

Financing University Research

Waking a Sleeping Giant



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University of Oxford

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Recommendations

- **Assure adequate Incentive Structures at Universities**

Vest IP ownership within the university

Develop Social responsible research transfer

Recognize engagement with business as part of academic achievement

- **Promote Boundary Spanning**

Leverage online platforms & social networks

Expand existing Memoranda of Understanding (MOUs) & assure knowledge transfers

Focus on involving students in the commercialization process

- **Offer IP Entrepreneurship Awareness Raising Programs**

Develop training material on IP Entrepreneurship

Undertake Awareness Raising Seminars

Supply Outreach material to multipliers

- **Maintain Institutional Support**

Promote Incubators

Create Research Commercialization Scouts

Foster Pan University wide research transfer institution(s)

Increase patent quality through peer to patent reviews

- **Create Funding Opportunities**

Make IP filing affordable & Assure royalties are not subject to taxation

Revise Financial Reporting Standards for intangibles & Standardize IP valuation procedures

A Few Words on the 'Third Way' ...

The 'Third Way' of university research commercialization focuses on systemic change, rather than on single stakeholder intervention. It reflects a third generation of innovation policies that focuses on training, awareness raising and the leverage of cluster effects, rather than the development of physical infrastructure (i.e. science parks).

This is a unique approach that outperforms existing best practice in many ways; i.e. it focuses on the leverage of network effects among the various academic institutions, rather than repeating the traditional 'one university – one commercialization' approach.

The 'Third Way' also outperforms existing best practices by adopting latest trends in IP management , such as online trading, perceiving IP as financial asset, leveraging open innovation for improving patent quality.

Organizational values, structures & procedures of various actors (business, academia, government) are recognized and different institutional cultures are sought to be overcome through boundary spanning.

The competing demands and interests of business & academia are reflected through the introduction of 'social responsible university research commercialization', as currently undertaken by U.C. Berkeley.

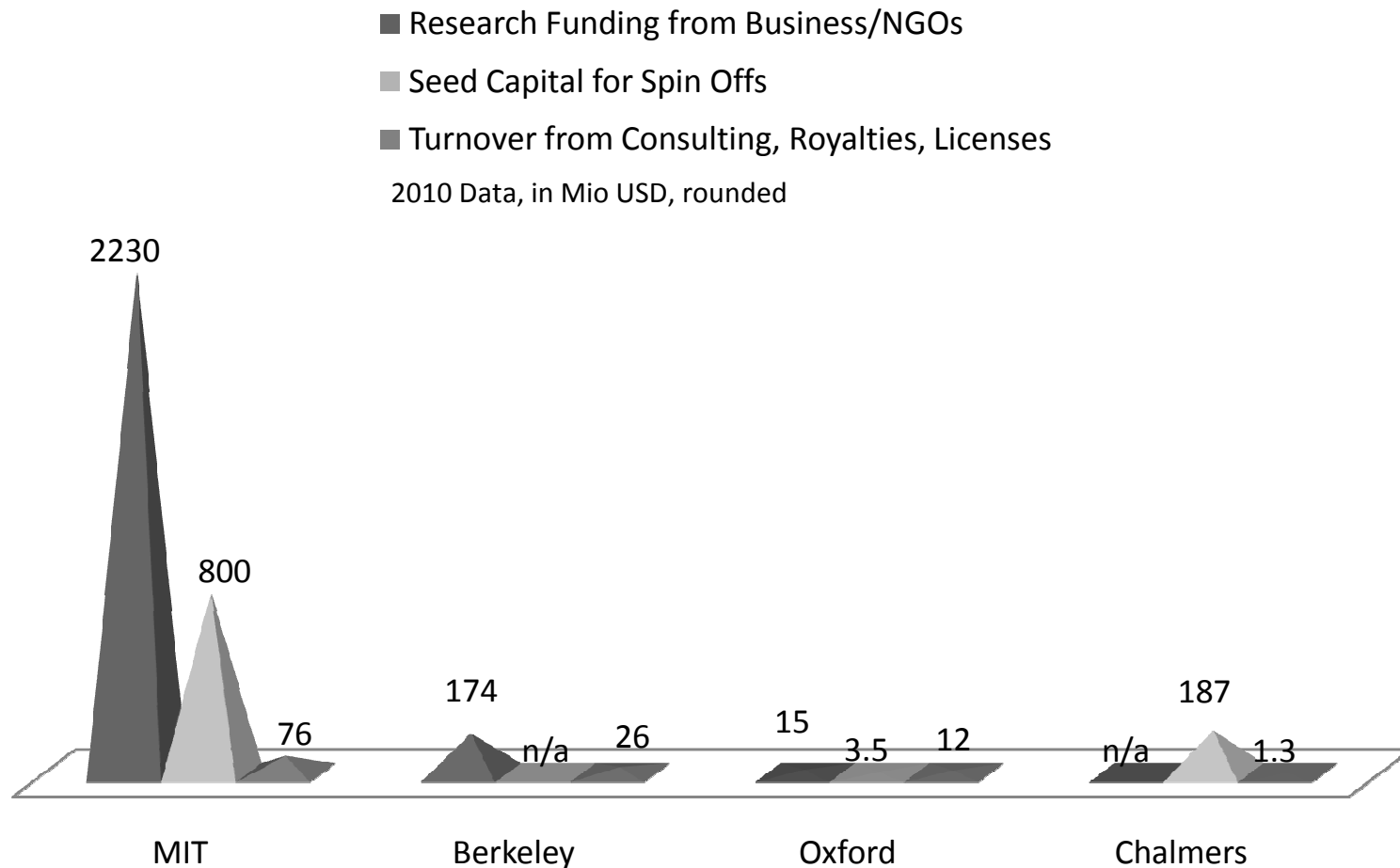
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What is Current Best Practice?

