Momentum

Momentum shares how Velocity propels founders’ potential

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Velocity photography by Suleyman Begenjov and Will Muir.
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Photograph of Vivek Goel courtesy of the University of Waterloo.
Photograph of Mayor Berry Vrbanovic courtesy of the City of Kitchener.
Photograph of Iyinoluwa Aboyeji courtesy of Future Africa. Photograph of Phantom Photonics courtesy of the Institute for Quantum Computing.

Velocity health programming has received financial support from the Government of Canada as part of a $10-million investment, through the Federal Economic Development Agency for Southern Ontario (FedDev Ontario), in the Southwestern Ontario Health Innovation Partnership (SOHIP). Velocity’s leadership in this initiative has been instrumental in creating and fostering a pipeline of aspiring and established health tech entrepreneurs in Southern Ontario.

Data presented are from the 2022-23 fiscal year and investment figures are reported in Canadian dollars (CAD$).
Since its inception, the University of Waterloo has been home to a community that inspires innovation, creativity and curiosity. These attributes have forged an entrepreneurial culture and ecosystem that empowers change-makers to take their ideas and turn them into reality.

Today, student innovators can access for-credit programs alongside resources and support in a collaborative environment of nearly 50 entrepreneurship programs that includes Velocity.

Velocity plays an integral role in the University’s entrepreneurial ecosystem and helps students turn their ideas into actions by connecting them with a founder network, authentic business expertise, product development know-how, access to space to build, and risk-tolerant capital. Velocity’s track record over the past 15 years is extraordinary. More than 400 companies have been incubated through Velocity. Those companies now have a collective enterprise value of $36 billion. Equally as impressive, those companies have created thousands of jobs. Velocity is one of the reasons Waterloo is ranked first in Canada and 21st globally for founders according to PitchBook 2023. These startups are providing solutions to a wide breadth of sectors from using quantum technology to safety proof the future and rapid testing for disease diagnosis to infusing artificial intelligence into educational curriculum to prepare the workforce of tomorrow.

Velocity’s startups and entrepreneurs are not solely focused on technological innovation and profitability. While Waterloo is a technology leader, our change-makers also understand the need for social innovation through advancing ethical and responsible technology to serve the good of humanity. By collaborating with our community partners, ventures founded in our region are making a global impact while staying rooted here.

The sustained success of Velocity is a testament to the ideas and perseverance of countless founders and the support they receive along their journey. The University of Waterloo is a special place because founders have the freedom to build upon their curiosity and ideas. They are able to push the envelope of what is possible and help make the world a better place for all.
At the City of Kitchener, our vision is “building a city for everyone where, together, we take care of the world around us – and each other.”

Berry Vrbanovic
Mayor of Kitchener

Velocity, at the University of Waterloo, is a key community partner that is making this vision become reality. Velocity is fostering innovation and the entrepreneurial spirit that tackles many of the planet’s greatest challenges while making our world a better place for all.

Nearly 15 years ago, you brought this pillar of our regional innovation ecosystem to Downtown Kitchener, allowing more startups and innovators to create and thrive. From the original 1,500 square foot space known as the Velocity Garage to the significant footprint and offering that you have today, we are proud to have you as a partner in driving economic growth for our community. Our partnership and vision with the University of Waterloo, first with the School of Pharmacy and then Velocity, today continues to create more opportunities for our community with the soon-to-be-open, Innovation Arena in Kitchener. The City of Kitchener was proud to support the growing health technology start-up and scaleup ecosystem through our $8.5 million investment in this ground-breaking initiative that will be the new home of Velocity and allow you to streamline commercialization, fast-track entrepreneurs and support the global economy.

I am proud to see the positive impact that Velocity continues to have on our city. You continue to drive innovation by connecting emerging talent and next-generation entrepreneurs with the tools and resources needed to accelerate new ideas and technologies to the marketplace, driving our local, regional and national economies.

