

# Uncovering Hidden Innovations in Consumer Services: CIS Data and Firm level Interviews

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# Service Sector Innovation

- Metcalf and Miles (2000) – service firms innovate in their own right
  - Play significant roles in having pools of creative and knowledge – intensive labour
- de Jones et.al (2003) argue that service innovation characterised by collective problem solving occurring within and between networked organisations.

# Characteristics of Service Sector Innovation

- Importance of organisational changes as key drivers of innovation in services – includes management techniques and new business models
- Service firms are much less dependent on R&D, but rather tend to innovate around customer needs – increasingly through the processes of co-creation (open-innovation)
- A creative and knowledge-based workforce are key elements in services.
- Linked to the workforce is the ability of many firms to draw on external expertise for innovation (co-production in the value chain)

- Recent summary reports by NESTA (2007; 2008) provide alternative frameworks for viewing service sector innovation.
- This in part extends the early studies of Pavitt (1986)
- There are two dimensions to this framework
  - i. Recognition of so-called hidden innovations
  - ii. Model of service sector innovation differs significantly from manufacturing.

# Types of Hidden Innovation

- I. Innovation identical or similar to activities that are measured by traditional indicators.
- II. Innovation without major scientific and technological basis – such as innovation in organisational forms or business models
- III. Innovation created from the novel combination of existing technologies and processes.
- IV. Locally – developed, small-scale innovations that take place ‘under the radar’, not only of traditional indicators but often also of many of the organisations and individuals working in the sector.

Source: NESTA (2007)

# Perspectives on Hotel Innovation

- Increasing attention to innovation processes (Hallin and Marburg 2008)
- Firm and market characteristics (Orfila-Sintes 2007; Mattson 2007; Martinez-Roz and Orfila-Sintes 2009)
  - Discontinuous innovation depends on hotel's internal resources along with learning capabilities (Gallouj and Weinstein 1997)
- Links with studies that have viewed hotel as a knowledge intensive environment (KM & KT)
  - Problems of absorbing tacit knowledge (Yang, 2004, 2008)

# CIS and UK hospitality industry

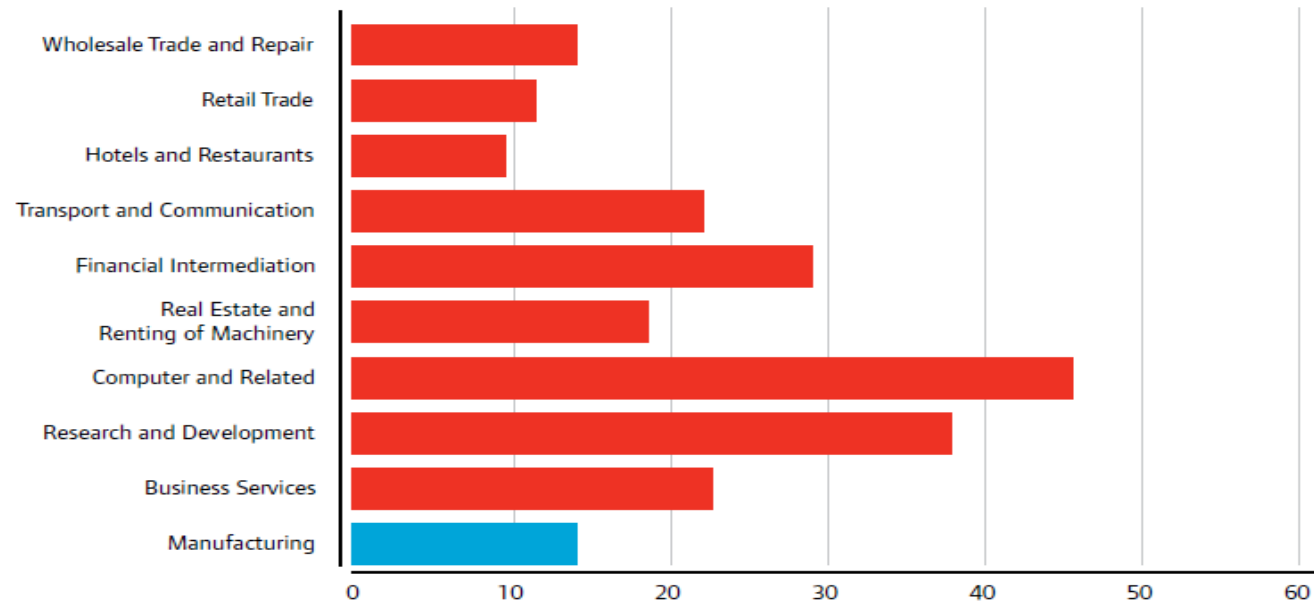
- UK survey sent to 28,000 enterprises (2005)  
CIS4 sampled by SIC and size (employees)
- Rate of return 58% average.
- Hospitality returns 47% representing just 877 enterprises: CIS 2007 only 477 enterprises
- CIS 4 covers 2002-04
- Showed hotel industry had one of the lowest levels of innovation; 39% of firms reporting they were innovating (Robson and Ortman 2006)
- No measure of micro firms

