**INTERIM REPORT FOR MILESTON I**
**CONSULTING PROJECT**

**for**

**"CSIR-Tech"**

**by**

**Dr. V.A. Shiva Ayyadurai, Ph.D.**

## I. Objective of Consulting Project

To create a Roadmap and Project Plan, hereinafter referred to as "DPR", to enable the creation of CSIR-Tech.

## II. Context & Background

One grand goal of CSIR has been to create a private enterprise referred to as "CSIR-Tech" that will enable the creation of new spin-off companies by leveraging extant intellectual property and scientific talent of CSIR.

Over the past nearly one (1) year, many and varied discussions have taken place on the creation of CSIR-Tech. While the discussions have brought about important questions, no CSIR-Tech company has yet to be formed.

## III. Need for Consulting Services and Objectives Envisaged

It is now clear that without a clear roadmap and project plan, the DPR, the creation and formation of CSIR-Tech will not be possible. Consulting services are needed to create the DPR to provide clear and concrete goals, organizational personnel, budget, and a well-defined process to form CSIR-Tech. The consulting services required and described herein will result in the creation of the DPR. The execution of the DPR will result in the formation of CSIR-Tech. The purpose of this consulting project is limited to creating the DPR, not CSIR-Tech itself.

Creation of the DPR can only be achieved if the consulting services follow a phased and methodical manner involving the following four (4) key milestones:

- **MILESTONE I – Creation of initial strategic presentation** defining CSIR-Tech's mission, organizational structure, spin-off methodology and spin-off projections and financing needed.

- **MILESTONE II – Review of strategic presentation with stakeholders and production of 3 Spin-Off Plans** in order to clearly gain feedback from stakeholders and to produce concrete spin-off opportunities

- **MILESTONE III – Creation of DPR** in order to enable the creation of CSIR-Tech in a methodical process per the approach detailed in the DPR.

- **MILESTONE IV – Gain financial approval of DPR** in order to hire and setup infrastructure for creating CSIR-Tech.

## IV. Milestone I Project Report Background

This report is submitted to document the results of Milestone I of this consulting project. The deliverable of Milestone I is to produce an initial strategic presentation ("Strategic Presentation") on the mission, structure and formation of CSIR-Tech. This deliverable was not only completed ahead of schedule but also has been used in nearly fifty (50) presentations by Dr. Shiva to Directors of CSIR Laboratories, CSIR Scientists, key individuals of CSIR committees such as ex-SEBI Chairman, potential partners and senior government officials.

Review of Scope and Deliverables of Milestone I

There are key activities that were involved in the development of the Strategic Presentation. These included

A. REVIEW OF PREVOUS COMMUNICATIONS:

i. MEETING MINUTES - Review of all previous meeting minutes and discussions over the past approximately 12 months with regards to CSIR-Tech.

ii. CONSOLIDATION OF PREVIOUS MEETING MINUTES - Consolidation of previous meeting minutes and discussions to summarize and itemize decisions taken and outstanding questions

iii. INTERVIEW WITH KEY PARTICIPANTS – Meetings with key participants of previous planning meetings including though not limited to: Dr. Dhamodharan, Dr. Brahmchari, Dr. Abhyankar, R.K. Gupta, Dr. Biswas, Mr. Sourabh, Dr. Deepak Sardana, Mr. Hemant Kulkarni, Dr. Sudeep Kumar, Dr. Zakir Thomas.

B. REVIEW EXISTING FUNDING MECHANISMS

i. REVIEW OF NIMTLI MECHANISM FOR FUNDING – Meet with NIMTLI leadership and review NIMTLI mechanism of funding to understand existing mechanism for debt-based funding for industry startups and enterprises

ii. REVIEW OF TEPP PROCESS – Understand early stage seed funding process currently in place.

iii. REVIEW OF EXISTING CSIR PROGRAM FOR TECHNOLOGY TRANSFER – Review detailed notes, records and process for technology transfer and knowledge utilization created by the CSIR Technology Networking and Business Development Division (TNDBD).

C. IP LICENSING AND VALUATION PROCESS

i. REVIEW INVENTORY OF EXISTING IP and LICENSING – Review the existing IP and inventory of existing licensed IP generating revenue to CSIR.

ii. ASSESS EXISTING IP VALUATION PROCESS – Understand the existing IP valuation process based on Knowledge Base models used by CSIR in the past.

D. REVIEW CABINET NOTE FOR SPIN-OFF's – Review existing cabinet note for encouraging development and commercialization of inventions and innovations for spin-off's incubation centers and equity participation

Requirements of the Strategic Presentation

The elements of the Strategic Presentation are as follows:

**(1) Powerpoint Format**

(2) **Mission Statement**

(3) **Company Background**

(4) **Market Opportunity**

(5) **Solution Paradigm**

(6) **SPIN-OFF Model**

(7) **Financing Model**

(8) **Equity Structure for Company**

(9) **Equity Structure for Spin-Off's**

(10) **Organizational Structure**

(11) **Hiring Plan**

(12) **Spin-Off Projections**

(13) **Seed Funding Investment Projections**

(14) **Company Funding Projections**

(15) **Key Next Steps**

## V. Review of Previous Communications

The first goal was to review previous communications, consolidate ideas and interview key individuals who had over the past approximately 12 months participated with regards to CSIR-Tech. The purpose of this effort was to gain an understanding of the discussions to date. Annexure I contains a set of relevant meeting minutes and discussions. Based on the review of these and other minutes, it appears that for nearly a decade the concept of commercializing CSIR technologies have been discussed. Kelkar Committee report suggested pro-active initiatives to not only commercialize CSIR technologies, but also encourage and educate scientist on the need and importance of commercializing their inventions. This led to several initiatives, most important being promoting public-private partnerships.

Within CSIR, many scientists started taking active interest in commercial project sponsored by industries. However, due to lack of proper institutional support and governing mechanisms, scientists increasingly became project consultants to such industry relevant projects. This was different to the original plan to make CSIR scientists scriptures' of commercially relevant projects, and turn them into innovators and entrepreneurs from inventors. In 2008, the need to institutionalize and promote commercial mind-set of Indian scientists dawned the policy-makers of India. A cabinet note was passed that clearly stated that Indian scientists are encouraged to commercialize their inventions by turning entrepreneurs and hold equity stakes in the companies.

Scientists of CSIR, the premier industrial R&D institute in India with highest number of commercially relevant patents, were thrilled by this decision. They saw it as a great opportunity to not only generate personal wealth from their knowledge but also contribute to economic development. CSIR leadership then took an active interest in turning this opportunity into a reality as soon as possible.

While detailed norms of commercialization of technologies by way of equity were to be formulated by Department of Scientific and Industrial Research, an assessment of

organizational structure and norms of CSIR had to be undertaken to understand the current drawbacks in the system that will prevent from realizing the present opportunity.

Dr. Brahmachari took a personal interest and lead in understanding the prevalent public sector innovation models across the globe. He initiated dialogue with some of the prominent private entities in the world (like Imperial Innovations, Imprimatur, Innocentive) that help public institutions in the world in commercializing their knowledge and patents. Many other senior scientists and administrators of CSIR were party to this discussion to contribute their ideas. After several meetings from August till December 2008, there was unanimity in thought that there is no one perfect organizational and business model and that there is a need to have an in-depth understanding of the peculiar needs of CSIR. It is based on this in-depth understanding that one can think of forming CSIR specific organizational model that will help scientists in commercializing their inventions.

Dr. Brahmachari then constituted a formal Project Committee chaired by Dr. Sahni (Director, IMTech) that was to systematically study the needs of CSIR and suggest an organizational model suited to CSIR requirements. Helping this Project Committee in due-diligence was an Operational Team. Recommendations of the Project Committee had to be presented and ratified by High-powered committee co-chaired by Dr. Brahmachari and Mr. Vijay Kelkar.

Following the constitution of the committees, Operational Team members met

a few times and had several telephonic conversations before presenting their ideas to the Project Committee in June 2009. They also had the expert advice of Dr Saurabh Srivastava and Mr. M. Damodaran. There was a broad consensus on the suggested organizational model. Nonetheless, Project Committee suggested a few changes to the proposal presented by the Operational Team.