To the entrepreneurs who have the courage to tackle many of our greatest challenges, thank you for your dedication and passion for making the world a better place. All of us at the City of Kitchener look forward to celebrating your continued success in the years to come.
The freedom to innovate.

Adrien Côté (BSc ’99)
Executive Director, Velocity

Since the first day I visited Velocity, I’ve remained inspired by the startups working under one roof, determined to make the impossible happen. Startup founders are creative, focused and ambitious people building companies and turning prototypes into products. There’s a freedom to innovate that permeates Velocity. This is driven by the people who have chosen one of the hardest paths to building a career; being an entrepreneur.
Business incubation and acceleration started more than 25 years ago. Supporting startups is an industry now, compared to 2008 when Velocity was founded. Thousands of startup programs now exist globally, each working to help their participant companies gain success. Velocity has eschewed various trends in startup programming preferring to adapt as required as we engage new startups. We feel compelled to get people to the next step as best as possible, no matter what type of business they are pursuing or their envisioned path to business success. We don’t want to limit the possibilities for creative and ambitious people to achieve founder success.

Our world needs more people to be highly effective entrepreneurs. We need more people to challenge the status quo by taking an idea and making it tangible by selling highly desirable services and products that improve the way we manufacture, acquire knowledge, increase the value of assets, care for each other and our planet, and have fun. As founders arrive to Velocity with new ambitions and technologies, we will find new ways to help them beat the odds and create outsized value. This means Velocity will likely look very different five years from now, as it looks very different today than it did in 2008. However, Velocity will always endeavor to be an oasis for committed innovators, where the impossible becomes possible and businesses get off the ground in the best direction as fast as possible.

Momentum is a snippet of what happens at Velocity and it shares how we work to propel the potential of founders we engage. As you read the student and founder stories in this report, be inspired and heartened that our world and economies can change for the better.

Keep building.
Growth: Campus startup teams are increasing.

Capturing opportunity and tackling problems in many sectors. Startups are building solutions for pressing needs in many industries.

Velocity 2023
Recent world firsts

- **Vena Medical** co-founders’ Michael Phillips’ (BASc ’17) and Phillip Cooper’s (BASc ’17) MicroAngioscope™ captures colour video from inside the brain, allowing neurosurgeons at The Ottawa Hospital to diagnose and treat a problem that would otherwise have been undetectable. For the first time ever, a camera can go places in the body that no other camera has seen before.

- **ICSPI**, a nanoscale imaging company, introduces the world’s first automated atomic force microscope (AFM), a tool that can image materials with atomic level resolution (0.000000001 millimetres). By automating AFM imaging, they are dramatically compressing the time to the next breakthrough that could change the course of technological discovery and development.

Capitalizing and merging to grow faster

- **Float** founders Ruslan Nikolaev (BCS ’20), Griffin Keglevich and Rob Khazzam secure a key $50 million financing deal from Silicon Valley Bank, enabling Float to expand its innovative Charge Card program.

- **Evercloak Inc.** to an oversubscribed seed round of $2 million, propelling the commercialization of its groundbreaking technology that radically reduces energy required for commercial and residential air conditioning and dehumidification systems.

- **Tenomix** secures $2 million in an oversubscribed Canadian funding round to advance their cancer care robotics system. The robot uses ultrasound and artificial intelligence to automate the current task of manual lymph node screening and can significantly improve colon cancer staging accuracy.

- **Coastal Carbon** receives $1.6 million in funding to accelerate regenerative seaweed farming and ocean restoration, and scale blue carbon initiatives, all presenting important opportunities in the fight against climate change.

- **Palitronica** develops a system to secure vital components to the critical infrastructure supply chain and has been awarded $1 million in funding from Canada’s National Cybersecurity Consortium (NCC) for the three-year PASCAL project.

- **Focus**

  - Founder Sadegh Raeisi (PhD ’14) of Foqus Technologies Inc. receives funding through the Regional Quantum Initiative to accelerate their quantum-based solution that makes Magnetic Resonance Imaging (MRI) scan times 10 times faster. Their technology also generates higher-resolution images than existing technology allowing for earlier detection of disease.

