innovative energy

Calgary fosters a culture of innovation where problems are solved through a systems approach harnessing the power of technology.

rationale:

Innovation, including our ability to create new products and services and increase the strength of our communities, is the key to future success.

Calgary is home to a growing technology and innovation sector. However, Calgary’s technology community lacks profile within the broader business community and support to the technology sector and technology start-ups is fragmented and accessing venture capital can be difficult. This has resulted in missed opportunities to bring new products to market or to increase productivity within our existing industries. In addition, social innovation is seen as an emerging opportunity in resolving existing social, cultural, economic and environmental challenges for the benefit of people and the planet. As our corporations seek a social license to operate and we struggle to cope with issues of homelessness, income disparity and employment of marginalized groups, social innovation may well hold the key to unlocking the answers we seek.
area of focus: innovative energy

strategy one
Leverage the strength of the energy industry to establish Calgary as a preferred location in Canada to successfully start, build and grow early-stage technology companies.

action one
Establish and strengthen linkages between the energy and technology sectors.

potential tactics:
- Explore financing the creation of an ‘Energy Technology Accelerator’ (Kinteca Ventures) at Innovate Calgary
- Link researcher and inventor solutions to energy industry challenges
- Expand energy and technology sector links to energy industry
- Attract international energy technology entrepreneurs
- Expand Energy New Ventures initiative

supplementary indicators:
- Number of technology start-ups targeting the energy sector
- Number of new energy technology entrepreneur immigrants

lead organization:
Innovate Calgary

stakeholders:
Primary:
- Energy Industry
- Canadian Oilsands Innovation Alliance
- Petroleum Technology Alliance of Canada
- Government of Alberta
- Government of Canada
- The City of Calgary

Secondary:
- Calgary Economic Development
- Climate Change and Emissions Management Corporation
- Alberta Innovates (Technology Futures/Energy & Environment Solutions)
- Post-secondary institutions
- Innovation Service Providers (eg. Tecterra, TR Tech)

incremental resources: YES
The City of Calgary (request included in Innovate Calgary’s 2015-2018 Action Plan submission)
Government of Alberta
Government of Canada
Private sector

timeline:
Immediate

building on our energy | an economic strategy for Calgary | update to the 2008 10-year economic strategy
area of focus: innovative energy

strategy one
Leverage the strength of the energy industry to establish Calgary as a preferred location in Canada to successfully start, build, and grow early-stage technology companies.

potential tactics:
• Link brokerage and private equity community to angel investment and venture capital communities
• Launch Emergex Capital Partners with AIMCo
• Share investment opportunities and deal flow
• Share market intelligence

action two
Build connections, capital flows and knowledge transfer between the energy finance and technology finance communities.

supplementary indicators:
• Funding secured by technology companies
• Research and development spending by technology companies
• Number of technology companies launching new products
• Number of technology company patent filings and granted patents
• Current syndications taking place with energy technology companies

lead organization:
Innovate Calgary

stakeholders:
Primary:
• Energy and technology finance communities
• Technology companies
• Alberta Investment Management Corporation

Secondary:
• Calgary Economic Development
• Government of Canada (WD – WIN, AVAC – Accelerate, AITF - vouchers)
• Canadian Venture Capital Association
• National Angel Capital Organization
• Innovation service providers

incremental resources: NO

timeline:
Immediate - mid-term
area of focus: innovative energy

strategy one
Leverage the strength of the energy industry to establish Calgary as a preferred location in Canada to successfully start, build, and grow early-stage technology companies.

potential tactics:
• Include Innovate Calgary and leading technology companies in inbound and outbound trade and investment missions
• Profile local capabilities, capacity and supply chain opportunities in technology sectors to increase industry investment
• Identify and coordinate inbound trade and investment missions with key technology sector meetings and events

action three
Attract foreign direct investment and trade opportunities for the technology sector.

supplementary indicators:
• Number of local technology companies expanding their international reach
• Annual gross revenue and employment growth of technology companies
• Technology company participation in trade/investment missions

lead organization:
Calgary Economic Development

stakeholders:
Primary:
• Technology companies
• Innovate Calgary
• Government of Canada
• Government of Alberta

Secondary:
• Innovation Service Providers
• Citizenship and Immigration Canada (Startup VISA program)

incremental resources: NO

timeline:
Mid-term
area of focus: innovative energy

strategy two
Promote a culture of innovation throughout industry, the public sector, educational institutions and community agencies.

