

Economic Diversification

STRATEGY | 2016



Message from the Mayor



A brain vital signs monitoring device under development at the NeuroTech Lab located in Surrey Memorial Hospital.



Wind turbines manufactured at Endurance Wind Power.



Building a strong economy and creating high-quality local jobs is a top priority for the City of Surrey.

We have been diligent about maintaining strong fundamentals for business such as low tax rates, quick processing times and moving more city services such as business licensing online. This complements the significant investments we've made to make Surrey a great place to live with a range of community amenities, efficient transportation networks and diverse housing options.

Surrey is consistently recognized as a great place to invest. VanCity named Surrey the best place to start a small business in Metro Vancouver, and we've been named the best place

to invest in BC by the Real Estate Investment Network for five years in a row. We've shown ourselves to be a responsive city - for example issuing two Economic Investment Action Plans to stimulate investment during the financial crisis.

The Economic Diversification Strategy outlines our approach to guiding Surrey's economy into its next phase. We are collaborating with businesses, universities, industry associations, governments and non-profits to identify and cultivate opportunities in strategic areas - those where we have existing strengths - to create a prosperous and resilient economy that supports a healthy community for the future.

Sincerely,

Linda Hepner
Mayor

Overview

A strong and resilient economy supports the City of Surrey's 50 Year vision outlined in its Sustainability Charter, of a thriving, green, inclusive city.

As Surrey continues to grow and transform so does its economy. Industries such as agriculture, manufacturing, construction, transportation and logistics have powered the economy because of Surrey's location on the Fraser River, adjacent to the US border and in prime agriculture land.

Surrey's remarkable growth has ushered in new opportunities as universities expand within City Centre, entrepreneurs tap into British Columbia's thriving technology sector, and traditional industries invest in new ways to increase their productivity. These new knowledge-based sectors create

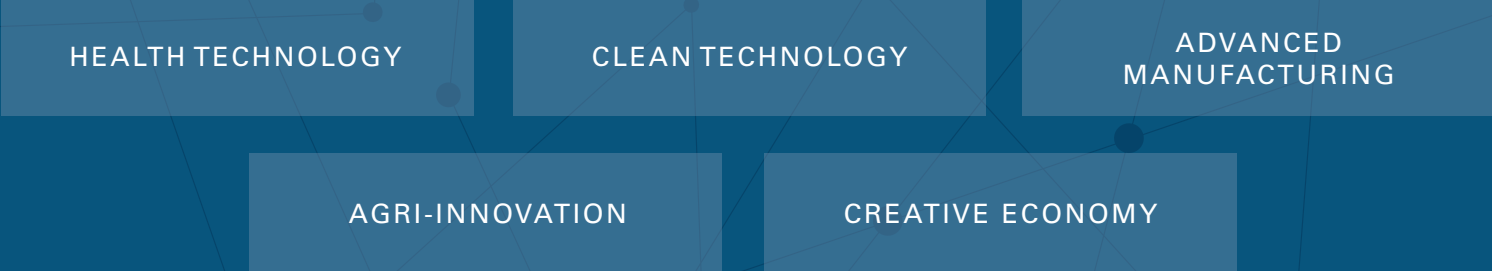
significant value by creating ideas and technologies that can achieve tremendous scale and worldwide distribution in a relatively short time.

In addition to the potential for wealth creation, new knowledge-based industries complement existing industries by creating more local expertise along the entire value chain. A local company can access most of the expertise it requires to take a product from idea, to design, to production, to distribution using local companies. The proximity to suppliers creates a competitive advantage by increasing efficiency, integration and certainty.



Simon Fraser University, led by Dr. Andrew Sixsmith, and the University of Toronto received \$36M for a national research network in technology and aging.

PRIORITY SECTORS



A diverse local economy is increasingly important as the global economy becomes more volatile. Having multiple industries insulates a city from experiencing a significant shock if one industry declines rapidly and no other industry can provide employment and tax revenue to the community.

