





Smart Centres Index:

The Environment For The Development Of New Technology

Thursday, 27 June 2019

Honourable Artillery Company,

City of London



Wi-Fi Username: HACGuest Password: PrinceConsort1537









A Word From Our Chair



Michael Mainelli Co-Chairman FS Club











Established 2004

Networking, debates and speakers you don't usually meet elsewhere

Chatham House Rule

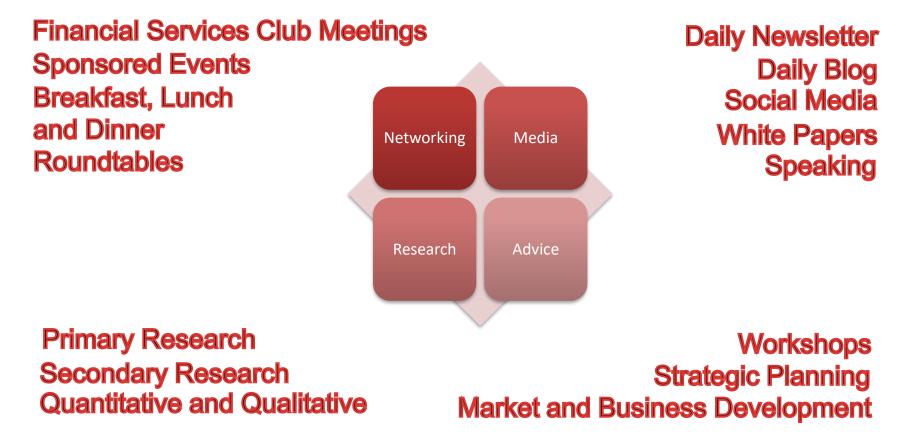
www.thefinanser.com www.fsclub.net



What FS Club Does









www.thefinanser.com





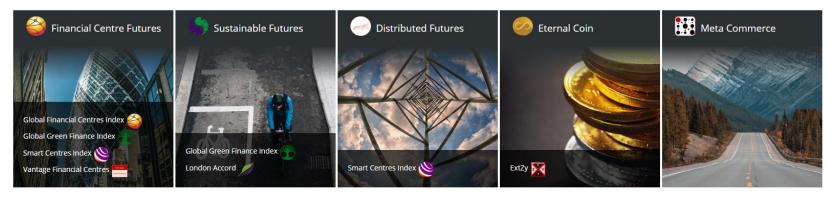


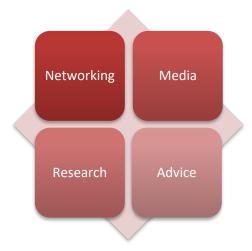
What Long Finance Does



"When would we know our financial system is working?"

This is the question underlying Long Finance's goal to improve society's understanding and use of finance over the long-term. In contrast to the short-termism that defines today's economic views, the Long Finance time-frame is roughly 100 years.







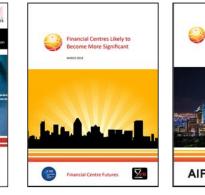
Recent Research





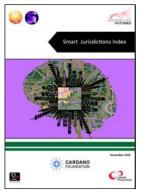


























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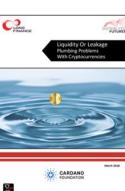














A Simple Climb?



