

HALIFAX

P.O. Box 1749
Halifax, Nova Scotia
B3J 3A5 Canada

Item No. 15.1.2
Halifax Regional Council
October 5, 2021

TO: Mayor Savage and Members of Halifax Regional Council

SUBMITTED BY:

Original Signed by 

Jacques Dubé, Chief Administrative Officer

DATE: September 1, 2021

SUBJECT: **Resourcing the Halifax Civic Innovation Outpost**

ORIGIN

Staff initiated report.

LEGISLATIVE AUTHORITY

The Halifax Regional Municipality Charter 2008, c. 39, s. 2:

The purpose of this Act is to (a) give broad authority to the Council, including broad authority to pass by-laws, and respect its right to govern the Municipality in whatever ways the Council considers appropriate within the jurisdiction given to it; (b) enhance the ability of the Council to respond to present and future issues in the Municipality; and (c) recognize the purposes of the Municipality set out in Section 7A.

Under Section 71, Business and industrial development, the Municipality may:

- (a) solicit and encourage the establishment and development of new, and the establishment, development and expansion of existing institutions, industries and businesses in and around the Municipality;
- (b) publicize the advantages of the Municipality or any part of the Municipality and the surrounding areas as a location for the establishment and expansion of institutions, industries and businesses;
- (c) pay grants to a body corporate for the purpose of promoting the Municipality or any part of the Municipality and the surrounding areas as a location for institutions, industries and businesses;
- (d) prepare and disseminate information about the Municipality or any part of the Municipality and the surrounding areas for the assistance of institutions, industries and businesses intending to locate or expand in the Municipality or the surrounding area.

RECOMMENDATION ON PAGE 2

RECOMMENDATION

It is recommended that Halifax Regional Council:

1. Direct the CAO, through the annual budgeting process, to include \$260,715 (net HST included) for each of the 2022/23 and 2023/24 fiscal years to fund, through the Halifax Partnership, the Halifax Civic Innovation Outpost; and,
2. Direct the Halifax Partnership to report its Outpost activities in its quarterly updates to Council (in fulfilment of the HRM-Halifax Partnership Services Agreement).

BACKGROUND

Halifax Civic Innovation Outpost Mandate

The [Halifax Civic Innovation Outpost](#) is a joint initiative between HRM and the Halifax Partnership (Partnership) and is intended to: broaden opportunities for start-ups and scale-ups to develop their products and services through increased understanding of municipal and community needs; leverage municipal and community interests to beta test products and services; address complex social issues; and, improve HRM service delivery. The Outpost opened at Volta in downtown Halifax in November 2020.

Volta Mandate

[Volta](#) opened in 2013 and is Canada's East Coast Innovation Hub where early-stage technology companies have access to furnished office space, peer mentorship and customized support. Its 60,000 square foot facility is a mixture of startup offices, meeting rooms, event spaces, and a lounge. Volta is a non-profit created by founders for founders. Its focus is on building a community where entrepreneurs can come together to learn from each other, grow their companies, and expand to new markets. Volta's more-than-500 Network Members have access to the organization's events, networking opportunities, and co-working space. Volta's "resident members" have dedicated office space and business services to help grow their businesses.

Timeline

- 2012 – The Nova Scotia Commission on Building Our New Economy proposes 19 "stretch" goals to grow Nova Scotia's economy. This includes creating 4,200 new business start-ups per year by 2024, a 50% increase over the 10-year average at the time. The goal reflects the importance of startups in helping drive productivity, trade, innovation, and value-added production.
- 2018 – The Halifax Partnership begins receiving \$2.5M over three years from the NS Department of Business to establish, strengthen, and market the "Halifax Innovation District" – Halifax's research and technology assets. The Partnership hires a Vice President of Innovation and begins facilitating links between out-of-province companies and local research companies and post-secondary institutions; developing related investment attraction materials; and, working with companies to beta test their products and services with Halifax Partnership investors.
- 2018 – Province of Nova Scotia establishes its own Innovation Outpost at Volta where Service Nova Scotia and other provincial employees can work with companies to develop new digital platforms to deliver provincial programs and services.
- 2019 – HRM provides the Halifax Partnership with \$125,000 in 2019/20 and \$250,000 in 2020/21 to support the Halifax Civic Innovation Outpost at Volta. The Outpost opens its doors in November.
- 2021 – HRM provides the Halifax Partnership with \$250,000 in 2021/22 to support the Halifax Civic Innovation Outpost at Volta.

