DIGITAL STRATEGY

A Road Map to Digital Leadership

2015-2024

Enhance. Expand. Empower.

EORN
EASTERN ONTARIO
REGIONAL NETWORK

Vision, Mission and Values

Vision

By 2024, Eastern Ontario will be recognized as one of the world's most digitally connected rural regions, where citizens, businesses, and public services fully embrace and harness the potential of high-speed broadband.

Mission

EORN will promote and develop access to high-speed broadband and other technologies, which will create wealth; expand employment and education; and enhance quality of life throughout the region.

Core Values

- **Innovation:** EORN will seek out innovative approaches and technologies to help improve productivity for our stakeholders.

- **Leverage:** EORN will invest in projects that leverage contributions and collaboration with other partners and result in clear social or financial returns.

- **Partnership:** EORN will continue to build successful partnerships and collaborate with all levels of government; the broader public sector; and the private sector.

- **Regional Orientation:** EORN will focus on regional priorities that deliver benefits to all of Eastern Ontario.

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Message from the EOWC Chair

More than seven years ago, the Eastern Ontario Wardens' Caucus (EOWC) recognized the importance of broadband connectivity to the future of our region. We also recognized that there were a range of regulatory, technical and financial barriers that stood in our way. In response, the EOWC came together and developed an action plan to build the partnerships and access the resources needed to overcome these barriers. The result is a $170-million broadband network that was built with the support of local, provincial and federal governments and the private sector.

The Eastern Ontario Regional Network (EORN) is a critical, foundational tool that will help the EOWC roll out our regional economic development strategy. EORN will help us remove barriers to growth and create the positive conditions needed to advance our regional economy.

At the heart of the matter, both the EOWC Economic Development Strategy and EORN's Digital Strategy seek to empower our residents with the means to realize their potential and live their dreams. Through our collective efforts and individual successes, our region will prosper.

Eric Duncan
Chair, Eastern Ontario Wardens' Caucus

Message from the EORN Chair

The Eastern Ontario Regional Network (EORN) has spent the last four years building the digital infrastructure needed to support our communities for many years to come. This was the first, critical step towards linking rural Eastern Ontario to a global economy that demands connectivity and speed. Now, we are planning to build on our success to ensure that the region's residents, businesses and public institutions harness the network to deliver results.

Thanks to the work of EORN, more than 415,000 homes and businesses can access broadband speeds of at least 10 Mbps. Sixty-two key commercial areas and business parks throughout the region have new enterprise-level fibre connectivity.

This 10-year Digital Strategy maps out our plan to leverage and build on this network to create thriving local economies and improved quality of life for our residents.

EORN will continue to build on the strengths that helped us deliver results during the first phase of the project. We will retain our strong regional focus. We will also maintain our emphasis on working in partnership with governments, communities and the private sector. Our success will depend on all parties continuing to collaborate towards our common goals.

Through this long-term strategy, EORN will provide regional leadership in improving broadband access and in promoting the adoption of technologies by individuals, businesses, governments and organizations across Eastern Ontario.

We thank our partners across the public and private sectors for their support and cooperation. Together, we will continue to take the region "further and faster" by enhancing and expanding on the success that has been achieved to date to empower the residents of Eastern Ontario.

David Burton
Chair, Eastern Ontario Regional Network

Introduction

Since it was established by the Eastern Ontario Wardens' Caucus five years ago, the Eastern Ontario Regional Network has substantially increased broadband access across rural Eastern Ontario by working in partnership with all levels of government and the private sector.

As a not-for-profit corporation accountable to the EOWC, EORN gathered municipal staff expertise and expert consultants to oversee construction of the project. This proved to be highly efficient, keeping project management costs to less than five per cent, allowing more funds to be used to build infrastructure.

EORN's project management role is now moving into its next phase, with a mandate to monitor and oversee long-term contracts with internet service providers (ISPs) until 2024.

The organization has also recognized that with its knowledge of the region, the broadband network and its many partners, it is well suited to helping communities leverage the broadband network to support economic growth and improved quality of life for Eastern Ontario communities.

As a result, the organization has evolved from a project management office into an organization with a strategic focus on supporting Eastern Ontario's digital future. EORN has developed a 10-year Digital Strategy to make sure that the network keeps pace with changing needs and is used by both business and government to its full potential.

The network today

EORN built an extensive, 5,500-kilometre, high-capacity fibre optic backhaul network across the region. This backbone in turn connects to nearly two dozen local access networks that provide wired or fixed wireless broadband access to about 90 per cent of the homes and businesses in Eastern Ontario.

