

Developing blockchain tech? Here's how to fund it

Back in 1991, when Stuart Haber and W. Scott Stornetta began developing a cryptographic technology to reduce the ability to tamper with timestamps on documents, they likely never imagined they were creating the foundation for blockchain technology. Since then, innovation in the blockchain industry has accelerated rapidly—ultimately leading to an explosion of cryptocurrencies and related products and processes into mainstream markets in 2017. In just a few short years, thousands of cryptocurrencies and cryptocurrency platforms have been released boasting a variety of new capabilities—from Bitcoin, to cryptocurrencies with stateof-the-art privacy and security, to cutting-edge trading services and wallet products. While each of these technologies is unique, they all share a common feature: they would never have come to fruition without a significant investment of time, money, innovative thinking and development.



Consider the financial investment alone.



To develop an industrystandard crypto wallet, the average cost is approximately

\$110,000²



while a crypto exchange application can cost as much as

\$480,0003

And that cost only rises if obstacles arise during development—something not uncommon in these still relatively uncharted technological waters. But Canadian tech companies may have a hidden advantage in the form of the Scientific Research and Experimental Development (SR&ED) tax incentive program, which can help minimize the financial risk associated with new technology development.



Did you know?

You can file a SR&ED claim up to 18 months after your fiscal year end—so you may be eligible to receive a tax credit on work from the past 2 fiscal years.

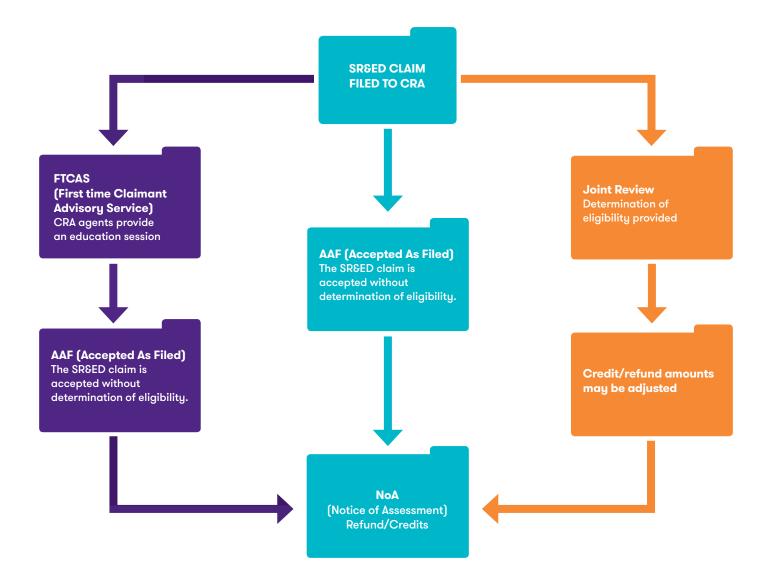
What is the SR&ED program?

The SR&ED program is the largest source of research and development funding in Canada. Administered by the federal government to promote innovation, the program provides eligible companies aiming to achieve technological innovation and advancement with an investment tax credit. Eligible expenditures include salaries/wages for the employees performing the work, and 80 percent of the fees charged by contractors assisting in the project.

Companies that qualify for the SR&ED credits could receive a refund of up to 35 percent of those costs.

To apply for the program, companies need to describe their technological projects to clearly explain how the work meets the SR&ED criteria. The next step would be to calculate the eligible costs incurred during the tax year, the associated refund, and then file the claim when submitting their annual tax return to Canada Revenue Agency (CRA). From there, the CRA will conduct desk reviews,

site visits or full joint science and financial reviews of the claimed work to determine eligibility. If the CRA does visit your site, they will provide feedback on the current SR&ED project(s) being claimed and outline any recommendations for future claims—after which they will issue the notice of assessment and any eligible refunds. Future applications will either be accepted as filed—with no CRA review and all expenditures allowed—or be subject to further technical or financial review by the CRA.



Do you qualify?

To qualify for SR&ED credits, your project must address a technological uncertainty, which is an obstacle or problem that can't be resolved using existing knowledge, industry standard practices or known approaches. A SR&ED project begins at the point where an uncertainty is identified and ends once you have resolved the technological challenges. Don't worry if your project isn't successful, you can still qualify for making failed attempts – it's all in the pursuit of technological advancement.

This opens up a world of possibility for funding in the crypto/blockchain space. For instance, claims can include projects you engage in to develop:

- key storage mechanisms, given limitations around undocumented hardware and communication problems;
- security mechanisms to split key material, given limitations with existing secret sharing schemes; or
- techniques to handle crypto data, given its variability and unreliability (in relation to data feeds, for example).

The very nature of blockchain technology and its myriad of applications means there is a very good chance that many projects could be considered eligible under the SR&ED program. This is good news for companies using blockchain to develop real-world applications in areas ranging from retail, supply chain/logistics and insurance to healthcare, financial services, energy and more.

- ¹ 101 Blockchains, November 3, 2018. "The History of Blockchain Technology: Must Know Timeline," by Swati Goyal. Accessed at https://101blockchains.com/history-of-blockchain-timeline/
- ² ThinkMobiles, "How much does it cost to make an app like Bitcoin Wallet."

 Accessed at https://thinkmobiles.com/blog/how-much-cost-app-like-bitcoin-wallet/
- ³ Existek, July 12, 2017. "How to Build a Cryptocurrency Exchange Application and How Much It Would Cost," by Victor Osetskyi. Accessed at https://medium.com/existek/how-to-build-a-cryptocurrency-exchange-application-and-how-much-it-would-cost-fi-fod/254hf47



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