In June of 2009, Dr. Shiva Ayyadurai was also introduced to the CSIR-Tech concept by Dr. Brahmachari. Dr. Shiva's bio-Data is enclosed in Annexure II. Dr. Shiva, both a scientist and entrepreneur, had been recruited by Dr. Brahmachari on June 10, 2009 as the first Oustanding Scientist STIO (H) to serve to develop a scientific Center of Excellence as well as to serve to create CSIR-Tech and to serve as its CEO. Dr. Shiva developed a completely new model based on market opportunity versus IP focus. In addition, he also communicated the need t to overcome the proverbial "chicken and egg problem". Do we wait to understand every governmental ruling and every potential or phantom risk in the formation of CSIR-Tech prior to forming CSIR-Tech? Or do we start with the suggested model and make necessary changes as we learn new things? – In order to test the ground reality, Dr. Shiva suggested that this activity be done on a project mode initially. This involved identifying a few opportunities first, evaluating them, and then spinning off 2-3 companies. The idea was to get the first hand experience of what it takes to spin-off companies within CSIR system and what is required to make them successful eventually.

Dr. Shiva also conducted meetings with key committee members including Dr. Damodharan, Dr. Srivastava, Dr. Thomas, Dr. Kumar and Dr. Sardana. In addition, he also had several meetings with members of the Chaterjee group including Dr. Swapan and Dr. Rakesh Pandey. Most of these discussions were centered on how to form and fund Spin-Off Companies. The key message delivered from these leaders was that currently no rules exist in particular for the formation of Spin-Off's, so one must go ahead and do it.

Dr. Shiva worked with Dr. Rakesh Pandey to explore various funding options since Company Spin-Off's would require funding. To this end, Dr. Shiva also reviewed the existing funding mechanisms available within the CSIR system.

## VI. REVIEW EXISTING FUNDING MECHANISMS

Three existing funding mechanisms were reviewed:

1. TEPP
2. NMITLI
3. TDB/TPDU

The details of these programs are in Annexure III. Discussions with Dr. Abhyankar and Dr. Sudeep Kumar were valuable in understanding the mechanisms of program use and deployment. Based on their feedback and reading the materials in Annexure III, some potential methods for using those existing programs for CSIR-Tech Spin Off funding were reviewed.

Potential Mechanisms of Each Program for CSIR-Tech

**TEPP Mechanism**

This funding mechanism seems most appropriate for early stage companies and offers up to 50 Lakhs. It can be potentially leveraged for a Spin Off to find one early customer and to develop a prototype as well as to gain feedback on that prototype. Again, this estimated amount may not be viable for larger scale projects (e.g. clinical trials).

**NMITLI Mechanism**

This funding model can support up to 150 Lakhs and will be potentially useful for mid-stage Spin-Off's requiring funding to gain additional customers, develop sales team as well as build a marketing plan. The model allows for a low-interest loan.

**TDPU Mechanism**

This funding model can support scaling in a significant manner of the Spin-Off and offers the ability to give matching funds. This can be particularly useful for late stage Spin Off's.

While the above mechanisms exist, it is Dr. Shiva's opinion that the extant model's are not entrepreneur-friendly, and a different model whereby equity financing by CSIR can take place. In this approach, CSIR can evaluate the value of a Spin-Off Company and directly fund and take an equity position. Historically, equity investments for early stage companies are approximately 5 Crores. This investment can be tranched as 0.5 Crore, 1.5 Crore and 3.0 Crores based on milestones.

## VI. IP LICENSING AND VALUATION PROCESS

Currently CSIR generates value from its IP through licensing. Each laboratory can execute its own IP licensing using native business development personnel. There are no standards pan-CSIR for IP valuation. Some labs do it better than others. Currently

nearly 2500 patents exist. In conversations with R.K. Gupta, nearly 250 patents are commercialized and generate some form of income. There appears to be a significant weakness in the return on investment for extant IP licensing models.

It is recommended that the IP licensing and valuation protocols be consolidated at headquarters and potentially with CSIR-Tech to ensure an objective approach to IP licensing and valuation.

## VII. REVIEW CABINET NOTE FOR SPIN-OFF'S

In mid August 2009, DG, CSIR, Dr. Sudeep Kumar and Dr. Shiva reviewed the Cabinet note for Spin Off's as shown in Annexure IV.

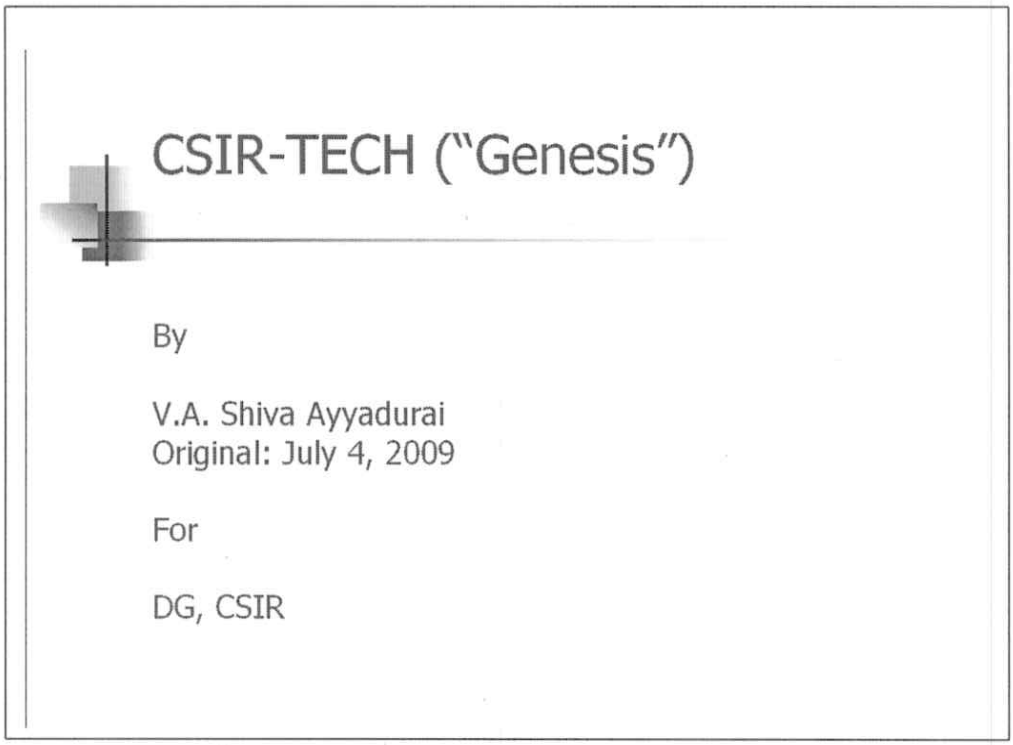
The Cabinet Note was for the purpose of incenting labs and scientists to engage in spin-off, knowledge to equity and incubator activities. CSIR-Tech has relevance in this context to the spin-off and knowledge to equity schemes. Dr. Shiva noted that in the initial draft there were many significant contradictions of the Conflict of Interest (COI) policy with the intent and encouragement of Spin-Off's.

DG, CSIR assured that in the final draft that many of the COI restrictions would be initially removed to support spin-off activity.

## VII. STRATEGIC PRESENTATION

The main deliverable of the Milestone I is the creation of a Strategic Presentation as a PPT. Most recently, nearly 220 CSIR personnel pan-India attended four video conferences during August 27 to August 28, 2009 to review key areas of this presentation. For internal purposes, this project has been code named "Genesis".

