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Open Source as Critical Infrastructure

A White Paper by Block, Inc., with input from the Open Source Initiative

Foreword by Deb Bryant,
Interim Executive Director, Open Source Initiative

As the steward of the Open Source Definition, the Open Source Initiative (OSI) has spent over two decades defending the principles that make open source a force for innovation and collaboration. At the time it was written, few could have anticipated how successful and omnipresent open source would become, powering everything from the phones in our pockets to the operations of businesses around the world.

That success stems from its ability to empower everyone to collaborate, build, and share without restrictions — the principle at the heart of the Open Source Definition. Open source gives creators tools to do what they do best, without restrictive licensing and costs. It gives developers the building blocks they need to create software without having to reinvent the wheel or negotiate with the original author.

In short, it democratises access to software and to the tools needed to build it. So when Block reached out to explore a collaboration, the fit was undeniable: Block's mission to democratise financial services echoes the ambition of the OSI to democratise access to software.

Today, open source is coming of age in an era of new challenges, from sustainability to regulation to the uncertainty in the rise of Artificial Intelligence (AI). Overcoming these challenges will be vital to the future success of open source software, and the continuation of the benefits it provides to businesses and individuals globally.

We are delighted that as both a user and developer of open source software, Block has recognised these challenges and stepped up. We are also grateful for their support of the OSI, which enables us to further our educational mission.

This white paper, drawn from Block's experiences, expresses many of the hurdles we have to overcome and proposes a path forward. It is also a call to action for the ecosystem at large. The OSI was glad to provide input and support Block in this effort. We appreciate their curiosity, openness, and initiative, and we hope this will be the first step in a long collaboration to seize the opportunities of open source recognised by both of our organisations.

open source initiative®

Introduction by Manik Surtani, Head of Open Source, Block, Inc.

Economic empowerment means that everyone should be able to participate and thrive in the global economy. In 2009, Square — now part of Block, Inc. — started by enabling anyone with a mobile device to accept card payments, anywhere, anytime, for one flat rate. The ease, speed, and transparency of the process was revolutionary. And Block's technology-forward approach to risk management enabled millions of sellers, who had been unable to accept card payments, to participate in a rapidly advancing digital economy.

Most financial opportunities — like accepting card payments, obtaining a loan, and investing money — first require access to essential tools, services, and institutions. Unfortunately, entire segments of our communities struggle to access financial services because the system itself is not designed to serve them. By embracing open source innovation alongside accessible financial tools, Block helps lower barriers to entry and empowers more people to take part in the global economy.

Block believes that open source software presents an opportunity to build a fairer and more innovative digital economy. Recently, Block announced a collaboration with the Open Source Initiative — the foundation for the open source ecosystem. This relationship brings together Block's real-world experience building open source infrastructure with OSI's deep expertise in open source governance and standards, strengthening the collective voice in ways that help policymakers understand the many opportunities and nuanced needs of open source ecosystems. Strengthening the open source ecosystem will not happen without intentional investment and sustained focus from all who have a direct stake in its health.

With support from OSI as the first step towards raising awareness of the critical role played by open source software in today's technology ecosystem. This white paper and the proposed policy principles it contains, seeks to explain what open source is and how it benefits society and the economy, before detailing effective engagement with the open source community and outlining what regulation must achieve. Block welcomes innovation-friendly and competition-enhancing regulation, and believes that the proposed principles would achieve this and how the economic benefits of open source can compound.

Open source is critical infrastructure which powers our digital world. Let's make sure it's treated as such.

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Open source is the foundation of most modern software

What open source means at Block

Open source is foundational to Block's mission of economic empowerment. We view open source not merely as a development methodology, but as a catalyst for innovation that aligns with our core belief that everyone deserves access to the economy. Open source represents our commitment to transparency, collaboration, and democratizing access to financial tools and infrastructure.

