

Innovative e-Business models in the Travel Industry

The TUI Destinations e-Hub case

Athens, January 2007



Information Systems Impact S.A.



TUI Destination Services Ltd

1. The TUI organization

Found in 1923 as Preussag AG, the TUI Group is now the world's leading tourism group and the 5th largest logistics service provider. With over 57,700 employees worldwide, the Group's headquarter is located in Hanover, Germany, and from there the Group operates its core business activities centered on tourism around the world. With a turnover of about 18 billion euros in 2004, the Group is also the market leader in the EU tourism sector. The European tour operators in the World of TUI reach over 80% of holidaymakers in Europe. In 2004 this represented more than 18 million customers. TUI owns about 3,500 travel agencies, more than 100 aircraft, 37 incoming agencies and 285 hotels with 163,000 beds in 28 countries.¹

The transformation from Preussag AG to TUI is significant for the Group and impressive for others. This is done through a series of ambitious activities based on mergers and alliances beginning in the middle of the nineties. As a result, the Group has transformed itself from an industrial conglomerate to a global, virtual integrated tourism group in less than ten years.²

TUI provides its customers with holidays from a single source – from booking in a travel agency, flights, accommodation in the Group's own hotels and customer-care provided by the Group's own tour guides. This vertical integration strategy covers the whole value chain in the source markets (sales markets) and the destinations (holiday areas) and provides its customers with high standards of quality from start to finish.

2. The e-business needs

One of the main business challenges that Travel Organizations confront is to efficiently expand their business and serve a growing international market by providing continuous customer service while keeping operational costs low. On the other hand, travel is a very complex retail business since:

- The travel market is quite fragmented, with multiple distribution channels and intermediaries
- The travel product can be fully customized, so as to cover the individual needs of the customer

In order to handle all these, Travel Organizations often suffer from increased administration and operational costs as well as procurement/contracting costs. That was a strong incentive for TUI Group to invest in IT and to introduce a number of international e-Business portals aiming at streamlining existing business processes (e.g. contracting, procurement) or automate sales and distribution of services. Especially for the e-tailing model, TUI Group traditionally invested in serving the source markets through specialized Travel Portals tailored to efficiently reach and meet a local source market's needs.

However, a new opportunity seemed to laid upon the destination-focused e-Business model:

- a. TUI had already a strong presence through an international network of 37 Incoming Agencies, with each Agency being the leading local player
- b. Extensive know-how, experience and expertise about the destination could be found in each one of these local Incoming Agencies
- c. Competitive prices and destination specialized products combined with the local knowledge could produce a strong competitive advantage on the Internet

The “*destination e-Business model*” term concerns the Web Sites / Portals that are dedicated to promote a specific region or country. In practice, such portals tend to act as the destination's Internet expert, helping their audience to get detailed information about the local culture, geography, weather, events etc, as well as to access a great variety of products and services. On the other hand, the Source Market e-Travel portals, meaning those portals that serve a specific source market, are heavily relying on providing a greater variety of

¹ Source: The 2004 TUI annual report

² Source: The 2004 TUI annual report

global destinations than being an expert of just a specific one. This implies certain operational differences between the two types of portals as can be seen in the next table:

	Destination Portals usual practices	Source Market Portals usual practices
Languages supported	Between 3 – 6	1
Currencies supported	More than 3	1
Local areas coverage	All famous resorts and other attracting areas	Only the major resort areas in a destination
Product coverage (e.g. Hotels)	The majority of local offerings (e.g. 70%)	A small portion of the local offerings (e.g. 20%)
Other information (e.g. maps, events calendar)	Comprehensive and extensive	Moderate, following the local areas coverage practice

Table 1. Differentiation between the Destination/Source Portals practices

Indicative examples of e-Travel portals that provide global travel services to a specific Source Market are:

- www.expedia.co.uk (source market: UK)
- www.tui.de (source market: Germany)

Indicative examples of Destination Portals are:

- www.medhotels.com (destination promoted: Mediterranean)
- www.bookcyprus.com (destination promoted: Cyprus)

It is important to note that the example of MedHotels.com shows a destination portal that covers a greater region of more than one country. Although it can be considered as a destination-based portal, its wider coverage weakens its ability to become a true local expert, or in other words requires a huge effort so as to compete with the specialized destination portals that concentrate on a single location / country.

