

Seminar on Innovation/2004

MOTIVATIONS AND BARRIERS RELATED TO UNIVERSITY-INDUSRTY COLLABORATION – APPROPRIABILITY AND PRINCIPLE OF PUBLICITY

Pia Hurmelinna
9/15/2004

Background

- Increasing emphasis on getting access to external information
- Industrial R&D more scientific – practicality in university research
- University-industry collaboration:
 - complementarity of know-how
 - non-competitive positions
 - different goals
 - different ways to do things

Incentives of collaboration

- complementary know-how
- complementary resources
- employment issues
- risk sharing
- flexibility

Challenges related to collaboration

- different goals
- different time orientations
- different basic assumptions
- different languages and terms
- different tendency to (radical) changes
- misunderstandings and difficulties in sharing knowledge

Managing the results

- sharing results vs. concealment – compromises in collaboration
- Principle of publicity
 - criticism → quality of research
 - building on previous findings
 - providing "ownership" over the results
- Appropriability of companies
 - barriers to imitation
 - various appropriability mechanisms
 - need for concealment

Managing the results – an example

- ownership and publishing
- owner makes the decisions
 - ownership determined by law and/or through contracting
 - differences among employers and researchers
 - contracting requires attention
- making reasons behind certain actions clear prevents misunderstandings
- new rules provided by legislators

Empirical evidence

- e-mail survey among 49 managers and academics
 - Finland: 11 academics, 13 managers
 - Portugal: 11 academics, 14 managers
 - response rate 62 %
- Open questions
- motivations, barriers and dealing with outputs

Results: motivations

- "actualization/competitiveness" (27)
 - Companies benefit more (12/5)
 - no national differences
- "education with meaning" (19)
 - Universities benefit (acknowledged especially by Portuguese managers)
- "funding" (16)
- "knowledge" (14)
- "information" (13)
- "image" (10)

Results: barriers

- "different needs and objectives"/"attitudes" (15) (especially pointed out by academics)
- "lack of knowledge/experience of collaboration" (11)
- "lack of practical knowledge in universities" (11) (especially pointed out by managers)
- "different time horizons" (10) (Finnish respondents)
- "different language/mental worlds" (9)
- Bureaucracy and confidentiality issues important for Finnish respondents

Results: results of collaboration

- low number of solutions suggested by respondents
 - communication through media (only Portuguese respondents)
 - "internal reflection promoted"
 - "consultancy/training"
- contracting and creating ground rules

Discussion (1)

- sample biased to some extent
- motivations:
 - access to information and knowledge important for Finnish academics – "knowledge-based competition" generally accepted
 - connection of universities to "real life" problems important for Portuguese managers – in Finland collaboration already relatively common
- Barriers:
 - Confidentiality important among Finnish respondents – appropriability strategies more rigid, applied research (?)
 - Lack of experience (e.g. contractual arrangements)
 - Different attitudes etc.

Discussion (2)

- Results of collaboration:
 - questions related to confidentiality, publications, responsibilities, rights and knowledge sharing handled beforehand
 - different ideas related to benefits achieved by the other party – feedback and "productization"

Conclusions – enhancing collaborative actions

- knowledge transfer (individual level)
- knowledge transfer (organizational level)
- internal renewal
- internal renewal of academic curricula
- external support
- globalization

Conclusions

- various incentives and several barriers emerge
- Results of collaboration are in the heart of them both
 - achieving them is a major incentive, but dealing with them may be very challenging
 - E.g. balancing publishing (the principle of publicity) among universities and concealment (needed for appropriating returns) among firms
- Reducing the divergence between academia and industry should not be overly emphasized when searching for solutions – differences are the source of unique results