



Brock Innovation, July 1<sup>st</sup> 2011 – June 30<sup>th</sup> 2013

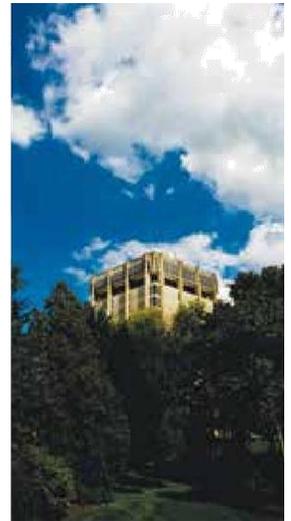
[www.brocku.ca/research/brock-innovation](http://www.brocku.ca/research/brock-innovation)

John Wilson  
Director, Innovation and Commercialization, Brock University  
Director, ACCT Canada



50  
1964-2014

Brock Innovation, July 1<sup>st</sup> 2011 – June 30<sup>th</sup> 2013



## Contents

• Executive Summary	3
• Projects	4
• People	5
• Highlights	6
• Finances	7
• The 3-year forecast	8
• Policy and operations	9

## Executive Summary

Brock Innovation, reporting to the VPR, is an office within the University, managing research and innovation relationships between members of the University and the commercial world. We help to bring inventions to market, put in place partnerships for research, assist professors and students with new ventures, and provide academic extension services and consultancy.

Within Brock, we work closely with colleagues working with companies, including the Co-op Programs office, the Advancement office, Career services and the BioLinc incubator. The Directors of these 5 offices meet formally 4 times a year.

We have introduced a project management system, and today we have over 160 active projects; these include 45 inventions, 90 research partnerships, 10 research ventures, 10 student ventures and 6 academic extension services.

We are working with 60 Brock professors, 10 Brock student venture teams, 75 external companies and 40 business mentors.

In our first 2 years we have had some early successes: Professor Tomas Hudlicky is the current 'OPIC innovator of this year'; research from the Zelisko lab is helping to establish a new manufacturing company in Welland; research from the Lockwood lab is helping to redesign the hockey skate; 2 of our student teams have appeared on Dragons' Den and 1 of our student ventures made OCE's top 10 in Ontario.

Two of our 5 products are managed in a commercial manner (inventions and research partnerships), our other 3 products are managed primarily as reputational opportunities. Overall, our greatest impact is reputational and this will be most evident over the long term, however, our commercial projects have yielded around \$700,000 of income in 2 years, this has allowed us to grow at no financial cost to the University.

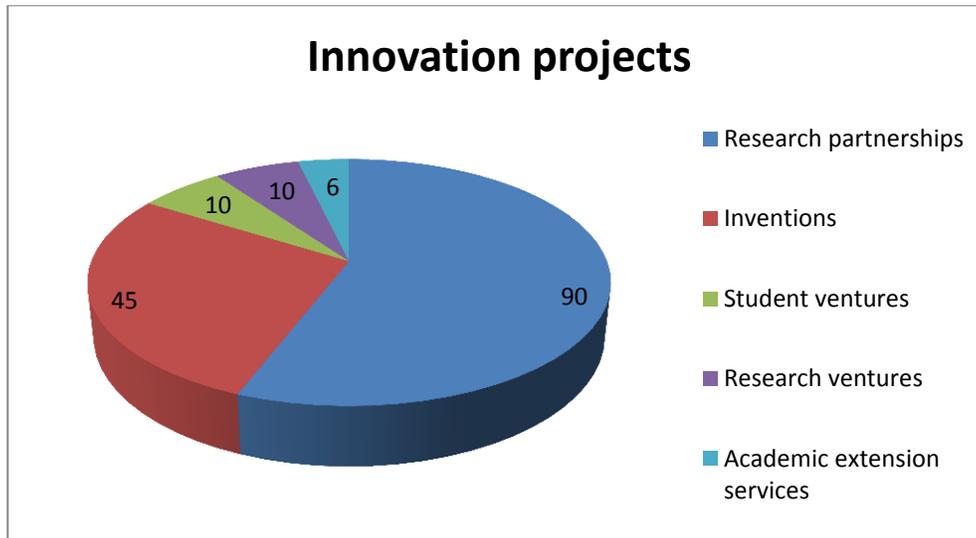
Over the next 3 years, we can develop in a sustainable way, approximately doubling our annual income by 2016, and using this income to support our professors and students.