The organization supplemented the network by negotiating improved satellite packages to reach those parts of the region that it could not otherwise connect, extending broadband access to 99 per cent of the region. EORN also collaborated and built relationships with First Nations communities in the region to ensure that they too benefited from the project. With economic development in mind, the project went on to build fibre services to more than 60 business parks and core business areas across the region.

The projected $170-million project is now valued at more than $260 million, when ISPs' in-kind contributions and long-term service obligations are included. EORN has demonstrated that it is highly efficient and effective at leveraging investments made by government to increase the overall value of the network to the community.

A strategy for tomorrow

With the completion of the network infrastructure, EORN is shifting gears to ensure the region reaps the benefits of this important investment. To create a digitally connected region, Eastern Ontario needs not just broadband access, but also the skills and capacity to use technology effectively. The Digital Strategy offers a road map for the region to embrace the economic and social benefits of internet-based tools to create strong, successful communities.

The strategy is based on the latest research and understanding of the digital economy, as well as EORN's own local experience and success in building rural broadband services.

Through the first phase of the project, EORN built trust and credibility by developing solutions that were based on sound data analysis and evidence. It cultivated good relationships with partners through open lines of communication and the flexibility to meet and balance different stakeholder needs.

EORN will continue to seek out strategic partnerships with organizations that share its goals and priorities. This will involve working with local and national businesses, economic development groups, non-profit groups and those who deliver public services. EORN will also continue to seek out federal and provincial funding opportunities to provide support.

Goals

GOAL 1: Increase User Uptake

Working with private and public sector partners, EORN will promote the adoption of digital technology across Eastern Ontario. Citizens, businesses and public institutions will be encouraged and supported in the adoption of high-speed internet service and digital technology.

GOAL 2: Improve Broadband Access

Driven by the perpetual demand for higher speed and more capacity, EORN will leverage the existing broadband network in Eastern Ontario to expand and enhance fixed and mobile broadband access throughout the region.

GOAL 3: Demonstrate Technology Leadership

EORN will investigate, develop and promote the adoption of new technologies that support wealth creation, job growth and educational opportunities.

Strategic Approach

EORN will achieve its goals using three proven approaches that have served the organization and region well to date:

Advocacy:

The EOWC and EORN are trusted by stakeholders to develop evidence-based solutions for the region's economic and social challenges. EORN will continue to advocate for initiatives based on data and strong local knowledge.

Investment:

EORN will continue to invest strategically in areas where it can leverage the contributions from others to achieve more than it could alone.

Mobilization:

Whenever possible, EORN will work to mobilize diverse groups of stakeholders throughout the region to work together on shared goals and objectives of the Digital Strategy. EORN will not duplicate the efforts of other groups and organizations. In fact, others may take the lead on specific initiatives that emerge out of the Digital Strategy.

Focus Areas

EORN will achieve its goals by focusing on four key areas:

Regional Economic Development

EORN will work with Eastern Ontario businesses, not-for-profit organizations and public institutions to develop innovative ways to use the new broadband network as a springboard for increased wealth and job creation.

In particular, we will focus on ways to connect businesses to in-region and out-of-region markets, secure increased sales and business revenues, and increase efficiency. EORN will also work on strengthening access to quality labour market intelligence to address the needs of businesses and individuals.

This will foster economic growth in the form of improved regional GDP and productivity, better jobs and higher personal incomes. Those benefits will help to build a stronger residential and commercial property tax base that supports more sustainable communities.

Municipal Services

EORN will help Eastern Ontario municipalities use internet-based applications to improve service levels, better manage the costs of delivering vital public services, and engage citizens in local government. The strategy identifies opportunities such as training, shared services and new application development that would support these goals and create more responsive local governments with improved citizen satisfaction.

Broadband Education

Individuals with new access to broadband may not realize the many ways in which it can be used to improve their social interactions and prepare them for our changing world – both globally and locally. Through education and training programs, EORN will help Eastern Ontarians learn how to use the new regional broadband network, and will pursue network applications to reduce social isolation, improve education and skills, and improve personal/household prosperity.

This delivers direct benefits through reduced spending on social programs, as well as indirect benefits in the form of higher employment levels, stronger household incomes, and a stronger property tax base.

