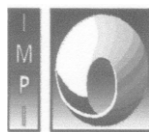


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MEXICAN INSTITUTE OF
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WORLD INTELLECTUAL
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INSTITUTE OF TECHNOLOGY AND
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**INTERNATIONAL WORKSHOP ON
MANAGEMENT AND COMMERCIALIZATION OF INVENTIONS
AND TECHNOLOGY**

organized by
the World Intellectual Property Organization (WIPO)
in cooperation with
the Mexican Institute of Industrial Property (IMPI)
and
the Institute of Technology and Superior Studies of Monterrey (ITESM)

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EXPERIENCES ACQUIRED AND LESSONS LEARNED IN
TECHNOLOGY MANAGEMENT

TECHNOLOGY MANAGEMENT IN UNIVERSITIES -
CHALLENGES AND DILEMMAS

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INTRODUCTION

- Changes of scenario due to the introduction of new university functions
- Traditional vocation- incorporation of new models
- As a general rule, researchers do not agree to interference in their relations with an outside partner
- Need for effective institutional management machinery to provide a more rapid response
- Reconciling these two forces is a challenge for technology management in universities
- The case of the UFRGS

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HANDLING THE TRADITIONAL AND THE NEW IN UNIVERSITY MANAGEMENT

- Linear model - the only flow from basic research to industrial innovation
- More complex forms - incorporation of new features in university routine
 - patenting
 - secrecy
 - licensing of technology and patents
- Lack of consensus
- Culture conflict
- Licensing of technology and patents



DILEMMAS

• PUBLISH OR PATENT?

- Precedence of publication over patenting
 - reflected in the country ' technological capacity :
 - 1,2% of scientific publications
 - 27th place in terms of patent filings in the USA
- Lack of knowledge of the importance and economic value of a patent to the university
- Lack of recognition of the patent as an academic product
- High costs involved in the patenting process



DILEMMAS

• PUBLIC DOMAIN VS. SECRECY

- Secrecy perceived as privatization of knowledge
- In public universities - secrecy in R&D contracts with companies - open door to privatization
- Need to find ways of reconciling contradictions



CHANGES IN THE MANAGEMENT OF KNOWLEDGE

- Emphasis on governmental support for individual research projects
- Jurisdiction over resources - formation of research groups - sectoral funds
- Shifting of decision-making to within the university
- Need for an organization in charge of research - institutional management of projects
- Change in the methods of transferring knowledge - company incubators and spin-off companies
- Professionalization of technology activities

ACTION OF FEITT/UFRGS

- Linkage to the Technological Development Secretariat of the University Rectorate
- Mission to promote and facilitate interaction between the university and the production sector
 - **FOCO**: technology transfer management - negotiation of contracts with companies, management of technology consultancy, intellectual property management
- Strategy for setting activities in motion: gradual execution of tasks, within limits of feasibility
- Basic principles: flexibility and interconnection
- Understanding of differences, for better performance of the assigned rule

ACTION OF FEITT/UFRGS

- Principal institutional machinery for the negotiation of projects and intellectual property rights
- In that situation, fundamental importance of recognizing the potential and peculiarities of the institution negotiated for, and at the same time of understanding its corporate logic
- Establishment of institutional guidelines as an important requirement to backup negotiations - indicative of the degree of professionalism with which the institutioner approaches the subject

SCENARIO OF OPPORTUNITIES AND THREATS TO TECHNOLOGY MANAGEMENT STRUCTURES

- **OPPORTUNITIES**
- **Professional technology management** - only department in the university with specific responsibilities in that area
 - window of opportunity
- **Intellectual property management** - becoming more and more important in the national context
- **Favorable environment** - sectoral funds and Law on Technological Innovation

SCENARIO OF OPPORTUNITY AND THREATS TO TECHNOLOGY MANAGEMENT STRUCTURES

- **THREATS**
- **Contradictions between the roles of technology management structures** -lack of consensus on university-company linkage
- **Lack of institutional legitimacy**- difficulty in intensifying linkage operations with companies
- **Autonomy of teaching staff** -while essential, it could make management difficult, as researchers generally do not agree to interference in their relations with an outside partner
- **Limited time to deal with requests** -priority given to teaching and research activities limits the time available for dealing with outside requests

FINAL CONSIDERATIONS

- **Technology management in universities**- problems of confrontation between traditional and new
- **The great challenge** -striking a balance so that the results achieved by the new may strengthen and regenerate the university 's traditional functions
- **Despite the progress, still a long way to go**- **institutional legitimacy has yet to be achieved**
- **Achievement of three stages of development that have to take place at the same time**
- **Change of organizational culture**
- **Provided that the now-incipient licensing activities grow, and that universities receive more income from royalties, technology management will acquire more value in the institutional context**