By following a destination e-Business model, the Group would have the opportunity to leverage its core-competencies on the Internet through specialized Destination portals that would promote the local offerings to the global market. TUI Group therefore needed to initiate such an e-Business model that would allow to:

- a. Integrate the information (commercial, marketing, offers etc) coming from the various local incoming Agencies into a single platform, the “*e-Hub*”
- b. Use this platform to centrally control, maintain and distribute the information
- c. Be able to rapidly launch individual destination portals for each Incoming Agency so as to promote and sell its services online
- d. Be able to easily distribute the services of each Incoming Agency electronically through partner and other strategic electronic channels

3. The e-Hub project

Aeolos Travel, the major Incoming Agency in Cyprus and partner member of the TUI Agency Network, undertook to run a pilot project that concerned the implementation of a Destination Portal for Cyprus. Having the credentials of the TUI Group, Aeolos proceeded with researching and evaluating various e-Business providers and solutions. In April 2004 and after having conducted a thorough research in the e-Business market, Aeolos recommended Information Systems Impact (I.S.Impact), a leading e-Business provider in Greece, and its i@Tourism software to TUI. After a period of a business and technology assessment, TUI

gave the green light and Aeolos awarded I.S.Impact with a contract for the implementation of the Bookcyprus.com portal.

Bookcyprus.com concerned an e-Travel portal that would provide expert travel advices and competitive rates for Cyprus. Real-time online reservations for a number of services such as hotel, car hire, transfers, excursions etc as well as dynamic packaging and content management were some of the main features that the portal needed to employ. The solution needed also to be tightly integrated with Aeolos' internal applications and 3rd party e-Payment providers, and to facilitate a number of business processes (e.g. contracts management) by utilizing rich interfaces and workflow approval schemes.

The target was to successfully launch a robust Destination Portal for Cyprus that would allowed for operational cost reductions, increased efficiency and customer service, and new market shares in the B2C / B2B areas. The successful execution of the project as well as its live operation and results would judge if this could be upgraded and expanded to serve the rest destinations so that each destination and the group as a whole will benefit. This would meant that the Group will enter an investment for setting up new operations, technological infrastructures and marketing activities for a new venture that would manage the e-Hub; TUI Destinations Ltd.

The sequence of events for completing the first pilot project and proceeding with the e-Hub were:

Investment decision – Supplier selection

- a. February 2003: Aeolos and TUI agree on an attempt to exploit the destination based model on the Internet
- b. April 2003: Aeolos contacts I.S.Impact to discuss the project
- c. June 2003: I.S.Impact submits a proposal for implementing a B2B/B2C e-Travel portal for Aeolos
- d. July 2003: Aeolos and TUI conduct an assessment of I.S.Impact services and i@Tourism product
- e. August 2003: Contract awarded to I.S.Impact

Bookcyprus.com project initiation and Analysis phase

- f. November 2003: Bookcyprus project starts
- g. January 2004: End of Requirements Analysis and delivery of the first version of the Functional and Design document (FDD)
- h. February 2004: Design Phase
- i. March 2004: End of Design Phase and delivery of the revised version of the Functional and Design document (FDD)

Bookcyprus.com Implementation phase

- j. March 2004: Implementation phase
- k. April 2004: Delivery of the hw/sw specifications for the hosting infrastructure
- l. June 2004: Delivery of the revised and final version of the Functional and Design document (FDD)
- m. July 2004: Delivery of the Content Management module. Training sessions and start of content preparation and uploading from Aeolos' Marketing department
- n. September 2004: Delivery of the first part of the Booking Engine online services
- o. November 2004: Delivery of the second part of the Booking Engine online services
- p. December 2004: Training sessions on the overall platform and start of contracts / commercial data preparation and uploading from the Sales department

Bookcyprus.com Pilot phase and Launching

- q. January 2005: Pilot phase and data uploading
- r. February 2005: Fine tuning and improvements
- s. March 2005: Launching of Bookcyprus.com

- t. July 2005: Evaluation of the first results of Bookcyprus.com project and operation

