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FINAL SECTORAL REPORT – CULTURAL TOURISM SECTOR
(ICT Diffusion and Applications)

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Submitted by

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Executive Summary

Background and Motivation to Information and Communication Technology (ICT) Diffusion Project

This report represents part of the second Phase of an eight-sector study, commissioned by the Department of Trade and Industry and funded by the European Union, to examine:

i)   The likely trajectories for the absorption of ICTs in a range of economic sectors; and

ii)   How to adjust the policies and strategies of the government and the domestic private sector to maximise the benefits to South Africa from the insights flowing out of i).

The project builds on existing research work but has at its heart the analysis of a number of 'vertical markets' for ICT, first through a worldwide scan (Phase I) and then through sectoral research in each of the chosen eight sectors.

The sectors selected were drawn from three broad categories – traditional sectors, service sectors, and new economy sectors, as follows:

Traditional:	**New Economy:**	**Service:**
Platinum Mining	Biotechnology	Cultural Tourism
Automotive Manufacturing	Multimedia	Healthcare Information-
Clothing manufacturing		Flows
Deciduous Fruit Farming		

The objectives of the research work were to:

- Generate accurate, objective findings regarding patterns for absorption of ICTs in a range of SA economic sectors, in order to guide South African participants in vertical markets for ICT;

- Provide recommendations for impacting public and private sector policies;

- Guide the government in directing some of its existing and future intervention strategies, including research and development programmes and industrial development facilities, whether through the science vote or departmental programmes; and to

- Give government more guidance regarding the commitment of funds for human resource development.

1.1   Project Research Methodology

The overall approach adopted by the lead consultants was to use Sectoral Experts for the interviewing and primary research, with three ICT coordinators (responsible for up to three sectors each) ensuring consistency across the sectors. An International Consultant was employed to provide an external perspective to the research.

The research methodology for Phase I of this project (The International Scan) involved:

- Defining each of the eight industry sectors;
- Identifying the main players in the value chain; and then
- Performing secondary research on each of the sectors to obtain current data about the diffusion of ICTs into those sectors; and
- Identifying leading-edge applications, as far as possible.

Phase II (Diffusion of ICT in South Africa) involved the use of these sector and value chain definitions to identify the major role players and to set up interviews, based on a structured questionnaire, with selected stakeholders across the value chain.

The questionnaire consisted of both a generic section (i.e. used by all sectors) and a sector-specific section (i.e. aimed only at those interviewees within the sector). Most of the questions relied on the *perception* of the interviewee. A rating scale was typically used, but a number of 'open-ended' questions were included to allow interviewees to express opinions in a less structured way.

The questionnaire was subdivided into six generic sections and one sector-specific section:

- Background Information (Name, Address, Organisation Size, etc.)
- ICT Usage (of Technology and Applications)
- ICT Spending Patterns
- Sources of ICT Information and Training
- ICT Adoption: Drivers and Barriers
- Diffusion of ICT into Organisation/Sector
- A sector-specific section dealing with issues of importance to the particular sector.

Between 40 and 55 interviews were conducted per sector; these should not necessarily be construed as being representative of the sector, as the selection of interviewees was often dependent on personal contact from the sector researcher. Also, the responses from those interviewed undoubtedly contained an emotional bias (for example, the desire not to seem technologically backward), which would have influenced the responses. Hopefully, these biases have been minimised through the averaging process.

1.2 Analysis of the Results

The results from the questionnaires were captured on an Excel spreadsheet and a basic analysis performed centrally. This information was then fed back to the individual sector researchers for further analysis and comment. The generic portion of the questionnaire captured up to 117 separate items of information per respondent (either a rating, a comment or basic data), so that a typical sector analysis involved 5000+ items. These responses were subdivided into various categories (e.g. Large, Medium, Small organisations) as applicable and further iterations performed.

Most of the results were shown graphically for ease of comprehension, although only basic statistical analysis was performed due to the nature of the data.

2. Overview of ICTs in Cultural Tourism in South Africa

This report was informed by results obtained from a survey of the various industries that make up the cultural tourism sector, both in South Africa and internationally (Phase I of this project).

This project had the objective of eliciting opinion from a broad range of stakeholders concerned with different aspects of the Industry. Contact was made with 116 institutions and 40 questionnaires

and/or interviews were completed. The interviewees who participated in this study came from the following categories:

- Government and conservation agencies
  - SA Tourism;
  - Cultural heritage and conservation agencies, such as Ezemvelo KZN Wildlife, the South African National Parks (SANP);
  - Peace Parks Foundation (public-private partnership);
  - City/local tourism authorities such as Cape Town and Grahamstown;
  - Provincial tourism authorities, such as Mpumalanga, and KwaZulu Natal;
  - Tourism Boards e.g. Cape province;
  - Museums e.g. the African Window;
  - Libraries and Collections;

- Research and Development Organisations
  - Council for Scientific and Industrial Research (CSIR), which is working on software development for the digitisation of cultureware;

- Private sector
  - Cultural industries which produce books, magazines, newspapers, music, records, film and videos, multimedia products and other new industries that are being created;
  - Stagers of cultural events (National Arts Festival);
  - Cultural tourism operators, such as the Federated Hotel Association of South Africa (Fedhasa) and Comair, the partner of the no-frills Kulula.com
  - Cultural tourism portals e.g. Open Africa, the African Dream, and WildNet Africa;
  - Publicity associations; information and marketing agencies;
  - Cultural villages e.g. Shangana and Shakaland;
  - Travel agents;

- Communities involved in cultural tourism activities such
  - Cultural villages and Craft centres;
  - Guided cultural community-based initiatives, etc.;

- Cultural Tourism and ICT Experts.

About two-thirds of the survey respondents were in the small and micro category, with 36,6% in the micro enterprises category with fewer than ten employees[1]. The survey respondents in the small category came to nearly 30%. Large institutions comprised 24% of the sample and medium institutions made up the remaining 10 %. Small, and micro enterprises (SMMEs) are typically part of the vibrant tourism economy that are usually characterised by entrepreneurs that start and sustain dynamic businesses, which provide much-needed jobs. Of these companies 66% operated only in South Africa, 24% have operations in SA and Africa, while about 32% have international links.

The following results emerged from the survey:

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[1] Few SMMEs are proficient in technology, this is especially notable from those who did not want to participate in the survey and the large number (193) of local crafters exhibiting their wares in the craft market and the industry training workshops) at the 2002 Tourism Indaba.

