

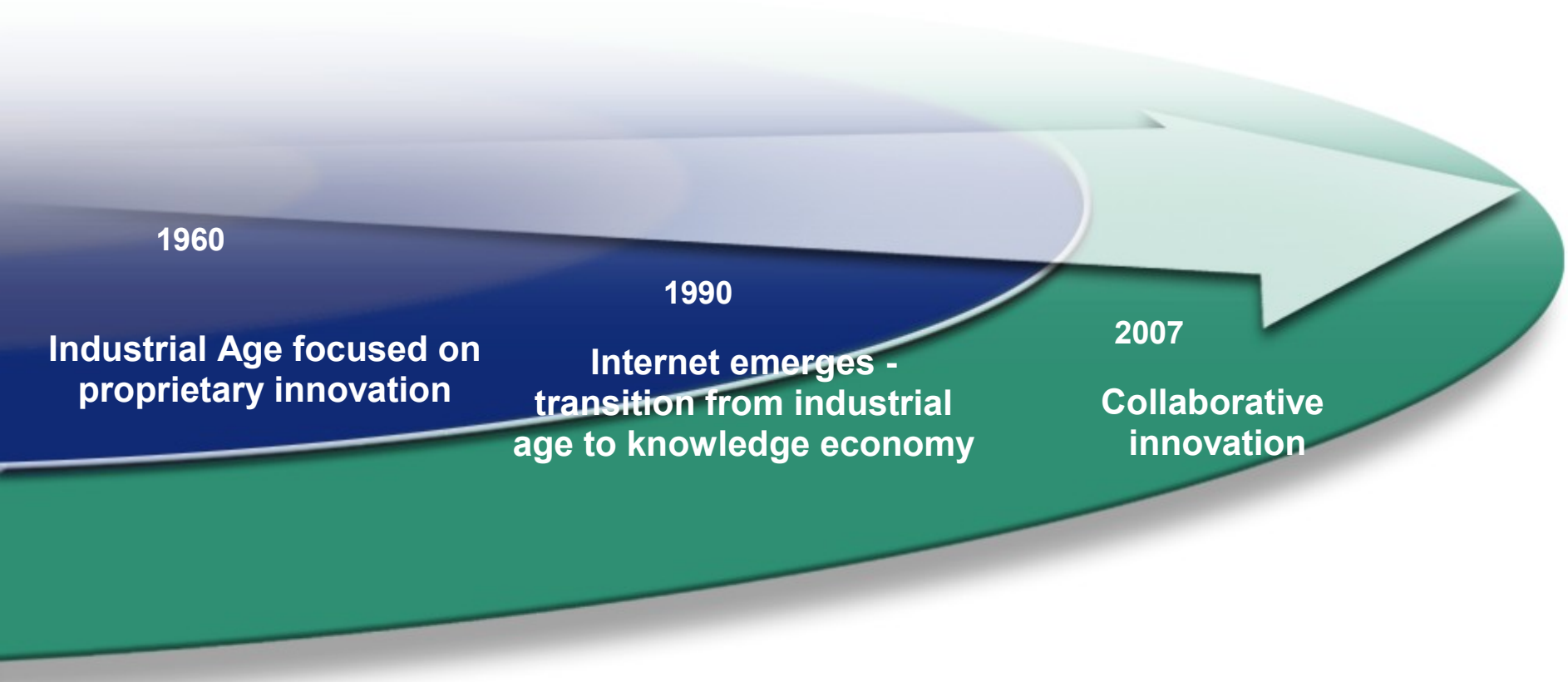
# Intellectual Property Strategy in the 21 Century

*Balancing Open & Proprietary Innovation*



Roger Burt & Jonathan Sage  
IBM Europe

# The Innovation Landscape



# IP Value for Emerging Technologies - Historical Pattern

## Example: The Telegraph

**1774:** Lesage builds first telegraph

**1798:** Salva's Human Telegraph

**1800:** Volta's battery

**1820:** Ampere electro-dynamics

**1840:** Morse patents his code

**1840:** Wheatstone & Cook patent pointing telegraph


**1844:** U.S. Government experimental telegraph line between Washington D.C. & Baltimore. Morse sends the first message

**1845:** Cornel patents Telegraph wire

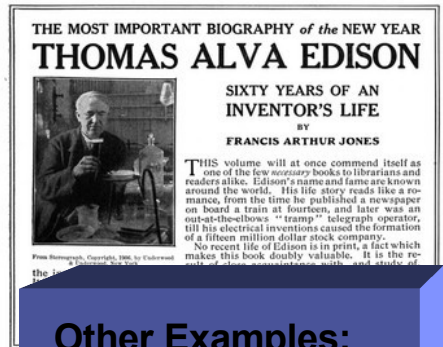
**1846 – 1865:** U.S. Government, Army & Railroads build telegraph infrastructure

