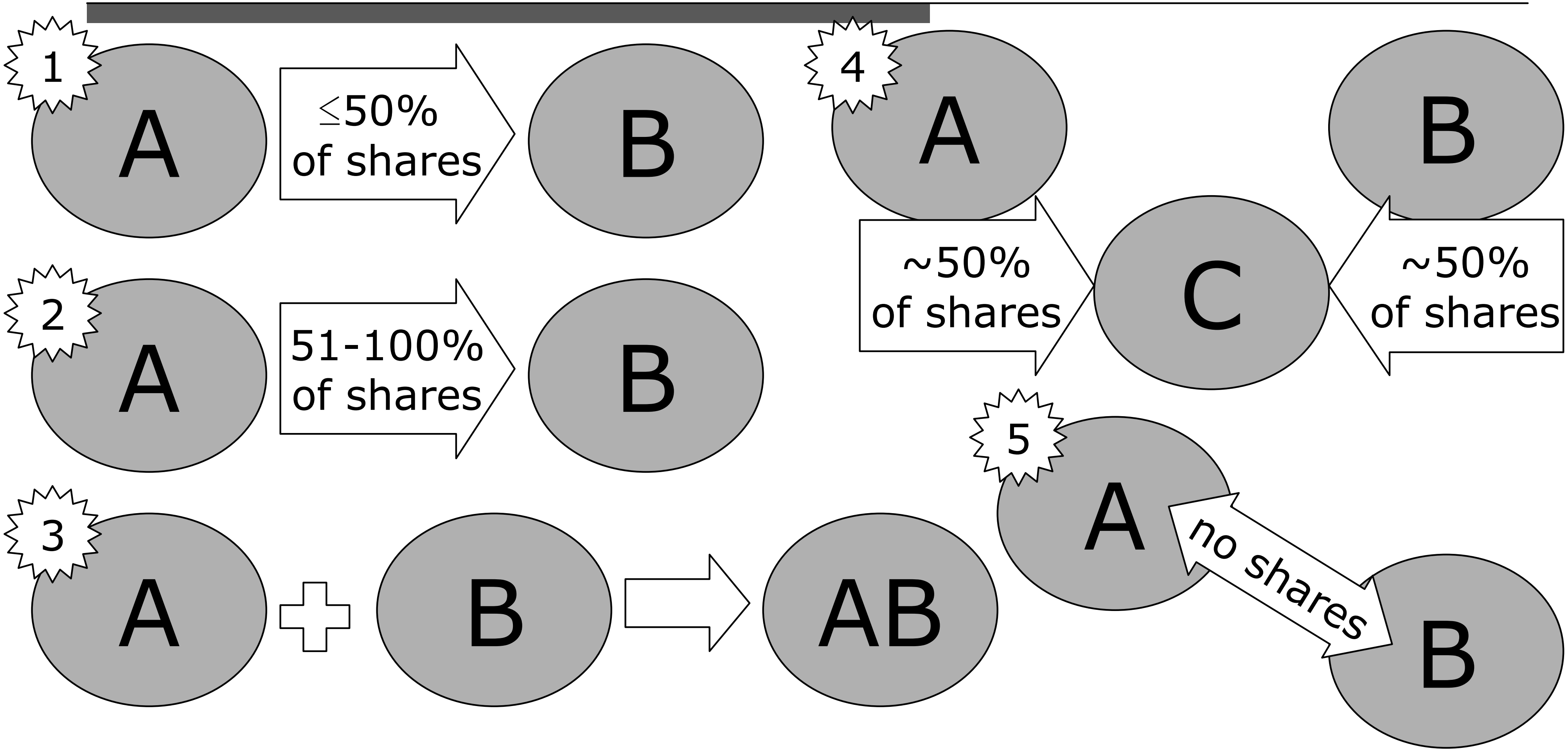
Strategic alliances

and their role in the management of technology

dr. Krzysztof Klincewicz
Graduate School of Innovation Management

Tokyo Institute of Technology

Basic terminology



( ) Non-equity alliance ( ) Merger/fusion ( ) Joint venture