Block's open source philosophy stems from our understanding that the most transformative innovations emerge when barriers to participation are removed. Similar to our tools that improve financial access for underserved communities, our open source initiatives aim to lower the barriers for developers, researchers, and organizations to build upon and improve financial infrastructure. This approach accelerates innovation while ensuring that the benefits of technological advancement are shared rather than restricted.

While not all of Block's products are open source or exclusively built on open source software, we remain deeply committed to supporting and strengthening the open source ecosystem. Like all modern businesses, we recognize that our business success is built upon decades of open source innovation, from foundational internet protocols to programming languages and frameworks. This creates both an opportunity and an obligation to give back to the communities that have enabled our growth. Our contributions span direct code contributions, financial support for critical projects, participation in governance, and advocacy for policies that protect and promote open source development.

Open source at Block is both a strategic advantage and a responsibility. By contributing to and maintaining critical open source projects, we help build the foundational infrastructure that benefits the entire ecosystem. This approach creates network effects that strengthen our products while advancing our mission of economic empowerment on a global scale.

What is open source and how does it benefit everyone?

OSI provides a framework for what open source means. According to OSI, software is considered open source when it is distributed under a license that complies with the Open Source Definition, i.e., a license that grants anyone the rights to use, study, modify, and share without needing further approval from its original authors. These licenses must also meet the ten criteria set by the Open Source Definition, including allowing free redistribution, providing source code, permitting derivative works, and not discriminating against any use case or user, among others. Open source licenses, such as Apache 2.0 and MIT, are particularly well-suited to use cases that support broad reuse, integration, and adaptation of underlying technology with few conditions.

The term 'open source' was coined in 1998, just after the release of the Netscape source code. Since then, some of the best known examples of open source include Linux and Apache at the infrastructure level; Android and Firefox at the consumer level; and components like OpenSSL and Curl.

Open source is proven to benefit everyone in the technological supply chain, from corporations, to SMEs, startups, individual developers, and users.

First, it enables developers from different organisations, and developers without affiliation, to collaborate without friction, with a shared understanding on how their contributions will be used, and ensuring they retain rights to use, share, modify and redistribute the code in the future at no cost, making it easier to build software together.

Second, it enables developers to build software faster, both through collaboration and through the reuse of existing open source code. In fact, open source provides the building blocks for the development of most of the software we use today.

Third, developers can harness the power of their community of users, who regularly report issues, request features, and even submit contributions themselves. This has a lot of upside: when users know a project will benefit them, they are much

more invested in improving it; they also share valuable insight about issues with the code, and features they would like to see implemented, which helps developers shape their project to meet users and customers needs.

Many successful businesses have built their business models around open source where they release products under open source licences while monetizing complementary offerings, or by offering paid technical support, enterprise features, or legal and compliance assurances. This dual approach allows businesses to benefit from the collaborative innovation of open source communities while generating sustainable revenue streams, demonstrating that openness and commercial success are not mutually exclusive. It has been proven many times over that open source can be good for business.

Finally, the open source development process means users, businesses, consumers and individuals have access to reliable, quality software they can use both personally and in their business, without the restrictions and costs of proprietary software. As such, open source helps to democratise technology.

Over the years, open source has enabled the creation of a vibrant software ecosystem of projects led by individuals, communities and companies. In a world where software and technology touch every aspect of our lives, open source, too, is everywhere. Open source's demand-side value has been quantified at $8.8 trillion annually (representing what companies would spend to develop equivalent software internally) against supply-side costs of just $4.15 billion. Based on these figures, a business investment in open source yields an extraordinary return. With 96% of commercial codebases estimated to contain open source components, and 96% of organizations estimated to maintain or increase their open source adoption, open source has become the invisible infrastructure powering the global digital economy.

Open source powers the tools we use every day, serves as the backbone of the internet, and is at the heart of the development of recent innovations such as AI. Open source has also been a driver for progress, giving developers the opportunity to build great things with a lower barrier to entry by building on top of existing code.

