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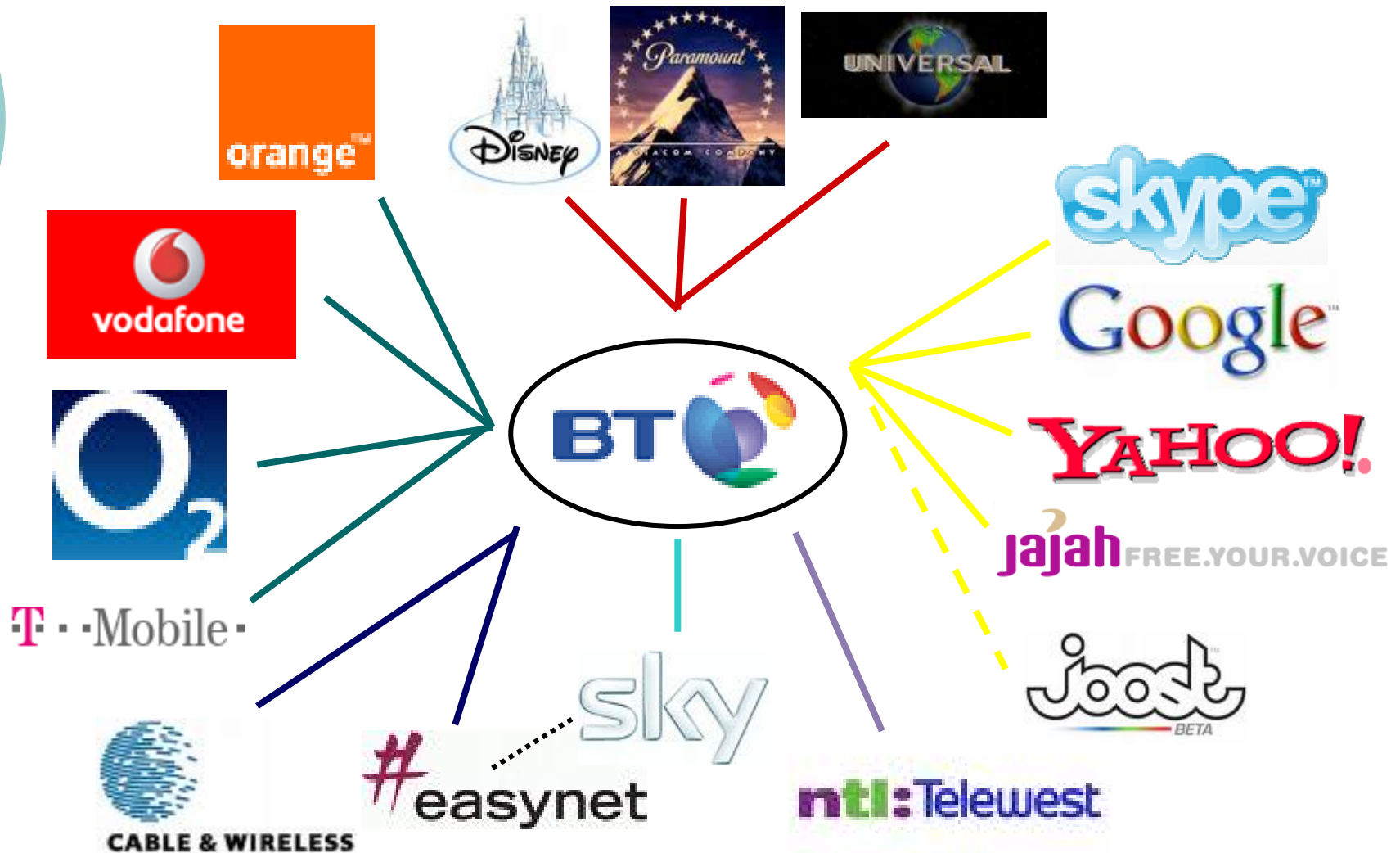
Project Business, Open Innovation and Business Models: The BT Case

**CMI WORKSHOP ON OPEN INNOVATION
UNIVERSITY OF CAMBRIDGE**

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Research Context: BT – Incumbent telecom operator