Click logos to read the full story.

Join our [mailing list](#) to hear more about Velocity founders.
Capitalizing and merging to grow faster

• QS Quacquarelli Symonds, the world’s largest global higher education network acquires the Waterloo-grown startup iMentor Inc. co-founded by Esteban Veintimilla (MBET ’22, BMath ’18). iMentor bridges the gap between industry demands and students’ abilities using artificial intelligence.

Starting local, scaling local

• FluidAI invests more than $25 million to increase & build an automated assembly line in the Waterloo Region. They will create 38 new, good-paying jobs in the process. Co-founders Youssef Helwa (MASC’17), Amr Abdelgawad and Mohamed Okasha are leading the way in medical innovation.

Recognizing value

• Vital Bio unveils a fully validated diagnostics system providing 20-minute blood test results from a desktop sized device, raises $65 million since inception.

• Ceragen, Scribenote and H2nanO expand their footprint and open their own office and lab spaces in the Waterloo region. They join the likes of numerous Velocity founders.

• Landscape Direct grows sales by 40 per cent and expands beyond Canada to the United States market.

• MedMe Health relieves health care pressures during COVID-19 with software that allows pharmacies to schedule, conduct, document and follow-up on pharmacy clinical services. They continue to build on their success after being named a top health innovator to watch by many.

• One of the biggest names in Major League Baseball, Shohei Ohtani, uses the Trajekt Sports Arc as an essential part of his spring training. The revolutionary robotic pitching arm developed by co-founders Joshua Pope (BASc ’19) and Rowan Ferrabee (BASc ‘19) has a home in the Los Angeles Dodgers’ state of the art indoor training facility.

• Making a difference in their respective fields; nine founders of current and alumni Velocity companies are listed in Forbes 30 under 30 for 2024.
Championing the next generation.

I joined the Velocity team almost ten years to the day from when I first joined as co-founder of Voltera (Velocity ‘13). I quickly learned what has changed, what hasn’t and how Velocity’s mission has remained steadfast while operations evolve with the times.

Let me explain.

During the pandemic Velocity had to limit access to its physical spaces. All teams continued working with us and for the first time we accepted ones that were geographically distant and remote-first. What became clear was that being a Velocity founder means being engaged with our two core services: coaching and community. It is what founders want and they are coming to Velocity for it. Even with an uptick in remote teams and the challenges that come with engaging our services remotely, we strive to strike a balance between flexibility and value delivery.

Current founders want to learn from startups zero to 18 months ahead of them and absorb the execution and growth mindset from experienced founders. Community also exists for startups that launched out of Velocity in years past. They are now part of a support system that gives back to the next generation of founders.

Over the last decade, the number of incubators, accelerators and other startup support systems have ballooned and the number of startups and founders has grown in tandem. There’s no direct competition as founders can be part of multiple programs simultaneously. And due to tremendous efforts by Velocity’s team on campus, there has never been a larger cohort of student founders. Overall founders are more knowledgeable and prepared to run a business than ever before.

Society and industry may have influenced Velocity’s evolution over time, but constants remain. Since our first full year of operation in downtown Kitchener back in 2013, we continue to attract the same ratio of hardware and software companies, overall averaging at 52 per cent of pure software teams.

Beyond developing founder skillsets and mindsets needed to build rapidly growing businesses, Velocity continues to help founders overcome the conservatism and failure avoidance that can creep into startup communities and hamper growth. We aim to build founders up when they make tough decisions and cheer them on when they dedicate themselves to building a real business.

I continue to be excited to work with new founders, to motivate and champion them and be a reliable and honest sounding board.
The world has a lot of problems and it’s very easy to be overwhelmed by them. What I’ve learned on this journey is that if you’re a person who continually asks, “Why not” or “Why not me”, that will take you very far because then you become essential to the solution.