DISCUSSION

Partnerships between municipal governments and local start-ups can be mutually beneficial – they can put new companies on a path to profitability by enabling the prototyping and initial sale of products and services to government, while reducing municipalities' costs and improving their service through the piloting of new technologies and methods, and the onboarding of new skills.

The Innovation Outpost is a forum and physical space for: HRM staff to speak with and educate start-ups about technology requirements for cities; identify opportunities for start-ups to leverage city assets for alpha and beta testing new technologies; advance the role of innovation within the municipality and HRM as an organization, and, develop new ways for HRM to work with startups and community partners to address social issues in the pursuit of a more livable, inclusive, and sustainable municipality.

The Halifax Civic Innovation Outpost, housed at Volta, Canada's east coast innovation hub, is a joint initiative between HRM and the Halifax Partnership, with funding support from Nova Scotia Department of Inclusive Economic Growth. Housed at Volta, Canada's east coast innovation hub, the Halifax Innovation Outpost aims to:

1. Address social, civic, and environmental challenges in the pursuit of a more livable, inclusive, sustainable, and innovative city.
2. Support the growth of startups and scaleups by helping founders pilot, evolve, and bring products and services to market through the City as a Living Lab initiative.
3. Advance the role of innovation within our city and municipal government

Highlights from the Past Year

In December 2020, Government Relations and External Affairs assumed HRM oversight of the Outpost (from Finance and ICT). Since then, the Outpost has been focused on completing a food security solutions prototyping sub-project, a HalifACT engagement and related solutions prototyping sub-project, and, connecting startups and scaleups to opportunities to beta test and refine products and services in the municipality.

Food Security Innovation Initiative

Food security is a pressing social issue in Halifax and an HRM priority. There are community-based organizations with ideas to address food security. They are well-connected to the people they serve but are not able to test their ideas.

In December 2020, the Outpost partnered with consulting firm Davis Pier to support community organizations to develop and test prototypes to improve food security in the Halifax Regional Municipality. The project team that includes the Halifax Partnership, Davis Pier, and the municipality's Government Relations and External Affairs unit. Its purpose is to design and support solutions that disrupt the status quo within organizations serving their communities. Through a call for submissions, 51 organizations and individuals expressed an interest to be involved.

In February, the team partnered with four organizations who had ideas to improve food security. The partners represented variation in cultures, food security topics, and barriers to innovation. Davies Pier and the team offered its time, networks, and a combination of skills including facilitation, design, research, prototyping, evaluation, and business development to advance these organizations' ideas into tangible concepts and functioning prototypes. Four ideas were developed:

- ***Akoma drive-by garden stand.*** Community gardens play an important role in connecting food security, history, culture, self-sufficiency, and active living for Black communities in the Preston area. [Akoma](#),

which owns the former Nova Scotia Home for Coloured Children lands along Highway 7 in Westphal, intends to use a kiosk it purchased with the [Black Business Initiative](#) to implement a drive-by garden stand and youth gardening and entrepreneurship program. The team supported Akoma in planning and facilitating discussions with nine community initiatives working towards similar goals and developed a summary booklet to engage additional organizations. Akoma is now partnering with Tribe Network, a BIPOC-focused online platform, to collaborate and share resources and information as a network.