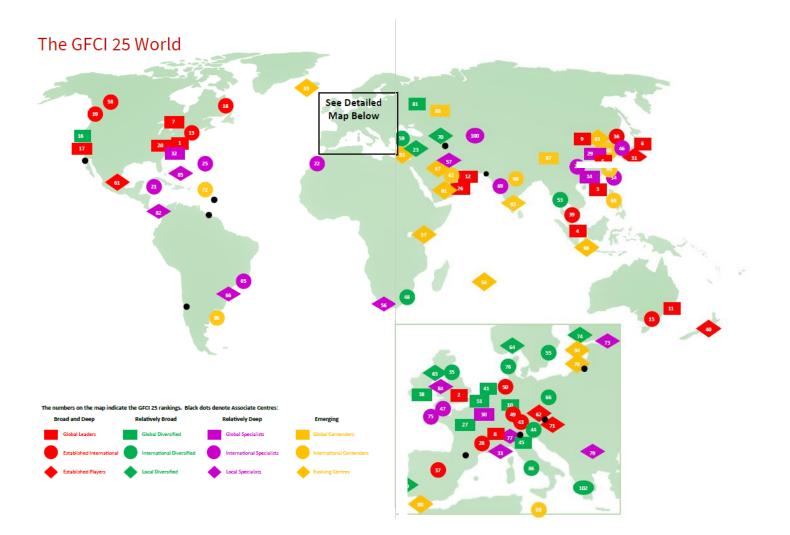




The GFCI World



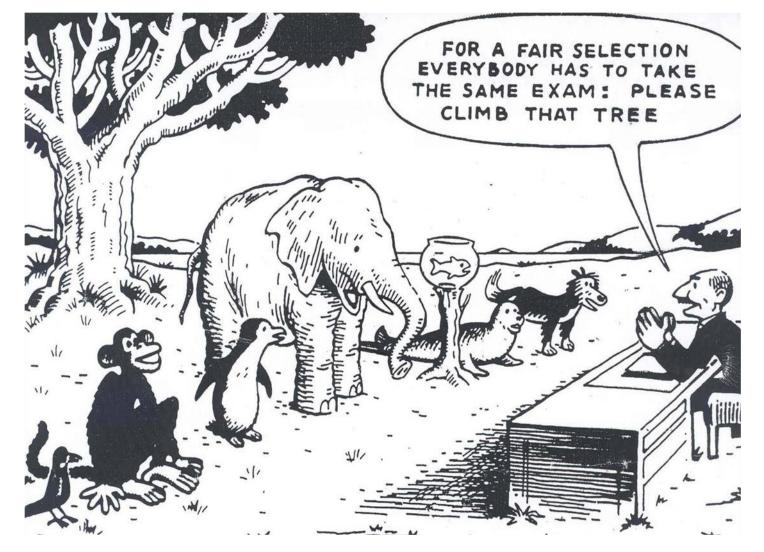
102 Centres In GFCI 25 Plus 10 Associate Centres





One True Strategy For Success





"Treat All Comers Fairly"





Smart Centres Index: The Environment For The Development Of New Technology



Apolline Blandin Research Fellow Cambridge Centre for Alternative Finance









Cambridge Centre for Alternative Finance

Global Cryptoasset Regulatory Landscape Study

Apolline Blandin: Cryptocurrency and Blockchain Research Manager, Cambridge Centre for Alternative Finance







I. OVERVIEW







The study in a nutshell

Objective: global empirical analysis of regulatory approaches and practices with regards to cryptoassets

Target audience: regulators and policymakers, industry actors, academics, trade associations, and other stakeholders

Contributors: 20+

Project duration: 10+ months

Methodology: desktop research & in-person interviews

Pages: 100+









How to navigate the report: study structure



of key cryptoasset concepts

Cambridge Centre for Alternative Finance UNIVERSITY OF CAMBRIDGE Justice Business Schemi