# CIS and Innovation

- Battisti and Stoneman (2009) using cluster analysis found that the cluster with highest proportion of enterprises in the service sector was characterised by low levels of in-house R&D
- Cluster also had relatively lower levels of employees with degrees
- Concluded firms which spend on R&D more able to assimilate innovations.

# Service Product Innovation (source NESTA 2007)

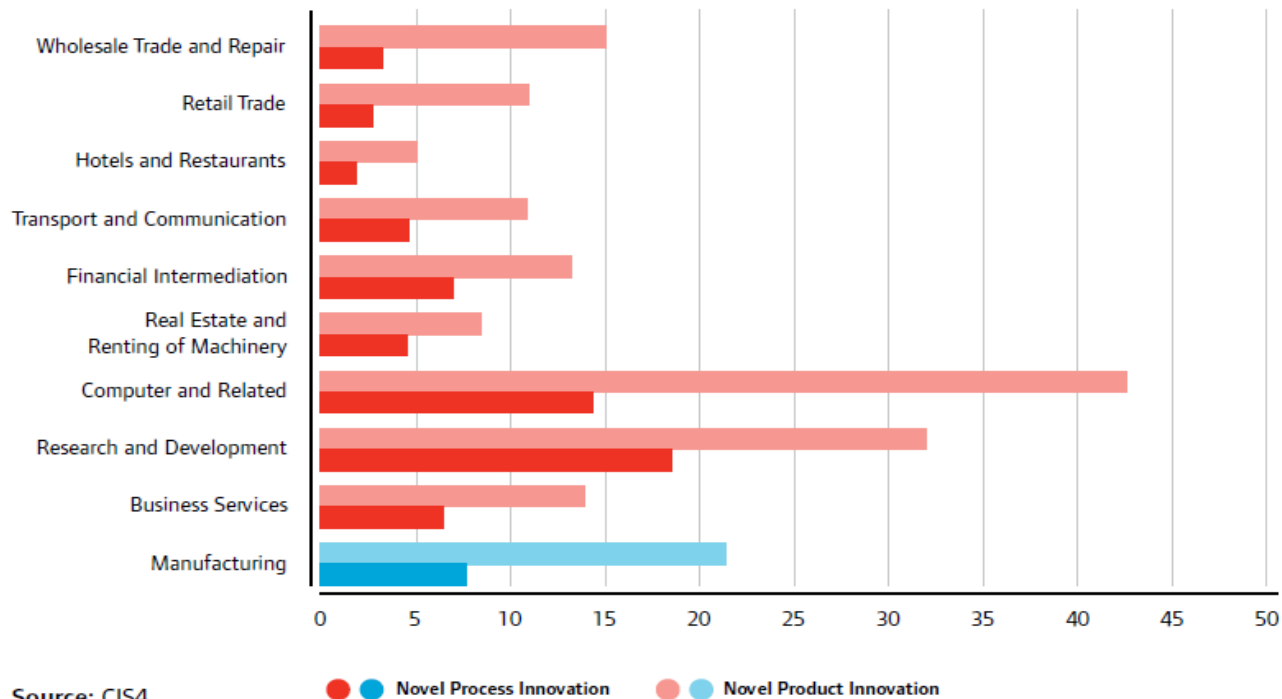
**Figure 4:** Services product innovation (percentage of firms)