- **Hope Blooms Electronic “Pay it Forward” System.** The Outpost worked with [Hope Blooms](#) in the north end of Halifax to develop a digital payment prototype for shoppers at a community market for users to make donations, volunteer, and receive support in a dignified manner. The team also co-developed a functioning system for the initiative that began in June while the app is being developed.
- **Mealful affordable meal service for students.** [Mealful](#) is a Halifax-based startup intending to offer an affordable and digitally-enabled meal service for students that uses catering prices at restaurants and delivery hubs. The Outpost provided advice on the model and funded and supported a small-scale prototype of the Mealful service. After the prototype ended in late June, Mealful worked with Volta to complete detailed business planning based on lessons learned.
- **Mobile Food Market and Partners’ Food Hub.** The [Mobile Food Market](#) is partnering with [Farmers Markets NS](#), and [Nourish NS](#) to explore the idea of creating a collaborative local food hub with centralized infrastructure and resources to support the storage, processing and distribution of local food to meet the regional need. The Outpost facilitated conversations between these organizations to create a concept model which could be used to seek other partners, funders, opportunities and needs to evolve the concept and build capacity. Partners are using the concept to share with potential stakeholders to bring diverse interest to the tables, continue the conversation, and plan for next steps.

The project team ensured that participants are also connected to HRM and the Halifax Food Policy Alliance’s development of [JustFOOD: an action plan for the Halifax Region](#). JustFOOD is centered on food justice and working together towards a region where no one is hungry, where food and people are celebrated, and our local food system is prosperous and sustainable. Pilot results are informing JustFOOD’s development.

The Food Security Innovation Initiative demonstrated that there is demand and need in the community for innovation support; ideas are plentiful, but they are at different stages and require different supports. It also revealed how such an experimenting and prototyping initiative can complement broader and longer-term food security planning.

HalifACT and Climate Change Adaptation Projects

Climate change is an urgent, complex and global crisis. Its long timeline, globally dispersed impacts, and the level of societal and systems change required make it challenging to rapidly transition to a low carbon future. [HalifACT: Acting on Climate Together](#) is HRM’s long-term climate change plan to reduce emissions and help communities adapt. Adopted by Regional Council in June 2020, the plan guides efforts to make the Halifax Regional Municipality a net carbon neutral organization by 2030, and Halifax net carbon neutral by 2050.

HRM and its partners understand that complex problems require strategy in action – learning by doing. Operationally, this means creating a space in which prototyping can take precedence over planning. Prototyping is about trial and error, and creating, testing, and improving prototypes until they work. In late 2020, with the active involvement of the Partnership and HRM’s Environment & Climate Change, Corporate Communications, and GREA Unit, the Outpost engaged two local-area consultants to:

- prototype how to tell climate action stories in a way that drives emission reduction and carbon footprint consideration in the general public;

- launch two or three climate action teams to develop and prototype action projects aimed at building our climate resilience while reducing Halifax's greenhouse emissions; and,
- collaborate with HRM's Corporate Communications team to help municipal leaders and citizen activists engage communities to act.

Activities to date include:

- **Gigatonne Challenge.** The Outpost is partnering with Complexity University to offer the Gigatonne Challenge, an intensive, advanced-learning program building practical skills to tackle the climate crisis. In the two-week session that started in early April 2021, municipal staff from Government Relations and External Affairs (GREA), Environment & Climate Change, Solid Waste Resources, and Parks & Recreation worked with representatives from the Province of Nova Scotia, Nova Scotia Power, Dalhousie University, Halifax Water, Ecology Action Centre, Clean Foundation and others to learn the collective impact approach to problem-solving and to develop and test solutions in the areas of electric vehicles and e-mobility, climate change leadership, and climate adaptation. The April 2021 Gigatonne Challenge generated local prototypes to address climate change, one of which was Storm Kits for Newcomers. HRM and the Public Libraries are developing storm kits for newcomer families to HRM to help them better understand and prepare for severe winter storms. Ten newcomer families at three libraries were engaged. The intention is to include translated materials in the kits with additional community information, and to scale up production and distribution of these customized kits.

A team of 17 climate leaders worked through the Gigatonne Challenge program in August 2020.

