



RESEARCH EXCELLENCE

GOAL 2: BE A WORLD LEADER IN KNOWLEDGE EXCHANGE AND MOBILIZATION

Objective: Leadership in Knowledge Exchange and Mobilization

Purpose:

UBC strives to support impactful research activity that enhances the engagement of the university locally, regionally, nationally and internationally. Cross-sectoral partnerships, innovation and entrepreneurship opportunities are fostered through the University Industry Liaison Office (UILO), the Entrepreneurship@UBC program, as well as through the Innovation Catalyst and UBC's University Innovation Strategy.

Definition:

Total Number of UBC's Industry Partners

To measure the extent of formal research and development partnerships in which UBC researchers are engaged. The number of industry partners, in combination with other metrics under Goal 2, provides means of determining the degree of knowledge exchange and mobilization occurring at UBC.

Total Number of New Spin-off Companies Created at UBC

This metric measures one aspect of knowledge exchange, mobilization and technology commercialization occurring at UBC, and presents a measure of UBC's engagement with industry sectors, communities, and marketplaces. The potential to benchmark allows for comparison with other leading institutions.

Total Number of New Invention Disclosures

To measure new intellectual properties being developed on an annual basis at UBC, as an indicator of innovation activity. Invention Disclosures are one indicator of the quality and quantity of innovation from research activity at UBC. In combination with other metrics in Goal 2, it is possible to assess the degree of knowledge exchange and mobilization occurring at UBC.

Total Number of New Technologies Mobilized

To measure the innovations being mobilized on an annual basis at UBC as a key component of innovation. The mobilization of new technologies is one indicator of the quality and quantity of research innovation activity at UBC. In combination with other metrics in Goal 2, technologies mobilized provides a means of assessing the degree of knowledge exchange and mobilization occurring at UBC.

Overall Metrics: (FISCAL CYCLE 2014-15)

	Okanagan			Vancouver			Combined		
	2012/13	2013/14	2014/15	2012/13	2013/14	2014/15	2012/13	2013/14	2014/15
Number of Industry Partners	51	62	63	703	762	706	753	821	803
Number of New Spin-Off Companies	0	0	0	5	3	8	5	3	8
Number of New Invention Disclosures	6	5	3	146	123	137	152	128	140
Number of New Technologies Mobilized	0	0	0	76	54	53	76	54	53

Note: This is the most recent year of available data for this metric.

Explanation of the Results and Next Steps:

Number of Industry Partners: In 2014/15 UBC engaged with 803 industry partners in research-related activities, including sponsored research, as licensees of UBC technologies and as partners in Engage Grants funded by NSERC.

Next Steps: Monitor these numbers on an annual basis to look for trends in activity and determine what support is required to maintain and grow UBC's capacity for knowledge exchange and mobilization.

Number of new Spin-Off Companies: The creation of eight new spin-off companies in 2014/15 increased the cumulative total of companies formed around a license to a UBC technology or research discovery to 169. The number of spin-off companies tends to fluctuate quite significantly from year to year around a longer term consistent average of approximately 4-5 new companies per year. It is worth noting that the ability to successfully form and fund spin-off companies is heavily influenced by the availability of risk capital in the marketplace. Since the beginning of the global economic downturn in 2008 the financing climate has been difficult to say the least rendering the successful formation of new companies more challenging.

Next Steps: Monitor annually to determine the best methods to support UBC's knowledge exchange and mobilization goals.

Number of New Invention Disclosures: In 2014/15 140 new invention disclosures were received by the UILO. Invention disclosures are made when researchers wish to commercialize discoveries arising from research conducted using UBC facilities or developed using University-administered funds.

Next Steps: Monitor these numbers annually to look for trends in activity and determine where supports are required.

Number of New Technologies Mobilized: Fifty three different UBC technologies were mobilized in 2014/15 through licensing agreements, downloads and orders via technology portals.

Next Steps: Monitor these numbers annually to look for trends in activity and determine where supports are required.

Supplementary Visuals:

Number of Industry Partners:

RESEARCH EXCELLENCE - # Industry partners

	Okanagan			Vancouver			UBC		
	12/13	13/14	14/15	12/13	13/14	14/15	12/13	13/14	14/15
# Industry partners	51	62	63	703	762	706	753	821	803

	Okanagan			Vancouver			UBC		
	12/13	13/14	14/15	12/13	13/14	14/15	12/13	13/14	14/15
# industry partners (sponsored research)	24	37	30	593	650	588	616	684	652
# industry partners (licensees)	0	0	0	37	30	27	37	30	27
# industry partners (Engage grants)	27	25	33	73	82	91	100	107	124

* Note: The total number of Industry Partners (Sponsored Research) is less than the sum of the Okanagan and Vancouver components as some companies have sponsored research at both sites.