of global regulatory approaches

current and future regulatory challenges

analysis for 23 jurisdictions





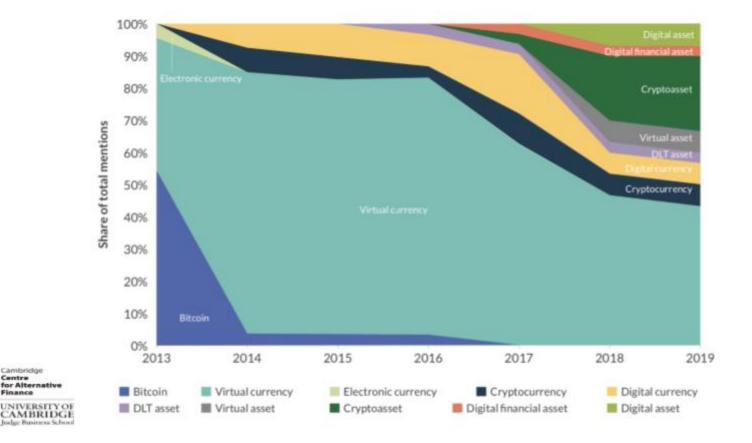
II. KEY FINDINGS







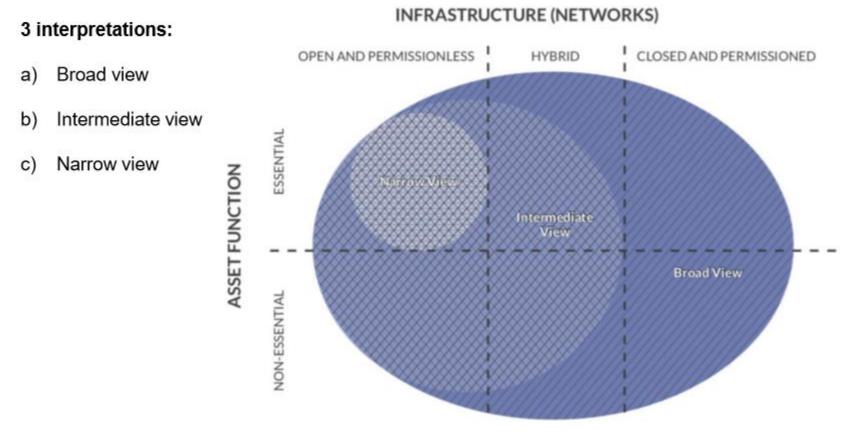
No standard usage of terminology across regulators







Determining the boundaries of the term "cryptoasset"







Blockchain & DLT: impact on asset form, nature, or both?

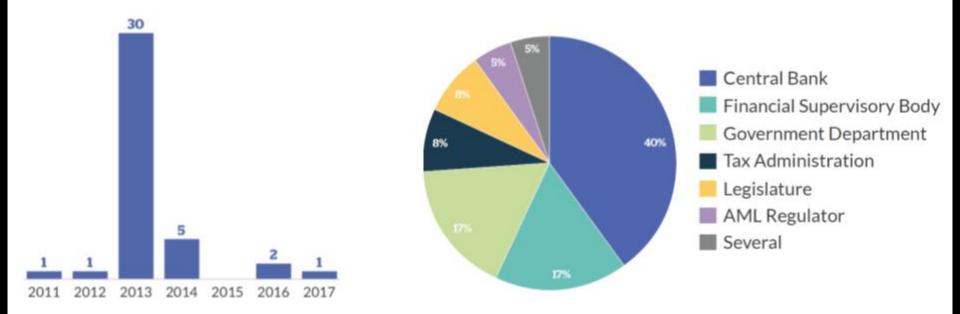
			ASSET NATURE			
DLT may change the form of an asset but not necessarily its nature			Conventional		New	
			Financial: Stocks, bonds, money, derivatives, depository receipts, private equity, private debt, etc.	Non-financial: Real estate, commodities, etc.	Cryptoassets ("narrow" view): Cryptocurrencies and utility tokens	Other: ¹³ Documents, media files, domain names, digital collectibles, etc.
Cambridge Centre for Alternative Finance UNIVERSITY OF	FORM	Physical	Paper certificate or register: directly held by owner or custodian	Depends on asset nature: often physical possession and/or paper certificate or register	N/A	N/A
			Gateways required to bridge the physical and the digital world (hybrid or exogenous)		No gateways required: purely endogenous	Gateways may be required
		Electronic	Ownership registries: dematerialised asset held by CSD or custodian	N/A	Depository receipt: claim on custodial service provider	Internal enterprise registry system
		DLT-based token	a) Direct issuance ¹⁴ : natively digital b) Tokenised ¹⁵	Tokenised: cannot be natively digital	Primary issuance: endogenous to DLT system	Depends on the application type and underlying platform

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Timeline of first official statements by authorities