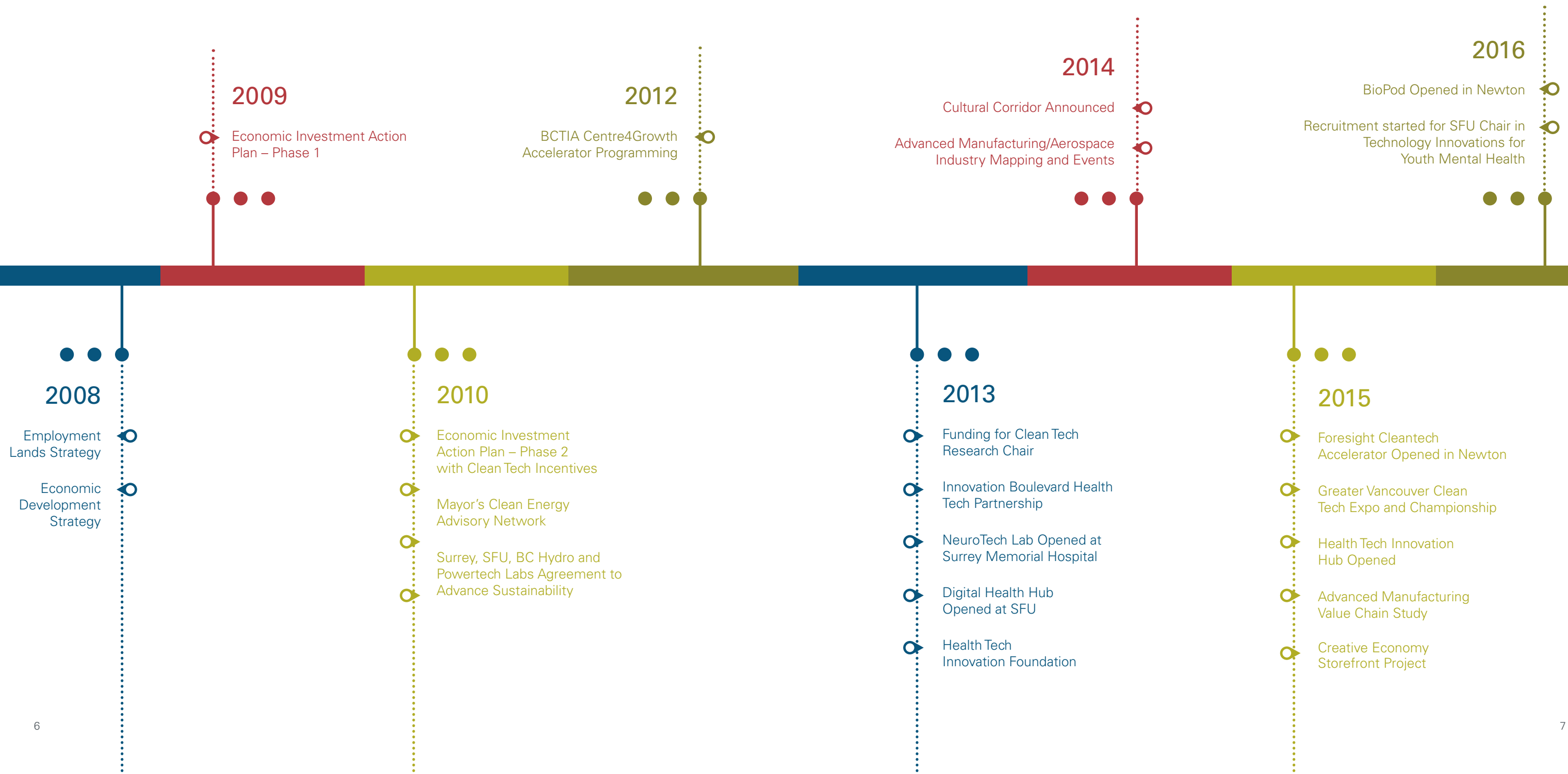
City governments play a unique role in economic development by producing local economic information, identifying strengths, and connecting organizations to identify opportunities in emerging local industries. The ability to 'connect the dots' creates new opportunities not available to organizations working in isolation.

Surrey's unique approach is to focus both on sectors, but also on the interconnections and the supporting ecosystem that enables overall system growth.

Economic Development Milestones: The Path to Diversification

Supporting economic and job growth has been a consistent priority for the City of Surrey, formalized in 2008 with an Employment Lands Strategy to ensure a sufficient supply of strategically located land was available for businesses in the future, and the City's first Economic Development Strategy.

The Economic Diversification Strategy provides a forward-looking vision and identifies opportunities for sector-specific growth and support.



Economic Goals

The Economic Diversification Strategy supports three overarching goals to strengthen the City of Surrey's economy.

1. Local and High-Value Jobs

Surrey's goal is to have at least one job available in the community for every resident in the work force, which is a healthy ratio for a sustainable economy. Currently there are approximately 0.7 jobs in Surrey for each person in the work force. This is an ambitious target as the City's goal is to increase the ratio in addition to keeping pace with the rapid population growth.

For business, more local jobs creates more opportunity to retain a highly-skilled workforce in the community and ensure the necessary talent is available to support business growth.