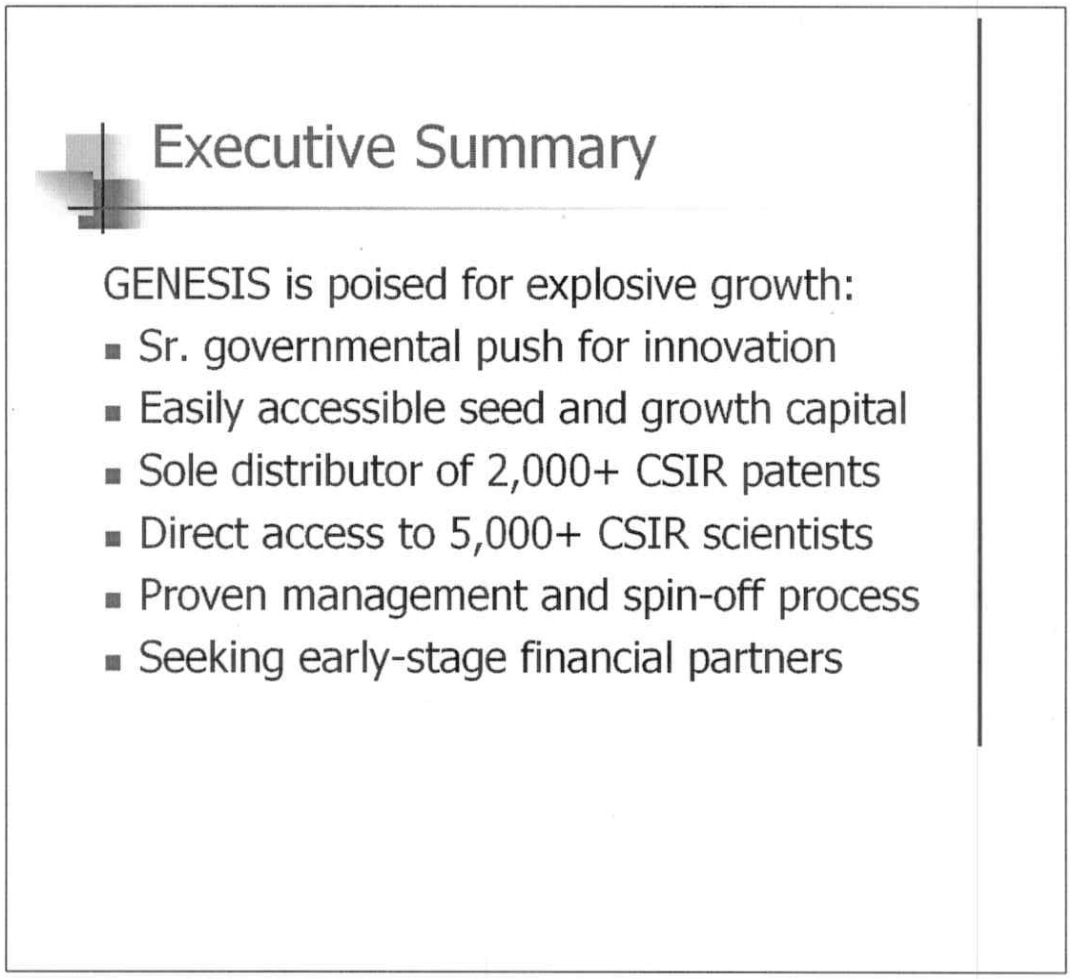
**Title Page**




Comments: Dr. Shiva created the first version as early as July 4, 2009. Based on discussions various revisions took place.

**Executive Summary**

The executive summary below was developed to summarize the overall current situation as well as the context of project Genesis within this context.



**Mission Statement**

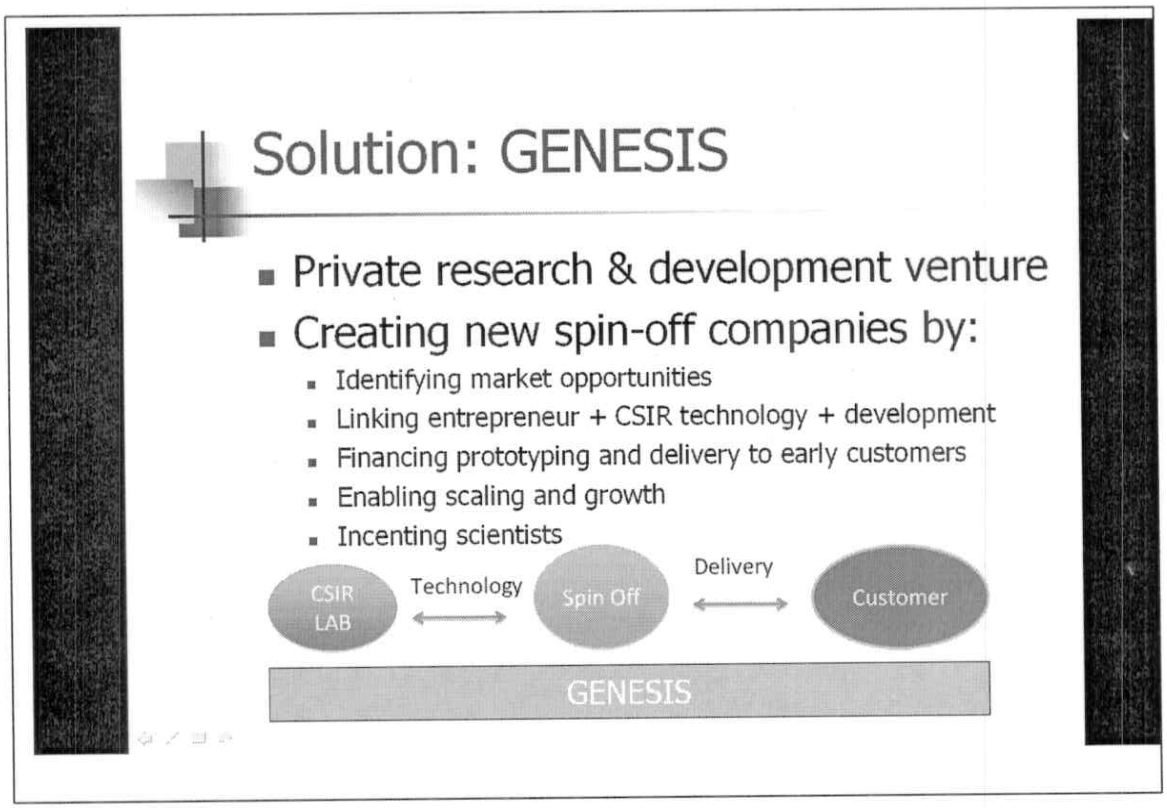

Comment: In this mission statement, our goal is to move away from viewing CSIR-Tech as an IP holding company, which was the original model, prior to Dr. Shiva's joining. In this model CSIR-Tech is viewed as a product development organization with a clear mission to develop products/services that will be deployed via spin-off's and JV's.

