



2016-2017

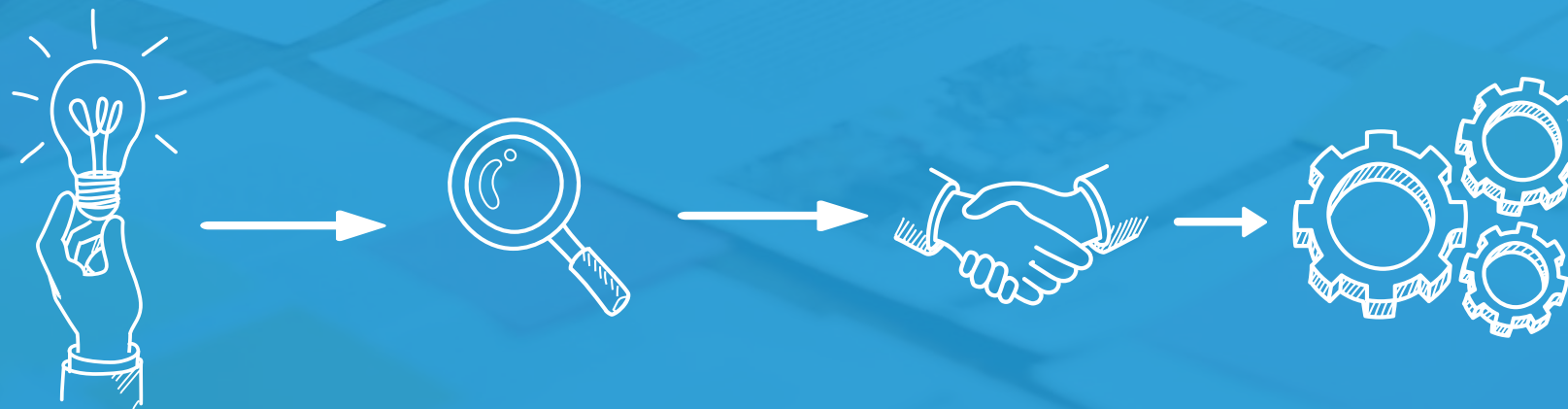
# ANNUAL REPORT

NEW BRUNSWICK INNOVATION FOUNDATION

NBIF



The New Brunswick Innovation Foundation is an independent, non-profit corporation that supports the development of innovation in New Brunswick. To us, innovation is more than a buzzword, and more than a way of thinking. At NBIF, innovation is our business.



We believe that the road to prosperity and a better future for New Brunswick begins with innovation. Innovation stimulates productivity and improves competitiveness. It is the essential ingredient of a vibrant, growing economy. To fuel innovation, we must invest in it and at NBIF, we do just that!

**GDP IMPACT**  
**\$8 TO \$1**

**TOP 5**  
**MOST ACTIVE VC FUNDS IN CANADA**

**AVERAGE SALARY WITHIN PORTFOLIO**  
**\$70,000**

**PORTFOLIO COMPANY SALES**  
**76% EXPORTS**



# A MESSAGE FROM OUR CHAIR

## CATHY SIMPSON

NBIF has been a leader and an advocate of innovation in New Brunswick since 2003. We have championed entrepreneurs and researchers to be innovative and to think big. We do this because we believe New Brunswick is full of changemakers and idea-generators.

It takes more than funding to keep New Brunswick as an innovation pacesetter. It takes brilliant ideas, risk takers, collaborators, investors, policymakers, and a persistent, unwaivering commitment of evolving our organization to be current with market needs. We also need leaders and policymakers who support our mutual goal of creating new businesses and researching new concepts to grow our economy.

Our Breakthru 2017 awards dinner was a demonstration of the existing, high-spirited entrepreneurial community here in New Brunswick. More and more, we are seeing NB researchers working with and becoming entrepreneurs to build their business plans with a goal of creating new businesses or tech spin-offs. This year, we collaborated with more than 20 prize partners and awarded more than \$1 million in cash and in-kind prizes to our 4 winning startups.

