

Open Innovation and Performance: A Tour Through the Literature

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Overview

Open innovation – Chesbrough’s ‘new paradigm’ or ‘old wine in new bottles’?

Old and well established literature

- Sources of innovation (Gibbons and Johnston, 1971; von Hippel, 1976, Rothwell et al, 1972)
- Absorptive capacity (Cohen and Levinthal 1989, 1990)
- Distributed innovation process (von Hippel, 1988)
- Network-based models of innovation (Powell et al. 1996, Freeman, 1991)
- Technological gatekeepers (Allen, 1977)
- Markets for ideas (Arrow, 1962)

Lakatos – ‘progress’ in science



Is the study of innovation a progressive science?

Vast growth of the field – number of journals, researchers etc. since 1960s birth

Policy ‘conventional wisdom’ – Innovation Nation, Lisbon targets, Obama’s plan for Science and Innovation

Open to:

- Stunning new facts
- Novel experiments
- New sources of data and methods
- More precise predictions
- Limited protective belt – permeability of new ideas

Eclectic community of scholars – economists, management, sociologists, policy researchers, historians, engineers and scientists

The 'hard core' of innovation research

Innovation involves **new combinations** of mostly existing technology/knowledge/skills

Most technical change is **evolutionary**, slow-moving with steady improvements in well established designs and therefore revolutionary or disruptive changes are rare, almost unpredictable and mostly qualitative in character

Innovation is **relational** – across networks and broad sources/partners can increase potential for combinatorial novelty

Investments in innovation are **investments in search** – search with trajectories for new products and processes (first face of R&D) and across different locations, organisations or domains of knowledge (second face of R&D)

The 'hard core' of innovation studies

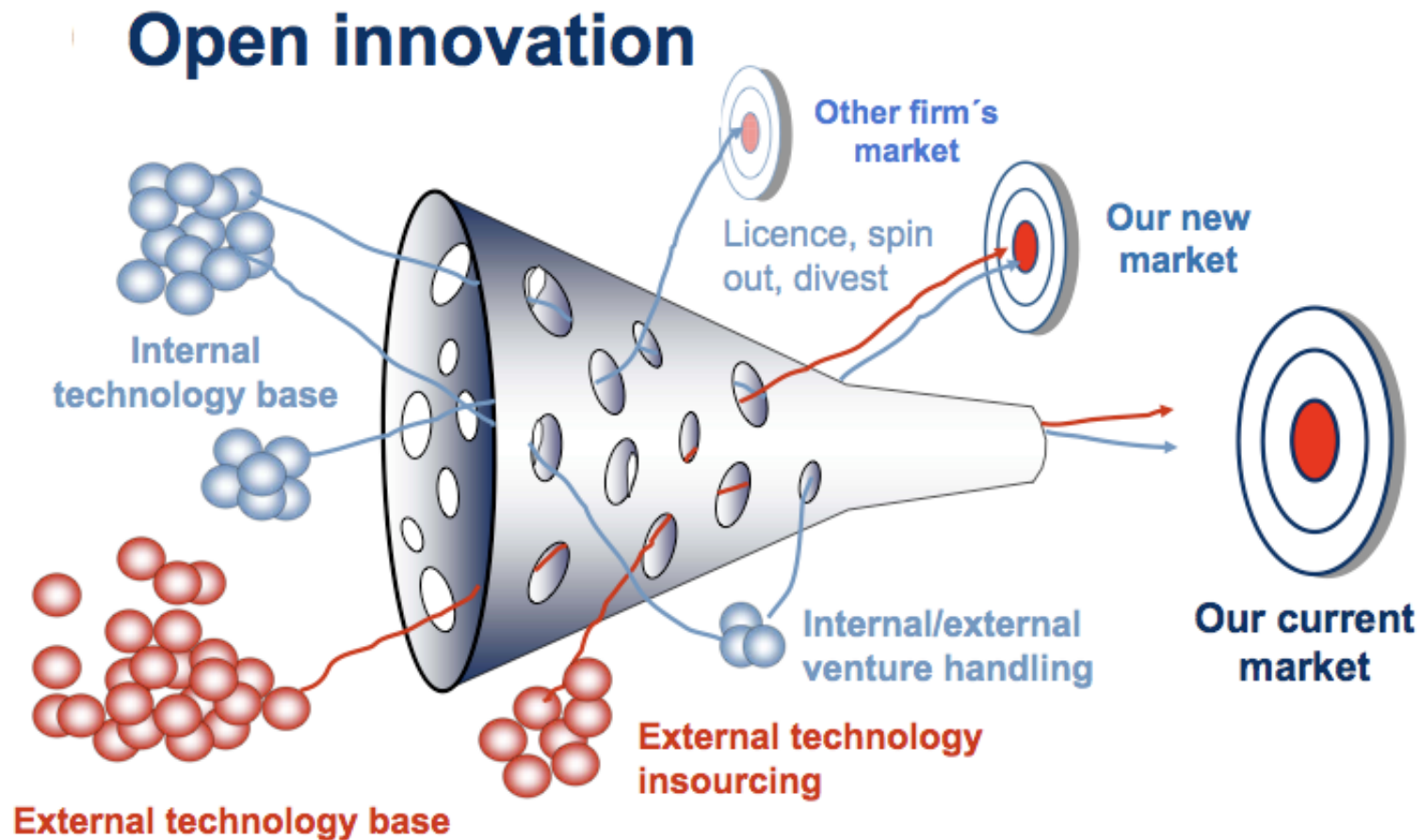
Capturing returns to innovation requires **different skills** creating innovations – profits go to the owners of complementary assets

