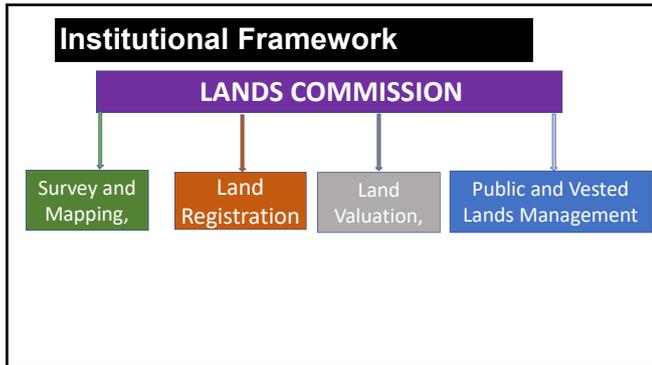
Land Surveying	Deed Registration	Title Registration
<ul style="list-style-type: none"> ➢ A Survey Unit was established in 1901 as Gold Coast Mining Survey ➢ (1908), the Gold Coast Survey ➢ Mapping Major towns in the Gold Coast at a scale of 1:1250 ➢ Producing topographical maps covering the whole colony. 	<ul style="list-style-type: none"> ➢ <i>Land Registration Ordinance</i> (No. 8) of 1883)-Deed Registration ➢ Land Registry Ordinance of 1895 <i>•address the twin problem of insecurity of title and high litigation over land transactions</i> ➢ Land Registry Act of 1962 (Act 122) ➢ Legislative Instrument 1444 Survey Regulations of 1989 (Supervision and Approval of Plans) 	<ul style="list-style-type: none"> ❑ Registration Law 1986, (PNDCL 152) ❑ Land Title Regulations 1986 (L.I. 1341) ❑ Title Registration is still on pilot basis and cover only parts of the Country

Land Administration in Ghana

- Prior to colonization, land was administered by indigenous institutions (chiefs, spiritual leaders and family heads)
- Natural features: footpaths, rivers, streams etc were used as boundaries
- Land transactions were mainly **oral and evidenced by members of the community who were witnesses to the transaction**
- Evidence of land documentation was unavailable
- Colonization created legal regime for administration of land

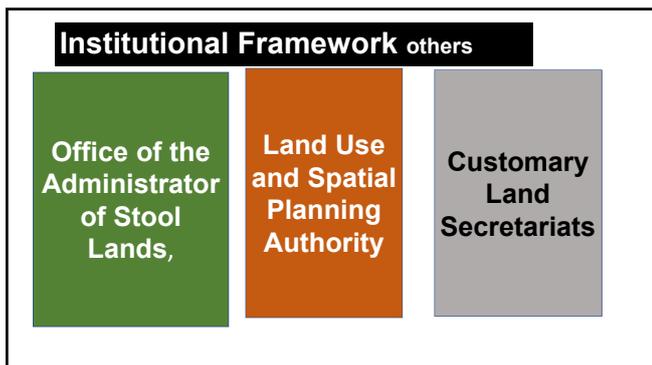
KEY LEGISLATION TO DATE

- ❑ Land registration ordinance (1883)
- ❑ Registry Ordinance of 1895
- ❑ Administration of Lands Act, 1962 (Act 123)
- ❑ State Lands Act, 1962 (Act 125)
- ❑ Survey Act, 1962 (Act 127),
- ❑ Land Registry Act, 1962 (Act 122),
- ❑ Conveyancing Decree, 1973 (NRCD 175)
- ❑ Land Title Registration Law (PNDCL 152)
- ❑ Local Government Law, 1988 (PNDCL 207)
- ❑ Survey (Supervision and Approval of Plans) Regulations, 1989 (LI 1444).
- Major land policy reform - National Land Policy (1999)
- ❖ **A Draft Land Bill to consolidates all legislation on land is currently under consideration by Parliament**



Technology Today

- Modern surveying practice
 - Robotic theodolites
 - Laser scanners
 - HRSI
 - Point cloud mapping
 - Digital globe
 - Digital terrain modelling
 - UAV



