Minister of Innovation,
Science and Industry

Ministre de l'Innovation,
des Sciences et de l'Industrie

Mr. Joël Lightbound, M.P.
Chair
Standing Committee on Industry and Technology
House of Commons
Ottawa, Ontario K1A 0A6

Dear Colleague:

Pursuant to House of Commons Standing Order 109, I am pleased to submit on behalf of the Government of Canada (the Government) the response to the fifteenth report by the Standing Committee on Industry and Technology (the Committee) entitled: *Blockchain Technology: Cryptocurrencies and Beyond* (Report).

The Government expresses its appreciation to the members of the Committee for their dedication and valuable work in examining and providing suggestions and recommendations to improve the federal legislative frameworks and policies that apply to blockchain technology. The Government also extends its gratitude to the many witnesses, including representatives of industry, advocacy groups, technology experts, and others who appeared before the Committee. The Committee's analysis, supported by the witnesses' insights, provides an informed perspective and will help shape future policy towards blockchain technology in Canada.

The Government recognizes the transformative potential of digital technologies such as blockchain, artificial intelligence (AI), quantum computing, 5G connectivity, biotechnology and gene editing. The Government is supporting an innovation agenda to leverage Canada's considerable technological expertise in these technologies; foster the growth of digitally enabled solutions, companies, and talent; and cement Canada's position as a world leader in the digital era. Government efforts are being pursued to expand broadband infrastructure, promote digital adoption, foster growth in Canada's digital industries, enhance our regulatory frameworks, and ensure the financial and banking sectors are able to evolve in tandem with innovation. Through these concerted efforts, Canada is poised to create an environment that encourages investment, facilitates growth, and positions the nation at the forefront of technological leadership, all while maintaining robust protections for consumers and the broader society.

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Please find below the Government's response (Response) to the Committee's recommendations. The Response is the product of a collaborative effort among implicated federal departments and agencies including Innovation, Science and Economic Development Canada, Finance Canada and the Privy Council Office. The Government has carefully considered the Report and the following Response addresses each of the Committee's 16 recommendations within three themes: 1) crypto-assets and the financial sector; 2) innovation policies and blockchain technologies; and 3) innovation and excellence in digital economy and marketplace regulation.

Canada's Innovative Approach to Crypto-Assets and the Financial Sector (Recommendations 2, 5, 7, 8, 9, 10, 11, 15 and 16)

Several of the recommendations in the Report relate to crypto-assets and crypto-asset activities. Some of these recommendations are aimed at addressing the risks of crypto-assets (*e.g.*, a campaign to increase public awareness of the risks of crypto-assets), while others seek to clarify Canada's regulatory framework and support innovation in the financial sector (*e.g.*, establish a distinct regulatory approach to stablecoins, promote the establishment of federally regulated crypto-asset custodians).

The Government agrees that blockchain technologies and crypto-assets raise important regulatory and tax issues. In fact, in Budget 2022, the Government announced a legislative review of the financial sector which will address these emerging issues. The review is focused on the digitalization of money and maintaining financial sector stability and security, including looking at digital assets as well as broader questions on how to adapt the financial sector regulatory framework and toolbox to manage new digitalization risks and the potential need for a central bank digital currency in Canada. As such, it will explore several of the questions and recommendations raised in the Report. As noted in Budget 2023, there is a clear need for different orders of government to take an active role in addressing consumer protection gaps and risks to our financial system.

As part of the review, Finance Canada is working with federal financial agencies and provincial securities and prudential regulators to study the ongoing impact of crypto-assets on Canadians and Canada's financial sector. This work includes assessing the risks that crypto-assets pose to Canadians, identifying potential gaps in regulatory coverage, and determining whether further action is required by either federal or provincial authorities. Finance Canada also launched targeted consultations with industry and consumer groups on crypto-assets in fall 2022, and is working closely with international organizations and partners to better understand the sector and potential responses.

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As announced in Budget 2023, the federal government will also launch a review of the *Proceeds of Crime (Money Laundering) and Terrorist Financing Act* (PCMLTFA) this year. On June 6, 2023, to help support this review, the Government of Canada launched a public consultation that examines ways to improve Canada's anti-money laundering and anti-terrorist financing (AML/ATF) regime, which includes sections focused on the risks of virtual currencies and related technologies as well as on federal, provincial, and territorial collaboration. The consultation process and the findings of the upcoming parliamentary review will support the Government's consideration of further actions to strengthen Canada's AML/ATF regime.