Choosing the Third Way

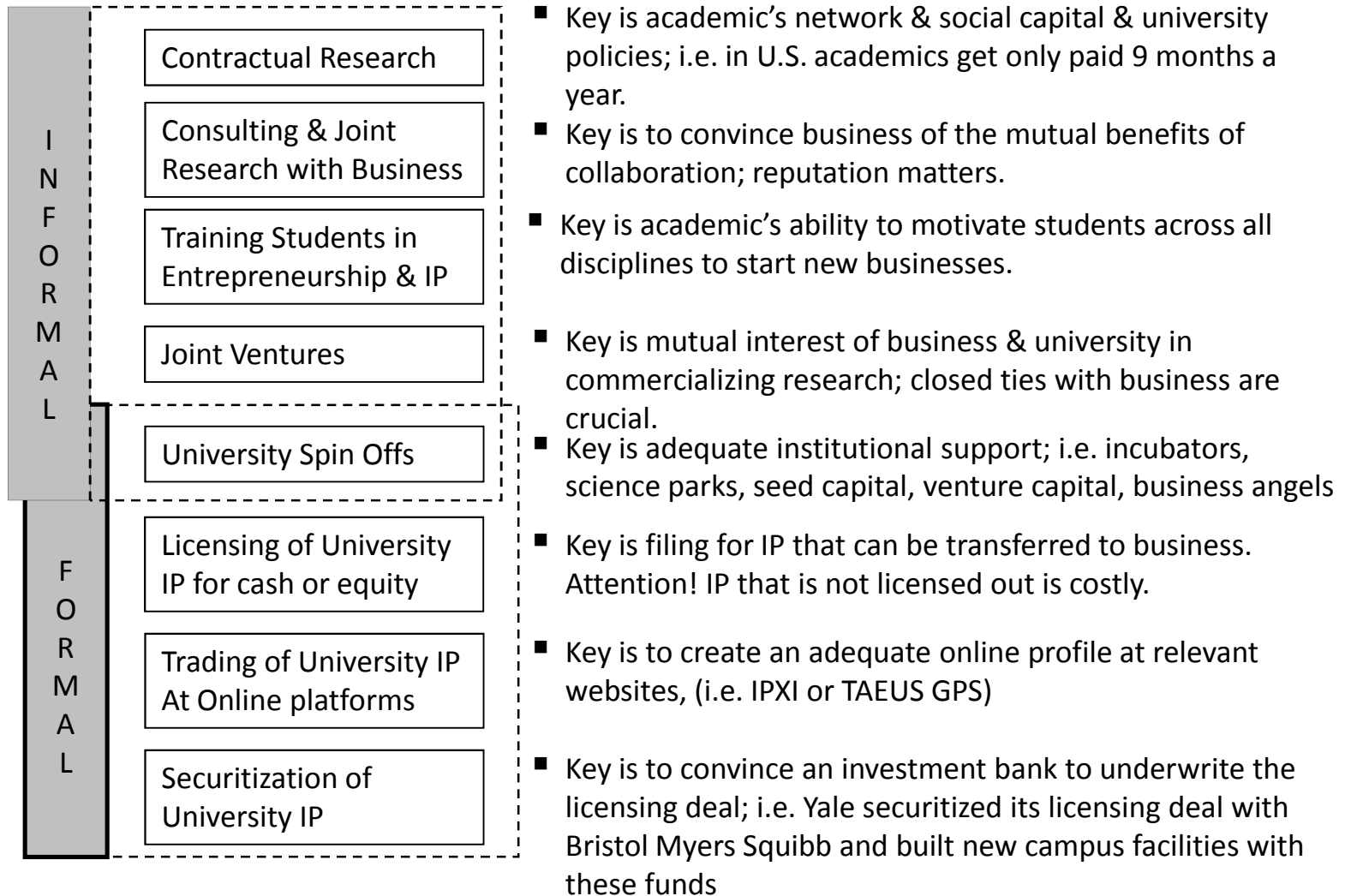
Impact Assessment

Top Performers Focus on Research Funding from Business & NGOs, Funding for Spin Offs & Revenues from Consulting, Royalties & Licenses



Source:
 Roya Ghafele, Websites,
 Oxford: Revenues from consulting not fully monitored, Chalmers: Research Funding from Business/NGOs not monitored, Berkeley: Seed Capital for Spin Offs not monitored

Top Performers Leverage Many Channels to Finance University Research



University Research Financing Initiatives Among Top Performers

Initiative	MIT	Berkeley	Oxford	Chalmers
University owns IP	√	√	√	√
IP Awareness Training on Campus				√
Government grants/public support for IP protection	√	√	√	√
Social Responsible IP transfer & Open Source		√		
Entrepreneurship Education	√	√	√	√
Business Plan Development Programs	√	√		√
Advisory Services, External Consulting Firms	√	√	√	√
Student Entrepreneurship Organizations	√	√	√	√
Commercialization Services on Campus	√	√	√	√
External Service Provider for Commercialization	√	√	√	√
University on Campus Incubator	√	√		√
Outside Incubators Situated in Town	√	√		√
Seed Capital	√	√	√	√
University Shares in Spin Offs & Licenses	√	√	√	√
Official Incentives for Commercialization				√

Source:

Roya Ghafele, Rasmussen et al. Technovation 26 (2006) 518-533, University Websites