Broadband Infrastructure (Fixed & Mobile)

EORN has successfully built a $170-million fixed broadband network that meets the speed and capacity demands of Eastern Ontarians today, with capacity to grow in the future. However, there is still work to be done to ensure that the current infrastructure is fully scaled and expanded upon to meet the needs of citizens in 2024. This includes building off the current network to increased mobile access in the future.

Strategy Overview

	ACTIVITIES BY GOAL		
Focus Areas	**Increase User Uptake**	**Improve Broadband Access**	**Demonstrate Technology Leadership**
Regional Economic Development	Improve access to quality labour market intelligence. Promote availability of investment supports for a wide range of local businesses and organizations.	Promote Eastern Ontario as a "connected," "tech savvy" or "innovative" rural region. Promote positive economic impact of high-speed broadband to the economic development community.	Develop a competition with a cash prize for technology companies to develop practical tech solutions for challenges faced by citizens in the region. Participate and provide seed co-funding for new infrastructure or commercialization opportunities in Eastern Ontario; e.g. data centres.
Municipal Services	Develop voluntary shared IT services and joint procurement programs. Promote regional training opportunities. Co-ordinate and develop a Municipal Information Management Project (MIMP).	Assess municipal broadband needs. Engage municipal planning departments to support broadband infrastructure in new developments. Identify opportunities to improve emergency response communications in conjunction with available spectrum options, such as the 700 MHz band.	Support and develop expanded online services for ratepayers. Explore improved local government apps. Explore opportunities to support home healthcare/ paramedical monitoring. Identify and develop online applications that support citizen engagement with local government.
Broadband Education	Promote the adoption and use of Magnet, a job matching platform, with post-secondary schools and business organizations. Work with tourism organizations to develop an Eastern Ontario Tourism e-kit.	Promote improved broadband access in the 62 business parks/areas wired through EORN. Support promotional programs to encourage broadband. Provide input and advice to the CRTC on rural broadband requirements.	Support technology demonstration projects and kiosks where citizens can access internet services. Facilitate access to online training, webinars and public meetings to promote new technologies for citizens, businesses and government.
Broadband Infrastructure (Fixed & Mobile)	Work with partners to understand regional user uptake and how to support fixed and mobile broadband needs. Investigate uptake patterns for fixed and mobile broadband in urban and rural areas.	Look to *Digital Canada 150* funding to serve areas in Eastern Ontario without terrestrial broadband. Conduct a gap analysis for mobile broadband and cell coverage throughout the region. Build case for mobile broadband expansion if required. Ensure ongoing upgrades to existing EORN infrastructure and maximize scalability of the network.	Develop a strategy to ensure broadband investments and transportation networks deliver seamless travel across the region – create a "smart" overlay. Research and identify future requirements for upload speeds for fixed and mobile broadband.

Detailed Strategy

Goal #1 Increase User Uptake		
Focus Areas	**Objectives**	**Partners***
Regional Economic Development	• Provide easy access to job opportunities across the region by supporting a web-accessible, regional job posting service for existing employers and workers, as well as firms and individuals considering start-up, expansions or relocations to the area. Through aggregation software, the service would build on, but not replicate, existing services. • Support deployment of online applications and software that improve access to timely, high quality regional labour market data and related 'intelligence' for the region's Economic Development Strategy Leadership Council. With appropriate licenses, the software could provide near-real time demand information by industry, occupation, wage rates, geographic location, and employer type. This information could be supplemented by the region's Employer One survey results. • Gather competitive intelligence on the region's resources for entrepreneurship, technology or product/service development, incubation, research and testing, and peer-to-peer networking. Identify major gaps and collaborate with regional organizations to make information available online on a region-wide basis. • Expand the availability of traditional and non-traditional investment supports for business/economic development. Create a promotional program to ensure that local businesses and organizations are aware of these supports.	• Industry associations • Chambers of Commerce • BIAs • MTCU • MEDTE • MTO • Applications developers (e.g. Magnet, PinPoint) • "Owners" of region's innovation resources • Workforce Development Boards • EOWC • EOMC • Ontario East • First Nation communities
Municipal Services	• Develop a voluntary program for shared IT services among upper and (possibly) lower-tier municipalities; could include joint procurement or shared systems. • Identify and organize regional online and classroom-based training opportunities for municipal staff, including sponsoring ITIL[1] training for IT Directors. • Organize and deliver Lean Six Sigma[2] training for municipal employees; encourage the adoption of this approach for implementing municipal technology projects. • Co-ordinate development of a Municipal Information Management Project (MIMP) pilot; initial implementation in municipalities; post-pilot rollout to others as required/desired.	• Municipal IT managers • IT training providers • CAOs • EORN • Clerks and Treasurers

*Please see the full list of Partner acronyms on page 16.

