The Future of Productivity

Close the Perception Gap

Rotman School Network Workshop

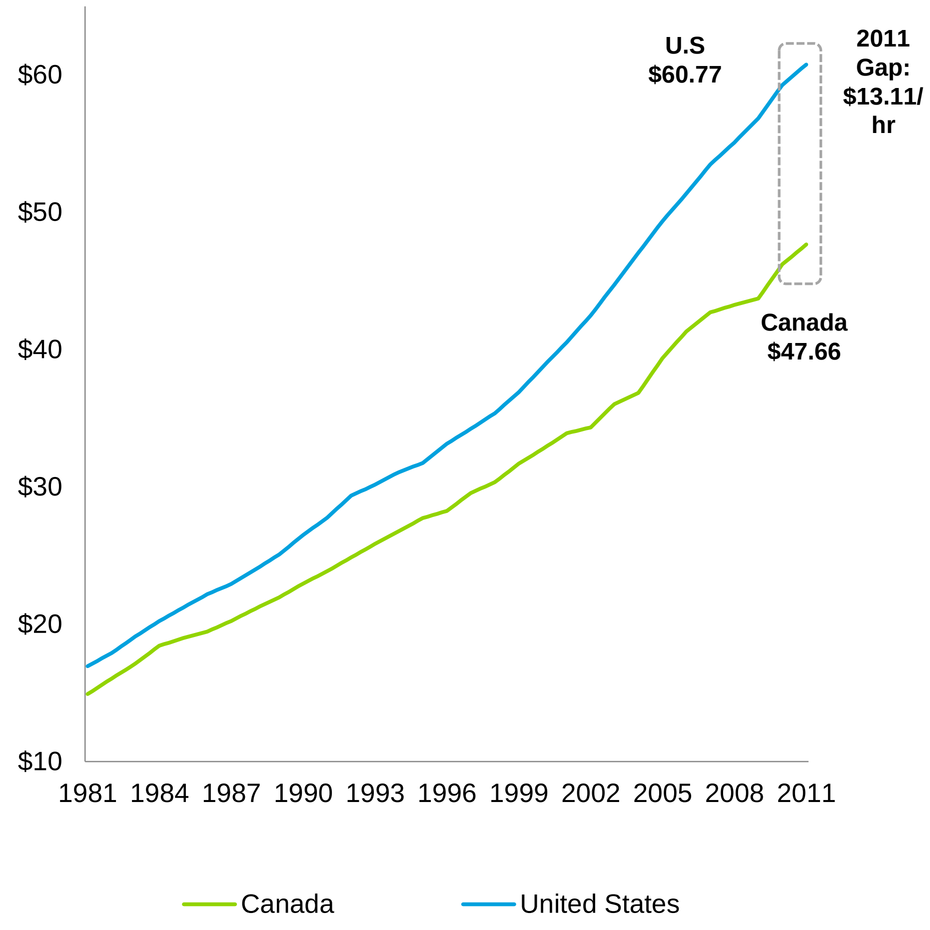
October 25th, 2013

Despite a record of strong policy reforms, Canada faces a serious and growing productivity challenge

Canada has made great strides in instituting world leading policy

- Trade Liberalization
- FDI Liberalization
- Support for R&D
- Immigration
- Scientific Research Support
- Pro- Investment Tax Policy
- Exchange Rate
- Target Inflation Rate

Canada's Productivity Gap: GDP per hour, Canada vs. U.S.



Canada has a serious and growing productivity problem despite significant effort to rectify this issue

Weak productivity is a serious issue that directly threatens the standard of living in Canada

Productivity is essential to economic growth, particularly as demographics place downward pressure on Canada's employment rate

Employment rate		Work effort		Productivity		Standard of living
% of total population that is employed	X	Hours / Worker	X	Output / Hour	=	GDP / Population

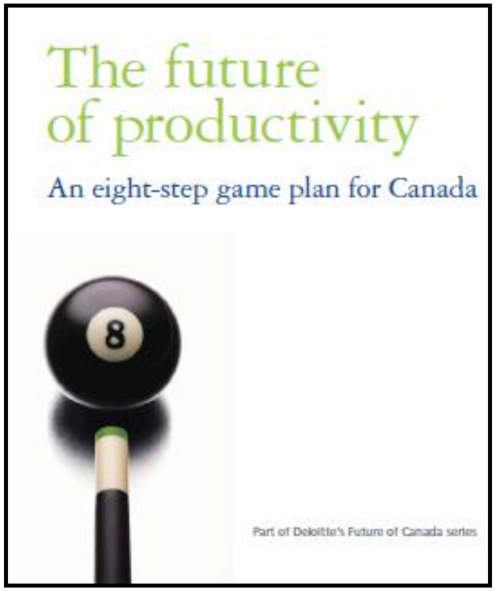
Is this a problem for Canada?

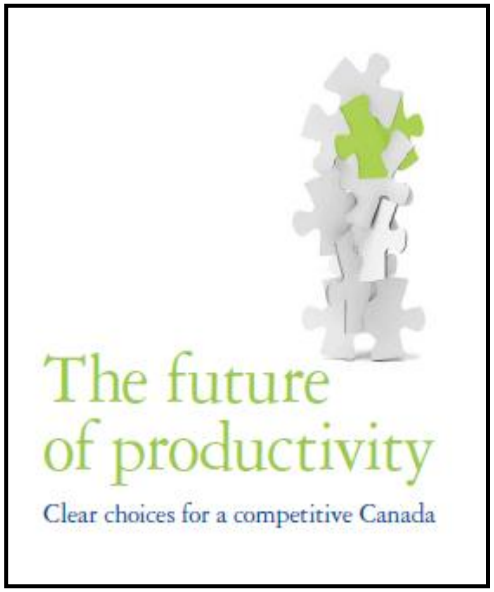
Employment rate	Work effort	Productivity	Standard of living
No	**No**	**Yes**	**Yes**
Canada's unemployment rate has not surpassed 12% in the past 40 years, and has hovered between 6% and 9% in the past 10 years	While the average number of hours Canadians work has decreased slightly over the past 30 years, declines are in line with the OECD average	Canada's productivity growth has been declining in recent years on both an absolute basis and relative to its peers	GDP per capita is increasing at a slower rate than many of our peers