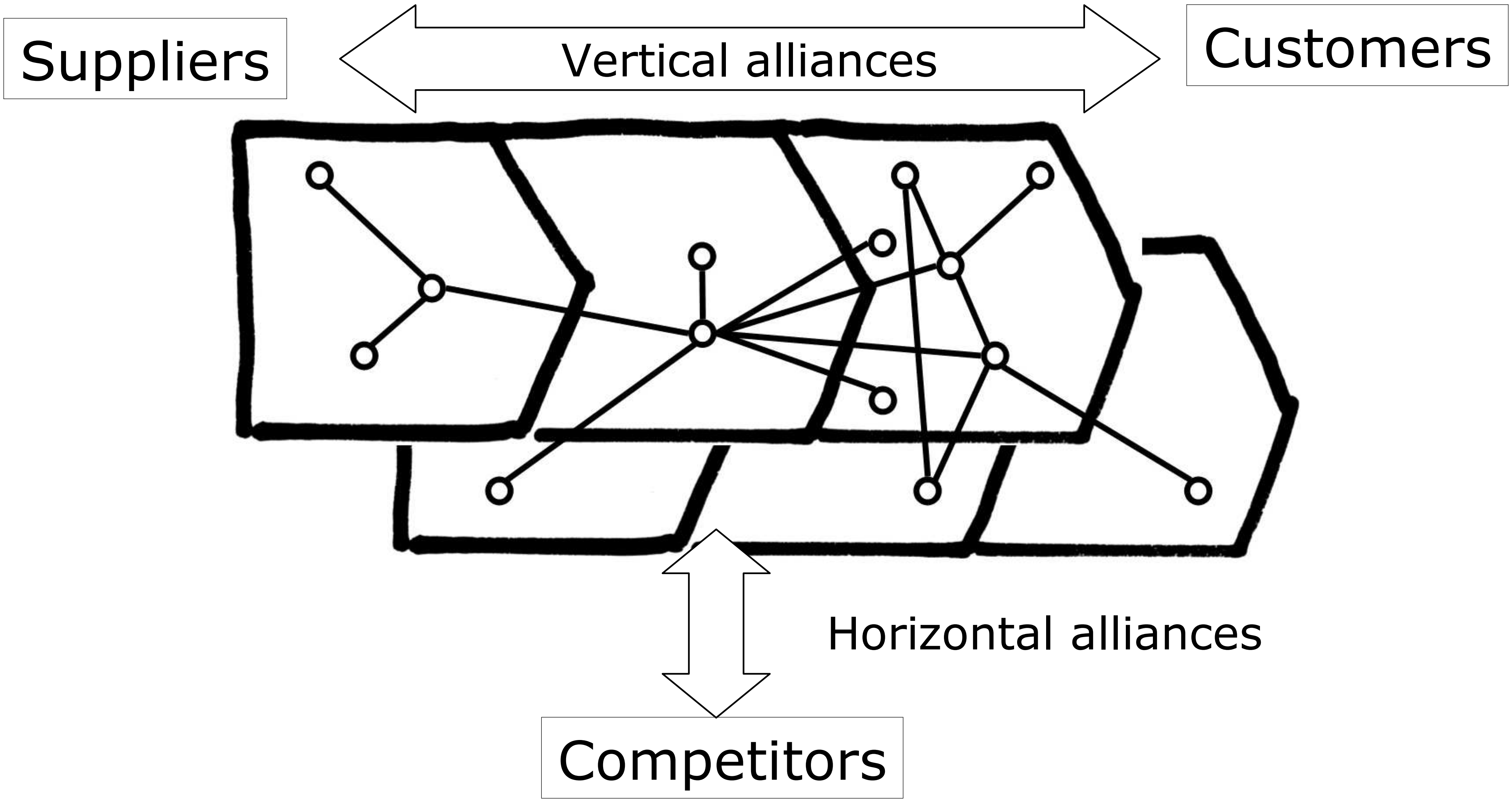
( ) Acqusition/take over ( ) Minority investment

Definition

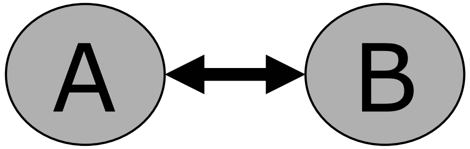
- Alliances are institutional arrangements, which combine resources and governance forms of several partnering organizations, making them mutually interdependent (Inkpen 2001)