2. Balanced Tax Base

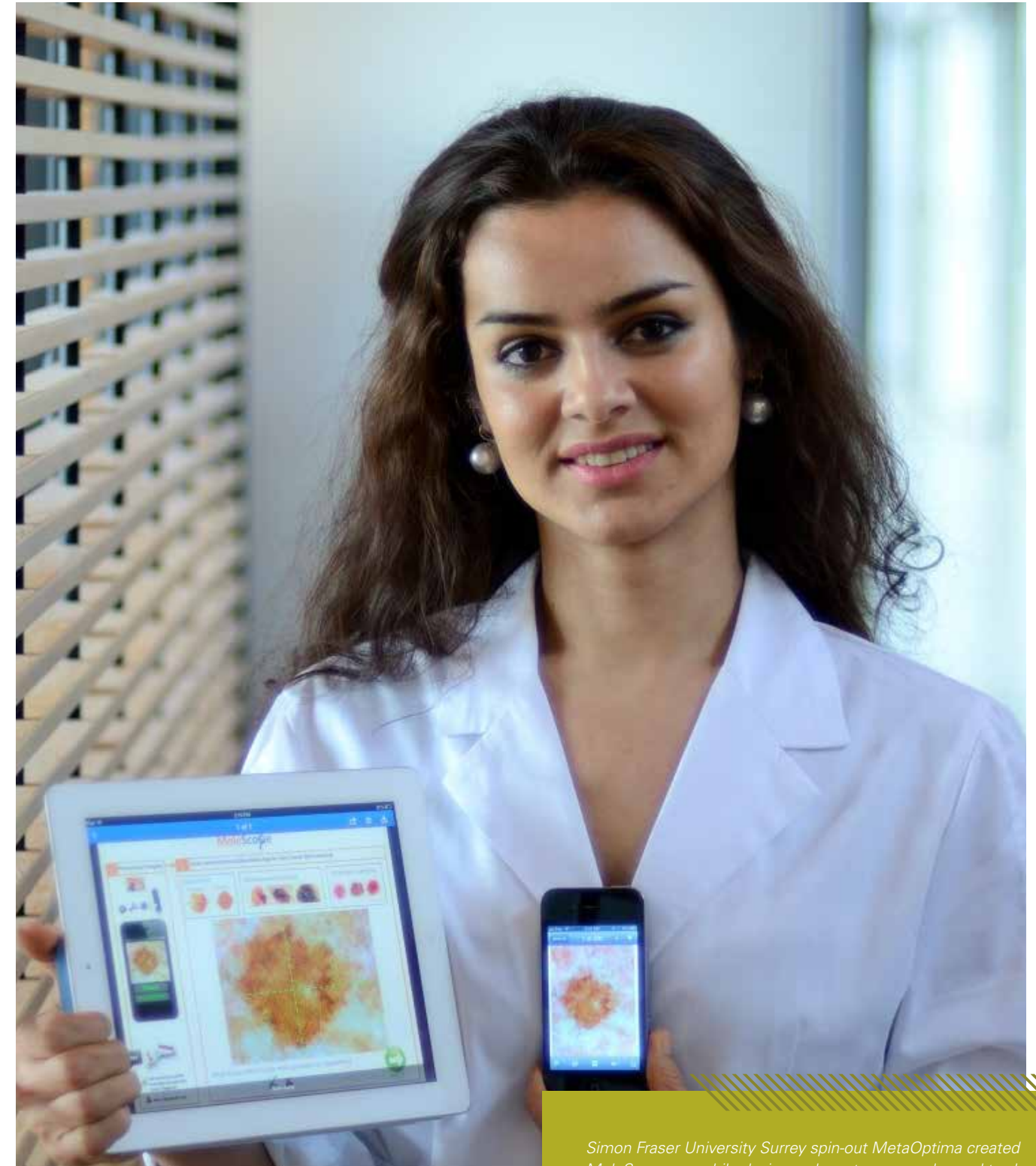
Businesses make a significant contribution to the City of Surrey by paying taxes that fund community services and infrastructure. Surrey's target ratio for property tax revenues is 60% from residential taxes and 40% from business property taxes. Currently the ratio is 70% from residential taxes and 30% from business property taxes. Increasing the overall number of businesses in Surrey will generate more tax revenue from businesses and move the City closer to its target ratio.

For business, a balanced tax base allows the City to keep its business and industrial tax rates competitive while ensuring businesses get good value for its tax dollars.

3. Economic Diversification and Resiliency

Volatility and rapid change have defined the global economy in the 21st Century. A community with a diversified economy is better equipped to withstand periods of change - if one sector of the economy declines rapidly others can compensate to provide jobs and tax revenue. Surrey has the right conditions to achieve economic resilience with a strong small business community and an existing broad range of industries.

For business, a diversified economy provides a competitive advantage through an ability to buy and sell products and services locally.



Simon Fraser University Surrey spin-out MetaOptima created MoleScope, a mobile device and app to scan moles and track changes over time.

Priority Sector Criteria

Surrey and its partners are focusing on five priority sectors: health technology, clean technology, advanced manufacturing, agri-innovation and the creative economy. Four criteria informed the selection of sectors.