The Bank of Canada is also working closely with Finance Canada to assess the potential need for and design of a Canadian Central Bank Digital Currency (CBDC), or digital Canadian dollar, as part of the legislative review of the digitalization of money. No decisions have been made as to whether Canada will issue a CBDC, and any decision to issue a CBDC rests with Parliament and the Government of Canada. A CBDC does not need to be based on blockchain technology, and the Bank's research so far has concluded that blockchain technology does not provide significant benefits over alternative technologies. To inform the decision, the Bank recently conducted a public consultation on a digital Canadian dollar to hear from Canadians what features would be important to them. The Bank received over 85,000 submissions; these responses will be used to inform future work on a potential Canadian CBDC.

The financial sector statutes require legislative amendments coming out of the review to have received Royal Assent by June 30, 2025, which necessarily includes consideration by Parliament. While it is ongoing, the study and recommendations by the Committee will be carefully considered by the Government to inform its next steps.

In addition to the ongoing review, a number of initiatives have already been undertaken that aim to address the risks of crypto-assets and clarify the rules for those operating in the sector in Canada. Some of the measures include:

- **Securities Requirements:** Much of crypto-asset activity falls under securities regimes, and Canadian provincial securities regulators are respected internationally for the strong action they have taken to protect investors in this space;

    - For example, the Canadian Securities Administrators (CSA) require that all crypto-asset trading platforms register with them and comply with various requirements to protect investors, including safe custody and segregation of customer assets, limits on advertising and marketing, restrictions on what assets can be traded, and other requirements. They are also currently developing additional

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guidance on stablecoins and have released alerts for investors, including warning that some crypto websites may use fake regulatory organizations to appear legitimate;

- **Exposure and Capital Requirements:** All federally regulated financial institutions are required by the Office of the Superintendent of Financial Institutions (OSFI) to hold one dollar of capital for every dollar of crypto exposure, unless the crypto-assets meet strict criteria, including that they are not issued on public blockchains. As announced in Budget 2023, OSFI will also be introducing guidelines related to the disclosure of crypto exposures for federally regulated financial institutions and pension plans;

    - All federally regulated financial institutions must also notify OSFI if their exposure to crypto-assets exceeds one percent or if they intend to engage, directly or via a subsidiary, in certain crypto-asset activities. The institution must provide OSFI with any information requested such that OSFI can assess the safety and soundness and risk implications of those activities, and any needed response;

- **Consumer Protection Requirements:** Federally regulated financial institutions looking to develop or offer a crypto-asset must notify the Financial Consumer Agency of Canada (FCAC), provide any relevant information requested by FCAC and comply with existing consumer protection requirements. FCAC has also issued guidance to consumers on the risks of crypto-assets. Institutions must also make clear that crypto-assets are not eligible for deposit insurance under the *Canada Deposit Insurance Corporation Act*;

- **Anti-money laundering and terrorist financing requirements:** All crypto-businesses must register with the Financial Transactions and Reports Analysis Centre of Canada (FINTRAC) as money services businesses and regularly report on large or suspicious transactions in order to aid in the detection and deterrence of money laundering or illicit uses, as well as to comply with various client identification requirements.

All in all, existing initiatives provide a robust base for Canada's approach to crypto-assets and the financial sector, and through the ongoing review the Government is actively looking at what additional actions may be needed, including with respect to many of the issues raised by the Committee.

- In addition, with respect to **GST/HST**, legislative amendments to clarify the GST/HST treatment of crypto-asset mining were included in Bill C-47, *An Act to implement certain provisions of the budget tabled in Parliament on March 28, 2023*, which was adopted by both Houses of Parliament and

which received royal assent on June 22, 2023. Crypto-asset mining (generally the use of computing resources to process transactions of crypto-assets, such as Bitcoin) is a transaction validation and record-keeping service that would normally be subject to GST/HST payable by the recipient of those services. However, in many cases, it is impossible to determine who the recipients are. This makes it impossible for a miner operating in Canada to determine who is liable for GST/HST and what the appropriate tax rate is (e.g., 0% if the recipient were non-resident and anywhere from 5% to 15% if the recipient were in Canada). The amendments provide clarity and compliance relief by generally providing that the miner does not need to collect GST/HST (and conversely cannot claim input tax credits to recover GST/HST paid on inputs) and the unknown recipient is not required to pay GST/HST. The amendments are consistent with the tax treatment provided by other countries, such as the United Kingdom, Germany and Ireland, which have a Value-Added Tax like the GST/HST.

