

eTOUR

Process handling

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About me



- Manfred Hackl
- GM of x+o Business Solutions GmbH, AT
- Involved in IT & Tourism research before
 - PM for Harmo-TEN & Founding of HarmoNET
 - Focusing on mobile services
- Recent projects in the context
 - PM for new VisitFinland.com
 - CEN/ISSS CWA
 - Euromuse.net



Process handling



- No information exchange without process and no process without information
- Discussion has been separated
 - Information (semantics, data transformation)
 - Process handling



Motivation



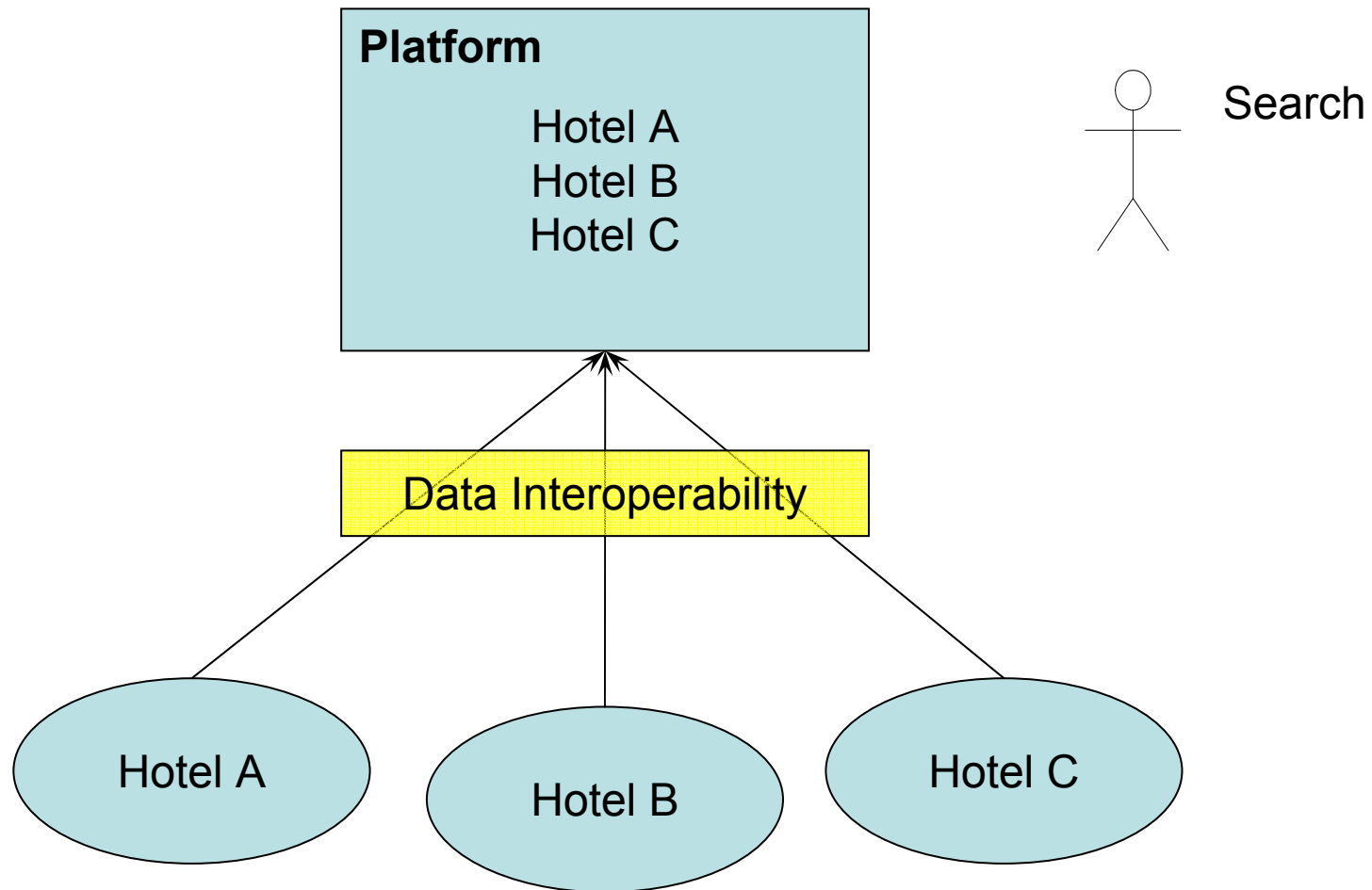
- Semantics & Information exchange is a central issue: Make users and systems understand content
- But processes are the real business drivers
 - „It's all about bookings!“
 - Based on messaging / information exchange
 - Have an additional dimension