ICT USAGE

i)   Cultural tourism is a communications-intensive industry with high-levels of e-mail and Internet use in the established part of the sector. E-mail is fully used by the respondents and the Internet is likewise an important source of information acquisition and communications. Teleconferencing and videoconferencing hardly feature, and was identified as an area that could be used more frequently. This is in line with the trend to use videoconferencing and teleconferencing in active travel management.

ii)   The data indicates that most of the respondents have PCs that are nearly fully utilised. Local Area Networks (LANS) are widely used. CAD/CAM technologies are not a prominent feature of the ICT hardware. In terms of the communications infrastructure, leased lines were slightly more used than dialup Internet connectivity. Wireless networks are hardly used.

iii)   The situation in the emerging sector lags behind, but is improving with specific initiatives targeted around community initiatives, particularly in the Western Cape. ICT plays a crucial role in stimulating development by modernising delivery systems. As the survey results indicate, the challenge in South Africa is to catalyse the rural economy to leapfrog development.

iv)   The lack of bandwidth (Telkom) is a major concern, because it inhibits the optimal functioning of Websites and the uploading and downloading of graphics and images. Respondents also felt that the leased line charges and the high Telkom rates are deterrents to higher levels of use. Easy access to satellite technology was suggested.

ICT APPLICATIONS

v)   In the area of relationship management, the survey outcome supports the notion that personal contact and the human interface are more important than electronic systems in building customer relationships. There are however a number of respondents who commented that more investment is needed in the more effective use of CRM (customer relationship management systems) and communications to satisfy customers.

vi)   The responses regarding transformational business processes confirm that except for providing information via Websites and CD-ROMs, other B2C and B2B activities do not readily feature yet.

vii)   The survey also revealed that South African musicians and other artists are benefiting from e-commerce to access B2C world markets, cutting out layers of middlemen and improving the creator's bargaining power.

viii) A number of ICT applications were identified as areas that needed the most emphasis:
   - Knowledge management, reinforcing the importance of ideas and research and the protection of intellectual property;
   - E-commerce (B2B, P2P, B2C), R&D; multimedia, virtual reality, augmented reality, culturally adaptive software;
   - Marketing using the Internet, and packaging culture in such a way that it can be consumed and generate economic value, e.g. digital cultural exhibitions, Websites, electronic marketplaces and services; harnessing the power of mobile technology;
   - The use of GPS to provide next generation applications;
   - Business process/system integration and streamlining business processes, by integration between strategic and technical capabilities;
   - Diffusion of connectivity across the broadest possible front, communications infrastructure and satellite technology;
   - Multimedia could be applied for marketing more creatively;

- The development of integrated tourism information systems, as current efforts are diluted; and the
- Ability to track visitors to Websites, to capture their preferences and market to them regularly.

ICT SPENDING

ix)   Most of the respondents indicated that their ICT expenditure was less than the norm (more than 35%) or about the norm of the industry globally (about 32%). Eighteen % indicated that they were spending much less than the norm. A few did indicate that they were spending more than the norm globally. The weak Rand and the fact that ICT budgets were generally the first to be cut in a lean economic climate were given as contributing factors.

SOURCES OF ICT INFORMATION AND TRAINING

x)   The Internet is the source that is most used to access ICT-related information, followed by consultants, newspapers and ICT vendors. As the chamber of industry does not play a prominent role in tourism this was the least-used source. Government is seldom used as a source of information.

xi)   A similar pattern emerges for sources of ICT-related training. In-house training is the preferred source, followed by e-training on the Internet, and the application of consultant's services. Experts within the institution are also a preferred source to provide training. The Chamber of Business and the government are the least used for training. It would appear that higher education institutions are also not a popular training resource.

DRIVERS AND BARRIERS TO ICT ADOPTION

xii)   The low levels of use and understanding of ICTs by clients was considered problematic and an inhibitor to growing the use of ICTs in cultural tourism.

xiii)   The potential for global business opportunities is seen as a strong driver. This was reinforced by the general upbeat mood among cultural tourism industry players, following a strengthening of foreign tourist arrivals particularly from Germany during February and March 2002.

xiv)   By far the most respondents indicated that a strong driver was the need to be responsive to customer requirements. In a similar vein, almost all the cultural tourism operators were of the opinion that they continuously needed to improve communications. Many of the survey respondents confirmed the necessity to listen to customers' needs. Other supply chain factors did not feature prominently as either barriers or drivers.

xv)   The attitude of senior management is more favourable towards ICT than that of the average staff member. The level of ICT skills in the workplace is neither a barrier nor a driver. The same argument applies to the availability of ICT professional skills, where respondents were generally not concerned about the availability of IT skills.

SECURITY

xvi)   Some survey respondents emphasised the ethical dimension of ICT diffusion along the lines of corporate governance, including consumer protection, security of transactions, privacy of records, intellectual property and the treatment of digital signatures. These issues are relevant to the recommendations on good corporate governance contained in the King II Report and need concerted attention by both the industry and the government.

xvii)   Closely related to this is the building of trust relationships. This can be important to be accepted as a global player in the market. Small entrepreneurs are particularly vulnerable and face the challenge of building virtual trust to be able to trade effectively in a global market.

DIFFUSION OF ICT INTO THE SECTOR

xviii) Cultural tourism role players see themselves as highly innovative and as early adopters, and even world leaders, in the areas of product and service as well as market innovation. A strong presence of innovation is also discernible in the field of resource management.

xix)   High access costs are a serious deterrent to wider diffusion. Telecommunication monopolies are one contributing factor to the high costs, but low telecommunications network density in rural areas can also prevent connection to the Internet via a local phone call, that have rising cost implications. The leased line charges and the high Telkom rates are deterrents to wider ICT diffusion.

xx)   Another challenge is to lower the hurdles of ICT access. Location is relevant for ICT diffusion to outlying areas where they cannot operate, for example, a 56K modem. One option to overcome this hurdle is Internet cafes that would make telecommunications more accessible to remote areas, providing access to communities in remote areas.

What can the Cultural Tourism Sector do to better exploit ICT?

- In the human resources sphere, opportunities should be pursued to translate the principle of 'learning by doing' into concrete actions that incorporate multimedia options and computer-based instruction. The Internet could be a powerful tool for this purpose.

- All the issues impacting on and being a deterrent to the diffusion of ICT into the cultural tourism sector need to be tackled in a concerted way by industry stakeholders and role players alike. Often this implies using existing ICT infrastructure more effectively before investing in new technologies.

- Develop regional portals. Local marketing budgets do not compare to competitor norms internationally. A possible solution could be the consolidation of various Web initiatives under one domain. This would provide a more focused approach to marketing and e-business, and also provide the cultural tourist with readily- available packaged information to cultural destinations in South Africa.

What can the ICT Industry do for this Sector?

- As part of travel management, the Industry can opt to use teleconferencing and videoconferencing.