Beyond 2016, Brock's innovation ecosystem will be well placed to rival those of larger research universities.

A suite of legal templates has been constructed; we will continue to work with internal legal counsel to improve these documents.

## Innovation Projects

We are managing over 160 active projects; these include 45 inventions, 90 research partnerships, 10 research ventures, 10 student ventures and 6 academic extension services.



University ‘Innovation’ is often seeded with the need to support the transfer of faculty inventions, Brock Innovation started this way. In the past 2 years our invention project portfolio has approximately doubled, rising from 23 to 45. University inventions have a long business cycle; 3 years to prepare and 3 years to commercialize is a challenging schedule. However, 2 of Brock’s early invention projects have each returned an income exceeding \$100,000.

Today, the growth opportunity lies in research partnerships. In 2 years our commercial research partnership projects have grown from less than 10 to 90. Many of these are ‘first date’ projects, where companies and professors are partnering for the first time; these projects are nearly always ‘small’; \$25,000 or \$50,000 in size. Some of these relationships are beginning to develop.

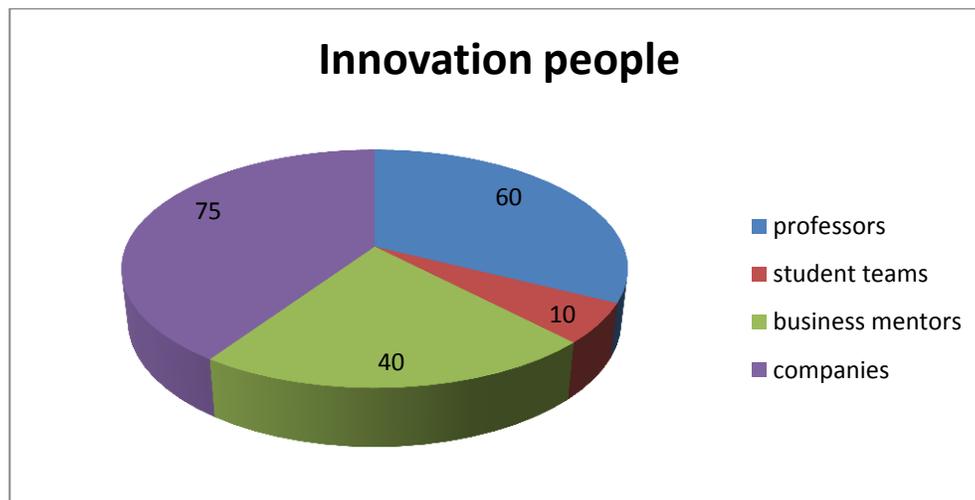
Academic extension service projects are new to Brock. Extension service projects include both the use of facilities and equipment, as well as the sale of surplus materials. Here we aim to provide a service to the outside world, while at the same time ensuring these projects support the University and its professors, staff and students.

Later this year, working with BUSU and Career Services, we will be receiving entries to the 3<sup>rd</sup> annual Blueprint business plan competition. The first 2 years have attracted 30-35 entries per year. Each year, the top 10 Student ventures are selected as Blueprint finalists.

Occasionally, the best way forward for a research project is to start a new Research venture. We have 10 Research venture projects, these are nearly always associated with invention and research partnership projects.

## Innovation People

We are working with 60 Brock professors, 10 Brock student venture teams, 75 external companies and 40 business mentors.



The number of professors with Innovation projects has grown from less than 20 to 60; all 6 faculties are represented. 48 professors are from our Science and Business community, 12 are from our Education, Social Sciences and Humanities faculties. Within Ontario, our professors are earning a reputation for their partnership research. The funding agencies have played an important role in developing a culture of innovation, Brock is actively involved here. Research infrastructure within the faculties is important, to this end we are in discussions with faculty, concerning the potential for the new role of partnership research assistants, associates and fellows.

