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PREPARING BUSINESS AND MARKETING PLANS AND PROGRAMS

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TABLE OF CONTENTS

KEY STRATEGIES FOR NUS FOR THE FUTURE

THE VALUE CHAIN (A SCHEME FOR INVENTION DEVELOPMENT)

PREPARING A R&D PROJECT PROPOSAL

PREPARING A BUSINESS PROPOSAL

CONCLUSION

KEY STRATEGIES FOR NUS FOR THE FUTURE

- Review Academic Structure to Facilitate Cross-faculty Teaching and Research
- Strengthen the Research-Teaching Link
- Focus on Research of Strategic Importance to the Nation
- Spearhead a Responsive Continuing Higher-education Program
- Strengthen Links with Schools
- Refine Self-Assessment and Accountability
- Improve Management Infrastructure
- Develop an Appropriate IT Plan

1. In the NUS experience, it is all too often that inventors or academic staff get too caught up in their inventions or technology that the business aspect is left out. Through a process of strategic planning, NUS has re-focused this effort by re-defining what its goals are. This has been mapped out through the five strategic thrusts I had mentioned earlier and specific strategies to achieve our new mission. In the context of today's discussion, the most relevant strategy is the focus of NUS research towards areas of strategic importance to Singapore as a whole.

THE VALUE CHAIN (A SCHEME FOR INVENTION DEVELOPMENT)

2. The value chain provides a framework for which academic research, through a process of assessment and evaluation, is brought to industry. Technologies or know-how, which are of immediate commercial application, may be applied through direct spin-off companies or direct or indirect partnership with a commercial partner. More often than not, NUS technology requires further work to bring it from the development and design phase to the prototyping and pre-production phase. This is a result of the academic focus prior to the 1990s. Hence, NUS collaborates with industry at this stage of development, with the view to build up its capabilities and add value to its contribution to R&D further down the value chain. It is with this view that an R&D Project Proposal is the first document our staff learn to write. A Business Plan or proposal follows.

PREPARING A R&D PROJECT PROPOSAL

Background to the Work

Scope of Work in the Project

Deliverables

Time Schedule

Contributions of Parties

Budget

Other Arrangements (e.g. equipment)

3. A good project proposal must first of all reflect an understanding of the objectives of the two parties entering into a partnership. The pursuit of an academic institution is to achieve and further knowledge. A commercial partner is looking for new opportunities to expand its market share at the lowest possible cost. In order that these two objectives meet, a project proposal (and the agreement / contract) must strike the balance.
4. The background to the work is not just a history of knowledge gained, but also an account of the industrial and commercial potential of the project. There must be boundaries set out to ensure that the work focuses on the overall objectives. These boundaries include the scope or extend of expertise expected or required to carry out this project, the specific deliverables and a time schedule.
5. In any research or developmental work, intellectual property is generated and that is why the contribution of the parties must be set out. This will help the parties to determine ownership, patenting, licensing and other money issues. Other arrangements become particularly important, as in the case of the purchase of expensive equipment. Who owns the equipment or take responsibility for its disposal after the project is completed?
6. This outline presented is a general simple one to be used as a guide for academic staff who may not be ready to write a business plan, but would like to work with a commercial partner. In most cases, a simple outline such as this is sufficient for collaboration in R&D. When a member of staff decides to take his/her technology to the market as an entrepreneur, a more formal and detailed document is required.

PREPARING A BUSINESS PROPOSAL

Details of Company

- Capital
- Structure and shareholding
- Management, structure of company

Technology

- Commercial value & viability of the technology
- Comparison with industrial standards
- Further R&D expected
- Intellectual Property Protection

Business Development Plan

- Operations plans and strategies
- Marketing plans and strategies
- Management plans and strategies
- Strategies for sales growth

Financial Analysis

Valuation of company
Return on investment (profits)
Risk factors
Financial planning

7. There are standard methods to produce a good business plan and there are books available to teach one how to do this. But it is not uncommon that inventors do not want to do their homework. Academic work is already very hectic. There is teaching and there is the “necessary evil” of administration. “Why do I need to worry about writing a project proposal, and worst of all, a business proposal?” The sad news is that the rest of the world expects it. What is worse is that an engineer or a geneticist suddenly finds that being a good researcher is no longer enough. He has to be a whiz at finance, legal and management skills; or spend money to employ experts.

8. This simple outline is already a daunting task for most, and the rewards tenuous. But that is what makes a good entrepreneur. Good planning, detailed background research, an understanding of the market and proper financial planning will go a long way towards ensuring success for a start-up company. By co-investing with the staff member, NUS helps him/her in setting up this new venture. NUS also provides a detail guideline to help our staff. However, management of the company is left to the new entrepreneur.

CONCLUSION

Prepare in advance
Study the market & the competition well
Get a business savvy partner
Work hard

9. If one does not intend to do applied science but remain in basic research, then it is not an issue. However, many inventors and researchers do dream that their work will one day have a commercial or widely-used application. This means that there must be a dynamic vision that will take the work past the laboratory to the marketplace. One’s research does not automatically become ready for commercialization suddenly one day. It requires work. It requires an understanding of the needs of the market and the existing products or solutions. If what I have to offer is better, it must be better than something already in the market.

10. Finally, if I am not good at business, I must learn how to do business, or find a partner to do it for me. NUS provides two routes for our staff. One is to license our technology to a commercial partner who can exploit it. The other is to help our staff make that transition from a “laboratorist” to an entrepreneur.

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