

The role of patents in technology transfer



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*Regional Forum on the Role of Patents and the PCT in
research in Developing Countries*

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TecMinho/University of Minho



Location

Campus of Azurém
(Guimarães)



Rectory (Braga)



Campus of Gualtar
(Braga)



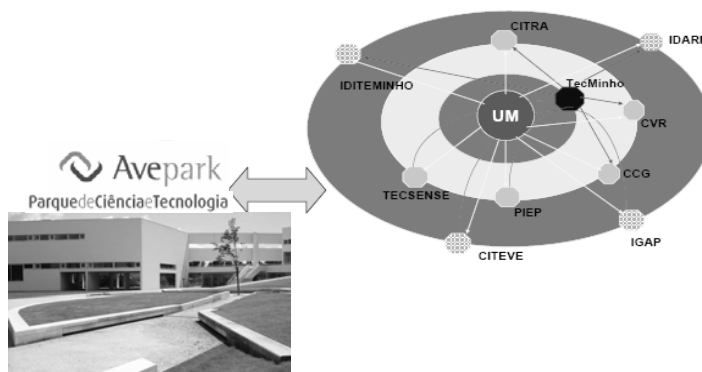


Generic Information

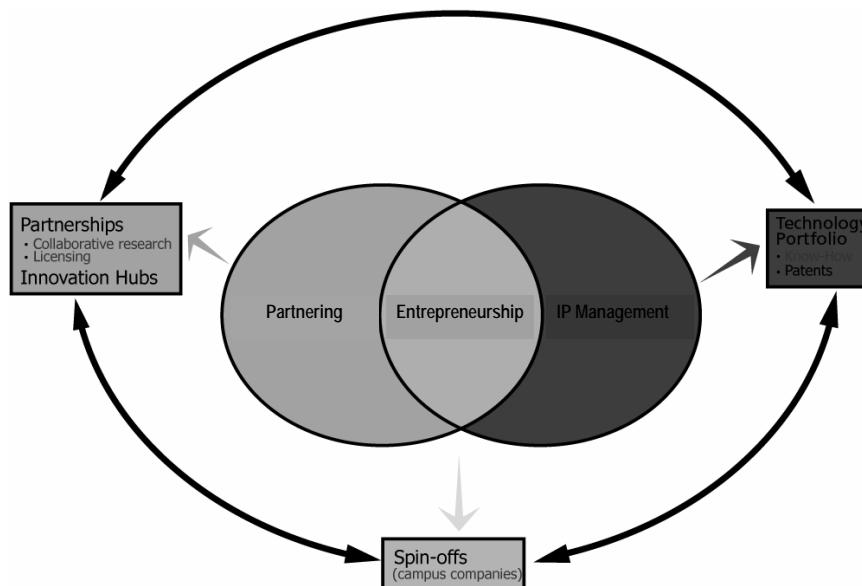
- Founded in 1974
- 17000 graduation students
- 1300 Master and Specialization Students
- 750 PhD students
- 1100 teachers (2/3 PhD)

Technology Transfer at UMinho

1. Model of interaction university-society in the University of Minho

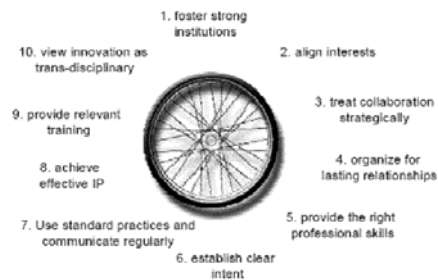


Private not-for-profit association, founded in 1990 as an interface of University of Minho.



Our commitment:

Establishing long-lasting strategic partnerships, applying the 10 Guidelines of the “Responsible Partnering” (EUA, PROTON EUROPE, EARTO, EIRMA)



- Partnering
- Commercialising R&D results
- Supporting Entrepreneurship



- Partnering – Establishing UM/Industry R&D partnerships, developing new products & services according to industry needs.

- Activities:
 - Technology Marketing
 - Company audits
 - Management of R&D projects
 - Support in identifying financing sources
 - IP Management

- Commercialising R&D results – Identifying, protecting, evaluating, accelerating (proof-of-concept) and licensing innovative technologies developed at UMinho.