The Commencement of Change and Its Catalyst

- Population Increase: Annual growth rate of 2.5%
- Technological advancement including information and communication technology, transportation mode etc.
- Demand for new legislation on land rights, ownership and use
- Need to transform Statutory Agencies responsible for land administration
- Demand for Land Courts to expedite land cases and disputes

Historical Perspective –Technology

- Classical/ terrestrial land surveying
 - Chains/tapes
 - Subtense bars
 - Tacheometry
 - Theodolites
 - Total stations
 - GPS
 - Photogrammetry

The Commencement of Change and Its Catalyst

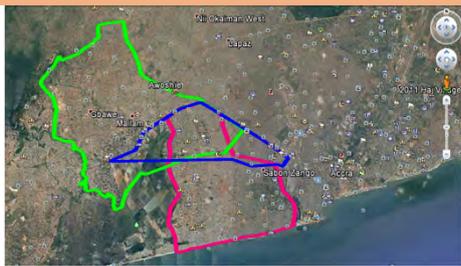
- Interest from Academic and Research Bodies
- International Professional Bodies such as CASLE, FIG, RICS, AAQS, ICEC with a desire for standards
- The quest for environmental sustainability (SDG's)

The Commencement of Change and Its Catalyst

- Creation of institutions and laws led to:
 - Overlapping responsibilities of institutions
 - Duplication of functions among the land sector agencies
 - Conflicting legislation
 - Fragmented institutional arrangements
 - Weak institutional capacity



Current Key Challenges

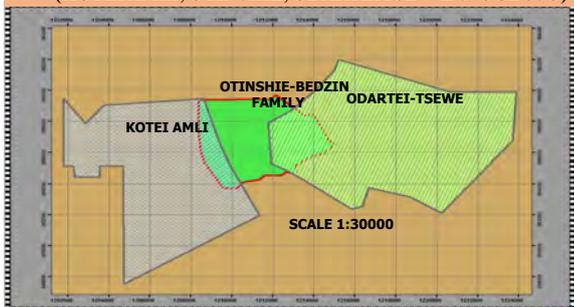


OVERLAPPING JUDGEMENT BOUNDARIES (GBAWE, SEMPE & AKLIMAJAY)

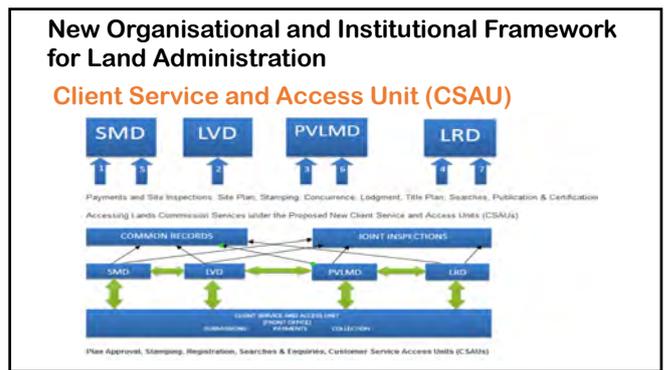
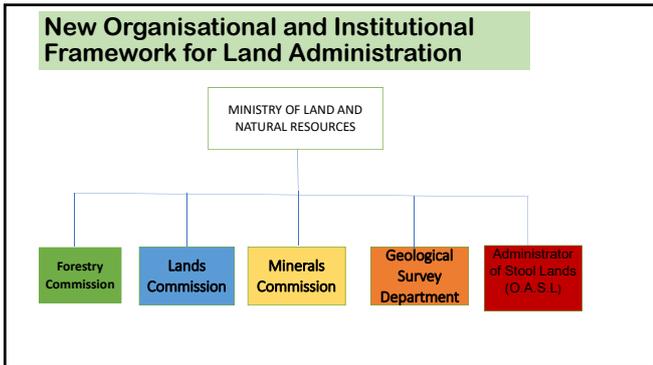
Questions on the Land Records

- Credibility of the records?
- Accessibility to the records?
- Currency of the records?
- Accuracy of the records?
- Does the record reflect the ground situation?
- Affordability to the public?

