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HOW TO BE AN INNOVATION NATION

**A White Paper on the Implementation
of *Effective* National Strategies
to Stimulate National Economics,
through
Developing Innovation
Management Capability**

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What is an Innovation Nation

An innovation nation is a country that has institutionalized innovation as common practice within the public sector and continually promotes, encourages, fosters and supports innovation in the private sector.

This is driven by a vision with measurable objectives and implemented through strategic policy.

All countries have and will continue to have issues, needs and requirements regardless of governance type, size and location. These issues, needs and requirements will vary from country to country and may include the environment, debt/finances, security, education, healthcare, GDP, standard of living, productivity, etc.... All countries have a universal desire to continually grow their economies for the prosperity of the country and its citizens.

An innovation nation will utilize public and private innovation to address their issues, needs, requirements and develop an innovation driven economy to achieve growth and prosperity.

Introduction

According to world bodies, international and national think tanks, institutions, boards and groups, innovation is believed to be the single biggest driver for economic growth, productivity and prosperity. This powerful statement in itself has prompted many, if not most, countries on all continents to take notice and take initiatives. Countries around the world have been implementing various policies and programs attempting to boost innovation, while achieving limited success doing so.

An emphasis has been placed on a patchwork of government R&D spending, business R&D, innovation related incentives, and university and business partnerships, developing and supporting innovation ecosystems, setting up innovation hubs, clusters, start-ups and technology based innovation initiatives. In many cases, billions of dollars, Euros, Yen or Yuan may have been spent on initiatives that have seen very limited success. Without unproductive reproach, let us try to examine: why is that?

Background

Innovation is widely misunderstood, from definition to practical implementation.

Subsequently, many ad-hoc approaches to innovation have evolved which have had limited or no success, producing nothing truly lasting and sustainable, and for the most part have wasted considerable amounts of time and resources in both government and business.

Let us be clear: innovation is not about ideas, R&D, invention and patents. They may (but not always are) outward phenomena of innovation outputs, but by themselves have limited bearing on success. Companies that have been extremely successful at innovation have invested a trifle on classical R&D. Companies that have spent fortunes on R&D, have failed dramatically in turning R&D investments into profitable products. Innovation by definition is the ability to create new value. Innovation in terms of substance is a system with many interacting and interrelated parts that form a complex whole, of which *some* of the above (idea generation, R&D, inventions and the like may play a part, but not always do.

In order for an organization to innovate in an effective and sustained manner, they need to address the many parts of the innovation system which will create value within first, or in other words: develop a capability to innovate. This cannot be circumvented with, compensated by, or replaced by installing software, by instilling new processes, or any other combination of techniques and tools, if they do not fit together properly.

Standards and Maturity Models

It would hard to imagine living in a world without standards. Most modern devices would not function without them, from mobile phones to TV sets, from cars to planes. They are all around us, embedded in our everyday lives. Standards provide common definitions, frameworks and shared language for a variety of technological, health, environment, and



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management perspectives. They are a resource for developing policy and support public initiatives that can include public awareness, procurement activities and incentive programs. Standards are also the most effective way to transfer requirements from one party to another.

Governments are familiar with standards as they are often the source for standardization, set their requirements, and enforce their adherence for good public reasons. This is done to keep planes in the air, cars on the road, food health, devices safe, and the air clean. They can also be used as an instrument to make national economies more innovative.

Management standards when adopted and implemented create value within an organization by harnessing tangible and intangible components of a system resulting in a defined management system. There is an International Innovation Management Standard available to the public. It has been adopted by the Product Development and Management Association (PDMA), a large association for new product development and innovation specialists, along with some early users. The standard and its accompanying maturity model provides the minimum requirements that cover the many interacting and interrelated parts (both tangible and intangible) of innovation systems that organizations need to address. This standard, its maturity model with many accompanying guidelines is capable of managing and improving innovation capability across organizations and for professionals.

Any organizations regardless of size or type can adopt the standard and measure (evidenced based) themselves using its maturity model and guidelines to develop their capability to innovate, which will mature over time through implementation and continual improvement.

Recommended Measures to Become an Innovation Nation

The required measures to become an Innovation Nation are very simple in nature, carry no risk and are relatively quick and easy to implement. There is no large investment required and not only are the costs minimal, countries will end up saving tax payer money with the reform of existing incentive programs which, by and large, have proven themselves to be ineffective. Their ineffectiveness has stemmed from lack of common language, lack of systematic approaches, a negligence and unawareness of important factors in innovation management such as value creation first. The good news is that this can be addressed. Here is how this could be done.

Phase One – Show Leadership

To be an innovation nation there must be exemplary leadership at the highest level in the country (President/Prime Minister) and developed through the government layers of management, with a willingness to embrace change and challenge the status quo. It should be noted from the start that this is not a passing, fashionable initiative, but rather a fundamental change in conduct. Demonstrated transparency, commitment, support and effective communications through all phases and thereafter are all essential for success.