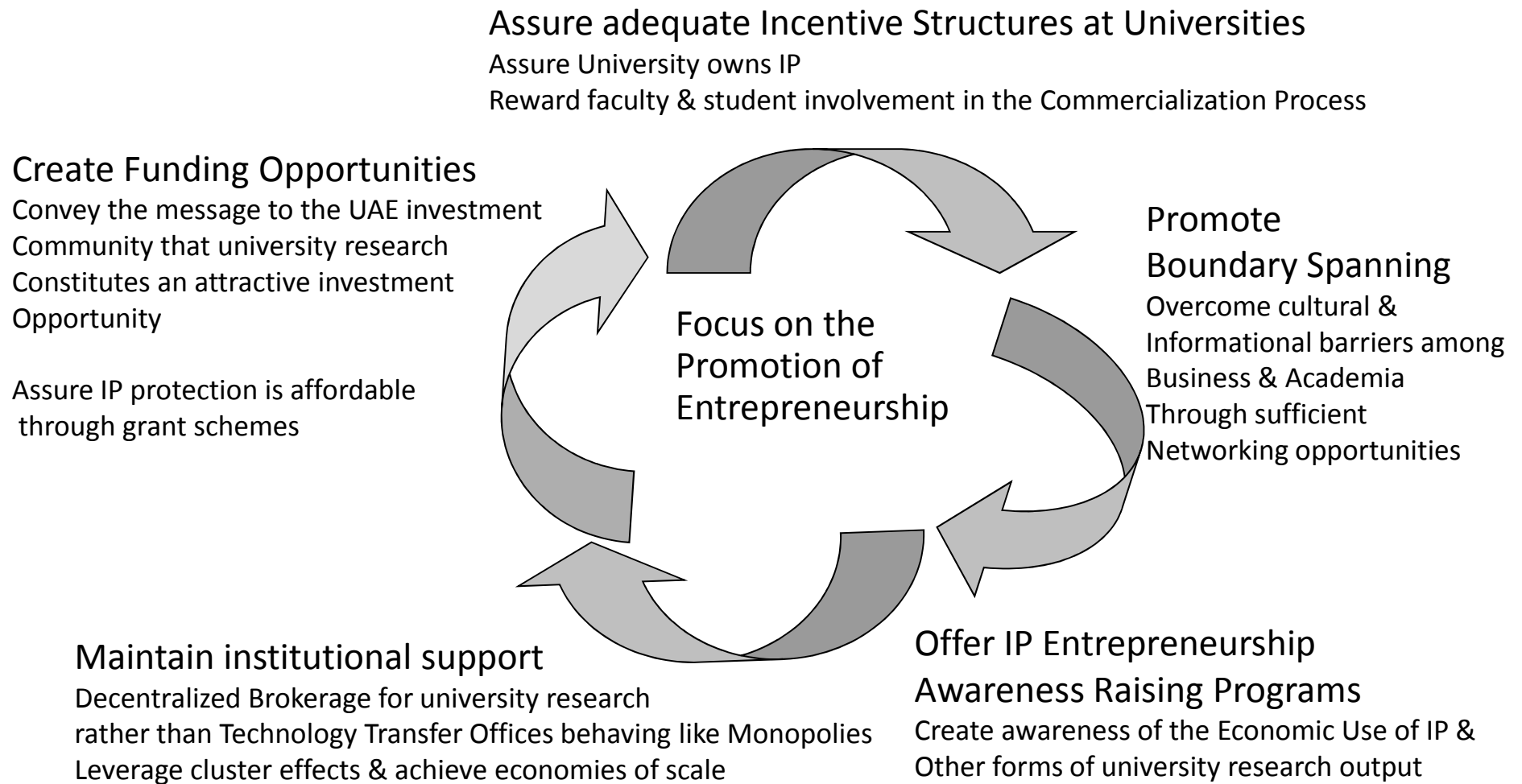
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What is Current Best Practice?

Choosing the Third Way

Impact Assessment

Developing a Financing System for University Research: Creating Leverage for Cooperation in the Financing Cycle



Successful Research Financing is Multifaceted

Description of Policy Framework

Incentive Structures

Vest IP ownership within the university
Develop Social responsible research transfer
Recognize engagement with business as part of academic achievement

Boundary Spanning

Leverage online platforms & social networks
Expand existing MOUs & assure knowledge transfers
Focus on involving students in the commercialization process

IP Entrepreneurship Awareness

Develop training material on IP Entrepreneurship
Undertake Awareness Raising Seminars
Supply Outreach material to multipliers


Institutional Support

Promote Incubators
Create Research Commercialization Scouts
Foster Pan University wide research transfer institution(s)
Increase patent quality through peer to patent reviews

Adequate Funding

Make IP filing affordable
Revise Financial Reporting Standards for intangibles
Standardize IP valuation procedures
Assure royalties are not subject to taxation

Designed to Achieve



Research Funding from Business/NGOs

Funding for Spin Offs & Spin Off Creation

Revenues from Royalties, Licenses & Consulting

Entrepreneurship

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What is Current Best Practice?