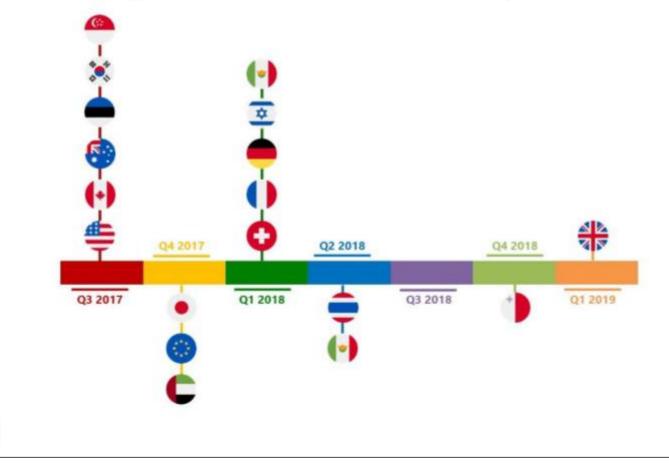




Cambridge Centre for Alternative Finance UNIVERSITY OF CAMBRIDGE Judge Business School



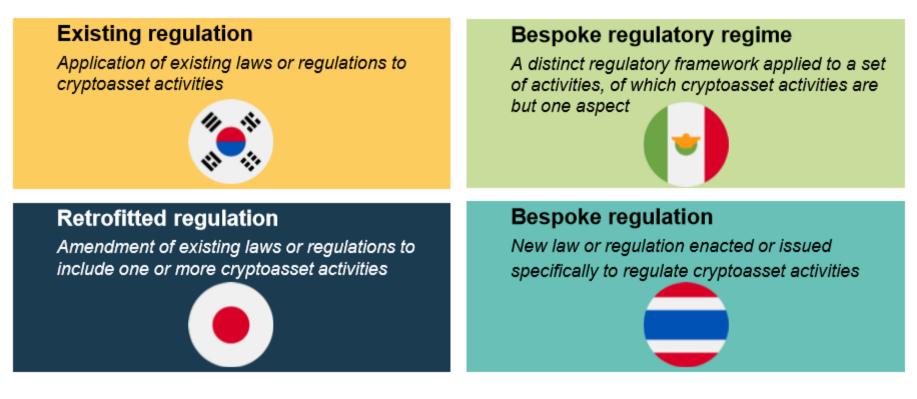
Timeline of first guidance issuance: security or not?