- Create partnerships with community tourism operators through twinning and mentoring relationships to secure an appropriate transfer of ICT and business skills.

- Create linkages with the New Africa Partnership for Development (NEPAD), as the African Dream Project and Contemporary African Music and Arts (Cama) are already operating in various countries on the African continent.[2]

- Appropriate target marketing is important to the cultural tourism industry - joint marketing initiatives with greater multimedia applications, such as the Joint Marketing Initiative (JMI) in the Western Cape is an important example of the type of integration that is taking place to make marketing more effective. By linking with multimedia companies servicing international clients, cultural tourism industry players could apply for international marketing support under the Export Marketing Investment Assistance (EMIA) programme.[3]

- To become more astute in participating in global markets, one possibility is to run workshops for IT / tourism entrepreneurs, focusing on business strategy and incorporating issues relating to intellectual property.

What can Government do?

- While reluctance is evident among the survey participants to avail themselves of government incentives, a concerted drive to catalyse human resources development is needed to set the country on a renewed growth and development path.

- For the purpose of linking tourism entrepreneurs into the global tourism system to deliver services of international standards and beyond to become globally competitive, the government can partner with the private sector to train local tourism entrepreneurs on the use of ICTs to grow their businesses. This can be accomplished by providing incentives that at the same time contribute to the future growth of the industry.

- Government needs to give clear guidance on the issue of intellectual property rights and strengthen patent law. One possibility is to run workshops for IT entrepreneurs, focusing on strategy and intellectual property. The same applies to the issue of security of transactions, privacy of records and the treatment of digital signatures.

- Perhaps most important is to create an investment climate that will attract investment and also be conducive to enable small entrepreneurs to be able to trade effectively in the local and global market.

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[2] NEPAD is an African wide initiative and both the African Dream project and CAMA are operating in various African countries. CAMA established documentary centres in seven countries: Mali, Ghana, Sudan, Ethiopia, Kenya, Mozambique and South Africa. The project aim is to facilitate the local gathering and sharing of excellent digital documentary resources for education, research and the promotion of Africa's artistic heritage and 'culture-makers'.
[3] Details on the EMIA is available from the DTI

- To demonstrate real commitment to both the ICT and the cultural tourism industry, government should create the necessary platform and engage all the stakeholders in the NEPAD initiative.[4]

- The government needs to step up its sponsorship of culture and the arts in partnership with the corporate sector and private foundations to ensure that new technological inventions embedded in incubators flourish in dynamic innovation processes.

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[4] This is already happening in the regional World Economic Forum taking place in Durban in June 2002.

1. Background

1.1 Introduction

As a result of the impact of ICT the concept of culture and development is evolving. Cultural heritage tourism is a multidisciplinary activity with many dimensions. The complex cultural tourism phenomenon is based on a mosaic of places, traditions, art forms, celebrations and experiences that portray a nation and its people, reflecting its diversity and character. Cultural tourism continues to be among the foremost vehicles for cultural exchange, providing a personal experience, not only of the past, but also of the contemporary life and society of others.

Cultural tourism caters to the needs of global tourists, but is also geared towards the cultural needs and leisure aspirations of local communities. The goal is to cater for different market segments to create cultural landscapes appealing to visitors and local residents alike. Culture plays a role in development by revitalising rural districts and urban centres, and improves the 'quality of life' of communities. Cultural tourism plays an integral part in community development, and in economic revitalisation.

Places and culture seem to converge in the world of international travel. In all this, tourism is testimony to the power of place and the sustaining lure of local uniqueness. The trends emerging are that tourists seek cultural tourism experiences[5]. The country's unique heritage and rich culture together account for 46% of foreign tourist motivations, second only to scenic beauty. Tourists interested in culture and the arts contribute to socio-economic development through the "multiplier effect" in a variety of ways. The impact is not limited to cultural activities, but includes expenditure on items such as accommodation, restaurants, transport and gifts. Cultural tourism has become good business, because many tourists travel expressly to visit cultural destinations.

Research and marketing efforts are increasingly focused on cultural amenities as assets that confer real economic value to a city or region[6]. Cultural tourism is significant for rural areas and the development of cultural tourist attractions is a way of strengthening the tourism economy.

Cultural tourism encompasses not only the arts and literature, but also modes of life, folklore, handicrafts, science, health, music and religion that are vital to every nation's development and economic sustainability. It is linked to culture in the sense of a whole complex of distinctive spiritual, material, intellectual and emotional features that characterise a society. If advances in health, trade, education and economic development are to be implemented and sustained, understanding culture is critical[7].

Trade in cultural goods has multiplied by a factor of five between 1980 and 1998 as cultural markets are increasingly going global; and according to UNESCO the cultural content industries are growing exponentially.

Cultural industries consist of books, magazines, newspapers, music, records, film and videos, multimedia products and other new industries that are being created. It constitutes a very important economic resource for a country. It is prudent to focus on the intersection of culture, tourism and development, in seeking the best definition of cultural tourism as indicated in the diagram below:

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[5] World Tourism Organisation (1998). Executive Summary: Tourism 2020 Vision: A New Forecast from the World Tourism Organisation
[6] Rutges, Elizabeth S (2001). *'Cultural Tourism' in Strengthening Communities through Culture.* Issue paper of Center for Arts and Culture, Washington D.C.
[7] Report to the G-8 'On Culture in a Worldwide Information Society'; *http://www.medicif.org*

Cultural tourism intersection

Public sector

Development

Tourism   Culture

Private sector   **Community**

It is well known that tourism's impacts and linkages pervade a number of industrial services and new economy sectors. The various initiatives must be integrated with an overlay of ICT, new insights and innovation. In the new economy, business solutions require innovations tailored to knowledge value opportunity. Software applications are transforming entire business models and stimulating the discovery of new products and markets. A key issue for cultural tourism stakeholders is how to interpret information to gain insights about how innovation will unfold and to identify new market opportunities. The gaps between what worked in the traditional market and the new cyber market require innovative and timely actions. The pervasive impact of multimedia on tourism as well as the capacity of the Internet to become the main conduit of travel business, supplemented by electronic commerce, is compelling. ICT has recently enabled online reservations, resulting in increasing disintermediation in the industry.

Some examples from the South African tourism industry illustrate the impact of ICTs:

- Kulula.com, South Africa's no-frills airline, was launched in August 2001 and has recently carried its 250 000th passenger. This was achieved in a short space of time because its low fares are backed by excellent service, and a sophisticated online booking system. According to the airline, investment in e-business has yielded a good return on investment. This achievement concurs with similar trends observed by the World Tourism Organisation Business Council[8], which predicted that the Internet may account for one in every four travel purchases in the main generating markets within the next five years.

