



CPTM

**Commonwealth Finance
Ministers / Central Bank
Governors Meetings
Washington, D.C., 16 - 17 October 2019**

**Commonwealth Partnership for Technology
Management (CPTM)
Financial Inclusion Initiative Network**

Brief on

**“Enhancing the role of Central Banks in
shaping the National Data Strategies for
achieving Adaptive Flexibility in
Financial Inclusion**

- The CPTM Smart Partnership Way”

CPTM Smart Partners' Library
London
October 2019

This 2019 CPTM message to the Commonwealth Central Bank Governors meeting has been compiled and edited by Dr. Michaela Y. Smith together with Dr. Andrew Taussig, Mr. Gwinyai Dzinotyiweyi and Mr. Rekayi Mohamed-Katerere.

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info@cptm.org



Recommendations for Way Forward

(based on 2019 CPTM Central Bank Governors' Think-Tanking Sessions)

on

Enhancing the role of Central Banks in shaping National Data Strategies for achieving Adaptive Flexibility in Financial Inclusion

– the CPTM Smart Partnership Way

*The CPTM Chairman and Board of Directors are pleased to forward for your consideration of the Commonwealth Central Bank Governors' Meeting (on Wednesday, 16 October 2019, Washington, DC, IMF HQ2, Conference Hall 1) the Annual CPTM Members' Brief. This includes **Recommendations for the Way Forward on Adaptive Flexibility Approaches to Financial Inclusion in the rapidly emerging data/digital technology landscape**. The CPTM Brief forms part of the Annual Submission to the Commonwealth Finance Ministers'/Central Bank Governors' Meetings. This has been provided annually since the establishment of CPTM at the 1995 CHOGM in Auckland, New Zealand.*

Commonwealth Central Bank Governors are invited to consider the issues and proposals derived from 8th CPTM Central Bank Governors' Think-Tanking Session, London, July 2019. The main Recommendations for the Way Forward are as follows:

- 1. **to note and commend** the leading strategic role of the CPTM Central Bank Governors Group in encouraging and facilitating a carefully calibrated adoption of decentralised data-driven technologies to enhance financial inclusion in the national context; to continue actively to support the engagement of national interconnected institutions (such as National Standards Bodies, National Statistical Offices, National Security Frameworks and the International Standards Organisation);*
- 2. **to urge** Commonwealth Governments to develop integrated/cooperative frameworks for National Data Strategies whose scope should also include developing innovative legal frameworks for dealing with virtual financial assets; this could involve establishing a National Data Management System administered by a Technical Administrator with wide ranging powers to ensure compliance, following the example of Malta;*

3. *to urge the adoption and incorporation of the new skills necessary to promote the application of FinTech through RegTech; this would entail upskilling regulators to understand coding and the tools used in analysing substantial data sets through artificial intelligence (AI) and machine learning;*
4. *to facilitate Central Banks to identify and recognise in real time new developments and possibilities for leveraging the value of data; for instance, by embracing the possibilities that are presented by AI and machine learning to analyse large economic activity data sets for extracting real-time data on economic performance in support of monetary policy decision-making;*
5. *to follow the CPTM Members' pioneering example of Seychelles in piloting a first National Asset Management System, bringing value by combining Blockchain/Distributed Ledger Technology (DLT), AI and machine learning in authenticating national assets of value such as primary resources with export potential; these initiatives require Central Banks' involvement;*
6. *to emphasise the need, in parallel with the adoption of DLT, for Central Banks to prepare for the impending main-streaming of quantum computing, which will further disrupt facets of 4th Industrial Revolution; this will make it possible to solve certain complex mathematical problems quickly and may have huge implications on issues such as encryption, possibly within the next 3 years;*
7. *to invite participation of all the Governors of Central Banks in the well-established and leading CPTM think-tanking sessions, based on CPTM's distinct and well-tested Smart Partnership approach of fostering and enhancing dialogue with leaders in the public and private sectors and civil society in general.*



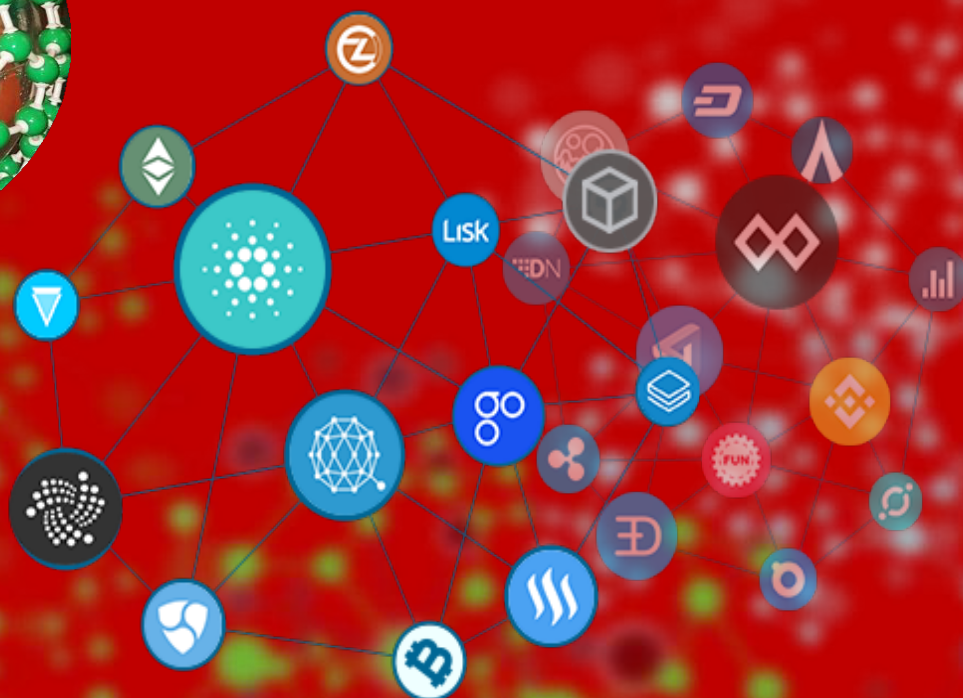


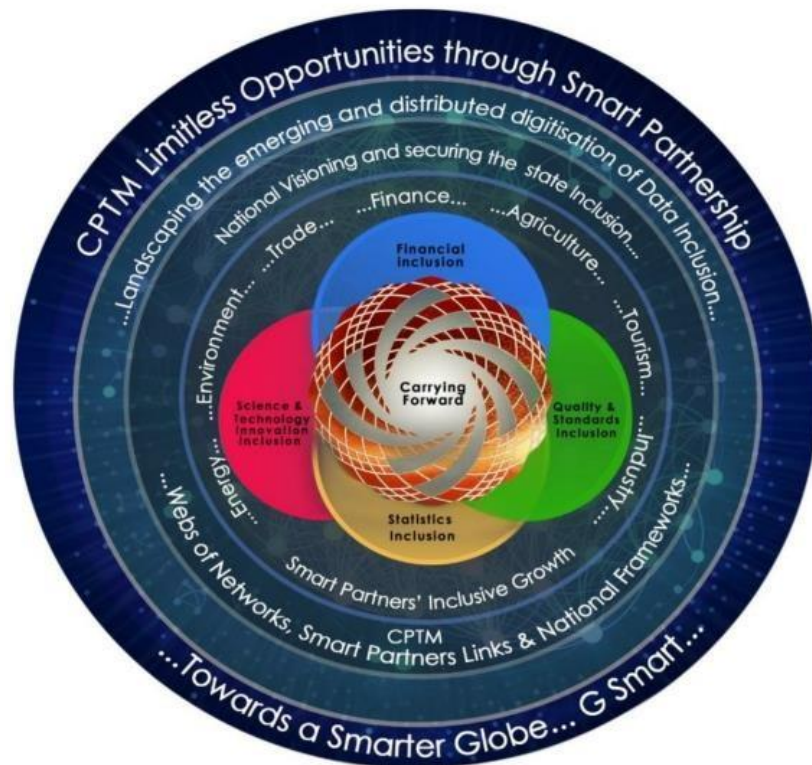
CPTM Smart Partnership Financial Inclusion Initiative

8th Central Bank Governors Think Tanking Highlights and Moving Forward on

*“Enhancing the role of Central Banks in shaping the
National Data Strategies for achieving Adaptive Flexibility in
Financial Inclusion
- The CPTM Smart Partnership Way”*

4th July 2019, Zimbabwe House, London, UK





Outline

- Recommendations
- About CPTM Smart Partner's Financial Inclusion Initiative
- 2019 CPTM Think Tankers and Host
- Briefing Agenda
- CPTM Smart Partners' Think Tanking
- CPTM Smart Hints - Financial Times
- Limitless Opportunities through Smart Partnership
- CPTM Smart Partners' Reading Tips

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Incorporated in England on 13th June 1995, under Companies Act 1985 to 1989

"This Company is being established, with the agreement of Commonwealth Heads of Government, pursuant to their decision taken at their meeting in Limassol on 25th October 1993 to revise the financial and organic structure of the Commonwealth Consultative Group on Technology Management."

CCGTM was established by the CHOGM, Kuala Lumpur, 1989.
CPTM Ltd was launched at the CHOGM, Auckland 1995.

Recommendations for Way Forward
(based on 2019 CPTM Central Bank Governors' Think-Tanking Sessions)

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Towards a Smarter Globe..... Towards Smarter Nations
“Leveraging the Value of Knowledge and Data for Socio Economic Transformation: The Smart Partnership Way” – 2018-2020



**COUNCIL OF PATRONS & ADVISERS
SMART PARTNERSHIP MOVEMENT**

HE Yoweri Kaguta Museveni
President of Uganda
CPTM Fellow & Companion
Chair, Smart Partnership Movement
Co-Founder CPTM Fellows'
Endowment Fund

HON Tun Dr Mahathir Bin Mohamad
Prime Minister of Malaysia
CPTM Fellow & Companion
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SOUTHERN AFRICA DIALOGUES (SAID)

Angola
Botswana (SAID 1997)
Democratic Republic of Congo
Lesotho (Global 2005)
Madagascar
Malawi
Mauritius
Mozambique (Global 2000)
Namibia (SAID 1998)
Seychelles
South Africa (Global 2014/15 deferred)
Swaziland (Global 2003)
Zambia (Global 2008)
Zimbabwe (SAID 1999)

EAST AFRICA DIALOGUES (EAID)

Burundi
Kenya
Rwanda
Tanzania (Global 2013)
Uganda (Global 2009 & 2001)

WEST AFRICA DIALOGUES
Through **Ghana**

CARIBBEAN DIALOGUES (BID)
Through **Barbados**
(BID 1999, 1996)

SOUTH EAST ASIA DIALOGUES (LID)
LANGKAWI INTERNATIONAL DIALOGUE
Through **Malaysia**
(Global 2015 tbc, 2011, 2007, 2004, 2002,
2000, 1999, 1997 1996, 1995)

Dr Mihaela Y. Smith
Joint Dialogue Convener
Smart Partnership Movement

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5 July 2019
Smart Partners Library
London

***Dear Smart Partners Governors of Central Banks, CPTM
Networkers and Special Guests***

*On behalf of the Chair of the Smart Partnership Movement, Chair of CPTM and the leading Smart Partners Financial Inclusion Group, we were honoured to jointly welcome you to the **eighth Annual Think Tanking Dialogue** in London. This will take place as usual on **Thursday 4th of July 2019**, following the Annual BIS (Bank of International Settlement) conference in Basel.*

As per tradition, the core founding group (Tanzania, Eswatini, Uganda, Namibia, Malaysia, Mauritius, Zambia) who initiated the CPTM Financial Inclusion at Langkawi International Dialogue in 2007, invited Colleagues from the Smart Partnership Movement in Barbados, Botswana, Cameroon, Guyana, India, Kenya, Lesotho, Malawi, Malta, Mozambique, Seychelles, South Africa, Trinidad & Tobago and Zimbabwe among others.

As in previous years' Think Tanking Briefings our starting point was the highlights and follow ups of the 2018 Governors' Think Tanking Dialogue, integrating the issues emerging and contributing from all the CPTM Inclusion Initiatives, such as National Visioning and Securing the State, Quality & Standards, Statistics, Science, Technology & Innovation.

The Central Bank Governors' Think Tanking Dialogues have promoted, well ahead of time, the understanding, the value, opportunities and risks of the leading-edge applications of value of data. The outcomes of the Think Tanking have been shared and appreciated within the National, Regional Commonwealth and Global context, due to their distinct approach developed through the Smart Partnership Adaptive Flexibility.

Through the contribution of CPTM Inclusive Networks, 2019 Think Tanking included an update of the increasing impact of Data and Data intensive Technologies, alongside the rapidly evolving new Legal National Frameworks, together with Faster Indicators for measuring evolving Economic activity and exposure to blitzscaling from Big Tech new business models.

The 2019 Think Tanking also took forward the CPTM Recommendations made to the Commonwealth Heads of Government Meeting, April 2018, UK, on 'Leveraging the Value



Towards a Smarter Globe..... Towards Smarter Nations
"Leveraging the Value of Knowledge and Data for Socio Economic
Transformation: The Smart Partnership Way" – 2018-2020



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and Knowledge of Data through Smart Partnership' (CPTM
integrated Programme for 2019/2020).

**As a partner with CPTM, we also echo the importance of
Leveraging Technology and Data for Socio economic
priorities and transformation which will help us achieve our
Development goals and targets...In a digital age, being a
small developing Country the Seychelles are trying to stay
abreast of developments in Technology and making sure the
way we deliver our services are innovative, agile and
efficient. This equally comes with the need for effective Data
management, as Data security remains high on both the
locals and International Agendas. Any expertise or
knowledge we receive in this area will be valuable.
(15th February 2019, HE President Danny Faure, Republic of
Seychelles)**

Finally, Central Bank Governors' Think Tanking Dialogue was
also joined by Smart Partners experts in the **application of
data / digital technologies and evolving legal frameworks,**
etc. The Think Tanking was jointly hosted by Deputy Governor
Dr Kupukile Mlambo at the Library of Zimbabwe House, which
offers a **uniquely, informal and professional place for private,**
while **open** dialogue.

The Smart Partners' Think Tanking Outline Agenda is included
together with details of the Smart Partners' who participated
together with the Smart Partners Reading Tips that informed the
dialogue.

With highest consideration and warmest regards

Dr Mihaela Y Smith PJN KMN
Director/ Joint Dialogue Convener



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10 July 2019
 Smart Partners Library
 London

Dr Kupukile Mlambo
 Deputy Governor of the Bank
 Reserve Bank of Zimbabwe
 80 Samora Machel Avenue
 P O Box 1283
 Harare
 Zimbabwe

Dear Dr Mlambo

**Re: 8th Central Bank Think Tanking on
 “Enhancing the role of Central Banks in shaping the
 National Data Strategies for achieving Adaptive Flexibility in
 Financial Inclusion” (Zimbabwe House, London)**

On behalf of the Chair of the Smart Partnership Movement, Chair
 of CPTM and the leading Smart Partners Financial Inclusion
 Group. I would like to thank you for jointly welcoming and hosting
 your colleagues and special guests at the Library, Zimbabwe

House in London on 4th of July 2019.

More than in previous years, the Think Tanking interaction was
 most impressive in the way you moderated and engaged your
 Colleagues and the manner in which the CPTM background on
 real-time leading-edge ideas and actions have been utilised,
 alongside the most useful interventions from Smart Partners,
 specially invited for their expertise.

The 2019 Think Tanking focusing on Data Strategies as public
 good for archiving adaptive flexibility in Financial Inclusion, could
 not have been more timely, highest professional engagement
 and impact! Thank you and Congratulations to you, your
 colleagues and the Smart Partners, who participated directly or
 from Malta. CPTM will continue to offer a **uniquely**, an **informal**
 and **professional place** for private while open dialogue, based
 on “**prosper thy neighbour**” in the current rapidly **scaling** up of
 applications in the digital landscape.

With warm regards and look forward to the ongoing follow ups

Dr Michaela Smith
 Director

BRIEF AND RECOMMENDATIONS
ON 8TH CENTRAL BANK GOVERNORS' SMART PARTNERS THINK TANKING
4 July 2019, ZIMBABWE HOUSE, LONDON, UK



Dr Kupukile Mlambo,
Deputy Governor, Reserve Bank of Zimbabwe
Host and Joint Lead Moderator
Financial Inclusion Meeting

**(For Insights and perspectives from Governors representatives of African Central Banks
And Smart Partners, see further in the Doc.)**

BACKGROUND AND CONTEXT

The 8th African Central Bank Governors' Think Tanking Dialogue lead by the Smart Partners Financial Inclusion Group was framed by the theme *Enhancing the role of Central Banks in shaping National Data Strategies for achieving Adaptive Flexibility in Financial Inclusion*. The emphasis of the dialogue was on the implications of (1) Fintech and the acceleration of information supply and (2) the implications of the on-demand nature of information for national statistics. Policy makers, academics and representative from the private sector engaged in an energetic dialogue around four key issues:

1. Regulation and legal frameworks
2. Opportunities and benefits of Fintech
3. National Data Strategies and
4. Data intensive business models

SUMMARY OF DISCUSSIONS AND OUTCOMES

Summary

1. There is an important conversation about the legal classification of crypto-assets, where responsibility and accountability lie in the network of administrators, users and developers. In addition, what are the implications of developing legal personality for crypto-assets?
2. The evolution of the digital landscape will also nudge regulation in the direction of regulation technology—Regtech.
3. In regulating new technologies, regulators can invite volunteer engagement so that sectoral innovators engage in standards setting.
4. The spread of Fintech has the potential to improve monetary policy transmission.
5. A rule of thumb in the evolution of digital technologies is that innovations are *80% application and 20% technology*.
6. Applying digital technologies to national assets could increase the efficiency of supply chains and create new marketing opportunities in terms of sustainable and ethical products.
7. Linking digital platforms like the Distributed Ledger, Artificial Intelligence and Machine Learning will offer transformative benefits and efficiency gains.
8. There are significant opportunities to use and coordinate national data through an institutional body akin to a data science campus. The campus can provide leading indicators and timely information for the formulation, monitoring and evaluation of national policy.
9. A key enabler of digital economy in the UK and the formation of the Data Science Campus by the Official of National Statistics is the Digital Economy Act 2017.
10. Developing National data strategies will require coordinated engagement across national institutions.
11. Digital technologies are enabling new business models that are data intensive and there is a need to understand these models and their implications for public policy.