Productivity growth is a key component to improving the standard of living in Canada

Deloitte's journey to understand the productivity challenge has helped us identify the most important drivers of weak productivity growth

The findings resulted in the first two editions of the Future of Productivity Series





Deloitte's Investigation led to four major findings

Size & sector don't matter

Canada's size and sector composition explain only a fraction of our productivity gap with the United States

Growth drives productivity

Firm level growth is a key driver of productivity and high growth firms make a disproportionate impact. Unfortunately few Canadian firms sustain high growth rates

Firms are not investing enough to grow

Canada's smaller share of high growth firms may be explained by our firms weak investment in innovation, technology, and state-of-the-art machinery

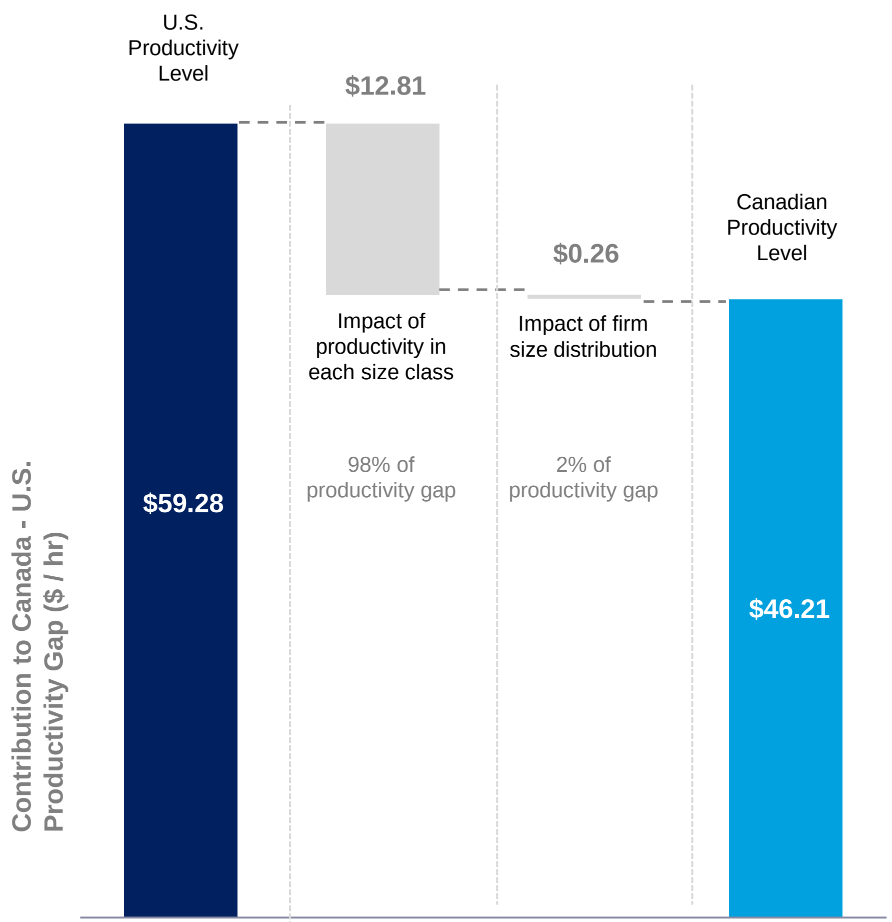
Canadian firms have different attitudes

Attitudinal differences may play a role in weak growth and investment. A 2011 Deloitte survey shows Canadians are more risk averse than their US peers

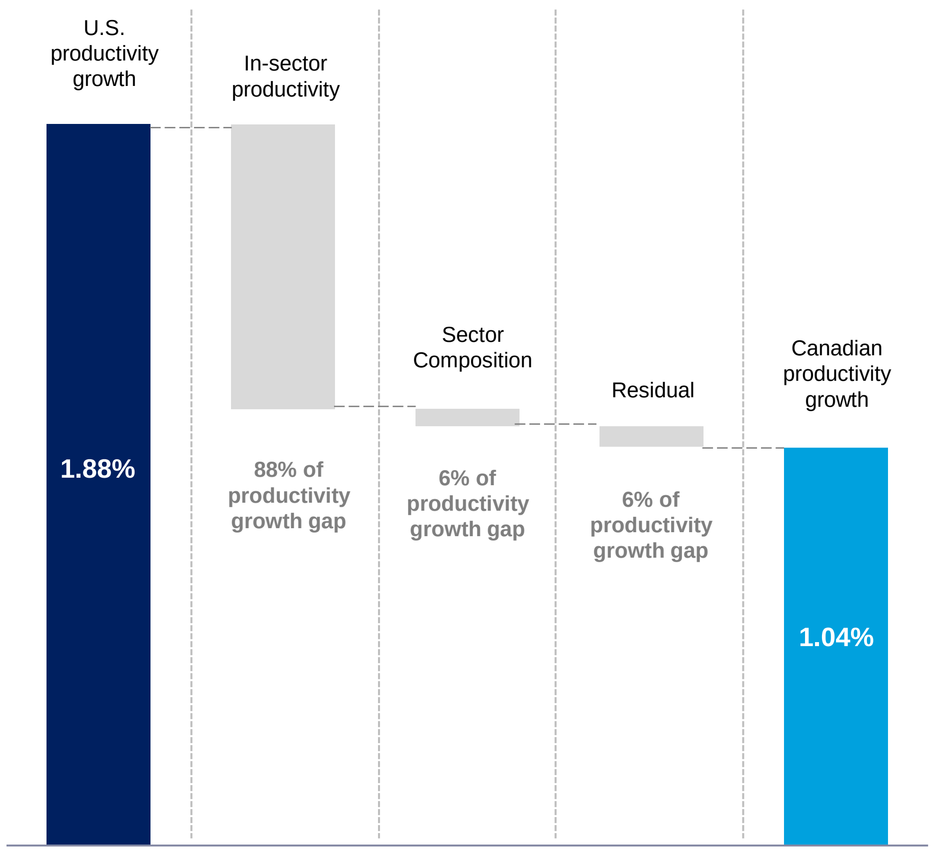
Collectively, Canadian sector composition and firm size distribution explain no more than 8% of our productivity gap with the United States

Systemic factors like size and sector distribution have limited explanatory power

Relative productivity by firm size in Canada and U.S.