Benchmark

No directly comparable information on the number of industry interactions is readily publicly available. However, the Association of University Technology Managers does survey the magnitude of industry sponsored research. The most recent data available are from FY 2013, these are presented for the G5 Universities below:

	2013/2014	
	\$value	Rank vs. G5
UBC	\$43,052,951	2
Univ. of Toronto	\$16,754,097	5
Univ. of Alberta	\$39,838,624	3
Univ. de Montreal	\$64,686,362	1
McGill	\$35,020,044	4

Description

Total number is a combined number of *different* companies:

- Listed in RISE as undertaking industry-sponsored research,
- Partnering with UBC researchers in NSERC Engage Grants,
- Licensing UBC technology.

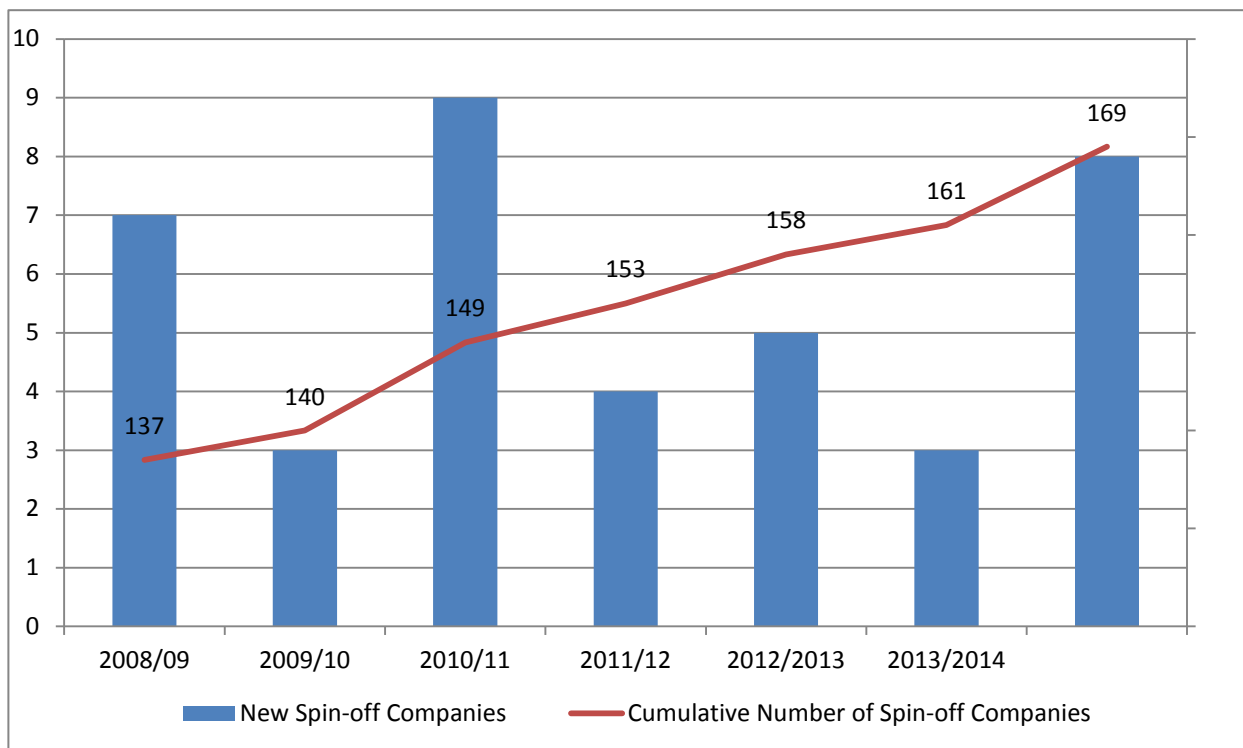
Note that this only captures a portion of the companies engaging with UBC because other activities such as Co-op placements, involvement in capstone projects, and internships are not included.

Number of New Spin-Off Companies:

RESEARCH EXCELLENCE - New spin-offs / Cumulative total spin-offs

	Okanagan			Vancouver			UBC		
	12/13	13/14	14/15	12/13	13/14	14/15	12/13	13/14	14/15
New Spin-offs	0	0	0	5	3	8	5	3	8
Cumulative Total spin-offs	0	0	0	158	161	169	158	161	169

* restated



Benchmark: Benchmarking against North American universities can be done through statistics provided by the Association of University Technology Managers (AUTM). AUTM has published data up to fiscal year 2012/13 and made available some preliminary 2013/14 data. UBC performance vs. the rest of the Canadian G5 universities is provided below:

	2012/2013		2013/2014	
	#	Rank vs. G5	#	Rank vs. G5
UBC	5	T2	3	4
Univ. of Toronto	12*	1	20*	1
Univ. of Alberta	5	T2	5	3
Univ. de Montreal	2	4	No data	
McGill	1	5	6	2

Note: the large number of spin-off companies reported to AUTM by UofT is very high and incongruous with the number of licenses and option agreements they report (2012 – 29, 2013 – 36), suggesting that an exceptionally large percentage of their commercial agreements are to spin-off companies. It is possible that U of T is including affiliated companies (those companies formed without a license to University IP) in their count, which UBC does not do, or are otherwise reporting a different count than UBC.