University startup incubators are powerful because they’re where entrepreneurs have a certain safety net and a place that gives them freedom to learn from a community of peers and colleagues. That’s important because at the end of the day, a big part of who you become is what you learn from others. At Velocity you see people who you share a lot of similarities with. They are all building something exceptional, which opens your mind to the idea that you can do it too — and maybe even better. That can drive you in ways you might not realize until years later. Being part of a legacy — a location, institution, and incubator — gives you the opportunity to get daily reminders of people who have made a big impact on society.

To have Velocity, a place to grow and build backed by a university that prides itself on entrepreneurship, is not automatic. In fact, it’s rare. I’ve been to many places in the world and a lot of students don’t have the same opportunity. It’s genius that students have this space at a university dedicated to entrepreneurship.
The transformative value of nurturing startups.

Youssef Helwa

Chief Executive Officer and co-founder
FluidAI Medical
Formerly NERv Technology Inc. (Velocity 14)

As one of the original founders within the Velocity science program back in 2015, and subsequently integrating into the Velocity Garage incubator, FluidAI (Formerly NERv Technology) stands as a testament to the transformative value of Velocity’s ecosystem for burgeoning startups.

FluidAI proudly acknowledges its partnership with Velocity, recognizing the pivotal role it has played in our trajectory. Through Velocity’s support, FluidAI successfully secured its first financing through a pre-seed funding round totaling approximately $1.3 million, a milestone that proved instrumental in propelling our growth and development to our stage today.

Since then, FluidAI has been able to secure more than $27 million in financing and significant revenue from deploying hundreds of devices to patients locally and globally. FluidAI’s platform is focused on solutions that enable data-driven solutions for patients.

Central to our journey has been access to Velocity’s and the University of Waterloo’s laboratory facilities. This access has been important in advancing the research and development of our groundbreaking medical device, laying the groundwork for future clinical trials and market implementation across some of the largest clinical institutions.

Beyond financial backing, Velocity provides a nurturing environment that fosters innovation, collaboration and strategic guidance to young companies, all of which are essential elements for navigating the complexities of startup entrepreneurship.
Cultivating patience to move fast.

Alina Pavel (BASc ’21) and Ryan Gallagher (BASc ’21) both say that running a startup takes patience. They are co-founders of Scribenote, a startup that automates documentation for veterinarians, saving them up to two hours a day and allowing them to focus on direct care instead of paperwork.

“Founders need to figure out how to work hard, sustainably, for a long period of time,” said Gallagher, Scribenote’s CEO. “It’s good to be impatient, but the reality is it’s going to take some time before you hit that stride.”

Ryan Gallagher and Alina Pavel having fun at a Velocity 2023 founder dinner.
“The best recipe is really caring about what you are working on and working with people who care equally. That makes it hard to quit.”

But “some time” can mean different things to different people. In Scribenote’s case, since joining Velocity in October 2022, the startup has increased its revenue by a factor of a hundred and tripled its staff. In fact, it has grown so fast that Scribenote is moving to its own space. Not just to grow operations, but to be one step closer to realizing its vision.

“Our 100-year vision is for Scribenote to be embedded into every veterinary clinic and work side-by-side with vets to pioneer our greatest innovation together,” said Pavel, who is chief product officer. “This means working hard but remaining patient.”

It took the founders and their team time and four product launches to get to where they are today: venture capital backed with more than 350,000 transcript automations. And Velocity has been instrumental, the co-founders said.

“Velocity invested in us, both financially and in its commitment to helping us, when no one else did,” Gallagher said. “Entrepreneurship can be lonely, but Velocity makes that easier because you are surrounded by other founders, your peers. And the business support around strategy and encouragement to hit the gas. That has all been critical to Scribenote’s success so far.”

Scribenote sprouted out of Pavel’s and Gallagher’s fourth year nanotechnology engineering design project at the University of Waterloo. At that time, Gallagher had already started working with Velocity on campus on a previous startup.