- The Irene Country Lodge, near Pretoria, has installed "the latest innovation modern technological conveniences" that makes available a variety of online benefits by using the in-room television set-up in the lodge's 49 bedrooms. The system allows guests to have unlimited access to the Internet and e-mail, all at the touch of a button on the remote control. The 'Guestlink Global system' gives the same edge in in-room technology that they experience in the Irene Country Lodge's conference facilities.

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[8] World Tourism Organisation Business Council (1999). E-Business for Tourism: Practical Guidelines for Destinations and Businesses.

This is in line with international trends where, Internet access is increasingly being provided to tourists so that they can remain "connected" while they are away. Most major hotels provide Internet access in their rooms, and have Internet cafés and/or a public Internet access terminal at the front desk. These cafes provide e-mail, Web-surfing and sometimes games.

- Marketing opportunities on the Internet are ideally suited to small, micro and medium sized enterprises (SMMEs). The Website must attract the intended visitors, and persuade the world to visit cultural attractions. The ability of ICT to address and overcome some of the constraints experienced by such entrepreneurs is currently receiving attention. For example, the Western Cape Tourism Board (WCTB) in collaboration with the government-driven Ntsika Promotions Agency, initiated a series of workshops aimed at boosting tourism businesses. The workshops focus on understanding the tourism marketing mix: the development and implementation of a sound marketing plan; an overview of marketing tools; guidelines 'how to' conduct marketing research and advertising as well as product branding. The Tourism Board aims to reach more than 250 tourism businesses empowering small business people throughout the province in the Western Cape.

This is a good start, but not as far reaching as the Leonardo Project, a European Union programme that addresses the quality of vocational training in Europe.[9] Through pilot projects new products are developed using ICTs. One such project is a study undertaken by the University of Tilburg in the Netherlands to examine the diffusion of ICTs into SMEs in tourism in Spain, the UK and the Netherlands.[10]

1.2   Beyond ICT Linkages to Knowledge Exchange

From a tourist perspective destination information incorporates a mix of cultural attractions and traveller services. It consists of a mix of interdependent elements, or the way tourist service is delivered and incorporates hospitality, attractions, facilities, infrastructure and transportation. In short, attractions draw visitors to the area, facilities serve the needs of the tourists, while infrastructure and transportation provide accessibility to cultural tourism destinations. The cultural destinations in turn shape market segmentation strategies through knowledge exchange. The market segments in turn are linked through the customer to booking systems, infrastructure, transport, and distribution channels.

The purpose of marketing is to convey information on the cultural attractions to the market. The various channels draw tourists to cultural destinations and allow them to make travel purchases. In the cyber market the focus is on getting exposure to add value to the business. Marketing opportunities on the Internet is ideally suited to small enterprises. The websites attract the intended visitors, and persuade the world to visit cultural attractions. The ability of ICT to overcome some of the constraints experienced by entrepreneurs is one angle of the study.

1.3   Expected Trends and Applications

To stage the country and the region as the preferred tourist destination that celebrates cultural diversity, calls for services harnessed by new and emerging technologies. These are the catalysts to drive the tourism economy. This section provides a glimpse of the trends that can be expected to pan out in the future.

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[9] http://www.leonardo.org.uk/docs-resources/docs-res.htm
[10] This example is discussed in more detail in the final Phase 1 report of this study

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- o Technology that supports customer relationships is where the next wave of innovation will be seen.[11] Some of the novel developments and the technology on which they are based is already being experimented with, include:
- o WAP phones that allow remote check-in and in-flight movie selection before arrival at the airport;
- o In-flight video-conferencing with colleagues on other planes;
- o Voice-activated GPS equipment rental cars;
- o Hotel scanners that identify the guest upon on arrival allowing instant key delivery and customised information on the guestroom TV;
- o Automatic transfer of hotel e-folio to the guest's corporate expense report;
- o WAP phone notification of flight re-scheduling information to the traveller,
- o IBM is currently testing a 'travel card' that will allow a personal digital device to receive a boarding card electronically within ten seconds of check-in.

According to Michael Hartmann, director of industry marketing hotels for Siemens ICN, the Mobile Internet will be the 'Next Big Thing' to impact the business world.

> *"With the proliferation of non-PC Internet devices, business travellers are no longer tethered to a computer to access the Web. The challenge for hoteliers will be to spot alternative revenue opportunities because if a guest has mobile Internet access, he won't use the hotel infrastructure. For example, with a wireless LAN, the hotel could play the role of an Internet Service Provider and provide a portal-earning a percentage of the transaction fee."*

To be successful, he emphasised, hotels must be 'embedded' in strategic partnerships, for example with airports, rail networks and other providers in the travel chain.

Inter-connectivity of in-room devices was tipped as the technology development of the future. It is only a matter of time before air-conditioning, locking, minibar, TV, phone, safe and energy systems will be connected via a central server to key hotel departments, such as front desk, kitchen and engineering. This type of connectivity could, for example, make it possible to alert guests checking-out that they have left passports and tickets in the room-safe. It could also be used to ensure that, in the event of a fire, guestroom doors are simultaneously opened and evacuation instructions are issued.

However, the following observations apply in an ICT relevance check:

- Technology will only 'stick' if it is customer-focused and if it helps the hotel to improve guest retention;

- The speed of the evolution of m-business will depend on the user-friendliness of the devices involved;

- Hotels that take the outsourcing option (e.g. using ASPs) will need to build strong relationships with their service providers; and

- There is a pressing need not only for greater staff training but more guest education on 'what' technology can do.

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[11] Carolyn Viens, (March 26 2001). *Travel News Now.* IBM Travel Related Services. Sketching a scenario of the travel experience of the future to delegates Eurhotec 2001 in Paris, the International Hotel & Restaurant Association's (IH&RA) 6th European Hospitality Technology Conference.

Increasingly sophisticated database technologies that will allow the gathering and tracking of industry performance and market intelligence regarding consumer behaviour, including profiling of the cultural tourist, will provide a competitive edge.

2. Methodology

The Department of Trade and Industry (DTI) has played a pioneering role in undertaking this study and Phase 1, which included a review of available international literature and Web resources. This indicated that there is little hard, quantifiable data available on the diffusion of ICTs into the tourism industry, and even less on cultural tourism specifically.[12]

This survey's aim is to assess current levels of ICT diffusion in the cultural tourism sector in South Africa and to provide recommendations on possible policy options and future implementation strategies. The survey broke new ground in quantifying the level of ICT diffusion taking place in the cultural tourism economy and testing perceptions towards ICT in the sector. The survey provides a valuable tool for cultural tourism enterprises to inform government of the obstacles they face in running their businesses and possible ways of capitalising on the potential efficiencies of ICT.