**Market Opportunity**

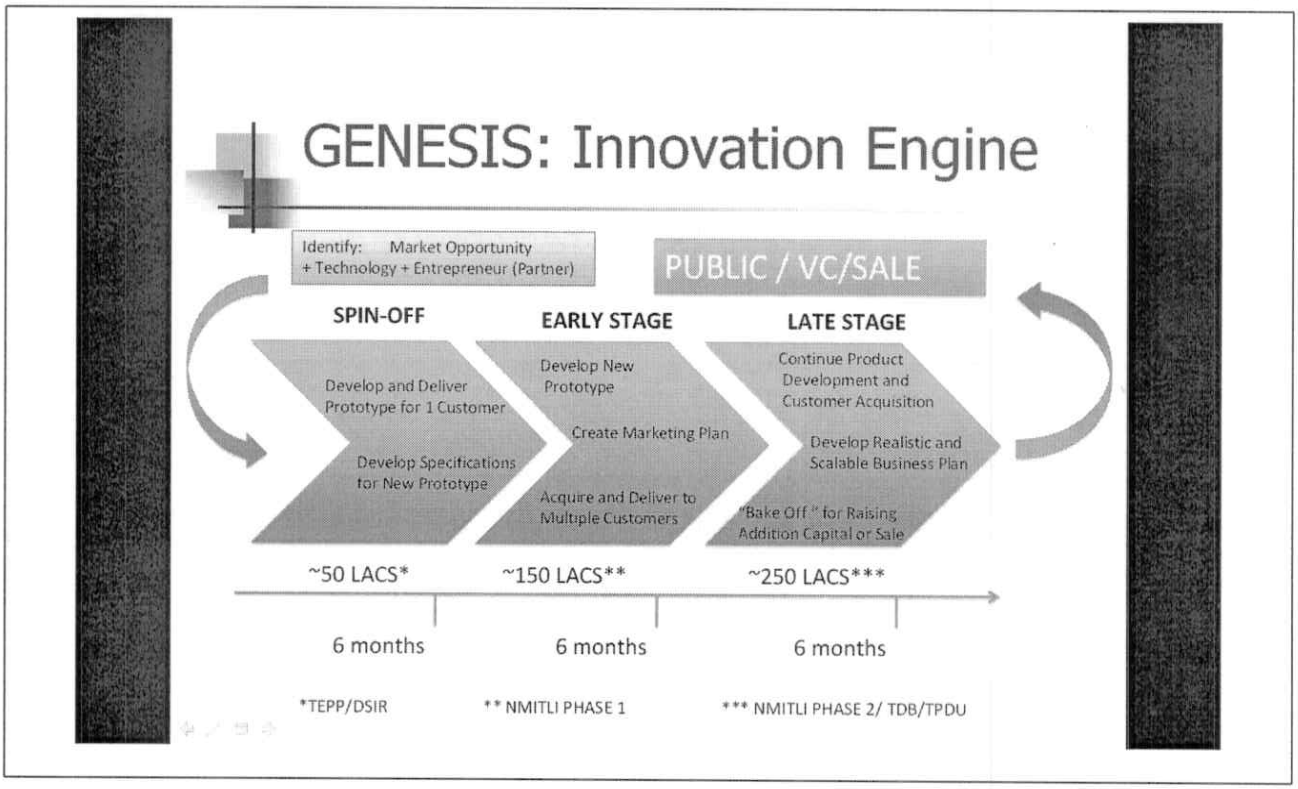

Comment: In this market opportunity, we are clearly identifying the potential and lost opportunity of the current inability to deliver technology to consumers in an entrepreneurial manner.

**Our Solution**




Comment: Our solution here is to engage the Market Opportunity with a Technology. This approach is significantly different than the earlier approach of finding just anyone to buy an IP or technology. In this approach, we will find large market opportunities and work with labs to convert technology to product to address those market opportunities in a proactive manner, versus the current reactive manner of giving technology to the first bidder.

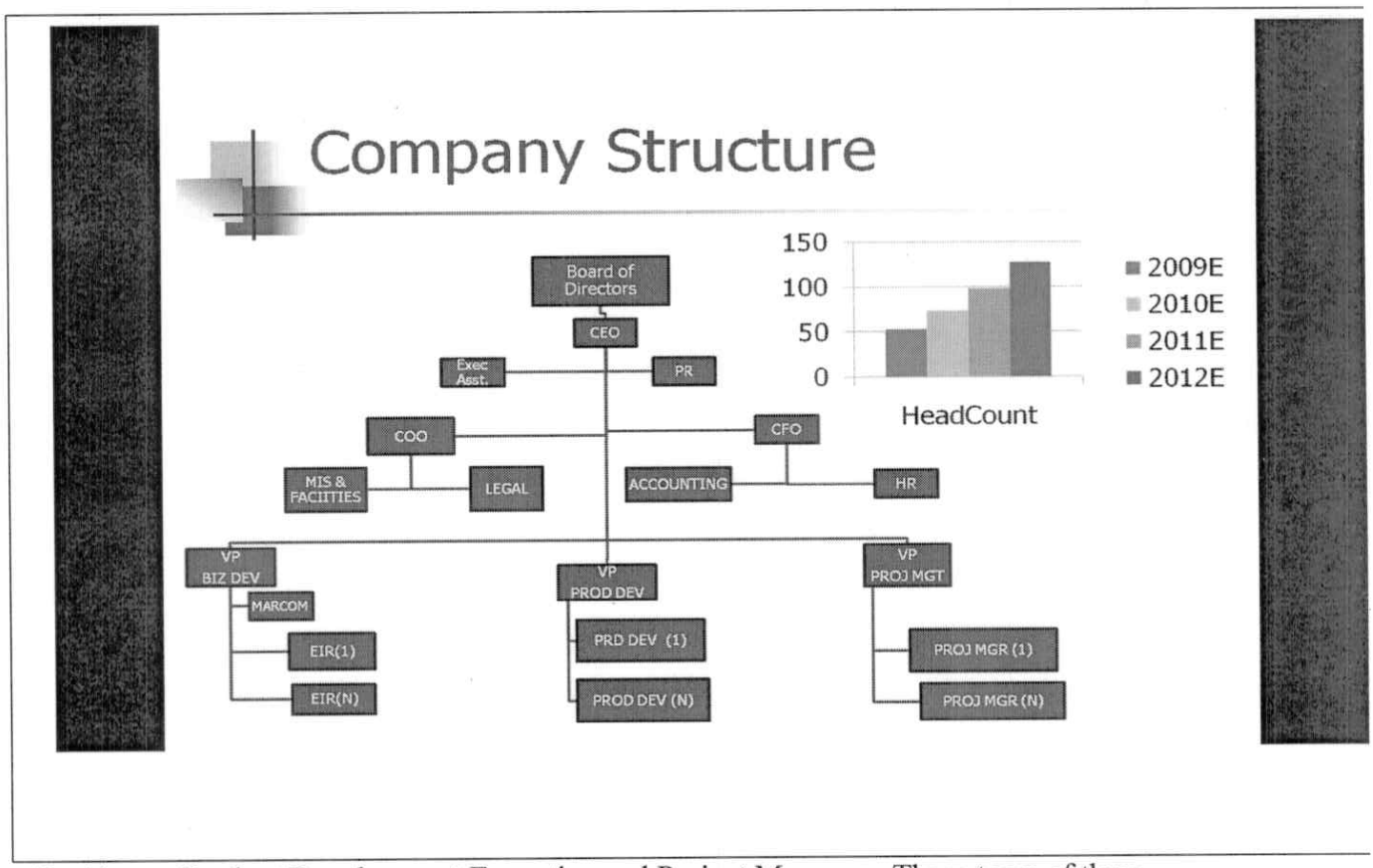
**The Methodology**




Comment: The methodology involves first creating a company (pink box). The first evolution is for the spin off to get ONE customer and prove viability of the prototype for which we will fund up to 50 lacs. The second step is to prove marketing and sales prowess of the product for which we will fund up to 150 lacs. In the late stage, the spin-of can receive 250 lacs of funding for scaling the business and building a cogent business plan for raising more funds.

**Company Structure of CSIR-Tech**

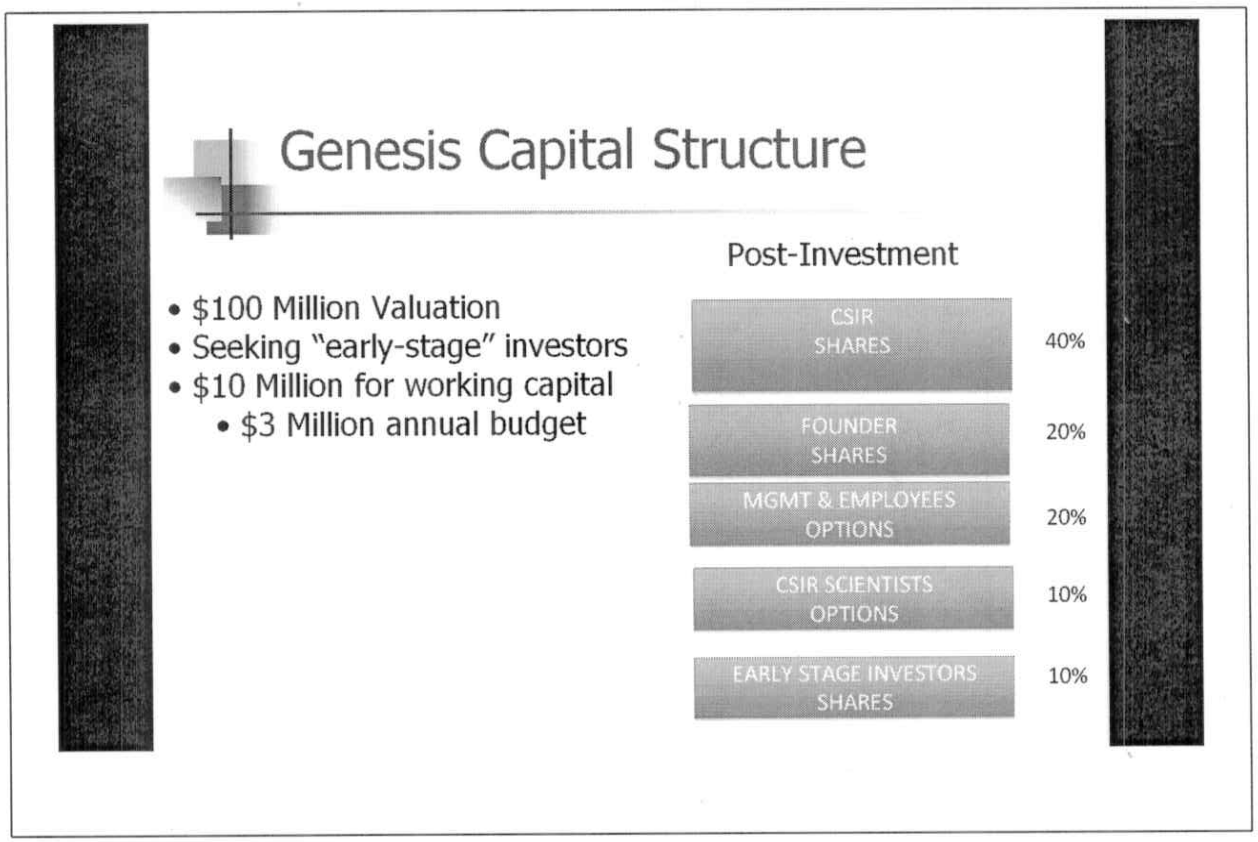
Comment: The Company structure will be focused on spin-off innovation teams shown at the bottom layer composed of an EIR, PRD DEV and PROJ MGR, an Entrepreneur in




