




# **Innovation and open standards**

*Standards and Future of the Internet*

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# Future of the Internet?

- **Content perspective**
- **Technology perspective**
- **Social technical perspective**
- **Public good / standards (political) perspective**
- **Legal / IP perspective**

# A Global “Nervous System” as enabling Infrastructure for Open Systems in an Open World

- **Pervasive Network**

- More than 1 Billion People online
- By 2011 – 2 Billion

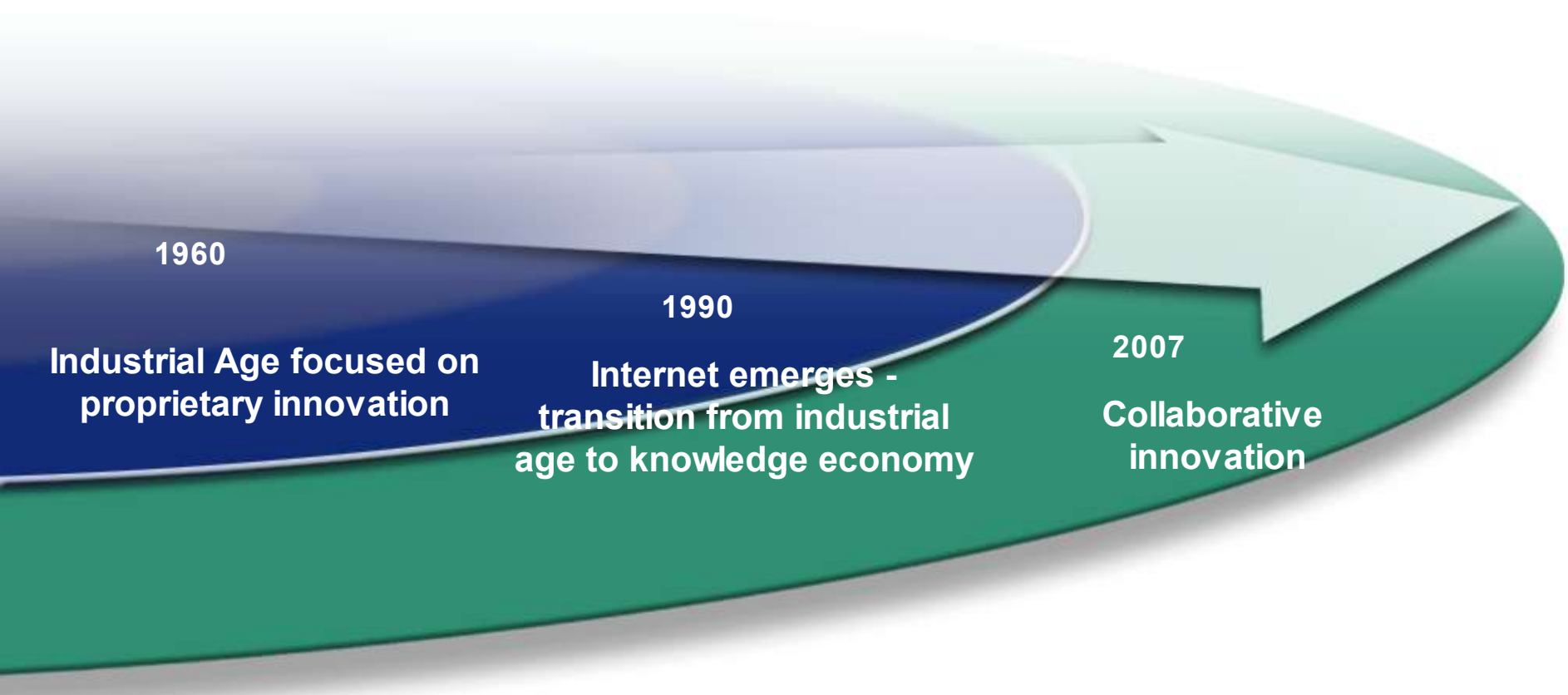
- **Convergence progressing**

- Networks, Media, Content
- Broadband & Multimedia

- **Interactive Capabilities increasing exponentially**

- Web 2.0
- Social Networking
- Virtual Worlds

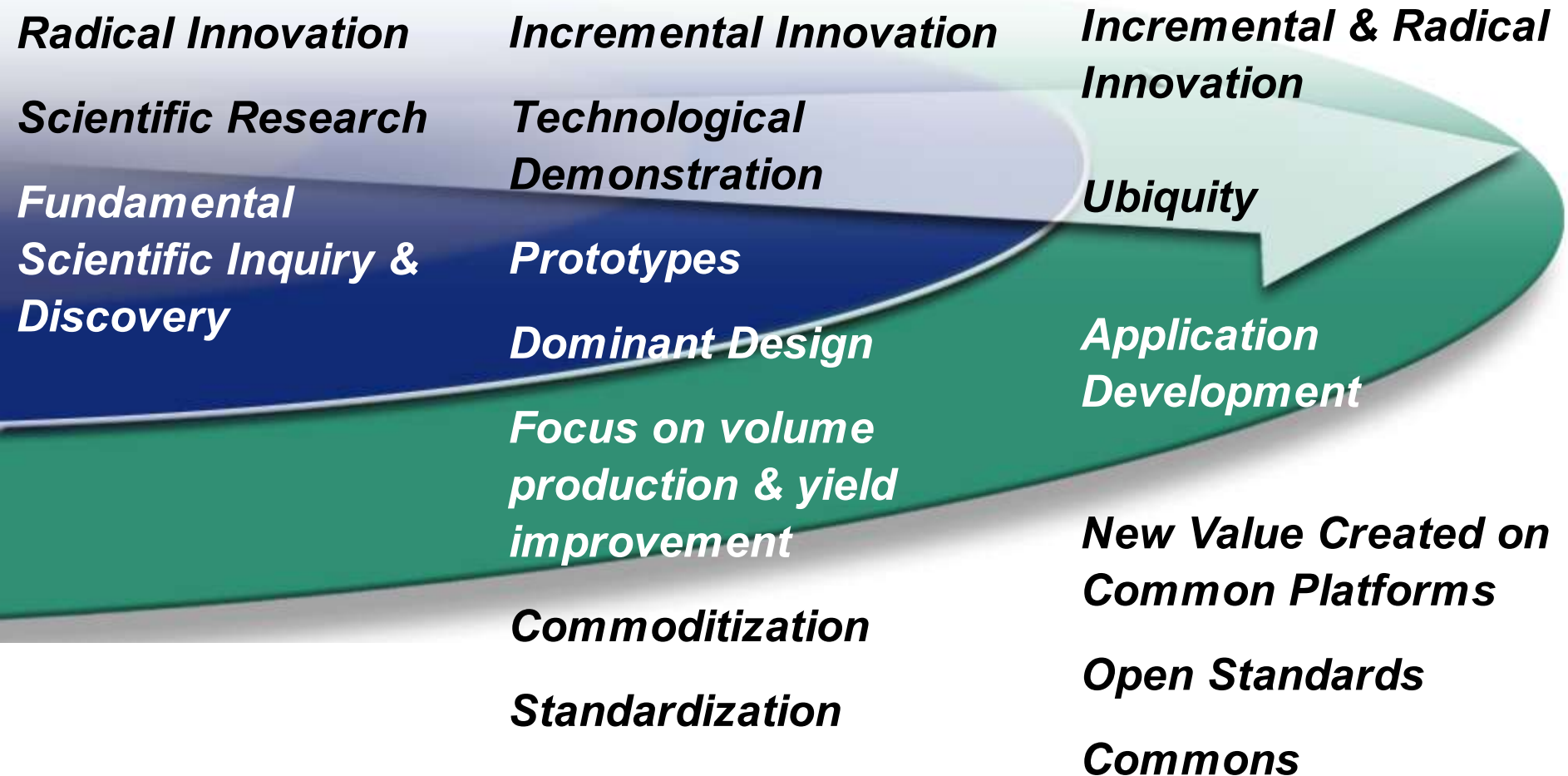
# The Innovation Landscape



## ***Discovery***

## ***Adoption***

## ***Application***



# The Changing Innovation Landscape

*For a Knowledge-Based Economy*

- **Proprietary Innovation**