1. institutional arrangement
2. combining resources
3. combining governance forms
4. several organizations
5. mutual interdependence

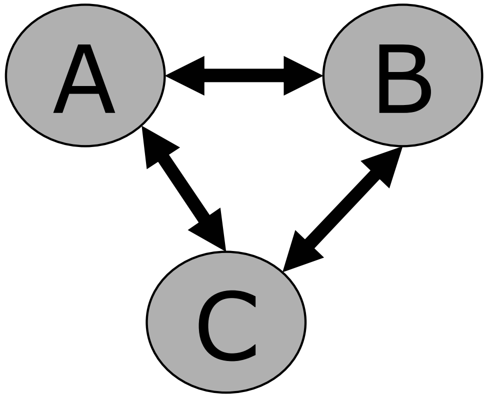
Vertical and horizontal alliances



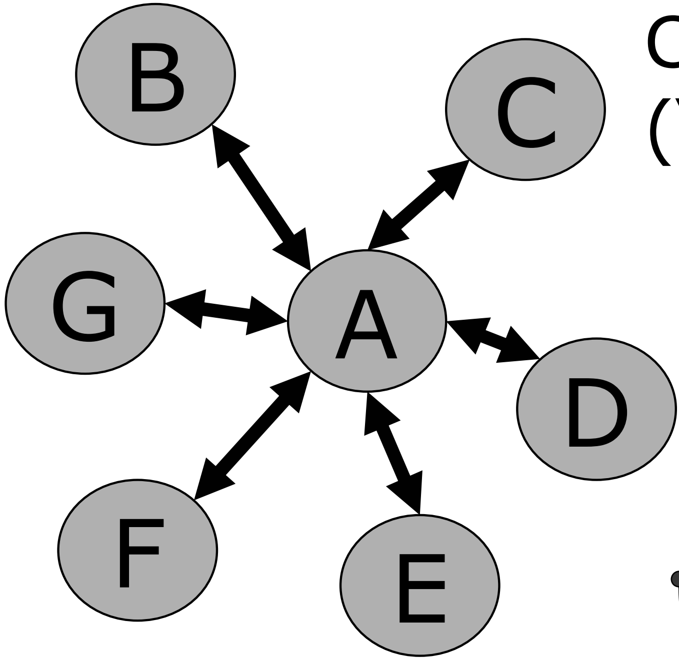
Alliancing structures



Dyad (2)

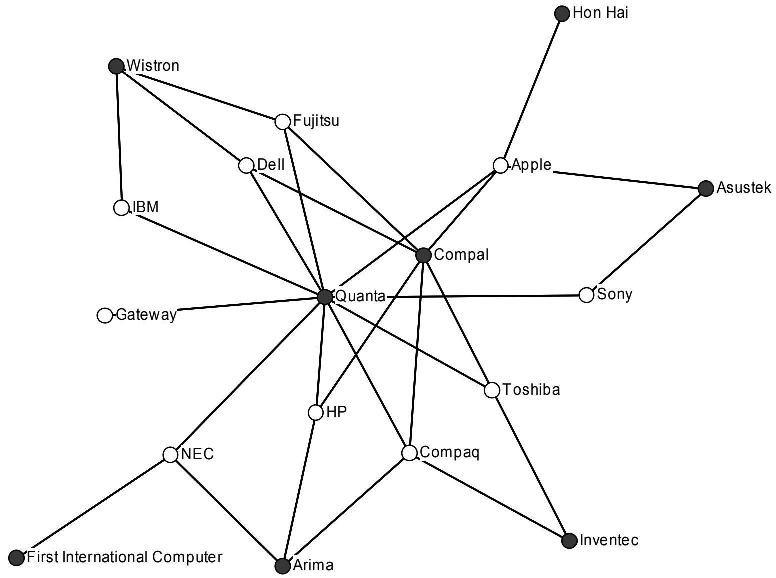


Triad (3)



Constellation
('A' in the centre)

Network
(complex links)



Forms of alliances

- Industry consortium
- Technical training
- Supplier agreement
- Technology licensing
- Franchising
- Distribution agreement
- R&D cooperation
- Equity joint venture

Increasing commitment from both partners

* usually many forms employed at the same time

Reasons to form alliances

1. Transaction costs
   - *(efficiency)*
2. Strategic perspective
   - *(access to resources and learning)*
3. Social embeddedness
   - *(culture)*
4. Neoinstitutionalism
   - *(imitation)*

Transaction costs – make or buy?