Source: CIS4

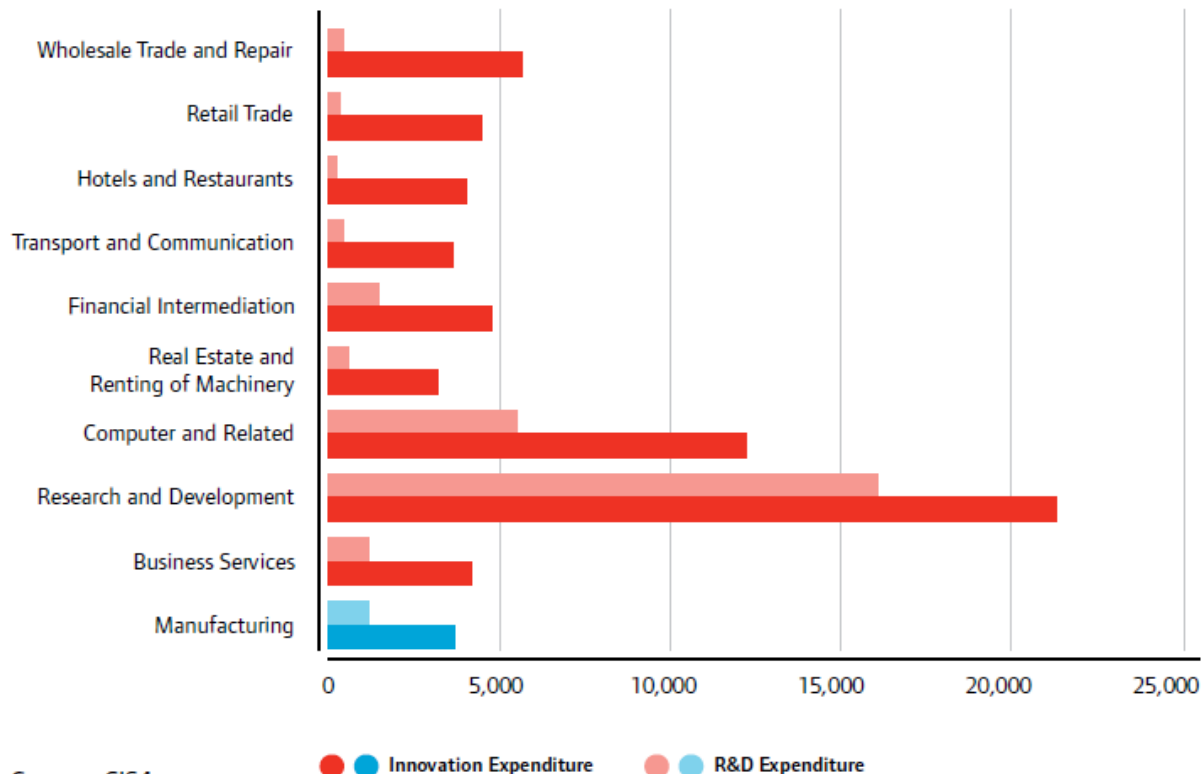
# Novel Innovation( source NESTA 2007)

Figure 6: Novel innovation (percentage of firms)