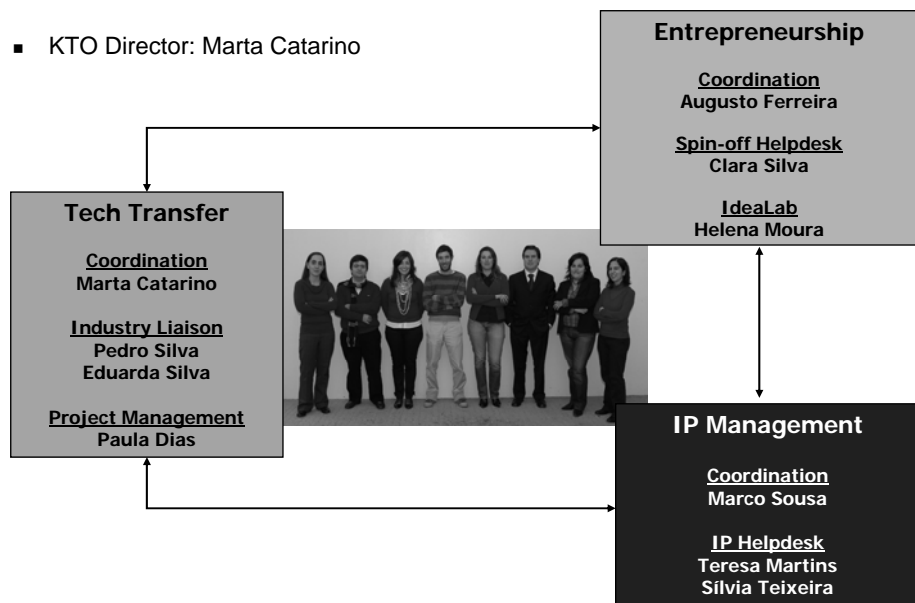
- Activities:
 - Technology Scouting
 - IP Protection & Management
 - Early-stage technology screening & evaluation
 - Technology Marketing
 - Coaching researchers
 - Proof-of-concept
 - Negotiation & Licensing

Processes & Activities

- Entrepreneurship – Identifying business ideas, entrepreneur potential and supporting the launching of knowledge intensive spin-offs.
- Activities:
 - Entrepreneurship awareness
 - Entrepreneurship training
 - Identifying business ideas
 - Supporting the definition of the business idea
 - Managing the spin-off brand
 - Early-stage coaching
 - Early-stage financial networking

KTO Team

- KTO Director: Marta Catarino



The researcher is the heart of it

- TecMinho supports researchers who wish to transfer their results
- The interests of the researcher are essential
- The key success factor is researcher trust
- We try to generate enthusiasm in the researcher by
 - Internal marketing
 - University IP policy
 - Employing high quality staff at the KTO

Expected Results


- Attract new and better students globally
- Recruit, Reward and Retain faculty
- Foster more industrial placements
- Foster new R&D projects
- Establish long-term partnerships with companies
- Set-up innovative companies
- Improve University image and reputation
- Generate income for research



Education

Research

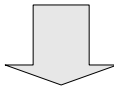
Valorisation



Clear impact regionally, nationally and globally

Why Knowledge Transfer matters

- There is an increasing expectation on Research Institutions to contribute to the national economy through Knowledge Transfer.



3rd Mission

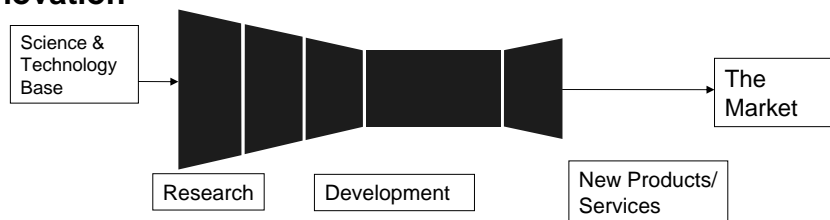
Why Knowledge Transfer matters

Knowledge Transfer consists of the range of activities which aim to capture and transmit knowledge (either explicit, such as in patents, or tacit such as know-how), skills and competence from those who generate them to those who will transform them into economic or societal outcomes.