Supporting Technology and Innovation (Recommendations 1, 3, 4, 6, 12, 13 and 14)

Several of the Committee's recommendations pertain to the development of a national blockchain strategy, the use of blockchain technologies in supply chains and in government, and policies to support a national blockchain strategy on the basis that "blockchain is an emerging industry in Canada, with significant long-term economic and job creation opportunities."

The Government generally agrees with the Committee that blockchain—like AI, quantum, 5G and other cutting-edge digital technologies—has transformative potential across many industries, presenting significant opportunities to enhance Canada's economic growth and productivity.

With respect to the recommendation to develop a blockchain strategy, the Government notes that it is already pursuing a holistic, whole-of-government industrial approach to position Canada for ongoing success in digital industries, which includes programs benefitting Canada's blockchain ecosystem:

- **Expanding broadband infrastructure.** Digital adoption requires digital infrastructure, and the Government has made a commitment to connect 100% of Canadians to high-speed internet by 2030. Led by the $3,225-billion Universal Broadband Fund, the Government is supporting broadband projects across the country;

- **Helping small businesses go digital.** The Government is encouraging adoption and deployment of new technologies through the $4-billion Canada Digital Adoption Program (CDAP)—the biggest Canadian investment ever in business digital adoption;

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- **Program funding for digital industries.** Through a suite of innovation programming—including the Strategic Innovation Fund (SIF), Global Innovation Clusters, Industrial Research Assistance Program (IRAP), Innovative Solutions Canada (ISC), and the recently announced Canada Innovation Corporation—the Government is making targeted investments in digital technology projects. This will grow their innovation ecosystems, promote investment in innovation and commercialization, expand their national and global presence, collaborate to deepen their impact, act as a catalyst for skills and talent development, and support the growth and scale-up of Canadian small and medium-sized enterprises in digital technologies. In addition, through the Regional Economic Growth Through Innovation (REGI) program, Canada's Regional Development Agencies (RDAs) are helping to de-risk the adoption of innovative and productivity-enhancing technologies, including blockchain technologies, by firms across multiple sectors that are looking to scale their growth. REGI investments enable these businesses to gain efficiencies, expand capacity and improve competitiveness through increased digital transformation and automation. These investments are also enabling firms in strategic sectors such as fintech to commercialize new products and services and create new value streams by leveraging emerging digital technologies.

Some of these programs have been of direct benefit to Canada's blockchain innovation. For example, the Government of Canada has invested nearly $2 billion in the Global Innovation Clusters to continue to strengthen their ecosystems and position Canada for global markets. The Global Innovation Clusters have funded a number of blockchain-related initiatives pertaining to digital technologies and protein industries and have therefore contributed to blockchain innovation and industry support, as detailed in Table 1.

Table 1—List of Blockchain Projects funded by Canada's Global Innovation Clusters

Project	Cluster	Description	GIC Funding	Total Project Cost
Digital Aircraft Record System (DARS)	Digital Technology	Streamline processes for aircraft maintenance data platform, leveraging blockchain technology.	$2.57M	$6.32M

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Personal Health Wallet	Digital Technology	Blockchain enabled platform to allow patients to securely manage their personal medical information	$0.54M	$1.48M
Automated Risk Management Systems for the Value Chain (Phase 1)	Protein Industries Canada	Focus on AI for grower risk management, traceability enabled by blockchain, and e-commerce.	$8.46M	$31.28M
Automated Risk Management Systems for the Value Chain (Phase 2)	Protein Industries Canada	Smart agronomy, marketing and traceability, and e-commerce platforms that encapsulate traceability and blockchain standards to enable more visibility across the value chain.	$8.54M	$33.57M
Modernizing Agriculture via the Zero Chemical Residue Ecosystem	Protein Industries Canada	Targeted application of chemical pesticides for agriculture, reducing chemical use, with blockchain traceability.	$10.23M	$20.46M
Total			**$30.34M**	**$93.11M**

- **Enhancing protection of Canadian intellectual property.** In 2018, the Government launched an Intellectual Property Strategy to boost patent filings and encourage the commercialization of Canadian R&D. The Strategy is helping Canadian entrepreneurs better understand and protect intellectual property, and gain better access to shared intellectual property. The Strategy initiatives have been complemented by further investments, such as ElevateIP and IP Assist, both funded through Budget 2021, which provide support for strategic IP decision making;