Implementation of TUI Destinations' e-Hub

- u. August 2005: Expansion of the e-Business model to other destinations in the Mediterranean via an e-Hub. The platform is upgraded and enriched to effectively integrate partner electronic channels and support multiple destination portals that can be launched within few days offering identical to Bookcyprus.com online services.
- v. September 2005: TUI Destinations is founded to operate the platform and to provide administration and marketing services. Key persons that were involved in the Bookcyprus project were appointed in the TUI Destinations' management team.
- w. Today:
 - i. Partner Electronic Channels integrated on the platform:
 - a. hlx.com
 - b. hapagfly.com
 - c. tuifly.com
 - d. tui.com/es,
 - ii. Destination portals operating in the platform:
 - a. BookCostablanca.com
 - b. BookMalta.com
 - c. BookCroatia.eu
 - d. BookTurkey.com
 - e. BookIsrael.co.il
 - f. BookPortugal.com
 - g. BookLebanon.com.
 - iii. More channels and destination portals are soon to come

4. The e-Hub solution

Overview

The solution is based on I.S.Impact's i@Tourism product, which is a pure internet platform that can act on behalf of a Travel Organisation as its electronic sales agent. It can efficiently serve the entire customer base, either wholesale or retail, while also handle the supplier agreements. More specifically:

- By providing a set of real-time data flows and notifications, tightly integrated with the Organization's internal legacy systems, it keeps the operational and administration costs low even when the business is expanding.
- By employing a number of tools and technologies as web services and XML, i@Tourism can automate communication processes with business partners (e.g. contractual agreements on price and availability) and 3rd party providers of travel business services (e.g. GDS, Travel Portals, banking systems) and therefore reduce procurement/contracting costs or eliminate paper-based work.

Moreover, i@Tourism's ability to fully support commercial agreements along with its dynamic product packaging facility significantly enhances the user experience and satisfaction and contributes to sales increase.

Features and Services

The major features and services provided through the solution are:

- Online distribution of a broad range of travel services to the business partners or directly to the consumers. Currently the solution allows the distribution of the following services to consumers (B2C) and partners (B2B) of an Incoming Agency:
 - Hotel reservations

- Car Hire
- Transfers from/to the airport
- Excursions
- Other online services as events/tickets, restaurants, golf

Flight tickets module is also under implementation. It concerns the integration of an existing flight engine that TUI Group uses through which scheduled as well as charter flights are available to book online in real time.



Figure 1. Bookcyprus.com main page

- Electronic channel management allowing the Organization to centrally monitor and control the distribution of total services and content to the participating Destination Portals or other partner channels. Through this facility TUI Destinations can rapidly launch new channels and control the flow of data between the e-Hub and
 - 3rd party partner channels, e.g. transfer and excursions provided through hlx.com
 - Incoming Agencies' Destination Portals, e.g. hotels and other services provided through Bookmalta.com

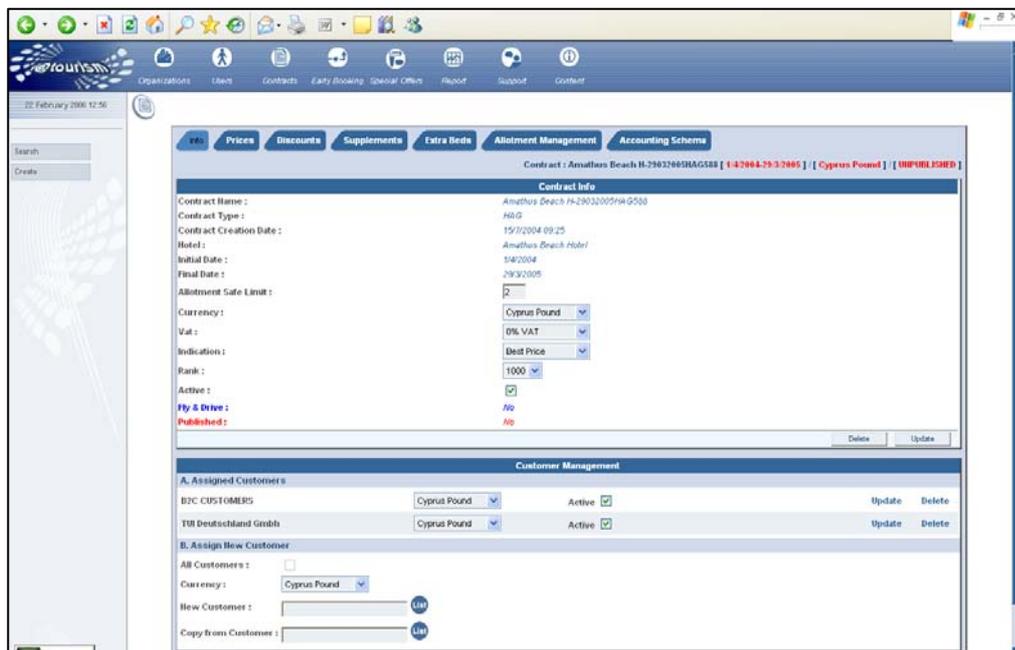


Figure 2. Associating customer channels and contracts

- Advanced Online Contracting and Contracts Management between the Organization and its customers and suppliers. This module enables Incoming Agencies to build their commercial policies online in a very comprehensive way. Basic rates, discounts and supplements can be defined in detail and combined so as to result in a competitive online pricing. Product availability and allotment agreements are also applied through this module.

