



TIM Foundation

# ***GOVERNMENT-LED INNOVATION***

## **Introduction**

It has been said that necessity is the mother of innovation and never before has the need for innovation been so great. The social, economic and ecological effects of a global economy, multi-lateral trade agreements, air and water pollution, depletion of natural resources, financial and trade market volatility, flat or shrinking economies, income inequality, water and food shortages, unemployment, security threats, aging populations, rising health care costs, urban congestion etc., are among some of the issues all countries face.

It's not all about the numbers or money and none of these challenges come with easy solutions without innovation, and without government led innovation.

History has proven that outside of regular governance routines, government business-as-usual practices can only treat the symptoms and possibly provide some short term relief, but in most cases will not provide effective and sustained solutions to new issues they face. Only when they are challenged, do government decisions change the world. It happened to Great Britain in World War II when challenged with Germany oppressing almost the entire European continent. It happened to the US, in the sixties racing the Soviet Union to the moon.

It has been stated repetitively that innovation is the single biggest driver for economic growth, productivity and prosperity, and to date innovation is still not fully understood, supported and measured correctly, in short, innovation management has not really been practised. Governments have not been able to systematically spur innovation in any significant way. Actually, in most cases the results have been dismal.

Most efforts so far have been based on rounds of public R&D funding and a patchwork of business incentives such as subsidies and grants. *If government officials want successful new start-ups to succeed, and established businesses to change, maybe they should lead by example and innovate the way they manage these developments themselves?* Now, more than ever, and with a new sense of urgency on some key issues like climate change and sustainability in general, innovation management is needed at the government level. Not by more government funded R&D (which induces more vicious circles of spending) and feeble ineffective attempts to spur business innovation (which will also be needed with major changes), but government-led innovation.

Do not mistake government-led innovation with some of the current government initiatives to improve services by adopting digital and social technologies. That is only a process innovation of the way a government functions. Government-led innovation requires all the heavy-lifting and risk associated with breakthrough innovations, but on another level, the systemic level. This is the level at which innovations are really induced, managed and exploited to the greater good of the general public.

## **Innovation Leadership and Change**

Innovation leadership at the highest level is a pre-requisite to government change and change is a pre-requisite to innovation. You can't expect different outcomes when you keep doing things the same way, as the Einstein adage goes. It should be noted that this is not a passing, fashionable initiative, but rather a fundamental change in conduct, with a long lifespan. It starts with acquiring a comprehensive knowledge of what innovation and innovation management is (the factual basics), then how innovation can be implemented and managed.

Some key steps (high level):

- Adopt and nationalize (with a Standards Board) an Innovation Management Standard

*A National Innovation Management Standard and its accompanying Maturity Model provides a common language for innovation awareness, comprehension and a means of efficiently transferring requirements.*

- Develop a shared vision with participation from stakeholders

*It is essential that citizens and leaders aspire to a shared vision. A basic framework can be crowdsourced for public input. The vision should have a development horizon of ten years minimum.*

- Appoint a Senior Government Official/Minister of Innovation (define authority and responsibilities)

*Appoint a high ranking official with the authority necessary to govern, manage and co-ordinate all innovation, R&D and macro-economic activities and funding across multiple functions and departments.*

## **Structure and Substance**

Effective and sustained innovation requires structure and visible substance. Simply writing and implementing new policies are not enough.

Some key steps (high level):

- Create or co-share a department/ministry of innovation (provide staff and budget)

*This function may be shared with an existing department/ministry. It would consolidate all government R&D, industry and innovation activities.*

- Establish an Innovation Board (government cross-representation) and Sounding Council

*The Innovation Board is a resource for review and decision influencing on R&D and innovation policy. The Sounding Council made up from business and academia would support and advise the Innovation Board.*

- Develop innovation objectives aligned with the vision

*The objectives would be measurable and high level in nature.*

- Deliver internal innovation awareness sessions throughout the government

*Government personnel (leaders, managers and workers at all levels) require a basic knowledge of innovation and innovation management.*

- Adopt the standard in key government crown corporations and agencies

*Leading by example, key government agencies and crown corporations should adopt the Innovation Management Standard and implement in-house innovation projects.*

- Introduce the standard for adoption to the government supply chain (preferred status to start)

*Introduce the Innovation Management Standard to the government supply chain. Develop a preferred status initiative for suppliers who adopt the standard. Supply chain innovation would be a logical next step.*

- Develop a two way communication system for all government innovation activities, personnel and the private sector.

*An interactive website is required for two communications related to government R&D and innovation activities.*

## **Funding and Incentives**

Current government R&D funding and business incentives require a refocus and reform which may include dropping some programs and developing new ones.

Some key steps (high level):

- Review and change current government funded R&D policy and activities

*Innovation is not R&D. Also, focused R&D should be considered a component (activity) of innovation, not the other way around. Policy for R&D funding selection, results reporting and IP sharing all require reform. Approved R&D should be aligned with the vision and innovation objectives at the systemic level.*

- Review and change current business innovation and R&D incentives policy and activities (also review for duplication at the province/state level)

*All incentive approvals should be partly based on the organization's ability and capacity to innovate along with the individual merits of the projects (cost/benefits). All incentives should have adequate tracking and full reporting using a Metrics Guideline. Reform or drop existing incentives based on performance and develop new ones aligned with the vision and innovation objectives specified. Correct any systemic issues using Innovation Metrics as specified.*

## **Innovation Projects**

Government-led innovation projects would have three distinct phases (same as business innovation), Discovery, Development and Deployment. Government would play the role of leader, financier and co-ordinator (program owner), not that of innovator.

Some key steps (high level):

- Develop policies for government-led innovation projects

*The policies would address the role and responsibilities of all parties involved in the projects, IP protection and sharing, project management processes, procedures and reporting.*

- Aligned with the government's vision and objectives select one or more subjects and areas for innovation projects (e.g. Subject - Climate Change and Area - Energy Storage)

*This could be priority-based or best-suited based on history or available assets/strengths and budgets. Note in the example, energy storage as a topic could spawn several individual projects.*

- Research our current assets/knowledge related to the project(s)

*Determine current business and university expertise and available knowledge related to the project subject and area for innovation.*

- Develop project high level description/conditions and put out calls for innovative ideas, concepts and hypothesis (Discovery Phase)

*Review the ideas, concepts/hypothesis (Innovation Board/Sounding Council, etc.) develop business cases and select the appropriate project(s).*

- Develop RFP's for the various development and deployment parts of the project which may include focused R&D.

*Review the RFP responses and select the tier one suppliers, some of which may be university and business partnerships.*

- Assemble a team for each project (representatives from government, business and academia)

*The Teams, who report to the Innovation Council would manage and co-ordinate (track, audit and report) the project(s) activities.*

- Develop project budgets, key milestones and schedules

*This process would be implemented by the Teams and Tier One Suppliers and approved by the Innovation Board.*

- Implement innovation projects (Development and Deployment Phases)

*Implement, track, audit and report project activities and take corrective action(s) as required.*

## **Conclusion**

It is time for a fundamental re-think of the way in which governments lead innovation. In view of serious challenges ahead for the public sector, it is important that the way in which innovation projects are being managed, governed and stimulated, is re-thought to significantly increase its output. Only in this way, is there significant impact to influence outcomes, and adequate return on investment to justify the continued use of public funds.

The TIM Foundation will soon be releasing a new guideline, TIM-PD-003-GL4 Government-Led Innovation. To be notified of this release please contact us at

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To learn more about TIM, visit our website

[www.timfoundation.org](http://www.timfoundation.org)