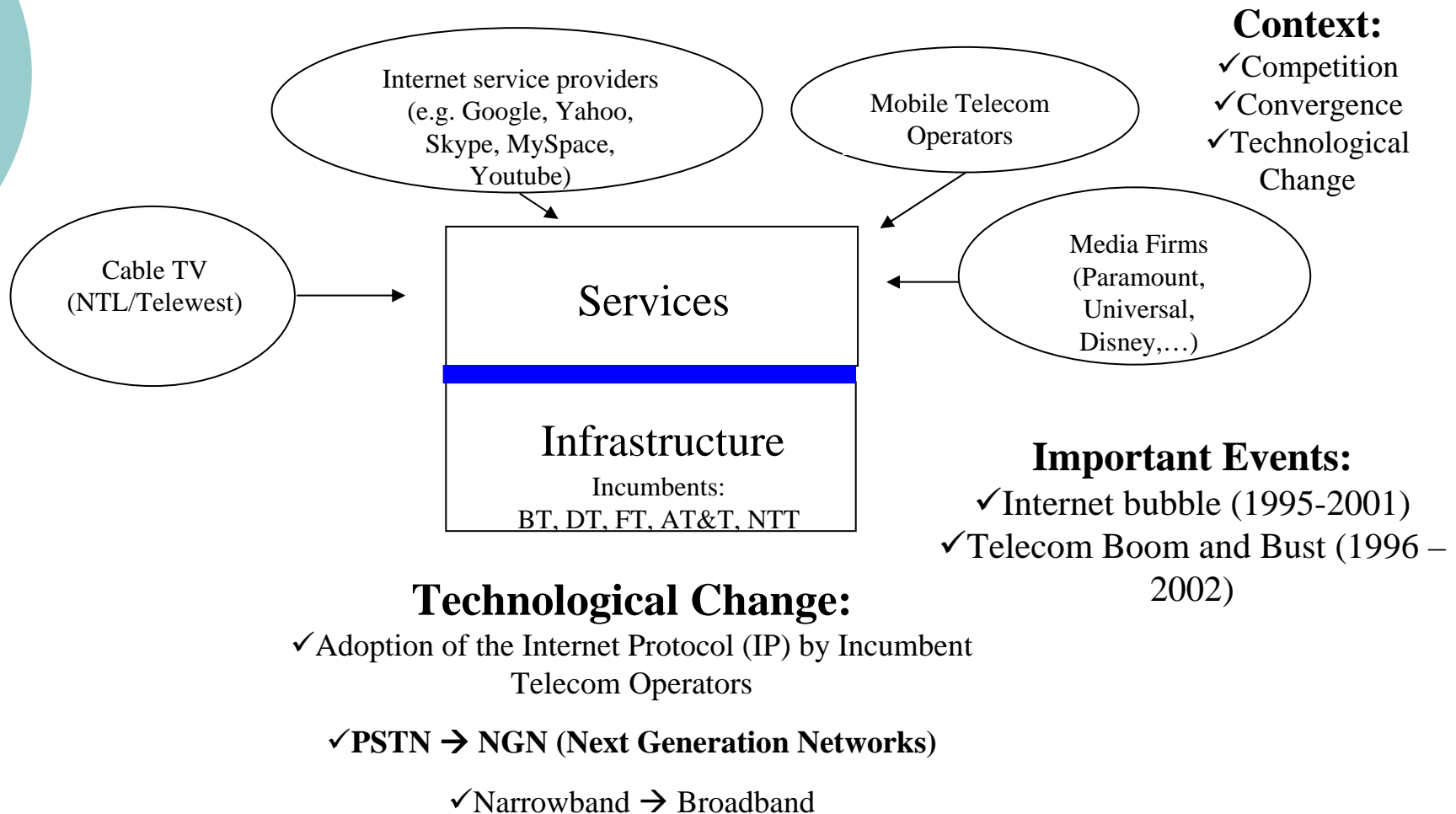




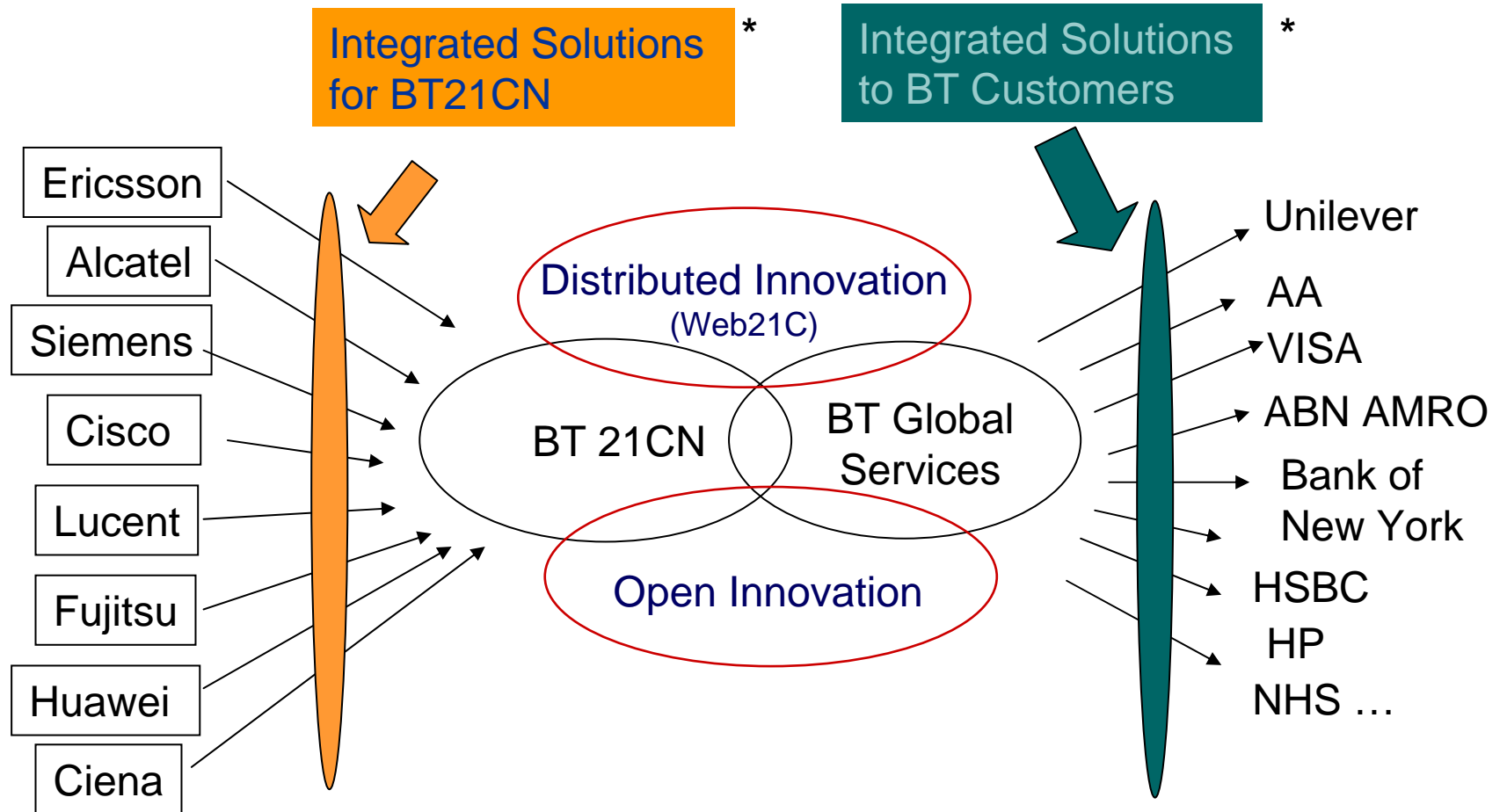
Issues for 'Innovation in Next Generation Network (NGN)'

- Innovating the process of innovation
 - New services... what new services?
 - Killer application? Cocktail of applications? Killer environment? Business Model?
 - Infrastructure:
 - Internet Protocol (IP) is the 'de facto standard'
 - How to (not whether it is necessary to) change the infrastructure?

Solution: Infrastructure and Services Transformation



Innovation, Innovation, Innovation: Organising Innovation @ BT





Project Business, Open Innovation & Business Models

○ **Project Business:**

- BT21CN: £10 billion, 5 years → Build an enabling platform based on Internet Protocol (IP), switching off the traditional network (PSTN)
- BT Global Services → Projects as services: integrated solutions for large multi-site firms with operations in Europe

○ **Open Innovation** (R&D level) + **Distributed Innovation** (Web21C)

○ **Business Models:**

- Commercialisation of patents (IPRs) (R&D level);
- Long-term partnerships (BT Global Services);
- Subscription (BT) & Advertising (Google);
- Revenue sharing (?)

Innovation across boundaries...