Process interoperability

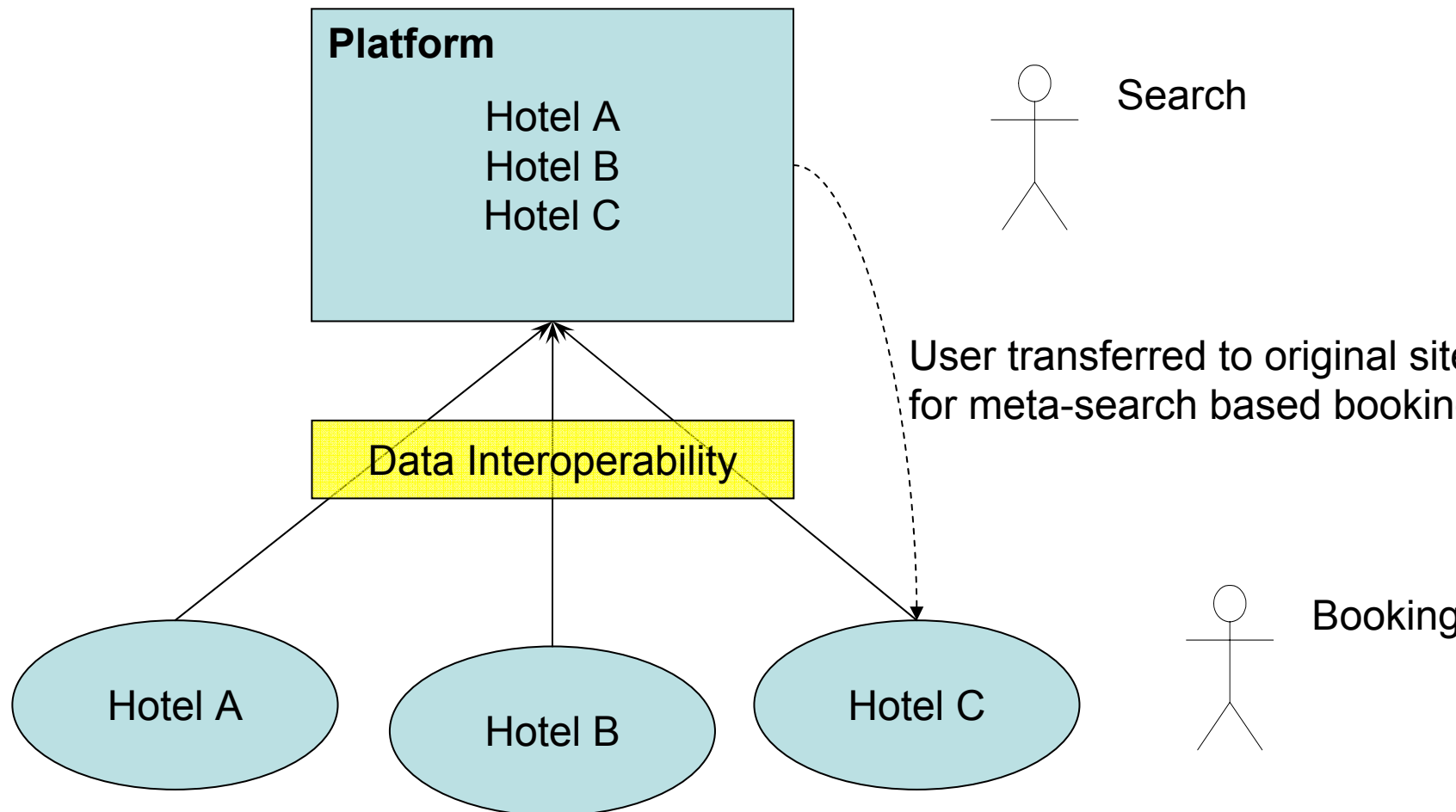


- Needed to run sub-processes on different systems to complete one full process
- For dedicated booking platforms
- For travel packages
 - Dynamic bundling
 - Dynamic packages
- Related with meta-search