Innovation is **pervasive** through the economic system

Patterns of innovation **vary** across industry and across lifecycles

Some **organizational routines** for innovation (inter-departmental teams; organic, fluid structures; tolerance for failure etc.) are better than others

Chesbrough 'open innovation'

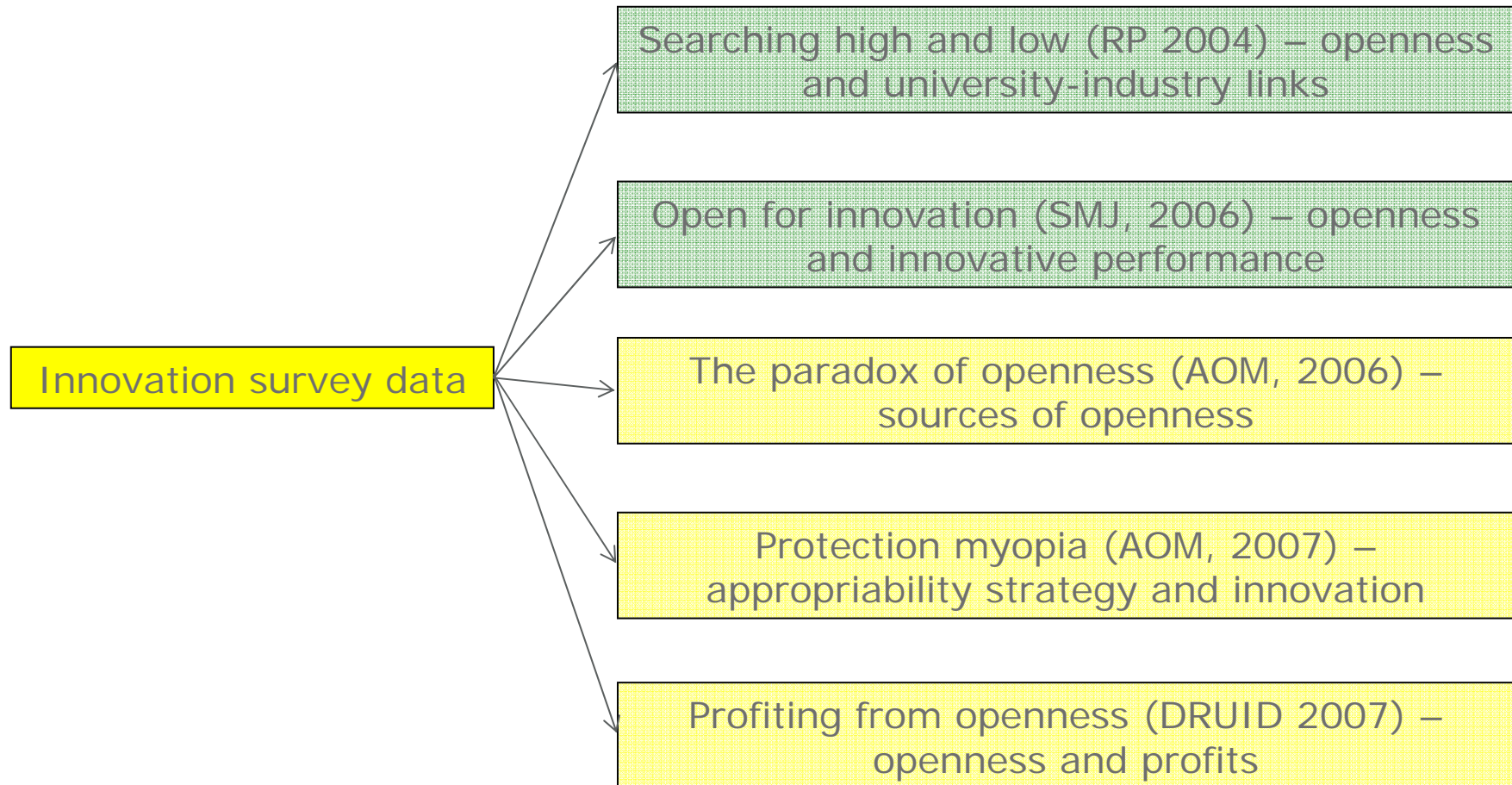


Source: Chesbrough, 2006

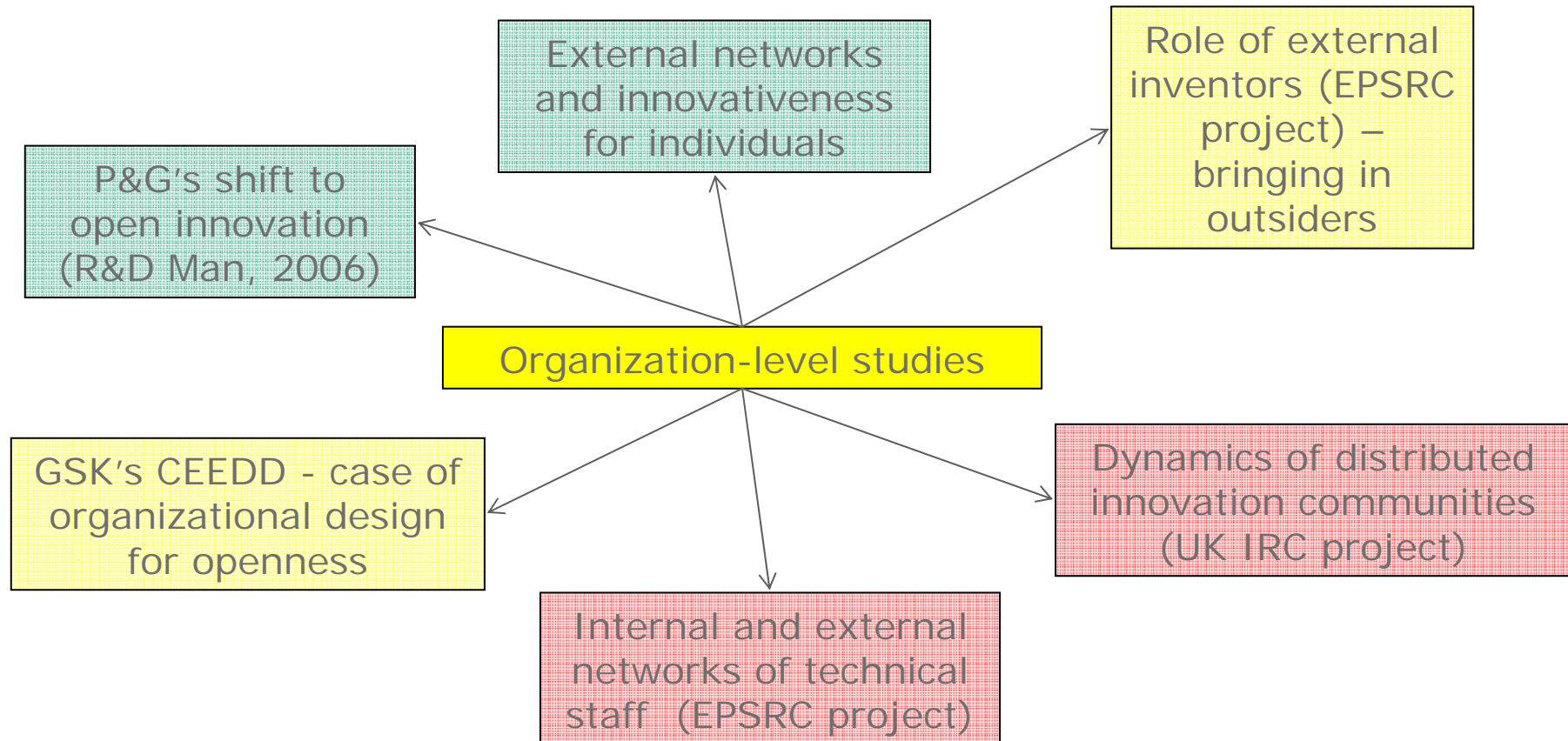
Some auxiliary hypothesis – under threat

- R&D measures innovative effort
 - R&D is an increasingly poor proxy and fails to map on modern economy
- The firm is the central actor in the process of innovation
 - Community-based or network-based models of innovation – open source etc.
- Firms as the manager of the the pipeline – arbiter of good and bad ideas
 - Porous pipelines, external vehicles
- Firms innovate, users consume
 - Users innovative, firms respond to these innovations

Open Innovation and Performance



Open innovation and Performance



Beyond the hype and the hope

‘It does not matter if a cat is black or white, as long as it catches mice’ Deng Xiaoping