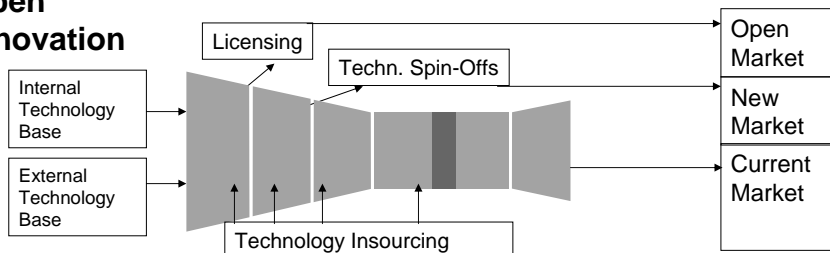
It includes both commercial and non-commercial activities such as research collaborations, consultancy, licensing, spin-off creation, researcher mobility, cultural diffusion and more widely social, territorial and environmental problem-solving .

- A Knowledge Economy requires...
 - Knowledge creation
 - Adding-value through technology and innovation
 - Highly-skilled workforce
- ... Universities and Research Institutions are essential for this purpose

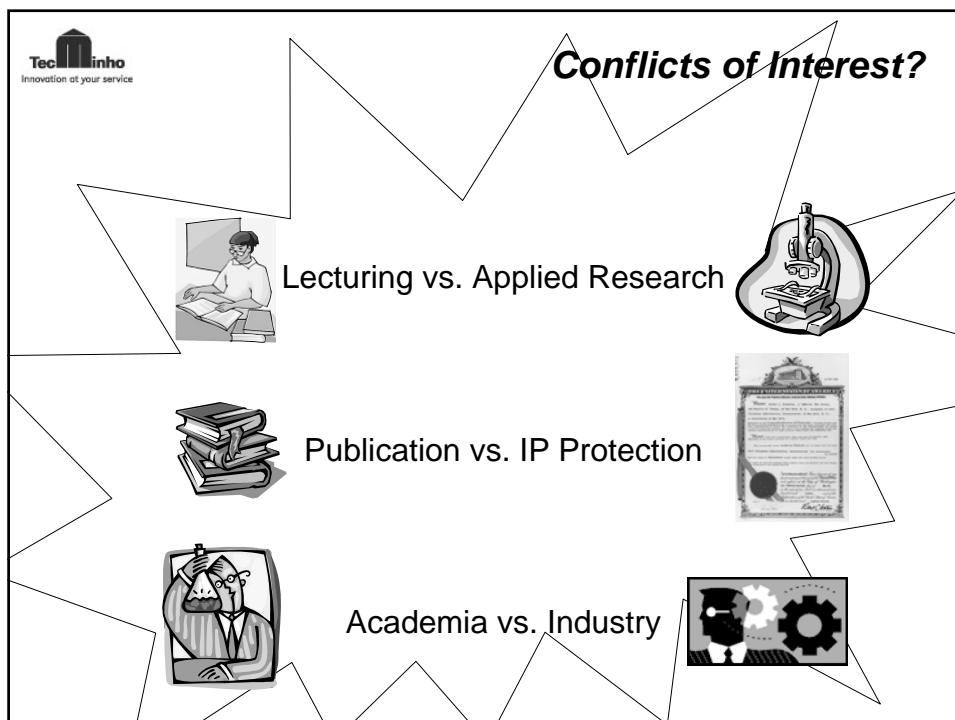
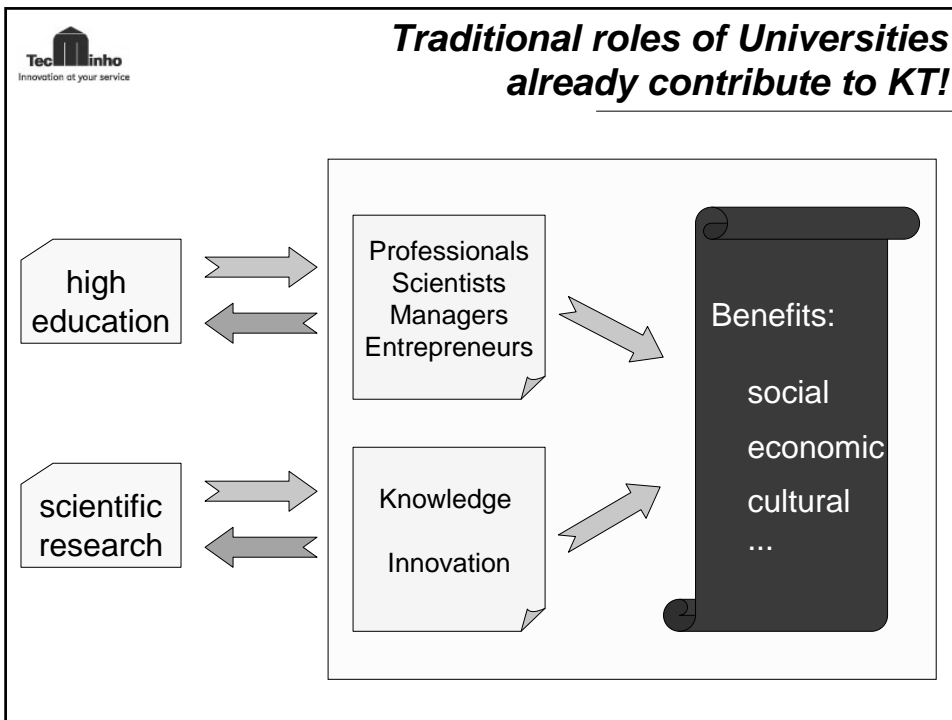
Closed innovation