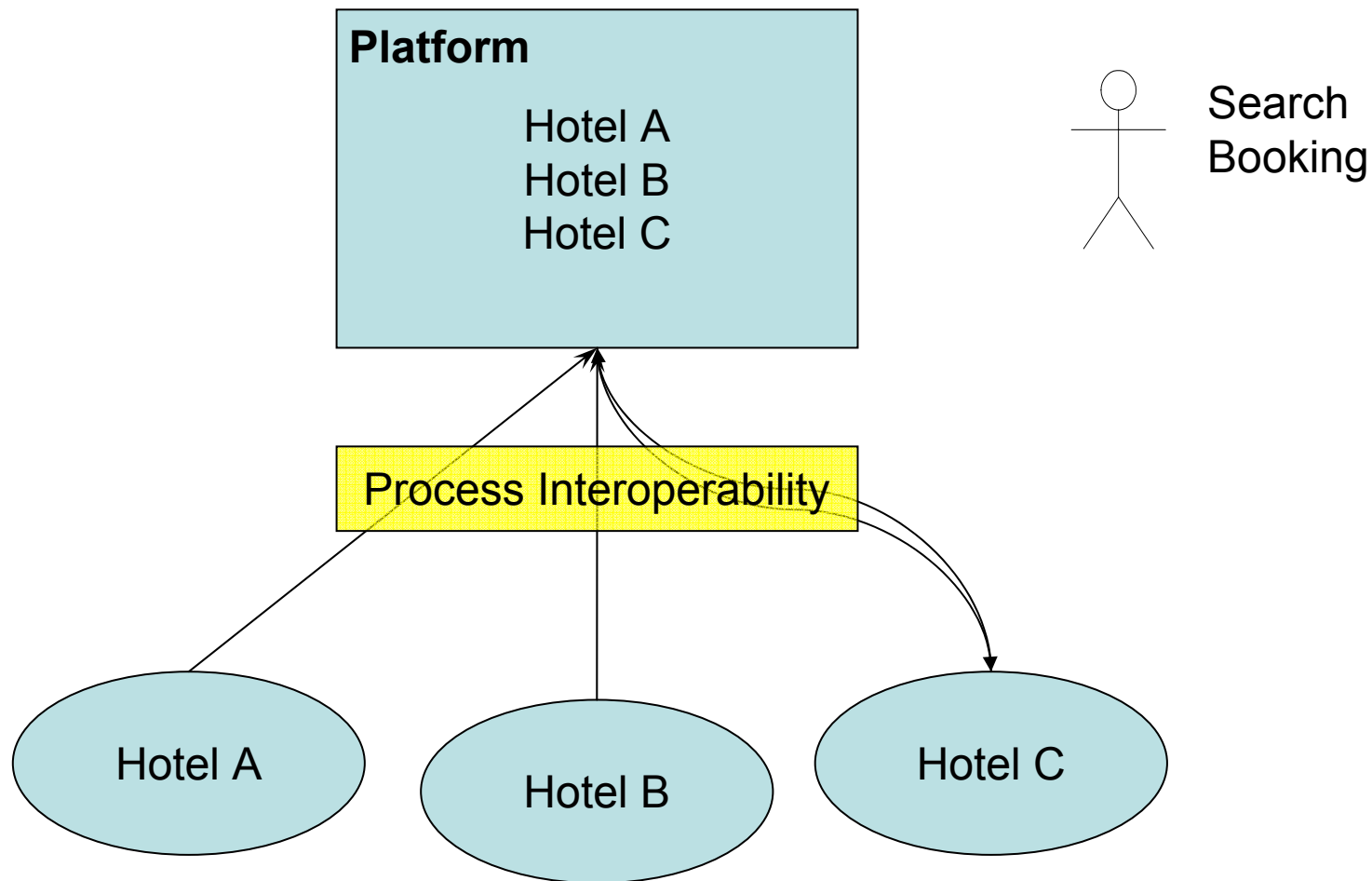
Meta Search



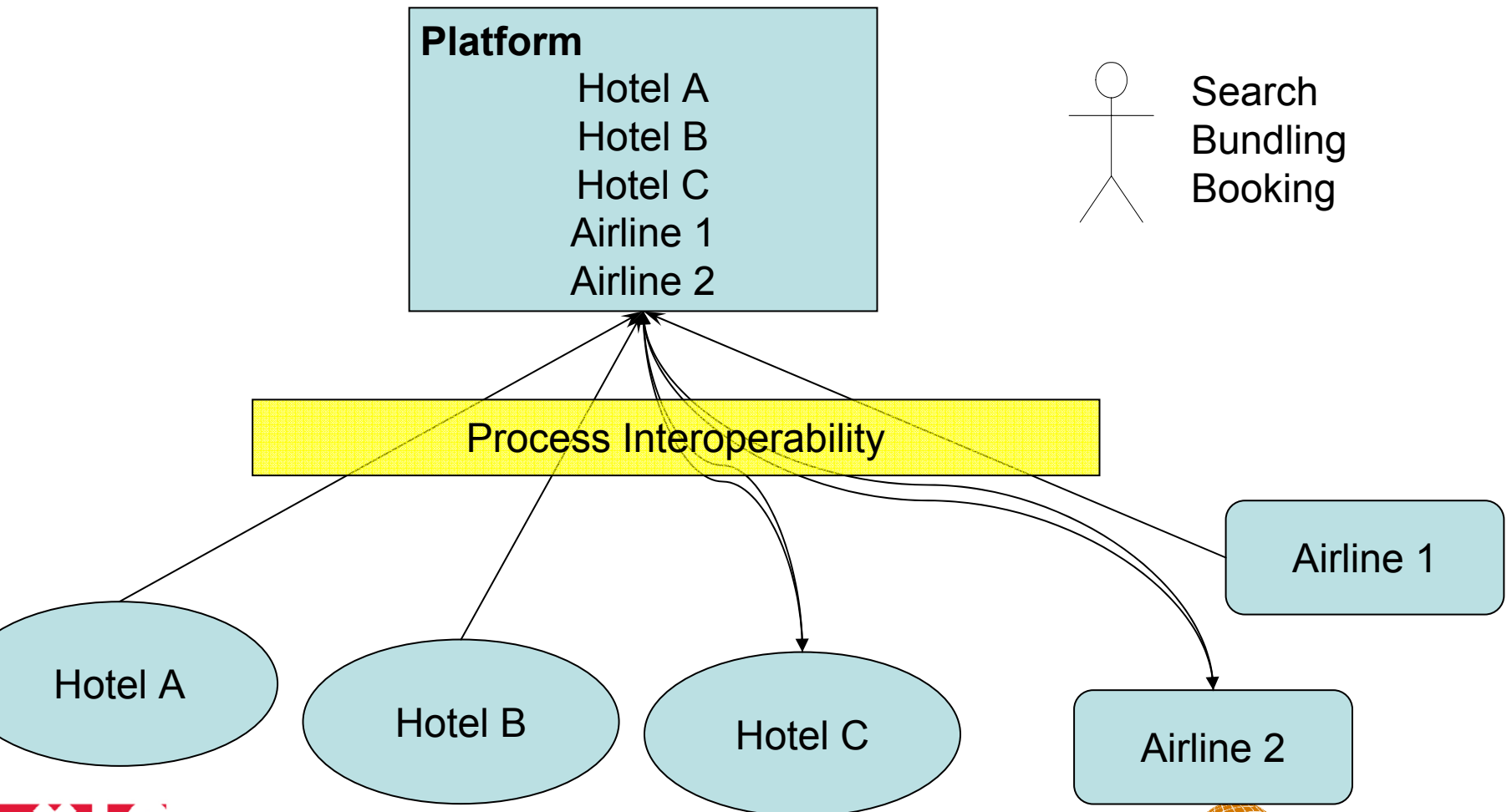
Meta Search



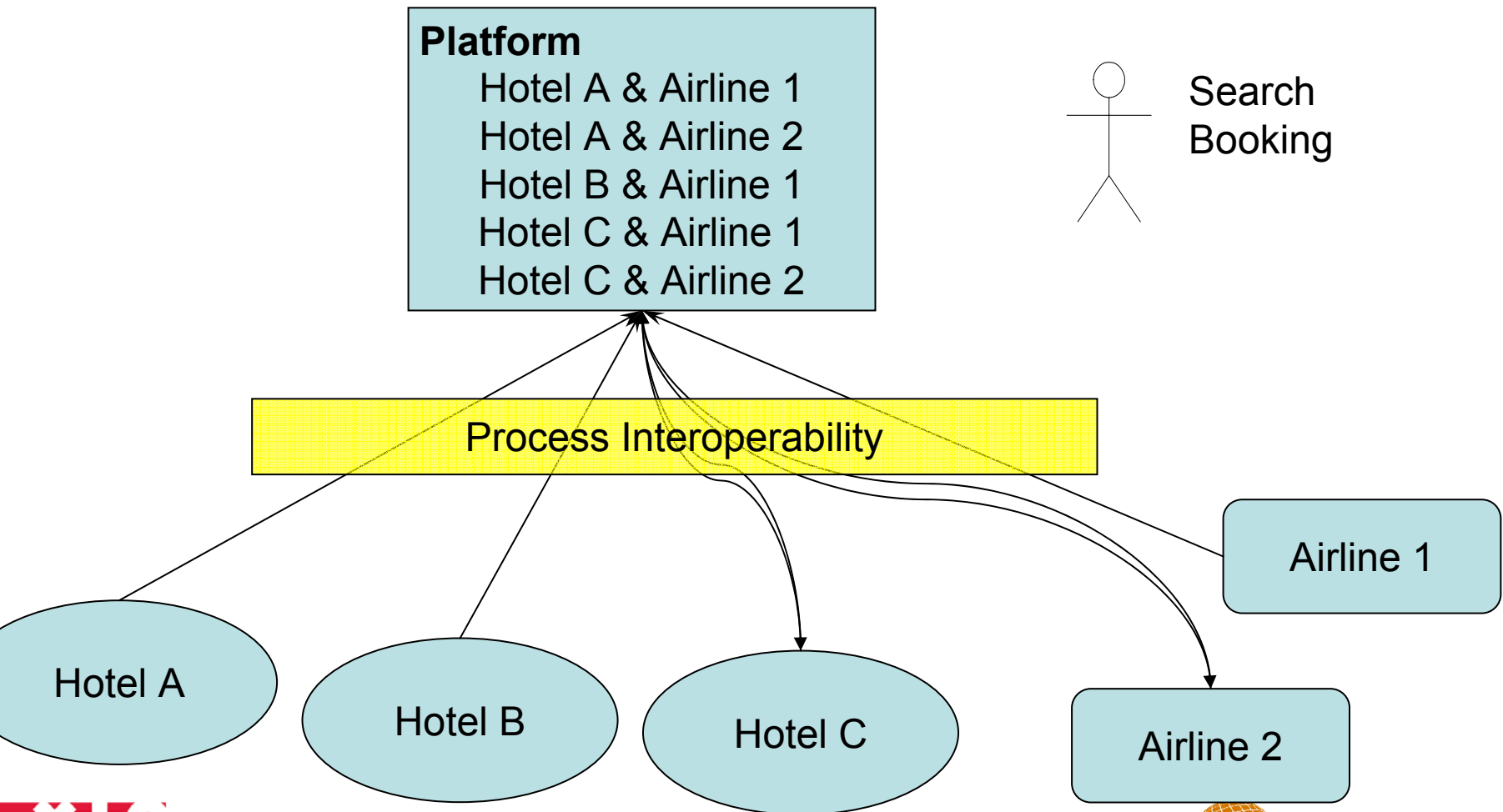
Dedicated platforms



Dynamic Bundling



Dynamic Packaging



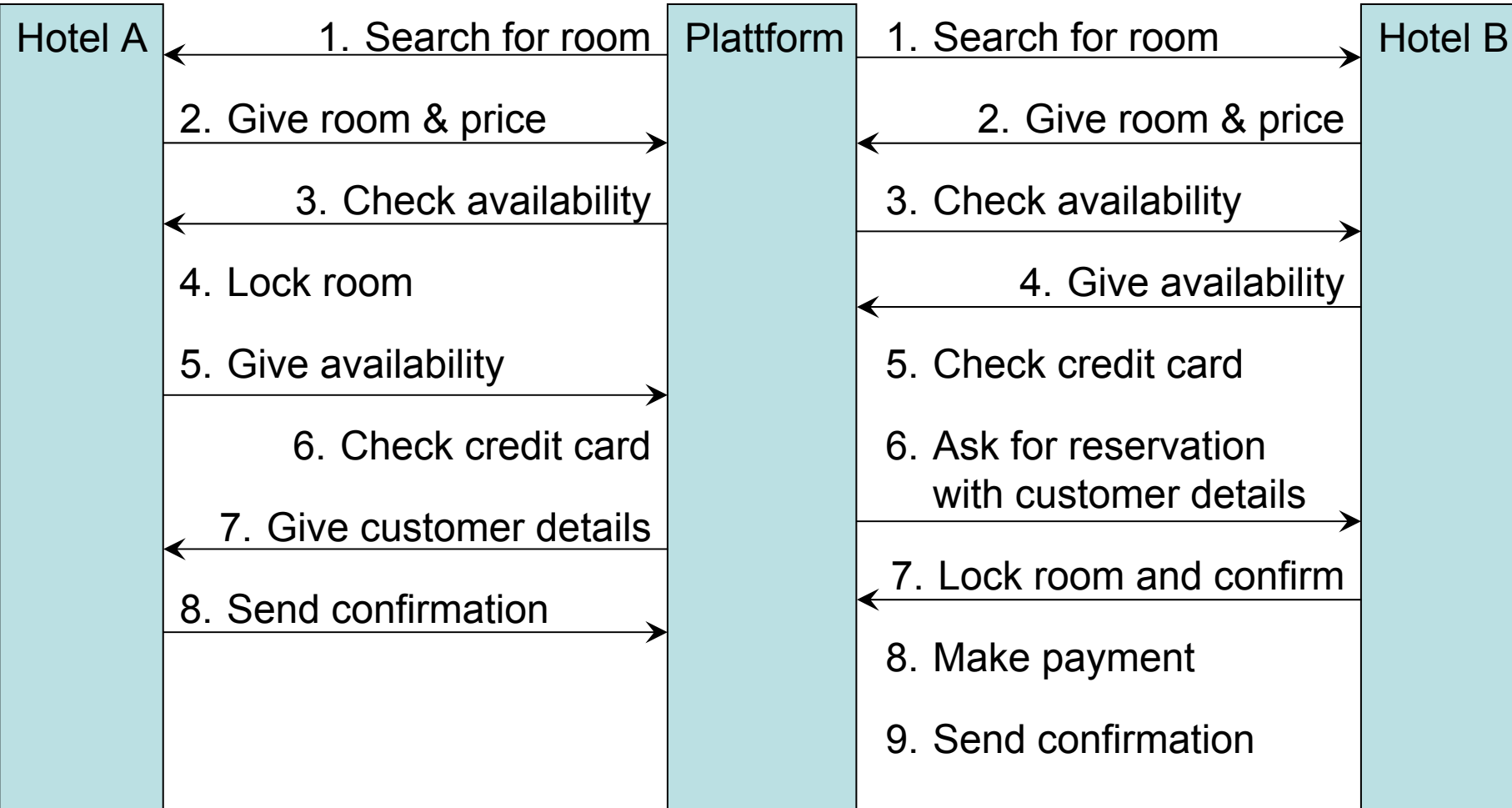
Typical processes



- Searching
- Reservation
- Booking & Buying
- Modification
- Cancellation
- Confirmation
- Notification
- Payments



Process clashes



Basic industry need is



- an applicable concept
- for the technical interaction of heterogenous ICT systems
- to provoke and run complete business process cycles
- involving at least two different technical systems.

Requirements 1

- **Network capability**
 - Seamless process handling
 - Run one complete business process as an interplay of an un-restricted group of different and clearly separated computer systems, without any particular pre-conditions