'From' Within the firm (Value Chain)

Innovation = Invention + Commercialization

(e.g. Chris Freeman, 1982 – The Economics of Industrial Innovation)

'To' With 'outsiders' (Ecosystem, Value Network)

Innovation =

Open Innovation (R&D level)

⇒ **Invention**

+

Strategic Renewal & Learning (BT 21CN)

↳ **Enabling Platform**

+

Distributed Innovation (BT Global Services + Web21C)

↳ **Commercialization**

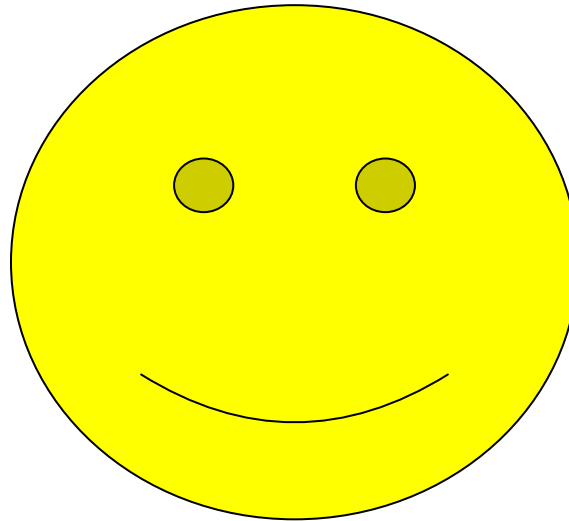
☞ With different business models...



Questions for Discussion

- Do you think that BT will be only a 'pipe' provider, such as utility firms provide water and electricity?
- Or will BT move beyond the pipe and provide the contents within the pipe (and share revenues)?
- Is Google a competitor of BT? If so, what is the adequate business model for BT to compete with Google?
- What are the commonalities and differences between BT/Telecom Industry and your firm/industry?

Thank you !!!



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Supporting slides



Operators strategy

Attract new subscribers

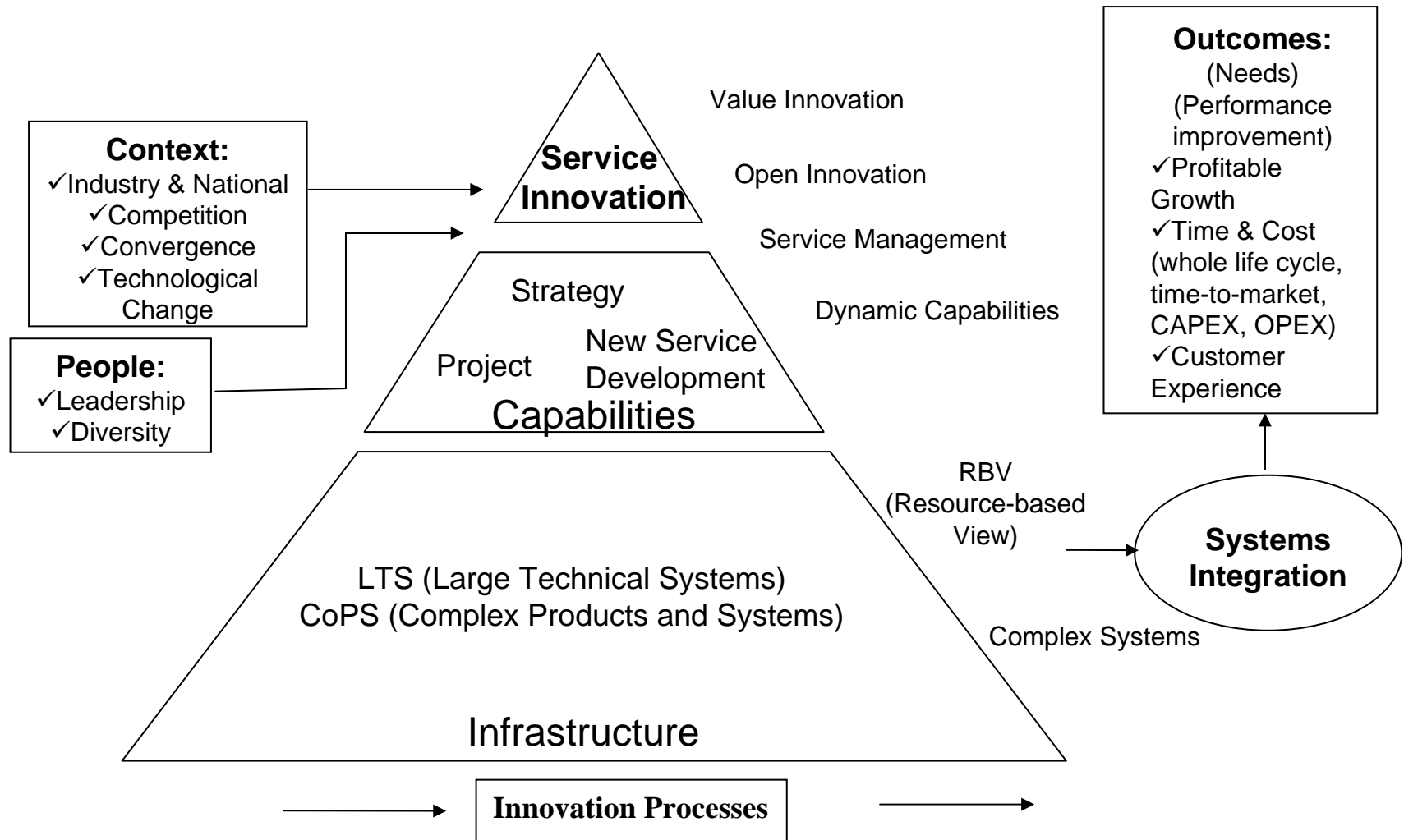
- Open up new revenue streams
- Mobilize Internet community (Skype, MySpace, Apple/iPod)