Outcome:

The participants acknowledge the potential that digital platforms offer for the development of data strategies. At the same time there was an acknowledgement that Africa pioneered mobile money but has fallen behind the curve. Therefore, the Smart partners agreed it is urgent to advance Data Strategies and fintech developments.

RECOMMENDATIONS

- 1. Visioning of a national data strategy in coordination with key stakeholders**
- 2. To place a National Data Campus at the core of the national data strategy for Zimbabwe**
- 3. Development of Digital Economy Act of Zimbabwe**
- 4. To conduct a review of Zimbabwean Regulatory Authorities and Registrars to determine the current availability and quality of data**

8th Central Bank Governors Think Tanking

“Enhancing the role of Central Banks in shaping the National Data Strategies for achieving Adaptive Flexibility in Financial Inclusion - The CPTM Smart Partnership Way”

Thursday, 4th July 2019,
Zimbabwe House, 429 Strand, Covent Garden, London WC2R 0JR

CPTM Financial Inclusion Initiative Smart Partners Governors/Deputy Governors & Colleagues

Co-Host/Co- Moderator: Dr Kupukile Mlambo, Deputy Governor, Reserve Bank of Zimbabwe **Professor Emmanuel Tumusiime-Mutebile**, Governor, Bank of Uganda;
Mr Majosi Sithole, Governor, Central Bank of Eswatini;
Mr Moses Dinekere Pelaelo, Governor, Bank of Botswana,
Dr Denny Kalyalya Governor, Bank of Zambia;
Mr Andrew Motsomi, Deputy Governor Bank of Botswana;
Dr Kganetsano Tshokologo, Director of Research and Financial Stability Department, Botswana;
Dr Adam Mugume Executive Director, Research and Policy Bank of Uganda;
Mr Tayani Chankuluba, Special Assistant to the Governor, Botswana.
Mr Rekayi Katerere, Reserve Bank of Zimbabwe,

Co-Moderator- J.D.C SP Movement, Dr Michaela Smith.

CPTM Smart Partners

Hon Marco Mukoso Hausiku, former Deputy Prime Minister, CPTM Companion, Namibia;
Hon Temeki Ts'olo Minister in the Prime Minister's Office, Lesotho;
Professor David Hand OBE, Data Science Institute, Imperial College London, UK,
Dr Max Ganado (GANADO Advocates, Malta); As well as:

Dr Andrew Taussig; CPTM Director, UK; **Mr Gwinyai Dzinotyweyi**, CPTM, Director, Zimbabwe.
Mr Oliver N Oram, CEO, Chainvine Ltd.UK, Surrey Centre for the Digital Economy, UK. **Dr Jeremy Rowe**, Senior Data Scientist, Data Science Campus, UK.
Ms Gaone Masire, Botswana, UK, **Ms Helen Packard**, Data Management Function team, Bank of England. **Professor Bruce Lloyd**, UK.

Mr Ndjulua Jonathan, Smart Partners Coordinator

CPTM Smart Partners' Think Tanking



Think Tanking is one of the smart engagement activities of CPTM, the others being the **Smart Partnership Dialogue**, the **Open House Session** and the **Farmhouse Retreat**.

Think Tanking is an ongoing dialoguing process, through which Smart Partners come together to define, understand and frame a range of possible ways forward to problems facing the people and countries of the Smart Partnership Movement and the world at large. Participating partners are involved in all aspects of the Think Tanking process including any decision-making that may follow. **Smart Partners' Think Tanking is an ideas factory** which can lead to solutions, but that also generates further questions to help interpret complex problems.

"Solutions are not immediate...solutions come from within communities, and [smart partnership approach] is a 'tool'...a 'culture' through which scientific approaches are cultivated". (Sir Ketumile Masire, Former President of Botswana)

"The important thing is not to provide answers – which are very unlikely to be correct – but to generate questions – challenging assumptions and putting new considerations on the agenda." For ideas to be translated into action, they have to have champions and prime movers who are participants in their generation and implementation.

Unlike a conventional "Think-Tank", **Smart Partners' Think Tanking involves few if any fixed ideas** or interests, but **favours free-thinking** and those ideas that can be put to use in understanding the problems in their context.

Think Tanking aims to be a global creative force for generating and transcribing a Smarter Globe. "...our multi- cultural family - with its shared values, commitment to a common purpose, and capacity to work together – has something to offer in a troubled world.....*The Smart Partnership Movement gives junior members of the Commonwealth an important forum of their own in the same way that the G7 is the rich nations' club*" [their **G SMART**]

How it all began



The idea of Think-Tanking within the Smart Partnership Movement was mooted at several Dialogues and was formally endorsed by the Fellows at the Munyonyo Dialogue in August 2001. It was also raised at the Special CPTM Fellows Working Session in London in February 2002 when both HE Yoweri Kaguta Museveni, President of Uganda, CPTM Fellow & Companion and **Tun Dr Mahathir bin Mohamad, Prime Minister of Malaysia, CPTM Fellow & Companion** were present.

Once the concept, structure and process had been formulated, the first CPTM Think-Tanking Exercise was undertaken in 2002 in London and Kampala. In the words of HE Yoweri Kaguta Museveni, President of Uganda, CPTM Fellow & Companion:

"[A Think Tanking session] should be a 'Free house of ideas', we should meet without the pressure of having constituencies, you see the problems with other forums when you go as a delegate to the UN, you go as part of a constituency, and when you are part of a constituency you are not a free agent. That constituency has some industrialists, this group, that group, groups that stop you from being a free thinker and if you are not a free thinker you cannot provide a solution to a problem. We need non-partisan positions. All positions in an international forum are partisan positions. Each person has a different partisan position, so how do we get a consensus? This is why CPTM is really unique, that is why (we) support it. This is why (we) have come here, and from here (we) are off to Australia (CHOGM 2002), but otherwise I wouldn't have come all this way if I didn't think that there was some value in this work here. So if we are going to do this 'think tanking' around some of the major points, we need people who are capable, such as economists, scientists and medical people to all think tank around particular issues then we can crystallise a possible solution, technically sound, sound from the point of view of economics and then we can go and sell it to some of our constituencies. We want to be free people first. We can take a good idea and try to sell these ideas using the strength of those constituencies" (2002, CPTM Smart Partners' Hub in London).

-CPTM Smart Partners

8th Central Bank Governors Think Tanking

*The theme of [Leveraging Value of Data] made us think that technology could be one of these vehicles to make Visions a success. (...) Finance is key to the success of any of these programmers. New technology allows us to simplify some of our financial needs and all of this is to help us succeed in our Visions. **A Vision... is a plan. The most important is the desire to do things that will work to allow you to reach the goals you are striving for.** (...) For Smart Partners the most important is how we can use these vehicles to enable nations to succeed, to truly be inclusive. Smart Partnership exists to address the exclusions that exist in our societies, to overcome these shortfalls. (...) Smart Partnership looks at how do I consider what will be good for me but also my neighbour. Information flows are very important for this inclusion. Ignorance leads to conflict but with information flow and sharing you can create.*



understanding. 'Prosper thy neighbour' is not only about material needs but also about information. People need a better understanding of what is happening in their society. (...) The system should be inclusive, opening opportunities to all in society. As we think about why certain nations succeed and others fail, I believe it is about the inclusiveness of the system. Systems that exclude people in one way or the other are a real factor in this. (...) An open system is not one that allows anything and everything; it is one that doesn't exclude. Everyone preaches good governance but when you look at specific systems or organisations they are closed to many. (...) Systems should be predictable, not secretive. (...) Good governance and transparency can make this better. By educating people and sharing information properly you can maximise what a country can achieve. (...)

Hon Mr Marco Hausiku, former Deputy Prime Minister, Namibia, CPTM Companion, July 2017

Since 1995, CPTM has pursued and developed a unique, practical and effective Smart Partnership dialogue platform and approach that seek win-win and prosper thy neighbour outcomes. It has evolved a Commonwealth-wide Smart Partnership Network (better described as a Network of Networks), together with a philosophy and culture, that reflect values of tolerance and co-operation. CPTM's Network achieves real-time interactions with valuable results for all its participants. CPTM has been particularly successful in familiarising members of its Network with the key issues underlying new technological developments, thus helping them to deal successfully with a changing world. This does much to support the efforts of Commonwealth developing nations and their Leaders to formulate and carry forward national visioning to leverage technology and data for socio-economic priorities and transformation, and to achieve sustainable development goals. The CPTM platform has always been based on a high level of specific skills and disciplines as well on the wisdom of experience in problem-solving. It is cost-effective and affordable, promoting solutions and solving problems speedily and consequently with much-reduced legacies of resentment and discontent. Above all Smart Partnership mobilised a real time interest in youth, including children and women. As long-time proponents, practitioners and beneficiaries of the Smart- Partnership philosophy and practices, we in Seychelles and as I understand alongside Barbados, Botswana, Cyprus, Cameroon, Guyana, Lesotho, Malta, Malaysia, Mauritius, Mozambique, Namibia, South Africa, St Lucia, Swaziland, Tanzania, Uganda and Zambia commend the CPTM Smart-Partnership platform, as an additional creative and constructive instrument available to Commonwealth members and other like-minded countries.

Hon Vincent Meriton, Vice President of Republic of Seychelles 20th August 2018

Limitless Opportunities through Smart Partnership

Smart Partners' Manifesto 1998-2019

“Smart Partnership is about changes of attitude and new ways of looking at things. Ten factors lie at the core of the Smart Partnership philosophy and practice:

Shared Vision - A Smart Partnership should be formed and sustained on the basis of a shared vision in relation to a transaction or project; without this, there cannot be a meaningful partnership.

Cultural Diversity - Differences in language and culture should be transcended by Smart Partnerships, which are able to derive strength from these factors.

Code of Ethics - A code of ethics implicitly binds parties together, fostering integrity, trust and reliability.

Trust - Trust grows from experience in working together, beginning with collaboration on smaller matters while trust is being developed.

Longevity - A time factor is involved in the transition from a mere partnership to a Smart Partnership. A Partnership is not Smart if it is only short term.

Networks – In order to flourish, Smart Partnerships needs Networks, which themselves require trust and expectation of mutual benefit among Partners. Smart Partnership arises by organic growth through “hubs” and “nodes” in a world-wide economic web.

Transparency - Transparency in relationships is necessary to foster trust; Smart Partnerships cannot thrive and succeed if one of the parties feels that essential information is being hidden from it.

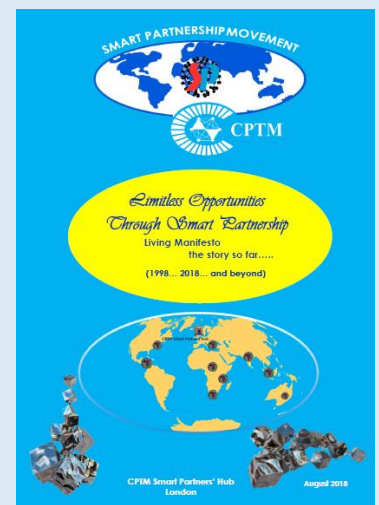
Equity - All parties need to feel that matters are being handled on an equitable basis; without this, there can be no win-win outcome.

Fair play - All parties need to be convinced that there is fair play in the relationship.

Values - Adherence to similar values should define the type of partnership that can be achieved. Smart Partnership offers the following advantages to everyone:

- more rapid development for less advanced countries
- the prospect of equity-based sustainable development for the least advantaged countries
- timely and sustainable development for all developing countries
- access to new markets for companies from all countries” - **Extracts**

June 2017

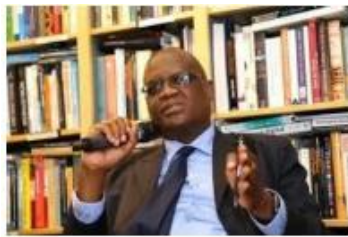


www.cptm.org/documents/centralbankgovernors.pdf

About CPTM

Smart Partners' Financial Inclusion Initiative

(2004-2019 and Beyond)



Dr Kupukile Mlambo,
Deputy Governor,
Reserve Bank of Zimbabwe



Dr Denny Kalvalya
Governor
Bank of Zambia



Majozi V Sithole
Governor
Central Bank of
Swaziland



Ipumbu Shiimi
Governor
Bank of Namibia

The CPTM Smart Partners **Initiative on Financial Inclusion** was **initiated in 2004** and launched at the **Smart Partnership Langkawi International Dialogue** in 2007. A Southern African-CPTM workshop subsequently took place in **Lusaka in 2009**, led by Dr Caleb Fundanga, former Governor of the Bank of Zambia with participation of other Central Banks. A Malaysian-CPTM workshop later took place in **Kuala Lumpur in January 2010**, led by Tan Sri Dr Zeti Aziz, Governor, Bank Negara with collaboration from JICA, and this was followed by an Eastern Africa-CPTM workshop in **Uganda in 2010**, led by Professor Tumusiime-Mutebile, Governor of the Bank of Uganda, and in **2011** a **Namibia-CPTM** workshop was led by Mr Ipumbu Shiimi, Governor of Bank of Namibia. Since then, the initiative, led by Bank Governors and facilitated by CPTM (and other development partners) has progressed further in Southern Africa, Eastern Africa and South-East Asia. The CPTM Financial Inclusion Initiative engaged from the beginning in a Smart Partnership Way Governors of Central Banks, practitioners and consumers from: Botswana, Barbados, Cameroon, Canada, Cyprus, France, Ghana, Guyana, Italy, Kenya, Lesotho, Malta, Malawi, Malaysia, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, St Lucia, St Kitts and Nevis, South Africa, Sri Lanka, Swaziland, Switzerland, Tanzania, Trinidad & Tobago, Uganda, United Kingdom, Zambia and Zimbabwe (among others).

Since 2012, the CPTM Financial Inclusion Initiative has been progressed through highly successful **Think Tankings** with Central Bank Governors at the CPTM Smart Partners' Hub, London, which follows on from the meetings at the Bank of International Settlements (BIS) in Basel and a series of seminars in Oxford. The first Think Tanking at the Hub: **'Adaptive Flexible Strategies for a Small Country'** was held in June 2012; the second, **'Strategies for Adaptive Flexibility & Leveraging Technology'** was held in April 2013 which made a significant contribution to the Global Smart Partnership Dialogue 2013; the third, **'New Adaptive Flexibility Approaches to Finance & Development: Governors' Smart Partnership Perspectives'** was held in July 2014, the fourth **'CPTM Financial Inclusion and Smart Partnership Adaptive Flexibility Approaches'** was held in July 2015, and the fifth **'Adaptive Flexibility to Financial Inclusion through Leveraging the Value of Knowledge and Data'** was held in June 2016. The **focus of Think Tankings since 2012 on developing adaptive flexibility approaches in the emerging digital landscape** raised the profile of the core group of Central Bank Governors as a **leading edge exploratory group**, and attracted the attention of leading experts and international organisations in the context of the rapidly emerging applications of FinTech, DLT among others, as well as of ISO, ITU, National Bureau of Standards and National Statistics from emerging and developed countries.

Since the launch in 2007 the CPTM Financial Inclusion Initiative was carried through to the **Mulungushi International Dialogue in Zambia in 2008**, **Munyonyo International Dialogue in Uganda in 2009**, **Putrajaya International Dialogue in Malaysia 2011**, as well as the **2013 Global Smart Partnership Dialogue in Dar es Salaam** with focused on **'Leveraging Technology for Africa'**



Prof Emmanuel Tumusiime-Mutebile
(CPTM Companion)
Governor
Bank of Uganda



Mr Moses Dinekere Pelaelo,
Governor,
Bank of Botswana



Dr Patrick Ngugi Njoroge
Governor & Chairman
Central Bank of Kenya



Dr Ret'selisitsoe Adelaide Matlanyane
Executive Director
& Chairperson
Governor
Central Bank of
Lesotho



Tan Sri Dato' Sri Dr Zeti Akhtar Aziz
(CPTM Companion)
Former Governor, Bank Negara Malaysia

Socio Economic Transformation', first contribution from the Central Bank Governors, leading Financial Inclusion Initiative to the highest level in the presence of Heads of Government and leading Smart Partners Institutions. Since then the core group of Central Bank Governors have been active in overall Smart Partnership Movement and CPTMs Inclusive Initiatives shaping up a strategic framework for national implementation of a Smart Partnership Inclusive growth. As a recognition for their valuable inputs the highest Award of CPTM Companion have been given on the occasion of the 20th Anniversary of CPTM, in 2015.