Residence, Product Development Executive and Project Manager. These team of three people will head a spin-off. The EIR will serve to be the visionary and future CEO of the Spin-Off. The PRD DEV will serve to be the product marketing and product development lead to convert technology to usable product. Finally, the PROJ MGR will serve to be the future COO ensuring process, planning and delivery of targets.

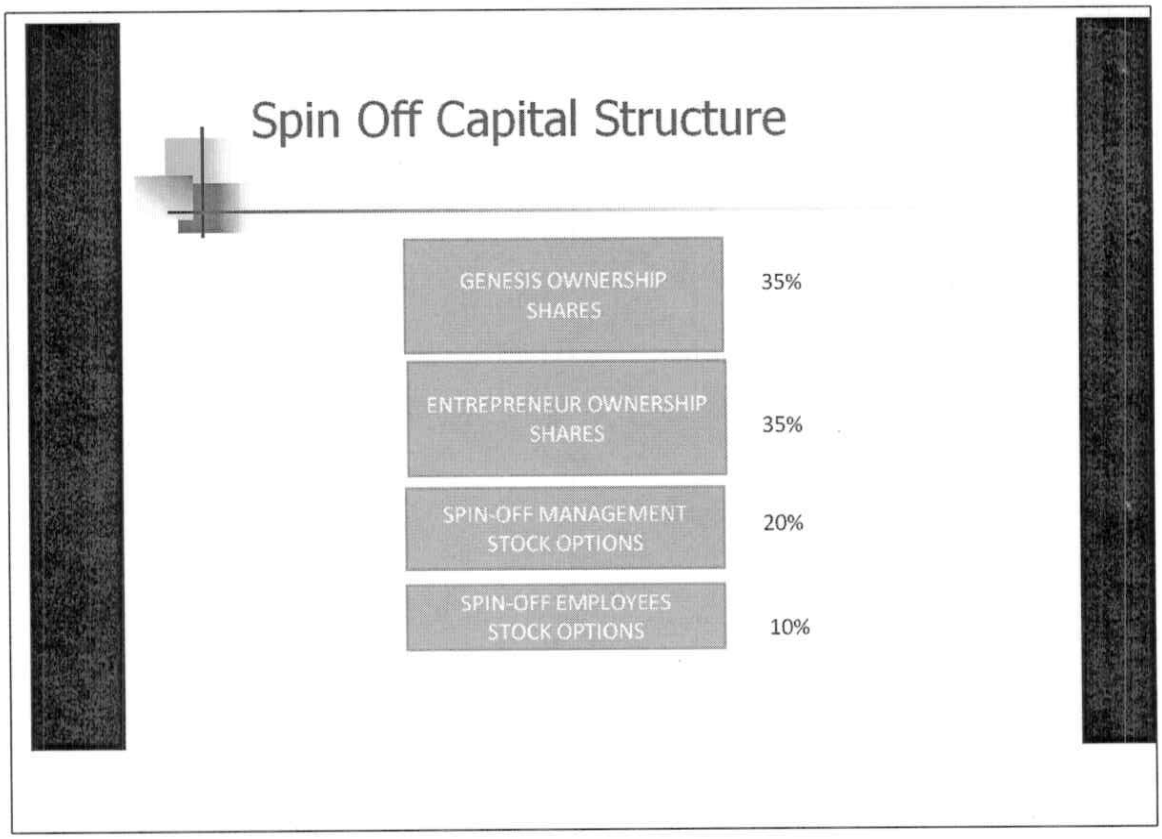
**Equity Structure of CSIR-Tech: EXAMPLE**




Comment: The above is a sample equity structure of CSIR-Tech. Note that 10% is proposed for all of CSIR's scientists to participate in options.

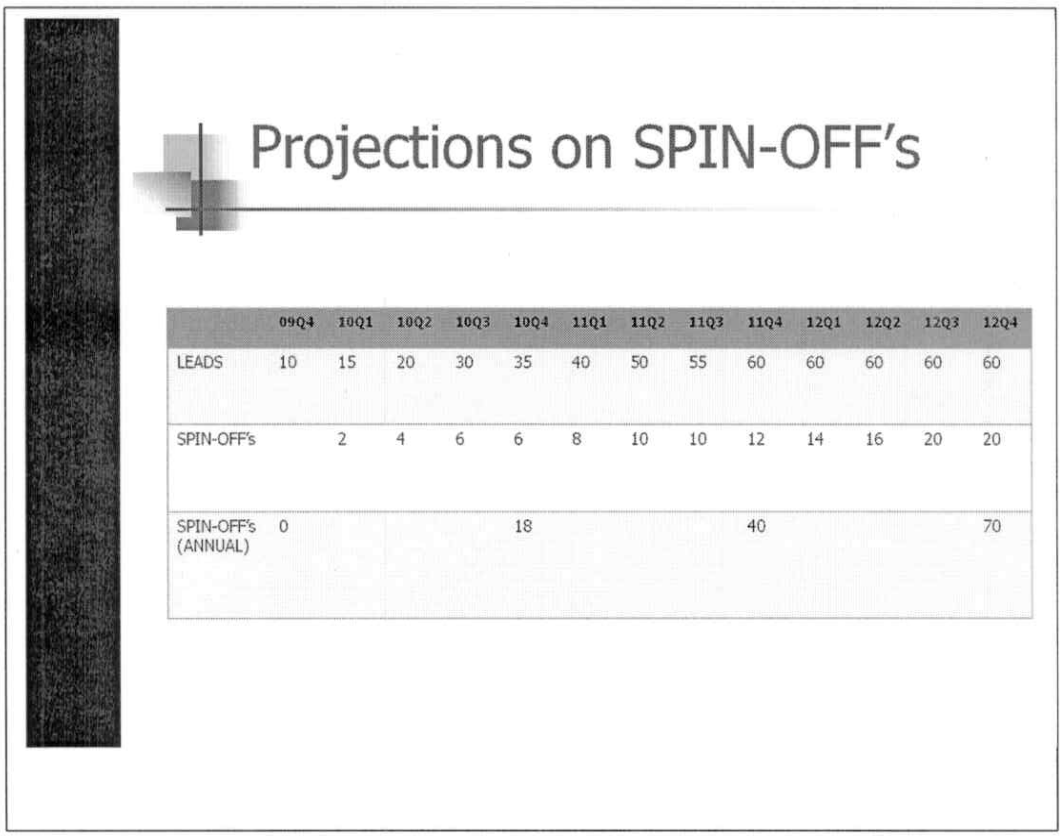
**SPIN-OFF Equity Structure EXAMPLE**




Comment: This is an example equity structure where in the Entrepreneur and Management and Employees are incented heavily with shares and options to grow the Company, while leaving a significant amount of equity for CSIR-Tech. To reiterate, this is only an example, many possible equity structures exist.