Software and Network as-a-Service (e.g. BT Web21C)

Multiple play bundles (Vodafone, Telecom Italia) 'Quadruple play'

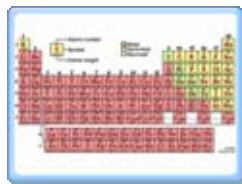
Integrated Solutions and Services (e.g. BT Global Services, T-Systems, Equant)

Theoretical Framework



'Innovation Continuum' @ BT

Innovate through the entire value chain



Invent



Architect



Implement



Operate



Productise



Channels

Deliver Customer Satisfaction and Shareholder Value

Source: Dunbar (2004) - BT

Innovation = Invention + Commercialisation

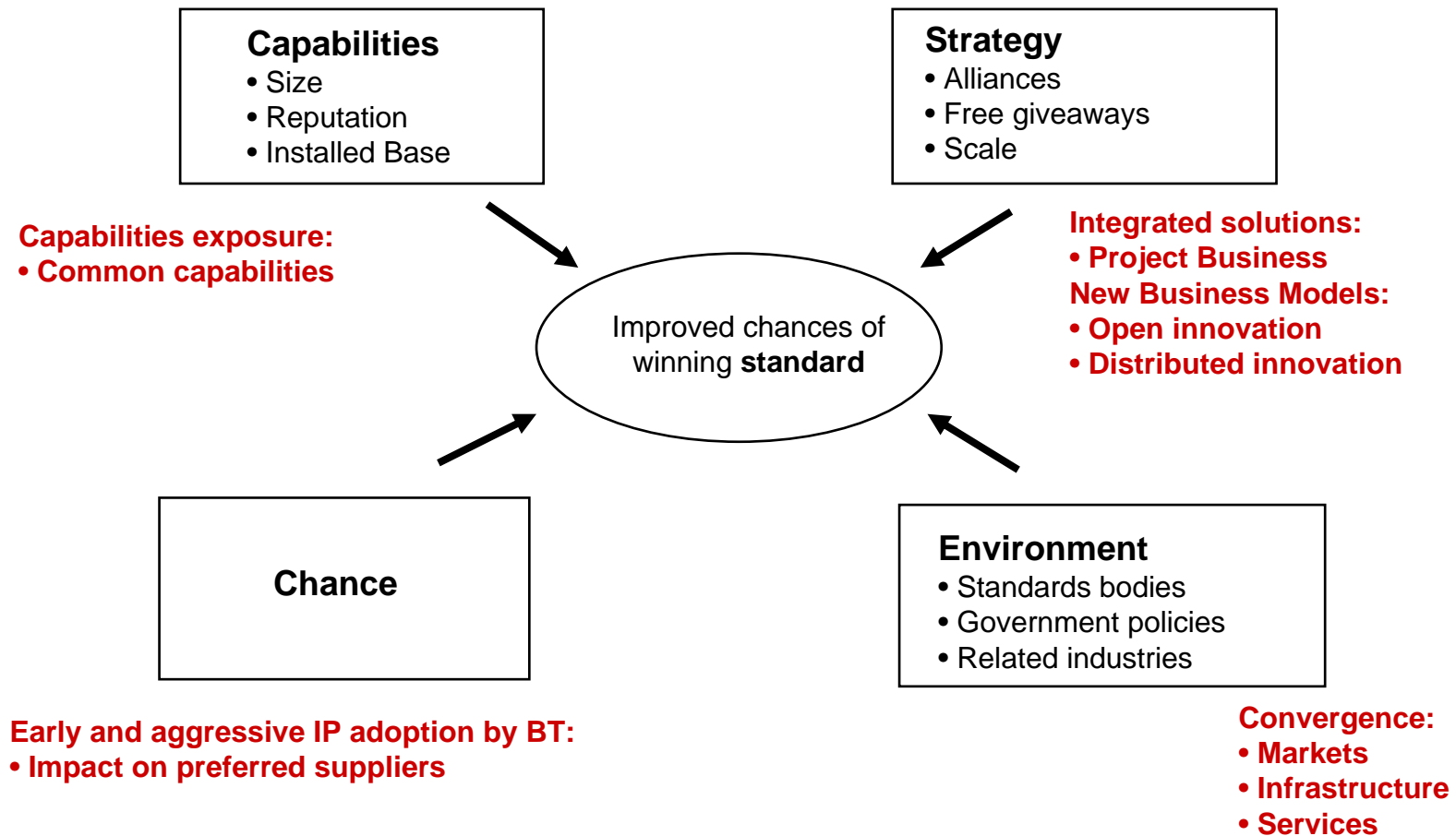
So...what is the impact on standards?