In 2017-18, our focus is aligning with our partners and network to continue to build momentum in the research and entrepreneurial community. Our plan is set on funding research that has commercialization potential; a focus on how to scale up more of our



startups; and stakeholder engagement to ensure we are evolving our model of operations. We will continue to be an ecosystem partner focused on building a better New Brunswick by helping to create jobs, funding new research, and we will remain strong advocates for innovation and growth in New Brunswick.

*Cathy Simpson*



## BOARD OF DIRECTORS



**CATHY SIMPSON, CHAIR**  
Vice President, People & Culture  
T4G Limited



**ERIC COOK, VICE-CHAIR**  
Executive Director & CEO  
RPC



**BILL LEVESQUE, TREASURER**  
President  
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Vice President, Sales & Marketing  
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New Brunswick Jobs Board Secretariat



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Central Group of Companies



**JEAN-MARC DUPUIS**  
Deputy Minister  
Post-Secondary Education, Training & Labour



**LIANE ROY**  
President  
Collège communautaire du Nouveau-Brunswick

INVESTMENT  
PERFORMANCE  
SINCE INCEPTION

2017  
Invested by NBIF

85M

Leveraged capital

425M

Active portfolio companies

45

Research projects supported

470

Professors recruited

63

Value of VC Exits to date

\$12M

# MESSAGE FROM THE PRESIDENT & CEO

## CALVIN MILBURY

Far too often ideas simply fall through the cracks, but not here in New Brunswick. The New Brunswick Innovation Foundation is bridging the gap between research and enterprise to accelerate innovation so that more ideas go from the lab to the marketplace.

Last year we invested \$12.1 million into New Brunswick entrepreneurs and researchers. For every dollar we invested, an additional \$4.24 was leveraged from other capital sources. That's a \$63.4 million impact! More than capital, we also provide our innovators with access to expertise, knowledge and our network.

For example, our innovation voucher fund partnered 23 New Brunswick companies with researchers who collaborated to develop ideas or solve problems through R&D. By leveraging the specialized expertise and equipment that resides within our research community, we were able to help these companies improve their profitability and competitiveness, resulting in positive economic growth.

For the third consecutive year, NBIF was ranked by the Canadian Venture Capital Association as being among the Top 5 most active venture capital funds in Canada. A record \$4.63 million in venture capital was invested in 29 high-growth potential companies. Our portfolio stands strong at 45 companies and is expected to grow thanks to our most successful Breakthru yet. The competition attracted more than 140 entrepreneurs from across Canada, putting New Brunswick on the map as THE place to launch your startup.



Our year ended on a positive note with the Government of New Brunswick committing \$45.6 million to NBIF. These funds will enable us to help even more innovators throughout our province bring their ideas to reality. With the dedication of our team combined with the resolve of our clients, NBIF and our network are committed more than ever to drive innovation and economic growth in New Brunswick.