Canada – U.S. productivity growth gap, 1987-2008

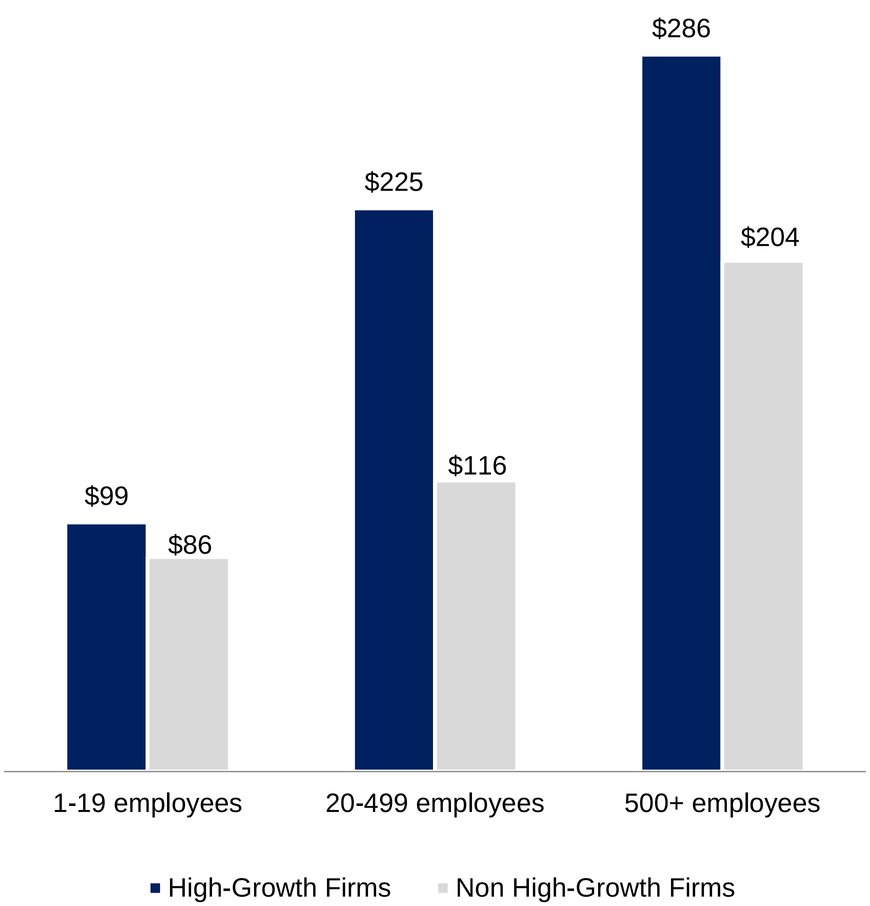


Differences in firm size distribution and sector composition account for only a fraction of Canada's productivity gap

Firm level growth is key to driving national productivity and high growth firms have a disproportionate impact

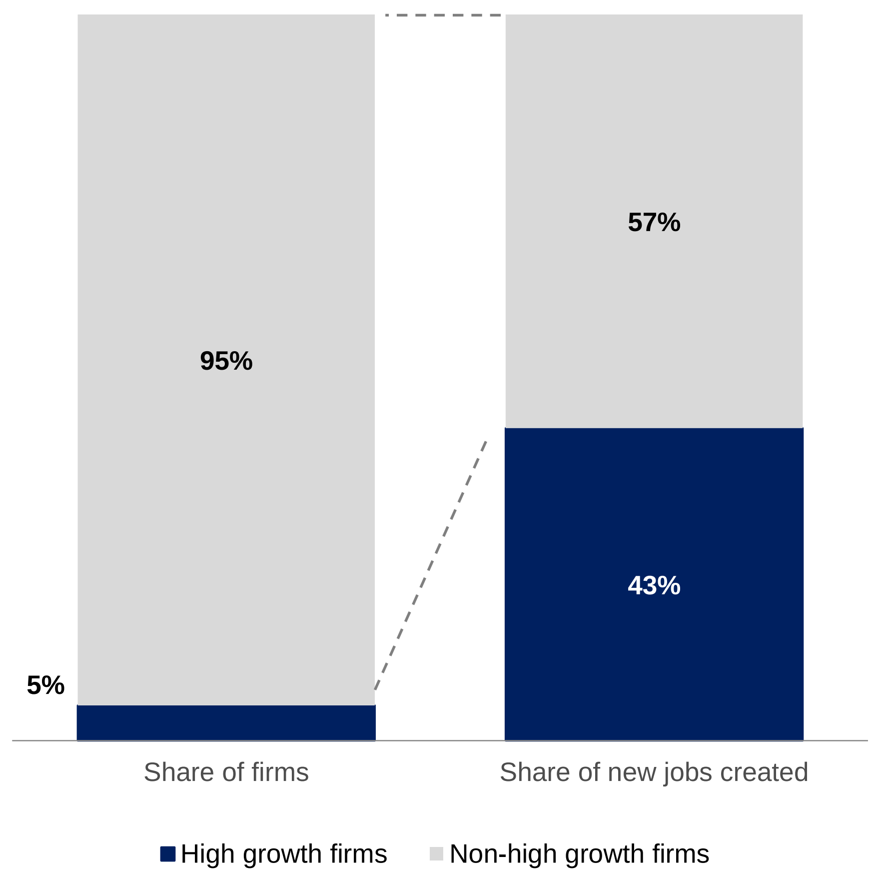
U.S. productivity by firm size and growth rate

Annual revenue per employee (USD in thousands)



Economic impact of high growth firms, 2001-2006

Firms by employment growth



Firm level growth plays a much more significant role than size or sector in driving national productivity growth