- Tushman-Rosenkopf Technology Life Cycle Model:
 - Technological Discontinuity (Carrier class IP)
 - Era of ferment (Are we in this era now? Interoperability leading to 'new' standards?)
 - Era of incremental change (Standards as emerging properties)



Is the need for standards increasing or decreasing?

Impact on standards (2)



Determinants of emergent standards

Source: Adapted from Afuah (1998, p.345)



Recollecting the Issues for 'Innovation in NGN'

- Innovating the process of innovation
 - Innovation = Open Innovation + Strategic Renewal & Learning + Distributed Innovation
 - With 'outsiders'
- What is the impact of this 'turbulent' scenario (transition to NGN) on standards?
 - Need for 'new' standards increasing;
 - Era of ferment: 'new' determinants of emerging standards

Research Methodology

	Stage 1: March 2005 – July 2005 (Exploration)	Stage 2: August 2005 – March 2006 (Exploitation)	Stage 3: April 2006 – March 2007 (Exploitation&Confirmation)
Interviews *	76 interviews.	84 interviews	41 interviews
Secondary Sources	Annual reports; SEC filings; Press releases; Newspapers an magazine articles; Product catalogues; Official websites; Pulver Research website; Market research reports; BT Technology Journal; Trade Conference presentations; Webinars.		
Events involved in	<ul style="list-style-type: none"> • CEBIT 2005 • VON Europe 2005 • LightReading Carrier Ethernet • IEE Course on Telecoms NGN 	<ul style="list-style-type: none"> • LightReading Live: The Future of Telecom • Carriers World 2005 • Broadband World Forum Europe 2005 • ITU-T Focus Group on NGN • ITU-T NGN Industry Event • CEBIT 2006 • 21st Century Communications World Forum • VoIP for Business 2006 	<ul style="list-style-type: none"> • Broadband World Forum Europe 2006 • IP 06 • The New Telco: Europe 2006 • IP Leaders 2007 • VoIP for Business 2007 • C5 World Forum 2007 • Carrier Ethernet Expo 2007

* Interviews with service providers/operators, suppliers, industry analysts, consultants and regulators