1. Existing Strengths

Existing assets such as anchor institutions and companies provide a strong foundation on which to build a thriving sector. These organizations are home to highly-skilled talent that have the expertise and vision to accelerate growth. For example, 10% of British Columbia's clean tech sector is located in Surrey and Simon Fraser University is home to world-leading expertise in fuel cells and advanced materials.

2. Differentiation

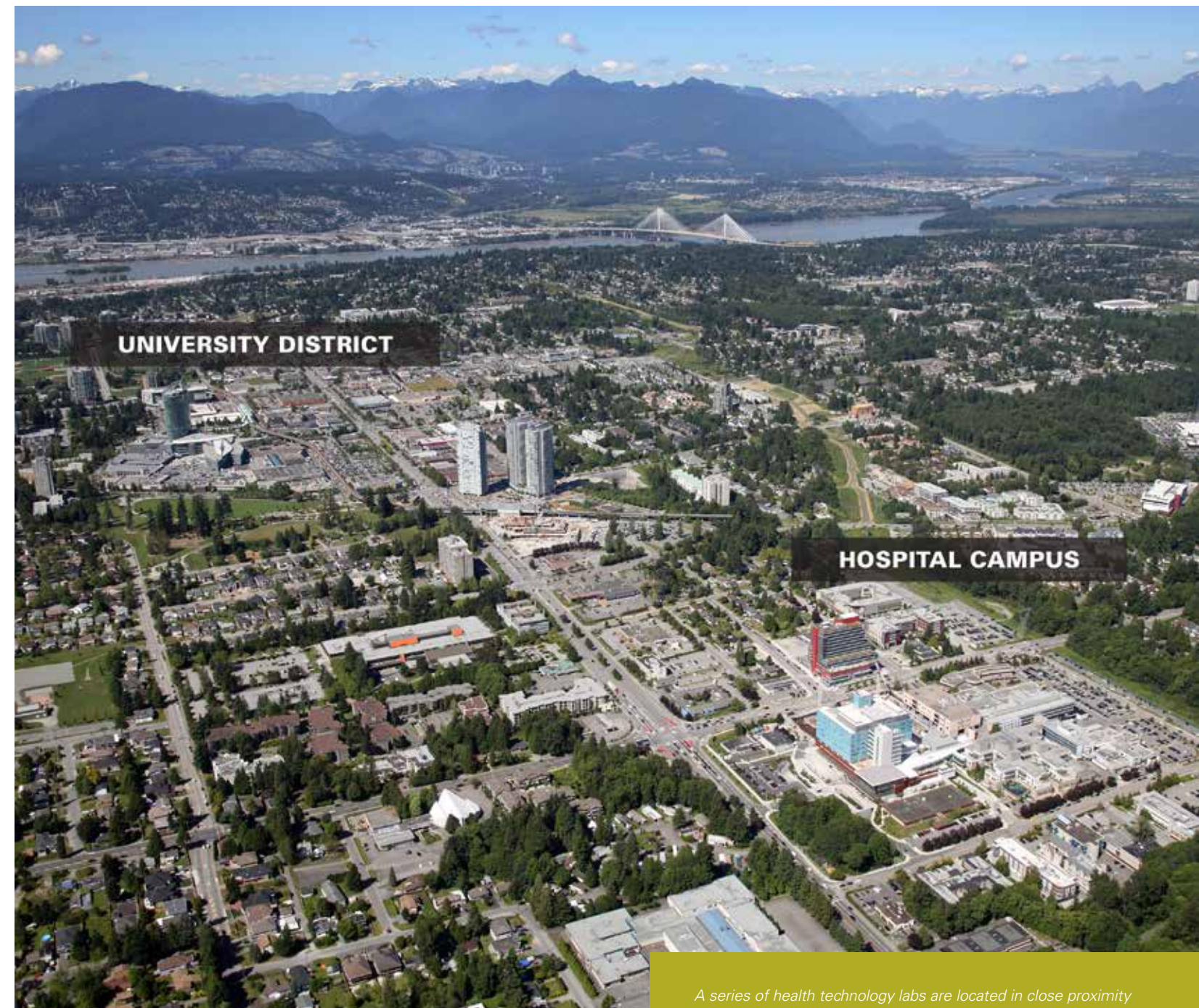
The collection of assets provides an opportunity to differentiate from other jurisdictions. In other words, what is the unique value institutions, businesses and the City of Surrey can provide to companies wanting to grow? For example, Surrey's downtown is home to a growing hospital campus with one of the busiest emergency rooms in Canada, the regional health authority corporate office, and a health technology commercialization centre. The close proximity of assets facilitates interactions between health care practitioners and innovators.