**1865:** The International Telegraph Union is founded to set rules and standards for the telegraph industry

**1867 – 1886:** Patenting doubles, Thomas Edison and others develop & patent improvements new applications (e.g., sending pictures over a telegraph, controlling devices via telegraphy)



Samuel Morse



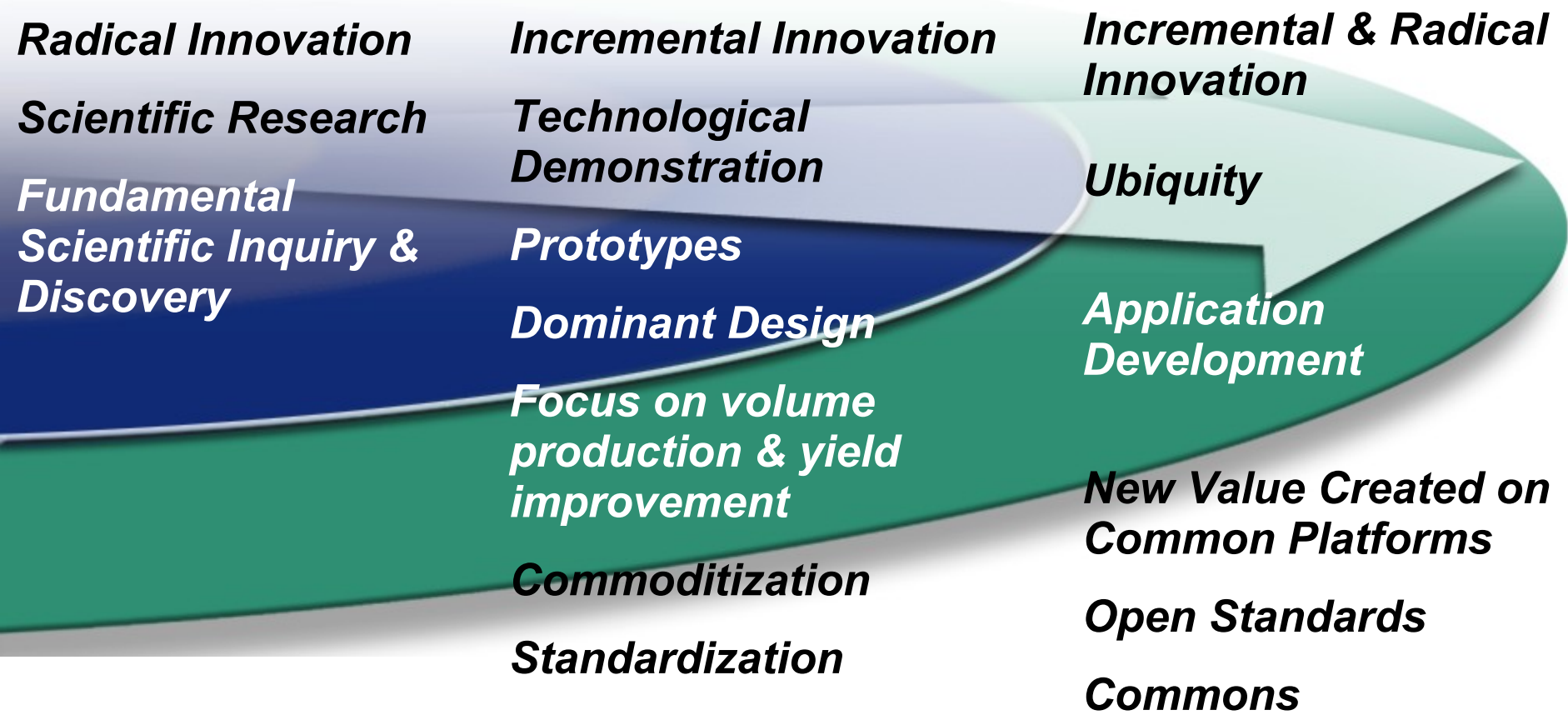
**Other Examples:**

- Automobiles
- Fixed Wing Flight
- Electrical Utilities
- Semiconductors
- Networking