Open source and AI: making a choice

The rapid adoption of GenAI in recent years provides a clear example of the choice between open and closed systems. Open source AI — that is, publicly accessible code, models and weights — can be verified for safety, tested for fairness, adapted for local needs, and improved by global collaboration.

Given the speed at which this space is developing, policymakers must remain engaged and closely monitor developments, in order to shape the future of a technology that stands to proliferate across professional and personal lives around the globe.

Open source makes a major contribution to the global economy

Open source is a powerful tool to enhance economic empowerment. Freedom of access and use enables more users to access high quality software code and empowers greater innovation through access to tools. For example, there are open source libraries that simplify complex tasks like cryptography (such as OpenSSL), or tools that speed up software development (from Integrated Development Environments like Visual Studio Code to packaging, containerisation and distribution tools like Docker) without upfront investment. This in turn can lead to reduced costs for consumers of products or services offered by users of OS. The modifiable nature of open source enables greater local innovation by users who are empowered to edit and amend open source to suit specific and sometimes specialised needs. Greater accessibility of open source can also enhance digital literacy and skills development by enabling more experimentation with software code.

How Block and the Open Source Initiative support the open source ecosystem

Block, Inc.

Open source has always played an important role in Block's work. From our use of core open source infrastructure like Linux and Java to our more recent expanded use of open source infrastructures like Kotlin, Python and Kubernetes. For more than a decade, our teams have actively contributed to core open source projects, supported key libraries and infrastructure, and prioritized transparency in our development processes. Block has made many contributions to open source, including its use for financial services applications. For example:

- Square helped build okhttp, an HTTP client for the JVM, Android, and GraalVM. In its essence, okhttp enhances the efficiency of HTTP, the foundation of data communication on the World Wide Web. OkHttp perseveres when the network is troublesome: it silently recovers from common connection problems and can attempt alternate IP addresses (if available) if connections fail. This is sometimes necessary for IPv4+IPv6 and services hosted in redundant data centers.
- Bitkey is the safe, easy way to own and manage bitcoin. It's a mobile app, hardware device, and a set of recovery tools, for simple, secure self-custody. Bitkey is a multisignature wallet that relies on comprehensive recovery tools rather than burdening customers with seed phrases. Bitkey's entire system, including the hardware design, mobile app, firmware, and backend code, is publicly available for anyone to inspect. This means developers and security experts can independently verify how Bitkey works and help identify issues or improve the product. The software is released under a permissive MIT license, which allows free reuse and adaptation. This transparency builds trust and ensures that Bitkey users aren't relying on hidden or proprietary systems to secure their Bitcoin.
- Proto is Block's open source project to make Bitcoin mining more accessible, efficient, and reliable. The Proto Rig is a modular mining machine built to last longer and be easier to fix than most current hardware. The Proto Fleet software helps miners manage their operations, monitor performance, and reduce downtime — all using software tools that are free and open to the public. This allows anyone — from small miners to large operators — to contribute improvements or adapt the tools to their own needs. By sharing its code publicly, Proto encourages collaboration across the Bitcoin mining ecosystem.
- Goose is an interoperable AI agent framework that enables users to connect large language models (LLMs) of their choice to real-world actions. Goose is designed in an open and modular way, also under a permissive license, so that anyone can build a system and start operating it. Goose offers interoperability between user interfaces, language models, and systems.
- Lightning Development Kit (LDK) and Bitcoin Development Kit (BDK) are modular, lightweight libraries that simplify developing Lightning and bitcoin applications such as wallets. Built to cater to a diverse range of use cases, they bridge the gap between bitcoin's complexity and developers' need for ease of use and security.
- Retrofit is a higher-level library built on top of OkHttp. It simplifies the process of interacting with REST APIs by automating the creation of network calls and parsing responses into Java objects. It is widely adopted by the Android community for simplifying network operations.

