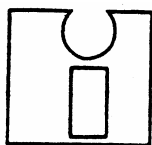


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INTERNATIONALFEDERATIONOF
INVENTORS' ASSOCIATIONS



WORLDINTELLECTUAL
PROPERTYORGANIZATION

**WIPO-IFIAINTERNATIONALSYMPOSIUMON
THECOMMERCIALIZATIONOFINVENTIONS
INTHEGLOBALMARKET**

organizedby
theWorldIntellectualPropertyOrganization(WIPO)
and
theInternationalFederationofInventors'Associations(IFIA)
incooperationwith
theKoreanIntellectualPropertyOffice(KIPO)
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ENTREPRENEURSHIPAND THECOMMERCIALIZATIONOF
INVENTIONS AND RESEARCHRESULTS

COMMERCIALIZINGRESEARCH –BUILDINGVALUE

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I. BACKGROUND

1. My consulting firm, Technology Commercialisation Group (TCG), works with several Australian universities and government research organizations to implement practices and programs which support the successful commercialization of new technologies and, in particular, very early stage research outcomes. A typical starting point for the groups we work with might be as basic as a newly isolated gene sequence, a new protocol for the better handling of farmanimals or marine varieties, or a faster means of measuring generated signal strength.

2. Many of the scientists we work with are at the top of their fields; for example, one of our clients created Matilda, Australia's first cloned animal. A typical research program may involve several million dollars and five to ten person years of research effort, largely if not completely funded by government (non-industry) sources. This kind of research is funded on the basis of scientific peer review (measuring things such as scientific interest, publication and conference activity). Research programs typically commence without much consideration of the likelihood or otherwise of commercial application or commercialization of any inventions which may result.

3. Inventions and early stage research outcomes that do arise are born into an organizational environment that can best be characterized as:

- public sector based – lacking a profit motive;
- risk averse – not able to make informed investment decisions;
- collegiate – lacking effective line management;
- non-corporate – lacking the basic capacity to deal with the commercial world.

4. Soon the one hand we have the luxury of dealing with the very best scientists and best science programs Australia has to offer, whilst on the other hand we must do so in an environment which is not aligned toward commercialization, in fact in many cases it feels as if the environment is diametrically opposed to commercialization.

II. GETTING STARTED – SOME HARD TRUTHS

5. In developing commercialization inside these organizations we have found that we first have to break down a number of myths and expectations about intellectual property and commercialization. To begin with we make some fairly strong statements intended to shake the researcher from the belief that, whilst research is “hard,” commercialization is “easy.” Unfortunately, building that “better mousetrap” is the beginning, not the end of the journey.

Hard Truth #1: Your intellectual property is worth nothing

6. By this we mean that whilst the research may be scintillating, it has no commercial value if it just sits on the shelf, or in the journal, or whatever. Properly managed, intellectual property can only ever be a catalyst to value and that value is only ever realized through some means of distribution. Distribution transmits the intellectual property, whether in the form of a new technology based product or service, or more simply in the form of seminars, training programs, information exercises and the like.

TCGRuleNumberOne –Tohavevalue,technologymustbetransmitted .

HardTruth#2:Thereisnomarketfortechology

7. Wedonotwalkdowntothelocalshopandbuytechnology;webuyproductsandservices.Ofcourse,patentsandotherintellectualpropertyaretradedbetweencompanies everydayforlargesums,butthecompany'sexpectation(s)(andvaluation)isbasedonthe productsorservicestheyperceivecanbebasedontheintellectualproperty.Theproductor servicecontains theintellectualproperty.Technologywithoutanidentifiable(andrealizable) applicationdoesnothavevalue.

TCGRuleNumberTwo –Tobetranmitted,technologymusthaveacontainer .

HardTruth#3:Thereisnosuchprocessascommercialization.

