



## What? Research and Development? In OUR industry? **UPDATED 2015**

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This b.note has been updated in March 2015 to reflect changes in federal and provincial programs supporting R and D.

Face it - there isn't a lot of R and D going on in Canada's design and construction sector.

"So *what?*", you might ask.

Well, many are saying that this is a leading cause of the *chronic underperformance* of the industry as a whole. Construction and design.

Of course, that underperformance itself is one of the reasons why there is so little investment in R and D – *margins are simply too low to make it financially viable.*

It's a vicious circle, self-perpetuating.

In a meeting I had with the Canadian schools of architecture a few years back, they observed that lack of investment in R and D has resulted in Canada lagging behind Europe in the all-important area of *Sustainable Design*. Policy-makers, the public, the media and clients are coming to understand the critical imperative to design more energy efficient buildings. Buildings that emit far less carbon and greenhouse gas – the causes of global warming. (Remember that buildings contribute nearly half of GHG emissions.)

In many parts of Europe there is a real *partnership* between academe and the industry to advance research and *innovation* in areas like Sustainable Design.

That isn't happening as much as it needs to in Canada.

And, this challenge is not unique to Canada.

The 1999 study "Rethinking Construction" in the U.K. cited the same problem. "*Nonetheless, there is deep concern that the industry as a whole is under-achieving. It has low profitability and invests too little in capital, research and development and training. Too many of the industry's clients are dissatisfied with its overall performance.*"

More recent U.S. studies have come to similar conclusions.

Importantly, beyond the benefits R and D could deliver *generally* to the industry, the knowledge you create through R and D can differentiate your firm, give it a competitive edge, and help to make it more profitable.

To be sure, there are some great examples of companies in the industry that do invest significantly in R and D.

American architectural firm KieranTimberlake comes immediately to mind. They've been researching 'fabrication' for years. Famous for their Loblolly House. Or Tindall Corporation, specializing in precast concrete prefab buildings. The Toronto Star ran an article on a new corrections facility in Ontario being built using their products.

## b.note

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I believe I recall a Canadian architectural firm that was developing a database to support design of health care facilities.

So, what to do?

In our highly competitive industry how can *your* business start benefitting from R and D?

Well, one answer is to take advantage of Canada's Scientific Research and Experimental Development program (SR&ED). It provides tax incentives to encourage R and D. It is the single largest source of federal government support for industrial research and development in all sectors of the economy, including ours.

Invest some time to look for other government programs that can provide support to R and D, or which you can adapt to your needs.

In addition to the federal SR&ED program, the Canada Revenue Agency administers a number of programs on behalf of the provinces. There's a great list of provincial programs on the CRA website – here's the URL.

<http://www.cra-arc.gc.ca/txcrdt/sred-rsde/prv-crdis-eng.html#ntr>

In addition, you can find other sources of support in the form of financing and other resources.

For example, tap into students at universities and colleges. They may even come to your project with faculty advisors who are experts in their fields.

I'm talking to businesses in design and construction (*your competitors, perhaps?*) that are already using programs like SR & ED to support their research and innovation intending to differentiate themselves and hone their competitive edge.

It's worth some thought!

*Footnote:* I grew my successful architectural practice in part by finding and adapting government support programs to fit building design and construction. In my own case they were employment programs designed not for our industry, but for manufacturing.

### Resources

Rethinking Construction

<http://www.architecture.com/Files/RIBAHoldings/PolicyAndInternationalRelations/Policy/PublicAffairs/RethinkingConstruction.pdf>

Kieran Timberlake <http://kierantimberlake.com/home/index.html> (click on 'Research')

Loblolly House [http://kierantimberlake.com/pl\\_sustainability/loblolly\\_1.html](http://kierantimberlake.com/pl_sustainability/loblolly_1.html)

Tindall Corporation <http://www.tindallcorp.com/company.html>

Toronto Star article re Tindall

<http://www.thestar.com/news/article/926715--new-mimico-detention-centre-ontario-s-first-prefab-prison>

Canada's Scientific Research and Experimental Development program

<http://www.cra-arc.gc.ca/txcrdt/sred-rsde/bts-eng.html>