

London Medical Network Status Report:

City of London - Strategic Priorities And Policy Committee

August 26, 2019

In 2015, LMN Created to Promote London as a Centre for Medical/Health Innovation and Commercialization

- \$10M in funding provided by the City of London for investment
- Key objectives included:
 - Support the commercialization of research and development
 - Attract/retain top medical talent in the region
 - Build upon London's reputation as a national healthcare leader
 - Help stimulate job growth in London

LMN - an Enabling Enterprise Dedicated to the Pursuit of Medical Advances for Economic and Social Gain

Background

Leaders from across the city's health care community collaborated on the creation and development of a medical innovation network focused on resolving some of the world's more challenging health care problems and commercializing advances for economic and social gain. To accomplish this vision, the London Medical Network (LMN) developed a Strategic Plan and set for itself six goals:

1. Create a series of integrated, team-based, medical innovation and commercialization hubs that capitalize on London's strength in medical research and health care delivery
2. Add quantifiable economic value to London's economy, attract new industry and help create new knowledge-based, long-term jobs
3. Collaborate with London's impressive hospital network and cache of health care assets to create better patient outcomes
4. Create opportunities for long-term youth employment and local business
5. Improve patient care locally, nationally and globally
6. Operate the Network in a sound and financially self-sustaining manner

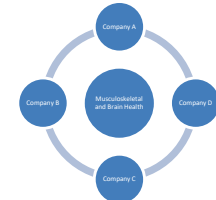
Initially, Three Pillars of Medical Research Excellence Identified and Prioritized

Pillars lent themselves to immediate and impactful innovation and commercialization opportunities.

Pillar I: Musculoskeletal and Brain Health

Pillar II: Bio-Medical Devices and Advanced Simulation

Pillar III: Bio-Medical Imaging



Key Activities Pursued:

- Augment the existing research excellence within each Pillar by recruiting/retaining Research Leaders capable of building a world-class innovation and commercialization enterprise
- Establish a Medical Innovation Centre to serve as the translational research, innovation and commercialization arm for each Pillar
- Surround each Medical Innovation Centre with commercial companies at the global and early stage level, linking them to the community's top clinical testing and translational programs and focusing them on problem resolution and improved health care.

LMN Decision Making and Investment Authority Delegated to the Nine Member Governing Council

Governing Council Members		
CEO, St. Joseph's Health Care London	CEO, London Health Sciences Centre	Scientific Director, Lawson Health Research Institute
Dean, Schulich School of Medicine and Dentistry	Vice-President, Research, Western University	City Manager, City of London
Mayor, City of London	Independent Member from the Community	Independent Member from the Community

The LMN was initially resourced through a mix of volunteer Board members and non-recoverable personnel secondment from Network members. The only operating expenses associated with the entity was 3rd party expenditures (legal and accounting) associated with the Corporation's establishment and maintenance, and these expenses are remitted from interest earned by LMN. In September 2018, the Ivey International Centre for Health Innovation was retained to administer the entity.



ADEISS



Additive Design in Surgical Solutions (ADEISS) Centre; the first centre in North America dedicated to the design, development and commercialization of medical instruments and surgical solutions through precise additive manufacturing.

The ADEISS Centre is a unique partnership that brings together research, technical and business development teams from Western University, the Lawson Health Research Institute and UK-based Renishaw PLC¹ to create innovative instruments and products that can be marketed to the dental, orthopedic and medical device sector throughout North America and around the world.



The ADEISS Centre's dual focus is to:

- Help clinicians translate novel prototypes and components into market-ready medical devices for ultimate use in the global health care market
- Identify, manufacture and market in-license products for sale in Canada

1: Renishaw PLC is a \$1 Billion CAD, 4,000-employee global leader in Additive Manufacturing (also known as "3D printing")



Three Initiatives Have Been Funded Since Inception for a Total of \$2.7M

Investment	Date	Amount
ADEISS	Sept 2016	\$1.56M
BURST 1.0	Apr 2017	\$0.9M
BURST 2.0	Mar 2019	\$0.3M
	Total	\$2.76M



ADEISS



In addition to LMN funds, Western - \$0.6M Operating Funds, \$0.6M In-Kind Contribution, Renishaw - \$0.6M In-Kind Contribution.