Prof Benno J Ndulu
(CPTM Companion)
Former Governor, Bank of Tanzania



Hon Martin G Dlamini
(CPTM Companion)
Former Governor, Central Bank of Swaziland

The outcomes of the Smart Partnership Think Tankings are shared with all Governors of Central Banks and Ministers of Finance in the Commonwealth annually through the **CPTM Briefings to Commonwealth Finance Ministers' Meetings (CFMMs)**, which takes place in conjunction with IMF and World Bank. The **2018 Governors Think Tanking will had a special significance and contribution to the overall CPTM Smart Partnership Movement Strategy on "Leveraging the value of knowledge and data for emerging economies in the Commonwealth and beyond through the CPTM Smart Partners' Inclusion Initiatives - The Way Forward - (2018-2020).**



Rundheersing 'Manou' Bheenick
(CPTM Companion)
Former Governor, Bank of Mauritius

July 2019

CPM Inclusion initiatives Network

Caribbean - Barbados; **East Asia** - Malaysia; India; **East Africa** - Kenya; Tanzania; Tanzania; Uganda; **Southern Africa** - Botswana; Lesotho; Mauritius; Mozambique; Namibia; Rwanda; Seychelles; South Africa; Zambia; **Central Africa** - Bank of Central African States; **Mediterranean** - Cyprus; Malta; **as well as** - United Kingdom; Australia; Canada; New Zealand



Smart Partners Library



Prof Emmanuel Mutebile, Governor Bank of Uganda and CPTM Companion
April 2019

**Enhancing the role of Central Banks in shaping the National
Data Strategies for achieving Adaptive Flexibility in Financial Inclusion
Outline Agenda Dynamics and Digital sound bites/audio/links**

Thursday 4th July 2019

8:15 Arrival, Coffee & Briefing [Smart Partners Library]

8:45 **Welcome**

(Dr Kupukile Mlambo- CPTM 8th Think Tanking Briefing Host)

Introductions and Overview

(Hon Marco Hausiku, Hon Temeki Ts'olo and Dr Mihaela Smith on behalf of CPTM Chairman and Smart Partnership Movement)

- ***As they said it (Audio/Link please Click to Download and Listen)***

9:00 to 09:30

Reflecting.....

Think Tanking led by Governors

Lead Think Tanker Moderator Dr Kupukile Mlambo Dep Governor: (assisted by Dr Mihaela Smith)

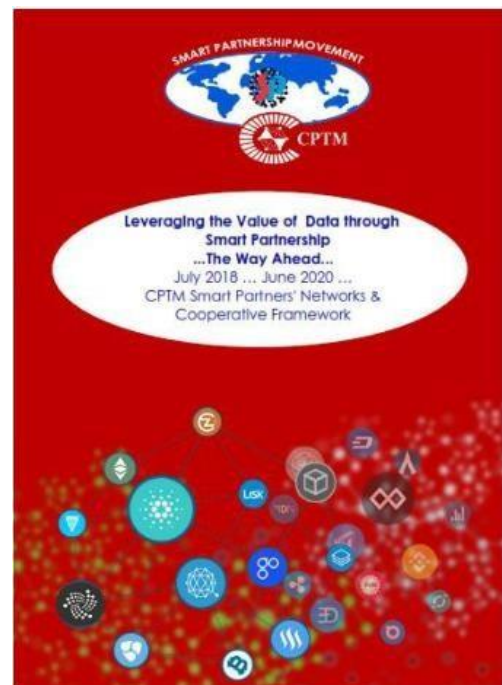
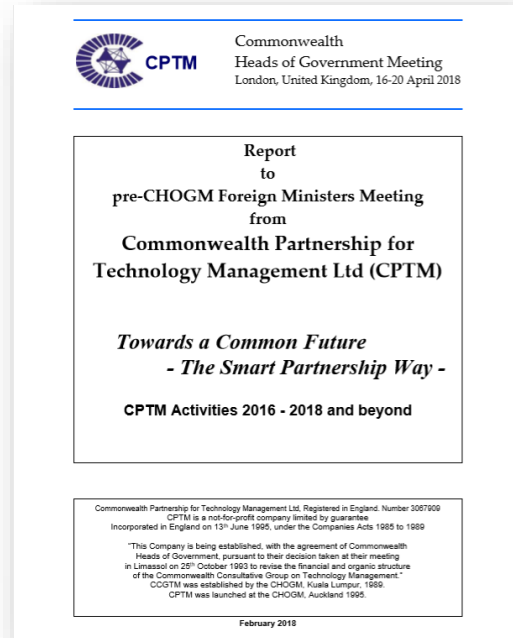
CPTM Financial Inclusion Initiative and Leveraging the use of data/digital technologies through Adaptive Flexibility (July 2018-July 2019)

- Update and Taking forward
(with Governors of Central Banks/Representatives from, Botswana, Zambia, Zimbabwe and Uganda)
- ***As they said it (Audio/Link please Click to Download and Listen)***

Smart Partners Think Tanking and Chatham House Rule

"When a meeting or part thereof, is held under the Chatham House Rule, participants are free to use the information received but neither the identity nor the affiliation of the speaker(s), nor that of any other participant may be revealed"

Leveraging the Value of Data through Smart Partnership Moving Forward



09:30 to 10:00 **Searching, Learning and Innovating**

Think Tanking with Governors

Lead Think Tanker Moderator: Mr Moses Dinekere Pelaelo,

(assisted by Mihaela Smith)

- **Evidence, Policies and Decisions:
searching for National Data Strategies and Central Banks**

(Professor David Hand)

- ***As they said it* (Audio/Link please Click to Download and Listen)**

(Governors with Hon Marco Mukoso Hausiku, Hon Temeki Ts'olo Professor David Hand OBE, Dr Max Ganado, Dr Andrew Taussig, Mr Gwinyai Dzinotyiweyi, Mr Oliver N Oram, Ms Helen Packard, Mr Jeremy Rowe, Professor Bruce Lloyd, Ms Gaone Masire)

(about 8 min for interventions followed by interactions)

10:00 to 10:45 **Spotting Signals for tomorrow in real time**

.....From Data to Action.....

Think Tanking with Governors

Lead Think Tanker Moderator: Mr Moses Dinekere

Pelaelo (assisted by Mihaela Smith)

- **Towards National Data Assets Management Platforms**

(Mr Oliver Oram) As he said it (Audio/Link please Click to Download and Listen)

- **Embracing the promise of Fintech & Data Science in Bank of England**

(Ms. Helen Packard) As she said it (Audio/Link please Click to Download and Listen)

- Taking forward

(Governors with Hon Marco Mukoso Hausiku, Hon Temeki Ts'olo, Professor David Hand OBE, Dr Max Ganado, Dr Andrew Taussig, Mr Gwinyai Dzinotyiweyi, Ms Helen Packard, Mr Jeremy Rowe, Professor Brue Lloyd, Ms Gaone Masire)

(about 8 min for interventions followed by interactions)

10:45 to 11: 45 **Accelerating, Learning and Innovating....**

Think Tanking with Governors

*Lead Think Tanker Moderator: Mr Moses Dinekere Pelaelo
(assisted by Mihaela Smith)*

- **Towards a Legal personality for Blockchain and Decentralised Data - Evolving National Legislations, Malta case**

(Dr Max Ganado, joining from Malta)

- ***As she said it* (Audio/Link please Click to Download and Listen)**

(Governors with Hon Marco Mukoso Hausiku, Hon Temeki Ts'olo, Professor David Hand OBE, Dr Max Ganado, Dr Andrew Taussig, Mr Gwinyai Dzinotyiweyi, Mr Oliver N Oram, Ms Helen Packard, Mr Jeremy Rowe, Professor Bruce Lloyd, Ms Gaone Masire)

(about 8 min for interventions followed by interactions)

11:45 to 13:00 **Spotting Signals for tomorrow in real time**

.....From Data to Action.....

Think Tanking with Governors

Lead Think Tanker Moderator: Dr Denny Kalyalya

(assisted by Mihaela Smith)

- **Towards faster indicators for an evolving Economy & ONS/Data Science Campus**

(Dr Jeremy Rowe)

- ***As she said it* (Audio/Link please Click to Download and Listen)**

- Taking forward

(Governors with Hon Marco Mukoso Hausiku, Hon Temeki Ts'olo, Professor David Hand OBE, Dr Max Ganado, Dr Andrew Taussig, Mr Gwinyai Dzinotyiweyi, Mr Oliver N Oram, Ms Helen Packard, Mr Jeremy Rowe, Professor Bruce Lloyd, Ms Gaone Masire)

(about 8 min for interventions followed by interactions)

13:00 to 13:30 **Anchoring.... and Blitz scaling...**

Think Tanking led by Governors

Lead Think Tanker Moderator: Dr Kupukile Mlambo & Hon Marco Hausiku

(assisted by Mihaela Smith)

- **Spotting signals for tomorrow..... issues emerging from 8th Central Bank Governors Think Tanking and issues for 2020 Think Tanking**

- **Acting on/taking forward recommendations to Commonwealth Finance Ministers 2019 and Commonwealth Heads of Government Meeting 2020; ISO 2019**
- **Urgent Smart Partnership International Dialogue, 2019/2020, on “Leveraging the value of data” to be called by the Council of Patrons & Advisers of Smart Partnership Movement**
(with Governors of Central Banks/Representatives)
- **The last words- (finishing remarks) by Hon Marco Hausiku and Hon Temeki Ts’olo as well as (Dr Mlambo and Dr Michaela)**

As They said it (Audio/Link please Click to Download and Listen)

13:30-14:30 Governors/representatives and Smart Partners Invitees

Buffet, Drinks and Networking

**15:30 to 17:30 Hands on Introduction into Artificial intelligence
(Invitation to Barbican Exhibition)**

Friday 5th July 2019

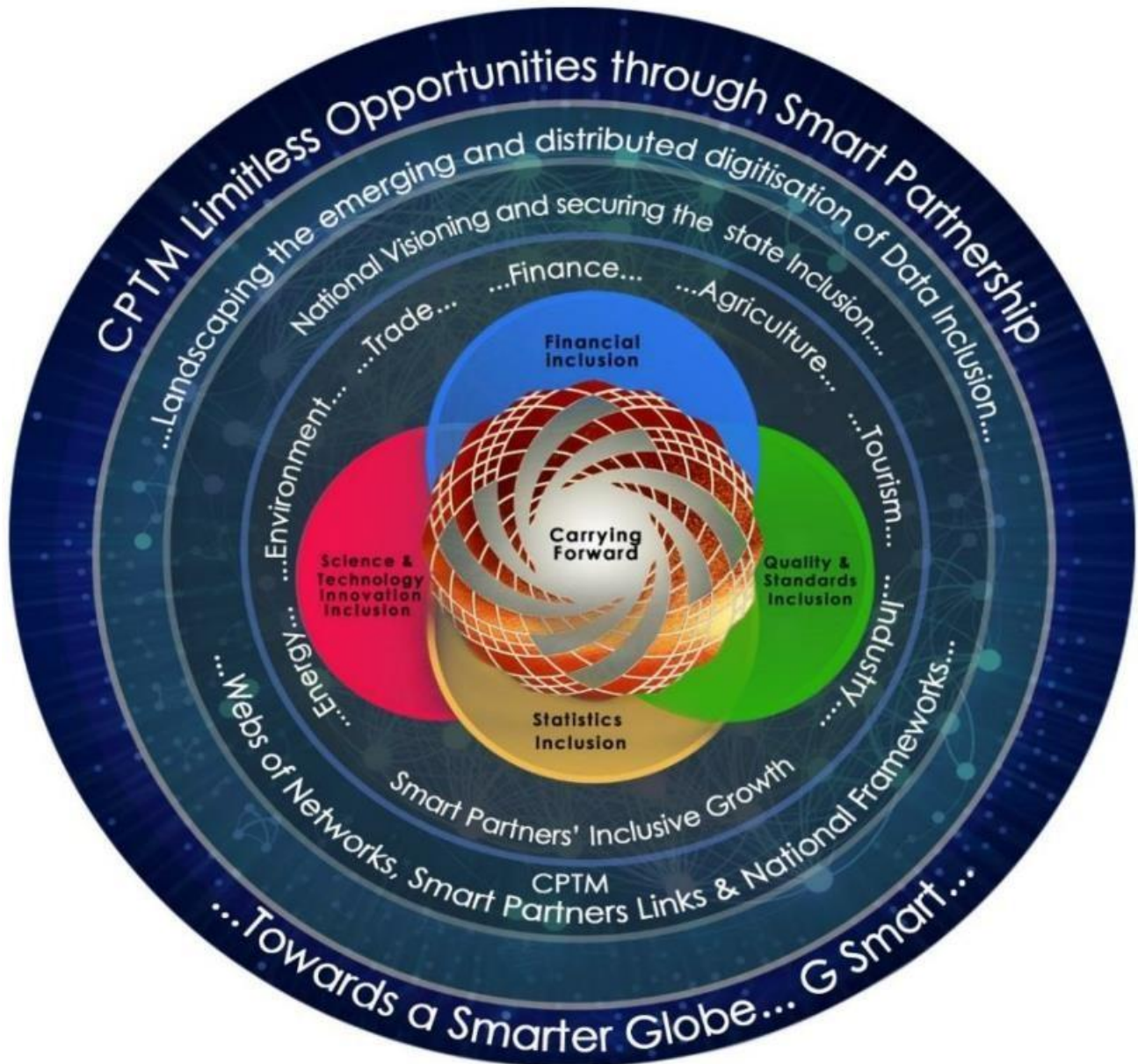
8.30 – 9.00 *Arrival, Coffee & Briefing*

- 9.00 – 11.30**
- **Brief Introduction to CPTM Cooperative Framework on Towards Leveraging the value of knowledge and data for Commonwealth and beyond through the Smart Partners’ Inclusion economies in the Initiatives 2018/20**
 - **Consolidation of CPTM Networks of Networks**
 - **Taking forward 2019 Think Tanking and 2020 Smart Partnership Movement Dialogue**

(with Hon Marco Hausiku, Hon Temeki Ts’olo and HE Ms Linda Scott)

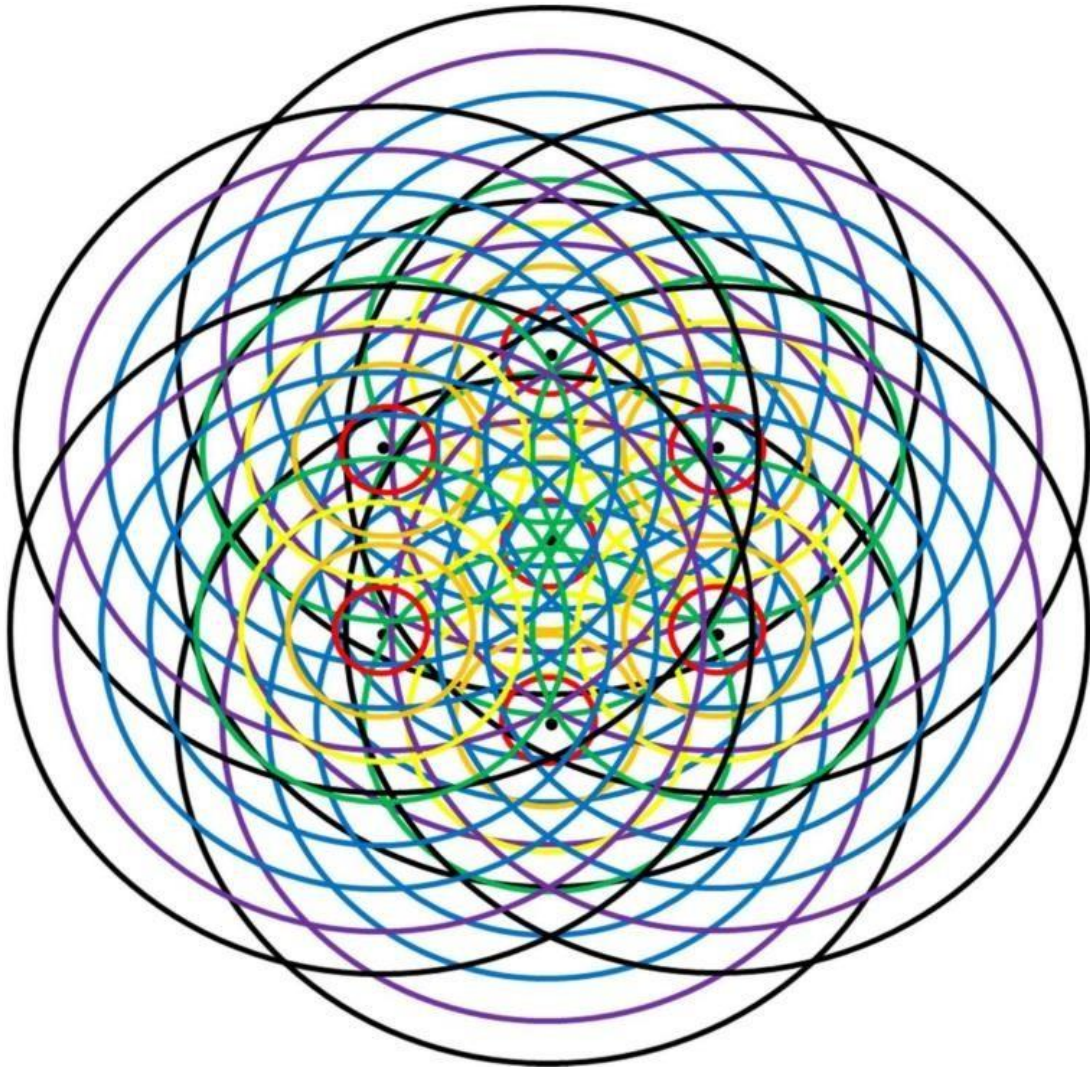
Leveraging the Value of Data through Smart Partnership

July 2018 ...July 2019... June 2020 ...