**SPIN-OFF Projections**

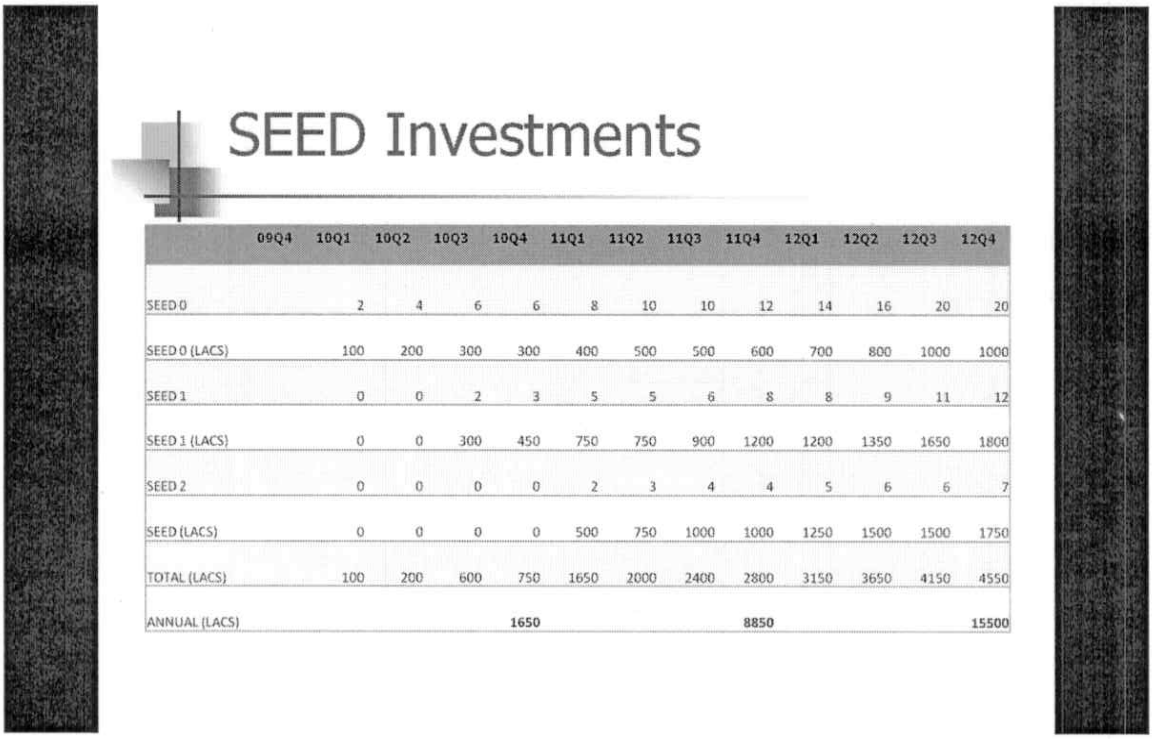



| | 09Q4 | 10Q1 | 10Q2 | 10Q3 | 10Q4 | 11Q1 | 11Q2 | 11Q3 | 11Q4 | 12Q1 | 12Q2 | 12Q3 | 12Q4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LEADS | 10 | 15 | 20 | 30 | 35 | 40 | 50 | 55 | 60 | 60 | 60 | 60 | 60 |
| SPIN-OFF's | | 2 | 4 | 6 | 6 | 8 | 10 | 10 | 12 | 14 | 16 | 20 | 20 |
| SPIN-OFF's (ANNUAL) | 0 | | | | 18 | | | | 40 | | | | 70 |

Comment: The above are very aggressive projections on the number of spin-off's. Discussions will take place in September 2009 to finalize these numbers. The above numbers are based on conversion of leads to spin-off's. Modestly, our goal initially is to execute 2 spin-off's within the next 6 month period.

**Funding Needed for Executing Spin-Off's: Example**



## SEED Investments

| | 09Q4 | 10Q1 | 10Q2 | 10Q3 | 10Q4 | 11Q1 | 11Q2 | 11Q3 | 11Q4 | 12Q1 | 12Q2 | 12Q3 | 12Q4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SEED 0 | | 2 | 4 | 6 | 6 | 8 | 10 | 10 | 12 | 14 | 16 | 20 | 20 |
| SEED 0 (LACS) | | 100 | 200 | 300 | 300 | 400 | 500 | 500 | 600 | 700 | 800 | 1000 | 1000 |
| SEED 1 | | 0 | 0 | 2 | 3 | 5 | 5 | 6 | 8 | 8 | 9 | 11 | 12 |
| SEED 1 (LACS) | | 0 | 0 | 300 | 450 | 750 | 750 | 900 | 1200 | 1200 | 1350 | 1650 | 1800 |
| SEED 2 | | 0 | 0 | 0 | 0 | 2 | 3 | 4 | 4 | 5 | 6 | 6 | 7 |
| SEED (LACS) | | 0 | 0 | 0 | 0 | 500 | 750 | 1000 | 1000 | 1250 | 1500 | 1500 | 1750 |
| TOTAL (LACS) | | 100 | 200 | 600 | 750 | 1650 | 2000 | 2400 | 2800 | 3150 | 3650 | 4150 | 4550 |
| ANNUAL (LACS) | | | | | **1650** | | | | **8850** | | | | **15500** |

Comment: Based on the three-level investment model, the above diagram shows the amount of seed investment that will be necessary. To reiterate, the goal here is to show the model, based on the number of spin-off's projected.

**Key Next Steps**


Comment: We propose a parallel process which involves formalizing the structure of CSIR-Tech as well as executing early spin-off's. This approach will enable us to "learn as we go" recognizing that many rules will need to be created, that do not exist, as a part of this process.

## IX. SUMMARY

We have successfully completed a strategic presentation of CSIR-Tech. This presentation has been used successfully by Dr. Shiva and DG, CSIR over the past month and a half to share the vision, structure and execution plan. In the next milestone which is underway, we will **review of strategic presentation with stakeholders and produce 3 Spin-Off Plans** in order to clearly gain feedback from stakeholders and to produce concrete spin-off opportunities.

## ANNEXURE I

**Thought paper: CSIR Tech**
Date: 19 Sept 2008

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**DG's points - CSIR Tech:**

- A private limited company with an arms-length relationship with CSIR
- For-profit → meaning "profit gets distributed" to share holders.
- Professional management and transparency of licensing (agreements, negotiations)
- Not like NRDC → in terms, employee incentives and linkage to performance.
- Create highest value out of IP

**The proposal:**

CSIR-Tech as proposed:

- A private limited company
- Ownership control by CSIR (?)
- CSIR as investor? Other investors?
- Makes profits (but will it?)
- Delivers returns to shareholder – broader social return ("Do Something" model – listed NYSE/ NASDAQ) or a simple profit.
- May or may not be Section 25 (only relates to distribution of profits to share holder)
    - Plus: Not Section 25 may allow sharing company with employees (ESOPS)
    - Minus: Section 25 will allow access to public funds.
- Scope:
    - Strategic funding of technology projects in CSIR labs (only CSIR labs?) in return for full IP rights → ***similar to NMITLI function***
        - Technology fund
            - Socially relevant technology fund: More likely to receive philanthropic funding besides funding.
            - "Market" driven technology fund
        - Technology road mapping and market opportunity identification
    - IP/ patent development
        - IP assessment and valuation; IP portfolio planning
        - Further funding to broaden/deepen IP portfolio; test ideas, pilot plant etc
        - Strategic drafting, filing and prosecution of patents. → ***similar to IPMD function***
        - Investment in patents; holding company
        - Decision to allow lapse/ maintenance etc; Decision to donate IP etc.
    - In-licensing of intellectual property; developing it further; consolidation

- In case of IP which is not of interest to CSIR Tech (for investment purposes), CSIR Tech can still provide tech transfer services:
  - For a service fee and a performance based commission, negotiate deal, agreement and seal the deal as an independent 3rd party player.
  - Insurance cover for CSIR labs
  - This should take care of IP generated outside CSIR Tech funding. This IP is not part of CSIR Tech holding.
- Out-licensing of IP
  - Marketing; Identifying potential buyers
  - Negotiating
  - Agreements
  - Enforcement and recovery
  - Insurance
- Spin-off companies based on IP
  - Identifying IP to be spun-off as companies
  - Know-how developers as equity holders
  - Structuring spin-offs
  - Bringing an entrepreneurial team into place
  - Bringing in seed investment/ co-investment
  - Business incubation support – physical and mentoring/ advisory support
  - Exit: Strategic sale, IPO
- Pre-seed/ seed/ venture funds
  - NBFC subsidiary of CSIR Tech
  - Professional investment committee

**Issues/ potential barriers**

- Known fact that not too many technology transfer offices earn their expenditure.
- Investing in technology development is risky (long incubation periods; high risk of failure; lot of judgment while deciding on which project to fund)
- How to incentivize scientists of CSIR to tap into CSIR Tech funding? They have several other funding choices.
- Most technology licenses have to include an arrangement involving the inventors/ technology developers close involvement in commercialization. Will the inventor take an arms-length view if CSIR Tech is outside the system?
- Will/ should there be clauses to promote Indian interest/ commercialization in the Indian market? Will this interfere in the company's decision making process?