MULTIPLE JUDGEMENTS (KOTEI AMLI, OTINSHIE, ODARTEITSE WE & OGBOJO)



RESPONSE TO THE CHANGES



- ### Current Trends and Challenges
- To what extent can we rely on custom which is passed on mainly through oral tradition?
 - How do we deal with the many competing and varied uses of land, a finite asset?
 - Can we get it right with external financial and technical support?
 - Are we able to determine the impact on the environment as a result of un-approved development?
 - How are we managing the change: eg the merger of key land sector agencies?
 - Are professionals caving in to political pressure?
 - How have the conflicting court rulings affected the credibility of land records?

Future Projections/Concluding Remarks

- Trends show a lot has been achieved in the administration of land in Ghana
- Yet, there is the need to confront the emerging challenges
- Projecting into the future, Land Administration in Ghana should be responsive to New Era and Concepts of Land Administration
 - Fit-for-purpose land administration
 - Cadastre domain model and Land Administration Domain Models
 - Varying needs of land information to satisfy our clients
 - Client service prompt requirements
 - Green technology
 - Smart cities
 - Addressing the Competing uses
 - Environmental sustainability challenges

CASLE Golden Jubilee Conference

London 12th September 2019



The future of surveying: learning from the past

How good are valuers at change?

Professor Sarah Sayce

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THANK YOU

Agenda

- Role of the Valuer
- The world now and then
- Regulation and Red Book
- Data – and collecting it: tools of the trade
- The Planet in ascendancy
- The valuation professional response
- Challenges
- Final thoughts

Prof. Sarah Sayce



Sarah is a Fellow of RICS, part-time Professor in Sustainable Real Estate at the University of Reading, Visiting Professor at the Royal Agricultural University and Emeritus Professor at Kingston University, where she was formerly Head of Department.

The role of the valuer

The role of the valuer is to (primarily) assess Market Value:

A reflector of markets

Not a maker of markets

So what has changed around them? And how have/should/must they respond? Has the role changed?

Are they dinosaurs? adaptive creatures? Or agile and fit?



Setting the Scene: The World in 1969...



The first moon landing...



The cold war at its zenith



The Queen was Head of the Commonwealth



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Copyright acknowledged
https://www.history.com/topics/cold-war

.. And now: a property market context?

- An unequal world- financially and technologically and for access to data, *but*
- A global property market: – to a point
- Domination of financial investment houses - and financial modelling
- Estate Agency moving on- line
- Housing supply still a 'front line' issue
- RICS re-structuring – but now a worldwide organisation
- Valuers now professionally recognised and regulated but not 'protected' **except where Red Book adopted...**



Source: Knight Frank Global Cities Report 2019



Number of internet users by country, 2017

The world in 1969: professionally..

- RICS had just celebrated 100 years – but was UK only
- CASLE was born
- FIG was 90 years old..
- IVSC was not to happen for another decade
- Plethora of national organisations
- The RICS General Practice division was newly set up – so Valuers were barely thought of as a 'specialism'
- Valuation strengthened through mergers and acquisition – notable in 1999 when ISVA (Incorporated Society of Valuers & Auctioneers merged with RICS).
- Education for Valuers was through Exams /or accredited awards under title of 'Estate Management' or 'Land Economy'

Red Tape and Red Books: an evolution

- 1976: Guidance Notes relating to valuations for accounts
- 1980: Accompanying Manual (White Book)
- 1992: Red Book Mandatory
- 2003: Global Edition...
- 2017: current edition – with next due 2020
- A shift from *Guidance to Statements to Standards*
- Part of a 'rainbow mix' of standards – ISVC, TEGoVA;
- 'Alphabet soup' of definitions dominated the 1990s – *now much simpler: Market Value; Investment Value; Fair Value; Equitable Value – but not a constant – change may be on the Agenda again*
- These reflect a changing role for the valuer – and evolution of technique – if not method... notably DCF!



The World in 1969 ... an aspiring profession?