> In December 2025, Block contributed Goose to the Agentic AI Foundation (AAIF), a new initiative operating under the Linux Foundation's trusted governance model. The AAIF was launched by Block, Anthropic, OpenAI, and other leaders in AI to ensure agentic AI develops as an open, collaborative ecosystem.

Open Source Initiative

Open Source Initiative (OSI) is a global charity that has been at the heart of the open source community for over 25 years, recognized globally as the authority defining open source. Over time, OSI's mission has grown, with an increased focus on community-building, education and advocacy. Open source is facing a coming of age, dealing with regulatory hurdles, a sustainability challenge, and its growing role in software development and infrastructure.

The European Union's (EU) SEP regulation and Cyber Resilience Act prompted OSI to get more involved in policymaking, with a focus on connecting developers with lawmakers to make better laws. Today the OSI's policy work continues, with a mission to support open source projects and communities in the face of this coming of age.

Encouraging greater open source adoption

While open source software has been developed for decades, and open source adoption is high among the software developer community, awareness of open source outside specialised circles has been low. A number of barriers to adoption exist.

Enhancing protection for open source

The distributed and decentralised nature of open source developer communities can expose them to vexatious litigants seeking to benefit financially from the open source community's work. More initiatives are needed that support or protect open source developer communities from targeted litigation that is designed to hinder their operation or the benefits of their work reaching markets. Initiatives like the Cryptocurrency Open Patent Alliance (COPA) can play a key role in this.

The Cryptocurrency Open Patent Alliance (COPA) is a non-profit community of like-minded people and companies formed to encourage the adoption and advancement of cryptocurrency technologies by pooling knowledge and resources through an open approach to patents related to bitcoin innovations. COPA acknowledges that cryptocurrency technology is built on the collective efforts of a community made up of developers, engineers, and designers. The success of bitcoin is a direct result of the community coming together to build and develop upon existing technologies for the benefit of all, and COPA is helping to make this happen.

COPA provides an open patent strategy to address these concerns. Anyone can join and benefit from COPA, regardless of whether they have patents or not. There is no barrier to entry – members can be individuals, start-ups, small companies, or large corporations.

COPA members pledge never to assert their crypto-technology patents, except for defensive reasons, effectively making their patents freely available for good-faith use.

COPA played a key role in COPA v Wright in safeguarding the Bitcoin developer community by bringing the claim against Dr Craig Wright at a time when Dr Wright was advancing numerous claims against any developers in the open source community. COPA's engagement helped increase protection for the open source developer community.

Regulation

Policymakers and regulators have started to engage with open source through regulatory proposals. For example, in the EU, the proposed Cyber Resilience Act and Product Liability Directive sought to introduce cyber security standards on a cross-sectoral basis. These proposals at the time did not suitably consider the open source community, but extensive engagement by the open source community and industry helped achieve better definitions and protection for open source developers.

Outdated processes

Software procurement processes are often structured around proprietary software, making it difficult to introduce open-source alternatives in enterprise or public sector settings. Challenges arise when procurement templates are written with proprietary solutions in mind, or when requirements are defined in ways that are incompatible with open source. In some cases, public authorities explicitly restrict procurement to proprietary ecosystems because of existing software use and compatibility concerns (i.e., vendor lock-in), which can drive up costs.

Tenders may also reference specific proprietary solutions or rely on patent-encumbered standards that open source cannot implement. Such terms effectively exclude open-source suppliers by default. At the same time, the areas where open-source solutions provide the greatest value — such as interoperability, total cost of ownership, reusability, and exit strategies — are often overlooked in the evaluation criteria.

Open source in fintech and payments — introducing open source principles through regulation

Through collaborative development and shared standards, open source creates a more level playing field where both established players and new entrants can innovate. This approach has already transformed many aspects of financial services, from blockchain networks to security protocols.