**Role models:**

- Imperial Innovations: http://www.imperialinnovations.co.uk/

- Oxford (ISIS Innovations; Begbroke Science Park): http://www.isis-innovation.com/ | http://www.begbroke.ox.ac.uk/
- IP Value: http://www.ipvalue.com/
- Imprimatur Capital: http://www.imprimaturcapital.com/
- Intellectual Ventures: http://www.intellectualventures.com/
- TTP Group : http://www.ttpgroup.com/

**Differentiation:**

| | Current proposal | Business as usual case: TNBD, BDD, IPMD | NRDC | Take NRDC and change it | Third party; outsourced; Ex: Imprimatur Capital |
|---|---|---|---|---|---|
| | Can incentivize employees. Can keep them entrepreneurial. | Employees incentives not linked to performance/ delivery. Limitations in attracting the right people. | Public sector company; Employees incentives not linked to performance/ delivery. Limitations in attracting the right people. | | |
| | Involvement and ownership from concept to end. | Only intermediary. No funding of technology. Lack of ownership/ responsibility for technology. | Only intermediary. No funding of technology. Lack of ownership/ responsibility for technology. | | Technology funding usually absent. They come in at invention disclosure stage. Risk taking still conservative. |
| | Strategic planning and decision making | Strategic thinking and investment decision absent | Strategic thinking and investment decision minimal | | |
| | | Commercial/ investment decisions can be biased/ colored by other considerations. Difficult to take a unbiased decision. Are we underselling? Quality of agreements? Liabilities? | | | |
| | Can have clauses to protect national interests. | | | | National interests will not be considered. |
| | | | | ?? | |
| | Liability of CSIR Tech. Insurance etc cover. Better agreements. | Liability is directly of CSIR. Mechanism to protect are weak. | ?? | | ?? |

**Meeting Agenda**

Subject: CSIR-Tech
Date/time: 1 Dec 2008, 11.30 am
Venue: Room 118, CSIR-HQ
Invited Attendees:

- Dr. S Sivaram, Director NCL
- Dr. Girish Sahni, Director IMTECH
- Mr. Subrahmanyam, Former Secretary, MNES
- Ms. Sheila Sangwan, FA
- Ms. Manju Bagai, LA
- Dr. Yogeswar Rao, Head TNBD
- Dr. Naresh Kumar, Head RDPD
- Mr. RK Gupta, Head, IPMD
- Dr. RR Hirwani, URDIP
- Mr. Somnath Gosh, CMD, NRDC
- Dr. Abhyankar, DSIR
- Dr. Premnath V, NCL
- Mr. Zakir Thomas, H/TC

Visitors:

- Mr Deepam Mishra, CEO, I2 India
- Mr Chris Mathias, Chairman, I2 India

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Agenda:

- (1130-1200) Presentation by I2India (Imperial Innovations India)
- (1200-1230) Discussion 1: Strategic objectives and priorities
- (1230-1300) Working lunch
- (1300-1400) Discussion 2: New models

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Discussion topics:

- Re-look at IP and technology commercialization systems within DSIR/ CSIR. New models and structures.
- Attached slides show points from last meeting on 28 Nov 2008 (attended by DG, SG, MB, VP, ZT)

Meeting on 28 Nov 2008

## Desired end-points

- Better protection and enforcement (improve filing strategy; improve quality of drafting; track infringement)
- Better returns for investment on patent filing costs (better ideas; better draft quality of patents; portfolio management; aggregation; more aggressive and professional marketing; explore more avenues besides traditional licensing – spin-offs, PPPs)
- Lower time and efforts of scientists and CSIR (efficient operations by external-to-CSIR dedicated and specialized persons with minimum time commitment of CSIR scientists → create institutional systems to hire/ retain good people)
- Lesser risks of liabilities etc (better agreements; deal through limited liability entity)
- Greater transparency and lower opportunities for unethical practices (built-in rewards systems for transparency and ethical negotiations/ deals)

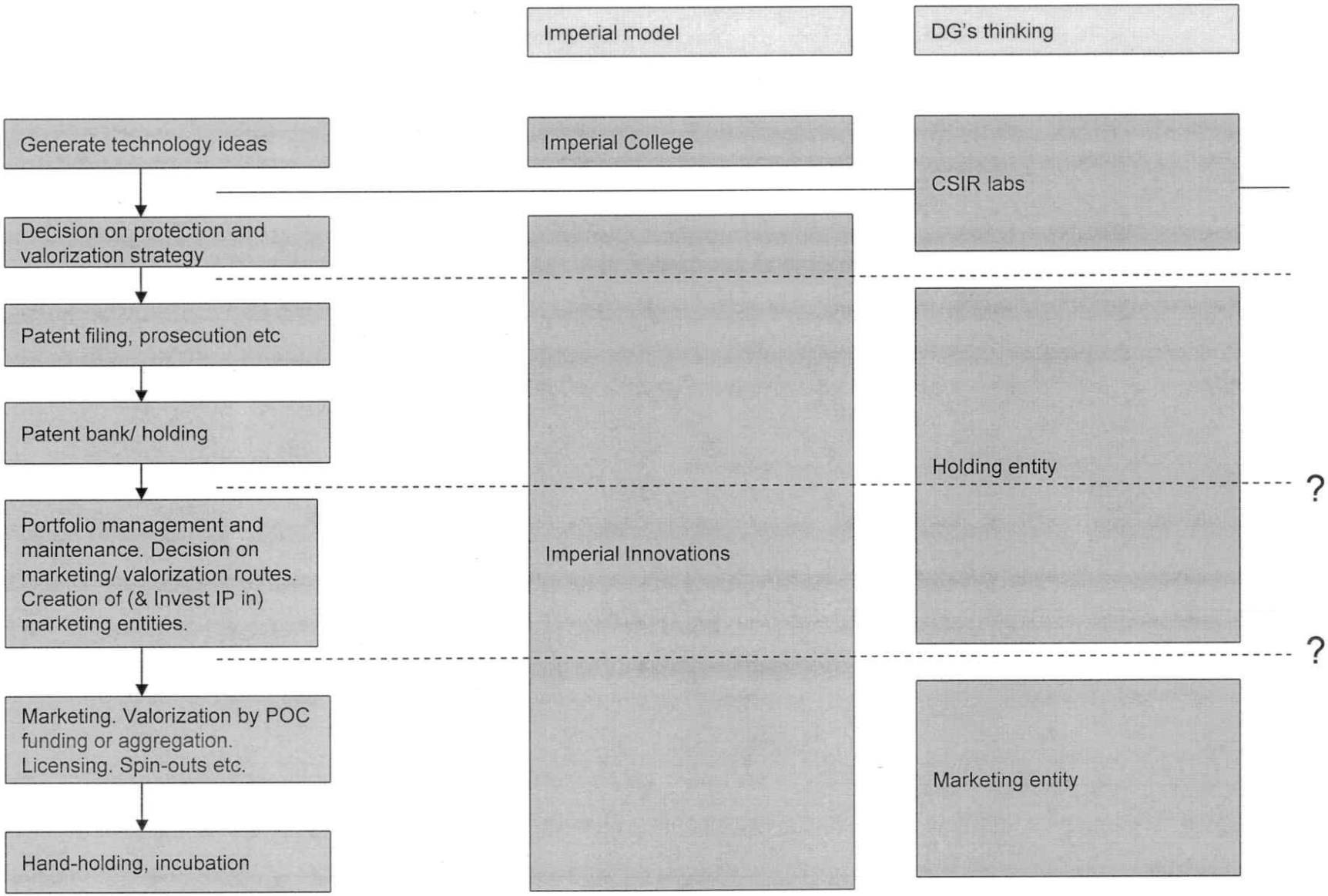
## Other desirables

- Seek partnerships with experienced players with tech marketing expertise (ex: Imperial Innovations, TTOs)
- Seek global markets and players with global reach
- Leverage ability of (private?) companies in being more aggressive, efficient and their ability to hire/ retain people of the right kind with greater incentives.