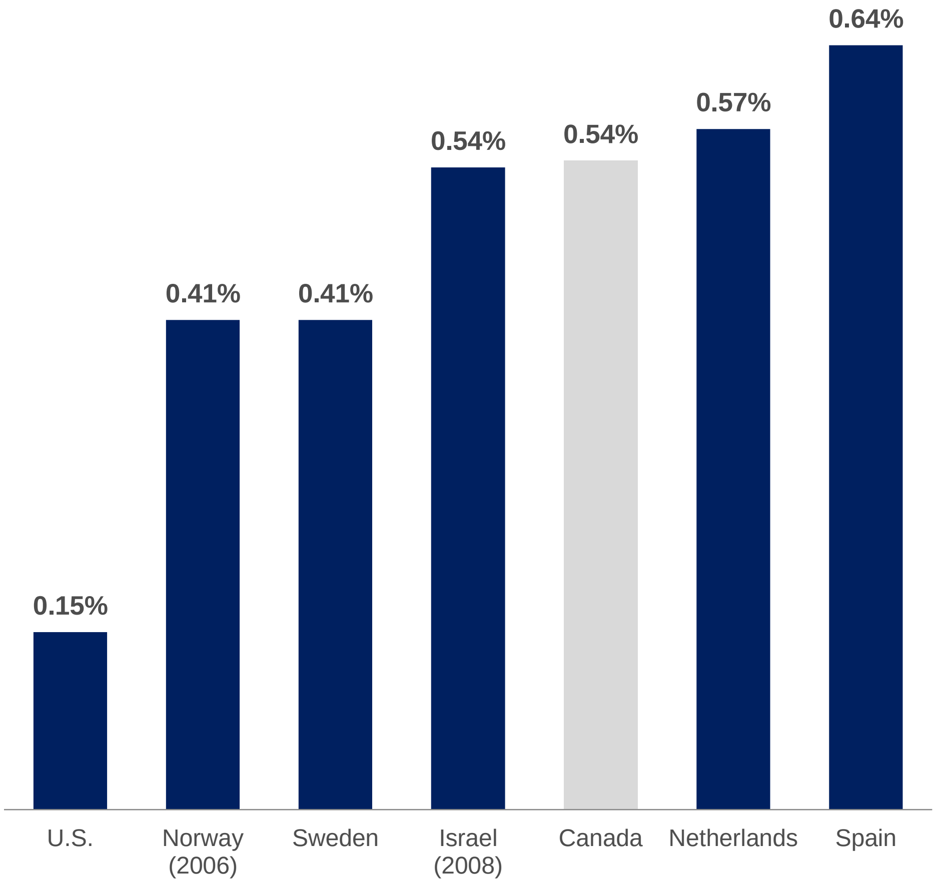
1. High Growth U.S. Firms are defined as firms with 100% revenue growth over a 4-year period and an Employment Growth Quantifier of >2 for the same period. The EGQ is the product of the absolute job change and the percent job change.

While a higher share of Canadian firms begin as high growth, they are much less likely to sustain that growth than their peers across the OECD

Encouraging strong growth among Canadian firms is key to improving our productivity position

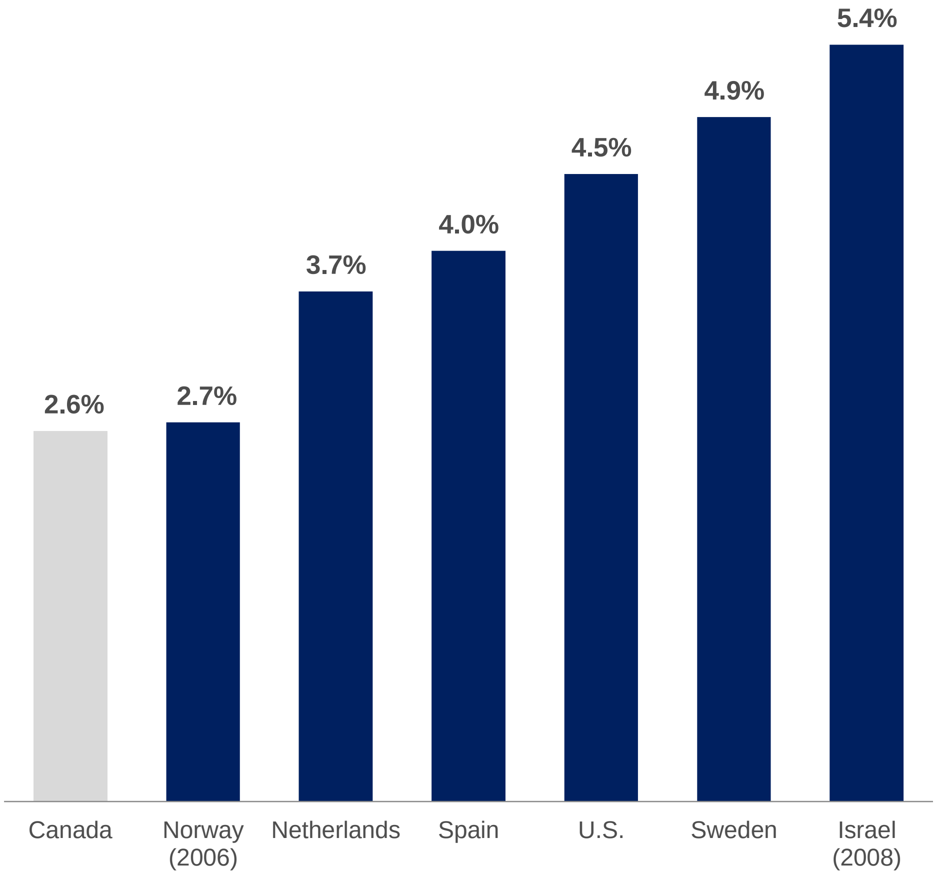
Young Firms (< 5 years old)

Percentage of high growth firms by country



Mature Firms (> 5 years old)

Percentage of high growth firms by country



Canada has a high penetration of high growth firms under the age of five, but fails to support older high growth firms

