



Erasmus Mundus



Findings - Micro Level Analysis

Kunming University of Science and Technology

Presenter: LI xin

10 – 11 August 2009

IP Uni-Link Consortium meeting

Roorkee, INDIA

Questionnaire

Interviewer: Li Xin, Li Na

Main Interviewee: prof. Wang Jing, chief of development section, DRD,KUST

Date of interview: Jun-July

Place of interview: office of DRD

1. National and Regional level

1.1 laws and legislation

Name of law	Date of creation	Date of amendment	Purpose, Focus, Message of law
Report submitted by the Ministry of Education and State Intellectual Property Office concerning further strengthening IP WORK in HEI	2004.11		- To strengthen the organization and management of intellectual property rights system, and comprehensively improve the level of IP management. - To establish an effective incentive-mechanism to stimulate and protect the creativity enthusiasm of the scientific and technological personnel in HEIs- To improve IP service system, and promote the protection and implementation of proprietary technology
Regulation on National Science and Technology	1999.5	2003.12	- To promote the work of national science and technology rewards, and guarantee quality of award reviewing.

Rewards			- To encourage cooperation, joint research, and independent innovation, and to encourage scientific and technological research
Regulation on Management of IP protection in HEI	1999.4		- for the effective protection of IPR of HEIs - to encourage motivation of innovation and intellectual activities in both staffs and students - to encourage industrialization of scientific and technological findings
provisions concerning IP management of research results from National scientific research projects	2002.3		- To promote increase of independent IP in quality - to promote technology transfer - to protect rights and interests of relevant subjects - to strengthen the management of research results from national scientific research projects funded by government finance

1.2 Policies for Science & Technology and Innovation in HEIs

Name of policy	Date of creation	Date of amendment	Purpose, Focus, Message of policy
pilot projects of technological innovation	2006.7		- to encourage enterprises as the mainstay of technological innovation, and to enhance the core competitiveness of enterprises - to guide independent innovation for the independent IP, brand and sustaining capacity of innovation- to establish a new market-oriented technology innovation system in which enterprises act as the mainstay based on the cooperation among industries, universities and research institutes
Innovative action plan in Yunnan	2008.8		- to make a breakthrough in the core technologies and key technologies, and to develop industrial clusters of high-tech industry based on the advantages of Yunnan, and to establish some bases for technology innovation - to achieve about 300 key/core technologies which have a leading role in the priority industries.
Policy on exemption from individual income tax for the bonus of national innovative technology award	2004.11		To encourage active participation in the scientific and technological research

Yunnan fostering programme for listing of high-tech company	2008.1		<ul style="list-style-type: none"> - to establish a collaborative mechanism of investing and financing , by integrating resources of high-tech enterprise in Yunnan Province, which commit to resolve the problem of capital - to focus on the development bottleneck regarding technological innovation, management of organization, marketing, etc.- To develop a Green-Path service system for the fast-growing of high-tech enterprises
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1.3 Policies for Research in HEIs - that recommends priority research areas in China

Name of policy	Date of creation	Date of amendment	Purpose, Focus, Message of policy
National next 15-year "significant scientific research program"	2006		<ul style="list-style-type: none"> - To enhance the international competitiveness and promote sustainable development. <p>The four major scientific research programs are protein, quantum control research, nanotechnology research and reproductive research.</p>
Five policies on strengthening creation and IP protection	2006		<ul style="list-style-type: none"> - To perfect national IPR system, create a environment that respect and protect IP, develop independent IP of core technology, shorten the period of patent examination, and to improve the system of technical trade measures.
Provincial key technology projects of animal husbandry	2008.12		<ul style="list-style-type: none"> - The first phase supports 20 four-year projects with a total fund of 67.2 millions. - To resolve series of technological problems in the development of animal husbandry.
National pioneer product plan	2000.10		<ul style="list-style-type: none"> - To reflect specific demands of technology development in high-tech industry - To make clear the fields where the national major supports go

1.4 funds/schemes that support R&D and innovation in HEIs

Source of fund	Name of fund	Purpose of fund	Amounts and historical distribution
Special Fund from central government	Innovation Fund For Technology Based Firms	With a definite purpose of supporting the technological innovation of the technology-based small firms , and facilitating the	With a total budget of RMB 5 millions in 2002.

		transformation of R&D results.	
Public donation	China GuangHua Science and Technology Foundation	To develop cooperation, communication, education and training at home and abroad To give service to technological activity of the youth To disseminate science and culture	The Foundation's amount of original funds is RMB 8 millions, contributed by the public.
Key topic project funded by Ministry of Education	Special research fund for Doctoral station in HEI	To fund research with characteristic of novelty, creativity, and application prospect, And to cultivate pioneer researchers	The fund support three categories: research project, young scholar project and co-financing project, with the separate grant of RMB 60,000, 36,000 and 60,000 for each project.
Special fund of Ministry of Education	Scientific Research Foundation for the Returned Overseas Chinese Scholars	To encourage returned overseas students to start research work	To fund both teaching and research project, with a grant from RMB 20,000 to 50,000 for each.
Special programme in the National Natural Science Foundation, with special grant from central financing	National Natural Science Foundation	To subsidize basic research and part of applied research in the field of natural science; To encourage and give training to the technology talents	