## ***Discovery***

## ***Adoption***

## ***Application***



# The Changing IP Landscape

## *For a Knowledge-Based Economy*

- Proprietary Innovation
- Income and Royalties

- Collaborative Innovation
- Interoperability



**Proprietary**

**Open**

*A Spectrum of Collaboration and Competition*

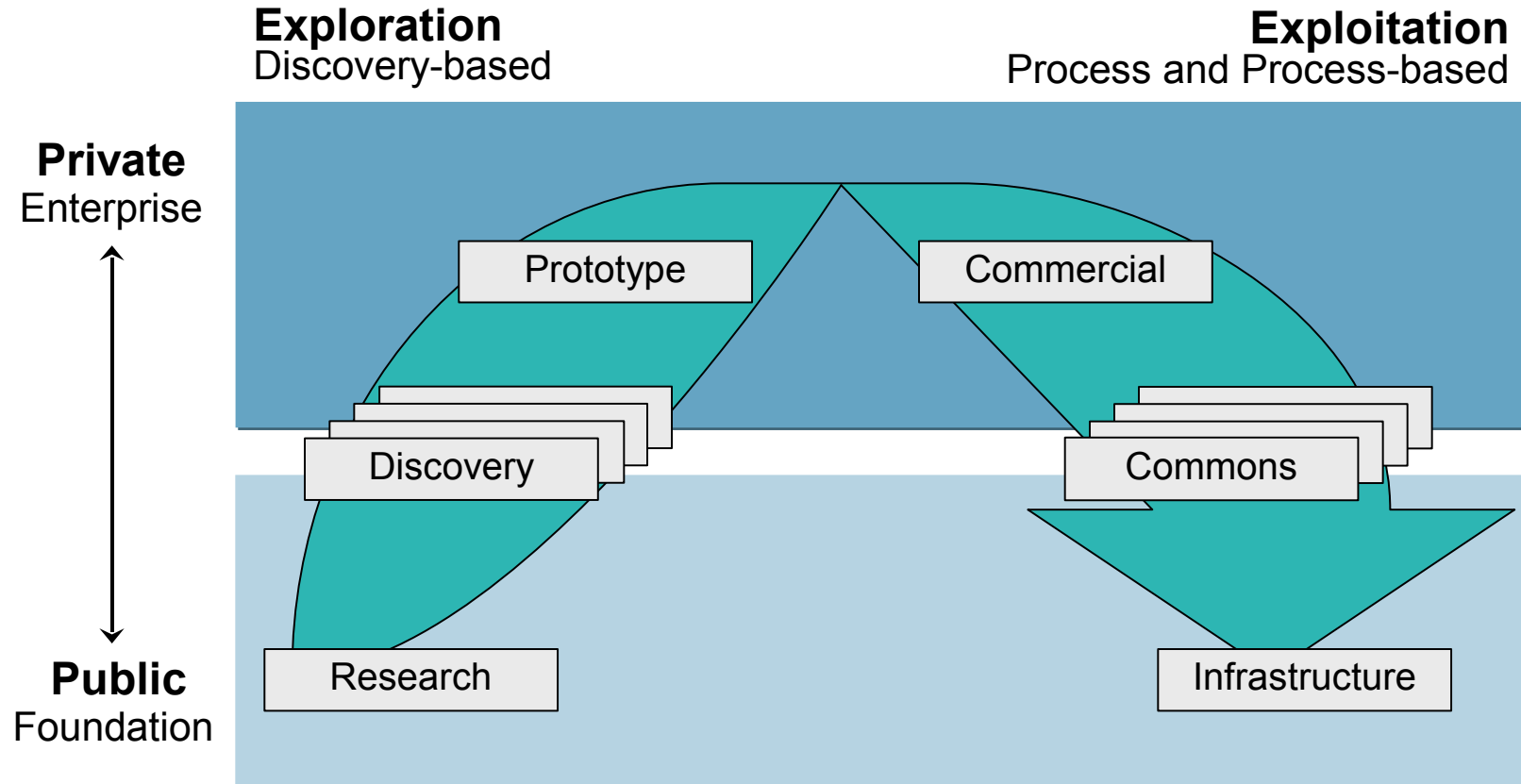
**Patent  
Trolls**

**Patent  
Licenses &  
Assignments**

**Patent Pledges  
and Commons**

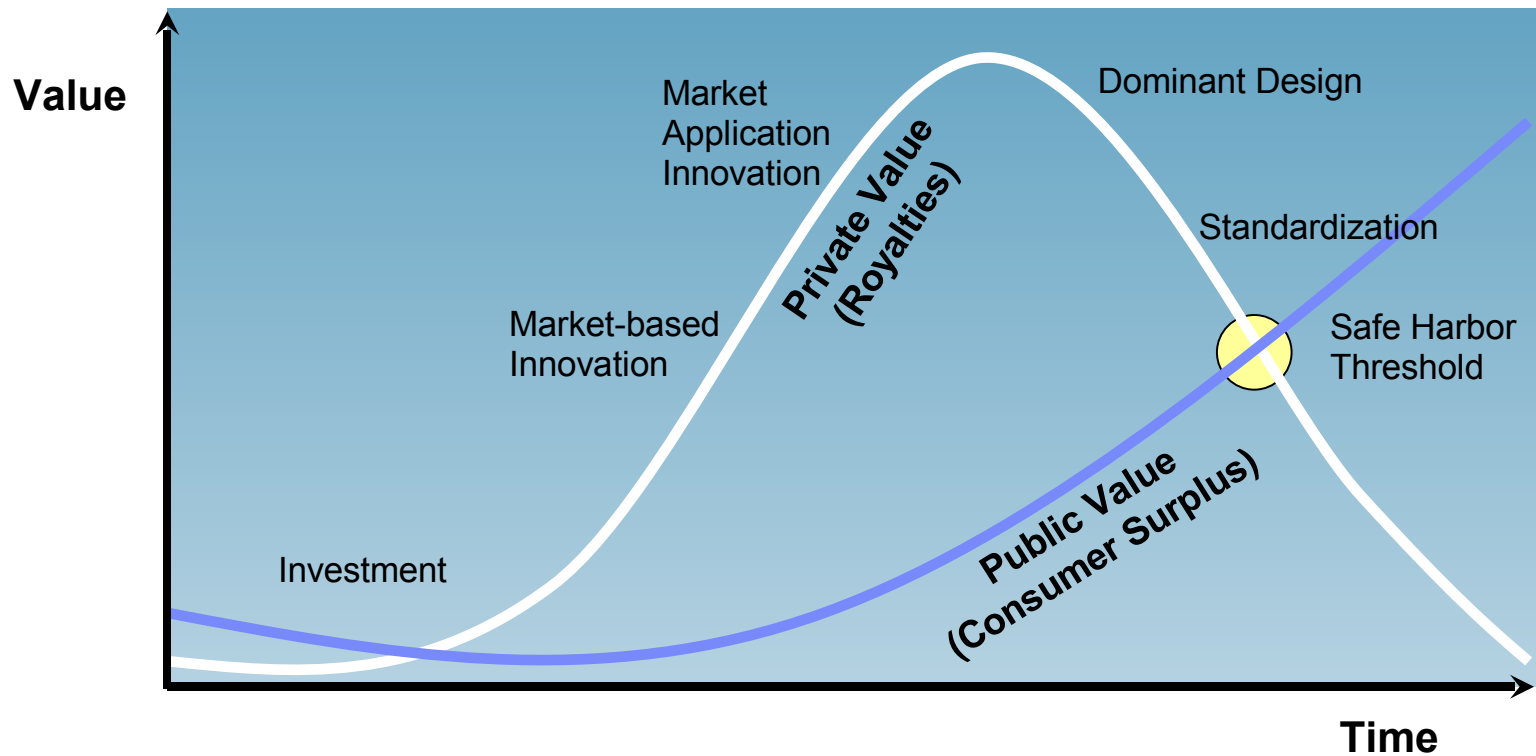
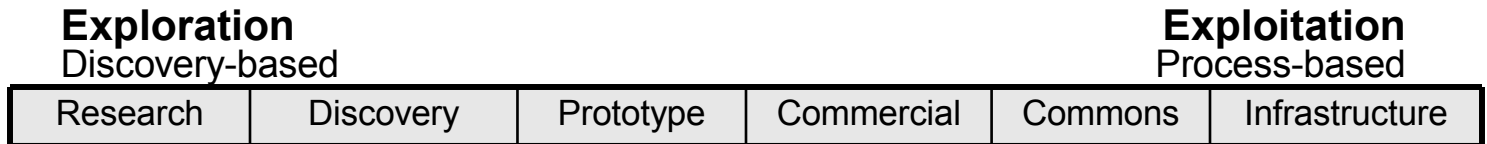
**Open Source  
Software**