[1] ITIL (formerly known as Information Technology Infrastructure Library) is a best practice framework describing how IT resources should be organized to deliver business value to the organization, documenting the processes, functions and roles of IT Service Management.

[2] Lean Six Sigma is a methodology/approach to organizational work that uses a collaborative team effort to improve performance by systematically removing waste. It combines manufacturing/lean thinking and Six Sigma to eliminate various forms of waste (defects, overproduction, waiting, etc.).

Goal #1 Increase User Uptake		
Focus Areas	**Objectives**	**Partners***
Broadband Education	• Work with early adopters of Magnet labour force software to promote its further adoption and use by stakeholder groups and individuals, particularly youth. • Develop a 'primer' for businesses and other small organizations to use in understanding the online applications that could improve productivity and efficiency, enhance customer service, reduce administrative costs, improve marketing, expand markets and increase profitability. Work with local organizations on a series of hands-on demonstrations to share information with small and medium-sized enterprises (SMEs). • In partnership with regional tourism organizations (RTOs) and tourism associations, develop an Eastern Ontario Tourism e-kit. The kit would advance use of the internet/mobile internet/cloud computing to promote and enhance the contribution of tourism to the regional economy. Engage other service providers to ensure that small and medium-sized tourism businesses have the technology tools they need to more effectively market and manage their businesses online, thereby enhancing the long-term profitability and viability of tourism (EOWC objective). • Provide technology leadership in bringing together providers of education and training services to determine interest in and the best way to create an "Eastern Ontario Online Training Network" (a portal for suppliers of education and training services to showcase their course offerings)[3]; an online alternative may also help to retain and re-attract youth. • Work with the region's post-secondary education institutions on ways to use broadband to attract, train and retain international students in Eastern Ontario. • Develop initiatives to use broadband to connect international colleagues with the region's supply chains for high-potential goods and services.	• Post-secondary schools • Boards of Education • Workforce Development Boards • RTOs • Tourism associations • CFDCs • Ontario East • Chambers of Commerce • BIAs • CFIB • MEDTE • Industry Canada • First Nation communities
Broadband Infrastructure (Fixed & Mobile)	• Conduct research on the demographic and socio-economic patterns of user uptake of fixed and mobile broadband services across the region. • Analyze implications of patterns and trends for future requirements for these services (e.g. capacity, future bandwidth demand, usage patterns by infrastructure type, network refresh and sustainability). • Identify barriers and enablers to improving access and further increasing user uptake for each kind of broadband infrastructure. • Investigate and compare user uptake patterns for fixed and mobile broadband in rural and urban areas of the region; compare and benchmark to other regions of Canada.	• EORN Phase 1 partners • ISPs • Municipalities • School boards • CFDCs • Healthcare and other institutions • Chambers of Commerce • Industry associations • Industry Canada • Transportation and logistics firms • First Nation communities

[3] Through the portal, users (employers, training organizations, individual employees, students etc.) could search by keyword or topic and obtain information about the opportunities that meet their needs. The portal would include links to providers in and outside the region, including Massively Open Online Courses (MOOCs), employment agencies, home-based business associations; and links to entrepreneurship and innovation services. Providers would be responsible for updating their content.

Goal #2: Improve Broadband Access		
Focus Areas	**Objectives**	**Partners***
Regional Economic Development	• Develop a promotional plan for presenting Eastern Ontario as a "connected," "tech savvy" or "innovative" rural/small town/city region. The Plan would use benchmarks to validate the claim, seek endorsements from members of target audiences, present case studies, and be timed to unfold with major milestones in broadband and cellular infrastructure. Plan could include a professional video, internet coverage and free Wi-Fi hotspot maps, roadside QR codes, and/or pursuit of an "intelligent" or "smart" community (region) designation. • Host and facilitate ongoing awareness campaigns and/or events to share research results, local impact statements and other information about the positive impact of high-speed broadband on economic development across the region. Target economic development professionals throughout the region so they have full understanding of broadband and cell services available to existing or prospective businesses. • Encourage local governments and utilities across the region to introduce broadband-inclusive conduit policies for new property developments and pole-sharing agreements along roadways and right-of-ways.	• EOWC • EOMC • CFDCs and Eastern Ontario CFDC Network Inc. • Ontario East • RTOs and tourism associations • Chambers of Commerce • BIAs • CFIB • Industry associations • OMAFRA • MEDTE • Industry Canada • First Nation communities
Municipal Services	• Develop an RFP to address current and future need for broadband to support municipal operations and services, based on an analysis of municipal requirements across the region. • Support municipal planning departments to adopt broadband-inclusive conduit policies for new subdivisions and business parks. • Expand and promote free municipal Wi-Fi in public areas – particularly in high traffic tourism locations. • Research requirements for a regional emergency services communications application via broadband. Validation would include review of interoperability requirements, technology and spectrum options (e.g. 700 MHz) and interest in certain types of applications (e.g. fleet management, first responder and other paramedic service support, transportation safety, data-intensive communications); if validated, would result in a business plan to move into development and implementation.	• Government of Ontario • Government of Canada • EOWC • AMO • MEDTE • Paramedic services • Fire services • OPP and municipal police forces • First Nation communities

