

Canada's Top 100 Corporate R&D Spenders List 2004 Analysis

Top 100 Spending Drops

Corporate spending on research and development (R&D) dropped for the second straight year in 2003. Spending by Canada's 100 largest R&D performers fell by -5.1% in Fiscal 2003. Top 100 spending totalled nearly \$10.6 billion, compared with \$11.1 billion in Fiscal 2002. Excluding R&D heavyweight Nortel Networks from the tally revealed that spending by the 99 other leading firms rose by an anaemic 1.9%.

With Nortel's results included company revenues rose 1.8%, reaching \$249.6 billion, compared with \$245.1 billion the previous year. Without Nortel, revenues grew by 3.2%. (At this time Nortel's results are not final. We have used the best data available for our calculations). That said, Nortel still dominates the industrial R&D scene, spending an estimated \$2.8 billion worldwide in 2003, or 26% of the Top 100 spending total. It is estimated that Nortel's spending in Fiscal 2003 dropped by -20.4% from last year.

This is the second year that Top 100 spending was in negative territory. Last year Top 100 spending dropped by -8.7% with Nortel's figures included, but managed a 6.5% rise without Nortel. This year, both results were disappointing. The 2-year decline in R&D spending that began in 2002 followed 5 straight years of positive spending increases, during the period 1996 - 2001.

Research intensity at the Top 100 firms - measured by R&D spending as a percent of revenue - fell even more than total spending. Intensity dropped by -6.8% in 2003, or by -1.3% without Nortel's figures.

Fifty-five Top 100 companies cut back or held the line on their R&D spending in Fiscal 2003, whereas less than half of the Top 100 firms (45) increased their spending. This is in marked contrast to the 2002 result, when 34 firms cut back and 65 firms increased their R&D spending (one company's R&D remained the same).

The \$100 Million Club

This year 21 companies qualified for membership in RE\$EARCH Infosource's \$100 Million Club - companies that spent \$100 million or more on research - a noticeable drop from the 24 companies that qualified last year. This elite group of R&D spenders account for the lion's share (73%) of Top 100 spending. Two-thirds of the firms are Canadian and one-third are foreign subsidiaries. Including Nortel's results, spending by Club members dropped by -6.1%, but without Nortel Club spending rose by a more respectable 4.5%.

The \$100 Million Club		
2003 Rank	Company	Industry
1	Nortel Networks	Comm/telecom equipment
2	Bell Canada	Telecommunications services
3	Magna International	Automotive
4	Pratt & Whitney Canada	Aerospace
5	ATI Technologies	Computer equipment
6	IBM Canada	Software and computer services
7	Ericsson Canada	Comm/telecom equipment
8	Alcan	Mining and metals
9	Bombardier	Aerospace
10	Atomic Energy of Canada	Primary energy
11	Apotex	Pharmaceuticals/biotechnology
12	Ballard Power Systems	Primary energy
13	Creo	Software and computer services
14	Pfizer Canada	Pharmaceuticals/biotechnology
15	GlaxoSmithKline	Pharmaceuticals/biotechnology
16	Zarlink Semiconductor	Comm/telecom equipment
17	Biovail	Pharmaceuticals/biotechnology
18	Merck Frosst Canada	Pharmaceuticals/biotechnology
19	CAE	Aerospace
20	Aventis Pasteur	Pharmaceuticals/biotechnology
21	Cognos	Software and computer services

Industry Performance

Nortel's dominant R&D position has routinely propelled the Communications/telecommunications equipment sector into first place in R&D spending, with 33% of Top 100 spending in Fiscal 2003. However, without Nortel's influence this sector dropped to 5th place overall. The Pharmaceutical/biotechnology sector jumped into first place, with 21% of all Top 100 spending, when Nortel's results were omitted. Just under a third of the companies (32) in the Top 100 were from the Pharma/bio sector.

Bell Canada's sharp rise in reported spending helped the 4 companies in the Telecommunications services sector capture 3rd place overall in the industry standings. IBM Canada underpinned a 4th place showing by the Software and computer services sector. R&D heavyweight Pratt & Whitney Canada led the 5 Aerospace companies to 5th place overall. Based on Magna International's spending the Automotive sector moved into 6th position. The Primary energy sector held down 7th place overall in the spending standings; however, rising revenues did not prevent the sector from recording an overall -8.3% drop in R&D spending.

