Knowledge Transfer in human science: is it relevant?

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The University of Liège: some figures

- State university grounded in 1817
- 11 faculties
- 20,000 students
- Campus in Liège, Gembloux, Arlon
- Open to the Euregio M-R, and Great Region (Lu, De, Fr)
- 600 professors, 3000 scientists
- University Hospital (4000 employees)
- 400 Mio€ total budget (50% for research)
- 1000 concurrent research contracts (70 FP7)
- 60 Mio€/year direct contracting with companies
- Science park with 100 high tech companies
- 100 spin-off companies grounded
- 25 patents a year – 20 licences a year
What role for a KTO in human science?

- Management, Psychology, Pedagogy, Sociology, Communication, ... is this technology?
- University infrastructures: internet, library, that’s it
- IP management: copyright
- Language: English is not the only lingua franca
- Personal expertise is dominant
- Academics have their own parallel business
- What role can be played by a KTO?
- What kinds of methods can be used?

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What can be transferred?

- Software
- Methods
- Databases
- Knowledge
- Know-how
- Brand
- Image

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Doing business inside the Uni

- Alumni is the main knowledge transfer stream

But

- Pure Contracting and service is possible
- The unit is managed as a SME, inside the University, lead by the head of the dpmt.
- University overheads is 15%, laboratory overheads in addition (administration, telephone, web site, ..)
- University gives administrative support (building, ICT network, contracts of employees, treasury, ...) and controls the global finance situation of the dpmt

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Some exemples

- LECIT team : Ergonomy
  - Human error analysis – Risk prevention
    - Out of procedure behaviours in hospital, in aeronautics
    - How to minimize the risks
  - Design and new technologies
    - Less lethal weapons
    - Impact of 3D imaging in surgery procedures

- SPIRAL Group : Risk Management
  - Risk and Public Governance
    - Social preception of risks (GMO, Nuclear waste, Food safety, nanoparticles
    - Assessment of technology options (biometric passport, people control,..)

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Licensing softwares : classic

- Similar as in engineering
  - Basic method or algorithm has been published
  - The software is not disclosed
  - The KH is inside the software
  - The licensed object is well defined: software, user manual, ...
    on a CD
- What is the shortest way to get the KH for a licensee?
  - Valuation:
    - Time spent to develop
    - Time to recover the development with the updated available
      information
    - Added value in a process
- Innovation Policy: to be one cycle ahead the competitors

Examples of spin offs based on softwares

- Gambit Financial Solutions:
  - Financial profiling of investors: licensed by ULg/HEC
  - Extended to advise investors
  - Optimisation of investment portfolio

- N-Side: process optimisation
  - Algorithm of discrete optimisations licensed by UCL and ULg,
    mainly dedicated to logistics problems
  - Extended by the company to other applications, other markets
    - Clinical trials: optimisation of the supply of drugs
      among the partner hospitals
    - Energy: daily optimisation of production means
    - Steel industry: optimisation of raw materials

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Examples of spin offs based on softwares

• **Assess Group** :
  – Method for assessing the knowledge level after a training
  – 2 softwares licensed by ULg (Pedagogy school)
  – The company has build a full service, using these softwares: advices, assessment of trainees, assessment of employees, ...

• **What transfer model?**
  – The Licence is paid by shares of the company
  – Improvements of the software functionalities are provided by the university; customisation, portability, machine ergonomy is developed by the company

Knowledge, know-how

• Licence on the use of a set of documentation or methods
• With the image of the University in addition

• **Ex: Pragmagora**
  – Change management and innovation implementation
  – Faculty of psychology
  – Licence on methods and use of ULg reputation
  – Scientific and ethic board in the spin off
  – Cooperative company, with external consultants
What are the advantages

• For research:
  – To be close to the needs
  – Enables to do « translational medicine »

• For education:
  – Enables up dated knowledge to be teached
  – Shortens the distance between graduates and companies

• For companies:
  – Having tailor made or new solutions
  – To be backed by the image of the University while human science can cover different realities.

Continuous education

• Companies are demanding flexible education program for there management
• Management schools ... wide offer
• Human science subjects ...
  – Environment impact
  – Sociological impact
  – Risk assessment
  – Mass people behaviour
Thank you for your attention

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