8. Inthepasttenyearsalmosteveryuniversityandgovernmentlaboratoryhasreachedthe pointwhereitwillproudlytalkaboutits“commercializationprocess.”Whattheymeanof courseisamanagementfunction(usuallybyapart-timecommittee)throughwhichthe organizationaccountsforitsresearchoutcomes,patentexpenditure,disclosurestoindustry andthelike.However,thelikelycommercializationpathforanyiventechlogyisas uniqueanddistinctasthetechlogyitself.Notwotechlogies,notwomarkets,notwo pointsintimeareeveralike:eachtechlogyrequiresitsowntailoreddevelopment.The creationofthecommercialpathiswhatwetermentrepreneurship.Fortunately,entrepreneurs doexist –bothinsideandoutsidetheseorganizations.Thesearepeoplewhocanidentify, planandbuildacontainerforthetechlogy –andtechlogytransferonlyhappensthrough people.Sowhilsttrackrecordisimportantinselectingentrepreneurs,thenotionofaprocess forcommercializationisamyth.

TCGRuleNumberThree –Tohaveacontainer,technologymusthaveanentrepreneur .

9. AurthercommentIwouldmakeisthatcommercializationisateamsport.Sowhilst oneentrepreneurisessential,agroupofpeople –acommercializationteam –ismuchbetter.

III. THENEXTSTEP –SOMECONCEPTUALMODELS

10. Inimplementingeffectivecommercialization/entrepreneurshipinsideourclient organizationswehavealsofoundthatsomesimpleconceptualmodelscanbequiteeffective.

A. PUTTINGINTELLECTUALPROPERTYINTOCONTEXT

11. Onesuchmodelillustratestherelativepositionsofscientificexpertise,intellectual property,techlogies,productsandservices,andmarkets.Weuseittoencouragethe commercializationteamtoapproachthechallengesfromthepointofviewofthemarket,and soworkbackwardstofindinganappropriatecommercializationpathwayfortheintellectual propertyortechlogy.

12. Thisapproachisespeciallybeneficialforourpublicsectorclients sincetheytendto be veryheavyonexpertise,butverylightoneverythingelse.