- Transaction costs *(simplified)*
  - cost of the components – directly related to resources
  - opportunity cost – if own manufacturing plant is built
  - search costs – finding suppliers, negotiating, ...
  - communication and coordination costs – discussing specifications, technical training, customer complaints handling, ...
  - measurement costs – necessary changes to product designs, quality management, ...

➢ Not only cost of materials!

Transaction costs – make or buy or partner?

- Asset specificity – investment useful only in a specific relationship
  - e.g. technology used only by one company, factory built close to a client's site
- Two approaches:
  1. Rotating suppliers
     - bargaining to always get the best price
     - problem: new technologies, future products
     - think about transaction costs – not only component costs!
  2. Long-term cooperation
     - economies of scale, experience effects, joint R&D of new product generations


Strategic perspective

- Partnering to gain access to needed resources
  - knowledge and technologies,
  - foreign markets and customer segments,
  - brand name and reputation

- In order to partner effectively, the company needs to have own <u>absorptive capacities</u>
- Building skills to become independent and abandon the partner – „<u>learning race</u>”

- Example: NEC in the 1980s
  - Learning core technologies from Western partners and gradually substituting them

Social embeddedness

Companies form partnerships because they <u>believe</u> that it is <u>the right thing to do</u>

- culture and tradition – *keiretsu* in Japan, *guanxi* in China
- human nature – strong and weak ties, personal networking (Internet)

- Non-embedded relations – based only on economic calculations
- Embedded relations – „friendship”, not always maximizing own interest, but also helping others
- Over-embedded relations – „relief organizations”

Neoinstitutionalism

- Some companies form alliances because others do the same
  - imitation – no real strategic justifications
  - alliances with well-known partners to influence investors
  - many alliances do not produce any results – or even no expected outcomes are defined!
- But reputation is also a strategic resource
- Substantial increase in alliancing activities in the recent 30 years

Growth in alliancing activities

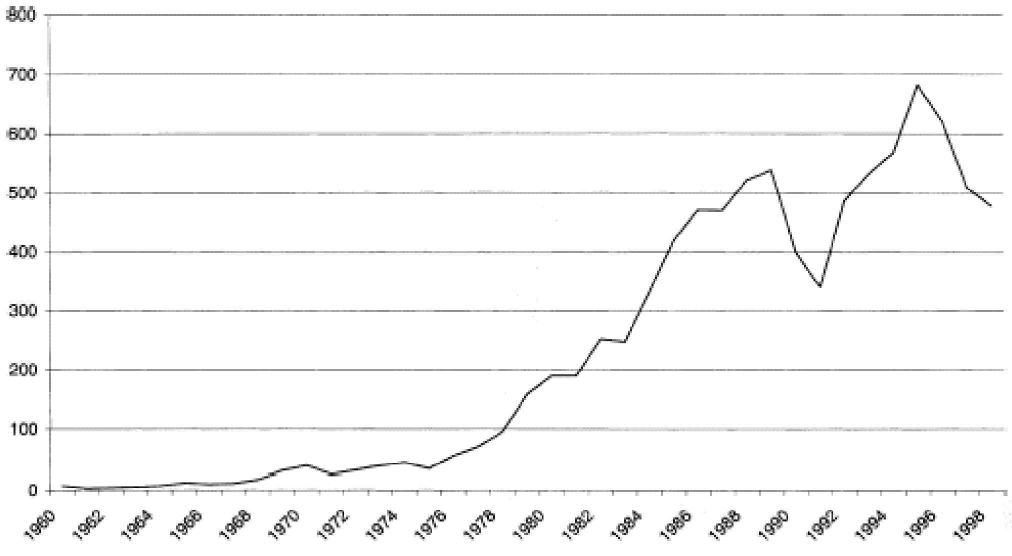


Fig. 1. The growth of newly established R&D partnerships (1960–1998).

