Senate Select Committee on Financial Technology and Regulatory Technology
ANSWERS TO QUESTIONS ON NOTICE
Department of Industry, Science, Energy and Resources
Inquiry into Financial Technology and Regulatory Technology
05 March 2021

AGENCY/DEPARTMENT: DEPARTMENT OF INDUSTRY, SCIENCE, ENERGY AND RESOURCES

TOPIC: Patent Box Policy

REFERENCE: Question on Notice (Written Question, 12 March 2021)

QUESTION No.: 4

It appears that in July 2019 in London, the Treasurer indicated that the government would be prepared to look at the UK Patent Box regime. As DISER undertook a review on this in 2015, is there any work on this being undertaken on this DISER, including within IP Australia?

ANSWER

Patent box policies allow companies to pay tax at a rate lower than the company tax rate, on income earned from qualifying intellectual property.

In 2015, the then Department of Industry, Innovation and Science published a report which reviewed the literature on patent box policies and the likely impacts of adopting a patent box in Australia. The report expressed reservations about whether a patent box scheme would produce any substantive benefit to the Australian economy.

Since this report, the Department of Industry, Science, Energy and Resources and IP Australia have continued to monitor international developments and relevant research.

Recent research suggests patent boxes reduce patent ownership transfers out of a country. However, research also indicates there is little evidence that introduction of patent boxes increases patentable inventions or research, and development investment.

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AGENCY/DEPARTMENT: DEPARTMENT OF INDUSTRY, SCIENCE, ENERGY AND RESOURCES

TOPIC: National Blockchain Technology

REFERENCE: Question on Notice (Written Question, 12 March 2021)

QUESTION No.: 5

1. How is implementation of the blockchain roadmap tracked and evaluated? Will it be subject to review?

2. Is information about the activities of the four working groups under the Roadmap made publicly available? How is membership of those groups determined?

3. Can you provide more information on the regulatory technology commercialisation initiative under the digital business plan? When will proposals be invited and how will they be assessed?

4. Can you provide more information on the DISER pilot projects aimed at demonstrating how blockchain can reduce compliance costs mentioned in your second submission? How were these particular areas chosen?

5. Do you have specific examples within the departments? You just mentioned the finance area, but can you tell me that within government we're adopting this sort of technology at a reasonable rate?

6. Further information about our APS Blockchain Network

ANSWER

1. The National Blockchain Steering Committee oversees implementation of Australia's National Blockchain Roadmap (the Roadmap).

   The Roadmap identifies a set of twelve next steps, or signposts, for the future, which guide the Roadmap's implementation. Broadly, these signposts seek to: coordinate efforts to deliver public value; raise awareness of the potential of blockchain through education, skills and use cases; and support the development and adoption of blockchain to enable industry to capture growth opportunities.

   The Department and four working groups established to take forward key aspects of the National Blockchain Roadmap report to the Steering Committee on progress towards the twelve signposts.

   The Steering Committee met every six weeks in 2020, for a total of six meetings, and will meet every six to eight weeks in 2021.

2. The membership and activities of the four working groups are detailed on the Department's website https://www.industry.gov.au/about-us/national-blockchain-roadmap-steering-committee and also outlined in Attachment A.

   Membership of the four working groups was determined through a public expression of interest process conducted in July 2020.

3. The RegTech Commercialisation Initiative will provide up to $10 million to SMEs to develop solutions to regulatory challenges, simplifying regulatory compliance for business, and streamlining government administration.

   The challenges received for this round are expected to open for applications this financial year.

   In selecting successful applications for the feasibility round:
   - AusIndustry reviews the applications against the eligibility criteria;
   - Challenge agencies and the Industry Innovation and Science Australia – Entrepreneurs' Programme Committee assess and rank applications against the assessment criteria, which include:
     - Extent to which the proposed solutions meets the challenge;
     - Market opportunity for the proposed solution; and
     - Capacity, capability and resources to deliver the project;
   - The decision maker approves recommended applications for funding.

   Up to five SMEs per challenge will be provided with grants of up to $100,000, who will work with the challenge agency to develop a feasibility study for their solution.