1.5 National IP / Patent office: STATE INTELLEDTUAL PROPERTY OFFICE OF P.R.C (SIPO)

Type of services	Yes	No	If yes, please describe
IP training	Yes		Various Campus Activities with the subject of copyright protection all over the country
Advising on new laws	Yes		- To build up a IP Examination system for the research process in HEI, - To make definite the IPR Clause in cooperative R&D with a avoidance of unnecessary conflict - To focus on the alteration of patent status when patent holder changes to avoid "vacuum" in IP management.

Patent search	Yes		Apply a data base which contains all the IP information since 10th Sep.1985, users can browse full text of the specification and the graphics of industrial design and model
Other (describe)	Yes		To establish the centre of IPR Protection
Other (describe)	Yes		To set up a service platform of patent information in HEI to encourage patent application

strengths The government has promulgated series of policies and measures in order to advocate innovation and IP protection. The legal system of IP has been comprehensively revised in respect of legislation purpose, content of rights, protection standard , and legal remedy, etc. The new system emphasizes the role of IP in the development of science and technology and promotion of independent innovation.

The government also reinforce the macro administration on IP.

weaknesses The dissemination of knowledge and awareness of IP still has a long way to go since the IP system in China is new for the public. The IP system provides few legal measures that directly encourage and promote IP activity. The imbalance between patent and other types of research achievement becomes a common phenomenon in HEI based on a long potential policy orientation of “emphasizing research findings rather than patent”.

2. HEI/HEI Level

2.1 Basic information

Name of HEI	Kunming University of Science and Technology (KUST)
classification	Public
location	Kunming City, Yunnan Province, China
Number	Students:26,000 Professors:200 Researchers:1804 Administrative staff:About 900
Main academic areas	Engineering, Science, management
Main research centers	Key laboratories/Engineering research centers at national level 1.The National(MoE) key Laboratory of Advanced Materials in Metal and Rare Precious Metals 2.The National Engineering Laboratory of Vacuum Metallurgy 3. The National Engineering Technology Center (Kunming) of Cyclic Utilization of Resources in Environment Protection Industry 4. The National Engineering Research Center of Waste Resource Recycling

2.2 Mission, Strategies, Policies and Regulations

Does your HEI mission / vision include innovation?

Yes, “In order to reward the individual who make a great contribution to the development of

science and technology in KUST...”

--- Regulation on patent management in KUST

Type of norms / regulations / by-laws	Date of creation	Focus
Regulation on protection and management of IP in KUST	2007	IP
Regulation on patent management in KUST	2007	contracting rules; ownership; distribution of income; responsibility of IP protection; dispute settlement rules ; patent licensing rules
Regulations governing rewards for natural science research in KUST	2007	Natural Science

2.3 Innovation System

Area	Organizations / Units / Functions / Departments
Intellectual Property	Division of Research and Development (DRD)
Technology Transfer	Division of Research and Development, Technology industry management Ltd. KUST
Business Development	Division of Research and Development, Technology industry management Ltd. KUST
Incubation	Technology industry management Ltd. KUST
Contract Research	Technology industry management Ltd. KUST
Other Innovation Activities	

- **Innovation entity 1**

- Name

Division of Research and Development (DRD)

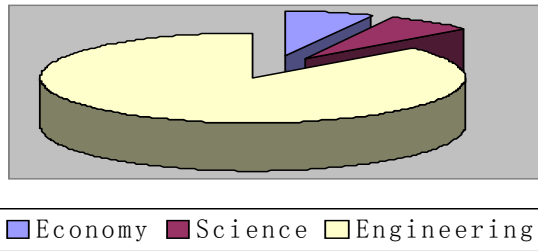
- Legal classification : Internal entity belonging to HEI, public.

100% HEI base funding

- main responsibilities and activities :

Management of intellectual property, especially in the stimulation and application phase, and technology transfer to some extent

Academic background of employees of DRD



strengths.

the division acts as one of the authorized institution which takes responsibility of management of IP, especially in the creation and application phase, the employees are experienced.

weaknesses

Lack of the oriented policy which guide IP combined with characters of Yunnan province

- **Innovation entity 2**

- Name:

Technology Industry Management Ltd. KUST(TIM)

- Legal classification : Internal entity belonging to HEI, public.

100% HEI base funding

- main responsibilities and activities :

Management of intellectual property, especially technology transfer

strengths.

