Intermediaries for Open Innovation and Technology Intelligence

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Talk overview

• The context
  – Open Innovation
  – Technology Intelligence
• The problem
  – Who are they?
• An example of how they could be helpful
  – Kodak European Research
Technology Intelligence is the ‘eyes’ and ‘ears’ needed for Open Innovation

There are 4 perspectives

Mortara et. al, 2009


How would we build a Technology Intelligence system?

Kerr et al., (2006)

Report

Downloadable from:
http://www.ifm.eng.cam.ac.uk/service/books/form_oil09.html
Intelligence is sourced through social networks

- **Published information:**
  
  **Pros:**
  - depth of information
  
  **Cons:**
  - difficult to search (information has to be structured),
  - ‘old’ information,
  - source reliability issue.

- **Information from direct contact:**
  
  **Pros:**
  - ‘newer’ information,
  - easier evaluation of source’s quality,
  - information is digested to accommodate the audience’s needs
  - Tacit.
  
  **Cons:**
  - maintaining and creating networks is expensive,
  - it is difficult to justify the value of networks,
  - it is difficult to make networks explicit (i.e. it seems all down to individuals initiatives and personal contacts).

**TI networks: intermediaries, a key element**

A company can increase the number of contacts whilst maintaining and increasing selectivity.

1) direct the information towards the company
2) diffuse the company’s requirements into their networks.

Mortara et al, 2009
Literature 1/2 - Different terms

- **Agents**
  - Technology transfer agents (Matkin, 1990)

- **Intermediaries**
  - Innovation intermediaries (Howells, 1997; Chesbrough, 2006; Stewart, 2008)
  - Consultants as sector intermediaries (Fincham et al., 2008)
  - Technology Market Intermediary (Tiezke, 2008)
  - Market intermediaries (Lucking-Reiley and Spulber, 2001)

- **Brokers**
  - Knowledge Brokers (Sousa, 2008; Ward, 2009)
  - Specialist Knowledge Providers (Tether et al., 2008)
  - Virtual Knowledge Brokers (Verona, Prandelli, Sawhney, 2006)
  - Innovation brokers (Klerks and Leeuwis, 2008)
  - Technology brokers (Roman and Puett, 1983; Rosegger, 1986; Bryant and Reenstra-Bryant, 1998; Hargadon; 2003; Verona et al 2006)

- **Knowledge/Technology Transfer**
  - Knowledge Transfer Networks (Bond et al., 2004)

- **Knowledge Intensive Business Services** (Howells 2006)

- **Bridger** (Bessant and Rush, 1995; Burt 2004)

Literature 2/2 – Approaches and uses of intermediaries

  - For looking for **inventions**
    - Patent brokers, Licensing agents, Idea scouts, Invention capitalists, Internet marketplaces (also Chesbrough, 2006; Lichtenthaler and Ernst, 2008)
  - For looking for **market-ready ideas**
    - Innovation capitalists that invest in or nurture new ventures for increasing the readiness level.
  - For looking for **market-ready products**
    - Internal and external business incubators
    - Venture Capitalists

- **Yusuf (2008) Intermediating knowledge exchange between universities and businesses**
  - Financial Intermediary, e.g., VC, Business angel, which also add some business knowledge
  - Institutional intermediary which offers incentives and encourages knowledge transfer

- **Tether (2008) Uses of intermediaries by types of sector**
  - Private research organisations
  - Public science-base
  - Universities
  - Government Research laboratories
A case study

Developing technology intelligence strategy at Kodak European Research: scan & target.
(Forthcoming)
Research Technology Management

An approach from SCAN to TARGET

Scan

1. Collection of basic information on a country
   - Country Strengths/Weaknesses

2. Identify intermediaries & setup visits
   - Selection Intermediaries:
     - National level
     - Regional level
     - Research centre level

Target

3. Visits to the targeted country to establish social networks
   - What technologies are interesting?
   - What is their readiness level?
   - How does the research centre appear?

4. Follow-up with interesting research contacts

Collaborations

Mortara et al. (forthcoming)
Triangulation of intermediaries

- What are the strengths of your region?
- What are the most important companies in your region?
- What areas are the highest concentration of technology/innovation?
- What infrastructure is present regionally to support technology transfer?
- We are interested in technology X and Y, which research groups work in this field?

Speak with country experts

- Are there big differences across the country?
- If yes, which are the areas to prioritise?
- Does the conversation with the different country experts coincide with the info in the country document?

Use international networks

- What technologies does this centre do which match our needs?
- What's the cooperation policy of your centre?
- What technologies are interesting?
- What is their readiness level?
- How does the research centre appear?

Each intermediary has a subjective perspective → Bias

Asking several intermediaries helps in achieving a more objective perspective

Mortara et al. (Forthcoming)

Our current project

Understand to structure and deploy their external networks:
- Role of networks in TI systems,
- Problems/solutions in setting up networks,
- How intermediaries help improve TI systems,
- Classifying intermediaries:
  - What types of intermediary exist?
  - How can they help?
  - In what circumstances are they most helpful?

OUTPUTS: Practical guidelines for companies
- Criteria for companies on how to select intermediaries
- Guidance for intermediaries on how to improve their services and how to organise their business models