2.1 Nature of the Questionnaire (Sector-specific Components)

This survey targets stakeholders and role players in all the dimensions of the cultural tourism value chain. The aim is twofold. Firstly, the survey gives a picture of the effectiveness of ICT by

- Creating better access to information on cultural tourism; and
- Enabling better investment and decisions.

Secondly, the survey research related the responses in a qualitative way to local economic development relevant to

- Empowerment and community development;
- Investment in infrastructure, including ICT infrastructure; and
- Human resource development and capacity building.

Because the generic survey was long, the sector specific questions were kept to issues that allowed short and concise responses. In some instances the interview process allowed for elaboration and further qualitative information was requested.

All the survey responses were captured centrally on Excel spreadsheets. Further data manipulation followed for meaningful interpretation and this was supplemented by qualitative information provided by some of the interviewees.

2.2 Interviewees: Selection and Role in the Sector

Contact was made with 116 institutions and 40 interviews were conducted, mainly with senior and executive management. A strong representation of ICT 'specialists' completed the surveys. From the sample profile below, it is evident that the sample had a more or less equal spread between private

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[12] Miller, Esselaar and Associates (2002). *ICT Diffusion and ICT applications in usage sectors: An International Scan.* Prepared for South African IT Industry Strategy Project (SAITIS), comprising Phase 1 of the present study.

and public cultural tourism institutions. This is largely a private sector driven sector with the public sector providing the catalysts.

Figure 1. Profile of Cultural Tourism Sample

Profile of Cultural Tourism Sample

Public Sector:
· Local authorities
· SA tourism
· Conservation &
heritage agencies
· Museums

Private Sector:
· Cultural portals
· Publicity,
information &
marketing
· National Arts
Festival
· Other

R & D

Community
Initiatives
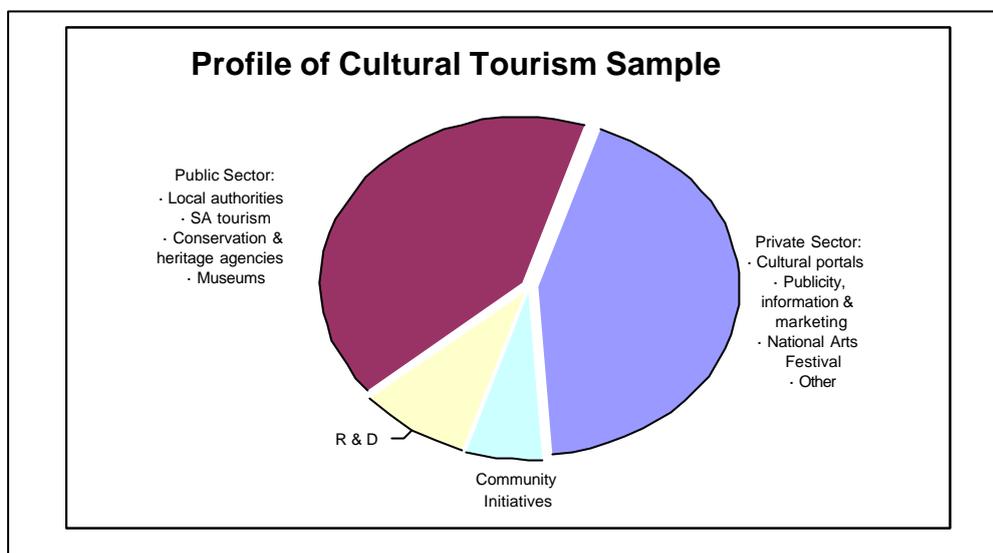
2.2.1 Role Players and The Interview Process

For the purposes of this study, and based on the intersections between culture, tourism and development, the following market segmentation was followed:

- Geological and archaeological heritage sites, and rock art;
- Museums, archives; libraries; history and collections;
- Cultural and rural villages and/or townships;
- City experiences, spaces and architecture;
- Nature tourism and conservation experiences; and
- Cultural events, such as the Grahamstown festival.

The forty role players included in this survey include:

- Government and conservation agencies
    o SA Tourism;
    o Cultural heritage and conservation agencies, such as Ezemvelo KZN Wildlife, the South African National Parks (SANP);
    o Peace Parks Foundation (public-private partnership);
    o City/local tourism authorities such as Cape Town and Grahamstown;
    o Provincial tourism authorities, such as Mpumalanga, and KwaZulu Natal;
    o Tourism Boards e.g. Western Cape province;
    o Museums e.g. the African Window;
    o Libraries and Collections;

- Research and Development Organisations
  - Council for Scientific and Industrial Research (CSIR), which is working on software development for the digitisation of cultureware;

- Private sector
  - Cultural industries which produce books, magazines, newspapers, music, records, film and videos, multimedia products and other new industries that are being created;
  - Stagers of cultural events (National Arts Festival);
  - Cultural tourism operators, such as the Federated Hotel Association of South Africa (Fedhasa) and Comair, the partner of the no-frills Kulula.com
  - Cultural tourism portals e.g. Open Africa, the African Dream, and Wildnet Africa;
  - Publicity associations; information and marketing agencies;
  - Cultural villages e.g. Shangana and Shakaland;
  - Travel agents;

- Communities involved in cultural tourism activities such
  - Cultural villages and Craft centres;
  - Guided cultural community-based initiatives, etc.;

- Cultural Tourism and ICT Experts.

Clients are important to a hospitable tourism industry and increasingly tourists are travelling expressly to experience cultural destinations. For this reason, the original intention was to survey clients in the cultural tourism industry. This proved to be difficult to undertake due to the timing of the survey, which did not coincide with any of the major cultural festivals taking place e.g. the National Arts Festival in Grahamstown, Klein Karoo Fees, Aardklop.

Only a small number of community tourism organisations were surveyed, but there is overlap between the community-driven initiatives and those of the private sector driven cultural villages and experiences. As could be expected a lack of confidence characterised community tourism initiatives. A spokesperson for a community tourism organisation was quite frank in his response to the survey request, where his response reflected that he did not feel competent to complete the questionnaire:

> *" ..... I am not competent to take part in this survey. There is a loose affiliation of 108 members all over the country who would have to be individually canvassed because they are so diverse, particularly where IT is concerned. About 20 of them do not even possess a computer to communicate through e-mail! If you like, I can forward the questionnaire to each community tourism organisation individually, but I cannot see them completing it by April 12. They take weeks to reply to my own questionnaires and I am lucky to get a 25% response[13]! "*

2.3 Interview Process

The steps followed in the process of the survey questionnaire included the following:

- Initial phone follow-up with an identified target person to secure an interview;

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[13] Personal email communication on 5 April 2002

- Often this was followed by the provision of the survey instrument per e-mail or fax. With hindsight this proved to be a major impediment, due to a perceived reluctance to participate in lengthy surveys;

- Most respondents were secured through personal contacts. About a half of the survey research was obtained through face-to face interviews. Most of the interviewees completed their own responses, and the interviewer acted as a sounding board;

- Where the location was in an outlying district or the timing proved tight, the purpose of the survey was explained and respondents sent their completed surveys, with the understanding that if any difficulties arose that could be clarified by telephone. In some instances the interview took place telephonically.

