Canada's Top 100 Corporate R&D Spenders List 2010
Analysis

R&D Spending Continues to Fall

In Fiscal 2009, spending on research by the Top 100 Corporate R&D Spenders fell to $10.22 billion from $10.40 billion in Fiscal 2008, a drop of -1.8%. This continues a negative trend in R&D spending for the 4th year running. Additionally, for the first time in almost a decade, the Top 100 companies posted a substantial drop in revenue (-16.4%), as the full force of the world economic situation hit home.

Paradoxically, the sharp drop in Top 100 revenues had the effect of boosting research intensity growth (research spending as a percent of income) by 15.0% between Fiscal 2008 and Fiscal 2009, reversing 7 years when revenues grew faster than R&D. Had tech star Research in Motion (RIM) not stepped in to fill the spending void created by the decline of Nortel Networks, the Top 100 results would have undoubtedly been worse. RIM is now Canada's leading R&D spender with $1.1 billion of research. (In its heyday, Nortel was spending in excess of $4 billion on research, in current dollars).

Overall, only 44 companies expanded their research spending versus 55 that cut back on research (1 company reported 0% growth). Last year, 59 companies achieved positive R&D growth.

The $100 Million Club

Although overall R&D spending fell in Fiscal 2009, 22 companies boasted $100 million or more each of research spending, up from 19 firms the year before. Fourteen of these companies were Canadian companies and 8 were Foreign Subsidiaries. In Fiscal 2009, Club members accounted for $7.42 billion (73%) of total Top 100 R&D spending. New to the Club were Suncor Energy, Biovail, Ontario Power Generation and Novartis Pharmaceuticals Canada. Dropping out of the Club this year were Merck and Aastra Technologies.

Among the 22 $100 Million Club members, 10 companies increased their R&D spending while 11 companies decreased spending between Fiscal 2008 and Fiscal 2009. One company reported no growth.

Companies in the ICT (information and communications technology) sector were strongly represented in the Club. Eight of the 22 members are in the ICT sector, followed by 6 firms in

Pharmaceuticals/biotechnology. Three Aerospace firms were also members of the $100 Million Club.

The $100 Million Club		
2009 Rank	**Company**	**Industry**
1	Research In Motion	Comm/telecom equipment
2	Nortel Networks	Comm/telecom equipment
3	BCE	Telecommunications services
4	TELUS	Telecommunications services
5	IBM Canada (fs)	Software and computer services
6	Magna International	Automotive
7	Pratt & Whitney Canada (fs)	Aerospace
8	Atomic Energy of Canada	Engineering services
9	Alcatel-Lucent (fs)	Comm/telecom equipment
10	Ericsson Canada (fs)	Comm/telecom equipment
11	Apotex	Pharmaceuticals/biotechnology
12	sanofi-aventis Group (fs)[(1)]	Pharmaceuticals/biotechnology
13	Suncor Energy	Energy/oil and gas
14	Bombardier	Aerospace
15	GlaxoSmithKline Canada (fs)	Pharmaceuticals/biotechnology
16	Biovail[+]	Pharmaceuticals/biotechnology
17	Open Text	Software and computer services
18	CAE	Aerospace
19	Ontario Power Generation	Electrical power and utilities
20	Novartis Pharmaceuticals Canada (fs)	Pharmaceuticals/biotechnology
21	Pfizer Canada (fs)	Pharmaceuticals/biotechnology
22	Hydro-Québec	Electrical power and utilities

fs = Foreign subsidiary (includes R&D expenditures for Canadian operations only)
+ Not current name
(1) Includes sanofi-aventis Canada Inc. and Sanofi Pasteur Limited

Industry Performance

Thirteen Top 100 performers in the Communications/telecom equipment sector led the pack in Fiscal 2009, accounting for a combined total of $2.76 billion of research spending, or 27% of the Top 100 R&D spending total. Next in spending volume were 28 Pharmaceuticals/biotechnology companies, which posted $1.72 billion of spending. Four Telecommunications services firms were responsible for $1.56 billion of research, or 15% of the total.

Six of the 10 leading sectors recorded declines in their research spending: Automotive (-20.4%), Communications/telecom equipment (-10.9%), Aerospace (-7.7%), Energy/oil and gas (-7.2%), Pharmaceuticals/biotechnology (-5.7%) and Electronic parts and components (-2.3%). However, there were strong gains in 4 other sectors: Software and computer services (30.8%), Telecommunications services (22.2%), Engineering services (17.4%) and Electrical power and utilities (21.1%).

Top 100 – Leading Industries	
Industry	**R&D Spending (% of Total)**
Communications/telecom equipment (13)	27
Pharmaceuticals/biotechnology (28)	17
Telecommunications services (4)	15
Software and computer services (10)	9
Aerospace (5)	7
Energy/oil and gas/electric power (9)	6
Automotive (2)	6

The Top 10 R&D Intensive Firms

Eight of the 10 most research-intensive firms were in the Pharmaceutical/biotechnology sector. This is somewhat to be expected, since large up-front investments are required for success in this sector. These firms tend to spend more on research than they gain in revenues because they are early-stage companies whose products have yet to enter the market.