   SMEs that complete the feasibility study have an opportunity to apply for one of two proof of concept grants available per challenge, which are worth up to $1 million.

4. The Australian Government will provide $6.9 million over two years from 2020-21 to fund two pilots to demonstrate how blockchain technology can reduce regulatory compliance costs and to encourage businesses to take up blockchain technology to boost productivity. The pilots will also increase familiarity with blockchain and its potential more broadly.

   Blockchain can potentially eliminate the need for both regulators and businesses to keep duplicated records, improving the speed and quality of regulatory review processes since data is reconciled on the blockchain rather than on duplicated accounts. As data is shared by design on the blockchain, regulators would not have to collect, store, reconcile and aggregate data themselves, allowing businesses to focus on getting on with business.

   Blockchain can also reduce the cost of compliance procedures through increased speed and automation as well as streamlining payments through blockchain-based smart contracts.

   One pilot will support businesses in the critical minerals industry to digitally transform their compliance and ethical certification processes and reduce their costs of doing business. The second pilot will focus on food provenance.

   The first pilot targets the critical mineral sector as it is an area where Australia has significant comparative advantage and can build greater capacity in Critical Minerals Processing by leveraging our vast natural endowments, huge investments in R&D and proximity to the growing Asian market. Resources Technology and Critical Minerals Processing has been identified as a national manufacturing priority and work in this area will strongly align with Australia's Critical

Minerals Strategy and deliver agreed outcomes under the COAG Energy Council's Critical Minerals Roadmap.

The second pilot will be in food provenance given the increasing challenges of supply chains created by the COVID-19 pandemic. Food and Beverage is also a sector identified as a national manufacturing priority.

5. There are several examples across Federal and State Governments, and regulators of blockchain-based systems being trialled and adopted.

   The Australian Border Force (ABF) is undertaking a blockchain trial with Singapore which is primarily about digitising trade processes. A similar trial was undertaken between New Zealand and Taiwan, which resulted in the Certificate of Origin process being cut from 8 days to 2 hours.

   The South Australian Government, in collaboration with MIT, are undertaking a pilot into blockchain enabled digital currency. This pilot builds on Project Ubin, an international project that began in 2016 in Singapore to explore the use of blockchain technology for the clearing and settlement of payments and securities.

   Reserve Bank of Australia (RBA) has been undertaking trials of a central bank digital currency (CBDC) based on distributed ledger technology (DLT), or more specifically, Ethereum blockchain technology. This system is focused on institutional usage, not retail or individual usage, and is being conducted in partnership with the Commonwealth Bank, the National Australia Bank, Perpetual, and U.S. blockchain firm ConsenSys. The project is predicted to be completed by the end of this year, with a report to be released in 2021.

   IP Australia has been trialling a blockchain based platform called 'Smart Trade Mark' that allows trade mark owners to connect digitally to the government register to prove they are the authentic owner of a brand. This anti-counterfeiting initiative will allow consumers or other interested parties to check whether a website sells genuine branded products.

6. The APS Blockchain Network was developed in response to Signpost 4 of the National Blockchain Roadmap, *"Government to establish and coordinate a group of government blockchain users, with State and Territory government representatives invited to join, to discuss the learnings from existing government use cases, promote and diffuse these learnings across government, and identify further government use cases."*

   The APS Blockchain Network aims to connect, support and promote blockchain enthusiasts and users in the APS. It will build a community of practice within the APS to facilitate discussion about blockchain technology and share lessons learned through regular events such as webinars.

Attachment A: National Blockchain Roadmap Steering Committee and Working Groups

National Blockchain Roadmap Steering Committee Members

- Narelle Luchetti, Chair, Head of our Digital Economy and Technology Division
- Steve Vallas, Deputy Chair, Chief Executive Officer, Blockchain Australia
- Peter Alexander, Chief Digital Officer, Digital Transformation Agency
- Adrianna Belotti, Head of Marketing and Community, Prismatik
- Dr Chris Berg, Co-Director, RMIT Blockchain Innovation Hub
- Katie Ford, Public Sector Data and AI Specialist, Microsoft
- Hannah Glass, Senior Associate, King & Wood Mallesons
- Peter Hiom, Deputy Chief Executive Officer, Australian Stock Exchange
- Leanne Kemp, Chief Executive Officer and Founder, Everledger; Queensland Chief Entrepreneur
- Prof Jason Potts, Director, RMIT Blockchain Innovation Hub
- Dr Mark Staples, Senior Principal Research Scientist, CSIRO Data61