*Please see the full list of Partner acronyms on page 16.

> " The average contribution of the internet economy to Canada's current GDP is a full 25 per cent below its G20 peers (CIRA 2013). "

Reasserting Canada's Competitiveness in the Digital Economy,
The Internet Association, September 2014

Goal #2: Improve Broadband Access		
Focus Areas	**Objectives**	**Partners***
Broadband Education	• Work with government and private sector partners to promote availability of improved broadband access (high-speed fibre) in 62 newly-wired business parks/areas across the region. • With service providers across the region, develop promotional programs to encourage broadband adoption among individual citizens, based on availability of network. • Consult on the types of programs that would be most helpful to individuals (e.g. types of education/skills development) to make greater use of broadband. • Continue to provide input, advice and submissions to the proceedings of the CRTC regarding spectrum licensing and broadband services for rural Ontarians.	• EOWC • EOMC • Municipalities • EORN partners • Business park owners/ operators • CFDCs • Ontario East • EDOs • Chambers of Commerce • First Nation communities
Broadband Infrastructure (Fixed & Mobile)	• Coordinate and support regional ISPs' response to *Digital Canada 150* funding for outstanding areas in Eastern Ontario that do not have terrestrial broadband coverage. • Conduct a cellular service gap analysis for mobile broadband and cell coverage throughout the region. Prepare an approximate estimate of the cost to fill as many of the gaps as possible. • If required, use the results of the cell gap analysis to create a business case for submission to senior levels of government for infrastructure funding for mobile broadband. • Monitor reports from private sector partners on network Service Level Agreements (SLAs) to ensure that ongoing investments are made to upgrade the existing EORN infrastructure for both backbone and last mile contracts. • Maximize the scalability of the network.	• EOWC • EOMC • Municipalities • EORN partners • Government of Ontario • Government of Canada • First Nation communities

> " To compete with foreign companies that produce goods at lower labour costs, Canadian small and medium-sized enterprises (SMEs) need to improve their productivity. They can do this by cutting the input costs (time, material and labour) of the products and services they sell. The fastest, most effective approach to competing successfully in this area is to adopt digital technology. "

Productivity into profits: A guide to digital technology adoption for SME productivity leaders, White Paper. By Nurul (Sy) Symoom, Industrial Technology Advisor, Canadian National Research Council

Goal #3: Demonstrate Technology Leadership		
Focus Areas	**Objectives**	**Partners***
Regional Economic Development	• Advocate for a federal digital (commercialization) tax credit to stimulate investment in information and communications technology (ICT), particularly by SMEs. Similar to how the Home Renovation Tax Credit encouraged Canadians to retrofit their homes, a Digital Renovation Tax Credit (DRTC) would encourage SMEs to update their online presence.[4] • Develop at least one competition with a significant cash prize (or other similar incentive) for technology companies that develop practical ICT-based solutions for specific challenges faced by rural/small-town businesses and/or organizations. • On behalf of all Eastern Ontario municipalities, join the Canadian Advanced Technology Alliance (CATA) or other similar support organizations; take on leadership roles on initiatives related to technology development and deployment. • Participate in and provide seed co-funding for the development of technology-focused clusters, attraction of key infrastructure (e.g. data centres) or engage venture capital organizations to stimulate development and commercialization of local technologies of interest to the regional economy of Eastern Ontario. • Research and evaluate how the "internet of things" might contribute to economic development and innovation in Eastern Ontario.	• Government of Canada (Department of Finance; Industry Canada) • EOWC • EOMC • Technology start-ups • Applications developers • ISPs • First Nation communities
Municipal Services	• Identify and prioritize online applications that support greater engagement of ratepayers and other local government clients, allow them to conduct business with officials and staff online rather than in person (reducing travel requirements), and pay fees/charges online rather than by mail or in person. • Conduct research to determine best strategies for addressing the top three local government priorities (e.g. online compliance monitoring/ reporting for municipalities; remote sensing of traffic/weather/congestion; road conditions and/or road maintenance; crowdfunding portal for municipal projects or public policy portal; or open data initiative to encourage private sector to develop apps for local government). • Explore opportunities to contain costs and maintain residents' health by implementing and/or expanding remote monitoring of patient health (at home) either with technology alone or in conjunction with community paramedicine and other service providers.	• EOWC • EOMC • Municipal government • Transportation; construction industry contractors • Post-secondary schools • Paramedic services • Government applications developers • Health monitoring/ tech companies • First Nation communities