*Calvin Milbury*

## NBIF TEAM



**CALVIN MILBURY**  
President & CEO



**JOANNE JOHNSON**  
Executive Assistant



**CRAIG MCLAUGHLIN**  
Controller



**HILARY LENIHAN**  
Administrative Assistant



**LINDSAY BOWMAN**  
Director of Research



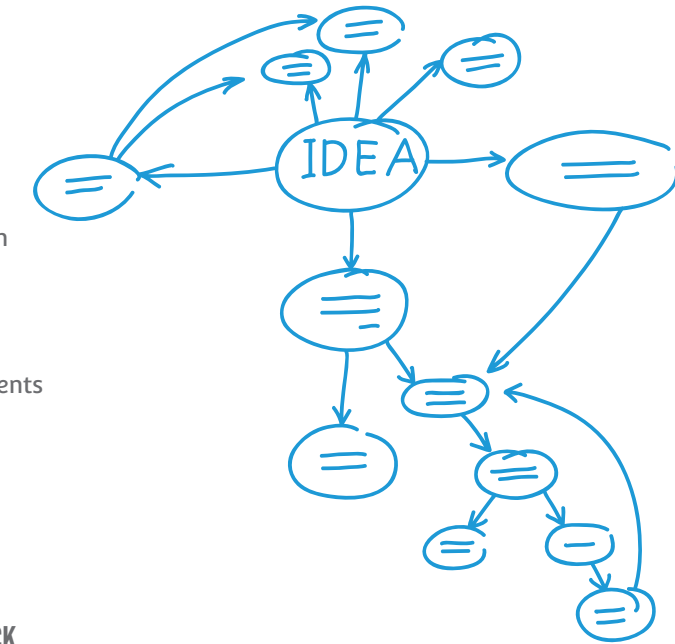
**JOE ALLEN**  
Director of Investments



**HEIDI ERDLE**  
Investment Analyst



**RAYMOND FITZPATRICK**  
Investment Manager



## PERFORMANCE REVIEW - INVESTMENT ACTIVITIES

AWARDED FUNDS	2016-17	2015-16	SINCE 2003
Applied Research	3,684,309	3,155,662	31,314,326
Start-up & Growth	5,659,439	5,204,308	30,995,131
Talent & Recruitment	2,766,000	2,842,757	22,826,224
<b>TOTAL NBIF</b>	<b>12,109,748</b>	<b>11,202,727</b>	<b>85,135,681</b>
<b>LEVERAGED CAPITAL</b>	<b>51,327,873</b>	<b>25,958,709</b>	<b>424,873,990</b>
<b>TOTAL IMPACT</b>	<b>63,437,621</b>	<b>37,161,436</b>	<b>510,009,671</b>







## VENTURE CAPITAL FUND

NBIF's Venture Capital Fund (VCF) supports development of high risk, growth-oriented companies that are typically at the seed and early stages and require risk capital to grow and succeed.

**INVESTMENT RANGE: \$50,000 - \$1,000,000 PER ROUND**

Agora 20,000	Knowcharge 175,000	Sorcimed 250,000
Smart Skin 497,884	Populus Global 200,000	Cyberpsyc 200,000
Resson 308,981	Sentrant 93,126	Xiplinx 60,000
ITAVIO 100,000	Fixel 400,000	Enverio 100,000
Precision Plasma 250,000	Inversa 75,000	Porpoise 100,000
Fundmetric 300,000	Eigen 100,000	Rt Tech 250,000

**TOTAL: \$3,479,992    LEVERAGING: \$24,205,341**

*WellTrack's platform product is used to provide online therapy options to help employees of large corporations deal with stress, anxiety, and depression.*

**NATASHA O'BRIEN, CO-FOUNDER & COO**



## STARTUP INVESTMENT FUND

The Startup Investment Fund (SIF) provides New Brunswick entrepreneurs with the investment capital needed to develop a product, service or technology into a commercially viable venture. The main objective of NBIF's SIF is to prepare companies for significant venture capital investment(s).

**INVESTMENT RANGE: \$50,000 - \$200,000**

Jaza Energy 100,000	Patchell Brook 100,000	Black Arcs 100,000	Chinova Bioworks 100,000	Soma Detect* 50,000	Newpy* 100,000
Rise Home Design 100,000	Repable 150,000	Kognitiv Spark 200,000	Pfera* 100,000	WenTech* 50,000	

**TOTAL: \$1,150,000    LEVERAGING: \$2,701,500**

\* Breakthru 2017 Prize Recipient



*Bringing together the digital and physical worlds is Kognitiv Sparks' main objective. Using augmented virtual reality software and the Microsoft HoloLens, Kognitiv Spark is creating new, innovative training solutions for corporations and government organizations around the world.*

**RYAN GROOM, CO-FOUNDER & CTO**







## PORTFOLIO AS OF MARCH 31, 2017

NBIF's ever-growing portfolio now consists of 45 companies. In 2016-17, we added a significant number of new companies to our portfolio, including companies like Kognitiv Spark, Patchell Brook, Black Arcs, Sorcimmed and Rise. We also made several follow-on investments to our existing portfolio.