- *"The public distinguishes between the lively, dynamic, professions and the somnolent, complacent professions,"* (Thompson (1968) p. 306)
- *"The institution has accepted responsibility for identifying problems in which chartered surveyors have a contribution to make: ... the problems of regulating estate agents,... the possibility of using computers in estate agency.. Also the question of affordable rents"* (Thompson (1968) p. 306)



So: have things changed?

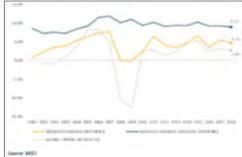
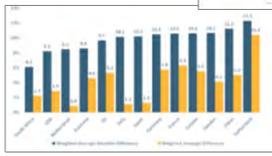
Possibly not – except there is now a global reach
CASLE and FIG are active players in this space..
Recognition that Valuation Standards come under
International Standard setting bodies

Red Book & Regulation: Rationale

- Client context:
 - Global investment market demand comparability of approach;
 - Regulated businesses but litigious clients
 - Well documented pressures on valuers to supply client's required answers (e.g. Levy and Schuck, (1999 and 2005); Crosby *et al.*, (2015)
 - Quest for transparency and good communication
- Competition concerns: Accountants? Investment analysts?
- Response: Valuer registration
 - A fundamental shift to greater control: resisted when first introduced a decade ago
 - Now extended to 118 countries (RICS, April 2019).
 - But not complete even in Europe and only 18 countries so far in Middle East & Africa

What has 'standardisation' achieved?

- Accuracy of valuation is still an issue!
- But now it is more transparent- not only is data improved (well some!) but tracking of data has too...

Underlying variance are many issues: notably data – but also valuer interpretation

Tools of the trade: And now

Computing software.. From Parry's Tables to Excel

- Revolutionised the ease of calculations.. But did not fundamentally change the process
- Investment valuations still use essentially the same process and formulae – but DCF is now simpler...
- Has Excel improved the accuracy of valuations?
- Probably not That depends on data inputs
- Cases of negligence seldom turn on the detailed calculations but on basic judgement and market 'sense'– Titan V Collier [2015] taught us that




Data and Accuracy: an ongoing issue

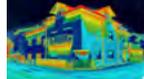
- Valuations rely on accurate data... even in developed countries there are still data issues
 - Abidoye, R.B. et al. 2019. Property valuation methods in practice: evidence from Australia. *Property Management*.
- But issues far more in developing countries
 - Awuah, K. et al. 2016 *An Evaluation of Property Valuation Practice in Sub-Saharan Africa RICS*
 - Viruly, F and Garrun, S., 2017. *Market maturity and the availability of data in Sub-Saharan Real Estate Markets* (No. eres2017_34). European Real Estate Society.
 - Abidoye, R.B. and Chan, A.P., 2018. Achieving property valuation accuracy in developing countries: the implication of data source. *International Journal of Housing Markets and Analysis*, 11(3), pp.573-585.
- Valuers for many years accused of anchoring their views too much on the past
 - Gallimore, P. 1994. Aspects of information processing in valuation judgement and choice. *Journal of Property Research*, 11, 97-110
 - Baum, A, Crosby, N, Gallimore, P, McAlister, P and Gray, A. 2003. Appraiser behaviour and appraisal smoothing: some qualitative and quantitative evidence. *Journal of Property Research*, 20 (3), 261-280
 - Lin, T. C., & Chang, H. Y. 2012. How do appraisers absorb market information in property valuation?: Some experimental evidence. *Property Management*, 30(2), 190-206.

Tools of the trade: And now

The computer in your pocket..

- **Communication** is now instant: places pressure on valuers
- **Reporting:** from the car or/and on-site
- **Pressure** to be available, to perform and little time to reflect **Or overhead!**
- **Drones** may have revolutionised the potential for building surveyors
 - they can also facilitate the work of valuers
 - google street view – not a reliable tool- but useful
 - Infra-red camera images provide telling evidence
 - Does technology change the process and depth of due diligence needed by the competent valuer?