**Let the CPTM Smart Partner Networks network
Through Inclusive initiatives opening House Think Tanking and Sporting
Signals For tomorrow in real time.**

.....fast path to scaling up the Value of Data through
enhancing CPTM Smart Partnership Connectivity & Networks



The concentric circles represent a **pattern of waves**, like the expanding ripples on the surface of a pond after a stone has been dropped in waves centered on different points “interfere” with one another. In some places the **interference is constructive**, where the waves reinforce one another, so that the peaks and troughs are greater than they would otherwise be. This can be likened to a “win-win” situation.

In other places, the interference is destructive, where the waves cancel one another, and nothing is left but an apparently undisturbed patch without wave peaks and troughs. **This is like a “lose-lose” situation.**

There are also intermediate positions with either partial reinforcement or partial destruction.



**Some Insights
From
Governors & Smart Partners Perspectives**



Mr Moses Pelaelo, Governor Bank of Botswana

Huge potential of technology for harmonization among financial institutions generally – which helps stability, the key objective of central banks (Note, incidentally, UK Central Bank Governor Carney has said that the Bank’s key and specific concern is with the stability of the nation’s currency, so everybody else can not worry, and get on with the job of making the country and themselves better off). Exclusion is still an issue in Botswana; but better than it was now. 68% of population digitally linked, but still 30% or so not. Still some worries about the safety and security of individual investors; people need and deserve warnings about risk.

In the case of Botswana, we have put in place a road map for financial inclusion, **Making Access Possible** that embraces Fintech as a key element. Furthermore, the Electronic Payments Services Regulations, promulgated in January 2019, promote an enabling environment for innovation in financial services delivery channels, orderly provision of payment and other services as well as address any potential market conduct issues.

There is also a case for continuous experimentation and knowledge gathering through research, monitoring of developments and consultation and collaboration among local, as well as regional/international policymakers and regulators. To this end, some countries use so-called sand boxes intended to enable businesses to try new Fintech products under controlled but less regulated environments while at the same time allowing regulators to observe and understand products and services they can be widely distributed and accessed. The double benefit of the sandbox approach is that it ensures controlled gestation and fruition of new ideas while guarding against launching of products that potentially have a negative impact on customers, as well as integrity and stability of the financial system.

Despite what the name implies, the potential of Fintech goes beyond the narrow confines of financial services. Digitalisation and scaling of financial services leads to enhanced productivity of economic agents and other sectors, as well as emergence of new industries, fulfilling the requisites with respect efficient provision of services, economic diversification, employment creation and increase in living standards. These are, in the context of developing countries, very much needed elements. The Government of Botswana, therefore, and I suspect others too, very much welcome the Bali Fintech Agenda, framework and aspirations.

From a regional perspective and as a practical approach, the SADC region has established a Fintech regional monitoring group comprising representatives from the respective central banks. This is intended to build institutional knowledge of Fintech developments on an ongoing basis and, therefore, continually provide the SADC Committee of Central Bank Governors with a comprehensive picture of existing and emerging technologies, the application and market penetration of these technologies, as well as the attendant risks.

Professor Emanuel Tumusiime-Mutebile, Governor of Uganda Central Bank,

Speaking through his Personal Assistant, Ms. Joyce Okello, underlined the cost implication of updating banking system in a context where, as Uganda, only 28% of the population had actual bank accounts, even if nearly 80% had digital access through mobile phones. Rural areas were, in general, the most disadvantaged and in need of subsidies.

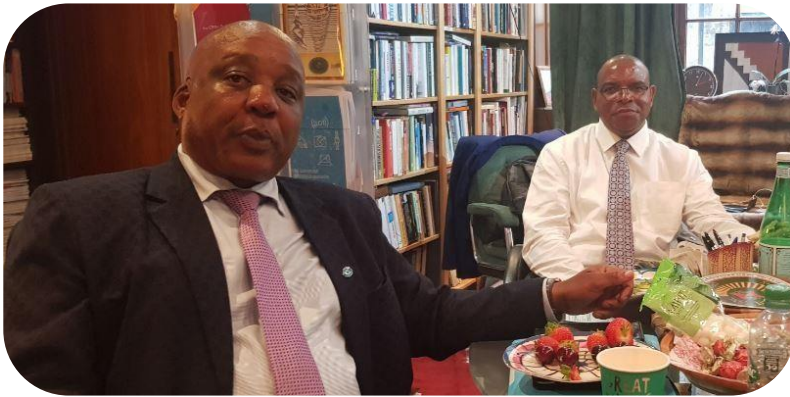
-Based on the FinScope report of 2017 – 78% of the country’s population have access to a mobile phone yet, only 28% have access to banking services;



Hon Marco Mukoso Hausiku, former Deputy Prime Minister CPTM Companion, Namibia and **Dr Kupukile Mlambo** Deputy Governor, Reserve Bank of Zimbabwe



Mr Moses Dinekere Pelaelo Governor, Bank of Botswana



Hon Temeki Ts'olo Minister in the Prime Minister's Office, Lesotho and **Dr Denny Kalyalya** Governor, Bank of Zambia



Dr Michaela Smith, CPTM Director at Large with **Professor Emmanuel Tumusiime-Mutebile** Governor, Bank of Uganda



-Attempts to increase the levels of this include the promotion of agent banking where banking entities can send out agents beyond their physical locations to provide limited banking services such as account opening and the taking of deposits;
-Joyce Okello also stated that President Museveni had set up a 4th Industrial Revolution Taskforce, made up of working groups on AI, Blockchain, Big Data – it would be interesting to follow/support the work of this Taskforce.

Dr Denny Kalyalya, Governor Bank of Zambia

Noted that the effect of 2008 and the anti-terrorism drive has resulted in a substantial heightening of privacy threshold on data and this, combined with the drive of multi-national banks to achieve efficiencies of scale result in data being inaccessibly stored off-shore and there're connectivity issue the whole system is put at a standstill
The offshore storing of data also sometimes complicates the regulator's ability to pre-empt /respond/isolate potential shocks which the large multi-national head office may not immediately notice as the shock is relating to what them is a very small subsidiary that however has a huge impact at the country scale.

Dr Max Ganado Malta

(See further in the doc)

Talked about the key aspects of a National Data Management 'System' and the importance of the Technical Administrator who on detecting a breach data laws, has the power to ensure compliance or even close down the operations of the offending party;
MFSA – provides a license without which anyone dealing with virtual financial assets would be breaching the law
Emphasized that it's important to establish a legal framework for dealing with virtual financial assets as 'every month you disregard it the wave becomes bigger'
Substantial debate was had on defining who/what is the 'legal person' who adopts responsibility – in Malta it is the Developer.

We have been there and done what is proposed in Malta, **we shall be able to assist**

professionally although we are somewhat overburdened; one would need to work closely with a person who is in the know on the current investment services laws (as that will enable quick turnaround on security tokens) and with laws relating to money and e money in particular (as that will enable quick turnaround on cryptocurrencies) WHERE THE LAW IS ALREADY CLEAR. then one focuses on the grey areas where there is investment like and money like tokens... that is what we called virtual financial assets which are ALSO NOW REGULATED in parallel. Few are exempt from regulation and only if not offered or available to the public or listed. If the Central Bank has this person then things can happen fairly fast.

The choice on whether to have an existing regulatory or a new one is old ground and I can brief anyone on the subject and its implications as I handled the same in Malta where we chose to set up a new regulatory and a system for coordination with other existing regulators except on securities and e money as there are very well established in the technology dimension already and it made sense to have them play a larger role than other regulatory who have not yet started.

Ms Linda Scott– High Commissioner of Namibia, UK

Brought up the interesting point that attempts to implement FATF in stemming revenue flows to terrorist groups also inadvertently throttles financial inclusion – direct parallel with the heavy KYC requirements in cited in Botswana

She also intervened to the need to use all methods and means to de-risk money flows and, in particular, to protect them from terrorism; education must embrace financial inclusion and security issues. On the entrepreneurial side and in keeping with the advance of technology, systematic schemes were needed to provide support for young people with bright ideas.

Ms Helen Packard Data Management Function Team Bank of England

Drew attention to the *Future of Finance* Report by the Bank of England – highlights the need for the evolution of not just hard infrastructure but also of soft infrastructure - new skills necessary to effectively regulate and promote the growth of fintech – regtech.

BoE have embraced this challenge by seeking new talent and skills and working hard in upskilling the current workforce who in some instances now need to understand coding and the tools used in analysing substantial data sets such as AI and machine learning.

Mr Jeremy Rowe – Senior Data *scientist* at UK ONS, Data Science Campus

In a contribution which complemented Helen - - - from the Bank of England (BOE) described the establishment of the Data Science Campus as a part of the Office of National Statistics. The initiative came from major national institutions, the Bank of England prominent among them. Data are a valuable national asset.

- ✓ The aim was to coordinate and improve the analysis of data for decisions like those of the Bank of England’s Monetary Policy Committee (which fixes interest rates on a monthly basis)
- ✓ Also to scoop up and utilize data being automatically/digitally gathered in such fields as shipping movements, train and car journeys, the environment, industrial production, agriculture, farming and fishing, and the entire social sphere
- ✓ Underlying point is that data tell the story of human relationships and this was Jeremy’s particular interest as an economist choosing to work in the data science field
- ✓ Question was asked would the ONS/Data Science Campus take an instruction to search out data for a publicly unspecified purpose? Answer: All enquiries to be conducted within legitimate guidelines from the authorizing government department, including parliamentary approval if necessary.

In the privacy/confidentiality context mention was also made subsequently of the US security services request for the unlocking of an Apple iPhone

- Spoke on the Data Science Campus initiative operating under the ONS



- Main purpose is to spot signals that can assist in delivering faster – real-time data to inform monetary policy in the UK which currently relies on data delivered with a 6-week delay;
- In attempting to achieve their purpose they're relying on AI and machine learning to analyse real data-sets relating to road traffic, ship location reporting, satellite imagery, VAT flows etc all to give an indication of real-time economic performance.
- Bruce intervened and almost challenged Jeremy on the contribution by highlighting that GDP is often not an ideal indicator and instead the emphasis should be on social progress indicators that aptly capture the facets that make up economic complexity.

Privilege to talk our experience of **using data science for public good and** particularly our project using **new data sources to measuring economic** activity quickly.

Jonathan Athow, interim National Statistician spoke 2018 Think Tanking:

- o previously primarily surveys used to generate statistics,
- o now surveys alongside admin data and private sector data. Also started exploring information in text and images.

Data Science Campus is at the forefront of making this happen.

Set up in March 2017, purpose of delivering “**data science for the public good**”, National Hub for Data Science to build data science capability and harness the power of new data sources and techniques.

We have built a team of around 70 across a variety of disciplines: computer science, math's, economics, others and this combination of skills helps deliver successful projects.

Collaboration with partners – for academia, the private and public sectors, and internationally. A have just set up new campus team in Department for International Development to coordinate and enhance our international work. Collaborated with National Bank of Rwanda in building a tool to help them explore their banking data, for instance to monitor loan performance;

ONS worked with National Institute of Statistics Rwanda to help them take the production of some statistics off spreadsheets into languages such as Python. Internationally ONS worked on SDGs and helped train data scientists in UN Economic Commission for Africa.

There are challenges: Data access, privacy and ethics are all really important. To help showcase the campus and the potential for new Data Sources wanted to highlight our recently published work developing **Faster indicators of UK economic activity**.

At the minute there is about a 6-week lag until official GDP data. Quick relative to other countries but this work aims to explore if close-to-real-time datasets can generate even earlier indicators of potential large economic impacts.

The Datasets are large and complex; Often biased and only about certain parts of economic activity, so very different to GDP, but these insights can still useful if delivered quickly;

3 datasets: Value-added tax data, Road Traffic & Ship Traffic.

- **VAT:** 2m returns per quarter to HM Revenue Customs, turnover & expenditure diffusion indices, reporting behaviour, up to 1 month before GDP.
- **Road traffic:** sensors on major roads in England, Highways England, counts, speeds. All England and English ports, by vehicle length, similar time to GDP

- **Ship traffic:** Maritime & Coastguard Agency, ORBCOMM via UN Global Platform, Automatic Identification System (AIS) over 300 tones, port traffic & time, near real-time
- **How do the indicators compare with official statistics historically?**
- **VAT good indicator** of large changes, If generated in 2008 would have seen substantially negative turnover diffusion index 5 months before first negative GDP growth, not perfect correlation heatmap helps with common signals
- **Large vehicle traffic trends** similar to GDP but changes less so. Data noisy – roadworks etc.
- **Shipping port traffic is** an indicator of UK goods imports/export health
Methodological articles published in March 2019 and latest data published monthly since April 2019.
Positive reaction in media and policymakers.
New Data sources offer lots of potential for faster, richer insights across a larger **number of observations** than surveys. They are not without challenges, but the insights created can help improve decision-making.

Mr Oliver Oram, Chainvine, CPTM Networking Member.

Underscored the value of the latest technology not just in expediting commercial transactions but in helping construct a fairer, more balanced world through the UN's Sustainable Development Goals. *He gave as an example the application of technology to the sourcing and certification of geographical origin, so that – by, for example, certifying fish as coming from waters around the Seychelles - thieving fishermen from other countries could be identified and prosecuted.*

- Spoke on the idea of a National Asset Management System that can bring value by combining blockchain/DLT, AI and machine learning in authenticating national assets of value.
- A key example he gave was the Seychelles/CPTM/Chainvine proposed digital certification of Seychellean Tuna fish to assure the consumers that the goods have been sourced ethically

He summed up much of his experience and that of other Think-Tankers with the quote: *“It's 80% process and 20% technology”*

According to Cisco 10% of global GDP is estimated to be stored on blockchain by 2027.

CPTM members can benefit from Blockchain technology/DLT without having to jump into the world of bitcoin and other cryptocurrencies, CPTM Members can use new technology to create ecosystems of the ecosystem within their own countries to better promote their own natural resources, For example, by creating national asset management systems to better monetise country resources and even manage UN SDGs in a better way etc.

Mr Robert Smith, CPTM Companion, UK

Gave an interesting **prelude to the idea of quantum computing** which will further disrupt facets of the 4th Industrial Revolution. This will make it possible to solve complex mathematical problems within split seconds and will have huge implications on issues such as encryption probably within the next 3 years or so.

Dr Andrew Taussig, CPTM Director, UK

There was general interest from the Central Bank Governors about the potential that could be derived from establishing a regional grouping of Central Bank Governors – for example, from SADC countries, to build critical mass in area of common interest, under the broad umbrella and with support from the Basle Bank for International Settlements. The value of such an approach urged by, among others, Andrew Taussig, was reinforced through several points arising during the Think-Tanking discussions, focussed on the superiority of resources enjoyed by big tech companies over financial institutions; as well as serious resource disparity among Central Banks themselves and the potential gain for less-well-resourced Central Banks, within a geographical region and sharing common goals, to benefit from practical cooperation among themselves and cutting edge support from a central ‘umbrella’ institution [i.e. the Bank for International Settlements] which has globally-based funding and a sophisticated knowledge base at its disposal.

1. Further insights from RBZ

1.1. The recent Smart Partners gathering was characterised by an energetic dialogical process that carried the qualities of openness and sharing. The meeting placed significant focus on the nature of data and its implications for public policy.

Data generation plays a self-reinforcing role: more data improves the service, which brings in more users, which generates more data.

2. TAKING A POSITION IN CRYPTO ASSET REGULATION

- 2.1. The growth of Digital Data platforms and the related applications are dynamic in nature. Therefore, it means that the regulatory approach also needs to be dynamic/interrelated
- 2.2. Key element in regulation could be the establishment of a system administrator that has the powers to act in cases of loss or breach. This removes the burden of regulation from the developers’ levels, who in general lack sensitivity to public policy risk and consumer protection.
- 2.3. The case of Malta shows that there needs to be an innovative approach to regulation of virtual assets that reflects the structure and modes of operating that are particular to them (as intervened by Max Ganado)
- 2.4. Laws to regulate crypto-assets need to take a double-pronged approach.
- 2.5. Prong one: Where there is risk to consumer and financial stability law should be mandatory.