3. Growth Potential

The sector shows strong potential for growth in the future based on market potential, demographics and the need for knowledge-based workers. For example, according to the 2015 Canadian Clean Technology Industry Report by Analytica Advisors, the clean tech sector is worth almost \$12 billion and could be a \$50 billion sector by 2022.

4. Community Impact

The sectors were evaluated for the potential to address community and regional issues and support a high-quality of life for Surrey residents. For example, initial projects through the creative economy demonstrated the dual benefits of supporting emerging artists as well as revitalizing under-utilized storefronts through community events.



A series of health technology labs are located in close proximity within Innovation Boulevard.

INNOVATION
BOULEVARD

Cross-Sector Strategies

A series of high-level strategies have been developed to guide the City of Surrey's approach to economic diversification. These elements have been identified as critical to supporting sector growth and are tailored to meet the needs of individual sectors.

Research

- Research industry-specific information to understand the current context, economic drivers and trends.
- Create a detailed asset map to identify current strengths and activities including companies, institutions, research expertise, and supporting organizations.

Partnerships

- Identify, create and nurture partnerships that bring together subject-matter experts and supporting organizations from public, private and academic sectors.
- Establish high-density zones/networks that support the interaction of people and organizations to promote cluster development.

Company Support

- Provide dedicated sector leads in the City of Surrey's Economic Development Division to help companies connect with resources, government funding and industry-specific connections.
- Develop and deliver sector-specific programs, initiatives and events.

Investment Attraction

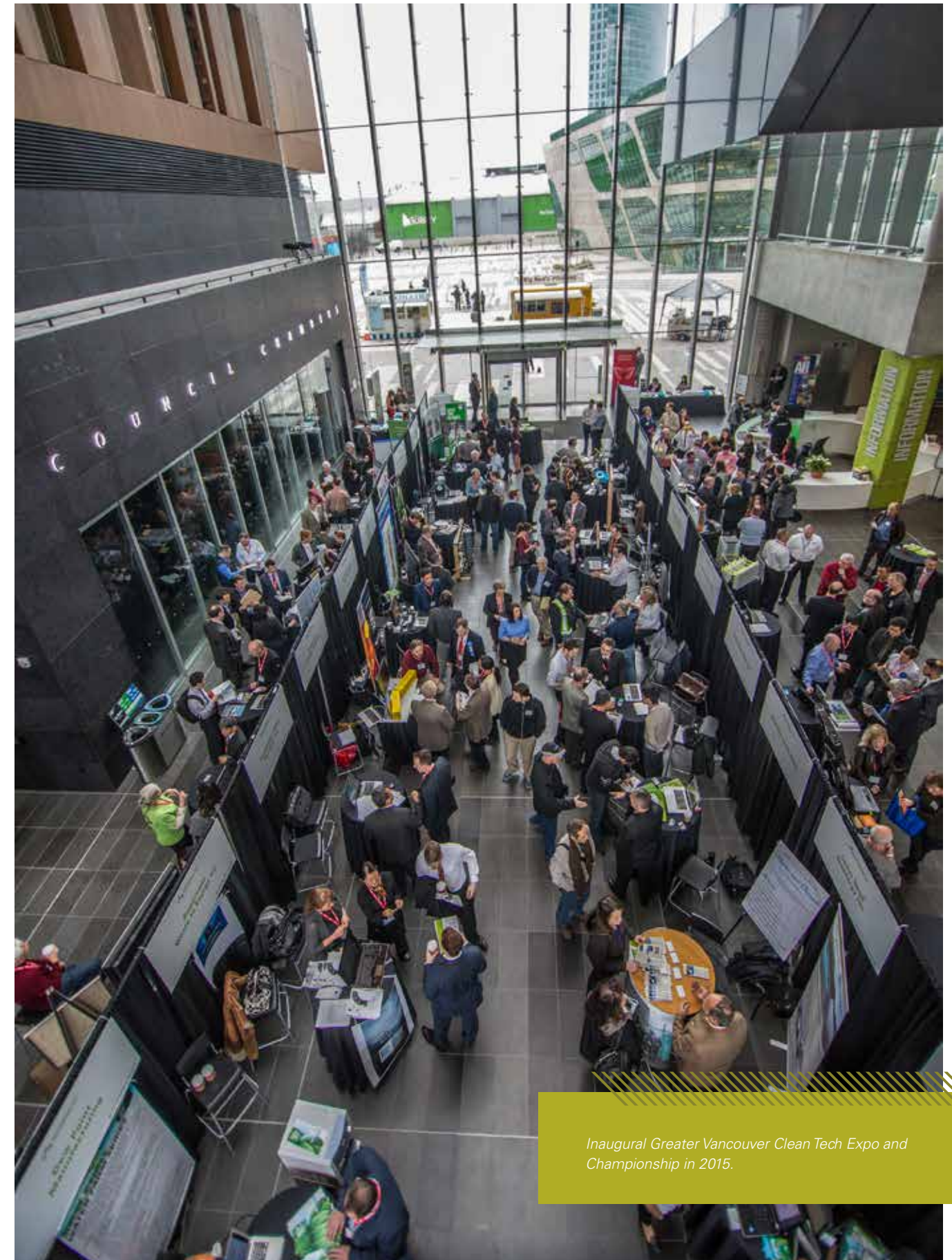
- Promote foreign direct investment (FDI) in priority sectors by organizing outbound business delegations, hosting inbound delegations and promoting Surrey-based organizations to other levels of government.