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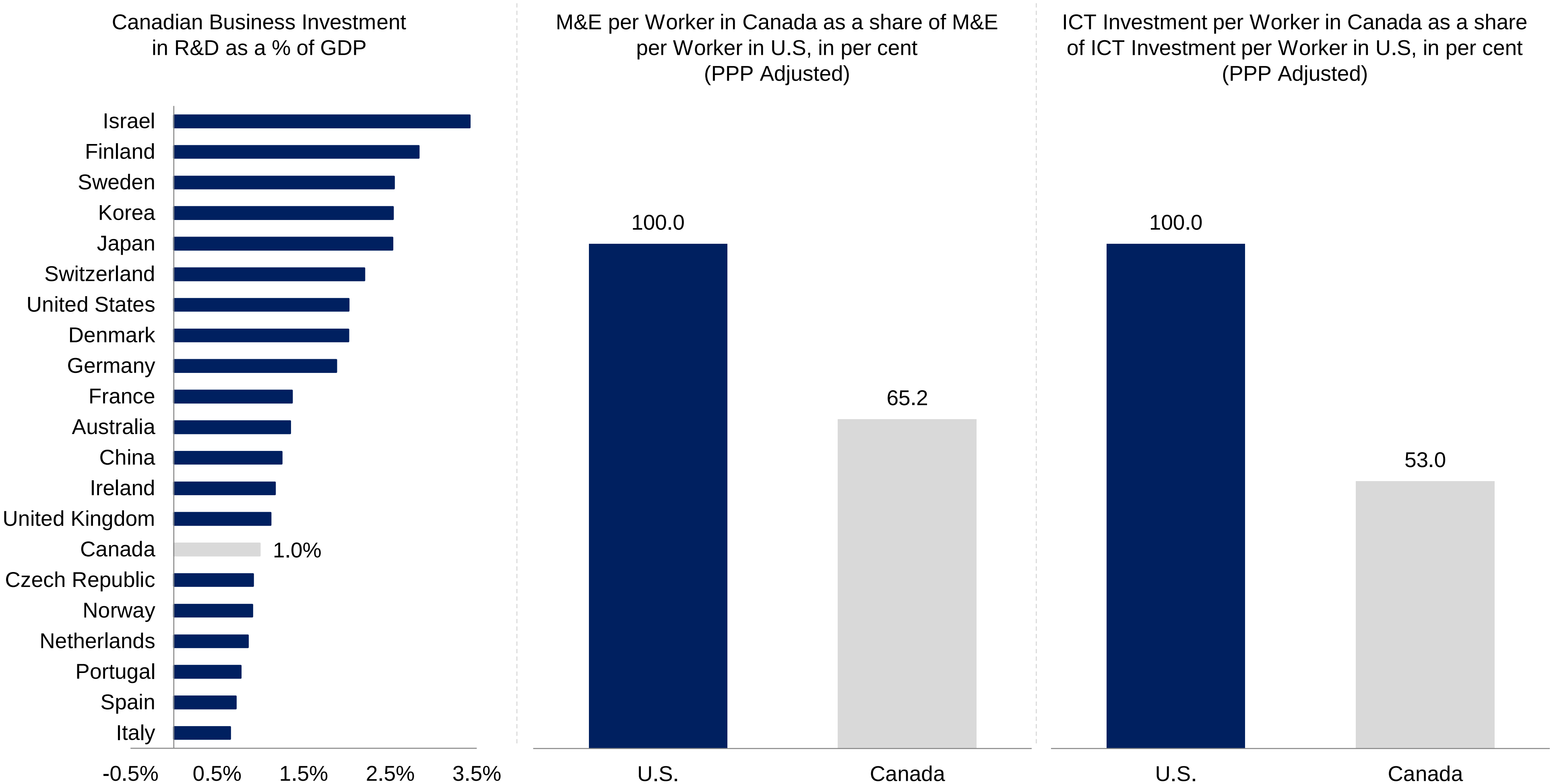
Weak investment by Canadian firms in innovation and new technology likely contributes to the small share of high growth firms

Major Investment Categories

Research and Development	Machinery and Equipment	Information & Communication Technology



Canadian firms significantly less than U.S. firms in research, machinery and technology

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To better understand the factors driving weak investment and growth, Deloitte conducted a large scale survey of Canadian business leaders

Survey Deployment & Methodology

- A telephone interview based survey was conducted of 884 senior executives within Canadian businesses in February 2013
- 80% of respondents reported being either Owner, President, Principal, or Chairman of the company. All reported being “the most senior person responsible for business strategy“ within their organization

Sample by Size

Small	Medium	Large
438	376	70

Sample by Firm Age

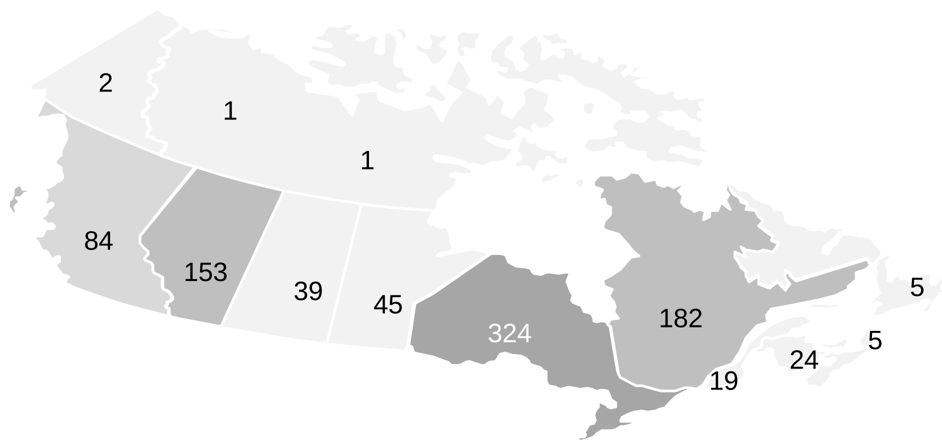
New (1-5 years)	Maturing (6-10)	Mature (10+)
46	67	717

Sample by Sectors

Wholesale trade/ transportation	Mining / extraction	Manufacturing	Financial Services
100	75	100	100

Real estate	Retail trade	Other Services
100	101	308

Sample by Geography



1. Although the survey included the above quote size sample the final results were weighted to reflect the national distribution of ~93% small firm to ~7% large firms

Thorough analysis of our survey data led us to classify three very different and mutually exclusive firm cohorts: *Static, Overconfident,* and *Dynamic*

Types of Canadian firms through the lens of investments

Total Investment[1]: More than size / sector peers

Other	
Perceived Investment	**Total Investment**
Less than peers	More than peers
18% of respondents	

Dynamic	
Perceived Investment	**Total Investment**
More than peers	More than peers
32% of respondents	

84%

Of total Canadian investment in R&D, M&E, and ICT is driven by the top 50% of firms.