- 2.6. Prong two: In cases where countries want to support innovation and development of products and services then the law should be voluntary.
- 2.7. These approaches will require a clarity at the national public policy level on the objectives and vision for digital technologies and specifically crypto-assets.
- 2.8. A legal personality for crypto-assets: this is an interesting approach and may also extend into the wider sphere of data and privacy issues. Where digital platforms enabled by artificial intelligence like google assistant are able to listen in on private conversations intentionally or unintentionally. This raises an important question about the idea of privacy, how it is changing and if digital platforms are privy to private information; how issues of accountability are, responsibility and public good addressed.

3. INTERNATIONAL STANDARDS

A complementary part to the Maltese case is the development of ten international standards on Distributed Ledger Technology. (as Mr Alan Bryden, former ISO, Secretary General and CPTM Companion noted)

Table 1: International Standards Organisation Block chain and Distributed Ledger Standards development

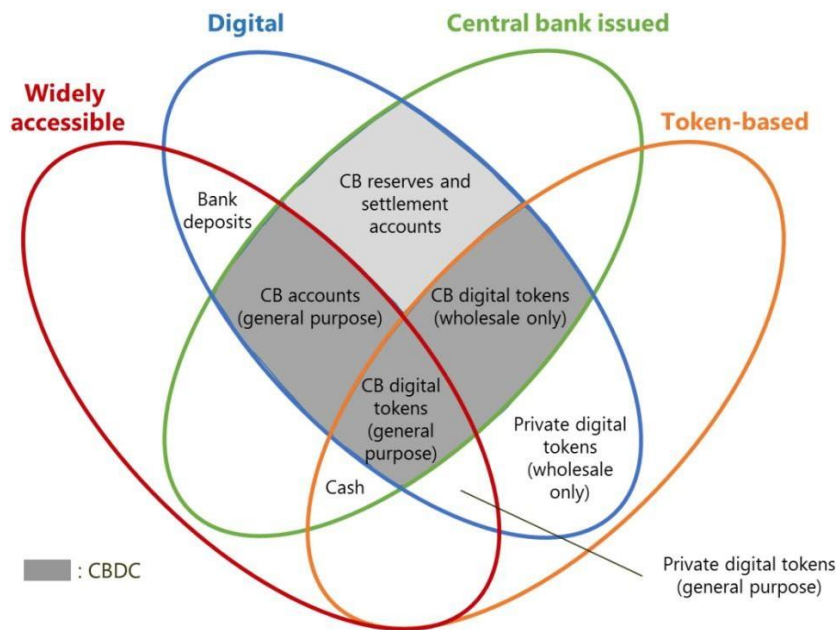
Title of Standard	
1	Terminology
2	Privacy and personally identifiable information protection considerations
3	Security risks, threats and vulnerabilities
4	Overview of identity management using block chain and distributed ledger technologies
5	Reference architecture
	Taxonomy and Ontology
6	Legal binding smart contracts
7	Overview of and interaction between smart contract in block chain and distributed ledger technology systems
8	Security management of digital asset custodians
9	Discovery issues related to interoperability
10	Guidelines for governance

3.1. A particular short coming in the process of developing the above standards is the lack of active participations of the CEO's of National Standards Bureau of African countries. Of all 43 participating members only one African country is represented.

3.2. The taxonomy of money

3.2.1. The conversation on crypto-assets and virtual currency segways into issues of electronic money and how it is classified in the evolving digital data landscape.

Figure 1 Money Flower Taxonomy Bank of International Settlement



3.2.2. When we consider the experience of Europe and the US with Quantitative Easing (QE) there is an interesting question to ask, *what is the difference between the money created through QE and Central Bank Digital Currency. Where on the taxonomy of money would the quantum of money from QE fit-in?*

3.2.3. Also when we consider Venezuela and Petro (crypto-assets) termed a sovereign crypto-assets, *what distinguishes the Petro from a Central Bank Digital Currency?*

4. DATA STRATEGY

Prof David Hand, CPTM Companion/Imperial College

4.1. Key questions for Data Strategy

1. *What are the objectives?*
2. *What are the problems that need to be resolved?*
3. *What does it look like?*
4. *What are the obstacles?*
5. *How will the obstacles be overcome?*
6. *What organisation are needed to advance the strategy?*
7. *How will progress be measured?*
8. *How will the strategy and its parts be future proofed?*

4.1.1. The eight questions represent a starting point for engaging in the development of national Data strategy. They will form the nodes in the evolving digital and data ecosystem. Also the last question, introduces the **dynamic** nature of Data and digital platforms. It acknowledges that any strategy will need to build in **methods of promoting dynamism**.

4.1.2. The questions listed above emphasise a **value driven** approach to data.

4.2. Qualities of Data

4.2.1. Another important consideration is on the qualities of data. A strong strategy should be clear on how it will achieve the four key qualities of Data.

Table 1: Four key qualities of Data

Quality of data	Description
Granulated	Data should be able to distinguish between different socio-economic group and cover range of other variables
Timely	Data is to be real time accompanied by quick analyses of policies and indicate the impact on lives of citizens and institutional bodies
Credible	Differentiating knowledge from data by bringing in statistical expertise, ethical standards and openness.
Visualisations	Combining data in new ways to promote the discovery of new relationships

4.3. Data Ecosystems/Data Landscape

4.3.1. Ecosystems can be developed at different levels within an organisation with other institutions and partners at the national level. A data science campus represents a potential node in this ecosystem.

4.4. Data Science-Campus/National Statistics

4.4.1. The establishment of this institutional body in the UK responds to question 6 under Data Strategy, listed above. Data science campus is a potential pathway to leveraging data for public good.

4.4.2. It can drive the use of existing data in new ways of analysing and communicating.

4.4.3. *What are the appropriate data sets for sub-Saharan Africa? Can we gauge specific information from satellite imagery?*

4.5. Digital Data Workforce

4.5.1. Capacity is going to be critical piece in the evolving digital landscape and therefore upskilling of the current workforce can offer transformative benefits because institutional knowledge will be complemented by new skills and tool kits. Data science capacity and skills is critical for developing the use of Data as public good.

4.6. New Business Models

4.6.1. Data is enabling firms to achieve massive scale at unprecedented rates. This is linked to the evolving characteristic of Data as a commodity and shifts the risk-taking behaviour of firms. A firm now accepts the risk of making the wrong decision and will willingly pay the cost of significant operating inefficiencies in exchange for the ability to move faster. These risks and costs are acceptable because the risk and cost of being too slow is even greater.

4.6.2. Therefore, it is important to begin to map the **evolving risk-taking** behaviour of firms in the context of new technologies. Also, to understand the **risk/reward matrix** that characterises the **blitz scaling** approach.

4.7. Applying Distributed Ledger Technology (DLT)

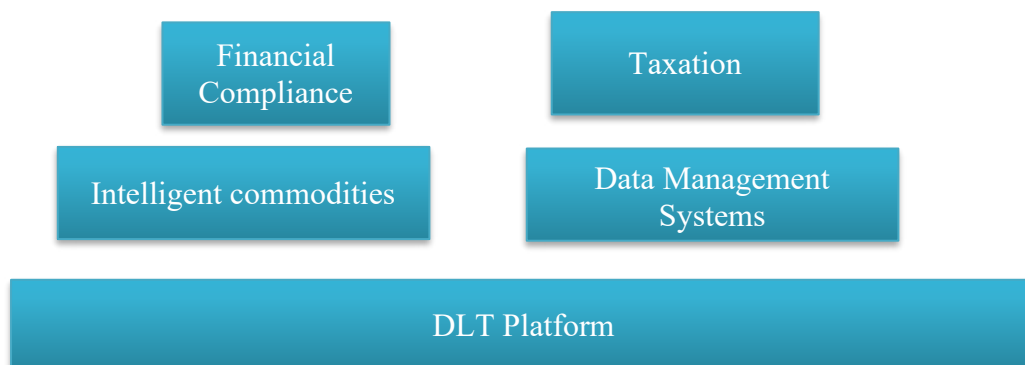
Characteristic	Description
Data is Shared	And there is a need for structured repository of information

Multiple Parties	Where more than one entity writes or read the database. Access may be permissioned or permission less or private
Low Trust	When there is less than complete trust between the entities in the ecosystem
Auditability	Transaction are immutable. Participants have digital identity on every transaction

4.8 Digital Data Asset Management

See, Mr Oliver Oram, Chainvaine, CPTM Networking Member

4.7.1. Linking together Digital Data platforms



5. MOVING THE SMART PARTNERS INITIATIVE FORWARD

5.1. There is room to engage with the Zimbabwe National Statistics Office, the Supercomputer at the University of Zimbabwe and the National Economic Consultative Forum and Standard Association of Zimbabwe (SAZ). Starting the conversation around **Data strategy and the opportunities of cultivating the digital landscape represent an important starting point.**

Smart Partners





Evidence, policies, and decisions
Searching for National Data Strategies
for
Smart Partners Central Banks



Prof David J. Hand, CPTM Companion, *Imperial College, London*

[\(Click here for profile\)](#)

General concept of a National Data Strategy

The **starting point for Data Strategy** should be the question one wants to answer or the issue one wants to explore.

The **second step** must be consideration of **what data are needed to answer that question or to explore the issue.**

The **third step should be identification of what data are available** – and perhaps what further data need to be collected.

The **fourth step is 'data wrangling' – the cleaning and preparation of the data** to make it suitable for analysis.

And finally, **the fifth step is the analysis itself** – the extraction of valuable information from the data to answer the original question or inform the issue.

It is important to note that, although I have listed the steps in order, there are generally cycles around them. Answering any particular question may lead to a refinement of the question or the posing of additional questions. Attempts to collect data might fail, so that other questions, using data which can be collected, have to be asked. And so on.

One can see from this that **matters of Data ride on top of a Digital Infrastructure** – and **Digital and Data matters are different but overlapping. Adequate infrastructure is a requisite for effective use of modern data sets.** However, the power of modern computers – even desk top machines – means that supercomputers are rarely needed.

Perhaps I should add that, between **the Digital Infrastructure and the analysis of the Data lies** another layer: **the data technology or data science level.** This is the **statistics, machine learning, and AI level of models and algorithms.**

Experts at any of these levels – understanding the Data, being able to analyse it effectively, and understanding the underlying Digital Infrastructure – may not be expert at any other level, although they will obviously have some understanding of them.

Data have always been central to managing society, but modern data technology is creating new opportunities, especially as a consequence of the accumulation of massive data sets along with the potential to process them very rapidly, even in real time. Examples of such developments which are radically changing the way we live are route finding apps, booking systems, online purchasing, streaming entertainment, web surfing, social media, and The Internet of Things.

Important characteristics of these modern Data sets are

- that they accumulate automatically, requiring little or no data collection effort;
- that they are very granular, referring to individuals at a micro level;
- that they include *all* records of a certain kind (e.g. all transactions by a bank);
- and of course, that they are often very large.

At the highest level, such data provide a ***national asset***, analogous in some ways to natural resources, but arguably more fundamental in that they are pervasive: whereas society can find an alternative to any particular natural resource (e.g. replace fuel oil by renewables and battery storage), the concept of an alternative to data is meaningless.

These developments raise **two high level questions**:

- how can we best take advantage of such data?
- how can we avoid the inevitable risks?

These high-level questions in turn break down into a myriad of **low-level questions**:

- data ownership (e.g. who owns data “about you”: if I collect data by measuring your height, does that data then belong to me or you?);
- competition (e.g. should high tech companies play a central role in government data and use of that data?);
- protecting personal privacy while enabling innovation (e.g. providing an individual with the best service for them, necessarily requires knowing about them);
- consumer protection;
- human rights;
- fraud and crime: internet fraud is low risk, compared to, say, robbing a bank;
- national security, and vulnerability to hacking by state actors.

The distinction between these areas is often blurred in the context of big data, and the **different desiderata** can pull in **opposite directions**. By way of illustration, some examples of conflicts forces are:

- police access to phone call data to prevent crime and terrorism, vs individuals’ right to privacy. Encryption preserving privacy, but also hiding information from security services;
- security services access to data held by private corporations;
- corporate value being based on its databases vs invasion of privacy;
- the value of open data, but the danger of linkage with other open data sets revealing personal information;
- international differences in data regulation – impact of GDPR;
- data minimisation principle (store only what is necessary for the specific objective) vs extracting maximum value (who knows what value might be latent in massive data sets).

The new world of **very large personal data sets has its risks**. These are not new, but the scope and potential impact of them is new. They include data theft, systems failure, financial stability in the new world, consumer protection, and the intrinsic trustworthiness of data (that is, its provenance and quality).

We are here really talking about **data governance**. Earlier laws were not designed to cope with the new challenges of very large and highly granular data sets which could be analysed very quickly, or with the challenges arising from the machine learning and AI technologies built on these data sets. I note in particular, that (i) law (necessarily) lags innovation, and (ii) the plateau fallacy (the notion that we are heading towards a new “normal”, rather than recognising that change/progress will continue into the future).

This brings me at last to the notion of a ***national data strategy***. This is a set of principles and best practices which guide decisions and investments in the world of data. It needs to recognise that there are multiple stakeholders, with the most obvious being citizens, government, and private sector organisations. It is also important to recognise that the influence of data is systemic: it might require rethinking of organisational structures. Since the large number of stakeholders, wide consultation in formulating such strategies is important.

Particular questions which one must address include:

- **What are your objectives in terms of benefitting from data?**
- **What problems are you seeking to solve?**
- **What does a National Data Strategy look like for you?**
- **Where are you now?**
- **What will be the main obstacles in getting from here to there?**
- **How will you overcome these obstacles?**
- **What specific organisations need to be created to achieve this?**
- **How will you measure progress?**
- **How will your future-proof things?**

Turning to Fintech

I have been deeply involved in developing consumer credit scorecards for several decades, but over the past ten years the role of new kinds of Data in scorecards has grown (e.g. social media data). This has the potential to lead to a better understanding of consumers, which in turn can lead to competitive advantage.

New forms of data also lead to greater opportunities **for Financial Inclusion** (easier physical access, **less Documentation needed, collateral becomes less important**). For example:

- access via mobile devices such as smartphones;
- accumulated transaction records replacing the need for audited financial statements, without which individuals and SMEs would have been previously excluded;
- the current cost of monitoring and collection of interest from loans is reduced and facilitated by direct deduction of interest from payments flowing through the electronic transaction system;
- credit will be less sensitive to fluctuating price of collateral (e.g. house prices in mortgages)

All this is occurring within the context of a wider debate about **personal Data Access and use**, and about **the responsibilities and regulation of Big Tech companies**.

Retail credit is one example of how **Data Technology** is impacting finance. Another is through **electronic crypto currencies**. For example, Facebook's *Libra*.

The Libra value will be tied to a basket of low-volatility currencies, including the dollar, the pound sterling and the Euro, so that it will offer financial stability (unlike bitcoin, for example). Facebook aims to launch Libra, and then take a back seat, joining other members of the Association of Founding Members, which include Mastercard, Visa, PayPal, eBay, Uber, Lyft, Spotify, Vodafone and others. Facebook wants Libra to be accepted by the international and financial community, and so intends to engage closely with financial regulators.

However, some people have reservations, and it might not be easy to convince the regulators. Christine Lagarde, the Managing Director of the IMF told a recent G20 meeting:

“A significant disruption to the financial landscape is likely to come from the big tech firms, who will use their enormous customer bases and deep pockets to offer financial products based on big data and artificial intelligence ... This presents a unique systemic challenge to financial stability and efficiency ... Over the last five years, technology growth in China has been extremely successful and allowed millions of new entrants to benefit from access to financial products and the creation of high-quality jobs.” But then she added: “But it has also led to two firms controlling more than 90% of the mobile payments market.”

It does not help that Libra has been developed by Facebook, and there is significant competition from other bodies beginning to play in the same space, both established players and new big tech companies.

Further Smart Partners Reading Tips

1. **Data Management and Use: Governance in the 21st Century.** (2017) Royal Society and British Academy,

<https://www.thebritishacademy.ac.uk/sites/default/files/Data%20management%20and%20use%20-%20Governance%20in%20the%2021st%20century.pdf>

2. **United Nations Global Platform: Data for the world, 2019**

https://www.sugarsync.com/pf/D667256_92_803525232?_ga=2.163473720.588404283.1564414572-316014828.1551789191

3. **Hand D.J. (2018) Aspects of data ethics in a changing world: where are we now? *Big Data*, 6, 176-190. No.3,**

Abstract

Ready data availability, cheap storage capacity, and powerful tools for extracting information from data have the potential to significantly enhance the human condition. However, as with all advanced technologies, this comes with the potential for misuse. Ethical oversight and constraints are needed to ensure that an appropriate balance is reached. Ethical issues involving data may be more challenging than the ethical challenges of some other advanced technologies partly because data and data science are ubiquitous, having the potential to impact all aspects of life, and partly because of their intrinsic complexity. We explore the nature of data, personal data, data ownership, consent and purpose of use, trustworthiness of data as well as of algorithms and of those using the data, and matters of privacy and confidentiality. A checklist is given of topics that need to be considered.

Keywords: algorithms; confidentiality; data ownership; personal data; privacy; trustworthiness

Hand D.J. (2018) Statistical challenges of administrative and transaction data (with discussion). *Journal of the Royal Statistical Society, Series A*, 181, 555-605.