Tools of the trade: Then

The very start of the internet




Slide rules widely used but calculators were just coming in

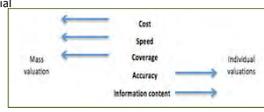


Mainframe computers – less powerful than a Smartphone!

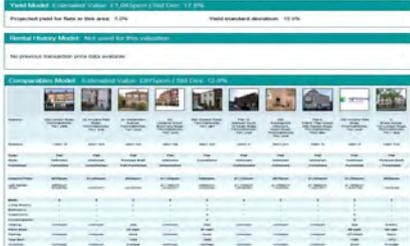
Tools of the trade: the future now

AVM/CAMA offer known advantages but do they compromise or support accuracy? Do the eliminate bias? So - are they good enough?

- Excel may not have changed valuations fundamentally – but what of AVMs, CAMA and AI?
- The quest for mass appraisal is not new: academic work reported from the mid 1980s – but burgeoned by the turn of the century:
 - Boyle, C., 1984. An expert system for valuation of residential properties. *Journal of Valuation*, 2(3), pp.271-286.
 - Czernkowski, R.M., 1990. Expert systems in real estate valuation. *Journal of Valuation*, 8(4), pp.376-393.
 - Lenk, M.M., Worzala, E.M. and Silva, A., 1997. High-tech valuation: should artificial neural networks bypass the human valuer?. *Journal of Property Valuation and Investment*, 15(1), pp.8-26.



At first sight: very attractive to the commissioning client...



- Multiple regression analysis tool using a range of data points
- Enable 'desk top' valuations
- Reduce cost

BUT

- Essentially they assume that a small set of variables can provide a robust valuation
- Difficult to defend in court...
- Often value hinges on deep analysis of few transactions
- But for mass appraisals for tax
- Or low LTV loans they may be ideal...
- But what if the market is thin?

The valuer is still responsible for the figure!

Have Valuers Responded

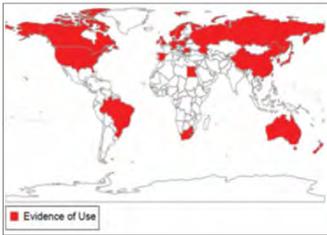
Yes: the profession has – if somewhat slowly:

- Valuers are *“advised to extend their data collection to include a record of sustainability factors, even if these do not currently impact on value”* (RICS, 2013 GN Sustainability and Commercial Property Valuation)
- “sustainability and environmental matters ... are growing in importance in terms of market perception and influence and it is therefore essential that valuers have proper regard to their relevance and significance in relation to individual valuation assignments”* (RICS, 2017 Red Book VPS 2)

The Key questions are:

- Have commissioning clients responded?
- Has the market moved?
- What of legislation?
- Personal v professional responsibility?

Use of AVMS worldwide



“This ease of use, coupled with a large number of wary opponents reaching retirement age in countries such as South Africa, indicates that there is a great opportunity for and likely widespread expansion of AVMs. With such momentum, the potential for a globally synergetic AVM movement is evident.”

(argued by Bidanset considering IAAO's consideration of the use of AVMs for tax purposes)

- The real impact is that routine valuer work is already being compromised.
- This can be considered negatively – or an enabler to shift to higher fee consultancy/advisory services
- But note the geographic spread- not prevalent in the areas of most population/development growth

Source: Bidanset (2014) Fair and Equitable p. 4

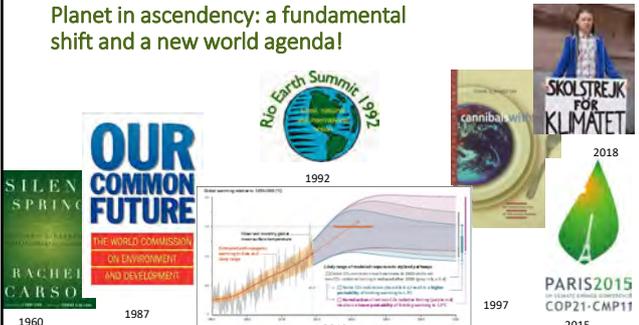
To date...