# Innovation Expenditure by Employee (source NESTA 2007)

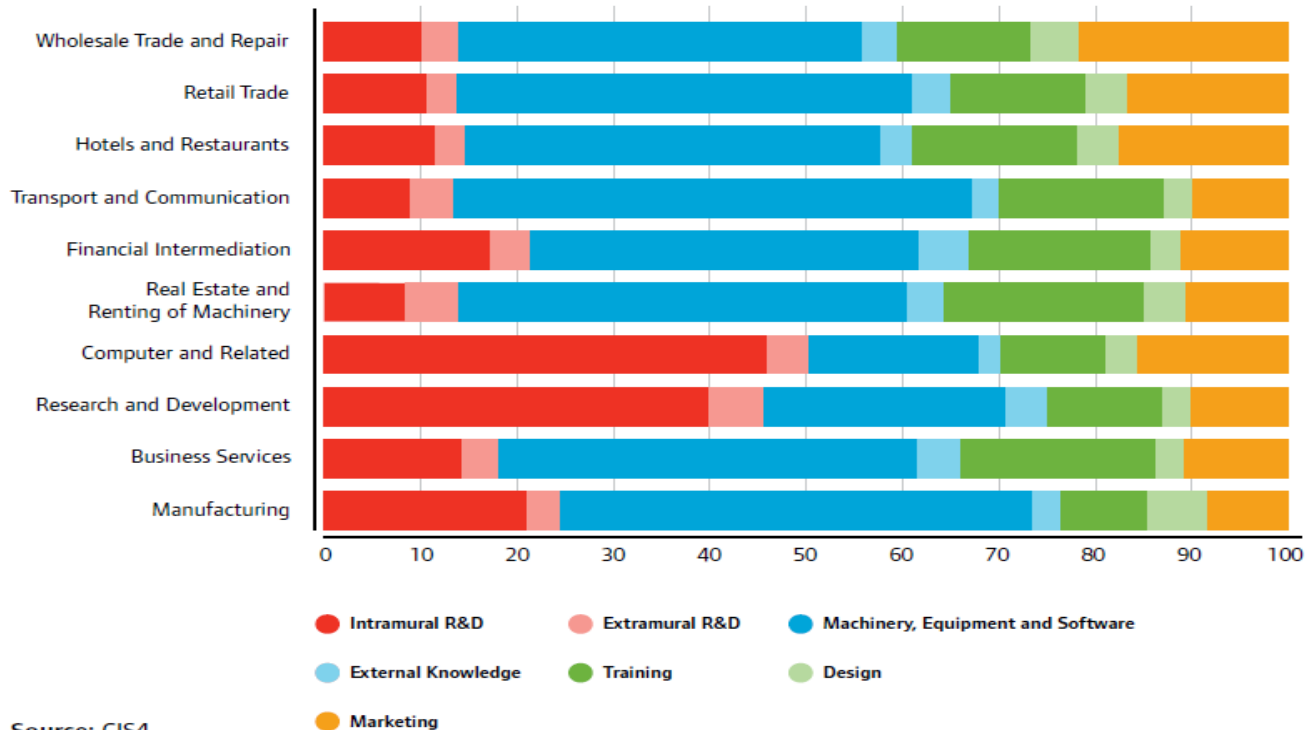
Figure 7: Innovation expenditure per