Smaller and less important that it seems – we are caught up the ‘tailwind of newness’

The weight of evidence is still with the closed innovators

High skilled ‘closed innovators’ are more common than one would expect or possibly even hope

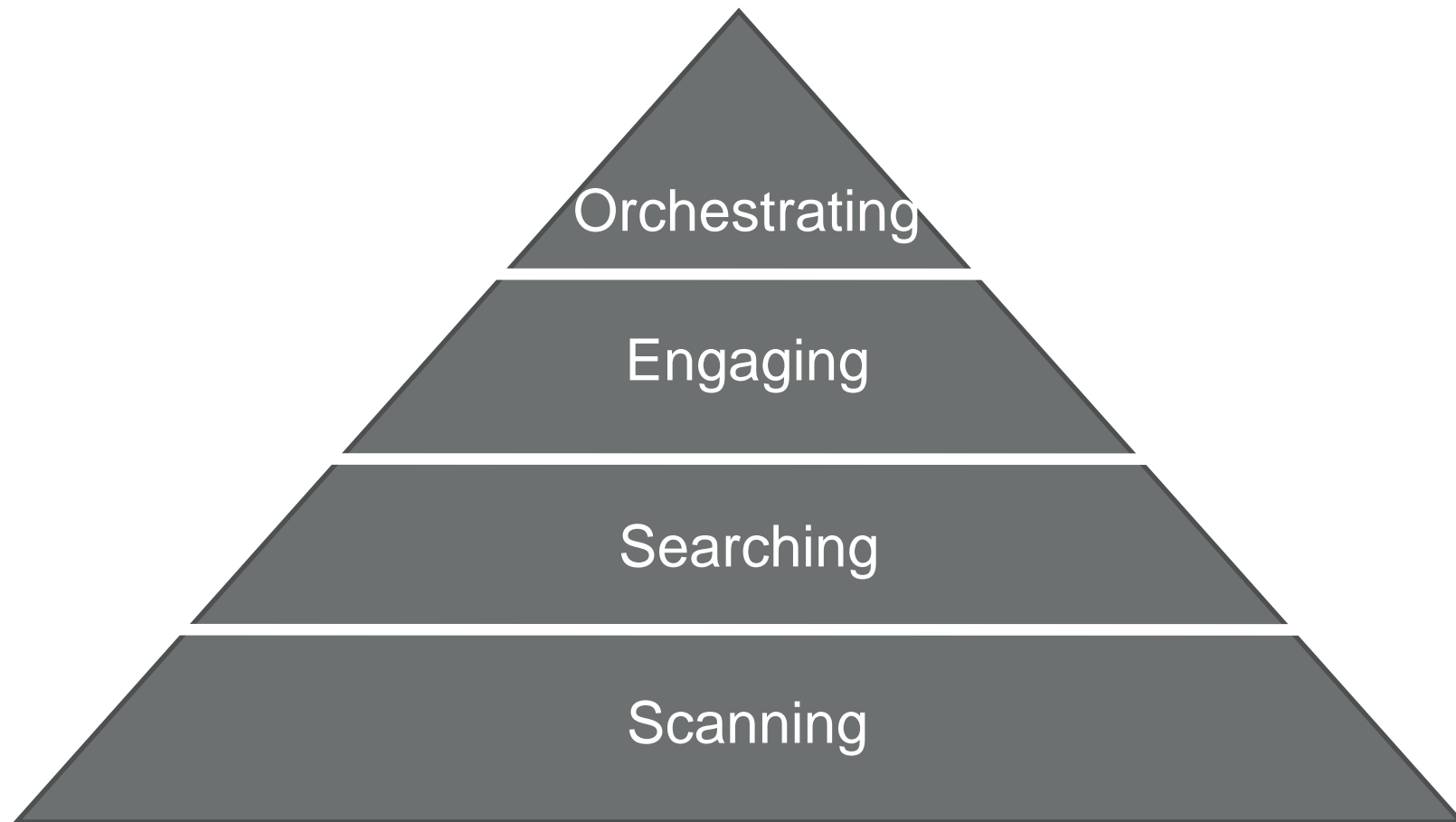
Many so-called open innovators are really ‘closed innovators’ in sheep’s clothing

Those that attempt to do it often do it badly

- Get the organizational design wrong
- Top-down driven exercises
- Incentive conflicts
- Treat external parties in a monolithic way
- End up pulling back, retrenching and closing up



Open innovation capabilities



Research agenda

Costs and benefits of openness

- Firms, units, teams and individuals

Timing and pacing of openness

- When, where, who and how

The integration challenge

- How are external sources coupled with internal knowledge and what are the mechanisms that support fruitful coupling?

Designing organizations for openness

- Integration vs. separation

IP and openness

- Effect of appropriability strategy on openness