*Please see the full list of Partner acronyms on page 16.

[4] *Reasserting Canada's Competitiveness in the Digital Economy*, The Internet Association, Sept 2014

Goal #3: Demonstrate Technology Leadership		
Focus Areas	**Objectives**	**Partners***
Broadband Education	• In conjunction with expanding free Wi-Fi hotspots within communities, work with schools, libraries, grocery stores and other high-traffic areas to conduct ad hoc demonstrations of business or workplace applications, use broadband or cell applications to access data from home or cloud servers, or interact/take part in online training, webinars or public meetings. • Expand the number of locations in communities (e.g. kiosks) where citizens can access the internet without owning a computer.	• Municipal governments • Library services • Boards of education • Retail stores • Technology hardware and software providers • First Nation communities
Broadband Infrastructure (Fixed & Mobile)	• Maintain a standing watch on new ICT options (materials, form factors, applications, interoperability capabilities, service delivery options) that could help to address economic and social challenges facing sparsely populated regions such as Eastern Ontario. • Develop a strategy to create a "smart" overlay for the region's transportation network. The overlay would allow real-time information about communities and transportation networks using embedded sensors to ensure efficient, safe travel across the region. • Research and identify future requirements for fixed and mobile "upload speeds" and lobby ISPs to increase upload speeds in internet package offerings to meet these requirements.	• EOWC • EOMC • Municipal governments • Library services • Boards of Education • Construction and maintenance companies • Transportation and logistics companies • Tourism, hospitality and retail businesses • Travel-related service businesses • ISPs • First Nation communities

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ACRONYMS

BIA	Business Improvement Association	ISP	Internet service provider
CAO	Chief Administrative Officer	MEDTE	Ontario Ministry of Economic Development,
CFDC	Community Futures Development Corporation		Trade and Employment
CFIB	Canadian Federation of Independent Business	MTCU	Ontario Ministry of Training, Colleges and Universities
EDO	Economic Development Office	MTO	Ontario Ministry of Transportation
EOMC	Eastern Ontario Mayors' Caucus	OMAFRA	Ontario Ministry of Agriculture, Food and Rural Affairs
EORN	Eastern Ontario Regional Network	OPP	Ontario Provincial Police
EOWC	Eastern Ontario Wardens' Caucus	RTO	Regional Tourism Organization

Measurement and Evaluation

Demonstrating success and evaluating the progress of the Digital Strategy is critical for the EORN and EOWC Boards, particularly so that the organization can continue to make evidence-based decisions on future activities. It is also important to measure the impact for the community at large and funding partners, who have made the investment in broadband.

One of the challenges in this process is the fact that the success of the organization has been due in part to its flexibility to adapt to changing internal and external circumstances and opportunities. EORN will need to remain flexible in the future, as circumstances are likely to change over the long term. Developing fixed measurement criteria may have little value, if unforeseen opportunities arise that displace current priorities.

To address this challenge, the organization will use an annual balanced scorecard to measure both the financial results, as well as the perspectives of internal and external stakeholders. At the highest level, it is expected that the scorecard will include:

| FINANCIAL RESULTS	STAKEHOLDER PERSPECTIVES	OPERATIONAL EFFECTIVENESS	CORPORATE MISSION
Did the organization successfully operate within its budget? Was it able to leverage new investments from a variety of public and private sector sources into the identified focus areas?	Did the organization fulfil its objectives within the EOWC Economic Development Strategy? Did the organization promote and develop new partnerships? Was the organization responsive to requests and comments from citizens and stakeholders? Did the organization professionally and accurately communicate and represent the values/perspectives of the EOWC?	Were internal business practices completed efficiently and effectively? Were the terms and conditions of all third party funding and reporting requirements met?	Did the corporation contribute to the creation of wealth and employment opportunities in Eastern Ontario? Was high-speed broadband available to the citizens, businesses and public institutions of Eastern Ontario?