Description

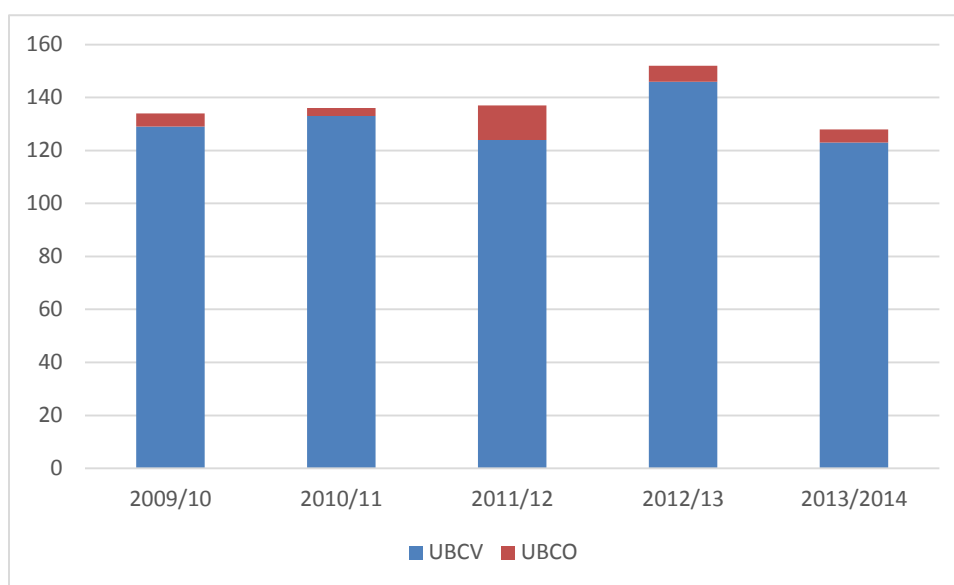
UBC counts as spin-offs companies that meet the following criteria:

- Companies must have been formed to either: (1) license UBC technology; (2) fund research at UBC in order to develop technology that will be licensed by the company; or (3) provide a service which was originally offered through an existing UBC department or unit.
- Companies are included only after legal incorporation. Proto-companies, sole-proprietorships and holding companies are not included.
- After a company has been created, it remains on the UBC spin-off company list regardless of its current legal status (i.e. early stage, active, inactive, closed, merged or acquired).
- Companies in existence prior to coming to UBC, but which reconstituted themselves around UBC technology, are included.
- Companies formed around technologies bundled from multiple sources, including UBC, are included on the list with acknowledgment of the other sites that contributed technology to the start-up.
- Subsidiaries of a company are not included on the list unless they meet the criteria as noted above.

Number of New Invention Disclosures:

RESEARCH EXCELLENCE – # Invention disclosures

	Okanagan			Vancouver			UBC		
	12/13	13/14	14/15	12/13	13/14	14/15	12/13	13/14	14/15
Invention disclosures	6	5	3	146	123	137	152	128	140



Benchmark: Benchmarking against North American universities can be done through statistics provided by the Association of University Technology Managers (AUTM). AUTM has published data up to fiscal year 2011/12 and made available some preliminary 2012/13 data. UBC performance vs. the rest of the Canadian G5 universities is provided below:

	2012/2013		2013/2014	
	#	Rank vs. G5	#	Rank vs. G5
UBC	152	2	128	T2
Univ. of Toronto	166	1	147	1
Univ. of Alberta	103	4	90	4
Univ. de Montreal	121	3	No data	
McGill	95	5	128	T2

Description: Subject to the terms of a sponsored research agreement, inventions made at UBC initially belong to the individuals who create them. Under the terms of UBC Policy 88, if the inventors desire or are required by the terms of their research agreement to commercialize the invention, ownership are transferred to UBC. Inventors are required to complete an Invention Disclosure and Assignment Form available from the UILO to begin the technology transfer process. This is the count of these submissions.

Number of New Technologies Mobilized:

RESEARCH EXCELLENCE – #Technologies mobilized

	Okanagan			Vancouver			UBC		
	12/13	13/14	14/15	12/13	13/14	14/15	12/13	13/14	14/15
#Technologies Mobilized	0	0	0	76	54	53	76	54	53

Benchmark: Benchmarking of licensed technologies (note that this is only a portion of what UBC is reporting on above) against North American universities can be done through statistics provided by the Association of University Technology Managers (AUTM) who has published data in this regard up to fiscal year 2012/13. UBC performance vs. the rest of the Canadian G5 universities is provided below:

	2011/2012		2012/2013	
	#	Rank vs. G5	#	Rank vs. G5
UBC	51	2	72	1
Univ. of Toronto	45	3	28	2
Univ. of Alberta	22	5	26	3
Univ. de Montreal	55	2	23	4
McGill	26	4	19	5

Description

This number includes the number of *different* technologies mobilized in 2014/15 through the following mechanisms:

- Licensed by the UILO to an industry partner (the count is the number of different technologies rather than the number of license agreements) (40)
- Downloaded or licensed through Flintbox (count of technologies rather than transactions) (13)
- Accepted through the Intellectual Ventures Canada Solutions Report agreement (0)
- Mobilized through other channels (0)