Regulatory responses can be grouped into four categories

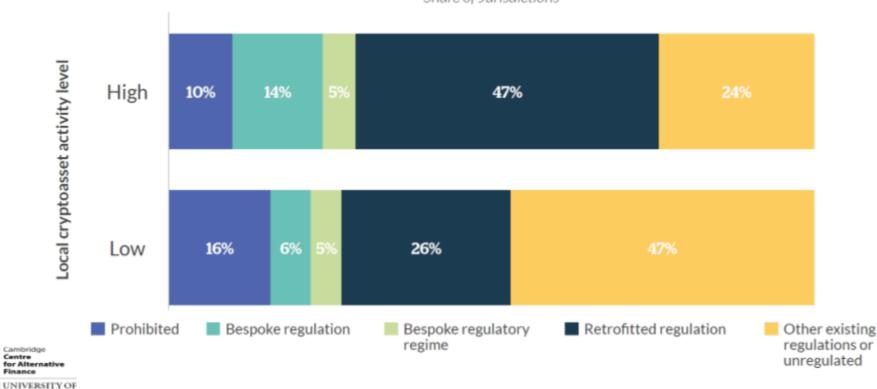




CAMBRIDGE Judge Business School



'Retrofitting' prevails when level of cryptoasset activity is high

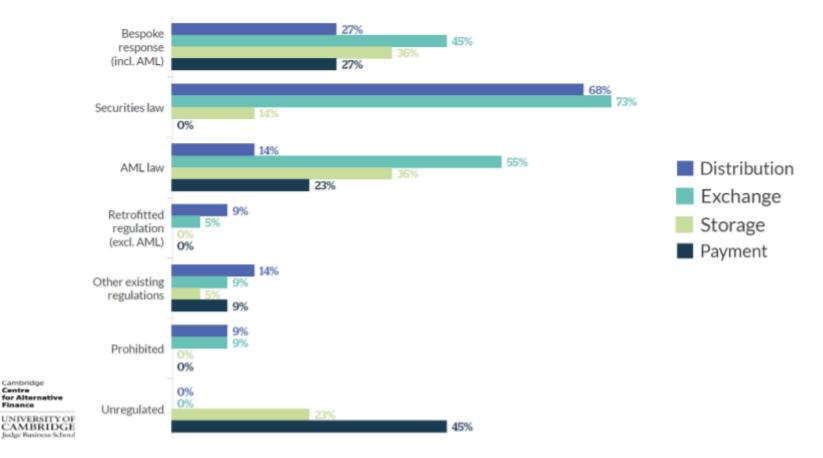


Share of Jurisdictions





ICOs and exchanges are the main focus of regulatory attention







Many regulatory challenges remain









Cambridge Centre for Alternative Finance



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www.jbs.cam.ac.uk/ccaf





Smart Centres Index: The Environment For The Development Of New Technology



Mike Wardle Head Of Indices Z/Yen Group







The Smart Centres Index



- Published a report on a pilot Smart Jurisdictions Index in 2018
- Looked at countries and states and their response to new technology
- Feedback on the pilot made us look again
- Decision to focus on centres/cities, which are driving economic development and focus on the future
- And to broaden the scope from smart ledgers to a range of new technologies and science





Z/Yen Indices







Why A Smart Centres Index?

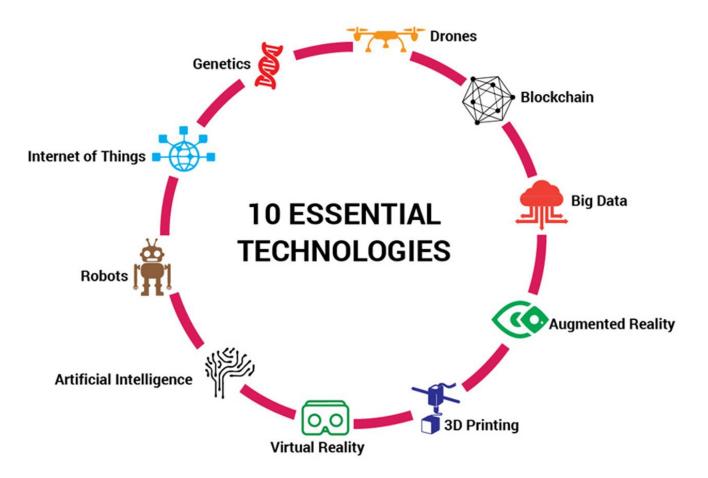


- Commercial and financial centres focused on the fourth industrial revolution – the digital economy
- Looking for competitive advantage
- Exploring how best to exploit new technology
- Looking at how to promote and regulate growth



Technology Focus

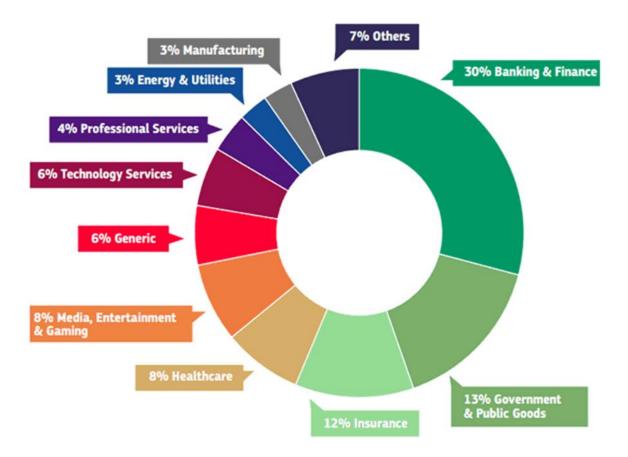






Distributed Ledgers: Sectors

Sectors Currently Using Distributed Ledger Technology



Source: www.jbs.cam.ac.uk/faculty-research/centres/alternative-finance/publications/global-blockchain/#.Wms8ZrPtypo