Systems Integration - Prime Contractor

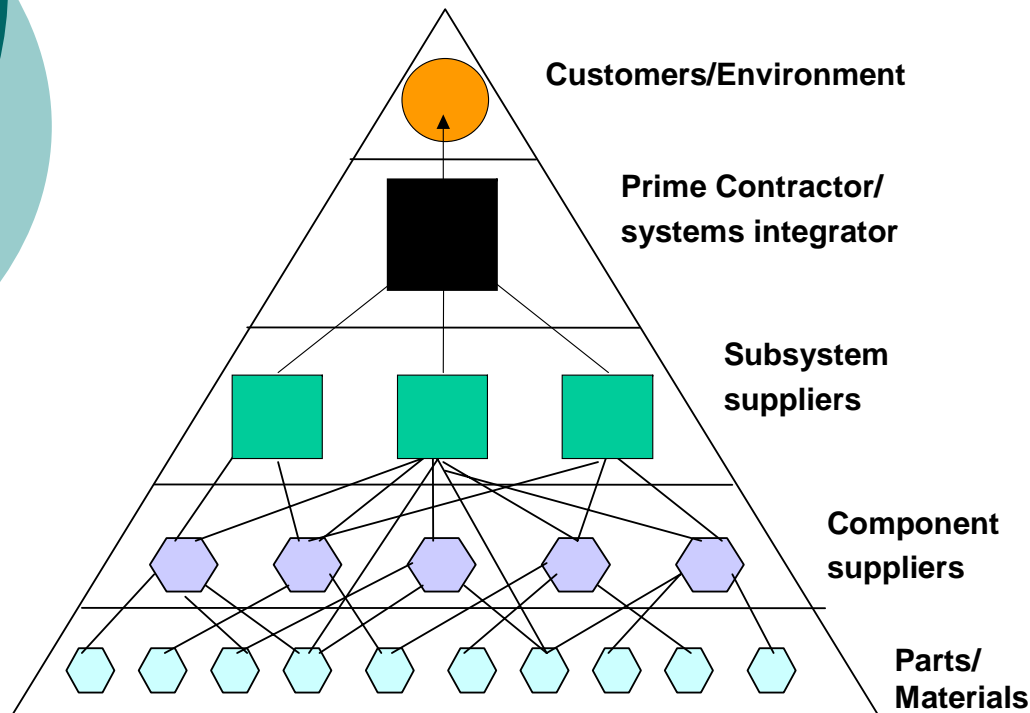
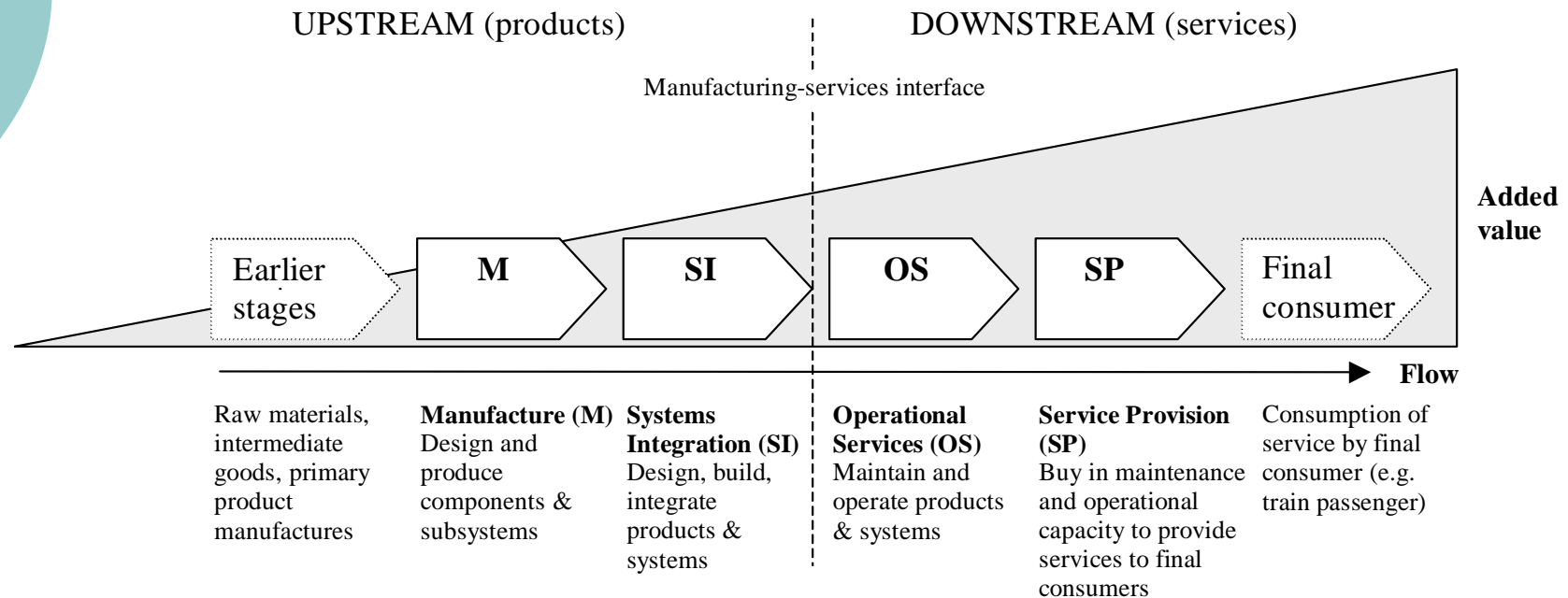