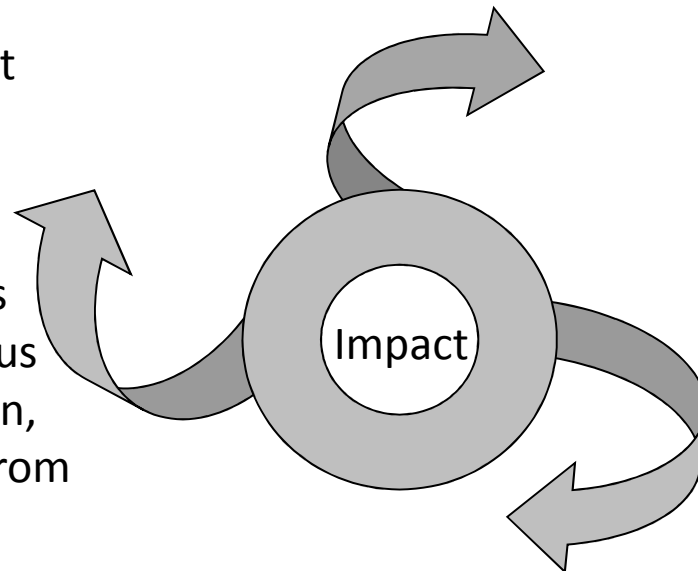
Choosing the Third Way

Impact Assessment

Impact Assessment - Methodology

Cost/Benefit Analysis strongly based on electronic survey data generated through a checklist with Department Heads at Universities

Data collected at Kick Off (Time 0), after 2 & 5 years offers insights on the status prior to policy intervention, during & within 5 years from kick off.
(ex ante & ex post control data)



Methodologically based on exploratory & confirmatory factor analysis.
(Statistical Assessment of Scales)

Information supplemented with 'hard data'; i.e. revenues from royalties & consulting

Focus on one single control group (University Mid-Management) rather than all stakeholders in a country

Impact represents change, whether positive or negative, that policy brings to a situation

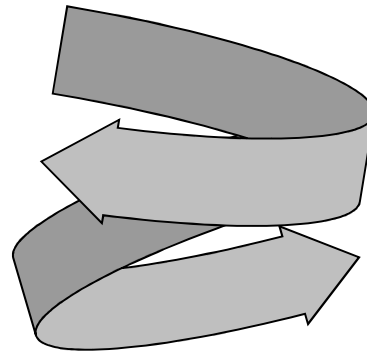
Costs

Direct Costs:

Overhead costs,
Administrative expenditures,
Depreciation of capital assets
Costs of complementary services
Related to policy

Indirect Costs:

Proxy indicators based on survey
Data using a Checklist,
i.e. time & resources
allocated



Benefits

Direct Benefits:

Number of spin offs created
Revenues created through
academic consulting, joint
ventures, licensing revenues

Indirect Benefits:

Proxy indicators based on survey
data using a Checklist,
i.e. students going into business
Upon graduation

Checklist for the Impact Assessment

Incentive Structures

Country wide policies contribute towards the economic use of IP & intellectual capital (IC) by universities
The Performance review of faculty members includes off-campus activities in addition to research & teaching
We reward our faculty members for conducting research in partnership with non academic-professionals
We give our faculty members the freedom to chose if they want to engage in applied research & business projects

Boundary Spanning

Cooperation with organizations outside the university significantly improves our research activities
Our department has built relationships with private or public sector institutions, as well as seed capital
Our department has a reputation for collaborating with business & is highly regarded by business/investors
We are recognized by business & society for our flexibility & innovativeness

IP Awareness Raising Programs

Teaching Entrepreneurial skill sets & business aspects of IP is an important element of our curriculum
Faculty members in our department are aware of IP & recognize the potential commercial applicability of research
Our University is very responsive to new ideas & innovative practices
Our Students often secure high quality industry positions

Institutional Support

There are university wide departments/groups/individuals dedicated to business/university liaison activities
We benefit from the proximity of Science Parks and Incubators
Our University uses feedback from all levels of to improve institutional support for commercial activity

Funding Opportunities

We seek significant funding from sources other than the Government
We try to generate off campus benefits from research projects
Our university generates income from university spin offs, licensing out IP, consulting & contractual research
Students have used their education to scope new business opportunities and start new firms