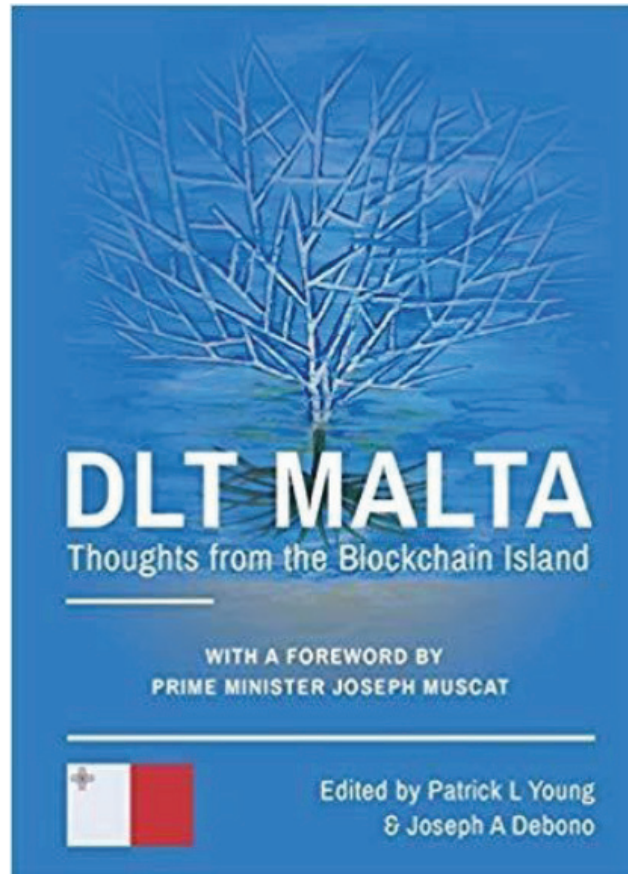
Summary. Administrative data are becoming increasingly important. They are typically the side effect of some operational exercise and are often seen as having significant advantages over alternative sources of data. Although it is true that such data have merits, statisticians should approach the analysis of such data with the same cautious and critical eye as they approach the analysis of data from any other source. The paper identifies some statistical challenges, with the aim of stimulating debate about and improving the analysis of administrative data and encouraging methodology researchers to explore some of the important statistical problems which arise with such data.

.... At first glance, though we shall see that appearances can be deceptive, administrative data appear to have several advantages compared with statistical data.

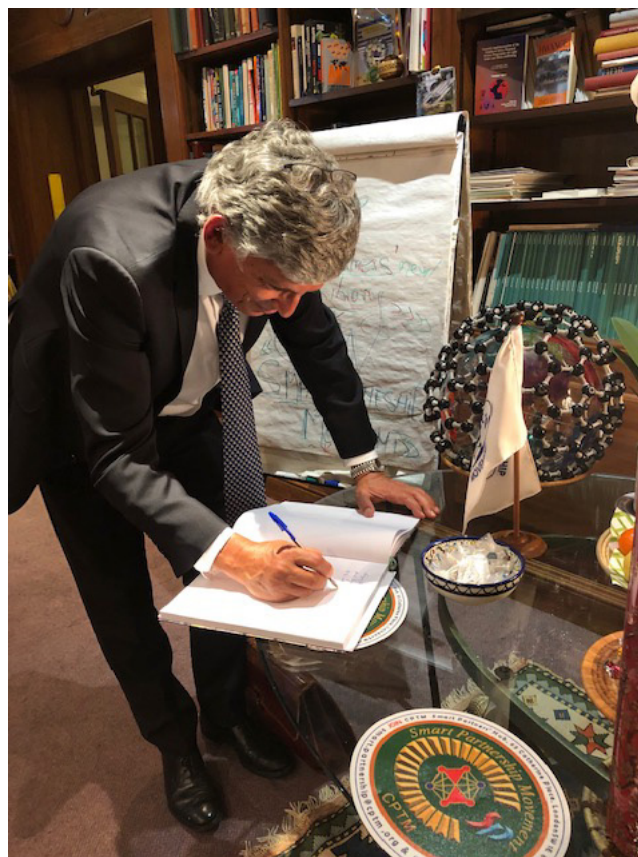
- (a) Since the data have already been collected, no additional cost appears to be incurred in collecting them.
- (b) In a sense, we might reasonably expect that 'all' the data are available. After all, a company will certainly process and can retain details of all its transactions.
- (c) The data might be of high quality, since the effectiveness of the operation of the organization depends on this.
- (d) The stored data will certainly be timely and might be regarded as up to date as it is possible to achieve, since they describe the organization as it is, or at least as it was when the last change was made. This advantage is strikingly illustrated in the use of administrative data to derive estimates of population attributes at times that are intermediate between decadal censuses, and in essentially real time estimates of price inflation.
- (e) In a real sense administrative data often tell us what people *are* and what they *do*, not what they *say* they are and what they *claim* to do. We might thus argue that such data get us closer to social reality than do survey data.
- (f) Administrative data may provide tighter definitions than alternative sources of data. Wallgren and Wallgren (2014), page 33, gave examples of data about income and children in families. Where the time restrictions on eliciting responses to a survey might mean one must simply ask 'what is your yearly income before tax?', administrative data might, depending on the source of the data, specify whether this means 'disposable income, taxable income, earned income or income including unearned income....

<https://rss.onlinelibrary.wiley.com/doi/epdf/10.1111/rssa.12315>

Keywords: 'Big data'; Data quality; Management data; Operational data; Repurposed data



Towards a Legal Personality for Blockchain and Decentralized Data Evolving National Legislation, Malta Case



Dr. Max Ganado

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(22 June 2019) by Chris Hughes

Watchdogs poised to test whether Facebook's coins stack up door

Social media group's Libra plans will have no automatic open door from regulators

(21 June 2019)

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(14 June 2019) by Gillian Tett

Facebook enters risky water

(26 June 2019) by Martin Wolf

Hurdles loom for Facebook's digital currency

Social media group's visionary Libra project will face regulatory maze and scepticism from small merchants

(19 June 2019)

Blockchain is no silver bullet for authentication

The Technology cannot tell if the data it holds is false

(1 July 2019)

Zuckerberg dashes to expand his empire with crypto coin

(20 June 2019)

Lawyers warn of Facebook's Libra tax risks

(1 July 2019)

Banks in no rush to join Facebook's crypto project

(Tuesday, 9 July 2019)

Techs seeks to turn popularity into profit

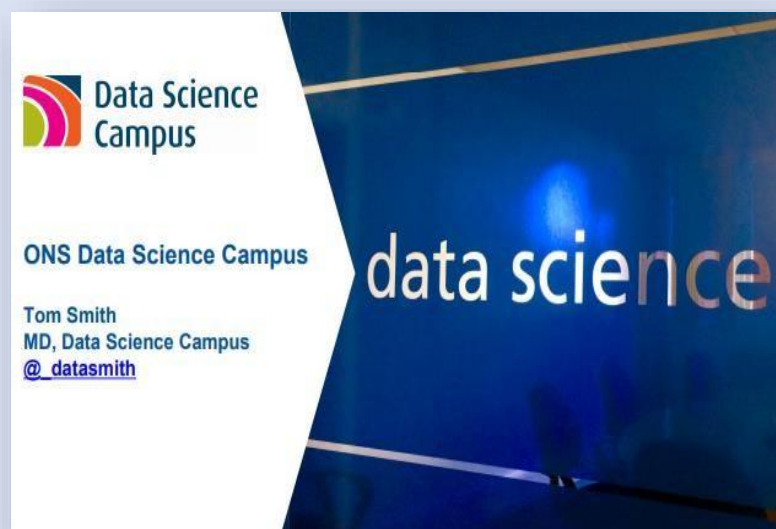
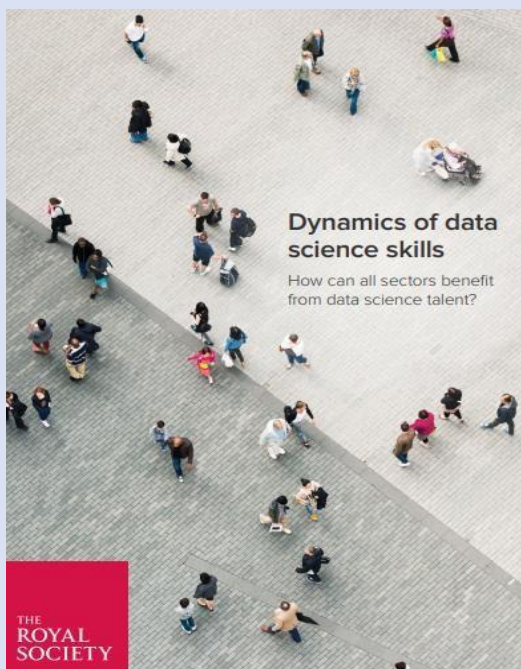
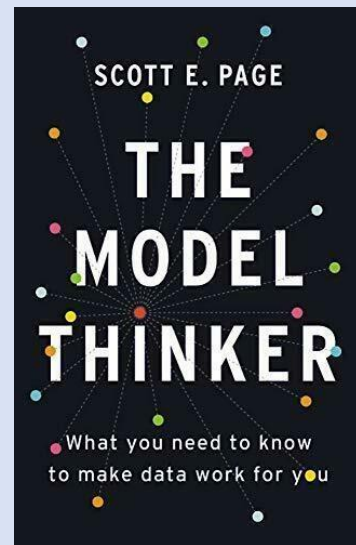
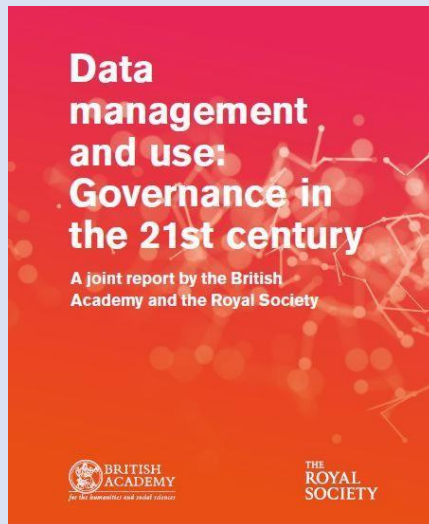
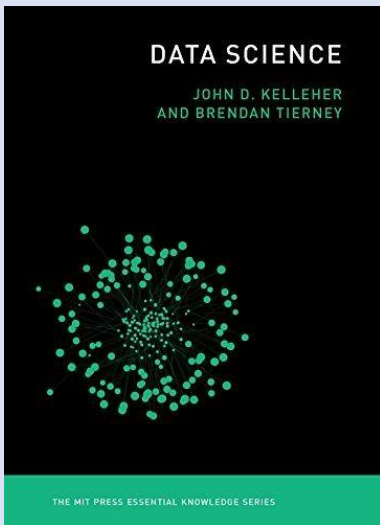
(8 July 2019)

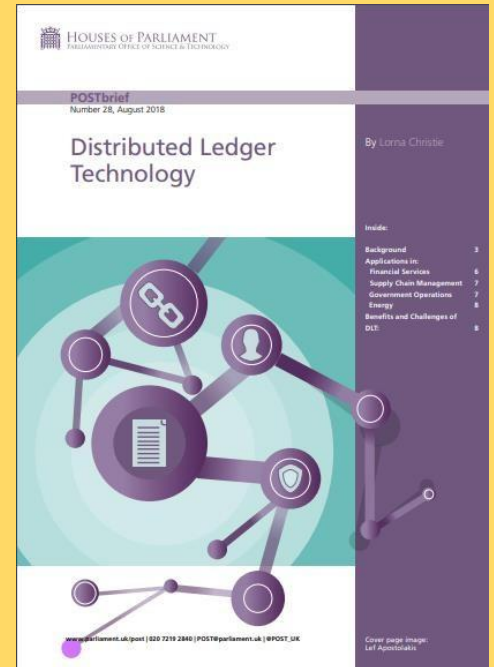
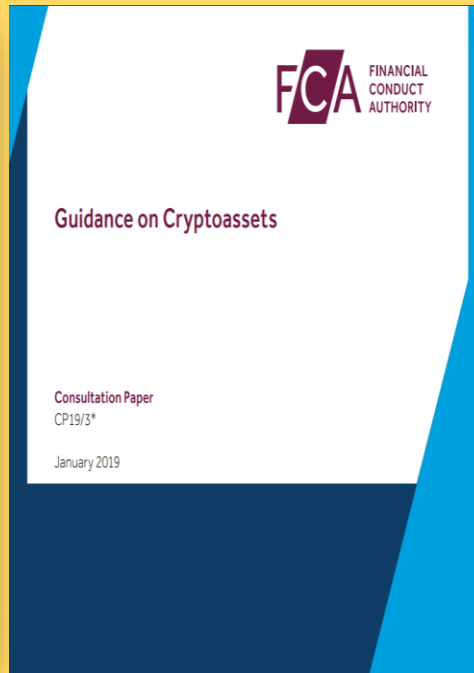
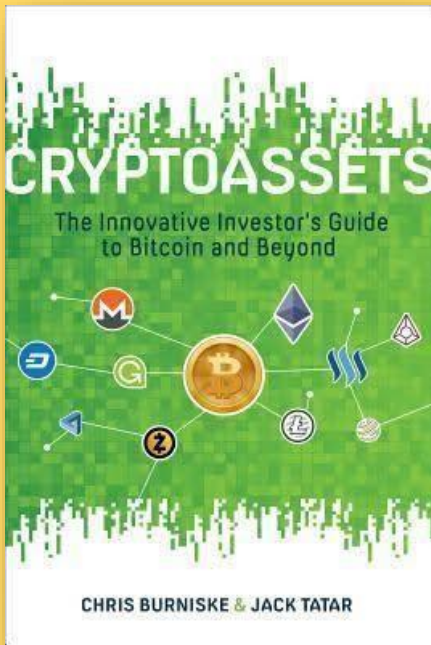
How much is data gold mine worth

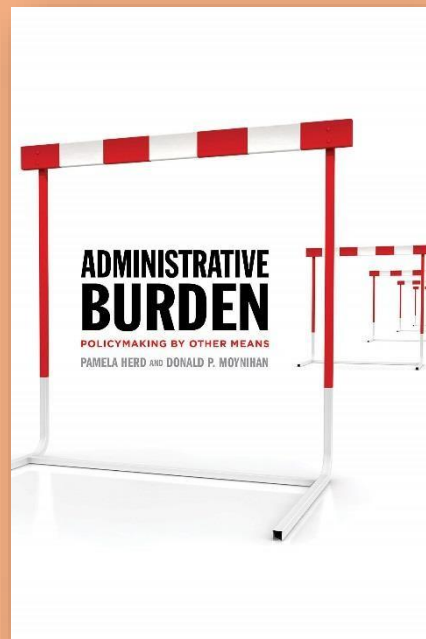
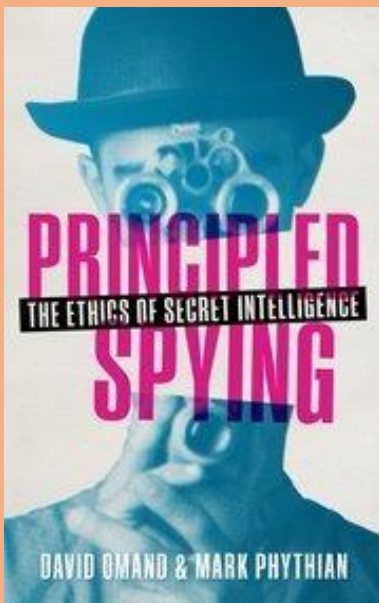
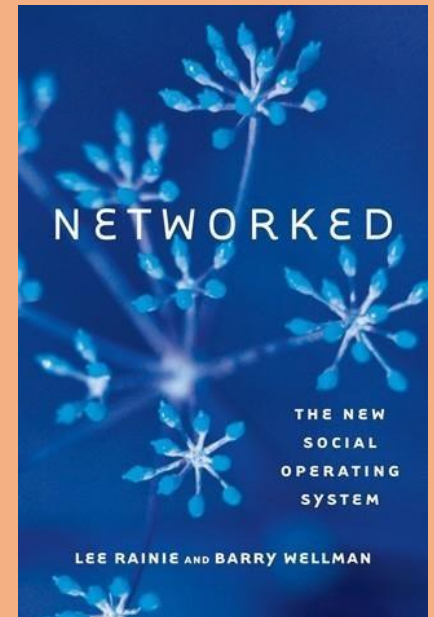
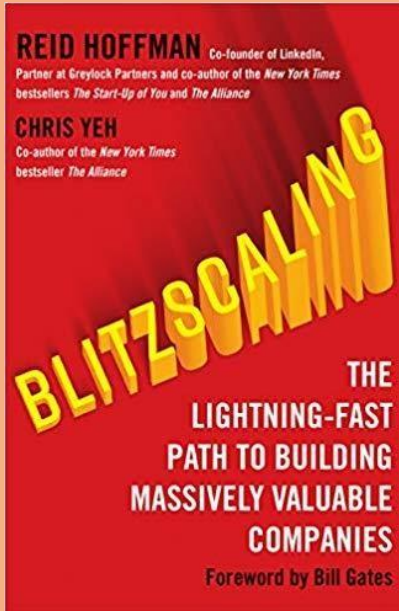
(14 July 2019)

Libra and the scourge of hot money

(29 July 2019)







COMMENT

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Artificial intelligence could one day be used to tailor education to the needs of each individual child.