- **HalifACT Climate Action Hackathon.** From March 19 to 21, 2021, Dalhousie University's [Shiftkey Labs](#) ran a hackathon to find sustainable solutions to reducing climate change. Ten proposed solutions were pitched. The top three winners were:
 1. Ecommunity - a gaming app that drives and rewards tangible actions and creates contagious friendly competition;
 2. ChangeNode - an app that enables individuals and groups to rent privately-owned electric vehicle charging stations (picture the Airbnb or home charging stations); and,
 3. Project Spotlight - an online dashboard and community meeting place for organizations to track their progress against goals and share in discussion groups.

The project team is determining how to test and advance these and other solutions developed through the hackathon.

- **Green Delivery Service.** This project supported the prototyping process of three Halifax-based startups while at the same time supporting local retailers, encouraging Halifax residents to buy local, and reducing carbon emissions. During the one-month pilot between November and December 2020, local delivery startups Haligone and Kangaroo used electric vehicles supplied by startup All EV Canada. Haligone delivered non-perishable products for up to 25 retailers while Kangaroo provided independent restaurants and customers in rural areas of the municipality with a platform for food delivery. Delivery and electric vehicle rental costs were covered for the duration of the pilot. Haligone has since quadrupled the size of its business which the owner attributes to the pilot. The organization has gone from having two drivers, the owner and business partner, to now employing 12 drivers.
- **Climate Action Charter.** With HRM's Environment & Climate Change Unit, the Outpost is developing a Climate Action Charter, as proposed at the Mayor's Economic Roundtable on Green Economy, that will be modeled after the successful Nova Scotia Health and Safety Leadership Charter. The Charter will engage and enroll the region's most impactful CEOs so they can explore together how sustainability principles can be incorporated into their business practices while delivering a return for investors (whether public or private).

- **Public awareness and engagement strategy.** With the municipality's Environment & Climate Change and Corporate Communications teams, HalifACT engagement tactics were developed. They include a [video](#) (featuring Shannon Miedema, Manager, Environment & Climate Change), key messages for third-party influencers, and thought-leadership pieces.

City as a Living Lab -- Supporting the Growth of Startups and Scaleups

Through the Halifax Innovation Outpost's City as a Living Lab initiative, startups partner with Halifax Partnership and other established companies and organizations to be early adopters of their products and provide the founders with feedback. These mutually beneficial relationships enable private sector partners to serve customers, clients, and employees in new ways, while at the same time helping local startups develop, iterate, and succeed. Participants to date include:

- **RimotHealth.** In October 2020, the Outpost launched the first beta-test through City as a Living Lab when Dartmouth-based remote monitoring solutions company, Rimot, piloted its RimotHealth device at the Halifax Partnership office and at Volta. Pre-COVID 19, Rimot's focus had been solely on deploying remote monitoring technology to keep critical infrastructure working for business and government. With the onset of the pandemic, it developed a platform to make workplaces safer by screening people for the virus using a touchless thermal camera and automated questionnaires. The RimotHEALTH Workplace Virus Threat Screening prototype is a cloud-based solution that can be deployed across North America and Europe.

To support the company in evolving and scaling its technology, Halifax Partnership and Volta are piloting a new release of the RimotHEALTH unit within their workplaces. Learn more at <https://www.rimot.io/>.

- **Tranquility.** Designed for businesses and organizations of every kind, Halifax-based Tranquility's platform offers pathways to better mental health by delivering gold-standard Cognitive Behavioral Therapy digitally to a user's phone or computer. Using Tranquility, people and organizations can better manage their stress and mood through an interactive and comprehensive program, self-directed or with the support of a coach over video, phone, or in-app messaging.

When it became apparent that COVID-19 was a global pandemic, Tranquility quickly realized that its virtual mental health platform could support people through this very challenging time. This pilot aims to support the growth of Tranquility's user base and provide valuable feedback to advance its product while giving employees of participating companies much-needed mental health support. Learn more at <https://www.tranquility.app/>