Both co-founders said that while it’s important to work hard, there is a lot of learning that takes place running a startup. It is a steep learning curve that could throw you off track without endurance and support.

“Odds are you are going to bump into the walls of your idea and skillset. Being a founder requires learning over a long period of time, while doing so aggressively,” Gallagher said. “The best recipe is really caring about what you are working on and working with people who care equally. That makes it hard to quit.”
Student founders build with intent.

Krysta Traianovski (BSc '15, MBET '16), Senior Manager, Velocity science

We believe in students’ potential to drive meaningful change and capture opportunities. Their ideas, regardless of maturity, are seeds for promising ventures. These can rapidly grow into successful businesses.

Waterloo students are eager to build and put their ideas to the test. We see this in their commitment to understanding and defining problems and a hunger to move quickly. Velocity offers students the chance to develop a stronger foundation and community so when they invariably encounter roadblocks, they have the know-how and confidence to continue progressing. Fostering connections between students from all disciplines who contribute to each other’s successes by sharing connections and information is critical.

Being a founder means having a different perspective and starting that journey means more than just expanding knowledge. It’s a personal development process, creation and growth of a network. It’s about acting, owning and exposing your ideas to the real world and having the courage to face, and work through challenges.

Validate and build.

John Dick, Director, Velocity campus
Co-founder, Nicoya (Velocity ’15)

What is consistent about our early-stage founders on campus is how many of them are motivated and ready to do the work to intimately understand their future customers.

And it’s not just undergraduate students that are exploring startups, graduate students, post docs, and faculty are coming to Velocity as well. Specific funding programs such as Up Start are where these researchers can access the resources they need to become business leaders and bring their research-initiated innovation to market.

Considering the depth of insight made through research, these business-building opportunities are massive and can have a big societal impact. By bringing research to market, innovations become accessible to a wider audience beyond academic circles, maximizing their impact and potential benefit.

Through Up Start, Velocity has engaged thirty University of Waterloo research spin outs and has awarded $450,000 since 2023.
Detecting kidneys’ silent shout: NewGen health aims to improve patient outcomes

The kidney is a silent organ with no pain sensors.

According to the World Health Organization (WHO), chronic kidney disease is a worldwide public health problem, but they say it is possible to slow or stop the progression of the disease with early diagnosis and treatment.

This is where NewGen Health comes in, a startup working with Velocity on campus, co-founded by Mazhar Shahen (BASc ’22), a graduate student in the Faculty of Engineering, and Shiv Naik (BSc ’22), research assistant in the Faculty of Science. They are looking to bring a rapid kidney disease testing solution to market.

“Our technology detects the earliest sign of kidney disease using a rapid pee-on-a-stick solution coupled with software, giving doctors instant feedback and monitoring,” said Shahen. “This can also reduce clinical costs and help patients avoid invasive blood-tests and repeated physician visits.”

He said kidney disease diagnostics rely on specialist referrals, invasive diagnostics and multiple health care visits before patients get a treatment plan. But with NewGen Health, the most vulnerable patients are more easily assessed as the technology provides physicians with a reliable, non-invasive tool to accurately detect kidney disease biomarkers on the spot at an in-office visit.

NewGen Health said its solution can reduce diagnostic costs by up to 90 per cent.

The startup looks to continue building on its success to date, which includes filing patents and launching prototypes. They’ve already begun scaling the production process, bringing it a step further to making this solution become reality.

“With a disease that is often unfelt, how can we get patients to comply when tests are invasive and time consuming?” Shahen said. “Later stage kidney disease diagnosis often leads to dialysis, so this type of early detection opens the doors to better disease management and outcomes for the patient.”
You’ve probably benefitted from LiDAR technology without even knowing it.

See a police officer stopping a speeding driver? They’re using LiDAR. Land surveyors for construction sites and mining, they use LiDAR too. Satellites even use LiDAR to detect incoming space debris.