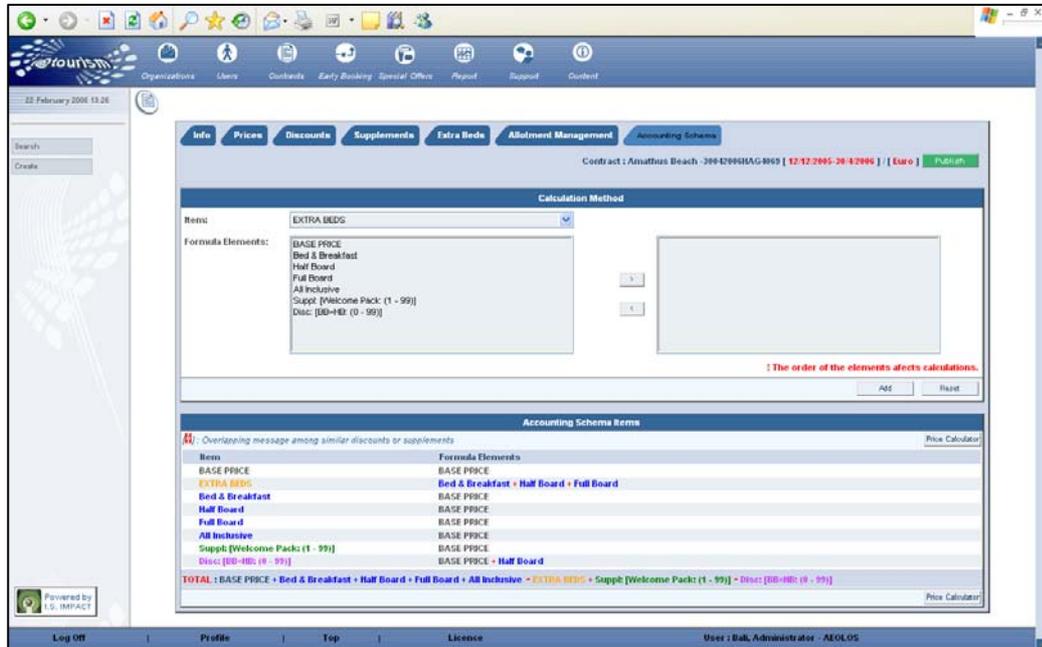


Figure 3. Accounting Schema and price formulation

- Real-Time Booking Engine supporting extended search facilities, online pricing, real time availability control and dynamic packaging. The Booking Engine essentially acts as an intelligent online sales agent that can adjust customer individual preferences (e.g. area, dates, persons, ages) to the best available offering.
- Flexible Prepayment, Cancellation and Last Minute policies management. The Incoming Agency can provide strong incentives to its online customers by giving them a flexible payment scheme (e.g. 10% prepayment) and last minute offerings.
- Reservations management enabling customers to retrieve, cancel or amend an existing reservation according to the applied cancellation policy. These features further strengthen the customer service whilst secures any cancellation fees for the agency.
- Enhanced Content Management module that enables an Incoming Agency to efficiently present the destination and promote its services to different markets and customer groups. Rich media support further enhances customer experience allowing the retrieval and presentation of the destination information to be quick and fun.
- Communication and Advertisement campaigns management (e.g. Newsletters, Ad Campaigns) for supporting the communication strategy of the agency. Through the multiple Ad Campaigns that can be supported, the Agency can enjoy additional revenue from selling advertisement space to local suppliers.
- Workflow approval schemes for controlling the commercial and non-commercial information publishing. In cases where more than one input or control points are involved in the data publishing process (e.g. hotel description author to prepare the content, marketing supervisor to approve, IT

supervisor to publish), the workflow approval mechanism ensures the integrity and succession of each step.