Rethink government with AI

Policymakers should harness data to deliver public services that are responsive, efficient and fair, urge **Helen Margetts** and **Cosmina Dorobantu**.

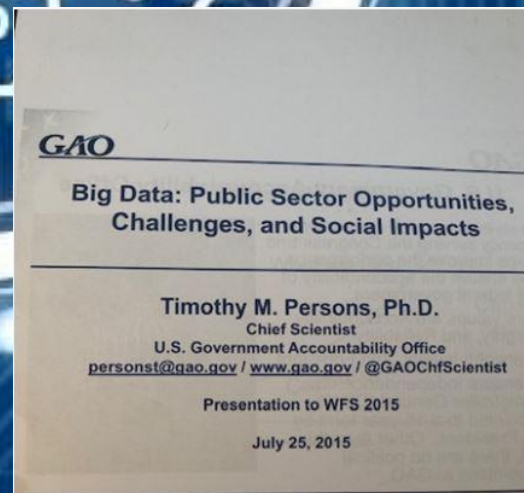
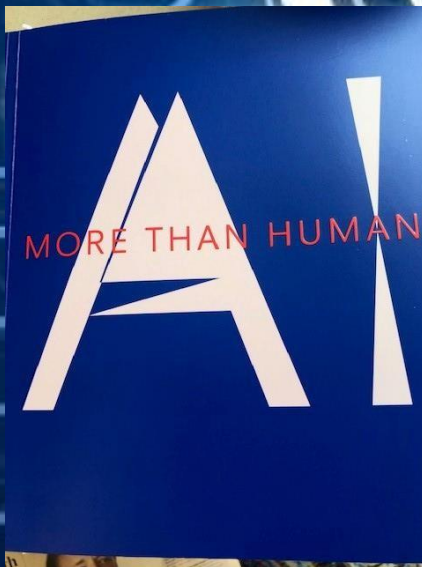
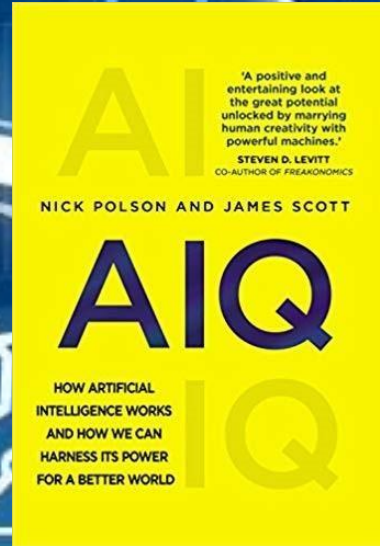
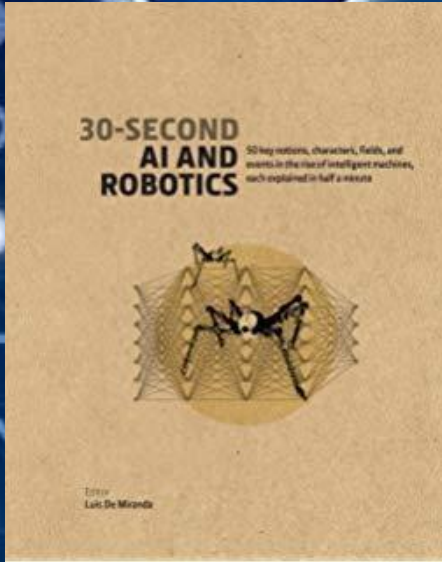
People produce more than 2.5 quintillion bytes of data each day. Businesses are harnessing these riches using artificial intelligence (AI) to add trillions of dollars in value to goods and services each year. Amazon dispatches items it anticipates customers will buy to regional hubs before they are purchased. Thanks to the vast extractive might of Google and Facebook, every bakery and bicycle shop is the beneficiary of personalized targeted advertising.

But governments have been slow to apply AI to hone their policies and services. The rooms of data that governments collect about citizens could, in theory, be used to tailor education to the needs of each child or to fit health care to the genetics and lifestyle of each patient. They could help to predict and prevent traffic deaths, street crime or the necessity of taking children into care. Huge costs of floods, disease outbreaks and financial crises could be averted using state-of-the-art modelling. All of these services could become cheaper and more effective.

13 APRIL 2019 | VOL 568 | NATURE | 143

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Hands on introduction into Artificial intelligence





CPTM CENTRAL BANK GOVERNORS' THINK TANKING JULY 2019 SIGNALLING RELEVANT RECENT DEVELOPMENTS IN ISO

*By Mr Alan Bryden, CPTM Companion
and former ISO Secretary-General*

alanbryden@orange.fr



1- ISO/TC 307 Blockchain and Distributed Ledger Technologies

Secretariat: Standards Australia (SA)

Creation date: 2016

Scope

Standardization of blockchain technologies and distributed ledger technologies.
11 International standards under development

For more: <https://www.ledgerinsights.com/iso-blockchain-standards/>

See also developments in ITU: <https://news.itu.int/guidance-to-blockchain-adopters/>

2- ISO TC ISO/TC 322 sustainable finance

Secretariat: BSI (U.K.)

Creation date: 2018

Scope

Standardization in the field of sustainable finance for the integration of sustainability considerations and environmental, social and governance (ESG) practices into institutional investment decision making and wider finance management.

For more: <https://www.iso.org/news/ref2350.html>

3- ISO/TC 268 sustainable cities and communities

Secretariat: AFNOR (France)

Creation date: 2012

Scope

Standardization in the field of Sustainable Cities and Communities includes the development of requirements, frameworks, guidance and supporting techniques and tools related to the achievement of sustainable development considering smartness and resilience, to help all Cities and Communities and their interested parties in both rural and urban areas become more sustainable.

Note: TC 268 contributes to the UN Sustainable Development Goals through its standardization work.

Publication in 2019 of ISO 37104

With rapid urbanization, whether in developed or in developing countries, local, national and regional authorities are facing new challenges, related, for example, to the spatial distribution of people and resources, or the occupation and exploitation of the land. The new International Standard, ISO 37101, Sustainable development in communities - Management system for sustainable development - Requirements with guidance for use, will help communities implement a sustainable development strategy which takes account of their economic, social and environmental context. The standard will also encourage communities to be more proactive and will help them to demonstrate to stakeholders that proper management system is in place. Successful implementation of the standard will help to:

- Create and build consensus on sustainable development in communities
- Improve the sustainability, intelligence and resilience of strategies, programmes or plans conducted under the responsibility of the authorities or in the relevant area
- Improve the local environment, create a better living environment for happier and healthier citizens, and build a community better able to anticipate and adapt to natural disasters, economic crises and climate change
- A multi-stakeholder approaches

ISO 37101 focuses on communities as a springboard towards the sustainable development of society as a whole. Communities consist of various entities and persons who live, work and interact with each other. This is why commitment to a cooperative dialogue with stakeholders for more sustainable solutions is an essential aspect of the implementation of the standard.

For more:

[http://nws.eurocities.eu/MediaShell/media/A_Gindroz_180123-ISO_TC268 - SF_SCCC - eea.pdf](http://nws.eurocities.eu/MediaShell/media/A_Gindroz_180123-ISO_TC268_SF_SCCC_-_eea.pdf)

<https://www.economiecirculaire.org/articles/h/a-new-iso-standard-to-assist-communities-with-their-sustainable-development-initiative.html>

4- ISO/TC 323 circular economy

Secretariat: AFNOR (France)
Creation date: 2018

Scope

Standardization in the field of circular economy to develop requirements, frameworks, guidance and supporting tools related to the implementation of circular economy projects. The proposed deliverables will apply to any organization or group of organizations wishing to implement circular economy projects, such as commercial organizations, public services and not-for-profit organizations.

Excluded:

specification of particular aspects of circular economy already covered by existing TCs, such as eco design, life cycle assessment in ISO/TC 207 Environmental management and sustainable procurement (ISO 20400: 2017 –

For more:

http://ec.europa.eu/environment/international_issues/pdf/g7_workshop_paris_march_2019/Session_3_P1_ISO_Peyrat.pdf

5 ISO/TC 324 sharing economy

Secretariat: JISC (Japan)

Creation date: 2019

Scope

Standardization in the field of sharing economy. Excluded: Technical aspects of information security or risk management guidelines already covered by ISO/IEC JTC 1/SC27 and ISO/TC 262, respectively.

For more:

https://www.jisc.go.jp/international/nwip/tsp276_Sharing_Economy.pdf

6 ISO/IEC JTC1 SC 42 Artificial intelligence

Secretariat: ANSI (U.S.A.)

Creation date: 2017

- Sustainable procurement — Guidance).

Scope

Standardization in the area of Artificial Intelligence

- Serve as the focus and proponent for JTC 1's standardization program on Artificial Intelligence
- Provide guidance to JTC 1, IEC, and ISO committees developing Artificial Intelligence applications

For more: <https://jtc1info.org/technology/artificial-intelligence/>

7 ISO/TC 321 Transaction assurance in E-commerce

Secretariat : SAC (China) twinned with AFNOR (France)

Creation date: 2018

Scope

Standardization in the field of “transaction assurance and upstream/downstream directly related processes in e-commerce”, including the following:

- The assurance of transaction process in e-commerce (including easier access to e-platforms and e-stores);
- The protection of online consumer rights including both prevention of online disputes and resolution process;
- The interoperability and admissibility of commodity quality inspection result in cross-border e-commerce.
- The assurance of e-commerce delivery to the final consumer.

Excluded:

- Management system standards already covered by ISO/TC 176;
- Authenticity, integrity and trust for products and documents standards already covered by ISO/TC 292/WG4;
- Guidelines on consumer warranties and guarantees standards already covered by ISO/PC 303;
- Meta-standards of information interchange standards already covered by ISO/TC 154;
- Cross-border trade of second-hand goods standards already covered by

- ISO/PC 245;
- Brand evaluation standards already covered by ISO/TC 289;
 - Online reputation standards already covered by ISO/TC 290;
 - Financial services standards already covered by ISO/TC 68;
 - Identity management standards already covered by ISO/IEC/JTC 1/SC 27/WG 5;
 - Meta-standards of data management and interchange already covered by ISO/IEC/JTC 1/SC 32;
 - Biometrics standards already covered by ISO/IEC/JTC 1/SC 37;

Since the payment and security of the transaction are very important in e-commerce, the proposed new technical committee will cooperate with ISO/TC 68 (Financial services), ISO/IEC/JTC1/SC 27 (IT Security techniques) and other TC via a liaison membership. If request for developing new standards for e-commerce in those TCs arose, the proposed new TC would work with them to develop the needed standards.”

For more:

https://www.jisc.go.jp/international/nwip/tsp273_Transaction_Assurance_in_E-Commerce.pdf

**... and do not forget to monitor the work and developments in
ISO TC 68 Financial services
(55 published international standards to date, including for mobile
banking)
for more: <https://www.iso.org/committee/49650.html>**

CPTM Smart Partner Initiatives on Leveraging the Value of Data

2018/2020

Seychelles, Cameroon & ISO 2019 Message



Leveraging the Value of Data Dividends, A Smart Partnership focus from Blue Economy on

Moving Forward in Seychelles, July 28, 2019

As a partner with CPTM, we also echo the importance of Leveraging Technology and Data for Socio economic priorities and transformation which will help us achieve our Development goals and targets...In a digital age, being a small developing Country the Seychelles are trying to stay abreast of developments in Technology and making sure the way we deliver our services are innovative, agile and efficient. This equally comes with the need for effective Data management, as Data security remains high on both the locals and International Agendas. Any expertise or knowledge we receive in this area will be valuable. (15th February 2019, HE President Danny Faure, Republic of Seychelles)

Smart Partners at the Library with **Ambassador Barry Faure**, CPTM Director and Secretary of State of Foreign Affairs July 2019, **Dr Michaela Smith**, CPTM Director at Large and **Mr Oliver Oram**, CPTM Networking Member, Chainvaine.



A joint International Seminar is Organised in Seychelles, with the participation of CPTM, Smart Partners among others in February 2020.

Moving forward in Cameroon for Vision 2035

(28/29 May 2019)

1. Review on Visioning from 2018 update

i.e. Standards /Planning/Central Bank/Technology/Statistics/
Securing the state
(See also, Smart Partners Reading Tips)

2. Leveraging the Value of Data-CPTM 2019/2020 programme

2.1 Specific/ requirement for Cameroon- National Data Integrity and Security

Think Tanking interactions with **Prof David Hand**, CPTM Companion, Imperial College, London.

2.2 Smart Partners interaction/Networks on **National Data Asset Management Systems**
CPTM Meeting with **Mr Oliver Oram**, CPTM Member, Chainvaine

3. CPTM Moving Forward 2019/2020



CPTM Smart Partners at the Library on 28-29 May 2019 with Dr Nkobena Boniface Fontem, Professor David Hand, Mr Oliver Oram and Dr Michaela Smith.

2.1 NATIONAL DATA INTEGRITY AND SECURITY

**Professor David Hand (CPTM Companion) Imperial College
28th May 2019**

INTRODUCTION

A National Vision is a nerve centre of its development.
Its success depends on many factors,
critical amongst is National Data integrity and Security

1. Protecting communications

This refers especially to messages, passwords, servers, emails, phone calls, and other electronic communications.

It can be achieved through encryption methods but thought needs to be given to whether the encryption methods are such that the police and security services are able to break the coding – in case of crime or national security issues. Clearly such access should only be given after obtaining appropriate legal mandates.

2. Protecting stored databases

This refers to large databases storing personal details, such as medical records, financial records etc.

Such material can be stored in an encrypted way, and indeed there are methods for processing and analysing encrypted data without decrypting it. However, these may be slow if the databases are large.

3. Data integrity

No large data set is perfect, especially if it describes people. This means that particular care needs to be taken to ensure that the data are not distorted and are as complete as possible.

External monitoring of data quality, of methods, and of the conclusions of any analysis is to be recommended.

4. Bodies concerned with collecting and processing data should be independent of government

This is necessary to ensure that government receives unbiased and non-distorted information, about the economy, society, etc. Ideally, it means that the funding of these bodies must not be under government control. Clearly achieving this requires subtle management.

One way to achieve such independence might be by subcontracting the work to the private sector, but this brings challenges of its own, including guarantees of quality and concerns of

continuity when contractors are changed. Commercial organisation such as Westat and Experian are the sorts of organisations from which advice could be sought.

Today, there are emerging alternatives to Google Internet Services, which could be considered.

5. Further points

Data protection needs to be *holistic*. That means it is necessary to consider all threats, including communication, storage, and staff. For example, in fraud prevention so-called “insider threat” is particularly tough to prevent. This is when an employee, with access to data, uses it in an unauthorised way (e.g. for blackmail, or sells it to a third party).

Considering the increasing importance of data and data analysis to modern societies, all of the above should be viewed as part of larger discussions about how best to take advantage of today’s possibilities. That is, they should be part of a larger *National Data Strategy*.

6. Expertise

Expertise could be identified for Commonwealth countries through CPTM.

2.2

NATIONAL DATA ASSET MANAGEMENT SYSTEMS

Mr Oliver Oram (CPTM Networking Member) Chainvine
29th May 2019

Introduction

A National Vision is a nerve centre of its development. Its success depends on many factors, critical amongst is National Data integrity and Security.

1. Discussions with the Senior Advisor, Office of the President regards to benefits of technology in helping the government manage national assets/ minerals and valuables for the nation of Cameroon
2. In essence, next generation of industrial platforms can address a number of issues through Chianvine's and CPTM such as;
 - data;
 - data integrity;
 - allowing public (government) private organizations manage their assets;
 - assets could be anything from coffee to metals to tobacco;
 - identifying these assets and managing in a correct way;
 - more secure and
 - more efficient ways.
3. A good example could be given/experienced by developing for instance a National Asset management system for the creation of unique certificates around the fishing industry, thus allowing a Government to trace its fish to the very supermarkets that sell it, thereby making them think twice when selling fish that have been fished illegally or unethically (further applications could be related to the management of anti-corruption, taxation, prisons etc.
4. Chainvine works closely with Smart Partners to better understand their process and build apply Technology around their needs, to make it happen in a more secure and an efficient way. Given CPTM discussion, we believe that Chainvine and Cameroon could benefit from an in depth CPTM Workshop/Briefing in this area with CPTM counter parts in Cameroon and Chainvine will be happy to include their CTO also.
5. We also attached; details of Chainvine Briefings [click here to read more](#)



CPTM Smart Partnership Quality Standards Inclusion Initiative

Leveraging the Value of Data through Smart Partnership

Brief and Recommendations

on

“Enhancing the role of National Bureau of Standards in shaping the National Data Strategies for achieving Adaptive Flexibility”



2019 Brief from
CPTM Quality & Standards Inclusion NSBs Network
for DEVCO/ISO General Assembly

Recommendations

In order to expand and integrate the NSBs new strategic role in developing **National Data Strategies, Commonwealth Partnership for Technology Management (CPTM) NSBs Network**, would like to restate their support to the ISO initiative in this context through 2019 Message to the 43rd DEVCO/ISO General Assembly in Cape Town, South Africa, 16-20 Sep 2019. Following are the main recommendations from CPTM NSBs:

- I. **to welcome and contribute** to ISO efforts to improving, understanding and developing new Standards for Emerging Data and Digital Landscape, which is fully supported by the National and CPTM Smart Partners inclusive growth initiatives Networks.
- II. **to engage** with National Governments, Industries and Communities in promoting and sharing the NSBs knowledge about the application of Data technology based on ISO Standards, among others (e.g. Data Asset Management Systems for sustainable national resources and provenance/ supply chain Distributed Ledger Technology (DLT) in trade);
- III. **to continue to articulate** the new strategic role of NSBs in Leveraging National Data Dividends in support of National Visions; **to provide Executive Briefs to Heads of Government, Industry and Community leaders on specific ISO Standards developments in the Data Landscape;**
- IV. **to share their experience** in developing Adaptive Flexibility Framework for National Data Strategies and promoting the engagement in the CPTM Smart Partners Network approach;
- V. **to encourage their support** to ISO Technical Committees through the enabling active participations of NSBs from emerging economies.