Hagedoorn (2002)

- rapid growth in the number of new R&D partnerships
- particularly in IT industry and pharmaceuticals
- over 50% of alliances are international (globalization)

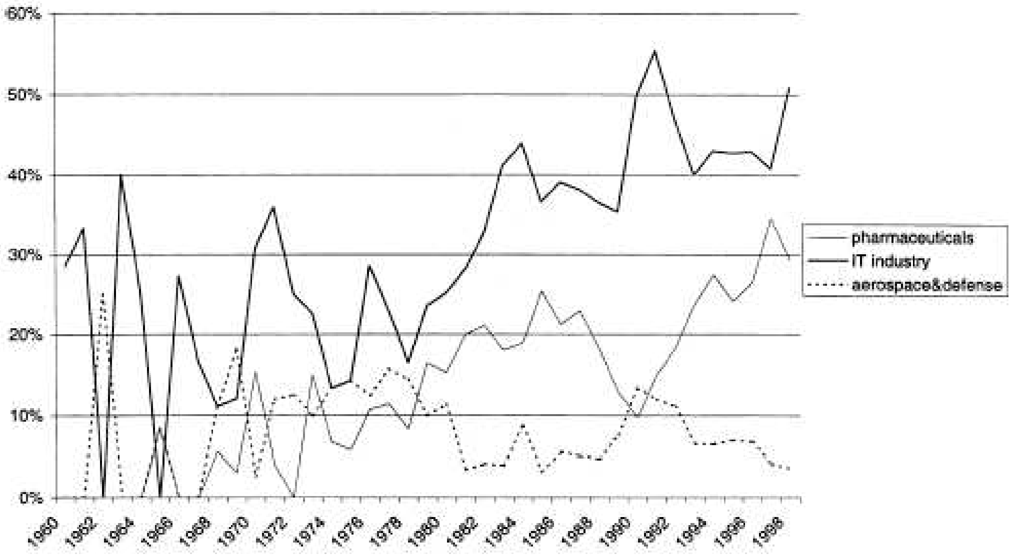


Fig. 4. The share (%) of high-tech industries in all newly established R&D partnerships (1960–1998).

Alliance scenarios: co-opetition

- Co-opetition - partnering with competitors
  - Usually to establish technology standards
  - Example: JVC (VHS) and Sony (Beta); Toshiba (HDVD) and Sony (BlueRay)
  - Example: code-share alliances among airlines
  - Example: 17 Japanese mobile phone makers pooled patents related to 3G mobile telephony to standardize phone features and reduce costs
  - Example: joint venture of Samsung and Sony in TFT-LCD area

Alliance scenarios: complementors

- Alliances to develop a complete solution
  - Example: Microsoft needed SAP and other software makers to promote Windows in corporate market
  - Example: NTT DoCoMo needed content providers for i-mode
- Product platforms are built by many partnes (constellations), not by a single company
  - platform and value chain strategies

Alliance scenarios: clients as partners

- Clients are critical in diffusing new technologies – first clients could be „bought”
- Example: Microsoft giving money to television, Internet and telecom companies to promote own technology for these markets
    - over 9 billion USD investments in these companies in years 1997-2001
    - results: Microsoft became an important player in the multimedia market – and earned more revenues from following customers
    - but legal problems (politics, „bribes” and „blackmails”), high risk

Alliance scenarios: offshoring

- Partnering with advanced technology suppliers from abroad
  - software developers in India and China
  - electronics manufacturers in China and Taiwan
- Problem: offshore partners becoming gradually independent
  - BenQ, Taiwan – started as phone manufacturer, later Original Design Manufacturer (ODM) and now important competitor in the global market
  - Infosys, India – started as contractor of largest IT companies, now has international offices and works directly with IT users, competing against old partners

Alliance scenarios: ally or acquire?

- Decision depends on:
  - Synergies between technologies and competencies - often the partner company serves also other markets, which are not interested for us)
  - Nature of resources – intangible resources and personal knowledge can easily be lost when people leave
  - Competition and uncertainty – sometimes we need to „block” competitors by „reserving” resources of a partner
- Among advanced technology companies, many acquisitions failed and all involve high risk