 - Same player (basically) same rights and obligations

Requirements 2

- **System independence**
 - Independent from the ICT system used
 - Databases
 - Data structuring
 - Operating systems
 - Frameworks

Requirements 3



- **Process range**
 - Flexibility to run each business process possible in the tourism industry

Requirements 4

- **Player's autonomy**
 - Leave autonomy and flexibility to the individual player to change own system
 - Access external information in an autonomous way
 - Keep diversity

Requirements 5



- **Cost effectiveness**
 - Low cost of integration and operation
 - Easy to join / implement



Requirements 6



- **Stability and reliability**
 - Includes fault secure system and error handling
 - Includes future development changes

Requirements 7



- **System performance**
 - High performance to allow fast transactions and comprehensive handling

Requirements 8



- **Security**
 - Data encryption
 - Partner identification
 - Fraud resistance

Requirements 9



- **System openness**
 - Accessibility and availability:
 - Publicly available
 - Open specification
 - No barriers for implementation



State of the art



- Basically two methods on the market:
 - (Global) Standardization efforts
 - Application Integration and APIs



Standardization efforts



- Formulized schema
- Leave only little flexibility
- Flatten diversity
- Standards
 - ebXML, OTA
- Standardized frameworks
 - eXchange For Travel (XFT)



Application Integration / API



- Allow a 1:1 interplay
- Very system specific but well suited to handle processes
- Application integration
 - Deep integration of different systems
 - Often use of development kits (SDK)
- Application Programming Interfaces (API)