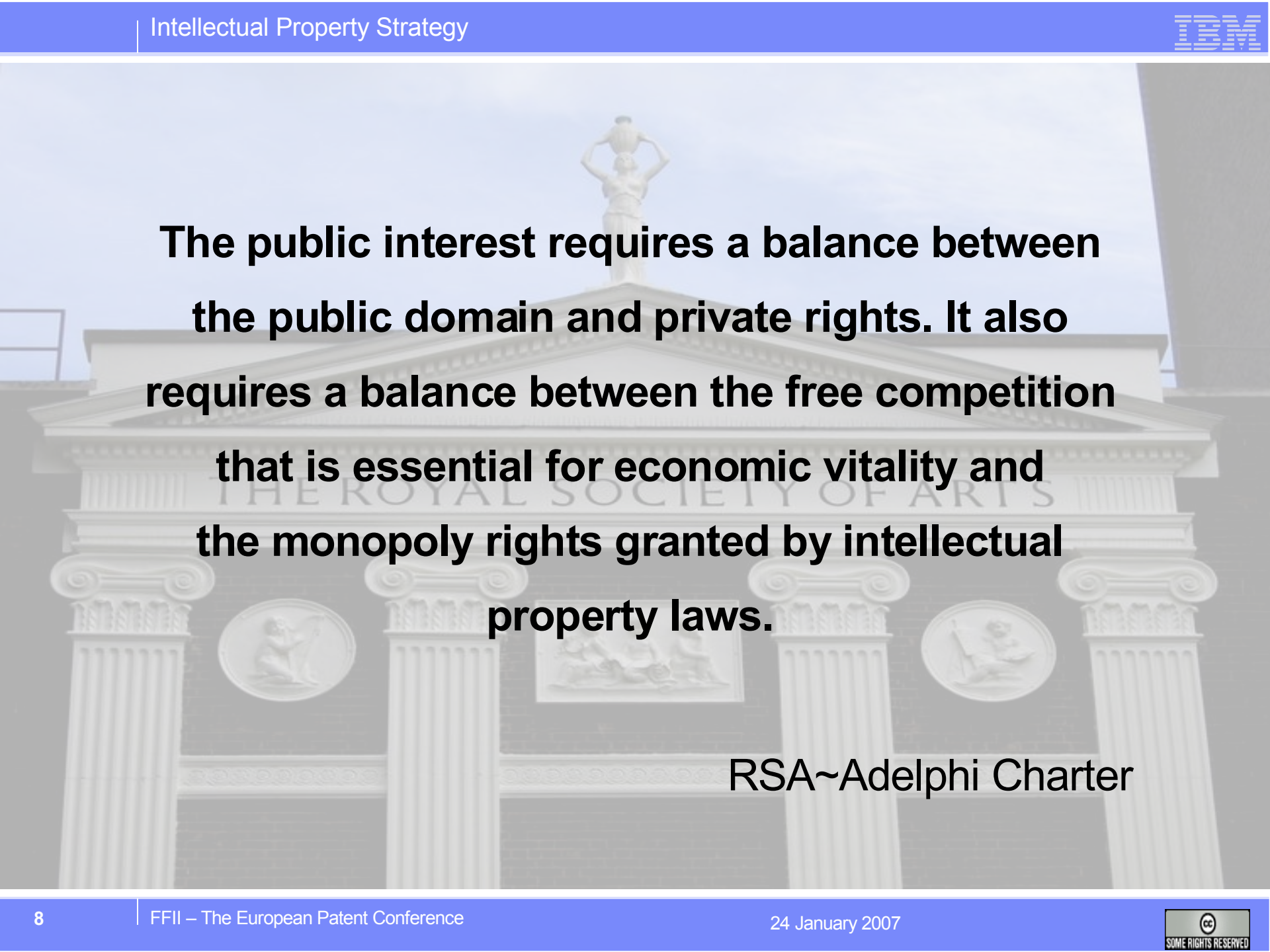
# Innovation exhibits a natural progression with distinct phases



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





**The public interest requires a balance between the public domain and private rights. It also requires a balance between the free competition that is essential for economic vitality and the monopoly rights granted by intellectual property laws.**

