



Building on the Legacy of Progress in Residential Construction Science:

CHBA's Submission on Canada's Innovation Agenda
October 19, 2016

The public consultation asks for suggestions under a number of themes/sub-questions.

Entrepreneurial and creative society

What more can be done to cement Canada's place as a leader in social entrepreneurship?

There are regionally based examples of social entrepreneurship that can, with support, be expanded or replicated in other jurisdictions.

In the field of homeownership, there are a number of programs and initiatives across Canada that use various measures to enhance access to homeownership. CHBA has produced a survey that, although not exhaustive, identifies more than 40 such initiatives. The survey report details initiatives in all parts of the country by type, proponent, target market, scale, whether the initiative targets new or existing housing, and the cost to the government.

Similar surveys can be produced that can be used as a blueprint for developing/encouraging more social enterprises in other fields.

How do we work together to equip youth with the right skills for the future economy?

The government needs to work with industry to promote and support the unique skill requirements in the residential construction industry which offer rewarding and long-term careers while at the same time align with the future labour force requirements of the industry. Training programs funded by the government, including those by Employment Insurance, are most effective in equipping participants with the right skills when they are employer driven (the best way to ensure that training results in a job is to include employers in the training decisions – e.g. the Canada Job Grant).

BuildForce Canada has projected that our industry will see over 118,000 uniquely skilled workers retiring over the next decade. Therefore, promoting careers in the skilled trades, and support for training and productivity advances, will help to ensure that the residential construction industry remains a healthy economic engine for Canada and that young people will be able to access careers in our industry.

How can Canada become the best country in attracting and developing talent?

Labour Market Information

Longer-term federal policy should continue to make immigration more responsive to Canada's economic needs with employers playing a pivotal role in the selection process. Similarly, provincial governments need to continue focussing on economic immigration via the Provincial Nominee Programs.

Federal/Provincial/Territorial governments need to continue pursuing a coordinated approach to improving Labour Market Information (LMI) in Canada. This will support industry and government in the design of labour market programs and policies geared towards labour demand. Improved labour market information will support informed career choices and enable closer alignment of education and training offerings with present and future labour needs. Responsive immigration programs coupled with improved labour market information will help Canada become the best country in attracting and developing talent.

This improved LMI must also be easily available to Canadians and employers.

Skilled workers in the residential construction industry often require unique skill sets. However LMI for the sector is generally not segregated from the larger construction industry, making it difficult to decipher. The residential construction industry should be a distinct category in all data collection systems. Segregation of the residential construction sector from overall construction data and identification of the specialized trades and occupations in the industry is required in order to provide more accurate supply and demand projections.

Improvements/Sophistication of data sources (i.e. Statistics Canada surveys and programs including the Labour Force Survey, the National Household Survey or Census, Job Vacancy Surveys and the Survey of Employment, Payrolls and Hours) would help improve LMI for industry, those seeking employment opportunities and educators.

Housing Affordability and Choice

The impact that housing and lifestyle have on attracting and retaining world-class talent cannot be underestimated. A healthy mix of housing types, in complete communities, is needed when promoting/developing 'innovation clusters'. Coordination between all levels of government to develop vibrant, attractive neighbourhoods where people want to live is key.

Global science excellence

How do we make best use of our science and research strengths?

It is important to recognize and bolster the government role in essential non-proprietary research that is in the national public interest —this is particularly true in residential construction.

For the residential construction industry, collaborative research between industry and Canada Mortgage and Housing Corporation (CMHC), the National Research Council and Natural Resources Canada has had a significant positive impact on the quality of our housing and communities, and has enabled Canadians to consider themselves among the best housed nations in the world.

The full mandate of CMHC, including housing research and development, needs to be supported in order for the federal government to achieve its goals and fulfill its role in the provision of housing to Canadians. CMHC's technical research and development supports industry innovation, identifying opportunities to increase productivity and reduce costs while at the same time making continued improvements in housing quality and choice.

NRCan (in the area of energy efficiency) and NRC (through Canada's National Model Construction Codes development system and supporting the development of innovative technologies) also provide important support and research to the industry in their respective areas.

Cuts to these departments and agencies have dramatically reduced their research capacity in recent years, and a reinvestment is in need to support research to continue to improve Canada's housing affordability through better-built houses that cost the same or less.

How can colleges play a larger role in the innovation ecosystem?

The government should support employer-directed training and, following on its commitment in the Budget, encourage partnerships among employers and post-secondary educational institutions to align what is taught with the needs of employers, including new co-op placements and work-integrated learning opportunities. This should include skilled workers in the residential construction.

Colleges should also be encouraged to continue expanding their research initiatives with industry and government support.

Clusters and partnerships

How can businesses, institutions and governments attract talent and investment?