- **Harbr.** Harbr designs financial technology solutions for construction and development projects. Harbr's technology facilitates prompt payments for the construction industry in a mutually beneficial way, matching work to invoices, automating the accounts receivables process, and streamlining approvals. Harbr is focused on building its user base and the Halifax Innovation Outpost is helping the company connect with private sector users and potential customers. Lindsay Construction is now piloting the Harbr solutions platform.
- **BLine.** B-Line helps building owners and employers to prevent the spread of infectious disease by limiting human-to-human contact with access controls, capacity monitoring, and mobile devices to identify possible chains of transmission. In 2020, Bline secured \$680,000 from Innovative Solutions Canada (a prototyping funding arm of Innovation, Science and Economic Development Canada) to prototype a COVID-19 related innovative technology solution. The Outpost is helping Bline secure contracts to deploy pilots with other organizations and is a field-testing partner itself.
- **Nuvis Technologies Inc.** (Nuvis) is a corporation based in Mississauga, Ontario focused on developing innovative technologies based on Computer Vision, Artificial Intelligence / Machine Learning. Nuvis has been selected by Innovative Solutions Canada (ISC) to prototype test a COVID-19 related innovative technology solution called Social Distance Monitoring (SDM) to be

funded by ISC. The Outpost is assisting Nuvis with testing of this technology in two facilities in Nova Scotia. Nuvis hired three staff from Dalhousie Computer Science. The Nuvis pilot exemplifies how the Partnership can leverage federal funding and prototyping opportunities in Halifax to attract province private sector investment from outside of Nova Scotia.

Other than Nuvis Technologies, the companies listed above received HRM feedback to help them refine their products and services. None of their technologies were piloted at HRM, largely due to a lack of organizational need/capacity, cybersecurity and/or privacy standards. HRM will continue to advise companies on the organization's technology security standards it requires of vendors.

As a placemaking initiative, and to celebrate the spirit of innovation and entrepreneurship in the municipality, the Halifax Partnership, Volta, [Downtown Halifax Business Commission](#), [ONside](#), and the owner of the Maritime Centre (Slate Asset Management) where Volta is located, engaged Halifax based artist John McPartland (known as "ABSEN") to paint a mural on the Salter Street wall of the Maritime Centre. The mural was unveiled in August. The artist said he was inspired by ideas gathered during public engagements with Halifax residents who were asked what innovation and entrepreneurship in Nova Scotia looks like to them. He described the mural as Rising Tides -- a phrase that pays special relation to the character of Nova Scotia as a coastal province and home to world-renowned ocean technology and shipbuilding industries.

Path Forward

Work to date at the Outpost has created greater links between HRM, the Partnership, and the startup community, particularly in piloting. The Outpost and some local companies have a greater understanding HRM's cybersecurity and privacy requirements and are taking steps to address them; in so doing, they will be better positioned to refine their products and services for potential piloting or sale to other municipalities and organizations. Through the Gigatonne Challenge that was facilitated by the Outpost, municipal and provincial staff, as well as climate change organizations and green technology companies know how to rapidly deploy community- and private-for-profit solutions – to advance HalifACT and grow the economy. The Outpost, in short, has created a scalable three-step "gardening-like" model to advance innovation in Halifax and HRM as an organization – seedbedding (inviting ideas); cultivating (piloting); and, expanding (leveraging resources and connecting with other organizations).

At the time of writing this report, a letter of offer has been extended to an individual for the position of Director, Innovation Halifax at the Halifax Partnership to manage the Innovation Outpost, as well as innovation-related initiatives sponsored by the former NS Department of Inclusive Economic Growth. With HRM funding, the Halifax Partnership and HRM will:

- **Continue to lease the Outpost space at Volta.** This is a dedicated space where HRM and the Halifax Partnership can work in partnership with the innovation community, partners, other levels of government, and the community.

On average, Volta offers over 585 hours of programming annually, with over 7,000 people participating in programming and events each year. Volta has placed a core focus on inclusive innovation through programming, partnerships, and community engagement. Volta is focused on high offerings with a focus on growth stage companies and an approach that is consistent with other hubs and our partners across Atlantic Canada. When the first wave of COVID hit, Volta worked to move its core offerings to virtual methods to best support its founders, partners, and community. These include: workshops on innovation discovery, design thinking, and artificial intelligence and machine learning; Volta Academy that teaches how to test and validate an idea, outline a minimum viable product, and grow a scalable startup; Volta Leap training and to assist companies from early-stage to accelerator-ready; Women Taking Over the World With Tech Workshop Series that supports Atlantic Canadian female founders, leaders, and employees in the technology sector.