RSA~Adelphi Charter

# Enabling Collaborative Innovation

## **IBM Alliances**

**On Demand Innovation Services**  
**Engineering & Technology Services**

## **Patents**

**Patent quality Initiatives**  
**Legislative Reform**  
**Amicus Activity**

## **Universities**

### **University Innovation Summit**

- RPI, Georgetown, CMU, Georgia Tech, Stanford, University of Texas, University of California-Berkeley, University of Illinois, Cisco, HP, Intel, Kauffman Foundation

## **Standards**

### **Standards Leadership**

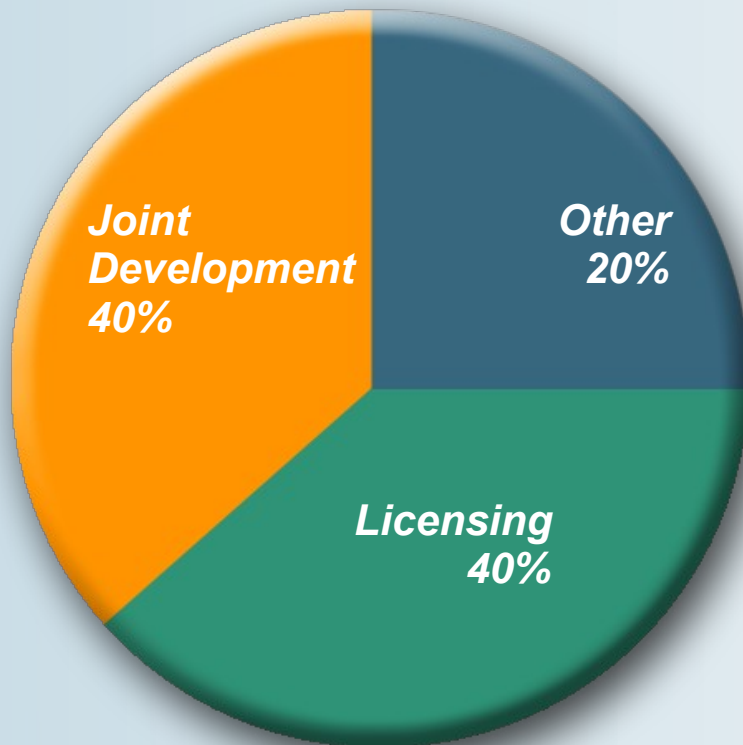
- Open Technologies to Drive Standards
- China Open Standards Focus
- Emerging Market RFID Workshops

### **Patent Pledges**

# IP as a business – sharing know-how



## IBM's IP Business – 2006



### Patent Licensing

- Over 1,100 active licenses
  - Income,
  - Freedom of Action

### Joint Development

- Sony
- Toshiba
- AMD
- Infineon
- Samsung
- Chartered

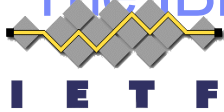
### Know How Licensing

### Open Source Contributions

### Patents Pledges

### Open Invention Network

## The IBM Open Participation Report Card up to 2006/2007

**1998 / 1999****Java, XML**

- Co-led XML4J, W3C DOM, XSL
- Led Apache XML projects Xalan Xerces, SOAP
- Founder XML.org
- Elected OASIS Board of Directors

**2000****Web Services & UDDI**

- Co-author WSDL, SOAP 1.1
- Cofounder UDDI.org
- Author UDDI specification

**2001****Web Services and Tools**

- Led submission of WSDL to W3C
- Founder Eclipse.org
- Co-author W3C XML Schema
- Chair OASIS WS-Remote Portlets TCs
- IBM Web Services Toolkit released on alphaWorks
- Participation in Mozilla

**2002****WS-I, OMA and WS-Security**

- Founder WS-I.org
- Founder OMA
- Co-author BPEL, WS-TX, WS-TC
- Co-author WS-Security
- Co-chair UDDI TC
- Linux contributions to scalability

**2003****Web Services Interoperability**

- Co-chair OASIS WS-Security 1.0
- Submitted BPEL to OASIS
- Co-chair OASIS WS-DM TC
- Submitted CBE to OASIS
- Submitted WS-Manageability to OASIS

**2004****Web Services Management**

- Chair WS-I Basic Profile 1.1
- Co-chair OASIS WS-Notification TC
- Co-chair WS-Resource Framework TC
- Chair OASIS DITA
- Submitted WS-Addressing to W3C
- Contributed UML2 to Eclipse