employee (£ in 2004)



Source: CIS4

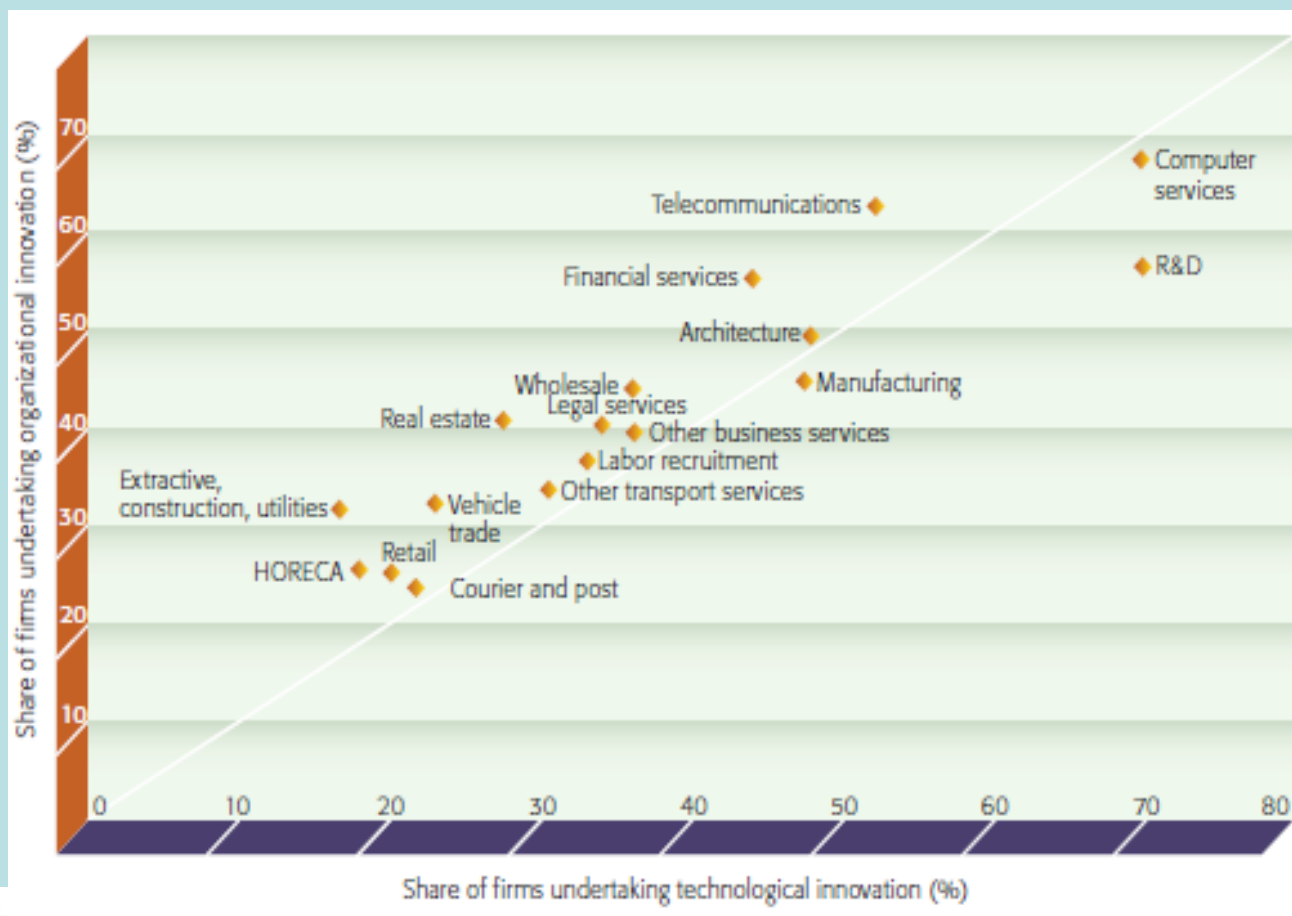
# Innovation Expenditure by Type (source NESTA 2007)

