



Development of Innovation Strategy and Patent Systems

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IBM Asia Pacific

innovatie
innovation рационализаторство
innovazione 创新 革新
inovação καινοτομία
innovación 혁신
innovation

The world as it was: Industrial Age (1970's)

- **GDP (1970):**
 - 1.04 trillion USD (US)
 - 0.52 trillion USD (JP)
- **Typical Industry: Auto Industry**
- **ITC technology:**
 - ▶ Magnetic disk storage
 - Size: 14 inch disk
 - IBM 3330 Capacity: up to 1.6 Gbytes
 - ▶ Semiconductor chip
 - Components per chip: 200 transistors/cm²
 - ▶ Communication speed: 300 bps (Modem)



The world as it was: Industrial Age (1970's)

- **Development model:**
 - Vertical (IBM S360)
- **Product development and life cycles:**
 - Very long (5 to 10 years)
- **Product architecture:**
 - Integral (Autos, Photo Copier, Medical equipment)
- **Key words:**
 - Competition, Closed, Analog, Stand alone
- **The number of patent applications filed in 1970:**
 - ▶ JPO: 130K
 - ▶ USPTO: 100K
 - ▶ EPO: N/A
 - ▶ SIPO: N/A



The world as it is today: Information Age (2008)

- **GDP (2008):**
 - 14.3 trillion USD (US)
 - 5.6 trillion USD (JP)
- **Typical Industry: Software industry**
- **ITC technology**
 - ▶ Magnetic disk storage
 - Size: 0.85 to 3.5 inch disks
 - IBM DS8000 Capacity: up to 1000 terabytes
 - ▶ Semiconductor chips:
 - ▶ Components per chip: 40 million transistors/cm²
 - ▶ Communication speed:
 - 100M bps (FTTH: Fiber-to-the-home)



The world as it is today: Information Age (2008)

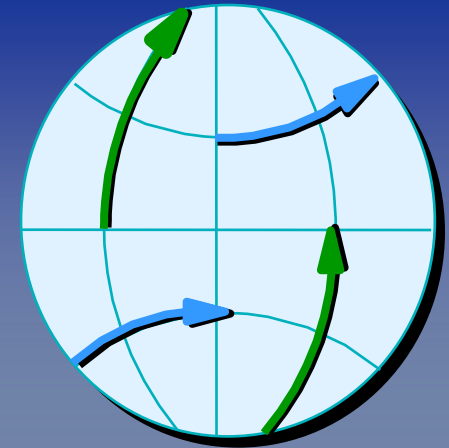
- **Development model:**
 - Horizontal (Personal Computer)
- **Product development and life cycles:**
 - Short (sometime less than a year)
- **Product architecture:**
 - Modular (DVD players, Flat panel TV, PC)
- **Key words**
 - Collaboration, Interoperability, Network effect, Open standard, Globalization, Internet, Outsourcing, Open, Multidisciplinary, Green products
- **The number of invention patent applications filed in 2008**
 - ▶ JPO: 391K
 - ▶ USPTO: 466K
 - ▶ EPO: 147K
 - ▶ SIPO: 290K



ThinkCentre M58e, Lenovo

The Nature of Innovation is Changing

- It's occurring more rapidly
- It's more global and requires wider collaboration across multiple disciplines, specialties and borders often involving cultural diversity and language
- It is becoming more open