Top 10 Research Intensive Companies*			
2009 Rank		**Company**	**R&D as % of Revenue**
Research Intensity	**Overall**		
1	71	MethylGene	732.4
2	81	Transition Therapeutics	714.0
3	90	Azure Dynamics	165.6
4	79	Tekmira Pharmaceuticals	129.5
5	70	Theratechnologies	127.2
6	8	Atomic Energy of Canada	101.6
7	40	AEterna Zentaris	69.9
8	54	QLT	67.9
9	61	BioMS Medical	62.5
10	95	Labopharm	57.0

*$1 million or more of revenue

Gainers and Losers

The top ten firms in growth stand out because of their substantial gains in research spending (50% or more) between Fiscal 2008 and Fiscal 2009. Heading this list is TELUS, which posted a stunning 211.0% gain in research spending. Sierra Wireless (83.9%), Ericsson Canada (56.3%), DragonWave (52.7%), Rogers Communications (52.5%), Research In Motion (51.0%) and Nexen (50.0%) were other well-known firms that posted strong gains in research spending during this period. The largest group of gainers this year was in the ICT sector.

Top 10 Companies by Growth			
2009 Rank		Company	% Change 2008-2009
R&D Growth	Overall		
1	4	TELUS	211.0
2	86	Enablence Technologies	183.1
3	24	Sierra Wireless	83.9
4	69	Enobia Pharma	62.2
5	10	Ericsson Canada (fs)	56.3
6	59	Evertz Technologies	54.2
7	88	DragonWave	52.7
8	28	Rogers Communications	52.5
9	1	Research In Motion	51.0
10	44	Nexen	50.0

fs = Foreign subsidiary (includes R&D expenditures for Canadian operations only)

Fiscal 2009 was not kind to a number of other high profile companies. Angiotech Pharmaceuticals (-52.3%), EnCana (-49.8%), Nortel Networks (-48.5%), Labopharm (-44.7%) and Tembec (-42.3%) were among the most recognizable firms that cut back on research spending during this period.

Bottom 10 Companies by Growth			
2009 Rank		Company	% Change 2008-2009
R&D Growth	Overall		
1	64	Angiotech Pharmaceuticals	-52.3
2	55	EnCana	-49.8
3	2	Nortel Networks	-48.5
4	95	Labopharm	-44.7
5	65	Tembec	-42.3
6	71	MethylGene	-40.5
7	61	BioMS Medical	-38.7
8	78	Dorel Industries	-38.6
9	56	Cardiome Pharma	-37.5
10	70	Theratechnologies	-37.1

Looking Ahead

Fiscal 2009 was a tough year for many Canadian firms, especially those not operating in the hot commodities sector. Strong evidence comes from the reported -16.4% drop in total revenue among the Top 100 Corporate R&D Spenders. In light of the sharp Top 100 revenue decline, the overall -1.8% decline in research spending seems comparatively moderate. But then R&D spending is a lagging, not a leading indicator.

Obviously, the real challenge for firms is whether they will be able to sustain their R&D spending – their investment in the future – in the face of continuing tough economic times. The challenge is compounded for large companies that are not profitable. These firms cannot take

advantage of federal and provincial research and development tax credits, because they have no profits against which to apply those credits. Small firms, for whom research tax credits are refundable, are in a better position to weather the storm, but then their overall prospects are dimmer because they rely on growing sales in a tough market.

Canada's strong economic and fiscal performance in the decade past has allowed policymakers to paper over underlying difficulties in corporate R&D performance that have been apparent for some time. Much of our support for research is indirect (e.g. tax credits) rather than direct (e.g. grants, contracts), which is in contrast to most other OECD countries. Our major industrial research programs were designed decades ago when circumstances were quite different from today. Current economic conditions are bringing the policy challenges and contradictions to the fore, at a time when the country is less able to make the required investments. Governments are reluctant to go back to the drawing board and redesign our system (actually systems) of industrial research support in light of new challenges and opportunities.

Meanwhile, corporate leaders need to balance their short-term revenue and profit circumstances against their need to boost innovation and productivity. Companies such as Research in Motion have stepped up to the challenge. Other firms need to find their way too.

Last year we said "*The full effect of the deteriorating world economy will be reflected in next year's Fiscal 2009 corporate R&D spending results. It is hard to envisage better overall performance than in 2008 … In consequence total corporate R&D spending will undoubtedly be affected – in a downward direction*". In retrospect it was not such a difficult call. Next year? Let's hope that adverse circumstances bring out the best in our corporate and government leaders.

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