**Figure 9:** Innovation expenditure by type and sector (percentage of total innovation expenditure in 2004)



Source: CIS4

# CIS4 Technical Change and Organisational Change (Miles 2008)



# Structure of Project

PHASE ONE

Stage 1 Mapping Innovations in the hotel industry



Stage 2 Transnational/national hotel chains



Stage 3 Migrant vs. non-migrant owned/managed SME's in London



PHASE TWO

Stage 4 Comparative international commentaries

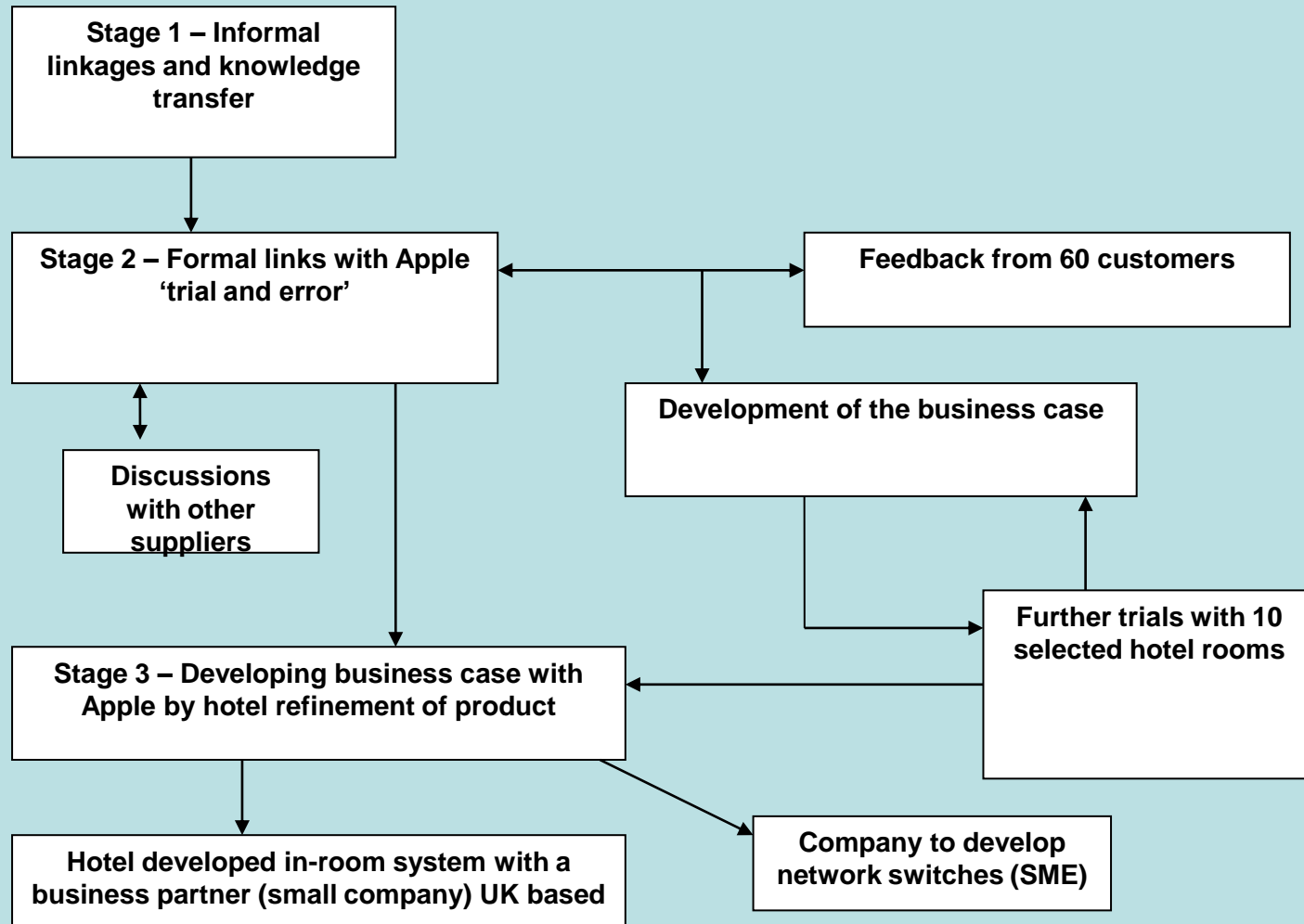
# Key findings from hotel project

- Low levels of R&D within house but innovations developed within the value chain. IT especially important ( including energy/sustainable aspects)
- Many of innovations exhibit characteristics of co-production and co-creation that were only revealed by in-depth interviews.
- Such innovations are somewhat hidden even by the perspectives and measures suggested by NESTA
- Many hotels innovating in design ( but partly excluded from CIS)
- A number of our case studies highlight the importance of co-production networks especially in the case of software
- Series of evolving management models –impact of asset light model and role of private equity companies

## Co-production and Co-creation Stages in innovation (Hotel A)

### Co-Production Stages

### Co-Creation



# IT Companies Related to Hotel Technical Innovation in Hotels (Sample Survey)

Table 3 IT Firms supporting the Hotel Industry

Company	Origin	Area of Competence	Known Clients
HR4UK	UK based (2003)	Facilities Management – software packages for personnel management	Unknown
Beyond Stock	Australia	Stock Control Epos based system	No UK clients yet
Indicater	Unknown	Integrating front and back office operations	Some UK clients 27 hotels
Remote	Malta (2005)	In-Room product supplies, mainly remote systems	Hilton (Malta) and Inter Continental
Ariane Systems	France	Markets Allegro Suite, self-service check in and check out system	Metro Inns, Formule 1 currently working with City Inn and Novotel
IMSERV	UK	Energy control systems software	Unknown
Guestline	UK	Software package RoomLynx, yield management	MyHotel (London)
IBAHN NE	US & UK acquisition for latest innovations	High Speed Internet Access, now involved in in-room interactive TV through newly acquired Scottish IT company ETVI. Developing flexible business models with hotels for product investment	City Inn, Yotel, Hilton, Marriott, InterContinental
Prebooker	UK	Integrated booking, marketing software linked to the internet (links to property management systems). Future innovations related to m-bookings	Numerous, including SME's and University accommodation
Telematrix	UI – China	Bespoke hotel phone systems, new products via internet links	Unknown
NFS Hospitality Corporation	UK	Room Master 2000 PMS software that can integrate into GDS	500 hotels in UK operate globally large hotels to SME's