Misapplication of money transmission rules - non-custodial cryptoassets

When open source developers in the cryptoasset space — such as miners, validators, and non-custodial wallet software creators — are treated as money transmitters, they face regulatory obligations designed for custodial financial institutions. These rules impose costly licensing, compliance, and reporting requirements that are misaligned with the role of open source contributors who never take custody of customer funds. The effect is to discourage individuals and small teams from participating in open source development, raising barriers to entry and limiting the diversity of contributors who sustain the ecosystem. By applying custodial rules to non-custodial actors, regulations risk constraining innovation at the foundational layer of blockchain networks, undermining the very openness that allows these systems to evolve and compete.

Block has advocated for protecting open source developers and non-custodial service providers through its support of the Blockchain Regulatory Certainty Act. This would codify a clear principle: regulatory obligations related to money transmission should apply only to those who have control over customer funds. Although FinCEN clarified this principle in 2019, statutory certainty is needed to protect participants that do not custody customer funds — like software developers, node operators, miners, and wallet providers — who support the network but don't actually control funds.

This legislation would ensure that essential, non-controlling infrastructure can continue to operate without being subject to regulatory frameworks designed for custodial intermediaries.

The BRCA preserves space for open source collaboration, enables innovators, and strengthens the resilience and competitiveness of blockchain networks through supporting open source contributions without fear of regulatory claims. In doing so, it reflects a policy vision that recognizes the unique role of open source in expanding access, fostering interoperability, and ensuring that the next generation of financial technology is built in the open.

It is encouraging to see other jurisdictions recognise the distinction between custodial and non-custodial services. In September 2025, the Australian Government released draft legislation to regulate digital asset platforms. The proposed new framework specifically carves out non-custodial wallet products from regulation, in recognition of the role they play.

The principles and standards of open source extend far beyond the general technology and software development ecosystem. By expanding them to fintech and payments, there are major opportunities not only to enhance financial democratisation, but also to improve the autonomy of domestic payment systems.

Open source is public good — and must be treated as such

The economic and theoretical case for protection

Open source exemplifies the economic definition of a public good as articulated by Nobel laureate Paul Samuelson: it is both non-rivalrous (one developer's use doesn't diminish another's) and effectively non-excludable (anyone can access and use the code). This theoretical classification carries profound economic implications. A 2023 survey suggested that the economic value of open source software is estimated to be 1 to 2 times the cost of its use and around a third of respondents to the same survey estimated that paying for equivalent software functionality would cost 4x the cost of open source software. Another study suggests that the global use of open source software is positively correlated to GDP growth, suggesting that if no country had contributed to open source software, GDP would on average be 2.2% lower in the long term. Like roads, bridges, and public utilities, open source provides foundational value that markets alone cannot adequately provision or protect.

The vulnerability of unprotected commons

The fragility of this critical infrastructure becomes apparent when examining both security incidents and sustainability challenges. The Log4Shell vulnerability in Apache Log4j, discovered in December 2021, demonstrated how a flaw in volunteer-maintained code can cascade globally, with incident response costs averaging over $90,000 per organization and consuming 10-12% of IT security budgets for an entire year. This vulnerability was a flaw in a common software tool called Log4j, which many applications use to keep records of their activity. The flaw meant that if attackers sent certain hidden instructions in text, the system could be tricked into running those instructions. It mattered because Log4j was used almost everywhere, so many organizations had to urgently fix their systems to avoid attackers gaining control. This vulnerability existed in software maintained by a handful of volunteers, highlighting the dangerous asymmetry between open source's economic importance and its resource allocation. In fact, the Harvard study found that just 5% of developers create 95% of open source's economic value, yet most work without compensation or institutional support.

This creates what economists call a "tragedy of the commons" scenario: everyone benefits from open source, but without coordinated protection, the resource faces depletion through maintainer burnout, security vulnerabilities, and project abandonment. The free-rider problem inherent to public goods means that rational economic actors will continue consuming open source value without contributing to its sustainability, necessitating policy intervention.