*Chinova Bioworks is a startup with a passion for natural preservatives, specifically chitosan. Natasha Dhayagude, CEO, and her team, are working with food and beverage, cosmetic, and medical and pharmaceutical companies to replace artificial with natural preservatives in our everyday consumables.*

**NATASHA DHAYAGUDE, CEO**



## PORTFOLIO

RtTech Software 1,250,000	Alongside 500,000	Foursum 250,000	ITAVIO 200,000	Ella 100,000
Inversa Systems 1,075,381	Encore Interactive 500,000	HotSpot Merchants 250,000	Porpoise 200,000	Force 3 100,000
SmartSkin Tech 1,001,454	Fiddlehead 500,000	Introhive 250,000	Select Bidder 200,000	Jaza Energy 100,000
Populus Global 971,600	SmartPods 500,000	Precision Plasma 250,000	Simptek Technologies 200,000	Kognitiv Spark 100,000
Gemba 750,000	WellTrack 450,005	SceneSharp 250,000	Repable 150,000	Loft 1 100,000
Knowcharge 700,000	Flixel 450,000	Sorcimed 250,000	Spinzo 150,000	Patchell Brook 100,000
Eigen Innovations 600,000	Envenio 400,000	Total Pave 250,000	TimbreCases 150,000	Rise Home Design 100,000
Mycodev 600,000	FoodTender 300,000	Castaway Golf 200,000	Black Arcs 100,000	NB Biomatrix 50,000
Resson Aerospace 558,981	Fundmetric 300,000	Geode 200,000	Chinova Bioworks 100,000	Legacy Lane 25,000



# INNOVATION VOUCHER FUND

The objective of the Innovation Voucher Fund is to spark innovation inside existing businesses, specifically small-to-medium sized enterprises. SMEs need to be innovative to compete in a global marketplace. NBIF will pair SMEs with New Brunswick Research Institutes to improve or develop new products, processes, or technologies. We will fund 80% of the project cost up to a maximum of \$80,000.

**PROJECT RANGE: \$10,000 - \$100,000**



*La Maison BeauSoleil, a global oyster producer, is taking oyster cleaning to a new level by working with CCNB to create a new, more efficient process. If the project is successful, production and profitability will increase, and the physically demanding task of hand-washing oysters will be reduced.*



COMPANY	RESEARCH INSTITUTION	AMOUNT (\$)
Mycodev	CCNB Grand Falls	28,800
Services Hall	CCNB Bathurst	2,800*
Superior Tanks	CCNB Grand Falls	76,052
Inflection Point Healthcare	UNB	78,780
Pêcheries Jimmy L	IRZC	47,880
QES	UNB	10,444
Symplicity Designs	UNB	79,542
LuminUltra	CCNB Grand Falls	57,494
Claritech Innovations	UdeM	80,000
Remsoft	UNB	22,206
Creation Glace	CCNB Bathurst	20,672
Bluegenics	Mount Allison	63,744

COMPANY	RESEARCH INSTITUTION	AMOUNT (\$)
Léon Chouinard & Fils Cie Ltée	UNB - Wood Science Centre	27,632
Biopolynet	RPC	35,288
Soma Detect	RPC	64,000
Strang's Produce	CCNB Grand Falls	12,000
Liv9	CCNB Grand Falls	20,640
L2 Aquaculture Research & Production	CCNB Bathurst	80,000
Le Légumier du Madawaska Inc.	CCNB Grand Falls	24,952
Maison BeauSoleil	CCNB Bathurst	66,000
Moosehead Breweries	CCNB Grand Falls	20,000
KDN Enterprises	CCNB Bathurst	30,520
NB Biomatrix	RPC	80,000