Leaders In Al



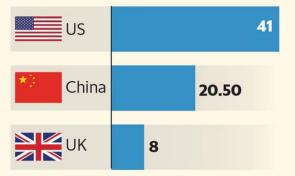
AI leaders across the world



Share of global AI investment and financing from 2013- Q1 2018



Share of AI companies as of June 2018



Source: Statista, published Dec 2018



Leaders In Education



Country	Number of Universities Featuring In Top 20 For Engineering & Technology, Computer Science, And Mathematics		
USA	15		
υк	4		
China	3		
Singapore	2		
Switzerland	2		
Canada	1		
Japan	1		
Italy	1		
Netherlands	1		
France	1		

Source: QS University Ratings By Subject: https://www.topuniversities.com/subject-rankings/2019







- Start up hub free business accommodation
- Focus on digital and smart technology start ups





Smart Centres - Singapore



Looking to build on success

Focus on Fintech – but also looking at Healthtech



The financial services ITM focuses on core financial services, which includes banks, capital market intermediaries, fund management companies, and insurance companies, and excludes holding companies (which is included in the national accounts classification of the financial services sector).



Smart Centres - Boston



- Masschallenge Healthtech
- Partnership with Health Policy Commission

Overview of the HPC's Partnership with MCHT

MC MASSCHALLENGE

In September 2018, the HPC entered a partnership with digital health accelerator, MassChallenge HealthTech (MCHT), with the goals of promoting community-based providers' access to digital health solutions and identifying digital health tools that may address high-priority policy areas

Funding	 1 Year: ~\$170k commitment to support MCHT's operating costs and provide pilot funds to start-ups to test innovations in community-based provider systems 		
	Source startups to address high-priority policy areas	Promote partnerships with community-based providers	Develop marketplace resources
Collaboration areas	Serve as a Champion in MCHT's Core Program, and issue challenge areas to source startups that are working to address them.	Promote partnerships between digital health startups and community- based providers through a scholarship program and through community- building events.	Co-author resource guides to the piloting and adoption of digital health solutions in a variety of provider settings in MA.
		m m m	
НРС			



Smart Centres - Tallinn







Smart Centres – Cape Town



- Digital economy strategy
- Includes capital, engagement, location, education, government services, regulation and law

Digital Economy Activities

- Providing appropriate support for tech-industry incubators & engagement model for the City's direct role in facilitating seed funding for tech start-ups.
- Creating an enabling environment for the venture capital industry & enhancing the investment experience of magnet companies.
- · Facilitating engagement between role-players in the ICT sector & Providing access to economic/market intelligence.
- · Investigating the feasibility and potential benefits of a tech-precinct in the City of Cape Town. (Allocate Land)
- · Partnering with tertiary institutions & private sector to grow the pool of ICT professionals in Cape Town.
- More government services online = Higher demand for internet services = Growing market = Business case for infrastructure and service expansion
- · Create an enabling regulatory environment to promote economic activity continue to cut red tape.
- · Maintain the necessary responsiveness in City policy and by-laws to accommodate new ways of doing business.









Smart Centres - London



- Fintech sector strategy with government support
- Crossover into Insurtech and Regtech
- Regulatory sandbox
- Promoting developments in Legaltech, smart ledgers, asset management
- Leading the policy debate