Corporate Innovation

- Where possible demonstrate corporate innovation at the City of Surrey that aligns with priority sectors to enable a starting point for collaboration across the public, private and academic sectors.

Marketing

- Develop and promote Surrey's business brand.
- Identify and celebrate local success stories.



Inaugural Greater Vancouver Clean Tech Expo and Championship in 2015.

Health Technology

Overview

Surrey's health technology sector has demonstrated strengths in a range of medical device and software development including brain vital signs monitoring, medical education simulation, aging, exoskeleton for rehabilitation, surgery, falls prevention, and spine injury diagnosis. The sector has capitalized on the close proximity of health institutions, universities, and companies in Surrey City Centre.

In 2013 Simon Fraser University, the City of Surrey and Fraser Health founded the Innovation Boulevard partnership, which brings together health, business, higher education and government to create new health technologies by connecting health innovation activities in the region.



Strengths

Surrey Memorial Hospital Campus. Surrey is home to a new \$500 million hospital with one of the busiest ERs in Canada, a new \$250 million outpatient center, the BC Cancer Agency and a University of BC teaching hospital.

Fraser Health Corporate Office. The largest health authority in BC serving 1.7 million people is located in Surrey.

Simon Fraser University. SFU researchers in the health, mechatronics engineering and computing science faculties conduct world-leading research in neuroscience, medical imaging, spine injury diagnostics, exoskeletons, aging adults, and falls prevention.

Health Tech Innovation Foundation. HTIF is a non-profit that connects businesses and research and clinical worlds for health technology innovation and advancement. HTIF serves as the operating arm of Innovation Boulevard, providing critical services and an on site presence embedded in the clinical environment.

Health Tech Innovation Hub. The 14,000 square foot Innovation Hub, located across the street from Surrey Memorial Hospital, brings together companies, researchers, scientists and two universities to accelerate health technology development.

Embedded Labs. A network of technology labs embedded in the hospital, a retirement care home and a university provide specialized expertise in brain technologies, health computing solutions, independent living, and advanced medical imaging.

Leading Companies. Surrey is home to multinational and small businesses including Philips Healthcare, Starfish Medical, Conquer Mobile, Biomark Diagnostics, Cambian, and Target Tape.

Milestones

Innovation Boulevard partnership launched. (2013)

Innovation Boulevard Working Group formed. (2013)

NeuroTech Lab and Digital Health Hub opened. (2013)

The first 'Innovation Boulevard-grown' technology was commercialized. Conquer Mobile's surgery simulation program for iPad went from idea to product within one year. (2014)

Innovation Boulevard partner SFU, in collaboration with the University of Toronto, received \$36.6 million in funding from the Networks of Centres of Excellence (NCE) program to advance aging and technology research, and innovation. (2014)

After a traumatic brain injury, Captain Trevor Greene takes his first steps in public at SFU using exoskeleton technology secured through a business mission to Israel. (2015)

CANARIE research network extended from SFU to Surrey Memorial Hospital. (2015)

\$3.6 million in funding from Western Economic Diversification for new ImageTech Lab that provides a powerful MRI and MEG medical imaging combination. (2015)

Innovation Boulevard website launched. (2015)

Recruit SFU Chair in Technology Innovations for Youth Mental Addiction-Recovery and Mental Health in partnership with SFU, John Volken Academy and Surrey Fire Fighters Association. (On-going)

Opportunities

- Refine structure and governance model for Innovation Boulevard to enable long-term sustainability.
- Deliver industry-focused events to connect entrepreneurs, researchers and healthcare providers.
- Expand marketing and communications program to showcase activity and successes.



Target Tape's X Line product was developed with the help of a medical physicist from the BC Cancer Agency, Fraser Valley Centre. X Line allows medical teams to more accurately measure tumour depth below the surface of the skin.

Clean Technology

Overview

Surrey is in a rapid state of transition and is a globally relevant regional leader in the clean technology sector. Over forty companies or approximately 10% of BC's clean technology sector are already in Surrey and the community is growing fast. Momentum for the sector was jumpstarted in 2015 with the move of the Foresight Cleantech Accelerator Centre to Surrey.