**TOTAL:  
\$1,029,447**

**LEVERAGING:  
\$283,938**

\* extension of previous project

INNOVATION  
VOUCHER FUND



# BREAKTHRU

Breakthru 2017 was our most successful competition yet! We received 61 high-quality applications from across the country, and awarded more than \$1 MILLION in cash and in-kind services to 4 new startups. We secured more than 20 partners who brought their expertise to mentor, guide and support our aspiring entrepreneurs.

For the first time, NBIF opened the competition to applicants across the country. Our goal was to find entrepreneurs looking to start their business in New Brunswick, so we set up a separate National category with a prize pot of over \$250,000. Our National Grand Prize Winner was Newpy, a social media packaging company looking to change the way products are advertised on social media.



Our Grand Prize Winner, Pfera Inc., walked away with more than \$275,000 in cash & in-kind prizes. Lisa Pfister, Founder and CEO, has developed new technology to innovate and manage the equine reproduction process.

Our runners-up, SomaDetect and WEnTech Solutions, both secured over \$175,000 cash and in-kind services. SomaDetect has developed a technology to test somatic cell counts and fat content in cow's milk. WEnTech Solutions is a SaaS company that has developed a cloud-based analysis system for biomass and waste-to-energy conversion solutions.





## TALENT DEVELOPMENT FUNDING

NBIF offers Talent Development Funding to New Brunswick Research Institutions in several ways, but primarily through our Start-up Award Funding, and the Research Technician (RTI) and Research Assistantship (RAI) Initiatives.



Start-up Award funding is provided to Research Institutes to recruit new talent from outside of New Brunswick. Since inception, we have helped recruit over 60 researchers to the province.

In the 2016–17 RTI and RAI competitions, we received requests for 24 technicians and 282 assistantships. A total of 118 positions were funded, 6 RTI and 112 RAI.

In partnership with the Department of Post-Secondary Education, Training & Labour, NBIF awarded more than 200 scholarships to graduate students in the province. Scholarships are provided to domestic and international students whose focus is STEM or Social Innovation.

### RTIs

Yonghoa Ni UNB 75,000	Ken Kent UNB 75,000	Tommi Linnansaari UNB 75,000
Liuchen Chang UNB 75,000	Keith Brunt UNBSJ 75,000	Etienne Hebert Chatelain UdeM 75,000

RTI recipient, **Dr. Kenneth Kent**, was awarded \$75,000 to hire a Research Technician to work in the Centre for Advanced Studies – Atlantic at UNB, which was established in partnership with IBM to research and develop multi-core computing projects.

**TOTAL: \$450,000**  
**LEVERAGING: \$450,000**  
**TOTAL IMPACT: \$900,000**

## STUDENT FUNDING BY INSTITUTION

	SCHOLARSHIPS	ASSISTANTSHIPS	AMOUNT (\$)
UNB	155	52	1,256,000
UdeM	45	51	773,000
Mount A	6	1	37,000
NBCC		1	10,000
STU		2	5,000
CCNB		3	15,000
HMSC		2	20,000

**TOTAL: 206**      **112**      **\$2,116,000**  
**LEVERAGING: \$4,642,392**  
**TOTAL IMPACT: \$6,758,392**

## STARTUP AWARDS RECRUITMENT

Ben Speers	UNB Saint John	AMOUNT: \$50,000
Rongxing Lu	UNB Fredericton	AMOUNT: \$150,000

**TOTAL: \$200,000**

**Dr. David Joly** of the Université de Moncton is researching one of Canada's quickest growing industries, cannabis. His research will improve our fundamental knowledge of the cannabis plant.



# RESEARCH INNOVATION FUND

Funding under the Research Innovation Fund is disbursed in different components: Innovation Capacity Development, Concept Validation, and Emerging Projects.

