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**SUPPORT SERVICES FOR INVENTIVE AND INNOVATIVE ENTERPRISES AND  
INDIVIDUAL INVENTORS**

*Document presented by Jim GAN Chiu-Liang,  
Creativity Consultant-Trainer, Cos Technology  
Advisor, Singapore Inventors' Development Association (SIDA)  
(Singapore)*

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## 1. Introduction

**Small Invention. Big Future.  
L-o-n-g L-o-n-g J-o-u-r-n-e-y.  
Conserve. Seek to gain mileage.**

### What is so good about inventing?

Many reasons. One of those that I am particularly fond of:

Without exception, each Government acts as the big-brother partner to all enterprises (almost), taking their share of the profit (taxation!) during the 'fat' years, though with no equity ever purchased.

In time of financial turmoil in Asia, it is nice to hear of a curious twist to the cliché of "Two certainties of life: death and tax." And it is true, ... now

### **No tax! And Government co-shares your risk.**

Tax-heaven incentives are already in place in some countries, in which a Government promises not to tax an innovative enterprise's profit in the first few years. And if you are an inventor or an innovative enterprise, there is a good chance of getting a lot of money through Government grants with little or no strings attached.

### Why would any Government co-share a risk?

The deal is that you have to provide jobs, facilitate technology transfer to the locals and also spin-off revenues for the country.

In this Information Technology (IT) age, breaking rules and paradigms make business sense. It is only timely that Governments stretch to look at the distant future to discern what the 21st century's arena is going to be like. And the verdict ...

A significant global trend- new comparative advantage  
and the basis for wealth creation of nations will be the  
**knowledge and intellectual capital** of a country.

## 2.1. Singapore: Towards a knowledge economy

The Singapore Economic Development Board, as task to help steer the economic direction, has this to say about Singapore's direction (extract from the web-site):

... A new knowledge economy ... **building up capabilities including R&D**, design, logistics, marketing and sales. ....  
 Reviewing Singapore's **education system to nurture thinking and creative skills**... To augment the indigenous pool, the Government will continue to **attract and welcome foreign talent**.

## 2.2. Singapore's backdrop

Location:	Southeast Asian state on latitude 1 degree north and longitude 104 degrees east
Land area:	623 sq. km; mainly low lying
Climate:	equatorial: hot and humid. Average day & night temperature from 23 degrees to 33 degrees Celsius
Population:	close to 3,000,000 (increasing by 2% per year) about 2,200,000 are 15 years and above
Language:	English, Malay, Mandarin-Chinese, Tamil
Tourism:	approx. 5,300,000 arrivals per year
Currency:	S\$ 1 (US\$0.61) = 100 cents
Neighbours:	Malaysia, Indonesia
Environment:	mostly urban and industrialised; focal point for Southeast Asian sea routes
Exports:	machinery and electronic products, petroleum products, chemicals, clothing and textiles, foodstuffs, transport equipment, rubber.
Imports:	machinery and electronic components, petroleum, basic manufactures (including textiles, iron and steel), chemicals, transport equipment, foodstuffs
Main industry:	electronics and electrical, machinery and fabricated metal products, petroleum-refining, transport equipment (especially shipbuilding and repairing), printing and publishing, clothing.

### 3. Support Services

It's a giant step from the concept to the marketplace. Without support along the commercial journey, not many inventors nor innovative enterprises will be able to make it.

The Government does recognise the peril inventors have to face. Hence existing agencies have been tasked to extend their helping arms to inventors if it was technically possible. Where it was not possible, the Government had undertaken to create a new agency. In Singapore case, the National Science & Technology Board is created to spearhead the drive to embrace high tech, Research & Development (R&D) and invention activities in the public and private sectors.

Below is a snap shot of the support services for inventive and innovative enterprises and individual inventors in Singapore.