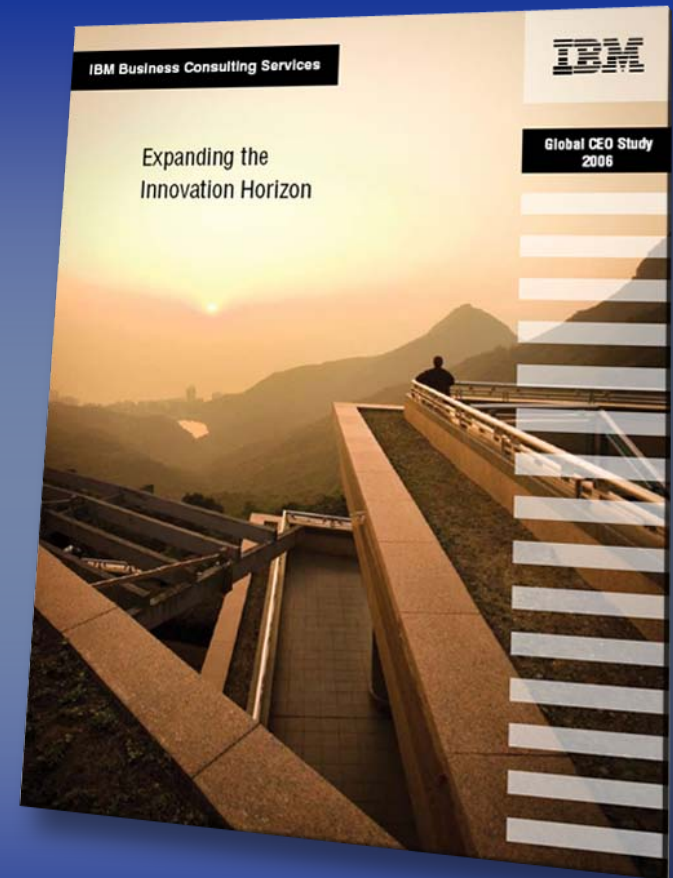


We have been changing our business model

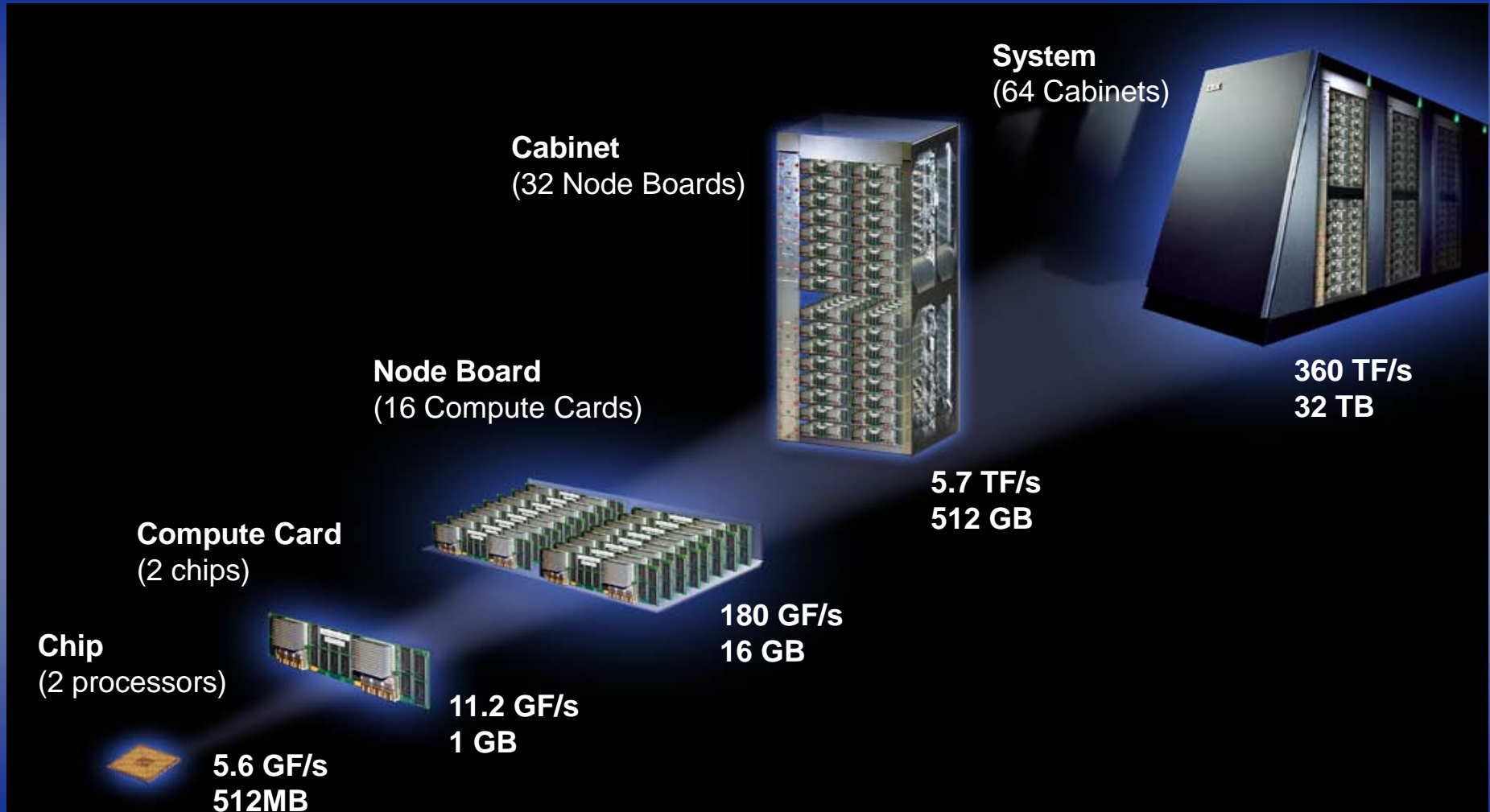
■ We have been evolving our product development model