Open innovation



Source: Henry Chesbrough (2003)



The Entrepreneurial University...

... is not the Industrialized University!

- Independence based on generating income
- Teaching and research are vital
- It is an error to design a production plant to maximise the by-product
- The value extracted from KT should be maximised but not at the expense of the prime mission

Should Universities take an active role?

- Growing pressure from government authorities
- Most countries have adopted Bayh Dole like laws encouraging patenting and licensing by universities
- An increasing number of funding programs are oriented to possible economical applications (e.g. the FP programs of the EC)
- In many countries, research assessment exercise is now including knowledge transfer indicators.
- ... This trend is here to last!

Benefits for Universities

- Recognition for Discoveries
- Gaining status and prestige
- Enhancement of teaching programmes
- Improving market awareness
- Harnessing private and public funding
- Sourcing job opportunities
- Maintaining research momentum
- Faculty Service (3 R's)
- **Generation of Income for Research**

Benefits for companies

- Thinking longer term
- Going global
- Outsourcing
- Taking a multidisciplinary approach
- Harnessing public funds
- Reducing risks
- Complementing the company's physical resource base
- Recruitment possibilities

Managing Intellectual Property

- For a University, engaging proactively in Technology and Knowledge Transfer requires a professional management of the Intellectual Property it generates: that will be its main resource.

Why is patenting essential in Universities?

- Cannot rely on trade secrets.
- Must publish without delay to participate in worldwide open science network
- Cannot exploit directly inventions, must licence
- Most inventions are early stage and need improvements to become economically attractive.

**Patenting is essential to reconcile
publication with innovation**

Why is patenting essential in Universities?

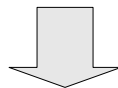
- Patents do not protect discoveries and ideas, but they do protect the investment in the development of applications.
- Even if the University may not consider patents a priority...

... the companies the University wants to collaborate with surely will!

Why is patenting essential in Universities?

Tech Transfer Tools in Universities

- Tool 1: licensing
- Tool 2: spin-off creation
- Tool 3: University/Industry Collaboration



Whichever tool,
IP management is essential!

- Knowledge Transfer from Universities to Industry is an essential part of the Open Innovation process.
- Keeping in mind that knowledge and intellectual endeavour should benefit Society as a whole, Universities may and should get the fair return of their effort.
- Patenting is essential to reconcile publication with innovation.
- Knowledge Transfer activities should be embodied in the University professionally: it is not something the researchers can do in their free time!

- Thank you for your attention!
- Je vous remercie de votre patience!

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