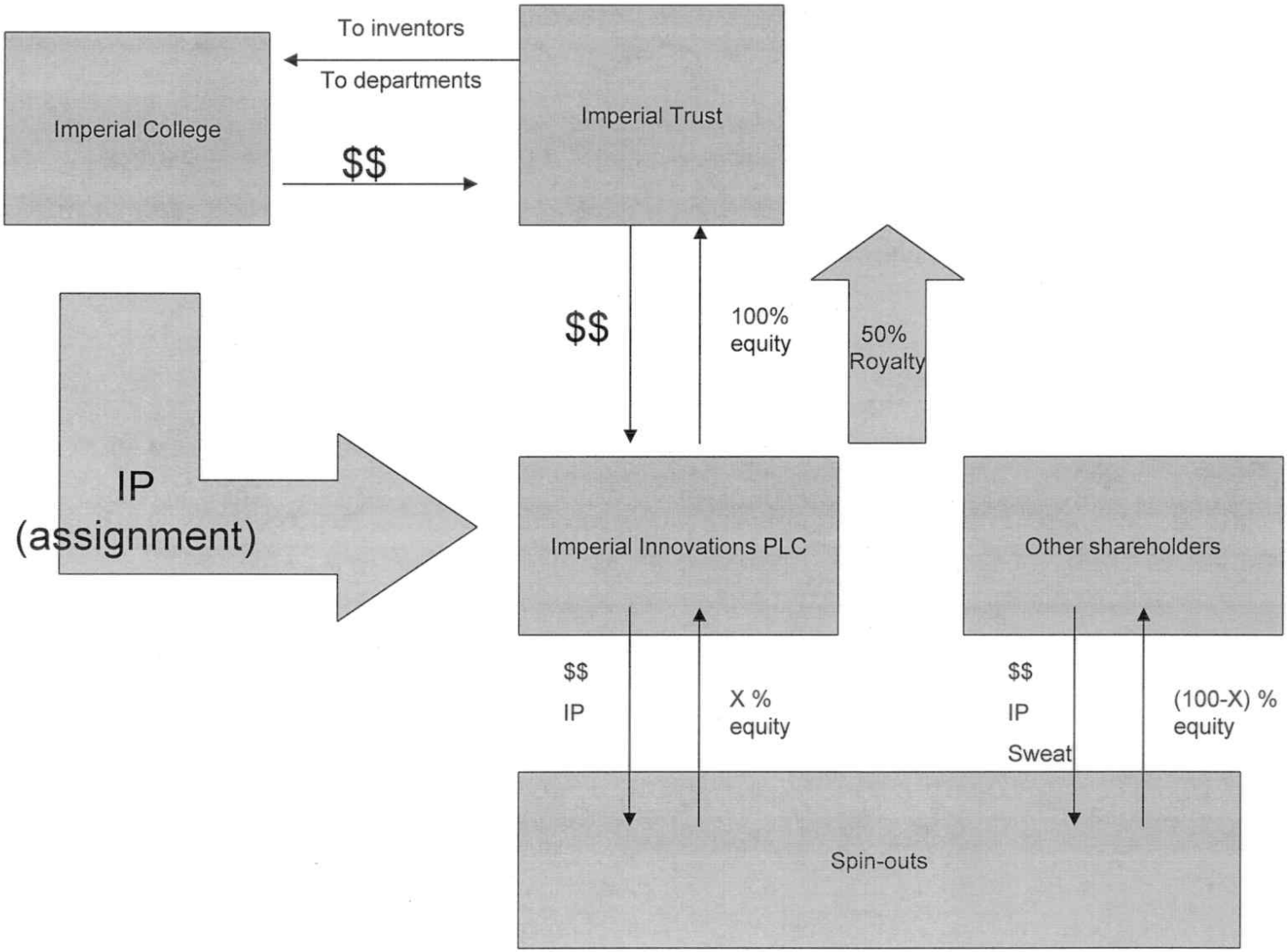
## Things to retain

- Freedom and authority of labs/ Directors

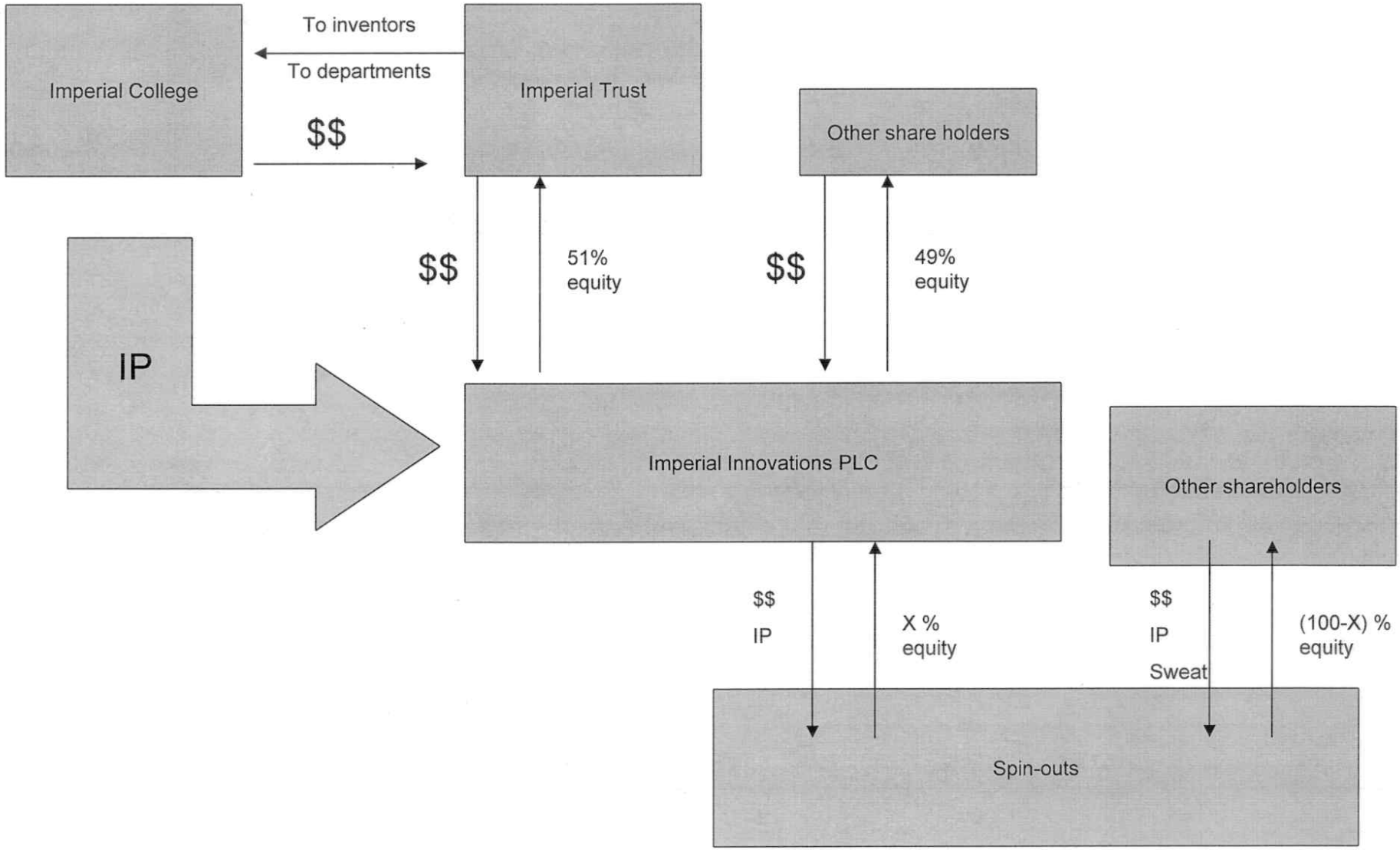
Meeting on 28 Nov 2008



My guess of how Imperial Innovations is structured



My guess of how Imperial Innovations is structured



Meeting on 28 Nov 2008

## Questions

- What is the best model to achieve the goals?