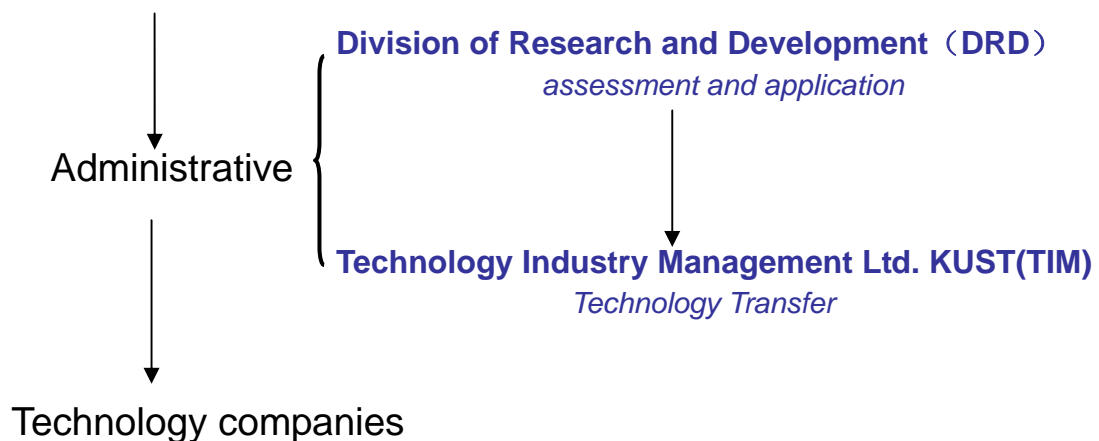
the company acts as one of the authorized institution which takes responsibility of management of IP, especially in technology transfer phase, connected with the responsibility of DRD.

weaknesses

Lack of mechanism of investment attraction

Innovation System(technology transfer) of KUST

Faculties & schools



2.3 Innovation Activities, Processes, Practices and Procedures

What do you consider to be good examples of information and communication processes in the areas of innovation and IP in your HEI?

HEI Web site, issues the innovation and IP policies and dynamic in time

Face to face staff meeting makes the communication more convenient

Technology exhibition held by HEI, participated by companies which seeks the cooperation and technology transfer

What do you consider to be good examples of awareness building and education processes in the areas of innovation and IP in your HEI?

KUST grants rewards to the inventors and scholars who makes great contribution to the innovation building of HEI

What do you consider to be good examples of processes for ‘searching for value in research’ and ‘assessing the value identified in research’ in your HEI?

Expert panel organized by DRD and TIM assesses the value of the research by analysis for feasibility

What do you consider to be good examples of processes for ‘evaluating possibilities for protection and seeking protection for innovations’ in your HEI?

DRD has experience staff who qualified as a patent attorney and very good at evaluating possibilities for protection and seeking protection for innovations

What do you consider to be good examples of commercialization processes in your HEI?

TIM has incubated several researches and started more than 20 companies

Using of the administrative approach to incubate makes the process more unified.

In your assessment – what are the strengths and weaknesses of your current activities, processes, practices and procedures for Innovation and IP management in your HEI?

Strengths: the DRD and TIM, each have their own responsibilities in innovation area, and have a good relationship of cooperation

Weaknesses:

the responsibility of DRD is lack of oriented policy which guide IP combined with characters of Yunnan province,

the responsibility of TIM is lack of mechanism of investment attraction

the administration management is not as market-oriented as required in innovation system

2.4 Historical Review –Ownership

Who has received ownership (at the time of creation) over HEI based IP during the last 3 years?

Year	HEI (%)	Professor/researcher/inventor (%)	3rd Party Partners (%)	Other (%)	Total 100%
2006	94%		6%		100%
2007	95%		5%		100%
2008	95.5%		4.5%		100%
Historical total (since foundation)	94.7%		5.3%		100%

2.4 Historical Review –License

- How many license contracts has the HEI as a whole signed?
 - In the last 3 years?
 - 11
 - Historical total since HEI foundation?
 - 31
- What is the most common subject of license (invention, brand, software, etc.)?
 - In the last 3 years?
 - Utility model
 - Historical total since HEI foundation?
 - Invention
- How many start-ups/spin-offs has the HEI as a whole created?
 - In the last 3 years?
 - 20
 - Historical total since HEI foundation?
 - about 35

Culture for innovation

- There are a team working on it and resources dedicated – but not integrated into the rest of the organization
- University leaders and technology transfer office/unit are owning the innovation work and often active
- individual researchers, professors and students are interested but not always available

Resources

- budget: 25-49%(struggling with out this resource)
- information&time: 50-74%(enough resources to keep working)
- personnel quality-competence,dedicated staff, motivation:75-99%(have most of the

resource needed)

- We have goals, plan,resources and work according to plan
- we get energy even if it is demanding

relationships

We have a polite, instrumental and affective relationships between bosses, colleagues and clients

Assessments

- KUST has good records of the number of patents
- Innovation is a new system for us, has a long way to go