We have projects with 75 companies, most are based in Niagara or just outside, we have a few projects with companies further afield in Canada and abroad. We have repeat projects with companies of all sizes and across all sectors. Wine and grape, Bio, Comp Sci., Surface Sci. and Learning Technology are emerging as clusters; we look for synergy as these clusters appear.

Each year we receive 30-35 business plans from individual students and student teams, often these teams are across Universities. Through Blueprint, each year we put together a program for all entrants as well as the top 10 teams. The business plans are extremely diverse, a few incorporate Brock inventions and research partnerships. This year, 2 teams have set up manufacturing units, both in Welland. *(for the record, the most popular business concept is a 'better pizza delivery service' - I look forward to this year's spin on pizza delivery).*

We have held just one meeting for business mentors, 30 senior business professionals spent an evening assisting some of our student ventures. This is an important start to our program to assist Student and Research ventures.

## Innovation Highlights

We post a story on our website about once a month, below is a selection:

1. Professor Tomas Hudlicky passes Innovation milestone  
<http://www.brocku.ca/brock-news/?p=16198>
2. Applied Research and Commercialization partnerships announced  
<http://www.brocku.ca/brock-news/?p=16170>
3. Brock Student launches interactive children's book  
<http://www.brocku.ca/brock-news/?p=20650>
4. Brock researcher wins Innovator of the year among 9 Ontario Universities  
<http://www.brocku.ca/brock-news/?p=21763>
5. Brock signs deal with the Canadian Centre for Drug Research  
<http://www.brocku.ca/brock-news/?p=20954>
6. Brock alum launches green business  
<http://www.brocku.ca/brock-news/?p=20605>
7. Dragon's Den  
<http://www.brocku.ca/brock-news/?p=19309>
8. Professor Kelly Lockwood and a new skate design  
<http://www.brocku.ca/brock-news/?p=14276>
9. Brock student makes the top 10 in Ontario  
<http://www.brocku.ca/brock-news/?p=21645>
10. Brock signs deal with Lorus Therapeutics  
<http://www.brocku.ca/brock-news/?p=20172>

## Innovation Finances

We have 5 products: Inventions; Research partnerships; New ventures; Extension services; and Consultancy. These products are not our choice, they are endemic to all universities, together they represent the University innovation ecosystem and they need to be considered and managed as a whole.

Inventions and Research partnerships are treated primarily as commercial opportunities; they are managed in a conventional commercial manner with a strong drive to maximize the financial return.

New ventures, Extension services (the use of research equipment and facilities in more routine work) and Consultancy are treated primarily as reputational opportunities; managed as services provided by the office. Brock does not take equity from its Student ventures. Brock has not yet taken equity from its Research ventures, in the future it might consider this, but only at the professors request. Brock treats Extension services and Consultancy on a case-by-case basis: If we can support these easily, we will do so without applying an overhead charge; if the commercial transactions are more complex, an overhead charge will be required.

### Income from Inventions

In the last 2 years we have earned \$350,000 from 5 licenses. Licensees pay for all patent maintenance costs in addition to this income. Patent costs from our unlicensed inventions are covered by grant funding. License income is shared between the inventors and Brock, as agreed with the faculty union. NPV calculations on the patent portfolio are possible, but quite speculative, most university innovation groups refrain from this activity.

### Income from Research partnerships

We have 2 income streams from our research partnerships: The first is 'indirect costs' which typically is around 25% of the contract value and is earned as a project progresses; the second is 'revenue sharing' which applies to around ¼ of the projects, and is earned when the technology developed in the project is providing a revenue to the commercial partner (technology being assigned to the company rather than patented and licensed). We have earned \$330,000 from indirect costs from 50 partnership research projects which are either 'complete' or 'in progress'. We are due to earn a further \$250,000 from the remaining 40 partnership research projects which have yet to start