Working groups

Four working groups support the committee to:

- explore the current state of identified use cases, and economic opportunities they present
- identify technical, regulatory or other barriers to adopting blockchain

The Working Groups engage with a number of Government agencies and by Standards Australia, to ensure that cross-cutting issues are reported back to relevant forums.

Supply chains

The Supply Chains Working Group was established in August 2020. The group will investigate the potential for blockchain technology to support trusted supply chains, with an initial focus on the agriculture sector.

Steering Committee Co-chairs:

- Katie Ford
- Dr Mark Staples

Members include:

- Dr Elnaz Irannezhad, Principal Professional Future Transport Systems, Australian Road Research Board

- Laurent Lambert, Blockchain Supply Chain Lead, IBM
- Bridie Ohlsson, Chief Executive Officer, Geora
- Adam Robinson, Manager Industry Engagement (Indigenous Special Projects), Queensland University of Technology, and Founder/Director, IndigiLedger
- Scott Waller, Oceania Assurance Blockchain Leader, Ernst & Young

Key contributors include:

- David Hannam, General Manager Government and International Trade, NSW Business Chamber
- Sam Haouchar, APAC Supply Chain Centre of Excellence Lead, PPG Australia
- Justine Howard, Lecturer, Notre Dame University
- Susan Lindeque, CEO and Founder, Avestix Group
- Nicholas McTaggart, Murinbin Consultancy Pty Ltd
- Shaj Narayanan, Chief Executive Officer, deoblockchain
- Laszlo Peter, Head of Blockchain Services Asia Pacific, KPMG
- Christopher Quinn, Program Manager, Department of Environment, Land, Water and Planning
- Nathalie Taquet, Chief Executive Officer, eBottli

Credentialing

The Credentialing Working Group was established in August 2020. The group will investigate using blockchain to support credentialing in the education sector.

Steering Committee Co-chairs:

- Dr Chris Berg
- Prof Jason Potts

Members include:

- Nick Byrne, Director, TypeHuman
- Katrina Donaghy, Chief Executive Officer, Civic Ledger
- Joelle Hawa, Researcher and Lecturer in Entrepeneurship and Innovation, Adelaide University
- Qinghua Lu, Senior Research Scientist, CSIRO Data61
- Jenny Luca, Head of ICT Innovation and Learning, Camberwell Grammar School

- Christopher Napoli, Director Technology Consulting, Deloitte
- John Phillips, Partner, 460degrees
- Amanda Robinson, Head of Social Innovation, Australian Red Cross
- Stefano Tempesta, Regional Director, Microsoft

Key contributors include:

- Adam Brimo, Chief Executive Officer, OpenLearning
- Aisha Dani, Co-Founder, Sistrv8
- Eoghan Hogan, Director of Product Innovation for Australia, China and New Zealand, Torrens University Australia
- Claudio Lisco, Director of Strategic Initiatives Australia & South-East Asia, ConsenSys
- Alexia Maddox, Lecturer in Communication, Deakin University
- Harris Monos, Senior Consultant, IBM
- Gendry Morales, CEO and Co-Founder, FlightPlan
- James Murray-Beckman, Chief Operating Officer, Digitary

Cybersecurity

The Cybersecurity Working Group was established in October 2020. The group will investigate the potential for blockchain technology to bolster cybersecurity.