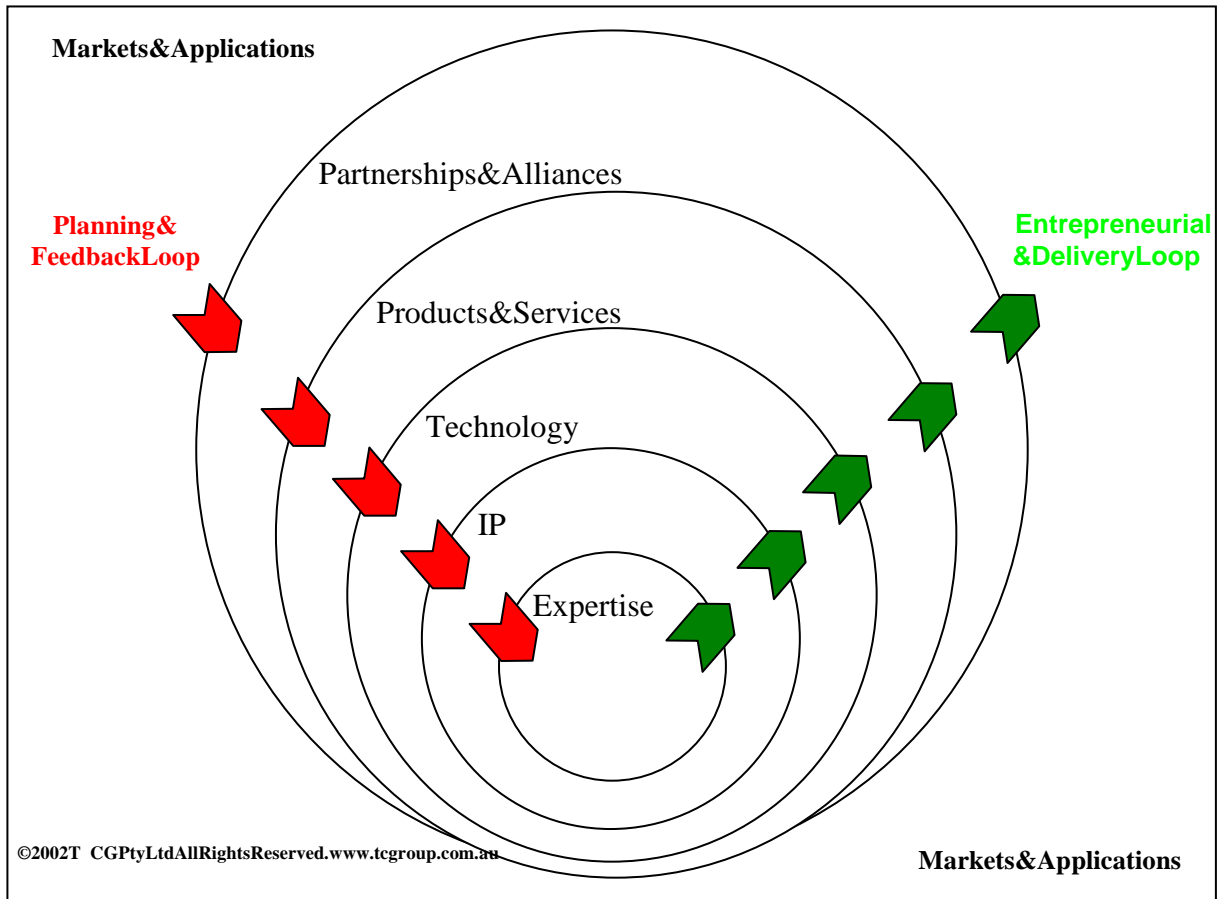


Figure 1: Start at the Market and Work Back – TCG's Conceptual Model for Commercialization

B. PUTTING ENTREPRENEURSHIP INTO CONTEXT

13. Another successful conceptual model uses the analogy of a mountain climbing expedition to draw out four important but distinct phases in commercialization; again this is useful to encourage appropriate levels of planning for entrepreneurialism within the organization, whilst still being mindful of the need to carefully manage risk.