LiDAR, which stands for light detection and ranging, is a sensor that uses low power infrared laser light to continuously scan an environment to create a dynamic real-time representation of surroundings.

Phantom Photonics is making a new kind of LiDAR that is powered by quantum technology, making it more powerful, precise, and invulnerable.

“This is a tool that enhances safety in the world in many ways,” said Alexandra Maierean, graduate student in the Faculty of Math. “For collision prevention in trains, planes and cars, and even on the battlefield, the better the sensors, the safer you are.”

Phantom Photonics was co-founded by Maierean, Research Associate Shihan Sajeed (PhD ’17) and Assistant Professor Thomas Jennewein, both in the Faculty of Science.

Maierean said defense stakeholders are particularly interested in their quantum-enhanced technology because the LiDAR in use today can be easily disabled and is conspicuous.

“Ours can be used in covert operations, can see farther without using more light and has anti-jamming properties,” Maierean said. “But there are so many use cases, including use in autonomous vehicles to avoid collisions and we are working to find the best product-market fit.”

This research started over four years ago and the trio has since received funding and patented the technology. They are deepening the technology’s commercial applications through Up Start, with funding and advisory from Velocity and the Waterloo Commercialization Office.

Maierean knew two things coming to Waterloo four years ago: she wanted to work in quantum physics and wanted to be a startup founder.

“Quantum physics is a nascent field and any innovations that happen now are going to be foundational,” Maierean said. “The potential for what quantum tech can be for societal change is big and I want to be a part of that.”
Eliminating barriers to HPV and cervical cancer testing using nanotechnology.

Cervical cancer caused by human papilloma virus (HPV) is the fourth most common cancer in women globally, and yet some don’t have the opportunity to get screened. The most common way doctors test cell abnormality in the cervix is with a Pap smear, which women may find intimidating or inaccessible.

“No one is fixing this problem, and I’m going to do something about that,” says CT Murphy (BASc ’23), founder of CELLECT, who believes this technology could eliminate the need for Pap smears altogether by adding nanomaterials to menstrual products to diagnose HPV and cervical cancer using menstrual blood.

Through their fourth-year nanotechnology engineering design project turned master’s thesis, Murphy and her fourth-year design group created a method to segregate components of menstrual blood, remove contaminants, and collect relevant biomarkers to diagnose HPV and cervical cancer.

Validating the business and executing a plan is the path through which Murphy’s desire for equal access to cancer screening can become a reality.

“I’m a scientist and an engineer but I want to solve these real-world issues,” says Murphy. “Up Start will push me towards the path I need to succeed with this plan.”

CELLECT has received $33,000 in grant funding and, in just a few months, has determined a way of reducing the business risk to get their product to market and work on their intellectual property process.

Adding the nanomaterial into menstrual products is just the start. “I’d like to engineer a new type of menstrual reciprocal, one that is optimal to collect samples for cancer testing,” Murphy says.
Campus spotlight

Collaboration lays groundwork for new ventures.

Tina Wilton (BA ’17), Campus Entrepreneurship Manager, Velocity

Waterloo students want to understand and solve pressing socioeconomic issues, just as organizations in many sectors are aiming to do as well. Velocity’s innovation challenges offer a low-risk environment for idea exploration with an emphasis on the imperative to go beyond the classroom, lab, and library into the real world to put learning and research to the test.

These industry collaborations are a powerful way for students to rapidly gain insights and feedback to understand how to turn an idea into a promising startup.

An example of this is the recent Agetech Innovation Challenge sponsored by the Centre for Aging + Brain Health Innovation (CABHI) and Baycrest Health Sciences. Students were tasked with developing innovative solutions to improve quality of life for the world’s aging population — and they delivered.