Top 100 – Leading Industries	
Industry	R&D Spending (% of total)
Comm/telecom equipment (12)	33
Pharma/biotechnology (32)	16
Telecommunication services (4)	11
Software and computer services (12)	8
Aerospace (5)	8
Automotive (1)	6
Primary energy (5)	4

The Top 10 R&D Intensive Firms

Six of the 10 most research intensive companies in Fiscal 2003 were in the Pharma/bio sector. All 10 of these firms spent more on research than they earned in revenue. This indicates that for the most part they are in a growth phase, investing heavily in research but with few products yet on the market.

Top 10 Research Intensive Companies*			
2003 Rank		Company	R&D as % of Revenue
Research Intensity	Overall		
1	58	Inex Pharmaceuticals	875.6
2	56	ID Biomedical	461.6
3	100	Biomira	430.3
4	88	Cardiome Pharma	281.2
5	94	Stuart Energy Systems	231.8
6	44	Westport Innovations	184.0
7	92	Micrologix Biotech	182.9
8	90	World Heart	177.0
9	80	Stressgen Biotechnologies	155.5
10	62	Westaim	148.6

*\$1 million or more of revenue

Gainers and Losers

Eight of the Top 100 companies recorded R&D spending growth in excess of 50%. Petro-Canada led the pack with an R&D spending growth of 150%. Six other companies (Labopharm, ID Biomedical, Genpharm, Aeterna, Vasogen, Cardiome) - all in the Pharma/bio sector increased their spending anywhere from 67.6% to 130.8%. Aerospace firm Honeywell posted increased R&D spending of 54.5%, while 2 Pharma/bio firms (Biovail, Novartis) recorded increases of 48.1% and 43.0% respectively.

Top 10 Companies by R&D Growth			
2003 Rank		Company	% Change 2002-2003
R&D Growth	Overall		
1	95	Petro-Canada	150.0
2	60	Labopharm	130.8
3	56	ID Biomedical	107.5
4	39	Genpharm	74.2
5	43	AEterna Laboratories	74.0
6	72	Vasogen	69.0
7	88	Cardiome Pharma	67.6
8	27	Honeywell	54.5
9	17	Biovail	48.1
10	40	Novartis Pharmaceuticals Canada	43.0

Disappointingly, the list of 2003 decliners is dominated by many household names in Canadian technology, representing a variety of sectors. Hemosol, Biomira, Ontario Power Generation, Descartes, World Heart, GSI Lumonics, Stressgen, BCE Emergis, Bombardier and Tembec all posted sharp drops in research spending in Fiscal 2003.

Bottom 10 Companies by R&D Growth			
2003 Rank		Company	% Change 2002-2003
R&D Growth	Overall		
1	91	Hemosol	-48.9
2	100	Biomira	-48.1
3	78	Ontario Power Generation	-46.2
4	75	Descartes Systems Group	-44.5
5	90	World Heart	-43.0
6	84	GSI Lumonics	-39.3
7	80	Stressgen Biotechnologies	-38.0
8	42	BCE Emergis	-37.8
9	9	Bombardier	-33.9
10	28	Tembec	-31.8

Looking Ahead

In last year's analysis we said *"Overall, though, policymakers will probably breathe a sigh of relief if companies can maintain their current standing and if Fiscal 2003 research spending keeps pace with revenue growth"*. The evidence is that, on the whole, companies did not achieve this modest objective.

Indications are that the year ahead is shaping up to be another disappointment for R&D spending. Corporate profits have increased for 8 of the 9 last quarters, but CEOs appear not to be reinvesting in their companies' future products, processes and service streams through R&D. The federal government has abandoned its comprehensive innovation strategy launched only 2 years ago. Instead, the federal government seems to be preoccupied with "commercialization" of university research, with little attention to the situation of the corporate sector - the companies that are best positioned to acquire the research from the universities. Companies and government each need to go back to the drawing board to figure out where they want to be in the future, and how they're going to get there.

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