- **Attracting global digital talent.** The Government has launched the Tech Talent Strategy to streamline Canada's ability to attract global talent in technology sectors. This includes cutting wait times and fast-tracking supported groups through existing programs (e.g., Start-up Visa Program; the Global Skills Strategy), as well as the forthcoming Innovation Stream under the International Mobility Program, which lets Canadian employers hire foreign workers without a labour market impact assessment (LMIA). The Government also announced that digital nomads working remotely for an employer outside of Canada can live and work here for up to six months at a time, without needing a work permit.

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Consistent with the Committee's recommendations, the Government has also investigated ways to promote the adoption of blockchain technology in supply chains. Under the auspices of the National Trade Corridor Fund, Transport Canada has set aside up to $50 million for the new Advancing Supply Chain Digitalization call for proposals (Digital call), which closed in April 2023. This round of funding targets projects that will strengthen Canada's digital infrastructure and make Canada's transportation supply chains more efficient and reliable. This is one of many actions being undertaken under the "Advancing Industry-Driven Digitalization of Canada's Supply Chain" initiative, which is focused on developing digital solutions and optimizing Canada's supply chains.

Related to supply chains on an industry-specific level is the $1,125 million Innovative Solutions Canada (ISC) challenge for the creation of a digital tracing system for the steel supply chain, launched in December 2018. The prototype stage of the ISC Steel Tracing Challenge was successfully concluded on April 30, 2022. The technology can provide important visibility into market trends, help Canadian importers validate responsible sourcing, aid border services by automating and digitizing customs procedures, and verify the embedded carbon in individual steel goods.

Moreover, blockchain may offer opportunities with respect to improving public consultations and modernizing democratic institutions. With respect to recommendation 14 to "undertake a study on the new opportunities this technology presents for electronic voting, consultation, and the modernization of our democratic institutions" in collaboration with the Commissioner of Canada Elections, the Government notes that it continues to explore how evolving technologies may open new opportunities and challenges for Canada's democracy. Studies and best practices from other jurisdictions around the world for improving citizen engagement and democratic governance are also monitored and implemented where and as appropriate. Beyond the Government itself, the *Canada Elections Act* provides the Chief Electoral Officer, an independent officer of Parliament, with the authority to carry out studies with respect to alternative voting methods. However, a 2017 report by the House of Commons Special Committee on Electoral Reform recommended that online voting not be implemented at that time owing to increased cyber security risks. The Government has accepted that recommendation and continues to prioritize the confidentiality, secrecy, reliability, and integrity of federal elections in order to further safeguard trust in our democratic institutions.

Regulating the digital economy, AI and overall environment (Recommendations 1, 4, and 6)

Several of the recommendations in the Report refer to measures that could be taken to ensure a regulatory environment that is favourable to blockchain technological innovation and deployment by Canadian businesses. The growth in

blockchain firms and digital industries reinforces the recognition of the importance of consumer trust in doing business in the global environment. Businesses have asked for an updated legislative framework that encourages innovation in sectors such as blockchain while simultaneously providing certainty as to how personal information can be used. Such an approach must be technologically neutral to provide the appropriate flexibility to enable new and unanticipated uses of information that drive growth and benefit society. With these concepts in mind, the Government has introduced Bill C-27, *An Act to enact the Consumer Privacy Protection Act, the Personal Information and Data Protection Tribunal Act and the Artificial Intelligence and Data Act and to make consequential and related amendments to other Acts* (*Digital Charter Implementation Act, 2022* (DCIA)) which, if enacted, would establish new rules that pertain to data governance in the digital sphere to strengthen Canadians' trust in the modern economy. This highlights a major recent initiative where the Government benefitted from stakeholder engagement and that aligns with the Committee's focus on blockchain as an emerging technology, taking into consideration stakeholder expertise given its effect on blockchain ecosystems (relevant to recommendation 4, among others).

If enacted, Part I of the DCIA would enact the *Consumer Privacy Protection Act* (CPPA) which would modernize Canada's federal framework with respect to private sector privacy. The CPPA would create new personal information rights for Canadians, support responsible innovation, and enhance the enforcement powers of the Privacy Commissioner. It would represent the most comprehensive overhaul of Canada's private sector privacy framework since the enactment of the *Personal Information Protection and Electronic Documents Act* (PIPEDA) in 2000.