2.4 Challenges and Difficulties Encountered

The following challenges and difficulties had to be tackled in conducting the survey research:

- A pilot run of the survey instrument was only conducted with the biotechnology sector, and not specifically for cultural tourism. The perception of some respondents was that the questionnaire was complex and ambiguous.[14]

- The timing was problematic since the survey coincided with the school holidays, Passover, the Easter weekend, Freedom Day and Workers Day. It created the perception that the tourism community was always on holiday.

- The length of the questionnaire was too long and generally took 45 minutes to an hour to complete. This proved to be a deterrent and confirms the outcome of recent research[15] on the effectiveness of survey questionnaires.

- There was no publicity to inform the tourism industry of the purpose of the survey or to get appropriate commitment from cultural tourism role players and stakeholders for a meaningful response. Without any substantive incentive, private sector operators were reluctant to participate.

- According to indications in the tourism industry, about seven surveys were recently undertaken, indicating a large degree of fatigue regarding the current survey. Most of the other surveys were related to gathering market intelligence for the new marketing strategy that SA Tourism launched at Tourism Indaba, the premier Tourism Trade Fair in May 2002.

- The way that the survey was packaged also contributed to the perceived ambiguity. The strategic questions later on in the survey should preferably have taken precedence up-front in the survey and the ICT hardware, software and applications added as an Appendix at the end of this report. The current packaging probably also resulted in a bias in the responses, because

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[14]Comment by SA Tourism's IT Systems manager

[15] Recent research by Palmer Morrel-Samuels, 'Getting the *Truth* into Workplace Surveys', *Harvard Business Review,* Vol. 80 No. 2, February 2002, p.118 would indicate that surveys questionnaires would have to be completed within 20 minutes to be effective. People 'are busy, and nobody really likes surveys and assessments. If a questionnaire appears excessively time-consuming, only people with a lot of time (hardly a representative sample) will participate, and the response rate will fall dramatically. We've already seen that when surveys are long, respondents' answers become automatic and overly positive. In general we've found that surveys that can be finished in 20 minutes can provide substantial results'.

ICT 'specialists' mainly completed the survey(s). Those on the periphery were either too intimidated or did not feel competent to respond to a request for an interview. However a concerted effort was made to gather market intelligence to cover as broad a spectrum as possible.

- There is no direct accountability for the cultural tourism industry to DTI, and the working relationship between the various government departments is questionable. The Department of Environment Affairs and Tourism (DEAT) clearly has responsibility for cultural tourism initiatives, whereas the Department of Arts, Culture, Science and Technology (DACST) is responsible for driving various, cultural and technology related initiatives.

3. Results, Analysis and Interpretation

3.1 Nature of Sector: boundaries and subsector map; large company/small company picture; international relationships

About two-thirds of the survey respondents were in the small and micro category, with 37,5% in the micro enterprises category with less than ten employees[16]. The survey respondents in the small category came to nearly 30%. Large institutions comprised 22,5% of the sample and medium institutions made up the remaining 10 %. Small, and micro enterprises (SMMEs) are typically part of the vibrant tourism economy that are usually characterised by entrepreneurs that start and sustain dynamic businesses, which provide much-needed jobs. In fast-growing economies large and small tend to grow and cluster together in a dynamic interplay. Of these companies 66% operated only in South Africa, 24% have operations in SA and Africa, while about 32% have international links.

Figure 2. Cultural Tourism Sector by Size

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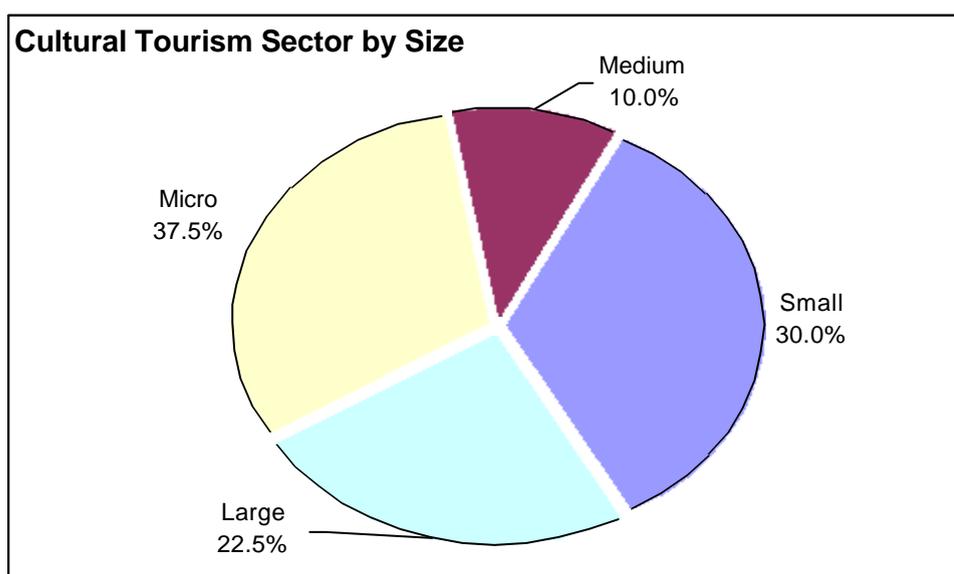
[16] Few SMMEs are proficient in technology, this is especially notable from those who did not want to participate in the survey and the large number (193) of local crafters exhibiting their wares in the craft market and the industry training workshops) at the 2002 Tourism Indaba.