- **Income through Royalties**

**Proprietary**

- **Collaborative Innovation / Open standards**
- **Interoperability**

**Open**

*A Spectrum of Collaboration and Competition*

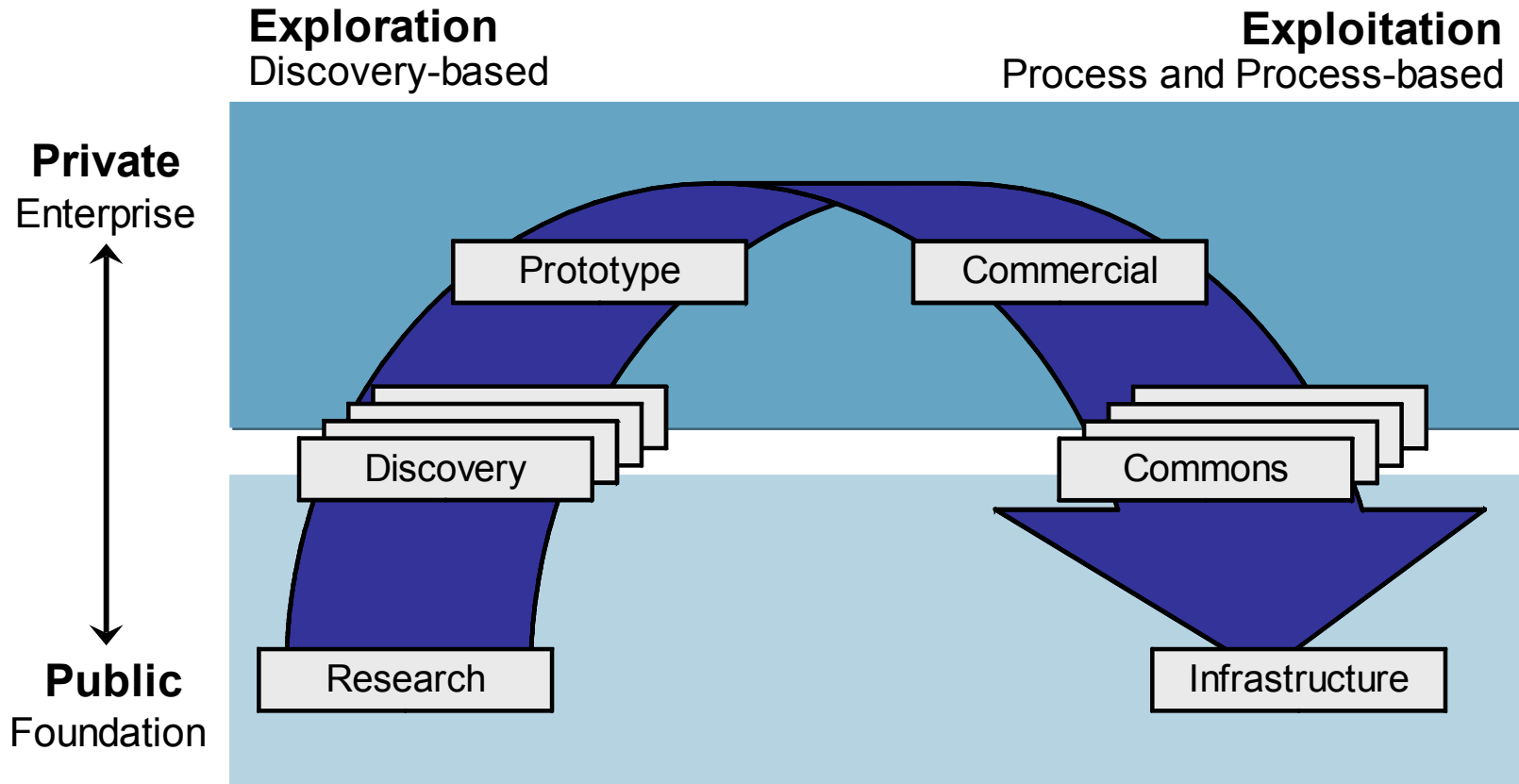
**Patent  
Trolls**

**Patent  
Licenses &  
Assignment  
s**

**Patent  
Pledges and  
Commons**

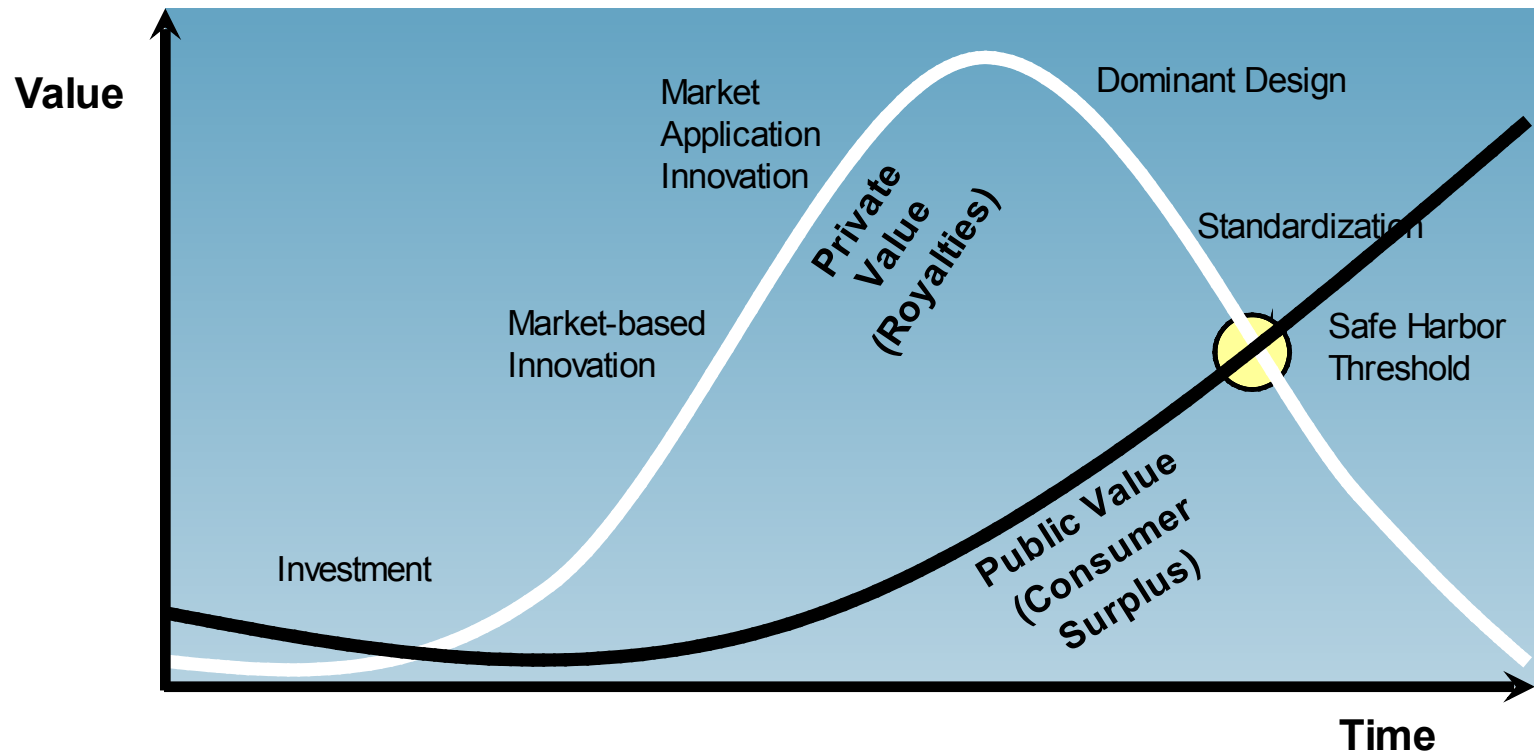
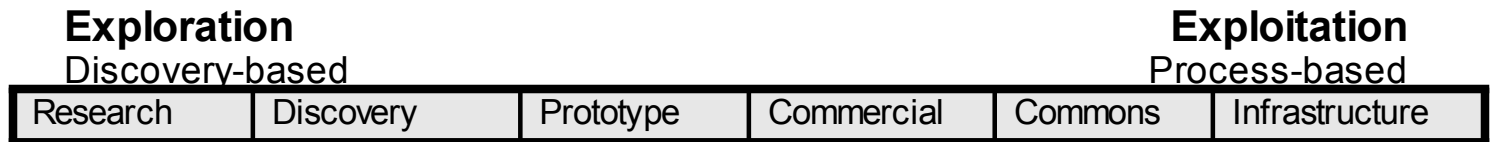
**Open Source  
Software**

# Innovation exhibits a natural progression with distinct phases

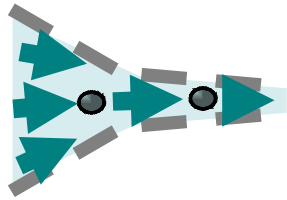


Movement can be accelerated or slowed by factors such as increasing or decreasing investment, market demand, standardization and regulation.

When public value surpasses private value, optimal markets should move assets to the public domain

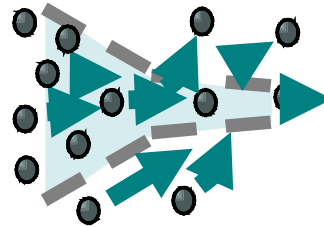


# Innovation moving out of research Labs



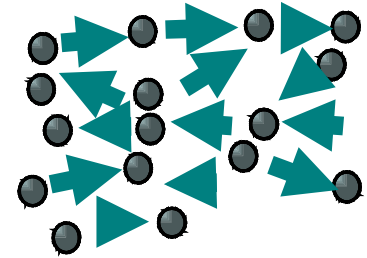
**Centralized  
inward  
looking  
innovation**