Steering Committee Co-chairs:

- Adriana Belotti
- Steve Vallas

Members include:

- Judy Anderson, Government Relations and Advocacy Lead, AustCyber
- Prof Peter Eklund, Strategic Centre for Cybersecurity Research & Innovation, Deakin University
- Aimee Maree Forsstrom, Software Implementation Consultant, Aficionado Tech
- Karin Geraghty, Principal Consultant, Stratdigi
- Mark Hofman, Chief Technical Officer, CyberCX
- Ryan Kris, Associate Director, BDO
- Kaia Myers-Stewart, Co-Founder & Chief Product Officer, 5th Dimension Security

- Kelsie Nabben, Researcher, RMIT
- Katherine Robins, Partner, Cybersecurity, KPMG

Key contributors include:

- Daniel Knight, Partner, K&L Gates
- Sushmita Ruj, Senior Research Scientist, CSIRO Data61
- Dr Jana Schmitz, Technical Advisor, Assurance & Emerging Technologies, CPA Australia
- Tony Surtees, Chairman, Laava
- Stephen Wilson, Managing Director, Lockstep Consulting and Principal Analyst, Constellation Research
- Medhi Zerouali, Co-Founder & Director, Sigma Prime

RegTech

The RegTech Working Group was established in October 2020. The group will investigate the potential for blockchain technology to aid businesses in meeting their regulatory compliance obligations in more secure and efficient ways.

Steering Committee Chair:

- Hannah Glass

Members include:

- Nick Armstrong, Co-Founder and Director, Identitii
- Tim Bass, CEO, Block8 Technologies
- A/Prof Vidy Potdar, Director, Blockchain R&D Lab, Curtin University
- Rebecca Schott-Guppy, CEO, Fintech Australia
- Deborah Young, CEO, RegTech Association

Key contributors include:

- Nick Addison, Developer, ConsenSys
- Michael Bacina, Partner, Financial Services and FinTech Group, Blockchain Group, Piper Alderman
- Simon Cant, Managing Partner, Reinventure
- Karina Honey, ICT Director, Resources Safety and Health Queensland, and PhD Candidate, UQ

- Andy Hutchings Broso, Founder, BC Gateways
- Jenny Leung, Attorney, Ketsal
- Liong Lim, General Counsel & Chief Risk Officer, Grow Super
- Saleem Malik, Sessional Academic and PhD (IT) Candidate, Federation University Australia
- Cindy Nicholson, CEO, SerendipID
- Rob Morris, CEO & Founder, Prismatik
- Joni Pirovich, Special Counsel, Tax, Blockchain & Digital Assets, Mills Oakley
- Dr Philippa Ryan, barrister and senior lecturer, Australian National University College of Law
- Indra Suppiah, Government Relations Lead (APAC), R3

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TOPIC: Rules as Code

REFERENCE: Question on Notice (Written Question, 12 March 2021)

QUESTION No.: 6

CSIRO has provided a range of information to the committee on 'Rules as Code' pilot projects and initiatives. Other submitters, namely QUT Law and LaTrobe LawTech, have called for the establishment of a Commonwealth government innovation hub for the coding of legal rules and a regulatory sandbox to enable the implementation and assessment of results from trial projects.[1] It was emphasised that a coordinated Commonwealth response is required in order to develop Rules as Code initiatives and the encoding of Commonwealth legislation.

- What is the department's role in developing and implementing Commonwealth policy relating to 'Rules as Code' and legal informatics?
- How could such a proposal for an innovation hub be implemented?

ANSWER

The department does not have a formal role in developing and implementing Commonwealth policy relating to 'Rules as Code' or legal informatics. But it does have a role encouraging broader digital innovations and the adoption of digital technologies by Australian businesses to bolster economic growth and job creation. This includes advocating for initiatives that enable regtech like 'Rules as Code' across government. The RegTech Commercialisation Initiative is a key example of where the department has taken a lead role in promoting the role of regtech. This program addresses key barriers highlighted by the regtech sector to increasing regtech innovation, including facilitating engagement between innovative SMEs and regulators.

As the committee notes, implementation of such an initiative would require a coordinated response beyond the role of this department alone. For example, agencies such as the Department of the Prime Minister and Cabinet, Attorney-General's Department and the Digital Transformation Agency have responsibility for coordination, legislation, or government digital service delivery, and may need to be involved in the design of such a proposal.

[1] See Responses to questions on notice, Numbers 53 and 54, at: Additional Documents – Parliament of Australia (aph.gov.au)