When developing a 'cluster' governments at all levels recognize the role that access to housing and the affordability of homeownership play in developing a vibrant community that is an attractive place in which to live. The promotion of innovation clusters should consider housing, and, reciprocally, the National Housing Strategy should consider housing as it relates to the government's pursuit of innovation clusters and broader economic and competitive goals.

Growth

Which market-based approaches encourage adoption of clean technologies?

LEEP

Significant progress has been accomplished through technology and systems innovation, voluntary, market-driven adoption of higher standards of performance, and a uniquely Canadian research and development collaboration between the public and private sectors. This is achieved with a balance between fundamental research to support new innovations and the commercialization of ideas.

The government can best facilitate adoption by moving beyond simply support for demonstration projects onto work to address systemic barriers that stifle innovation, including market barriers and the lack of consumer literacy that inhibits wide spread adoption.

One of the toughest challenges in getting new technologies broadly adopted in the marketplace lies in moving the industry and the marketplace beyond that which is technically proven. It requires "de-risking" of innovations (including "working out the real kinks" in broader on-site applications) so that broader diffusion into industry and with consumers can take place. Moving innovations from niche status to the mainstream is often referred to as "crossing the chasm".

In residential construction, there is a modest but very successful program by the Government of Canada (in the Department of Natural Resources Canada) that has achieved excellent results in overcoming this challenge – the Local Energy Efficiency Partnerships (LEEP) Program.

LEEP is delivered on a regional basis, engaging a critical mass of builders who are capable of identifying and incorporating product innovations that are best suited for the region. Working together through the LEEP initiative, and supported by Government of Canada experts, builders use LEEP to reduce the time and risk involved in finding and applying innovations that result in better quality, high performance homes. LEEP makes the innovation cycle faster, less risky and more affordable. The information

generated through LEEP projects is then shared with other builders in the region, accelerating market diffusion of the best proven technologies and innovations.

This approach to “crossing the chasm” has been very successful and has led to accelerated deployment of several important technologies - heating and cooling systems, insulation systems and more. Now is the time to resource LEEP properly and promote demand for clean technology by consumers.

Renovation and Retrofit

In residential construction, there are now more dollars spent each year on renovation than on new construction. When you consider that the 50% of Canada’s housing stock built before 1985 uses twice as much energy as the homes built since 1985, the most significant opportunity to encourage adoption of clean technologies (and in doing so, also address the Government’s climate change goals) in the residential sector is through renovation.

LEEP, for example, could be extended to renovation. The energy savings potential in renovation is much greater than in new construction, but the smaller enterprise size typical of the renovation sector, and the much greater variety of re-construction issues and challenges to be faced, makes diffusion of new technology more difficult. LEEP offers an excellent and proven approach to addressing these barriers and accelerating market adoption of renovation innovations.

In a broader context, retrofitting existing buildings, infrastructure, and systems with clean technologies will widen their application and speed their adoption.

Ease of doing business

What new approaches could be explored to improve government services to businesses?

One-for-One

The federal government should continue efforts to reduce the regulatory burden on small businesses. Unnecessary regulations and inefficient red tape add to costs and undermine industry’s capacity to operate effectively.

Government as a whole should adopt the “One-for-One” Rule when considering business regulations - removing one requirement for each new one it adds. This would help reduce the administrative burden placed on business.

Small Business Lens

Government should view current and proposed regulations through the lens of a small business, aiming to discern what particular difficulties small businesses might face in

complying with proposed regulations, and what the government might do to alleviate the difficulty while still achieving the desired goal.

Along these lines, the government needs to continue providing timely and responsive services to employers in a variety of fashions (i.e. on-line, phone and in-person). Employers need to be able to quickly identify the available services and obtain the required information on the given subject.

How can regulations be designed to promote innovation across key sectors?

The harmonization of codes, standards, and trades qualifications across jurisdictions increases labour mobility and productivity, reduces costs and promotes innovation. The federal government must continue to support and encourage the elimination of inter-provincial trade barriers.

For the residential construction industry, the government should ensure that changes in building code requirements do not adversely impact housing affordability. Federal research in housing, both for innovation and in support of codes, standards and regulations, should focus on performance improvements that either reduce or keep construction costs the same.

The National Building Code of Canada, which is the backbone of building codes and regulations across Canada, supports harmonization, productivity and efficiency. However, it is chronically underfunded and needs additional support to properly support innovation without eroding affordability.

Federal, provincial and territorial governments should affirm the pre-eminence of the national model building code development process (including the key roles of the Canadian Commission on Building and Fire Codes, the Canadian Construction and Materials Centre, and the Industrial Research Assistance Program) as it pertains to the residential construction industry.