Figure 2: The Integration of Systems
Source: Davies and Hobday (2005, p. 43)

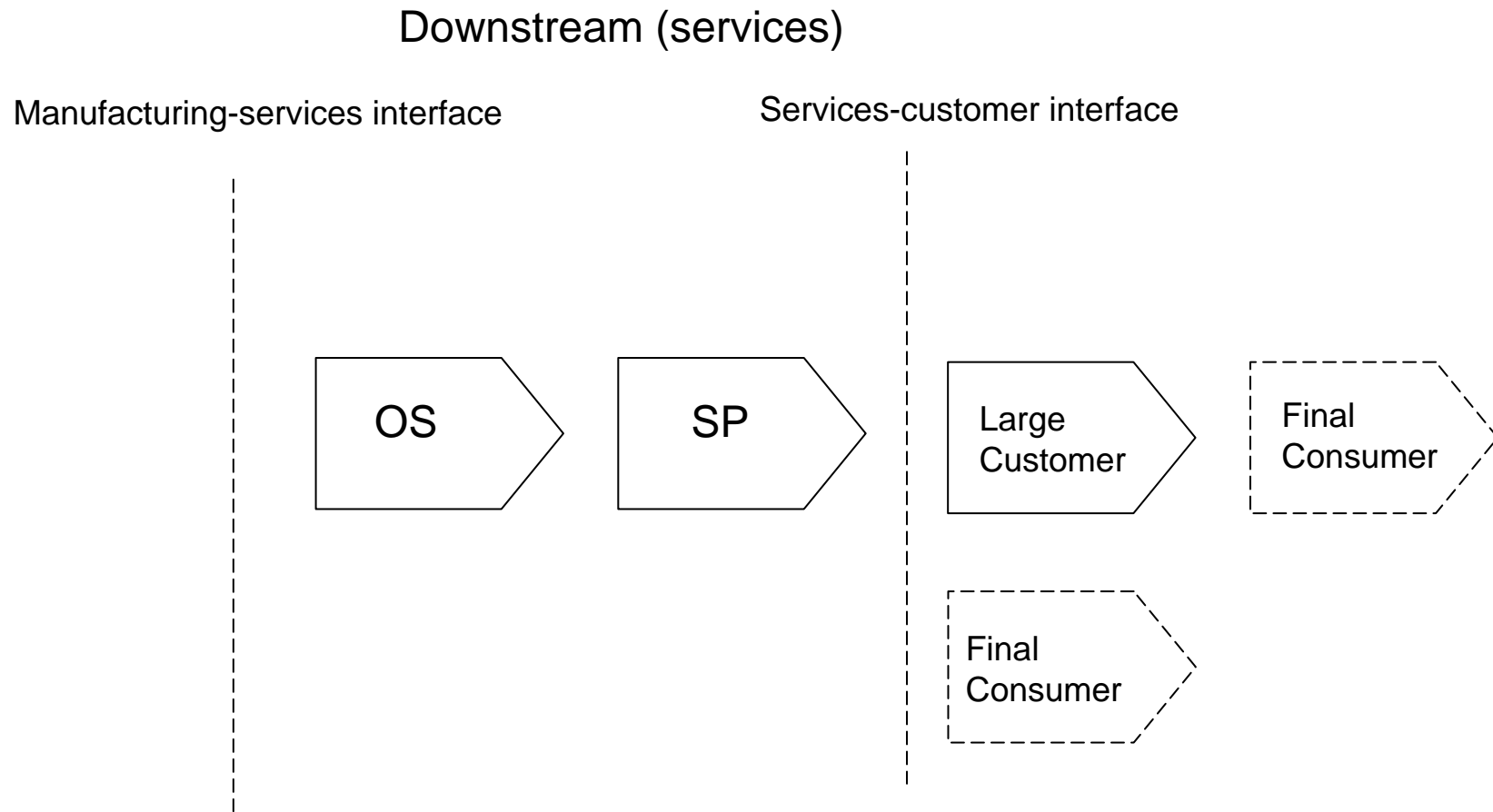
- Absence of prime contractor in mega-projects of large users of telecommunications systems in the transition to NGN (e.g. BT 21CN, £10 billion in 5 years): capitalizing on organisational learning (selling it to other telecom operators and to large corporate customers)

Integrated Solutions (1)



The value stream of CoPS
Source: Davies (2003)

Integrated Solutions (2)



Integrated solutions in the interface services-large customer

CoPS Research