 - Gateway for external systems

Comparison

Criteria	Standards	Application integration
Network capability	rather no	no
System independence	rather yes	rather yes
Player independence	yes	rather no
Process range	rather no	rather yes
Player's autonomy	no	no
Cost effectiveness	rather no	no
Stability and reliability	yes	rather yes
System performance	rather yes	yes
Security indifferent	indifferent	rather yes
System openness	rather yes	no

Gaps



- Standards, Application Integration and APIs not suitable for a highly networked and dynamic environment like tourism:
 - Less applicable to networks
 - Loss of autonomy
 - Expensive



Future needs

- Solutions that fulfill all 9 requirements
- Especially solution(s) that
 - leave autonomy
 - have advanced network capability
 - are cost effective

Approach

- Not a new standard
- Not a specific software
- But interoperability
 - Integration of existing building blocks
 - based on current RTD efforts
 - for seamless process handling.

Recommendations



- **Shorter-term recommendations (1-3 years)**
 - Simplify and rationalize existing processes - use stateless process handling and request-response-pairs
 - Build a registry of common reference processes in the tourism industry
- **Longer-term recommendations (3-10 years)**
 - Develop process mediation technologies
 - Put research efforts into intelligent agent technologies



Summary of situation



- At the end tourism is all about bookings
- Environment becomes much more interactive and users more involved
- Customers are used to buy online, which is more difficult in travel industry because of its complexity and volatility
- This requires solutions to run multi-system process seamless, fast and cost-effective