Total Investment[1]: Less than size / sector peers

Static	
Perceived Investment	**Total Investment**
Less than peers	Less than peers
14% of respondents	

Overconfident	
Perceived Investment	**Total Investment**
More than peers	Less than peers
36% of respondents	

16%

Of total Canadian investment in R&D, M&E, and ICT is driven by the bottom 50% of firms.

Perceived Investment[1]: Less than size / sector peers — More than size / sector peers

A surprisingly large percentage of Canadian firms are overconfident and a surprisingly small percentage of Canadian firms are static. These firms contribute to only 16% of total investment.

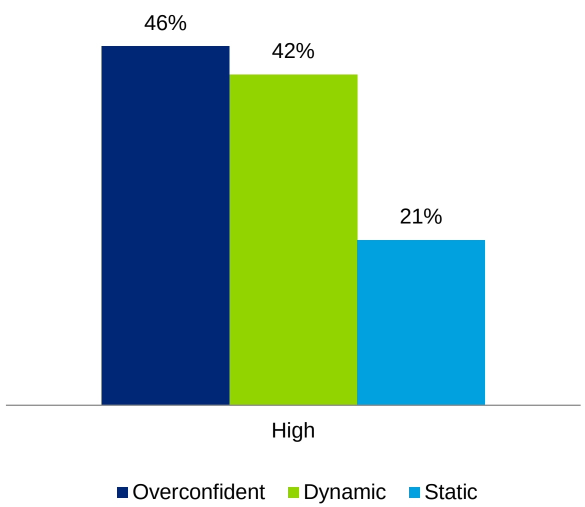
1. Perceived and Total investment is the firm investment across M&E, ICT, R&D, and R&SL and is expressed as a % of annual revenue and adjusted for firm size and sector

Overconfident firms are underinvesting and don't know it, but their attitudes are actually very close to those making high levels of investment

Attitudes of Overconfident Firms

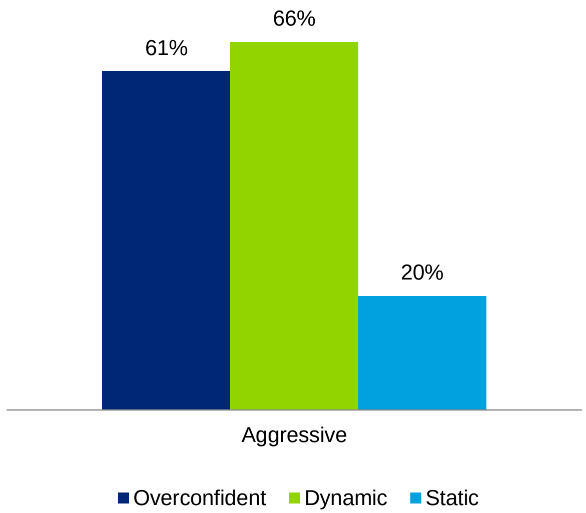
High risk tolerance

Which of the following best characterizes your firm's level or risk tolerance?



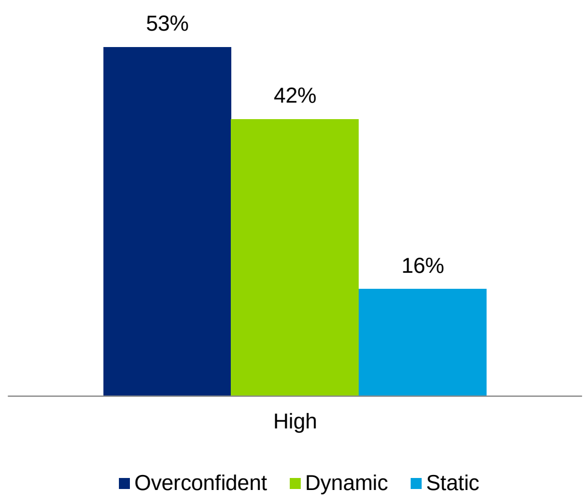
Aggressive pursuit of innovation

To what extent is your company proactive when pursuing innovation?



Strong competitive pressure to improve

To what extent do competitors pressure your company to make improvements?



The Impact of Course Correcting Underinvesting Firms: Overconfident Firms Investing at the Median for their Size and Sector

If overconfident firms invested at the median level of their peers, Canada's investment gap would be reduced by **29%**

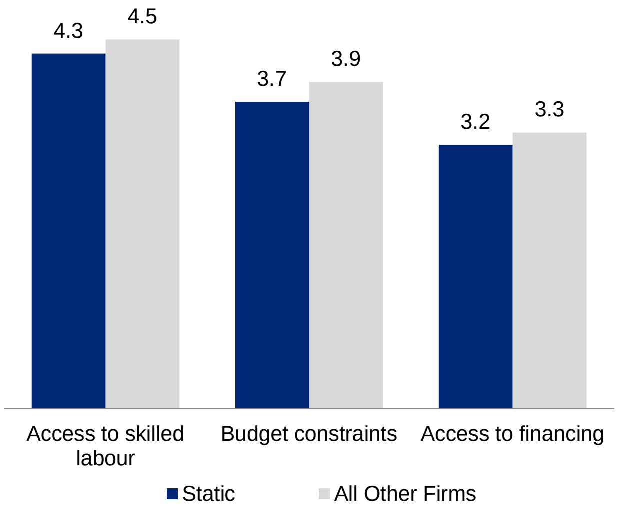
Overconfident firm attitudes suggest their incorrect perception is the most important driver of their underinvestment

Static firms know that they are underinvesting and their attitudes indicate that policy levers have little impact on altering their behaviour