Figure 4. Rich and extensive content in product and destination level

- Reports and statistics on product availability, sales volume and reservations. A non-commercial content report generator is also provided to easily export portal's information (e.g. hotels descriptions) into a single document for offline review.
- Tight Integration with enterprise systems (ERP), 3rd party applications (e.g. GDS, e-Payment systems) and travel portals (e.g. tui.de). This component is responsible for the online and/or off-line data exchange between the e-Hub and other external systems and applications, enabling TUI Destinations to automate critical processes as e-Payment, invoicing and information exchange.

Technology employed

i@Tourism is a full distributed .NET solution, based on the C# programming language. Specifically for the BookCyprus project, a web/application server along with a database server, plus the respective staging machines, were used as ASP hosted. More specifically, the production environment consists of two (2) servers: one Web Server (IIS6.0 on Windows 2003) and one Database Server (SQL 2000 on Windows 2003). There is similar staging environment (two servers).

The main back-end system (Oracle Financials) is located 150km away from the ASP and is connected through a L2TP VPN connection (on ISA 2004 and Cisco Pix). Message Queuing (MSMQ) technologies have been used to manage, route and provide failover features to the application.

The Enterprise Application Integration (EAI) module of i@Tourism provides customizable interfaces for integrating with other systems and applications (such as ERPs, CRS, e-Payment systems, etc.), through native OLEDB provider access, loosely coupled message-based processing and Microsoft BizTalk technologies.

The Oracle Data Provider for .NET (ODP .NET) is also used and integrated to the Oracle Financials server (running on IBM OS and hardware) to gain real-time data access and distributed transaction support (through custom development). All requests to the Oracle Financials are managed through MSMQ (Microsoft Message Queuing) techniques.

5. The impact of the e-Hub

After almost 2 years in successful operation, Bookcyprus.com continues with increasing results of online traffic and conversion, revenues as well as profitability.

Following the Bookcyprus' example, by implementing a solution based on i@Tourism an Incoming Agency is expected to enjoy significant benefits, such as:

- Operational costs reduction through the automation of critical business processes (e.g. on the total costs for sales/contracting management)
- Elimination of labour intensive routing procedures (e.g. data entry for contracts and reservations)
- Increased productivity through staff reallocation and concentration in critical areas such as marketing and business development
- Short pay-back period through sales increase and operational/procurement costs reductions
- Business expansion by positioning the Travel Organisation in the B2B and B2C e-based travel markets

Moreover, i@Tourism is developed to scale-up and serve a continuously growing electronic market, which for an average Mediterranean destination has a potential of some millions travellers per year.

6. The future

As a newly founded venture, TUI Destinations and its e-Hub are in front of a number of challenges followed by a great potential. One of the major priorities is to increase the Destination portals thus the participating Incoming Agencies, currently in 8 countries. Moreover, additional partner/strategic electronic distribution channels are to be integrated, bringing TUI Destinations into an even greater web audience.

Existing marketing efforts are to be increased and new initiatives are to be taken. Through affiliations TUI Destinations already promotes the Destination Portals in specialized travel sites and comparison engines. Having the knowledge of the practices used in Bookcyprus.com and their results, it also consults the Incoming Agencies in Web marketing and distribution techniques and optimization.

The e-Hub and subsequently the Destination Portals are to be enhanced and improved. By periodically reviewing customer opinion, competitor offerings and technology trends with the help of I.S.Impact, TUI Destinations investigates functionality upgrades at all levels. New online destination services, enhanced search and book facilities, richer destination content, and other value added services to consumers are composing the future agenda of the e-Hub.

Last but not least, the implementation of the TUI Destinations main portal will be an important milestone for the future. The overall travel offerings and services of the e-Hub, thus the local expertise for each destination, will be easily accessed through a single point; this multi-destination portal.

Information Systems Impact (I.S.Impact) is an e-Business solutions provider for the Travel and Retail industries. Its first-class service, international expertise and in-depth understanding of the specific industries have brought I.S.Impact among the leading e-Business providers in Greece and the wider Mediterranean area.

This case study was prepared under the supervision of the Department of Management Science and Technology of Athens University of Business and Economics within the context of the MBA International program.

We would like to thank TUI Destinations for its kind contribution to the preparation of this case study.

Athens, January 2007

For additional information, please contact:

Mr. Thomas Giotitsas
Travel and Hospitality solutions executive

Information Systems Impact S.A.
130 3rd Septembriou str.
112 51 – Athens – Greece
+30 210 88 33624
www.impact.gr - tgiotitsas@impact.gr