The policy response: from recognition to protection

Governments are beginning to recognize open source as critical infrastructure requiring active protection. Germany's Sovereign Tech Fund has invested €23.5 million in over 60 open source projects since 2022, with funding increasing from €3.5 million to €17 million annually by 2024, demonstrating how public investment can stabilize essential digital infrastructure. The EU's Cyber Resilience Act, finalized in October 2024, carefully exempts non-commercial open source from compliance burdens while establishing support mechanisms through voluntary security attestation programs, showing how regulation can protect rather than hinder open source development. These initiatives recognize that open source's public good characteristics — its non-excludability, positive externalities, and systemic importance — justify public sector intervention just as governments fund basic research, education, and physical infrastructure. The policy imperative is clear: treating open source as a public good means establishing sustainable funding mechanisms, creating liability frameworks that don't burden volunteers, supporting security audits for critical projects, and ensuring that the $8.8 trillion in annual value creation doesn't collapse due to market failure. Just as society doesn't rely on voluntary contributions to maintain roads or power grids, it cannot leave the digital infrastructure underpinning a significant proportion of the economy to the goodwill of a handful of maintainers.

Regulating open source

Emergence of the 'fourth sector'

Traditionally, post-industrial society comprised of three sectors: 1) the commercial sector, represented by industry and trade associations; 2) the labor sector, represented by trade unions, professional bodies, and guilds; and 3) consumers, represented by non-governmental organisations.

But the emergence of the world wide web in 1989 changed a lot about how our world operates. As identified by the OSI, it created an open culture movement with more, and quicker, novel phenomena: "the gig economy, open knowledge communities like Wikipedia and the Internet Archive, technology giants like Facebook and Google, open software stacks and supply chains and much, much more. The roles people play in this open wave do not fit comfortably into the three post-industrial sectors."

The open source community — a part of the 'fourth sector' — is neither understood, nor represented in today's policy making and regulatory processes.

Create standing advisory groups

Policymakers in different markets take varying approaches to open source today. In the EU, following a difficult start to dialogue between industry and the public sector, policy makers are now increasingly engaging with the open source community through a range of fora.

To make discussions between policy makers and the open source community more efficient, transparent and consistent, Block proposes the creation of standing industry advisory groups to help inform policy discussions.

Precedents exist. The European Commission has a track record of establishing successful advisory fora. The European Commission's 2020-2023 Open Source Software Strategy aimed to enable the Commission to:

- Progress towards digital autonomy of Europe's own, independent digital approach;
- Implement the European Commission Digital Strategy;
- Encourage sharing and reuse of software and applications, as well as data, information and knowledge;
- Contribute to the knowledge society by sharing the Commission's source code; and
- Build a world-class public service;

While many of these objectives were achieved, the Commission's legislative and policy-making strategy has not yet sufficiently accounted for the cross-sectoral nature of open source and the complexity of regulating it as a public good. Now is the right time to create a new advisory group that serves as an expert resource for policymakers considering how to engage with open source.

On November 18th 2025 a group EU Member States and industry representatives published a Joint Declaration on Digital Sovereignty. The Declaration's express support for open source solutions — provided they meet high cyber security standards and are complemented by proprietary technology where appropriate — is a welcome statement on the value of open source to the European economy.

The open source community needs more national and international regulatory strategies for open source.

Open source underpins a vast array of systems and services across the global economy, including in payments, cryptoassets identity, authentication, cybersecurity, and financial data infrastructure. Its appeal lies in openness, interoperability, and rapid innovation.

But as open source becomes increasingly embedded in critical digital and financial infrastructure, international standard setters and domestic policy makers and regulators should consider initiating a structured review of how its development, adoption, and assurance are governed across jurisdictions and domestically.

The growth of emerging and innovative technology can sometimes expose gaps and risks in processes, dependency management, and resilience. The

inherent challenges faced by open source, in the form of reliance on small and informal developer communities for project maintenance, can sometimes result in a mismatch between the importance of a piece of code and the active support projects receive that maintain it.