**Closed  
Innovation**



**Externally  
focused,  
collaborative  
innovation**

**Open  
Innovation**



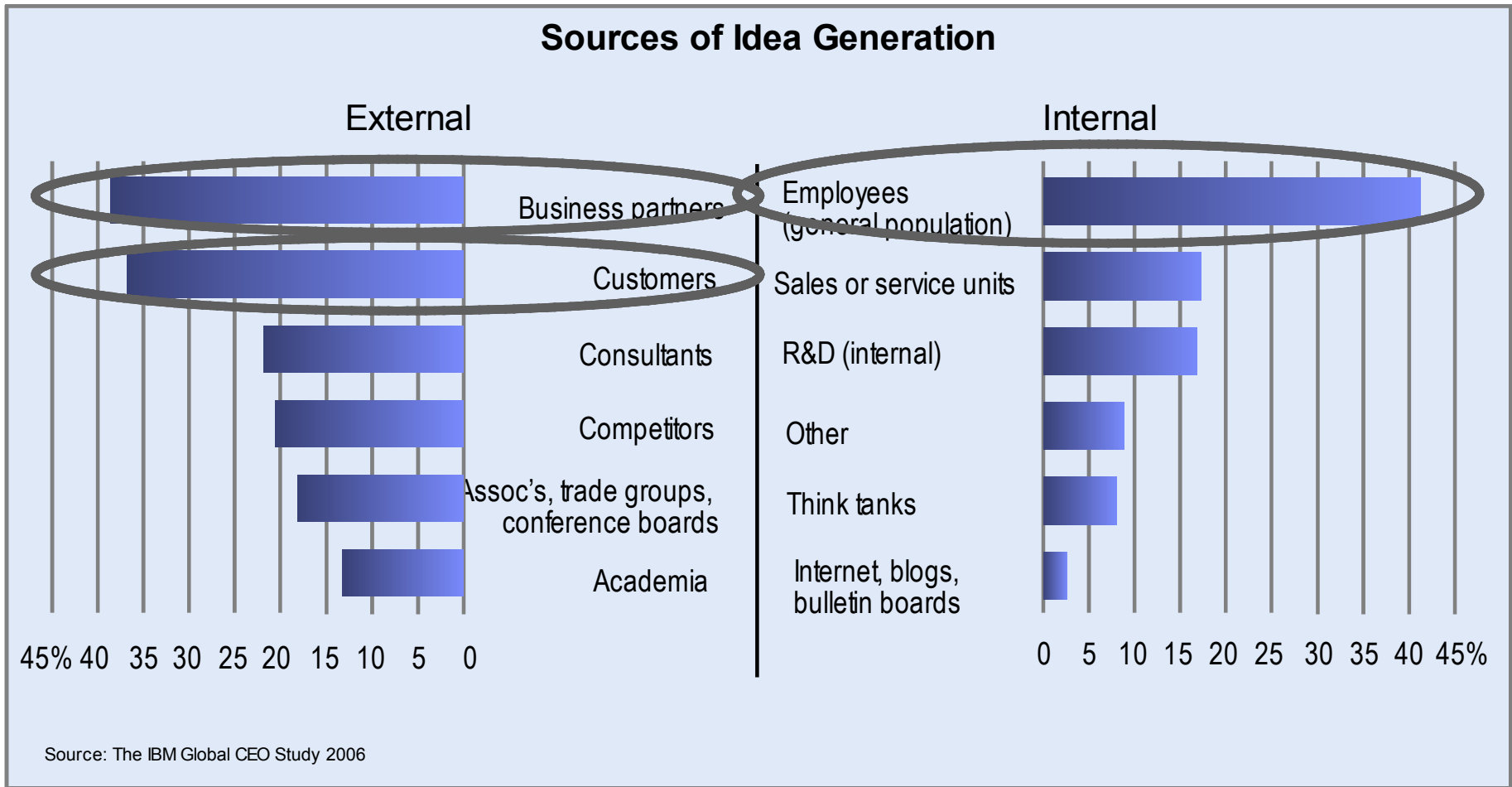
**Ecosystem  
centric, cross-  
organizational  
innovation**

**Innovation  
Networks**

Sources: Chesbrough 2003, Forrester 2004, von Hippel 2005

# Where are the Sources of Ideas and Innovation ?

## Sources of Idea Generation



## Standards and innovation ecosystems

- **Vendor dependant ecosystem**

Walled, perfumed garden

Dominant predator controlled  
(Iansiti's keystone advantage)

Standards as basis for lock-in

- **Open ecosystem**

Unwalled garden  
- analogy to biological ecosystem

Peer to peer – no dominant predators

Advantage through open competition based on open standards