Phase Two – Organize the Initiative

At the national level, appoint a high ranking official to be the Innovation Representative (Minister, Officer, Manager, etc.) and assemble an Innovation Board with cross-representation from the different ministries/departments. It would be advisable to invite a cross-section from different sectors and sizes of companies to form a sounding board to support the initiative, see below. You can adopt a publicly available toolkit such as the TIM-PD-001-STD Innovation Management Standard, use its maturity model and guidelines, and where feasible nationalize the standard's use through the country's Standards Organization. Develop and communicate a National Innovation Website that provides for two-way communications between all important stakeholders.

Phase Three – Develop a Vision



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It is essential that the country, its leaders and citizens aspire to a shared vision. A basic framework can be crowdsourced for public input to develop the vision, using the above sounding board to garner support. The vision should have a development horizon with a minimum of 10 years and then becoming subject to re-development thereafter in the same manner as the original vision was done.

Phase Four – Set Your Innovation Objectives

To support and in alignment with the vision, measurable innovation objectives require development to provide the focus for innovation achievement. This means that emphasis is placed on particular areas for development. Some broad based objectives can be measured via the Global Competitive and Innovation Indexes. The objectives may not all require innovation themselves as a pre-set goal, but can be aimed at creating proper conditions to contribute to a healthy innovation climate. However, they all will require change to existing regulations, institutions, tax rules, macro-economic policies.

Phase Five – Develop an Innovation Policy

The innovation policy can now be formulated, to have a clear focus on the vision and objectives. Adoption of an innovation management standard ensures commonality of terminology, and congruence on thinking about innovation concepts. The policies provide the strategies to achieve the objectives, some of which should include:

A. Internal Awareness

Deliver innovation awareness training to all government departments and associated agencies and corporations. Agencies, corporations and selected government departments should adopt the innovation management standard for internal use.

B. Procurement

Allow for a preferred supplier status to government supply chain suppliers who adopt the national policy developed and in other ways contribute to the initiative. In selected (warranted) procurement cases make conformance to the selected innovation management standard mandatory. Set up a collaborative program for supply chain innovation that contributes to meeting the government's objectives.

C. Incentive Recipients

Organizations receiving R&D and innovation related incentives (as direct subsidies or e.g. as a tax grant) would be required to increase their innovation capabilities through adopting the innovation management standard, thus ensuring they have the essential skills, processes, tools and methods to innovate and increase their chances of success.

D. Government Sponsored R&D

Government sponsored R&D should be aligned with the vision and objectives. Strategic policy is needed in directing universities on relationships and collaboration with the business community with a focus on Intellectual Property and commercialization.

E. Education Institutions

Policy is needed to include innovation management into the public education system, secondary and post secondary.

Phase Six – Create Incentives

Review and reform is required. R&D and innovation related incentives should be aligned to the vision and objectives (R&D tax credits should include innovation Deployment/commercialization). All incentive programs, existing and new are required to be monitored, measured and reported to the public. A new incentive program should be introduced to assist organizations to develop their capability to innovate. The program would include awareness training, assistance in developing innovation management systems and early assessments.



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Phase Seven – Roll-Out

Roll-out of the new vision, objectives, policies and incentives will be mainly through an effective awareness campaign, and by instating a project organization to execute on the newly developed plans. The information availability and effective communications start internally, then to the public. Roll-out should be adequately budgeted separately as an activity. Eventually the initial roll-out will develop momentum and scale through supply chains of the initial adopters that will eventually create a pull versus push collaboration.

Phase Eight – Monitor and Measure

All aspects of this undertaking should be monitored, measured, reported (to the public) and reviewed at regular intervals. The reporting should be analyzed and discussed in the nation's innovation board.

Phase Nine – Continual Improvement

Based on the monitoring and measuring and knowledge acquisition activities, the improvements in policy and programs, etc., should be continuous.

Phase Ten – Expand the Initiative

Once the national/federal innovation program has established a firm foundation the model achieved needs to be aligned with and replicated at the state/provincial and regional/city levels.

Conclusion and Call for Action

A misconception on the fundamental identity of innovation, what it is, and what it is not, has caused a considerable waste of public funds on initiatives. There are ample opportunities for governments to implement simple but very effective improvements through more harnessed thinking about improving innovation capabilities. Using an innovation management standard and maturity model can help achieve that.

Source of this White Paper

The Total Innovation Management Foundation (TIM) which authored this White Paper also created the TIM-PD-001-STD Innovation Management Standard (in-conjunction with and international expert committee and the PDMA). There are other innovation standards available however they may be based mainly on best practices and may not have an accreditation and certification program available for both individuals and organizations.

For the TIM Foundation:

David Williams (Americas) | dwilliams@timfoundation.org

Gert Staal (EMEA/Asia Pacific) | gstaal@timfoundation.org