While recent legislative efforts — such as the EU Cyber Resilience Act, the NIS2 Directive, and the U.S. Executive Order 14028 on improving national cybersecurity — have started to impose obligations on software producers and operators of essential services, they do not yet provide a coherent global framework that simultaneously manages risks and encourages beneficial innovation and investment. Crucially, these instruments often treat open source as either outside scope or as a special case, creating inconsistencies in regulatory treatment and compliance expectations.

In the context of payments, banking, and other regulated activities, this lack of clarity poses challenges for both supervisors and industry. Financial institutions increasingly rely on open source software in core systems, including payment gateways, real-time risk scoring, and fraud analytics, yet may lack the tools or guidance to evaluate the security posture and governance model of their open source dependencies. Without clear expectations or standards, firms may either over-engineer compliance or underinvest in assurance, both of which introduce risk.

Accordingly, we believe that international standard setters — including the Financial Stability Board (FSB), International Organization of Securities Commissions (IOSCO), and bodies hosted by the Bank for International Settlements (BIS) — are well-positioned to coordinate a global review. This process should aim to develop high-level principles to guide proportionate, risk-based supervision of open source software in critical systems, without undermining the openness and flexibility that make open source so valuable. Such a review should also consider mechanisms to support and protect open source maintainers, for example, through public-private assurance schemes, liability safe harbours, or security labelling to ensure that open ecosystems remain robust and sustainable.

The objective of this work is not to regulate open source as a category of technology, but to enable its responsible adoption and to protect its developer community in functions essential to the public interest. Subsequently, or, where appropriate, in parallel, domestic policy makers and regulators need to review regulatory approaches that might be appropriate for national regulatory frameworks.

Regulators and policy makers should facilitate controlled testing environments to learn about open source.

While there's growing policy interest in open source, we still observe policy proposals that misunderstand the nature of open source, particularly its collaborative development model and how regulatory approaches might account for it.

As such, we believe controlled tests (also known as regulatory sandbox tests) can offer a structured way to bridge this knowledge gap, allowing supervised experiments that reveal how potential regulations might impact open source communities and development practices. This evidence-based approach can help deliver policies that support rather than hinder open source innovation.

Controlled tests for regulated activities are not new. The UK's Financial Conduct Authority (FCA) is a recognised leader in this field, having facilitated many closely supervised, controlled tests in a range of novel innovation spaces, from payment services, to cryptoassets, AI and beyond. The FCA's Regulatory Sandbox Guide and its track record of tests provides excellent insights into how controlled testing can yield positive results when done right.

Yet, the nature of open source, including the unique governance and accountability questions it poses due to distributed accountability, contributor structures and varying maintenance and operational models mean that it can be challenging to determine precisely how traditional regulatory models might apply. For this reason, targeted small-scale tests designed to share information and build knowledge and understanding would offer any regulator a wealth of insights.

National regulators and policy makers should consider how controlled testing of open source deployment scenarios, especially in highly regulated environments (e.g. payment services), might be used. We stand ready to assist in the development of such an initiative.

Conclusion

Open source underpins our digital world. It is foundational to innovation, from the resilience of modern infrastructure to the economic empowerment of individuals, businesses, and communities.
Yet for all its contributions, open source remains undervalued in policy discourse — often overlooked, occasionally mischaracterised, and rarely embraced as the critical infrastructure that it is.

This paper has made the case for new ways in which policymakers and regulators can learn more about the power of open source and how it can be supported. Governments, industry, and the open source community must redouble efforts to positively shape this next chapter. Block is committed to supporting that collaboration through continued research, convening, and engagement. We invite all those invested in the future of technology to join us.

Open source is a civic resource and a public good. Let's make sure it's treated like one.

What's next?

Block is focused on the intersection of public policy and open source, and helping unlock even more value for developers, maintainers, and users around the world through our policy work. Please reach out to us at opensource@block.xyz if you have feedback, comments, or ideas.

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A White Paper by Block, Inc., supported by the Open Source Initiative

For more information:
opensource.block.xyz