**2005****Web Services Reliability**

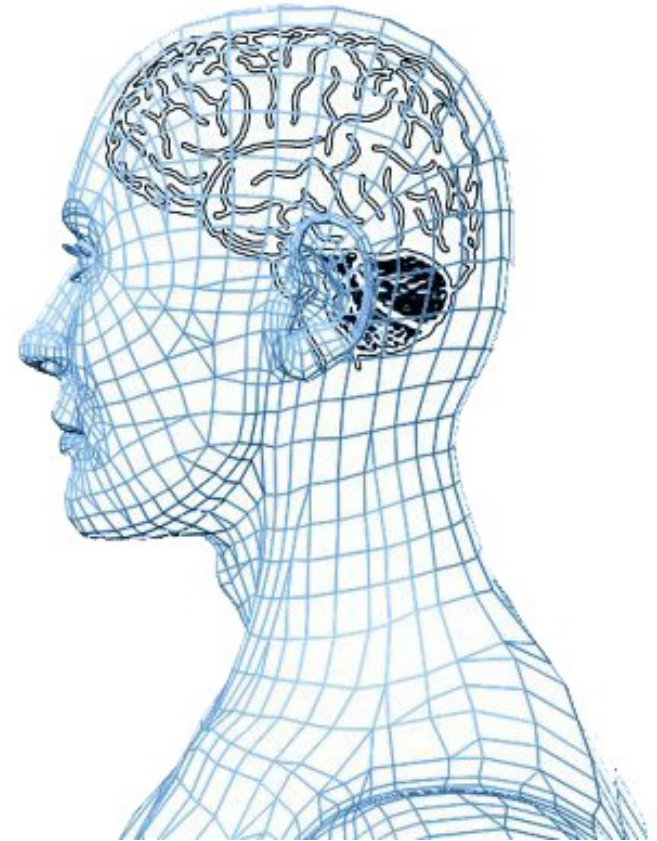
- IBM named chair IETF
- IBM commitment to RF in OASIS
- Co-author & submitted WS-RM to OASIS
- Led OASIS WS-DM and DITA to Standards status
- Database extensions to PHP
- Pledged 500 US patents to OSS
- Purchase of Gluecode



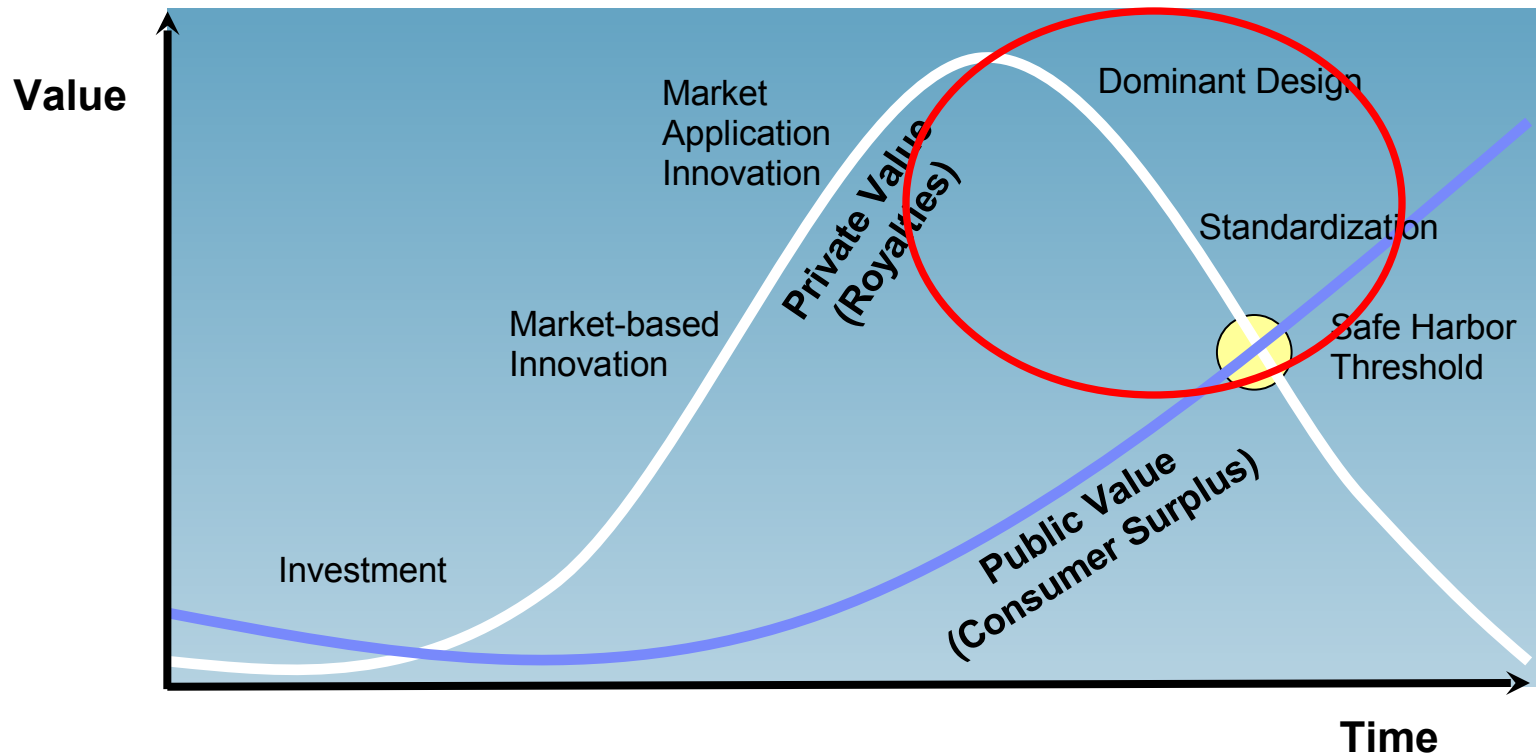
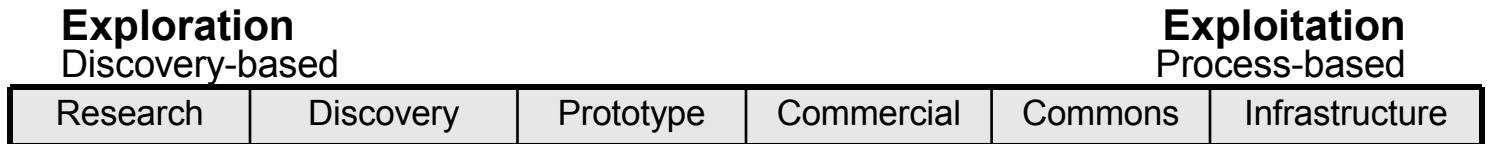
## Questions in European context