CABHI senior advisory panelist, Adele Ostfield, who served as advisor to challenge participants and a potential user of the solutions, said she was extremely impressed with the work the students accomplished in mere days. She said their creative ideas and solutions, even project names, were all inspiring. Ostfield was comforted to know that her future and that of other older adults lie in these students’ capable hands.
Velocity’s Innovation Challenges run the gamut of problem spaces. From envisioning how emerging technologies might impact personal finance to addressing local and global imperatives for human health and environmental sustainability, participants dig deeper into global issues identified by industry partners. During these challenges they redefine their understanding through research, customer validation, solution ideation and testing. The promise and potential of ideas that emerge is impressive and many teams transform their projects into viable startups. Examples include:

**PlantPal**
Turning the routine task of watering plants into an engaging method to detect early-stage dementia, using regular conversations to assess memory and cognitive function.

**ADAPT**
Building a robot to aid with physiotherapy.

**VeinGuard**
A blood flow monitoring device for hemodialysis patients.

**Embrace**
A software application that connects the community to defend against perinatal depression and other challenges.

2. Health Innovation Challenge winners Elizabeth Agyei and Sophia Badakhsh of team Embrace speak with other students at a Cornerstone session Spring 2023.
3. 2023 Health Innovation Challenge recipient presentation. (L–R) Dr. Vivek Goel, president and vice-chancellor of University of Waterloo, Elizabeth Agyei, Sophia Badakhsh of team Embrace, Mayor Berry Vrbanovic, Paul McIntyre Royston (PMR) president & CEO of Grand River Hospital Foundation.
Parisa Sadatmousavi (PhD ‘14)
Product Development and Biosafety Manager, Velocity

Unblocking technology commercialization.

Many founders come to Velocity aiming to turn highly innovative technologies into products. Transforming a prototype or research into items people buy is very complex work. It is simpler when you can engage people who have commercialized before or who are embarking on the same journey, and you can learn from each other. However, it’s impossible without facilities and access to technical expertise and resources.

Over the years, as part of a comprehensive framework that encompasses mentorship and a suite of resources, Velocity has intentionally grown and outfitted its physical product development spaces. These are workshops, labs and assembly areas that are operated and housed by Velocity to enable and accelerate productization. Our new home at the Innovation Arena is leveled-up: it includes 1,800 sq. metres of purpose-built product development space, expanding our ability to streamline technology commercialization.

Velocity’s product development spaces are a complement to the highly specialized academic labs on campus. Velocity spaces are interdisciplinary by necessity as almost all physical products integrate technology from several disciplines. By creating a facility designed to develop physical products, Velocity is offering a critical resource to streamline turning prototypes from students and research into boxed products ready to be shipped to early customers. At the University of Waterloo one can traverse the full lifecycle of innovation: from idea to initial sales.
Ruslan Nikolaev (BCS ’20) and Griffin Keglevich, co-founders of Float (Velocity ’19), have an intrinsic drive to innovate. Learning the method to achieve their success came along the way. This includes what they learned at Velocity after joining in 2019 to work on a company related to computer vision before starting to work on the idea that would become Float.

“Three weeks in at Velocity we started being more honest with each other that we need to build a business that solves a customer problem, our original idea wasn’t going to work,” Nikolaev said.

Float is a full-suite corporate expense management software and expense card. The startup serves over 3,000 corporate clients who have up to 500 staff, helping finance teams save time and money. Their customers include notable brands like online bank Neo Financial and underwear retailer Knix.

Recognizing the need to balance building a business and a product, they recruited Rob Khazzam, the leader behind Uber’s launch in eastern Europe and former general manager of Uber Canada, who saw the company’s vision and potential as clearly as they did.

The startup has raised over $80 million.

Expense management is not a venture Nikolaev and Keglevich set out to build. Nor did they anticipate spending the first months at Velocity setting aside their technical acumen to spend time on customer discovery. But that is how Float was born.

Nikolaev and Keglevich met during their undergraduate studies at the University of Waterloo. They bonded through their similarities in thinking and work ethic, and explored the path of entrepreneurship through pitch competitions, hackathons and projects. They soon realized their passion to make a difference through entrepreneurship could only be partially satiated by competitions and positive collaboration.