Attitudes of Static Firms

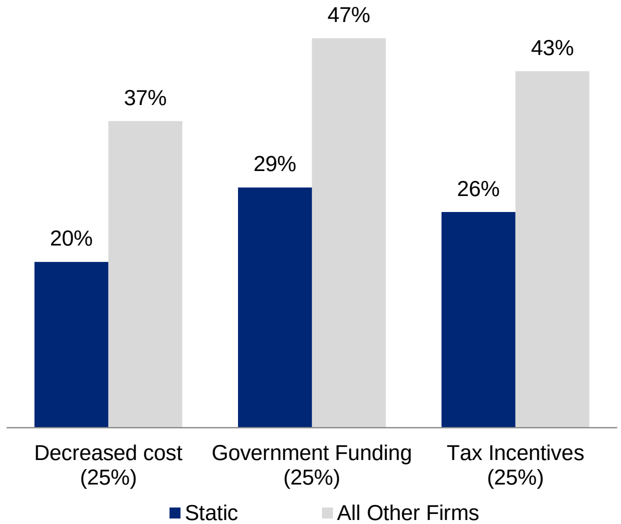
Report lower barriers than all other firms

To what extent do each of the following act as barriers to investments to make your company more productive?[1]
(1: Not at All → 7: Great Extent)



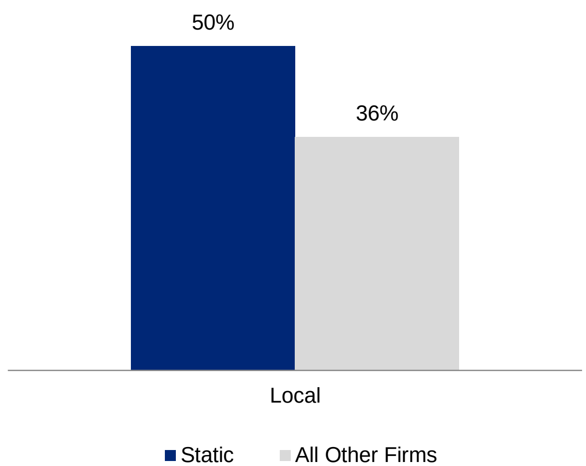
Unresponsive to government policy

What impact would each of the following have on your firm making positive decisions to invest?



More likely local than all other firms

Would you say that your company's primary market is local, regional, national, or international



The Impact of Course Correcting Underinvesting Firms: Static Firms Investing at the Median for their Size and Sector

If static firms invested at the median level of their peers, Canada's investment gap would be reduced by **14%**

Static firm attitudes suggest that their underinvestment is a conscious choice

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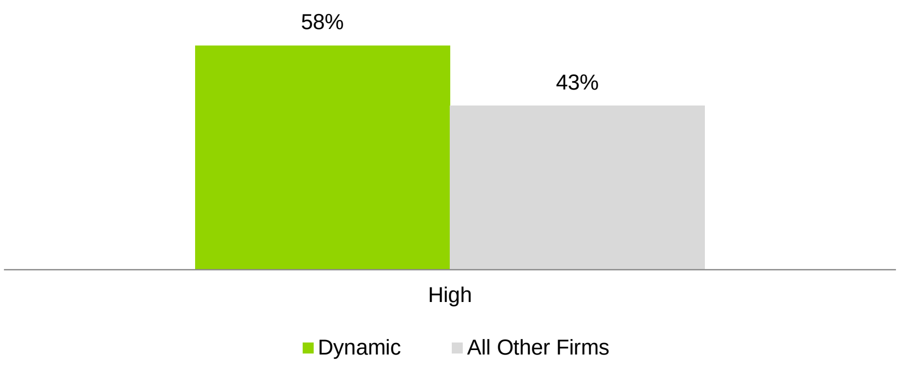
1. Static firms reported that 7 of 8 proposed barriers were of a lesser concern than all other firms. Government compliance was the sole barrier where static firms reported a larger barrier.

Dynamic firms are making strong investment decisions and exhibiting attitudes consistent with growth

Attitudes of Dynamic Firms

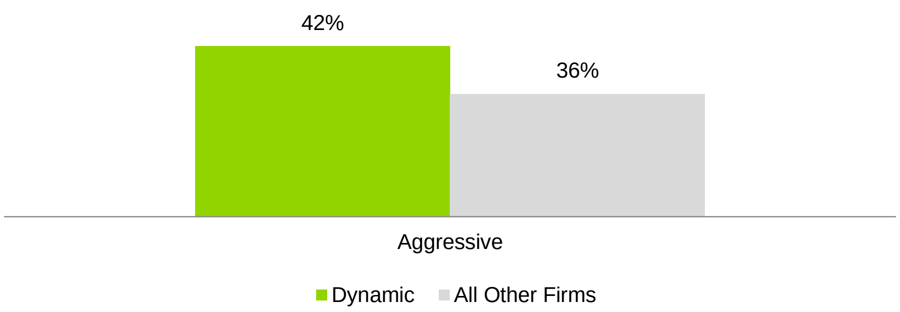
Strong response to government incentives

What impact would a 25% decrease in price of cost have on your firm making positive decisions to invest



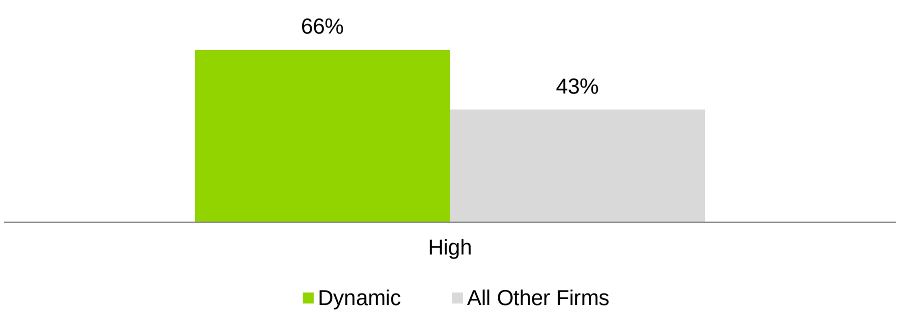
High risk tolerance

Which of the following best characterizes your firm's level or risk tolerance?[1]