If enacted, Part III of the DCIA would enact the *Artificial Intelligence and Data Ac*t (AIDA), a framework legislation intended to lay the groundwork for a risk-based regulatory system that will be entrenched through future regulation. The Government intends to build on this framework through an open and transparent regulatory development process, which will set minimum standards for risk management and transparency for firms developing or deploying regulated AI systems.

Blockchain has the potential to enhance certain aspects of privacy and data protection, while potentially hampering others. The blockchain offers both immutability and decentralization of data. Immutability can protect personal information by preventing malicious actors from being able to alter data, making fraud difficult. It can also bridge the "trust gap" in any transaction because it can be used to prove the authenticity of any information in the ledger. The decentralized nature of the ledger means that any malicious actor trying to attack a single node—in the way they could a centralized database—is thwarted by the continual processing and recording of data on the other nodes. These features could help reduce the risk of and harms that result from data breaches, and increase the overall trust of transactions that are based on blockchain.

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On the other hand, immutability presents a challenge for data that is on a retention schedule. Privacy legislation such as PIPEDA mandates that personal information should only be retained as long as is required for the purpose for which it was collected. It also means that individuals are unable to delete or request deletion of any personal data that may be stored on a blockchain, which can be particularly problematic in jurisdictions that have a right to deletion, such as in Europe under the *General Data Protection Regulation* (GDPR) or PIPEDA or the CPPA. This creates a paradox for organizations in that any personal data "on chain" cannot be altered, but individuals simultaneously have the right to change, alter or delete their data at any time. Under the CPPA, there are some exceptions to the requirement to disposal, such as where it is required by law or the terms of a contract, where it triggers an undue adverse impact on the accuracy or integrity of information that is necessary to the ongoing provision of a product or service to the individual in question, and other limited and prescribed circumstances. In those cases, an individual may not be able to avail themselves of the general right to deletion under the CPPA. Given the broad nature and application of blockchain technology, there may be situations that arise where a particular blockchain application may fall under one of the exceptions. However, if such an exception does not apply, the blockchain in question will likely be subject to the general retention and disposal requirements of either PIPEDA or CPPA and a contravention of these could trigger a penalty.

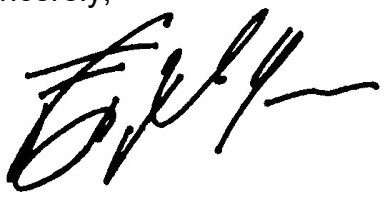
With increasing global demand for more guardrails to protect consumers in the digital economy, important markets beyond Canada's borders have begun to introduce new consumer protection requirements for digital products and services. By aligning with internationally recognized standards, this DCIA would ensure market access for Canadian innovations. If enacted, the DCIA would bring important privacy reforms forward with the CPPA which would likely apply to many aspects of the blockchain industry in Canada while the AIDA would support a common baseline for AI governance among blockchain firms incorporating high-impact AI systems into their offerings. The CPPA retains and builds on the strengths of our existing privacy law; it is principles-based and technology neutral, avoiding overly prescriptive rules and regulations. This will serve to create a regulatory environment that will encourage innovation.

The CPPA also provides a role for co-regulatory mechanisms, such as privacy codes of practice and data portability standards, to ensure that it remains agile and can be adapted to new technologies and new business models. The AIDA will be a key strength of the Canadian regulatory ecosystem, that can bring clarity for required governance practices and stability through measures to maintain consumer trust in digital products and services. This can work as a competitive advantage and ensure that Canadian AI is trusted globally and is an attractive investment destination. Building the future of Canada's AI ecosystem around a vision of trustworthy AI and reliable blockchain systems will position Canadian

firms as purveyors of world-class digital products. These regulatory mechanisms could be helpful for the blockchain and AI industry to help firms innovate while at the same time protecting the fundamental privacy rights of Canadians and protecting consumer trust in their technology overall.

In conclusion, the Government reiterates its appreciation and gratitude to the members of the Committee, witnesses and others who contributed to the valuable work that led to the preparation of the Report. It looks forward to continuing to develop a sound regulatory environment as well as effective digital innovation programs to ensure that Canada's blockchain sector reaches its full potential.

Sincerely,



The Honourable François-Philippe Champagne, P.C., M.P.