They wanted to build a business.

“My impression of Velocity was that it is the place to go when you want to start a company,” Keglevich said. “Many have that idealism and cool ideas to work on, but a startup has to give tangible value to the world and that’s what we learned from Velocity. How to validate a problem, figure out how you’re actually going to solve it, and then solve it.”
Reshaping pathways to capital.

Moazam Khan (BSc '16, MBET '17)
Director, Velocity health
Co-founder, Curiato (Velocity '15)
Securing capital is increasingly challenging for founders, especially in the early, pre-seed stages of a company’s growth. Investors, whether venture capital or angels, now often demand proof of traction right from the start rather than investing just based on the team and the quality of the business idea. This shift has placed significant pressure on founders, who must demonstrate — without funding — their business idea’s viability through intellectual property development, technology development milestones, clinical trial work, customer engagement and sales — even more so in health and deep tech sectors known for lengthy research and development and sales cycles.

At Velocity, we understand these challenges intimately. We are dedicated to founder success during these crucial early stages and our programming and partnerships are engineered to reflect that. Our comprehensive support system includes a robust partnership network to help validate ideas, gain market insights, navigate fundraising, kick-start commercialization, and expand intellectual property portfolios.

By developing a support ecosystem that helps to validate business and technology, coupled with programming that instills the entrepreneurial mindset, we are looking to shift the early stage investment landscape in Canada to compete with the rest of the world. Consider the health technology sector, a highly regulated field with extensive sales cycles. With Velocity’s support in 2023, over 40 early-stage health companies collectively raised $70 million in capital and achieved $36 million in sales, while expanding their IP and creating new jobs. Our commitment to foundational validation support has enabled founders to gain this momentum.

Partnering to foster a pan-Canadian ecosystem to rapidly commercialize new health technologies. In March 2023, Velocity deepens resources in the health sector announcing partnerships with Grand River Hospital Foundation, the Accelerating Clinical Trials Consortium at McMaster University, the IMPACT program at the University of Calgary, the Medical Innovation Xchange, the University of Western Ontario and the MaRS Discovery District.
The importance of mentorship.

When Sukh Singh (BASc ’12) and Harleen Kaur joined Velocity, they had a solid idea, the software to back it and customer validation.

Amassing more than half a million downloads, their first product showed verified, real-time photos and videos from anywhere in the world. But users were really drawn to the real-time updates of news happening around the world.

“People were seeing updates on news stories that they weren’t seeing in mainstream media and, unlike social media, our technology made on-the-ground news verifiable,” said Kaur, who is CEO. “People are looking to make sense out of what’s happening in the world and better understand international news.”

Today, Ground News is a news aggregation platform that aims to improve access to news and temper polarizing perspectives. The direct-to-consumer app has tens of thousands of subscribers across the U.S., Canada and the U.K.

Kaur and Singh had this deep understanding of what the end user wanted. At Velocity they were pushed to think about how to monetize that sustainably.

“He said discussions with mentors and advisors around monetization were difficult but came from a place of them wanting to see Ground News succeed. The team participated in specific business-to-consumer startup roundtables and had discussions with other startups selling directly to consumers.

“This camaraderie and mentorship became invaluable to Ground News,” Singh said. “We understand that what subscribers are willing to pay for is under our control: the end product that the user interacts with. And that is ultimately how misinformation can be dispelled.”

Kaur adds that right now the onus to verify news content is on readers, especially on social media.

“One of the problems with our original idea was how to monetize it,” said Singh, who is CTO. “We met with major news outlets like CNN in Atlanta and CBC here in Canada. They were interested in our tech but selling business-to-business didn’t work out. Deciding to sell direct-to-consumer is.”

“There’s so much noise in the news and high emotions. Sometimes you don’t know what to believe,” Kaur said. “Ground News verifies news and makes it understandable.”
Harleen Kaur and Sukh Singh (BASc ’12) of Ground News