Innovation Capacity Development funding's primary purpose is to increase the province's capacity to do applied research by leveraging contributions from other funding sources.

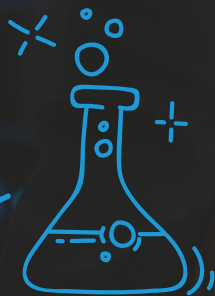
## MAXIMUM FUNDING: \$500,000

Concept Validation funding is primarily for demonstrating and strengthening the business case of a research project. For example: prototyping, bench testing, clinical trials, and pilot projects.

## MAXIMUM FUNDING: \$500,000

Emerging Project funding is earmarked for early stage research that has the potential to become an innovation. Funding can be used to assist in the preparation of major funding proposals, business cases, securing IP, or infrastructure.

## MAXIMUM FUNDING: \$25,000



*Dr. Mohsen Mohammadi was recruited in 2015 by the University of New Brunswick. He has recently announced plans for a new Marine Additive Manufacturing Centre of Excellence with secured private industry funding, as well as more than \$450,000 in contributions from NBIF.*

### EMERGING PROJECTS

	Institution	Amount (\$)
VETT LLOYD	MTA	25,000
NICOLAS PICHAUD	UdeM	25,000
ETIENNE HÉBERT-CHATELAIN	UdeM	25,000
RICKEY DUBAY	UNB	25,000
YONGHAO NI	UNB	25,000
AMIRKIANOOSH KIANI	UNB	25,000
HUINING XIAO	UNB	25,000
GOBINDA SAHA	UNB	24,816
MOHSEN MOHAMMADI	UNB	25,000
MIKE DOUCETTE	CCNB	14,465

**TOTAL: \$239,281**  
**LEVERAGING: \$489,662**  
**TOTAL IMPACT: \$728,943**

### CAPACITY DEVELOPMENT (INFRASTRUCTURE)

	Institution	Amount (\$)
EDUARDO BITTENCOURT	NHRI	75,000
JOSHUA KUREK	MTA	78,300
CHRIS MCGIBBON	UNB	104,620
ZOE FINKEL	MTA	115,580
ETIENNE HÉBERT-CHATELAIN	UdeM	110,000
LUC BOUDREAU	UdeM	23,000
LUC MARTIN	UdeM	97,710
DHIRENDRA SHUKLA	UNB	60,000
ALI GHORBANI	UNB	125,000
LINDA PARENT	CCNB	41,000
LUC TREMBLAY	UdeM	219,000
MOHSEN MOHAMMADI	UNB	40,000
LUC BOUDREAU	UdeM	5,000
NICOLAS PICHAUD	UdeM	10,000
GOBINDA SAHA	UNB	8,000
SOPHIE LEGER	UdeM	8,000
SARA EISLER	UNB	10,000
ALAN LLOYD	UNB	8,000

**TOTAL: \$1,138,210**  
**LEVERAGING: \$2,704,522**  
**TOTAL IMPACT: \$3,842,732**





## RESEARCH INNOVATION FUND

### CONCEPT VALIDATION

	Institution	Amount (\$)
AMBER GARBER	HMSC	495,475
JON SENSINGER	UNB SJ	66,500
RODNEY OUELLETTE	ACRI	250,000
WILLY COOK	UNB	150,000
TONY REIMAN	UNB SJ	120,000
RODRIGUE YOSSA	IRZC	24,843

**TOTAL: \$1,106,818**  
**LEVERAGING: \$11,463,148**  
**TOTAL IMPACT: \$12,569,966**

*Lyme disease in Canada is often misdiagnosed and undertreated due to a lack of understanding of the disease. **Dr. Vett Lloyd** and her team at Mount Allison University are hoping to change that, and are working diligently in the lab researching the *Borrelia*-infested ticks that cause Lyme disease.*