Key Activities:

- Successfully completing its ISO 13485 certification process
- Securing a Class I Medical Device Establishment License
- Secured the initial 8-member startup team (6.5 FTEs)
- Commissioned a state-of-the-art development site near Western's medical research teams
- Supported London startups, students and entrepreneurs with a world-class environment in which to develop and test their own new products for use in the health care
- Developed a portal and associated marketing collaterals
- Building company and brand awareness through innovative marketing/promotional approaches

Currently Shifting From Start-up to Growth Phase of the Company



BURST 1.0



In an effort to increase the quantity and investment quality of London’s early-stage technology companies, LMN funded TechAlliance to launch “BURST”, a micro-funding program for innovative hi-tech medical and health technology companies in the healthcare and life sciences industries looking to advance their solution along the market and/or product development continuum. LMN funds were matched by FedDev Ontario.

During the period March 2017 – December 2018, BURST 1.0 provided 3 cohorts of 10 companies with \$60,000 each in acceleration funds, physical office space and business development services that focused on four critical business growth pillars:

- 1. Market validation
- 2. Corporate structure
- 3. Intellectual Property protection
- 4. Investor readiness

The goal of the BURST program is to build high potential, innovative companies with a solid business foundation and by extension, drive organic economic growth and higher market capitalization in Southwestern Ontario.



BURST 2.0



In March 2019, LMN invested a further \$300,000 in TechAlliance to launch a fourth ten company cohort of the BURST program. Once again FedDev Ontario matched the LMN invested funds so that each company received a \$60,000. In addition, FedDev Ontario also provided an extra \$10,000 per company for programs and training.

TechAlliance received 22 applications for the fourth cohort, and has approved 10 companies to participate. Nine companies are located in London with the tenth company located in Kitchener. Funding from the LMN has been distributed to support only the local nine companies located in London.

- Key metrics as of Aug 2019:
- 29 FTEs created
 - \$4.8M in incremental funding secured
 - 1 products, services or processes commercialized
 - \$0K in sales



BURST 1.0



Funds were used to establish the four business pillars, initial hiring, research and development, prototyping, process improvement, capital equipment purchases, networking and relationship enhancements, and incremental funding leverage.

- Key metrics as of Dec 2018:
- 67 FTEs created
 - \$5.2M in incremental funding secured
 - 9 products, services or processes commercialized
 - \$364K in sales

As of December 2018, all 30 companies that participated in Cohorts 1-3 of the BURST program were still in operation.



Accounting and Remaining Funds

All funds have been kept in an independent treasury bank account at the Bank of Montreal since LMN inception.

All expenditures must be approved by the Governing Council and two signatures are required on all cheques issued.

Annual audits are performed by Ernst and Young LLP.

As of July 31st, 2019 there remains approx. \$7.55M in funds available.



Where Do We Go From Here? What Are The Options?

Western University relinquishes membership in LMN in April 2019

- Sites the negative impact (and increased risk on other potential partnerships) of continual bad media coverage through association with LMN
- States desire to still partner on initiatives with LMN, but does not want to have a formal relationship that exposes the University to more negative media coverage
- VP research and Dean of Schulich School of Medicine and Dentistry to resign from Governing Council
- Triggers option for the City to request remaining funds returned

Given the research imperative of LMN and the leading role Western played, LMN has several alternatives:

1. Return the funds to the City and close down LMN
2. Return the funds to the City and keep LMN operative as an entity
3. Continue to operate “as is” until the end of the funding agreement (Dec 2020)
4. Reformulate the strategy, seeking new research pillars that do not require Western expertise – (already met with Fanshawe College about joining)

Recommendation

The current business model of LMN is unsustainable for several reasons:

1. Limited deal flow - funds have never been allocated to promote or market the Network – this limits the ability to reach out to the broader investment community (Angel, Private Equity, Venture Capital, etc.) to attract funding and firms to London
2. Governing Council includes no entrepreneurial perspectives – all administrators
3. No dedicated staff has ever existed to manage and operate LMN – it has always been an in-kind or part-time administration effort
4. Without Western University and its academic research capabilities, the development of network pillars and the surrounding ecosystems are severely hindered
5. There is nothing to indicate that these circumstances will change in a capacity that will have a significant impact on LMN performance over the next sixteen months

The remaining funds should be returned to the City after all wind-down costs for the enterprise are paid. Future investments made by the City and its partners should include operating funds to not only administer, but promote London as a desirable City for investment.