Smart Regulation

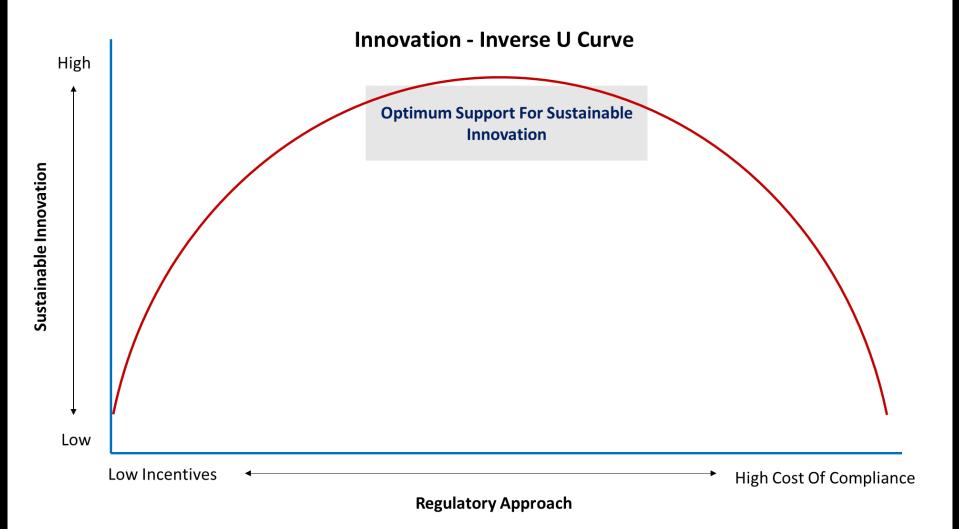


Potential Positive Effect On Innovation	Type Of Regulation	Potential Negative Effect On Innovation			
Economic Regulation					
Increases incentives for investment in innovation	Competition Enhancing And Securing Regulation	Prohibits R&D co-operation			
Reduces competition for incumbents	Market Entry Regulation	Prohibits market entry for innovative business			
Allows competitors to enter the market	Antitrust Regulation	Dominant companies have limited incentives to invest in R&D			
Allows efficient takeovers	Merger & Acquisitions	M&A restrictions limit incentive to innovate			
Secures minimum turnovers and decreases risks	Price Regulation	Price caps reduce innovation incentives			
Incentives to achieve progress in productivity	Regulation Of Natural Monopolies	High price pressure and low gains prohibit R&D			
Social Regulation					
Promotes eco-friendly alternatives	Environmental Protection	Restricts innovation and creates compliance cost			
Creates incentives for development of processes with higher workers' safety	Health & Safety Regulation	Restricts innovation and creates compliance cost			
Increases acceptance of new products	Product & Consumer Safety	Restricts innovation and creates compliance costs			
Institutional Regulation					
Increases acceptance of new products	Liability Requirements	Too high liability risk reduce incentive to innovate			
Job Security	Employment Protection	Higher adjustment cost			
Increased confidence for investment in innovation	Bankruptcy Laws	Can restrict availability of external finance			
Incentives to invest in R&D	Intellectual Property Rights	Restriction in development of new technologies			



Regulatory Inverse U-Curve







Smart Centres Index



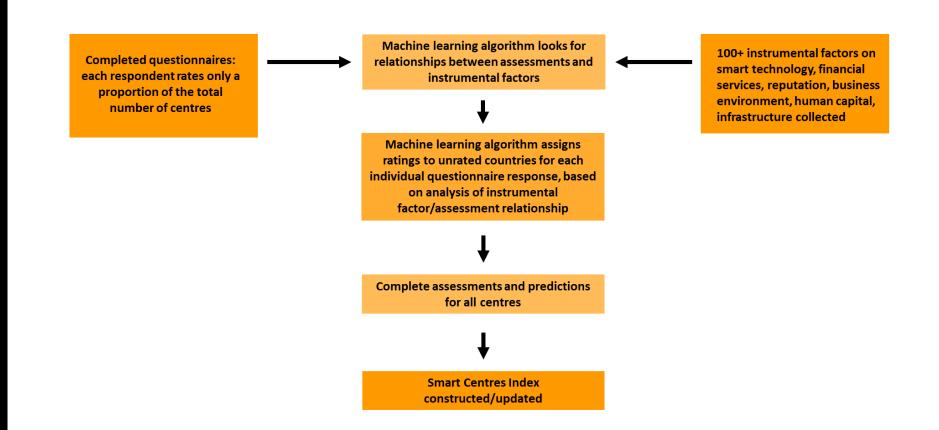
- Factor assessment index
- Looks at places cities and metropolitan areas which are hubs for new technology development
- Measure of development over time
- Aimed at centres that are looking to develop and investors wanting to know where to focus