3.2   Characteristics of ICT Use

3.2.1 Basic Technologies

The data indicates that most of the respondents have PCs that are nearly fully utilised. Local Area Networks (LANS) are widely used. CAD/CAM technologies are not a prominent feature of the ICT hardware. In terms of the communications infrastructure, leased lines were slightly more used than dialup Internet connectivity. Wireless networks are hardly used.
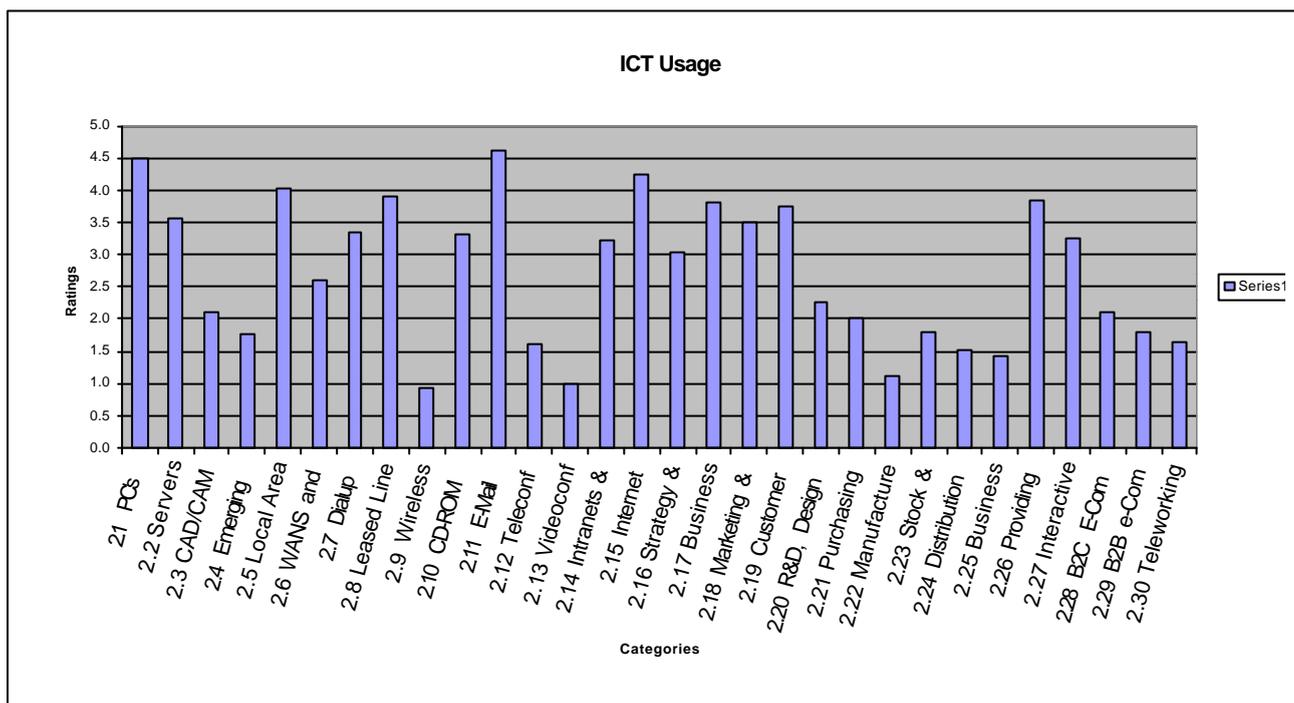
3.2.2 Applications

E-mail is fully used by the respondents and the Internet is likewise an important source of information acquisition and communications. Teleconferencing and videoconferencing hardly feature. The possibility was mooted that this is an area that could be explored more in future. This is in line with the trend to use videoconferencing and teleconferencing in active travel management.

Business support activities and customer relationship services feature readily in the cultural tourism respondents. Electronic promotional materials for marketing purposes are next in line when it comes to business process applications. It is interesting to note that recent research highlights the fact that personal contact is more important than electronic systems for the purpose of Customer Relationship Management (CRM)[17]. As could be expected, the application of R&D, electronic data exchange, and other business process related systems do not really feature in this industry segment.

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[17] Arussy, Lior (2002). FORETOUGHT, Idea: 'Don't Take Calls, Make Contact' *Harvard Business Review*, Vol.80, No.1, January, p16-17.

The responses regarding transformational business processes confirm that except for providing information via Websites and CD-ROMs, other B2C and B2B activities do not readily feature yet.
It is evident that e-commerce is making it easier for musicians and other artists to access B2C world markets, cutting out layers of middlemen and improving the creator's bargaining power. To the question, which of the aforementioned technologies needed the most emphasis, the following answers emerged from the survey:

- Knowledge management, reinforcing the importance of ideas and research and the protection of intellectual property;

- CRM and communication; by continuously striving to please customers;

- E-commerce (B2B, P2P, B2C), R&D; multimedia, virtual reality, augmented reality, culturally adaptive software;

- Marketing using the Internet, and packaging culture in such a way that it can be consumed and generate economic value, e.g. digital cultural exhibitions, Websites, electronic marketplaces and services; harnessing the power of mobile technology;

- GPS to provide next generation applications;

- Business process/system integration and streamlining business processes, by integration between strategic and technical capabilities;

- Diffusion of connectivity across the broadest possible front, communications infrastructure and satellite technology;

- There seems to be consensus among the respondents that the leased line charges and the high Telkom rates are also deterrents. Easy access to satellite technology would certainly help.

- The potential of videoconferencing to cut out travelling costs was identified as a gap in the market.

- The survey research also identified the following gaps, amongst others:

  o Telecommunications to remote areas are problematic, since one cannot operate a 56K modem in some of these areas;
  o Internet cafés could make ICT more accessible in these areas;
  o Lack of bandwidth (Telkom) is a major concern, because it inhibits the optimal functioning of Websites and the uploading and downloading of graphics and images;
  o The low levels of use and understanding of ICTs by clients;
  o Multimedia could be applied for marketing more creatively;
  o Integrated tourism information, as current efforts are diluted; and
  o Ability to track visitors to Websites and to capture their preferences and market to them regularly.

3.2.3 ICT Spending Patterns

During the survey the interviewees were asked to consider the impacts of ICT on the spending patterns of their companies and compare it with the sector's spending globally. Most of the

respondents indicated that their ICT expenditure was less than the norm (more than 35%) or about the norm of the industry globally (about 32%). Eighteen % indicated that they were spending much less than the norm. A few did indicate that they were spending more than the norm globally. In subsequent questions they were asked for further information about the impact of their ICT spending patterns.