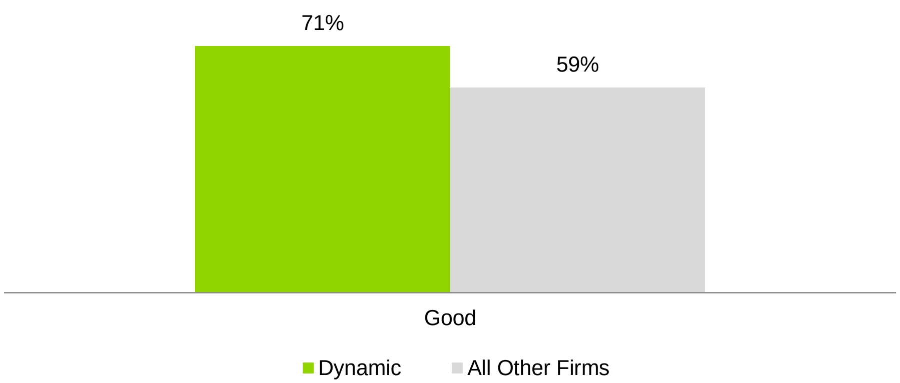
Aggressive pursuit of innovation

To what extent is your company proactive when pursuing innovation?



Positive outlook for the Canadian economy

How would you rate the overall health of the Canadian Economy?



Dynamic firms deserve recognition for making excellent decisions in a variety of areas as they are committed to driving growth through productivity-enabling investments

1. (n=337) Weighted and Normalized Data Tables from Deloitte's March 2013 Risk Tolerance and Investment Survey (Weighted n = 303) (Sample n = 884)

Firms who believe they are investing more than their competition should be gathering evidence to back up that belief

Understanding competitor investment behavior is essential to sustaining a company's growth

Companies tend to put too much emphasis on comparing their present selves with their past selves…what they forget is that you compete only with your current rivals

Deloitte Consulting Director Michael Raynor and Chief Strategist Mumtaz Ahmed
from their book *The Three Rules how Exceptional Companies Think*

How can firms know if they are actually dynamic or just overconfident?

Table Stakes:

Conduct competitive research

Firms should track their competitor's investments. Techniques include reviewing annual reports, talking to clients, hiring former employees, and monitoring pricing.

Leading:

Use publically available data

Statistics Canada Statistique Canada

Industry Canada Industrie Canada

Statistics Canada collects an array of information on Canadian business practices that allow firms to compare their performance and investment levels to peers.

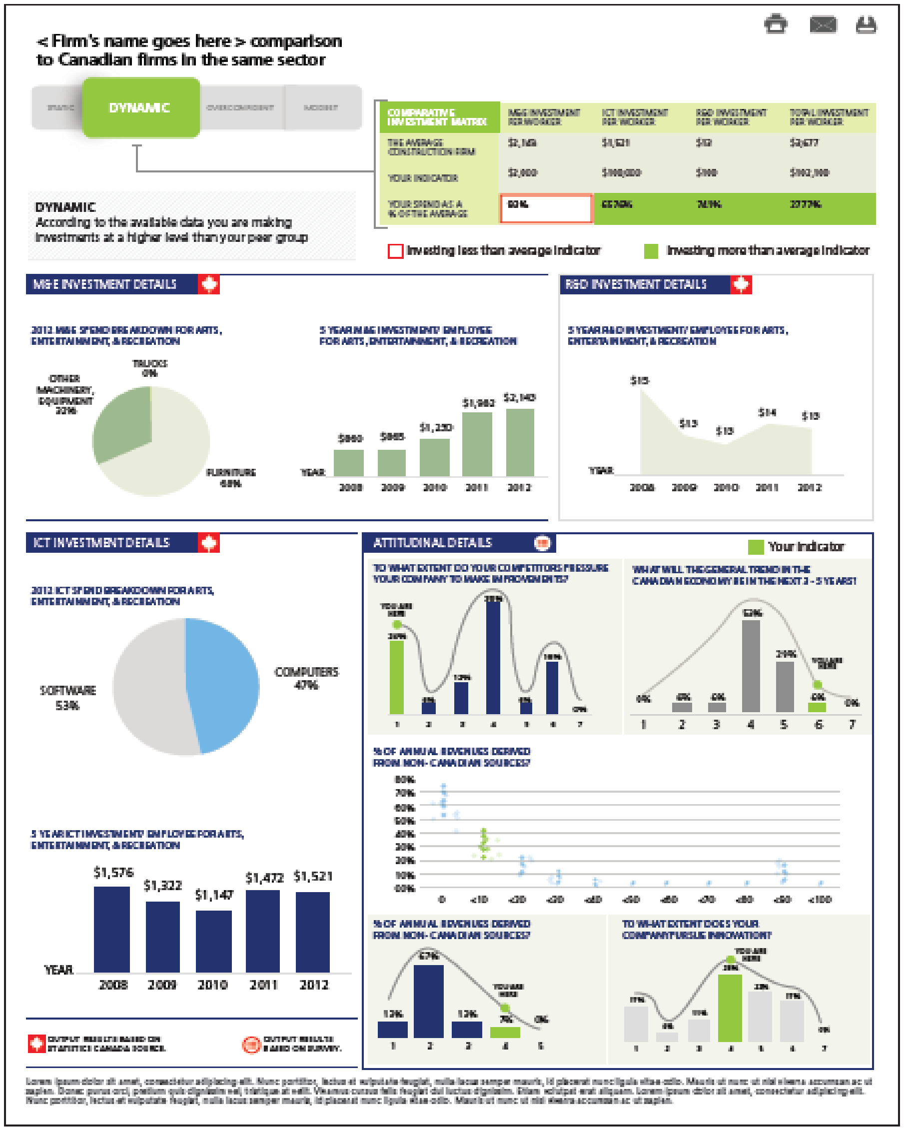
World Class:

Drive benchmarking agreements

Firms in given industries can share detailed information (typically anonymous) to support improved individual, and industry-wide performance.

Deloitte has built a diagnostic tool that will allow firms to gain an objective view as to where they sit on our investment quadrant

Diagnostic Tool



- The tool is a short survey of questions relating to the investment profile and attitudes of Canadian firms
- The tool will allow firms to compare themselves against a comparable peer set of the same sector and size
- The tool is accessible online through the Deloitte Productivity website and can be viewed on a laptop, tablet, or mobile phone

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