Annual Work Plan and Priorities

EORN does not have a sufficient staff complement to fully implement all of the objectives identified in the strategy within the first five years. However, given the current priorities of the EORN Board of Directors, the objectives have been sequenced into a work plan which will evolve over time as various activities expand and evolve. The work plan below identifies the focus and priorities for the next ten years, with a much higher level of certainty being placed on the first three years, 2015 - 2017.

Legend: ⬡ Primary priority; ⬡ Secondary priority

Goal #1: Increase User Uptake	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Regional Economic Development										
Job Posting Service	P	P	S	S	S					
Labour Market Data & 'Intelligence'	P	P	P	P	P					
Competitive Intelligence on Innovation/Development	S	S	P	P	P					
Investment Supports & Awareness	S	S	P	P	P					
Municipal Services										
Shared IT Services	P	P								
Training – ITIL and Lean Six Sigma	P	P								
Electronics Records Management	P	P	S	S						
Broadband Education										
Promote use of Magnet Software	P	P	P							
'Primer' for Business – Online Applications	S		P	P	S					
Eastern Ontario Tourism E-Kit		P	P	S	S					
Eastern Ontario Online Training Portal		P	P	S	S					
International Students/Supply Chain Development			P	P	S	S	S			
Broadband Infrastructure (Fixed & Mobile)										
Research on Patterns of Uptake		P	P							
Implications and Trends for Future Requirements			P	P						
Identification of Barriers & Enablers		P	P							
Uptake Comparisons (Urban-Rural; International)			P	P	S	S				

Goal #2: Improve Broadband Access

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Regional Economic Development										
Promotional 'Connected Region' campaign		●	●	○	○	○	○	○	○	○
Awareness campaigns – BB as ED driver	●	●	○	○	○					
Conduit Policies & Utility-Pole Sharing		●	●	○	○	○				
Municipal Services										
RFP for Future Municipal BB Requirements	●	●	○	○	○					
Municipal Conduit Policies		●	●	○						
Expanded Free Municipal Wi-Fi		●	●	○	○		○			
Regional Emergency Services Application	○	●	●	●	○	○				
Broadband Education										
Promote 'Wired' Business Parks	●	●	○	○						
Promote BB Adoption by Citizens	○	○	●	●	●	●				
Utilization Programs for Citizens	○	○	●	●	●	●				
Broadband Infrastructure (Fixed & Mobile)										
Digital Canada 150 Funding for Unserved Areas	●	●	○	○	○	○				
Cell Gap Analysis	●	●								
Cell Gap Business Case and Funding Application	●	●	●	○	○	○				
Monitor Service Level Agreements (SLAs)	●	●	●	●	●	●	●	●	●	●

> " All levels of government play a critical role in sustaining the economic and social growth of communities by providing a range of services to residents and local businesses. Actively participating in the digital economy will enable state and local governments to significantly upgrade the quality, timeliness and range of services they can deliver online. "

National Digital Economy Strategy: Leveraging the National Broadband Network to Drive Australia's Digital Productivity, Government of Australia, 2011

Goal #3: Develop Technology Leadership

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Regional Economic Development										
Advocacy for Digital Tax Credit	░	░	░							
ICT Solutions Competition/Prize			░	█	█	█		█	█	
Leadership in Technology Associations (CATA)	░	█	█	█	█	█	█	░	░	░
Seed Co-funding for Clusters, Technologies		░	█	█	█	█				
Municipal Services										
Ratepayer Engagement; Transact Business		█	█	░	░	░	░	░	░	░
Top 3 Local Government Internal Priorities			█	█	█	█	█	░	░	░
Remote Monitoring of Patient Health		░	░	█	█	█	░	░	░	░
Broadband Education										
Demonstration Sites for New Broadband Services			█	█	█	░	░	░	░	░
Kiosks for Online Municipal Service Applications			█	█	█	░	░	░	░	░
Broadband Infrastructure (Fixed & Mobile)										
Monitor and Evaluate New ICT Options for Broadband Delivery	░	░	░	░	░	░	░	░	░	░
Create a Transportation "Smart" Overlay			█	█	█					
Research Requirements and Lobby ISPs to Increase Upload Speeds	█	█	█	░						