- Client response has been patchy:
 - 2 groups where it is firmly on the agenda
 - Institutions – screen in for 'green'
 - Lenders – rise of green finance
- Climate change legislation:
 - Taxation
 - Restriction on transactions




All this should feed through potentially to valuations..

Planet in ascendency: a fundamental shift and a new world agenda!



1960: SILEN SPRING by Rachel Carson

1987: OUR COMMON FUTURE: THE WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT

1992: Rio Earth Summit

1997: Cannibals

2018: SKOLSTREJK FÖR KLIMATET

2015: PARIS 2015

2019: Graph showing CO2 emissions and temperature rise from 1960 to 2019.

The Value Response..

- Resultant Market movement:
 - Green premium v brown discount
- What is apparent is that it comes through variably – depending on markets.. And sub-markets.
- Hedonic regression of CBD offices in US/UK shows green + responding to institutional investors/ corporate clients
- Many other markets display brown discount through higher risk of obsolescence: this can be reflected through enhanced inspection/due diligence process




So: what does all this mean? Have valuers ‘changed’ with the times?

- In some ways yes:
 - Embraced new ‘tools’
 - Worked with professional guidance
 - Closer to knowing client expectations – shift to advisory function
- AVMs are now widely used for secured lending and some taxes
- AI will begin to take over *some* functions
- Open data enables access to previously privileged data..
- So some consider the valuer to be an ‘endangered species’: it will be all about computers!
- In the UK the age profile of members of the valuation profession means that over half are due to retire in 5 years... with additional qualification and fees to be a ‘registered valuer’ - and earning potential less than some other areas – so -why would you be a valuer?

Some (maybe) unsolved challenges

- **Supply of valuers:**
 - not seen as an ‘attractive’ specialism:
 - the average age of valuation specialists has been considered
 - Insurance costs v fees an ongoing issue
 - Can be highly litigious
 - Still challenges around the curriculum to ensure IT/ Tech savvy entrants with deep property knowledge
 - The significantly diverse markets – from multi –asset high powered to the single dwelling – the skills and knowledge bases are different

A changing role? Possibly

- The **Purpose** of the valuation has always underpinned what the valuer does: transaction; tax; compulsory purchase etc. but now a shift from giving a number to *analysis of the market*
- The growth of **multi-asset investment portfolios** place requirements for performance monitoring/ book values and to be forward looking
- Eg: “All valuations are market-based and carefully researched, and provide an accurate **forecast of future as well as current value**. We consistently **add value** by identifying opportunities for tax efficiency and enhanced performance and offer our valuation services throughout the UK and globally” (surveying firm website)



Some (maybe) unsolved challenges

- New definitions of value: definitions of value have been an ongoing debate – but it is now more fundamental...
 - **Long-term value** – requires deeper economic analysis – and maybe new bases of valuation
 - **Eco-Systems and value of nature capital** – not seen as part of the skills set
 - **Social Value** – the recognition that real estate impacts value of society and community



Summary: Rising to the Challenges

- **Technology:** whilst embraced – still more scope for use in inspections, calculations and AVMS *but*
- **Advisory** for specific assets will require ever more due diligence and a greater knowledge of building specifics – buildings are not just ‘cash flow vehicles’!
- **Methods-** still reflect markets but aided by new tools - shifts to investment worth using DCF now firmly integrated in regulation and practice
- **Climate change** impacts buildings “It is suggested that further and ongoing attempts are made to research and calculate the contribution individual sustainability features make to value.” (Jackson and Orr, 2018)- the work has started!
- But 2 other issues are also challenging...

Conclusions?

- 50 years has seen many changes.. But some fundamental lack of change
- Moving forward valuers need to be ‘agile,’ tech savvy and sustainability literate
- Some skills need extending on the light of social change- and climate change
- Less need to ‘spot figure’ values – but more for deeper analysis
- That should come at enhanced reward
- So

What do you think?



Destined to die



Adaptive for survival?



Agile and fit?

The views expressed in this presentation are the authors own. They do not necessarily reflect the view of the RICS, the University of Reading, or CASLE



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