Volta provides the following benefits to leasees: "ecosystem engagement" (funding credit for programming; lunch and learns, complimentary network memberships for employees); space

(dedicated space, use of boardrooms and meeting rooms, complimentary and discounted rental and event space); programming and events (e.g., corporate innovation programming, Innovate Atlantic Innovation Conference); and, marketing (sponsored blog posts and logos on website and in lobby).

- **Undertake additional social innovation projects that fall within the municipal mandate.** Regional Council's social policy vision, as outlined in its Social Policy Administrative Order ([AO 2020-002-GOV](#)), is, "HRM is a safe, healthy, and welcoming community where everyone is able to participate fully in their community." Its social policy goals are to strengthen community health and wellbeing, enhance equity and inclusion, and build on social assets and community capacity. With HRM financial support, the Outpost will undertake additional innovation projects to help address complex social issues. They will align with HRM priorities and plans.
- **Consider undertaking new initiatives that advance other priorities of the 2022-27 Economic Growth Plan under development.** HRM and the Halifax Partnership are developing a new five-year economic strategy to be implemented in April 2022. Based on initial engagement feedback, innovation may be a key component of the strategy. The HRM-Halifax Partnership team developing the strategy for Council's consideration is assessing how the Outpost could undertake pilot projects to advance the economic strategy's proposed goals. More information will be provided to Council throughout the economic strategy's development via staff reports and Halifax Partnership presentations.
- **Assist local companies to pilot their products and services with HRM, companies, and other organizations.** The Outpost will continue to be a forum for HRM staff to speak with and educate start-ups about technology requirements for cities. It will also provide opportunities for start-ups to leverage city assets such as streetlights, buildings, and other such infrastructure for alpha and beta testing of new technology.
- **Leverage funding to access private sector investment and support from other orders of government to support all the above.** The Halifax Partnership intends to continue working with startups to secure Innovative Solutions Canada to pilot products and services in the municipality. Some startups may be out-of-province as a means to attract investment and jobs to Halifax. The Outpost will explore mutually beneficial projects with the Province of Nova Scotia's Outpost Office at Volta. It will also connect Partnership investors with startups to undertake mutually beneficial pilot projects.

Updates to Regional Council will be provided via Outpost-specific staff reports and Partnership presentations and/or through the Partnership's quarterly updates to Council in fulfilment of the HRM-Halifax Partnership Services Agreement.

FINANCIAL IMPLICATIONS

HRM is providing the Partnership \$250,000 plus net HST, for a total cost of \$260,715 from the 2021-2022 budget to support the Innovation Outpost. Approval of the recommendation would direct the CAO to include, through the annual budgeting process, \$260,715 (net HST included) for each of the 2022/23 and 2023/24 fiscal years to fund, through the Halifax Partnership, the Halifax Civic Innovation Outpost.

Fiscal Year	2021/22	2022/23	2023/24	2024/25
Operating	260,715	260,715	260,715	0

RISK CONSIDERATION

There are no significant risks associated with the recommendations in this Report. The risks considered rate Low.

COMMUNITY ENGAGEMENT

While several companies and community organizations have participated in Outpost-led initiatives, there was no community engagement in the creation of this report.

ENVIRONMENTAL IMPLICATIONS

The collaborative climate work between HRM and the Outpost has had positive environmental impacts in terms of progressing the implementation of HalifACT and increasing efforts and relationships with the business and start-up communities in working toward climate goals.

ALTERNATIVES

Halifax Regional Municipality may consider not providing funding to the Innovation Outpost beyond 2021/22, or direct staff to consider a different amount.

ATTACHMENTS

No attachments.

A copy of this report can be obtained online at or by contacting the Office of the Municipal Clerk at 902.490.4210.

Report Prepared by: Jake Whalen, Senior Advisor, Economic Policy and Development, 902.292.7351