- ▶ Proprietary
- ▶ Worldwide collaborations on today's technologies (semiconductor development)
- ▶ Worldwide collaboration on tomorrow's technologies
- ▶ Open source product developments

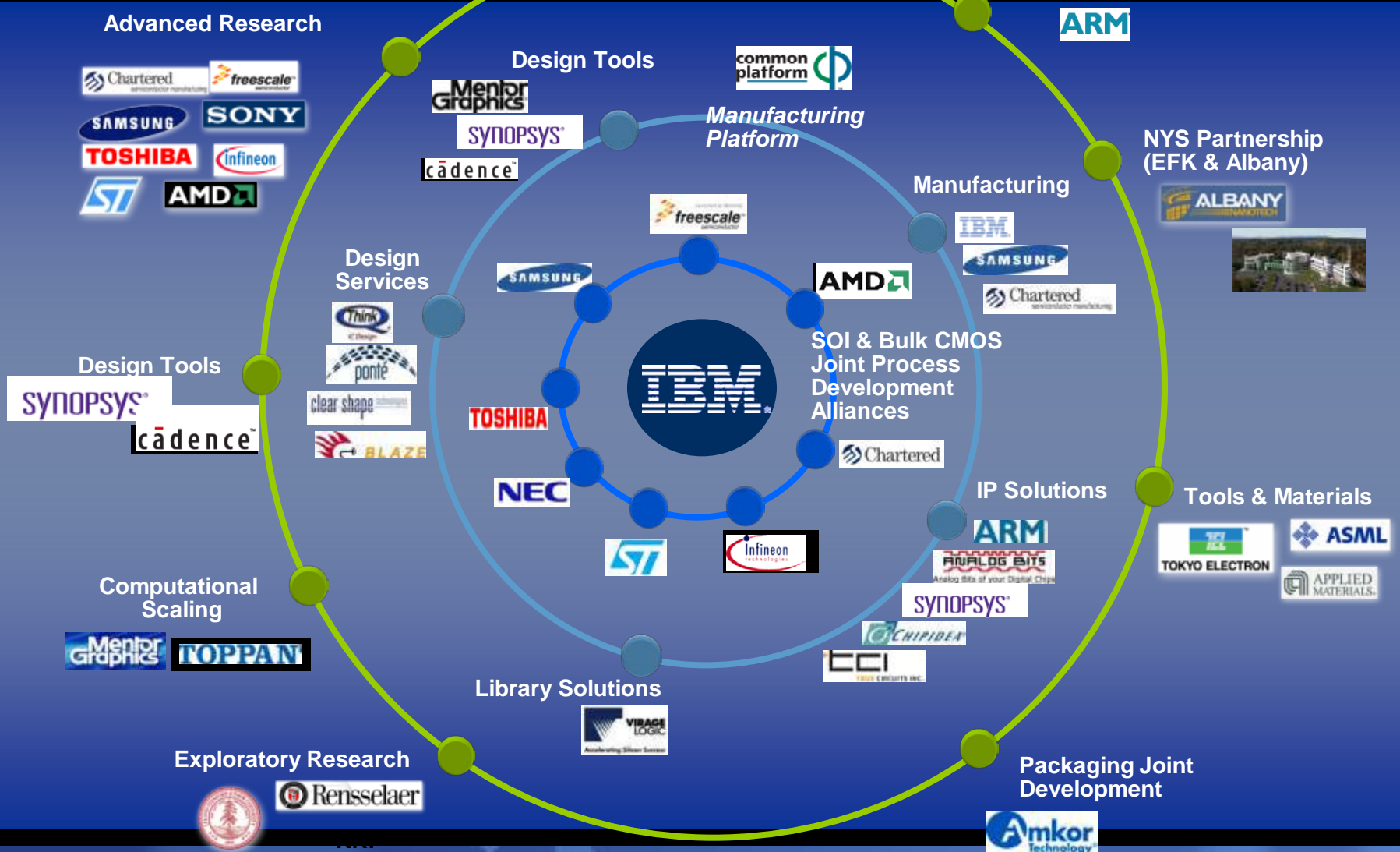
■ IBM Smarter Planet Initiative



IBM Blue Gene Supercomputers



Collaboration – semiconductor development



Extending the horizon of technology development



Participation in open communities

- Open Source Communities
- Open Standards Committees
- Patent Commons



Eco-Patent Commons



IBM Smarter Planet Initiative



Our world is becoming
INSTRUMENTED



Our world is becoming
INTERCONNECTED



Virtually all things, processes and ways
of working are becoming
INTELLIGENT



Innovation Opportunities



Smart traffic systems



Intelligent oil field technologies



Smart food systems



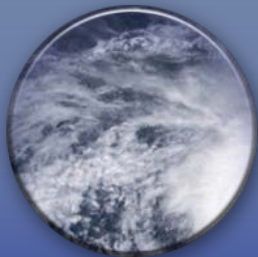
Smart healthcare



Smart energy grids



Smart retail



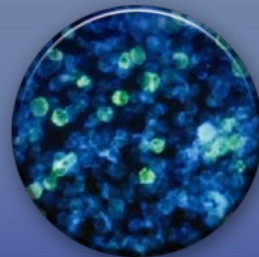
Smart water management



Smart supply chains



Smart countries



Smart weather



Smart regions



Smart cities

The intellectual property landscape has changed



Proprietary

- Closed
- Income and royalties

Open

- Collaboration
- Interoperability



62+ IP Centric Companies Identified... and Growing



Ronald A. Katz Technology Licensing, LP



