

## HOT TOPICS IN TECHNOLOGY AND INNOVATION

# Canada's Approach to Innovation Should Aim To Be the Best of Two Worlds

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At first glance, Canada's ranking in the newest [How Canada Performs: Innovation](#) report card is good news. Canada ranked 9th among 16 peer countries, compared to 13th in the previous Conference Board of Canada ranking. And Canada got a "C" grade—an improvement after a long period of "D" grades.

This modest overall improvement masks diverging and troubling results below the surface. Canada's performance on a couple of indicators has improved, and worsened on others. More generally, unlike the leading countries in the ranking, Canada does not have an aligned approach to bolster innovation.

The leaders in the innovation ranking—Sweden, Denmark, Finland, and the United States—have adopted different paths, but they have successfully developed distinct national strategies around innovation. As a result, these leading countries have substantial advantages over their peers in key areas of innovation.

Sweden, Denmark, and Finland lead in innovation with what could be called a "public science" path. This approach emphasizes [R&D investment](#), [scientific articles](#), [researchers](#), and [patents](#). For instance, Sweden is a strong investor in both public and business R&D, has a well-connected population, and has leading rates of investment in information and communications technology (ICT). Not surprisingly, it also ranks among the top three countries on scientific articles,

researchers, and patents. All three countries, however, face weaknesses on [entrepreneurial ambition](#) and [venture capital investment](#), which could hinder start-up and early-stage growth performance in the future.

Alternatively, the U.S. approach could be coined the “entrepreneurship and business investment” path. The U.S. is a middling-to-poor performer on public R&D investment, researchers, and scientific articles. But it leads all peer countries on entrepreneurial ambition and venture capital investment, and performs very well on [ICT investment](#) and [business R&D spending](#). This combination produces strong growth in labour productivity.

Canada's innovation approach is a hybrid of these two paths. With relatively good universities, engineering schools, teaching hospitals, and technical institutes, as well as science that is respected around the world, Canada mimics elements of the Scandinavian “public science” approach. At the same time, Canadians also demonstrate greater entrepreneurial ambition than most, and Canada has improved sharply in venture capital investment compared to previous rankings.

Unfortunately, Canada is not a world leader in enough areas to excel at either the publicly supported scientific path or the entrepreneurial approach. Indeed, Canada's performance on some of the fundamentals have deteriorated. While most international peers have increased business expenditures on research and development in recent years, Canadian firms are moving in the opposite direction. Moreover, Canada's public spending on R&D has slipped slightly since its peak several years ago. On patents and share of new researchers, Canada is well behind the leaders.

Furthermore, Canada does not take the steps that other countries take to ensure research can be successfully commercialized and used as a source of advantage for innovative companies, as is the case in the United States. And Canada is not improving its [productivity growth](#), which remains among the weakest in advanced developed countries. In short, Canada shows a little promise on both approaches, but not enough to be competitive—limiting its potential to maximize the impact of both innovation worlds.

What are the steps that will allow Canada to boost its innovation potential? We have identified four general principles that apply in all industries and regions:

- increase innovation-related spending;
- implement and use technology more effectively;
- create a healthy business climate;

- enhance management skills and expertise.

Canada's innovation performance—although somewhat better overall in this ranking—rests on a precarious foundation. Clearly, Canada's somewhat ad hoc, hybrid approach to innovation is not generating the results necessary to make our country more competitive. To reap the benefits of both worlds, Canada should choose to focus on its strengths, and build up the areas that support that path.

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