Strengths

Foresight Cleantech Accelerator Centre.

Foresight is Western Canada's only clean technology business accelerator which is currently supporting 27 BC-based cleantech companies. Their Surrey facility currently has co-working office, lab and manufacturing space for its portfolio companies.

Powertech Labs. Powertech is the research and development arm of BC Hydro. Powertech offers a one-stop-shop approach for businesses that require technical engineering expertise, standards and code testing, as well as quality testing and failure analysis services. They also provide specialized testing and investigation services to support electrical utilities' capital assets.

SFU Fuel Cell Research Lab. Led by Dr. Erik Kjeang, the Fuel Cell Research Lab is situated at Powertech Labs and acts as SFU's flagship laboratory dealing with advanced material sciences and manufacturing of fuel cell technologies

ECONewton. EcoNewton is a pilot initiative to establish the Newton industrial area as a global hub for clean technology partnerships, innovation, demonstration, and commercialization.

Leading Companies. Surrey is home to companies across sub-sectors including Endurance Wind Power, Sola-Infra Systems, Delta Controls, SP Power Farms, Quad-Locks, TBF Environmental, BI Pure Water, Crimeson Bioenergy Ltd, and Ivey International.



Foresight, Western Canada's first clean technology accelerator moved its operation to Surrey in 2015, opening its 6,000 square foot incubator lab space in Newton's Industrial Area. To date, Foresight's client companies have created 85 new jobs, raised \$16 million in new investments and generated \$6 million in new revenue.

Milestones

- Completed comprehensive BC-wide clean technology sector survey identifying Surrey as home to 10% of BC's cleantech sector. (2014)
- Inaugural Greater Vancouver Clean Tech Championship attended by 500 people hosted 40 companies competing to win a \$10,000 prize. (2015)
- Foresight Clean Technology Centre launched in Surrey. (2015)
- \$2.6 million in Western Economic Diversification investment into the establishment of the Advanced Resource Clean Technology Innovation Centre at Foresight. (2015)
- Piloting of the ECONewton Clean Technology Research & Innovation District. (2015)
- Recruiting an Executive Industry Research Chair in Energy Systems for Smart Cities in partnership with Powertech Labs and Simon Fraser University. (2016)

Opportunities

- Launch of the Clean Technology Sector Strategy.
- Explore opportunities to establish strategic research centres of excellence related to water, air and waste-based technologies in partnership with KPU and SFU.
- Establish an international clean technology accelerator program in partnership with Foresight and Powertech Labs to support global dialogue on clean technology development and the recruitment of global cleantech companies.

Advanced Manufacturing

Overview

Surrey is a major manufacturing center within Metro Vancouver with over 30% of its business base active in manufacturing and with a workforce comprised of over 24,000 full-time workers. Local manufacturing companies are both an important part of the local supply chain and export products internationally. The industry is highly-diversified with companies specialising in metal and fabrication, computer and electronic products, plastic, wood, and food manufacturing.

The KPU/Foresight Clean Tech Global Innovation Zone will support up to 20 companies focused on clean technology and advanced manufacturing with modularized office, lab and maker space using leading-edge practices like Industry 4.0.



Strengths

Employment Lands. Surrey has approximately one-third of Metro Vancouver's undeveloped industrial land inventory.

Location. Surrey is centrally located in Metro Vancouver, home to two United States border crossings, and has excellent access to rail and major road networks.

Kwantlen Polytechnic University Tech (KPU). KPU Tech houses the Faculty of Trades and Technology which trains apprentices in related trades such as building maintenance, industrial engines and equipment parts, industrial warehousing, millwright, welding, carpentry, and electricians. An Advanced Manufacturing Diploma is also being developed.

Simon Fraser University (SFU) Mechatronics Engineering. The multi-disciplinary engineering school conducts leading-edge research in sensors and automation with manufacturing applications.

Supply Chain. Surrey has 8,000 commercial and industrial businesses that play a vital role as suppliers of raw materials, goods and services in the ecosystem for local manufacturing companies.

Milestones

- Hosted an event in partnership with Aerospace Industry Association of Canada attended by 50 companies from Metro Vancouver and Washington State. (2015)
- Completed a Value Chain Study which mapped the companies and institutions in the health and clean technology sectors that can help take an idea from concept through design, production and distribution. (2015)
- Launched a Data Visualization Tool that allows companies to see where their firm fits within the local value chain. Companies are able to identify opportunities and potential partners. (2015).

Opportunities

- Conduct a comprehensive labour market study in partnership with SFU and KPU to understand the skills required to compete in the new manufacturing economy.
- Complete Value Chain Study for advanced manufacturing sector.
- Connect manufacturing companies with opportunities and stakeholders to encourage innovation and diversification.
- Introduce Industry 4.0 technologies and practices to Surrey-based manufacturers.