IP systems – protecting and encouraging innovation

■ Balancing the IP rights

- ▶ Promoting proprietary innovation
- ▶ Promoting open innovation
- ▶ Promoting balance between open standards and IP rights

■ Possible solutions

- ▶ Public policies
 - promoting open standards
 - promoting adoption of clear and reasonable IPR policies
 - Enforcement of IP rights
- ▶ No Automatic Injunction – eBay test
- ▶ License of right (LOR)



IP systems – protecting and encouraging innovation

■ Harmonization of IP systems

- ▶ Reducing overlap efforts - patent offices and applicants
- ▶ Predictability in patent examinations for patent owners and third parties

■ Current undertakings

- ▶ Trilateral Offices, IP5, Examiner Exchange Program,
- ▶ PPH, Triway, New Route
- ▶ PCT Reform discussions
- ▶ Common Application Format (CAF)
- ▶ Electronic Exchange of priority documents
- ▶ Sharing prosecution history and prior art information
- ▶ Community Patent Review (CPR)
- ▶ Patent Quality Index (PQI)



Summary

- The nature of innovation is changing very rapidly.
- IP development, procurement, and utilization have become an essential part of the business models for many companies.
- Robust and balanced intellectual property systems are needed to protect IP rights and encourage innovation



Thank You

ご静聴ありがとうございました