On behalf of
CPTM Quality & Standards NSBs Network
Dr Mihaela Y Smith PJN KMN, Chief Executive / Joint Dialogue Convener

September 2019, London



**COUNCIL OF PATRONS & ADVISERS
SMART PARTNERSHIP MOVEMENT**

HE Yoweri Kaguta Museveni
President of Uganda
CPTM Fellow & Companion
Chair, Smart Partnership Movement
Co-Founder CPTM Fellows'
Endowment Fund

HON Tun Dr Mahathir Bin Mohamad
Prime Minister of Malaysia
CPTM Fellow & Companion
Co-Founder CPTM Fellows'
Endowment Fund

SOUTHERN AFRICA DIALOGUES (SAID)
Angola

Botswana (SAID 1997)
Democratic Republic of Congo
Lesotho (Global 2005)
Madagascar
Malawi
Mauritius
Mozambique (Global 2000)
Namibia (SAID 1998)
Seychelles
South Africa (Global 2014/15 deferred)
Swaziland (Global 2003)
Zambia (Global 2008)
Zimbabwe (SAID 1999)

EAST AFRICA DIALOGUES (EAID)

Burundi
Kenya
Rwanda
Tanzania (Global 2013)
Uganda (Global 2009 & 2001)

WEST AFRICA DIALOGUES
Through Ghana

CARIBBEAN DIALOGUES (BID)
Through Barbados
(BID 1999, 1996)

SOUTH EAST ASIA DIALOGUES (LID)
LANGKAWI INTERNATIONAL DIALOGUE
Through Malaysia
(Global 2015 tbc, 2011, 2007, 2004, 2002,
2000, 1999, 1997 1996, 1995)

Dr Mihaela Y. Smith
Joint Dialogue Convener
Smart Partnership Movement

Correspondence Address:
c/o 10 Orange Street
Haymarket
London WC2H 7DQ
United Kingdom
Email: info@cptm.org

11 Sep 2019
Smart Partners Library
London

**Dear CPTM Quality and Standards Inclusion Initiative
Network and all Smart Partners,**

**RE: "Enhancing the role of National Bureau of
Standards in shaping the National Data Strategies for
achieving Adaptive Flexibility
-CPTM 2019 Message for the 43rd DEVCO/ISO General
Meeting in Cape Town, South Africa.**

On behalf of the Core Group of the CPTM Smart Partners
Quality and Standard Network, we would like to forward you
the **2019 CPTM Message**, as a contribution to the
DEVCO/ISO General Assembly forthcoming deliberations.

CPTM NSBs Network was initiated in 2010, as part of an
integrated smart partnership strategy for inclusive and
sustainable growth in developing countries. CPTM was
formerly established in 1995 in New Zealand as a hybrid
cooperative networking organisation, formed of
representatives of fifty Governments in the Commonwealth,
alongside Public/Private Sector International Members and
Networking Professionals from the Commonwealth and
beyond. CPTM Members have a distinct and most impactful
smart partnership approach to development, based on
building and co sharing intellectual equity, in real time
situations. CPTM's networking interventions complement
the traditional Development AID practices. NSBs Network is
interrelated with all the other CPTM Networks, such as
Governors of Central Bank and National Statistics
Organisations (NSOs).

The 2019 Message reemphasises the continuous CPTM's
NSBs Network promotion of the new work areas developed
by ISO, some of which are of particular relevance for the
emerging applications of Data and Digital Technology in
developing countries. Therefore, the main focus of the
message is related to the new areas for standards
development, in which ISO raises awareness and is
supporting capacity building for its Members NSBs.

As such, reference is made to the recent valuable CPTM
NSBs Network contribution to the CPTM Central Bank

-2-

Governors Think Tanking session in July 2019, London. (e.g. in particular, the issues involving NSBs in the development of evidence, policies, decisions and searching for National Data Strategies, as well as in the development of Applications National Assets Data Management (www.cptm.org)

Through the example of Uganda Bureau of Standards (UNBS) the Message also highlights the most valuable contributions forthcoming from emerging economies to the new areas of standards development in the Data and Digital Landscape. UNBS as a full Member looks forward to sharing their unique experience from African region in the work of the Technical Committees ISO/IEC/JTC1/SC42- Artificial intelligence in which they are a full Member.

As in previous years, CPTM NSBs Network through its Message, would like to share their Insights and Recommendations, with DEVCO/ ISO GA on Enhancing the new Strategic role of NSBs for National, Regional and International emerging digital landscape.

Finally, we would like to thank in particular to the CPTM NSBs Networkers from, Uganda National Bureau of Standards i.e. Dr Ben Manyindo, Executive Director and his colleagues, Mr David Eboku and Ms Zainah Tondo, Dr Eve Gadzikwa, Director General & Secretary, Standards Association of Zimbabwe, as well as to Mr Alan Bryden, CPTM Companion, France.

We hope you have most successful deliberations at 43rd DEVCO / ISO in Cape Town, South Africa. We look forward to collaborating with DEVCO/ ISO Members in the forthcoming months.

Best regards to all



Dr Mihaela Y Smith PJN KMN
CPTM Director at Large / Joint Dialogue Convener

Encl: CPTM 2019 Message to 43rd DEVCO/ISO GA



UGANDA NATIONAL BUREAU OF STANDARDS

Should international standardization organizations support their member NSBs to raise awareness and build capacity to follow and contribute to international standards development?

The role of standards in supporting trade, innovation, economic growth and regulation has been demonstrated particularly in developed countries. In developing countries, this is not necessarily true. There are weaknesses in most everything from ethics to infrastructure which could be addressed by deploying standards. ***The impact of the implementation of the global sustainability goals set out by the UN in 2015 is, perhaps more pronounced in developing countries than in their developed counterparts. The principle of “leaving no one behind”, in essence is about not leaving developing countries behind.*** Yet, the use of standards is the lowest in developing countries at all levels be it regulation or supporting trade.

The use of international standards is particularly essential in areas such as clean water, energy, climate change, artificial intelligence and security, where no single country can go on its own. In many cases developing country NSBs make efforts to adopt some international standards, a benefit they get by striving to be members to international standardization organizations. Nevertheless, the implementation of these standards remains low. Among the reasons are limited engagement of the stakeholders who could be aware, participate in the development of and implement these standards. Engaging stakeholders remains the best bet to benefit from the use of standards.

Developing country NSBs have fewer resources to increase awareness and engage their national stakeholders in participation. No wonder the level of participation remains low. Low participation precedes less implementation of the standards and failed benefits to the less developed economies. It is a vicious cycle.

It is imperative to put efforts to reach more stakeholders in developing countries to increase awareness about the benefits of standards, the processes involved in development and how to implement these standards. ***International standards organisations could do well to increase support to their developing country members to alleviate these challenges.***

In Uganda, we have seen that a little effort to engage stakeholders increases their interest in international standards. Sometimes we are surprised to see that we have some experts in fields we thought we did not have. Recent development in artificial intelligence and in the cryptocurrency have been very interesting examples. ***Uganda is now a participating member in ISO/IEC JTC 1/SC 42 - Artificial intelligence and, save for financial resources; we could well be bringing to the table unique experiences from our region.***



CPTM SMART PARTNERS NETWORKS

CPTM FINANCIAL INCLUSION & ADAPTIVE FLEXIBILITY NETWORK

Mr Moses Dinekere Pelaelo, Governor, Bank of **Botswana**; **Mr Cleviston Haynes**, Governor, Central Bank of **Barbados**; **Mr Abbas Mahamat Toll** Governor, Bank of Central African States, **Cameroon**; **Mr Majozi Sithole**, Governor, Central Bank of **Eswatini**; **Dr Ernest Kwamina Yedu Addison**, Governor, Bank of **Ghana**; **Dr Gobind Ganga**, Governor, Bank of **Guyana**; **Dr Ret'selisitsoe Adelaide Matlanyane**, Governor, Central Bank of **Lesotho**; **Dr Patrick Ngugi Njoroge**, Governor, Central Bank of **Kenya**; **Dr Mario Vella**, Governor, Central Bank of **Malta**; **Dr Dalitso Kabambe**, Governor, Reserve Bank of **Malawi**; **Datuk Nor Shamsiah Mohd Yunus** Governor and Chairman Bank Negara **Malaysia**; **Mr Rameswurlall Basant Roi**, Governor, Bank of **Mauritius**; **Mr Rogerio Lucas Zandamela**, Governor, Bank of **Mozambique**; **Mr Ipumbu Shiimi**, Governor, Bank of **Namibia**; **Mr John Rwangombwa**, Governor, National Bank of **Rwanda**; **Ms Caroline Abel**, Governor, Central Bank of **Seychelles**; **Mr Timothy N. J. Antoine C.Dir**, Governor, Eastern Caribbean Central Bank, **St Kitts and Nevis**; **Mr E Lesetja Kganyago**, Governor, **South African Reserve Bank**; **Dr Indrajit Coomaraswamy**, Governor, Central Bank of **Sri Lanka**; **Dr Alvin Hilaire**, Governor, Central Bank of **Trinidad & Tobago**; **Professor Florens Luoga**, Governor, Bank of **Tanzania**; **Professor Emmanuel Tumusiime-Mutebile**, Governor, Bank of **Uganda**; **Mr Mark Carney**, Governor, Bank of **England**; **Dr Denny Kalyalya**, Governor, Bank of **Zambia**; **Mr John Mangudya**, Governor, Reserve Bank of **Zimbabwe**; **Mr Philip Lowe**, Governor, Reserve Bank of **Australia**; **Mr Stephen S. Poloz**, Governor Bank of **Canada**; **Mr Urjit Patel**, Governor Bank of **India**; **Mr Graeme Wheeler**, Governor, Reserve Bank of **New Zealand**; **Dr Kupukile Malmbo**, Deputy Governor, Reserve Bank **Zimbabwe**; **Mr Adam Mugume**, Executive Director, Research & Policy, Bank of **Uganda**; **Dr Caleb Fundanga**, Former Governor at Bank of **Zambia** and CPTM Director; **Mr Mfanfikile Dlamini**, Assistant Governor, Central Bank of **Eswatini**; **Tan Sri Datuk Dr Zeti Akhtar Aziz**, Former Governor, Bank Negara, CPTM Companion, **Malaysia**; **Mr Rundheersing Bheenick**, Former Governor of the Bank of **Mauritius**; **Professor Benno Ndulu**, Former Governor of Bank of **Tanzania**, CPTM Companion; **Ms Lyndsey Pereira-Breton**, Data Visualisation Editor, Bank of **England**; **Ms Cordelia Kafetz**, Head of FinTech Hub, Bank of **England**; **Mr Cristian Niculescu-Marcu**, Head of Microeconomics, Centre for Economics and Business Research, **UK**; **Mr Christophe Petetin**, Data Strategist, Deutsche Bank HCL Co-Innovation Lab, **UK**; **Mr Oliver Thew**, FinTech Accelerator, Bank of **England**, **UK**; **Dr Max Ganado**, Senior Partner at Ganado Advocates, **Malta**; **Professor David Hand OBE**, Senior Research Investigator and Emeritus Professor of Mathematics Imperial College, **UK**;

CPTM QUALITY & STANDARDS INCLUSION NETWORK

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Mr Bernard Nguyo, Acting Managing Director, **Kenya** Bureau of Standards; **Mr Charles Gachahi**, Director, Standards Development & Trade, **Kenya** Bureau of Standards; **Mr. Andy Ally**, CEO, **Seychelles** Bureau of Standards; **Dr Egid B. Mubofu**, General Director, **Tanzania** Bureau of Standards; **Dr Ben Manyindo**, Executive Director, **Uganda** National Bureau of Standards;
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Mr Robert Medford, **Grenada** Bureau of Standards; **Ms Candelle Walcott-Bostwick**, Executive Director (Ag), **Guyana** National Bureau of Standards; **Mr Theodore Reddock**, Ag Executive Director, **Trinidad & Tobago** Bureau of Standards; **Mr Verne Emmanuel** Directors **St Lucia** Bureau of Standards; **Dr Renae Ferguson Bufford**, Director, **Bahamas** Bureau of Standards; **Datuk Fadilah Baharin**, Director General, Department of Standards **Malaysia** (Ministry of Science, Technology & Innovation); **Shri M J Joseph**, Director General Bureau of **Indian** Standards;
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CPTM SCIENCE/TECHNOLOGY & INNOVATION INCLUSION NETWORK

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CPTM NATIONAL VISIONING AND SECURING THE STATE INCLUSION NETWORK

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Mr Carl Miller, Research Director, Centre for the Analysis of Social Media (CASM) at Demos, **UK**;
Mr Norman M Chakanetsa, Executive Director, National Economic Consultative Forum, **Zimbabwe**;
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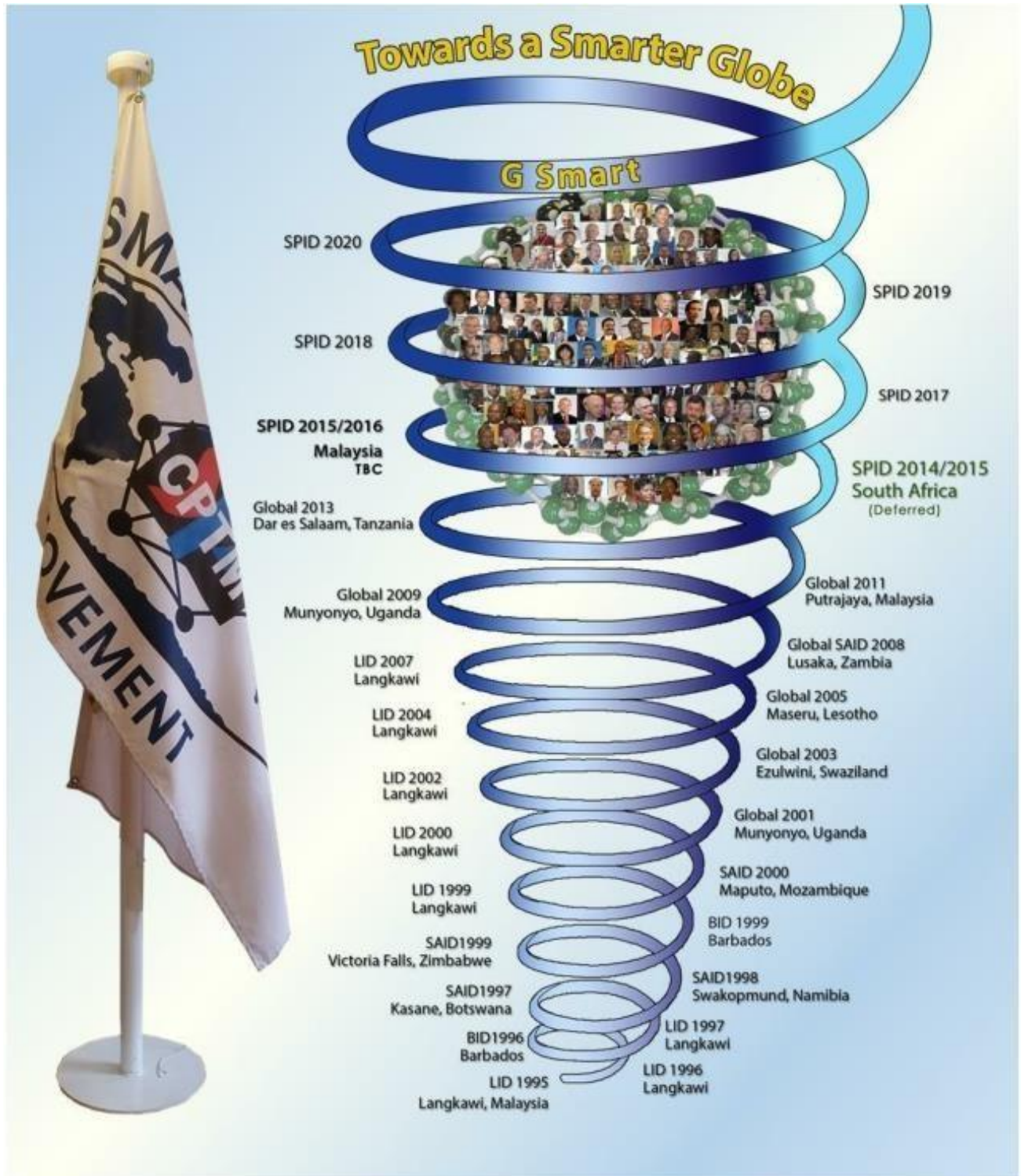
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