potential tactics:
• Explore creating a Centre of Excellence for Social Innovation
• Deploy an online portal of support services for social entrepreneurs
• Increase collaboration amongst co-working spaces, incubators and accelerators throughout Calgary
• Establish Makerspace organization in Calgary

action one
Establish new and support existing hubs of innovation, providing virtual and physical spaces where communities of interest can exchange ideas.

supplementary indicators:
• Number of social enterprise/entrepreneur start-ups
• Number of social enterprise/entrepreneurs in business after one year and five years

lead organization:
Calgary Economic Development and Innovate Calgary (co-lead)

stakeholders:
Primary:
• Calgary Poverty Reduction Initiative
• EPIC YYC
• Makerspace
• Startup Calgary
• Accelerator YYC
• Government of Alberta
• Government of Canada

Secondary:
• Post-secondary institutions
• Community WISE Resource Centre
• Technology consultancies
• Calgary Arts Development
• Social Enterprise for Canada
• Toronto Centre for Social Innovation
• Café Institute (community asset mapping)

incremental resources: YES
• Government of Alberta
• Government of Canada
• Private sector

timeline:
Immediate - mid-term

definitions
Makerspace: Makerspaces combine manufacturing equipment, community, and education for the purposes of enabling community members to design, prototype and create manufactured works that wouldn’t be possible to create with the resources available to individuals working alone.

Energy Technology Accelerator: The Energy Technology Accelerator will provide technology companies with access to information, unique resources and contacts to facilitate growth and unlock opportunities within the energy value chain.
area of focus: innovative energy

strategy two
Promote a culture of innovation throughout industry, the public sector, educational institutions and community agencies.

potential tactics:
- Establish a Calgary-wide coordinated mentoring process across all innovation service providers
- Enhance monthly meetups for technology and innovation entrepreneurs
- Quarterly network meeting of innovation service providers
- Address gaps in service delivery to innovation start-ups
- Create and promote a one-stop guide (or place) for start-ups

action two
Enhance guidance, mentoring and coaching available to technology and innovation entrepreneurs.

supplementary indicators:
- Number of technology and innovation start-ups advancing through an investment readiness scale
- Number of technology and innovation start-ups in business after one year and five years
- Mentoring within the technology start-up community
- Collaboration amongst innovation service providers

lead organization:
Innovate Calgary

stakeholders:
Primary:
- Innovation service providers
- A100
- EPIC YYC

Secondary:
- Calgary Economic Development
- Business start-up service providers

incremental resources: NO

timeline:
Immediate
area of focus: **innovative energy**

**strategy two**
Promote a culture of innovation throughout industry, the public sector, educational institutions and community agencies.

**action three**
Integrate technology entrepreneurship and intrapreneurship content in post-secondary education programs to meet the future labour force needs of the technology sector.

**potential tactics:**
- Develop enhanced entrepreneur/innovation programs
- Develop co-op and intern placements with technology SMEs and start-ups
- Work with innovation service providers to design programming for their needs
- Develop apprenticeship programs for technology workers

**supplementary indicators:**
- Number of work/co-op placements with technology companies
- Number of new graduates working for technology companies
- Number of students creating their own technology start-up
- Creation of comprehensive list of courses and programs for students interested in becoming a technology entrepreneur

**lead organization:**
Post-secondary institutions

**stakeholders:**

*Primary:*
- Innovate Calgary
- Startup Calgary
- Accelerator YYC
- Other innovation service providers

*Secondary:*
- Calgary Economic Development
- Government of Alberta

**incremental resources:** **NO**

**timeline:**
Mid-term - long-term
area of focus: **innovative energy**

**strategy two**
Promote a culture of innovation throughout industry, the public sector, educational institutions and community agencies.

**potential tactics:**
- Develop an annual events calendar for innovation service providers
- Deploy a traditional and social media communication strategy for achievements in innovation
- Launch a Calgary Innovations award show

**supplementary indicators:**
- Number of people attending innovation events
- Number of followers/conversations in social media
- Media and social media coverage of innovation in Calgary

**lead organization:**
Innovate Calgary

**stakeholders:**
*Primary:*
- Calgary Economic Development
- Innovation service providers

*Secondary:*
- Beakerhead
- Media outlets
- Post-secondary institutions

**incremental resources:** NO

**timeline:**
Mid-term