#### 3.1. National Science & Technology Board (NSTB)

(Web address:- <http://www.nstb.gov.sg>)

- a) Patent Application Fund (PAF)
  - Reimburse 50% of the cost of filing
  - Fundable components include prior art search, attorney's fees and patent filing and examination fees
- b) Innovator's Assistance Scheme (IAS)
  - Stage 1: funds to help develop concept into functional product or process on a dollar to dollar basis
  - Stage 2: funding for the commercial testing
- c) Research & Development Asst. Scheme (RDAS)

Fundable components include

  - Salary costs for manpower directly engaged in R&D work
  - Training, consultancy
  - Test marketing, feasibility study
  - Technology licensing
- d) Research Incentive Scheme (RIS)
  - grant scheme which supports the setting up of R&D centres
- e) Organise Exhibitions & Competitions
  - Tech-Month
  - Tech-venture Forum

An additional service that NSTB created includes setting up a one-stop assistance centre for inventors who need help, named the **Technopreneur Assistance Centre (TAC)**.

### **3.2. Economic Development Board**

- a) Small Enterprise Assistance Scheme (e.g. LETAS)
  - Tertiary institutions:
    - 'Approve-in-principle' centers
  - \$10,000 grant
  - Consultancy, prototyping
  
- b) Innovations Development Scheme
  - 'Approve-in-principle' centers include National Computer Board, Construction Industry Development Board, and Productivity & Standards Board.

### **3.3. Productivity & Standards Board**

- a) Patent resource library centre
  
- b) Free Patent Clinic - free service

### **3.4. Patent & Trademark Office (PTO)**

- |    |  |     |
|----|--|-----|
| a) | No. of patents applied in 1997:          | 490 |
| b) | No. of patents issued, 1997:             | 132 |
| c) | Total no. patents owned as at Dec. 1997: | 697 |

## 4. Ideas to Reality: The different phases of an inventor's journey

Below is a summary of the different support schemes available to assist inventors in different stages of the long, long journey.

<b>a) Product &amp; Process</b>	
<b>Conceptualisation</b>	<b>Support Schemes</b>
Idea evaluation	IAS
Feasibility study	IAS
Patent activity	PAF; free Patent Clinic
Design	Trade & Development Board
Prototype	Tertiary institutions
<b>b) Planning a Technological Venture</b>	
Business planning	Joint Entrepreneur Competitions
Financing	Venture Capital
Networking	Venture Capitalists; Forum
<b>c) Product commercialization</b>	
Commercialization	
Product development	RDAS, Incubation units
Manufacturing	SCI's Fusion Concept (S'pore Confederation of Industries)

Looks like Singapore is an inventor's heaven, isn't it?

The reality is that the array of schemes offered by different departments can be confusing. Implementation of grants is selective, with priority given to those identified as 'choice technologies'. There are also individual inventors who had been disqualified at the early round during their applications for support grants.

In another word, though there are many encouraging support schemes, getting approval for grants is less straightforward. This is not so bad, otherwise, I cannot make a living as a consultant!

## 5. Summary

*He inched towards the end. Below, the people appeared ant-like. A chill ran through his spine. "Why am I doing this?" As he asked himself, he stepped off and fell forward. He screamed. His stomach churned. His expression frozen by fear.*

*Time seemed an eternity to him as he went into free-fall. Those looking up saw it as a fleeting moment. The bungee rope stretched to an end. He bounced a few more times before being caught by helping hands.*

Many of us are hurling ourselves into the future without knowing the outcome. For many, the inventive journey began as if the ground has disappeared. Fear, excitement and uncertainty followed. A bitter-sweet after-taste experience. Some repeat the plunges with more new inventions. Why?

It's a bell curve logic. **Many wait for the future. Some anticipate it. Few define it.** Innovators belong to the final category. Die-hards emerged from crushed experiences strengthened and enriched.

In Singapore, I advise budding inventors to call or write to the inventors' association, Singapore Inventors' Development Association (SIDA), before taking the plunge. Does SIDA guarantee excitement or rewards? No. Well, at the least fellow friends can help ensure the inventor's bungee rope is secured and share some survival tips along your way down (first), before finally rebounding up!

Good day and good luck.