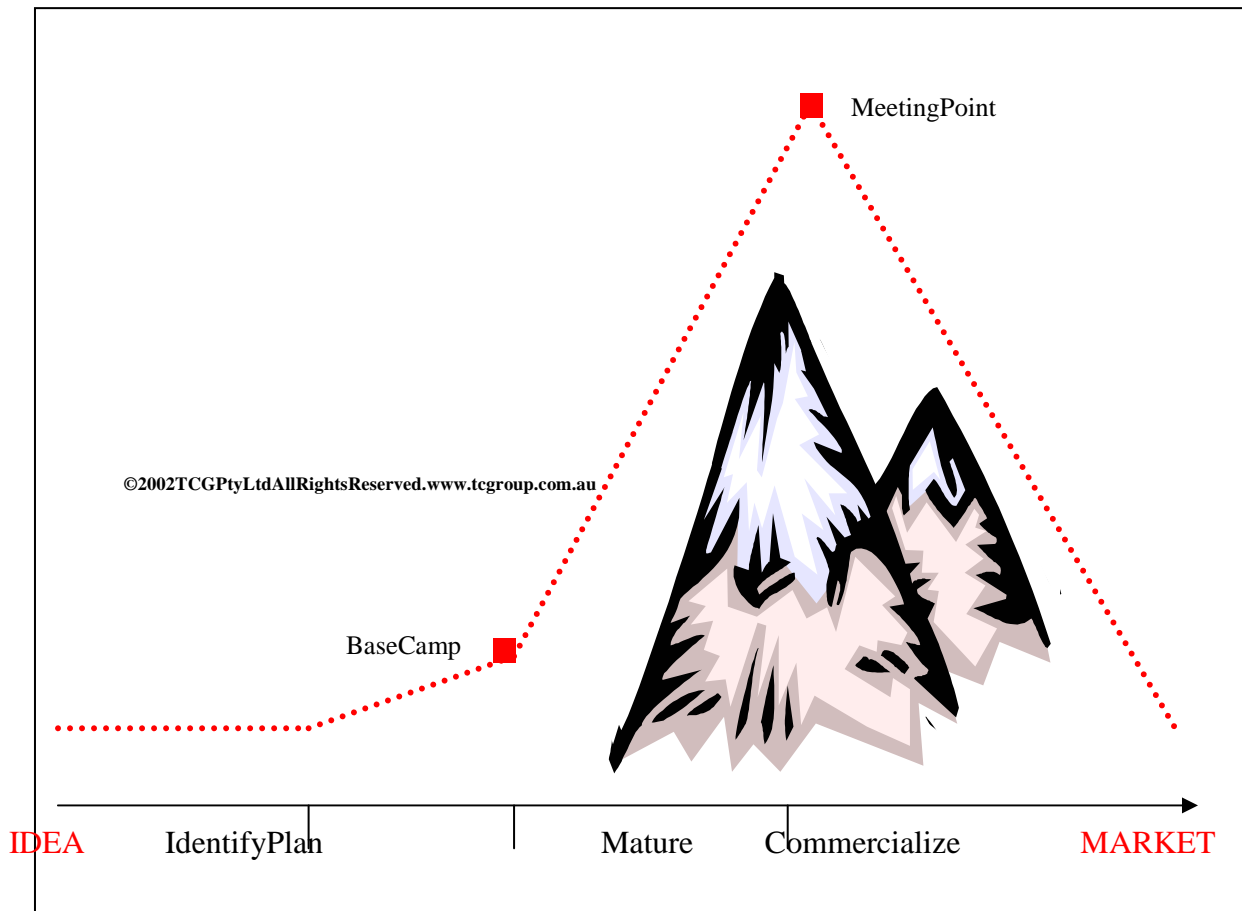


Figure 2: Planning for the Long Haul –TCG’s Conceptual Model for Entrepreneurship

III. PUTTING IT INTO PRACTICE

14. We provide a number of different information and training products and consulting and mentor services for our research clients to help them on the road to becoming competent technology entrepreneurial organizations .

15. Our aim is to enable the client to benefit from its own expertise. In doing so our aim is to enable the organization to benefit (greatly) from its own expertise and knowledge. To achieve this aim, our main tool is to foster partnerships between our clients and other organizations – these partnerships return value to our clients core business. That value may well be in the form of money (royalty payments, patent assignments and so forth) but will generally always be bundled with other valuable items (such as industry research collaboration, contribution to research programs, better facilities, better paths to market, extension of technology to new areas and so forth) that in practical terms are worth even more than money to our public, not-for-profit based client organizations.

16. Specific programs are used to foster a kind of organizational entrepreneurship. To do this, we need to create a kind of organizational entrepreneurship which until now has largely been lacking. So whilst our purpose is to help the organization transfer out its inventions,

expertise and intellectual property, our activities are in large part concerned with transferring in basic skills and understandings surrounding technology entrepreneurship. We provide training and audit programs, mentoring, project development and specific commercialization support elements, including software intellectual property management, all designed to integrate commercialization practice and technology entrepreneurship into the client organization. Together these programs deliver a shared vision for our client organization to exhibit the following characteristics:

- Aware people : our people are informed about and supportive of commercialization;
- Strategic management : our managers are able to manage our commercialization activities strategically;
- Aligned policies : our management frameworks, policies and systems allow commercialization;
- Developed capability : we have the skills and resources to foster, support and guide these activities.

The overall vision is one where the excellence of a client's research programs is mirrored by excellence in commercialization using a broad range of strategies and returning a broad range .

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