***How do you balance public interest with innovation and economic vitality?***

***How can we improve the European patent system, in terms of making sure that patents reflect real invention, are transparent in the process of granting and ownership – while keeping costs at a reasonable level?***

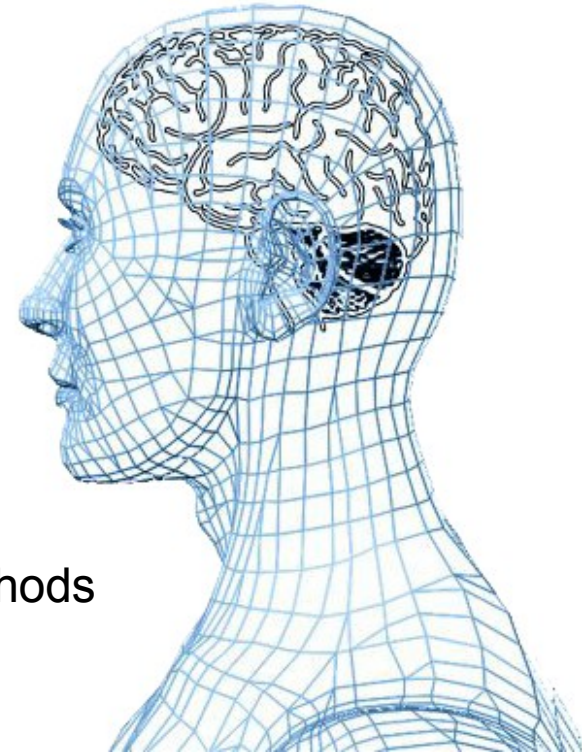


# Ex ante disclosure of patents – legal requirement



# Improving patent quality & reducing uncertainty

- **Patent Quality Initiatives happening globally**
  - Community Patent Review
  - Open Source As Prior Art
  - Patent Quality Index
- **Amicus (friend of the court) Activity**
  - Phillips – precision in claim interpretation
  - eBay – balance in awarding injunctions
  - Metabollite – technicity requirement for business methods
  - KSR – raising the bar on non-obviousness
- **Patent Holder's Code of Conduct**
  - Upholding the patentee's side of the shared responsibility



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