Factor Assessment Index

FS Club







Machine Learning Algorithm



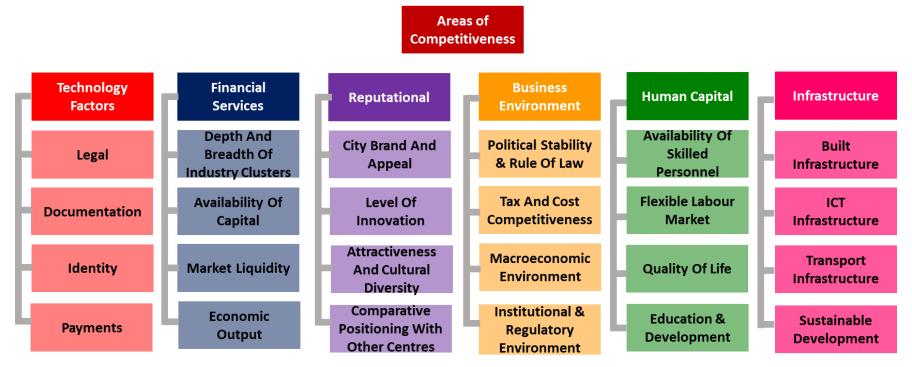
- No one respondent will know all centres' capabilities
- There is no model which would allow us to weight the quantitative factors accurately to demonstrate their importance
- We use a machine learning algorithm that learns from existing data (in this case quantitative measures and survey responses) to predict outcomes
- If a respondent has rated Singapore, Seoul, Tokyo, and Boston, the model predicts the probability of how that respondent would have rated all other centres based on the underlying data
- The model fills in gaps in the data to allow a more accurate assessment of capability and performance
- Enables "What if..." analysis



Taxonomy: Instrumental Factors









Smart Centres Index Survey



Survey live

Seeks views on 125 centres in three areas:
 Quality of regulatory systems for new technology

Depth to which new technology is embedded in economic activity and service delivery

Quality of new technology application and development in the centre

https://smartcentresindex.net/survey/



Preliminary Results



- Still gathering responses to the SCI survey though have run and initial analysis
- Top 21 centres subject to change

North America	Asia/Pacific	Western Europe
New York	Singapore	London
Chicago	Hong Kong	Amsterdam
San Francisco	Токуо	Geneva
Washington DC	Sydney	Frankfurt
Toronto	Shanghai	Paris
Boston		Dublin
Vancouver		Edinburgh
		Zurich
		Luxembourg

 Moscow leads Eastern Europe & Central Asia, while Dubai leads for the Middle East & Africa. The Cayman Islands features for Latin America & The Caribbean



Panel Session





Richard Hay

Partner Stikeman Elliott





Questions, Comments & Answers(?)





Future Events



The Past & Future Of Pensions

Lesley Titcomb, Non-executive Director, StepĆhange



Here Wednesday, 10 July 2019 18:00 **Pewterers' Hall**, The Worshipful Company of Pewterers, Pewterers' Hall, Oat Lane, London



Corporate Actions: The Case Of The Missing Billions

Sander Eijkenduijn, CFO Scorpeo LLC

Hednesday, 04 September 2019 18:00





The Quantum Threat (& Opportunity) To Financial Services

Maury Shenk Guest TBD

t Thursday, 18 July 2019 8:30 85 Gresham Street, London





Central Bank Independence & The Future Of The Euro

Professor Panicos Demetriades

苗 Thursday, 03 October 2019 18:00

Q Pewterers' Hall, The Worshipful Company of Pewterers, Pewterers' Hall, Oat Lane, London



Identity: What's Needed For The City?

Hugh Morris, CEO, ChainZy

Thursday, 17 October 2019 18:00

• Pewterers' Hall, The Worshipful Company of Pewterers, Pewterers' Hall, Oat Lane, London

FS Club



Here Wednesday, 08 January 2020 18:00 **Pewterers' Hall**, The Worshipful Company of Pewterers, Pewterers' Hall, Oat Lane, London











Thank You!