> " While Canada ranks highly in terms of Internet usage and is well positioned to participate actively in the digital economy, it lags behind in several critical respects. Generally speaking Canadian businesses have been slow to adopt Internet technologies that are mainstream among key competitors globally. "
>
> *Reasserting Canada's Competitiveness in the Digital Economy,*
> The Internet Association, September 2014

National and Regional Context

Canadian Context

The Digital Strategy aims to fit within the larger Canadian context. Nationally, there is broad understanding that while Canadians are active internet users, our businesses lag behind other nations in embracing e-commerce and other online platforms. For example, according to 2014 data from the Canadian Internet Registration Authority (CIRA), only 46 per cent of Canadian businesses have a website.

The internet economy in Canada contributes about three per cent to the annual GDP. While significant, this is about 25 per cent below G20 peers, according to CIRA.

As well, according to the Internet Association, an industry association of online/tech companies, only three percent of Canada's retail economy is online, compared to 23 per cent in the United Kingdom and seven per cent in the United States. They report that 68 per cent of Canadian online shoppers purchase from retailers outside of Canada.

The federal government has launched *Digital Canada 150*, a strategy that aims to improve broadband access, support development of the tech sector and help businesses embrace digital technologies.

EORN has the opportunity to participate in several funding streams associated with *Digital Canada 150's* components, including:

- **Connecting Canadians:** This program sets targets to ensure that at least 98 per cent of Canadians have access to high-speed internet speeds of up to 5 megabits per second (Mbps). Funding of $305 million has been allocated to assist ISPs in extending and enhancing high-speed services. Broadband and connectivity projects that are part of the Provincial and Territorial Infrastructure component of the Building Canada Fund are eligible for federal support. EORN has already started working with ISPs in Eastern Ontario to assist them in making applications under this program as well as making submissions to Industry Canada regarding the 3500 MHz spectrum auction.

- **Economic opportunities:** The Business Development Bank of Canada (BDC) will allocate an additional $200 million to help small and medium-sized businesses embrace digital technology and another $300 million in venture capital for companies in the information and communications technologies sector. It also sets aside $40 million to support up to 3,000 internships in high-demand fields, along with $15 million annually to internships with small and medium-sized businesses. This component includes an increase to $100 million in budget support to the Canada Accelerator and Incubator Program to help digital entrepreneurs take the next step in developing their businesses.

- **Digital government:** The federal strategy includes a commitment to "open data" – the ready access to government data in easily usable formats – to expand public dialogue, stimulate citizen engagement and foster greater cooperation among governments, businesses, academia and individuals.

- **Canadian content:** The Strategy created the Canada Media Fund to foster, develop, finance and promote the production of Canadian content and apps for all digital media platforms.

Regional Economic Development Strategy

Within Eastern Ontario, EORN's Digital Strategy works in tandem with the regional economic development strategy unveiled last year by the Eastern Ontario Wardens' Caucus (EOWC).

The EOWC has demonstrated leadership in engaging with the federal and provincial governments to support pressing regional needs. It helped created the federal government's Eastern Ontario Development Program and the provincial Eastern Ontario Development Fund. Similarly, it garnered substantial support form provincial, federal and municipal governments to make EORN a reality.

The EOWC's regional economic development strategy followed extensive economic and policy research on the region's economic and fiscal challenges. A Leadership Council will be established to oversee and manage implementation of the strategy.

Technology is integral to achieving all three of the key priorities identified in the strategy:
• Workforce development and deployment;
• Technology integration and innovation; and,
• Integrated and intelligent transportation systems.

EORN has already begun work with the EOWC and other stakeholders on several new initiatives that help the region to get greater value from broadband investments and make progress on economic development goals. It is also encouraging that the economic development strategy is being used as a guide for funding decisions by FedDev Ontario, the federal government's economic development agency for Ontario.

Research Partnerships

As part of the project, EORN funded a study by the Monieson Centre at the Queen's School of Business to examine the benefits of government investments in broadband in rural and northern communities from 1997 to 2011. It found that broadband promoted employment in service industries in rural regions, helping to overcome some of the geographic barriers to rural job growth and helping close the urban/rural employment gap.

EORN has further worked with Monieson on two separate projects aimed at identifying how best to measure the impact of broadband deployment in Eastern Ontario, given the complexity of the projects. It is likely that EORN will consider further investments in research partnerships with regional colleges and universities to better understand the long-term impact of broadband investments.

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