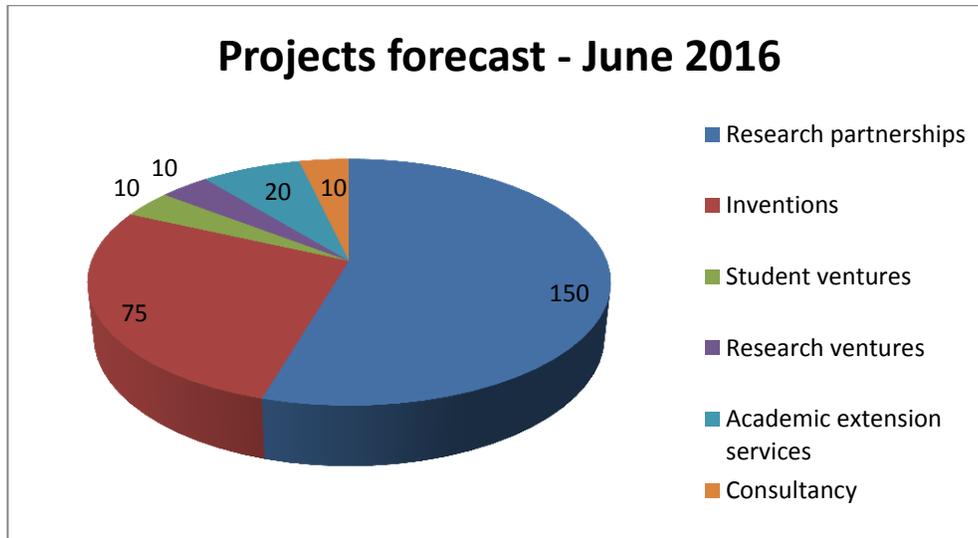
### Costs

The office costs are primarily salaries, 2 FTEs in year 1 and 3 FTEs in year 2. In addition we share much of the human and other resources of the office of research services, of which we are an integral part.

### Balance

2 years of establishing and growing Brock Innovation has been achieved without a financial cost to Brock. This is an unusual situation for a University office, we are in a fortunate position.

The 3-year forecast



In the next 3 years, the number of projects will grow from 160 to 275. The income derived from these projects will grow from around \$350,000 per year to around \$700,000 year. This increase will come in part from the increase in the number of projects, and in part to an increase in the number of larger projects.

In 2016 the invention project portfolio will still be immature, and not yielding a significant return. We will be in a better position to forecast returns from the invention portfolio at this juncture.

In 2016 the partnership research project portfolio will be approaching middle-age. We expect to see growth in mid-sized research collaborations (\$250K to \$500K) these will account for much of the growth in income from 2013 to 2016. Beyond 2016 we will be in a position to plan the further development of these mid-sized partnerships, perhaps to become centres or institutes with a national or global reach.

In 2016 we plan to assist 20 Student and Research ventures annually. These will play a modest role in job creation in Niagara. They will play a more significant role in promoting entrepreneurship in the region. They will play a significant role in strengthening ties with alumni, local businesses and friends of Brock.

By 2016 all extension services at Brock will be supported by Brock.

By 2016 we will be handling a small amount of our professors' consultancy work. This will save them time and reduce their personal, financial and legal risk.

## Policy, operations and resources

### Policy framework

'Intellectual Property', 'Indirect Costs of Research' and 'Commercial Activities' are the 3 key policies for University Innovation. These policies speak to a much wider audience than the Innovation office alone, as such, Brock Innovation will play its part in the continual improvement of these policies as the opportunities arise.

### Human resource

Today, the director and 2 innovation officers handle 160 projects. A 3<sup>rd</sup> officer is being recruited, and a 4<sup>th</sup> officer will be recruited as soon as income allows. Equally, we require the support of administrative, legal, ethics and financial professionals within ORS.

Beyond this central resource, we are partnering with our faculties and departments in the further development of innovation professionals. Discussions have started, centred on the role of partnership research assistants/associates/fellows to be based within the research environment. Education and Chemistry will pilot the first 2 partnership research assistants. These professionals will spend much of their time working in research projects, supporting our professors manage both the technical and administrative load.

### Legal framework

Much time has been spent constructing a suite of legal templates, in the future these templates might be replaced with an Ontario-wide template suite, but this will not happen in the immediate future. We are very risk-averse, mindful that our greatest contribution to the University is the enhancement of its reputation.

**Brock**  
University

**50**

1964-2014