Agri-Innovation

Overview

Surrey's agriculture sector is a critical part of Surrey's growing economy. With one-third of Surrey's land base within the Agriculture Land Reserve (ALR), significant opportunities exist to support the optimal use of this finite resource.

Surrey, in partnership with other government and industry entities is also currently exploring means to build capacity amongst the agriculture sector to provide business training to new farmers, identify strategies to activate Surrey's underutilized farm land owned by private landowners, and stimulate innovative agricultural practices across the sector.

Strengths

The BioPod Initiative. The advanced BioPod Research and Demonstration Greenhouse provides testing space for new agricultural technologies, as well as accredited agriculture and agri-business training for John Volken Academy students. This project is being conducted in partnership with the University of the Fraser Valley, KPU, SFU, BCIT, Investment Agriculture Foundation, BC Government, BW Global, and Stuart Olson Group.

Surrey as an Agri-innovation Living Laboratory.

The BC Agriculture Centre of Excellence, KPU, SFU, BCIT, and SMK Farms have formed a partnership to work together to identify strategic projects to pursue in Surrey to create new technologies and agriculture best practices.

Surrey Virtual Incubator Farm. The City of Surrey and partners are developing an online platform to provide one-stop shop access to information about starting a farm as well as an online listing service for ALR landowners to lease out underutilized farm land.

Leading Companies. Surrey is home to anchor companies including Renergy Foods Canada, Sunrise Poultry, Bose Farms, Colony Buildings, Argus Controls and SMK Farms.

Milestones

- Adopted the Surrey Agriculture Enhancement and Protection Strategy. (2013)
- Signed the Surrey as a Agri-Innovation Living Labs Letter of Intent. (2014)
- Completed construction of the BioPod Demonstration Greenhouse. (2016)

Opportunities

- Inventory and leverage existing agriculture sector resources in Surrey.
- Develop toolkits and resources that will unlock opportunities for new entrants into Surrey's agriculture sector.
- Support and execute strategic initiatives related to the agri-innovation sector.



BioPod Research Demonstration Greenhouse

The BioPod provides a unique model where students of the John Volken Academy learn about the agriculture business, while the produce grown in the greenhouse is sold by an adjacent retailer. As a living lab, new technologies from SFU and KPU will be tested on-site.

Creative Economy

Overview

Surrey has a wealth of creative talent in the traditional arts, emerging talent in digital and interactive media graduating from Simon Fraser University and Kwantlen Polytechnic University, and established events and festivals taking place in the City. To strengthen and promote the creative economy, the City is developing a 'Cultural Corridor' along King George Boulevard to facilitate ease of access and allow for collaboration among artists and entrepreneurs.



NEWTON POP UP ART WALK

Working with neighbourhood businesses and property managers, local artists were able to secure a gallery space and empty storefront windows to display their work and revitalize the community with increased foot traffic and arts focused events.

Strengths

Simon Fraser University. SFU researchers in the School of Interactive Arts and Technology, Mechatronics Engineering and Computing Science faculties prepare students to play a leading role in the inception of new media and the design of innovative technologies.

Kwantlen Polytechnic University. Through the programs of Fine Arts and Business, students are prepared to work as professional artists and develop skills to excel in numerous visual arts related fields and industries such as museum and gallery work, art curation, advertising, electronic and digital arts, web design, architecture, art therapy, theatre, TV, film, education, journalism, publishing, and graphics.

Established Events and Festivals. The City continues to host events and festivals that attract regional attention including the Fusion Festival, Surrey Children's Festival, and the Festival of Dance.

Renowned Artists and People. Surrey's internationally recognized artists include Robert Gary Parkes (contemporary glass art) and Robert Davidson (First Nations Art).

Surrey Arts Centre. The Art Centre serves as the focal point for Arts in the City. A place for learning, the Centre offers opportunities for people of all ages and levels of experience to explore their creativity through visual and performing arts courses and workshops.

Surrey Art Gallery. A major public art museum that focuses on art made since 1975, presents changing exhibitions, including international travelling shows, and new works by local nationally recognized artists.

Opportunities

- Grow the 'Cultural Corridor' to further enhance and promote opportunities for artists, institutions and entrepreneurs.
- Identify and nurture new areas of interest within the sector including film and art technologies.
- Deliver industry-focused events to connect industry, academia and artists.



New Film Studio - Skydance Media

Skydance Media, a California-based media company responsible for such recent films as Mission Impossible – Rogue Nation and Terminator Genisys, is opening Skydance Studios, a new film and television production facility in Newton that will house five sound stages and accommodate a production staff of up to 400. The first television series to be produced at Skydance Studios will be Altered Carbon.



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Linda Hepner

City of Surrey Mayor and Council



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