Your sector's ICT spending relative to your sector globally
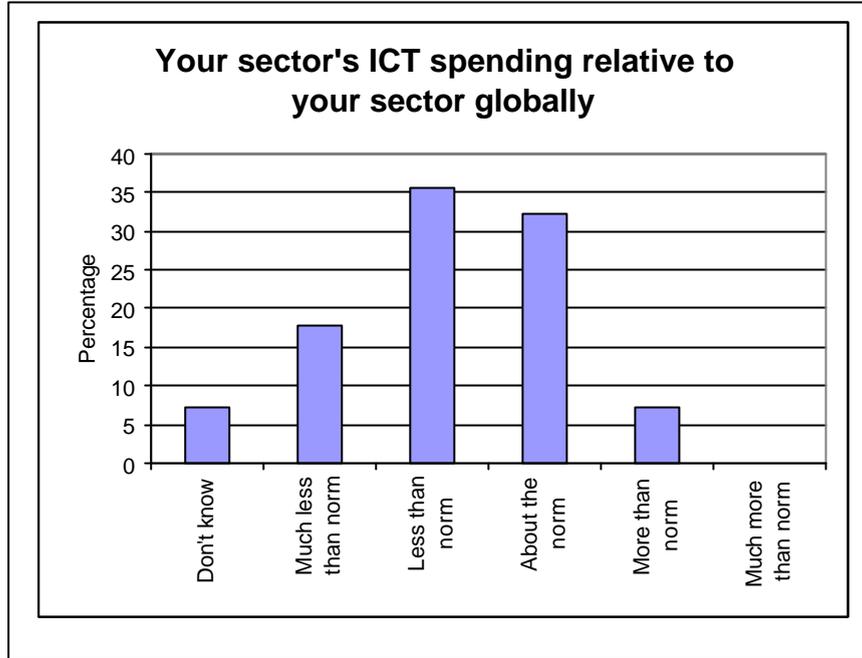
The fact that less than the norm was spent on ICT infrastructure and software could be ascribed to the high import cost and the depreciation of the Rand compared to other currencies such as the dollar and the pound. Also, with many competing claims on resources, often other more urgent priorities take precedence when budgets are tight. Some survey respondents indicated that ICT budgets are often first to be slashed.

Your organisation's ICT spending relative to the sector in South Africa
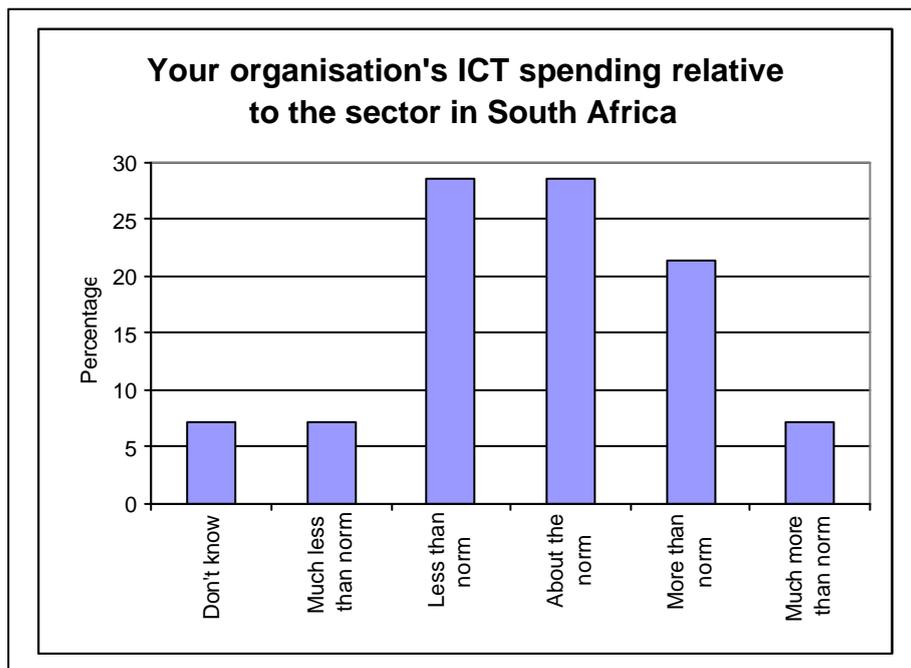
The respondents that were upbeat indicated that they were spending about the norm in South Africa. A similar percentage recorded that the ICT spending was less than the norm. More than 20% were confident that their spending compared to their peers in South Africa was more than the norm.

Relative growth in budget for ICT expenditure
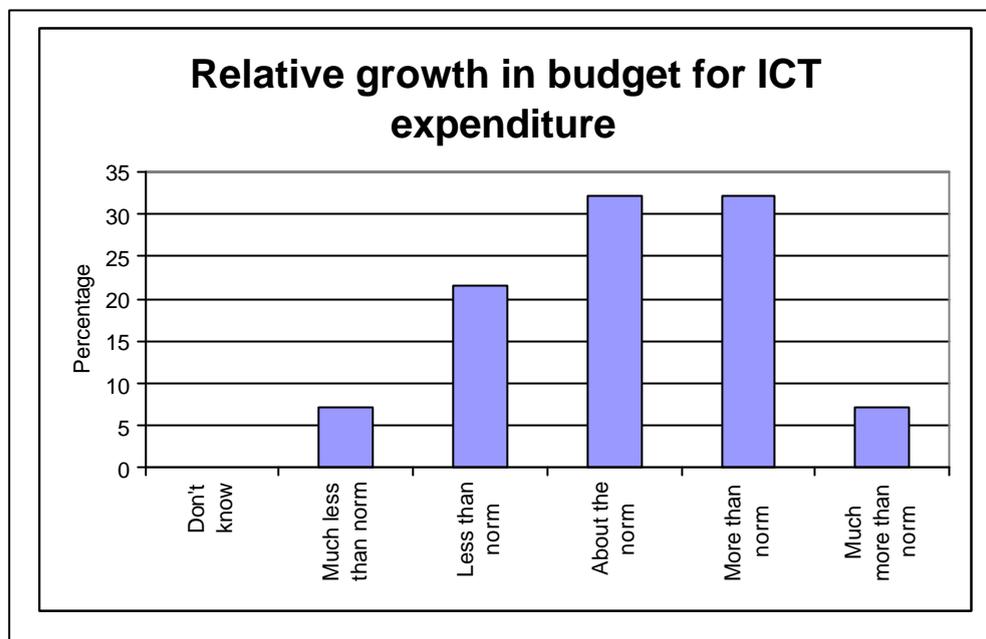
From the perceptions on levels of spending patterns, diffusion of ICT is happening in cultural tourism. A notable percentage stated that the growth in their organisation's ICT spending is more than the norm. Likewise a similar percentage indicated growth less than the norm, and this was followed by indications of less than the norm.

The development of portals and Websites such as the African Dream project[18] and WildNet Africa[19] are examples of various initiatives and investments in technology infrastructure that is possibly responsible for these trends.

3.2.4 Sources of ICT Information and Training

ICT Sources of Information

From the graph below it is evident that the Internet is the source that is most used as a way of accessing ICT-related information, followed by consultants, newspapers and ICT vendors. As the chamber of industry does not play a prominent role in tourism this was the least-used source. Government is seldom used as a source of information.

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[18] *www.africandream.org*; See **Appendix 1** for more details
[19] *www.wildnet.com*

Sources of ICT related information
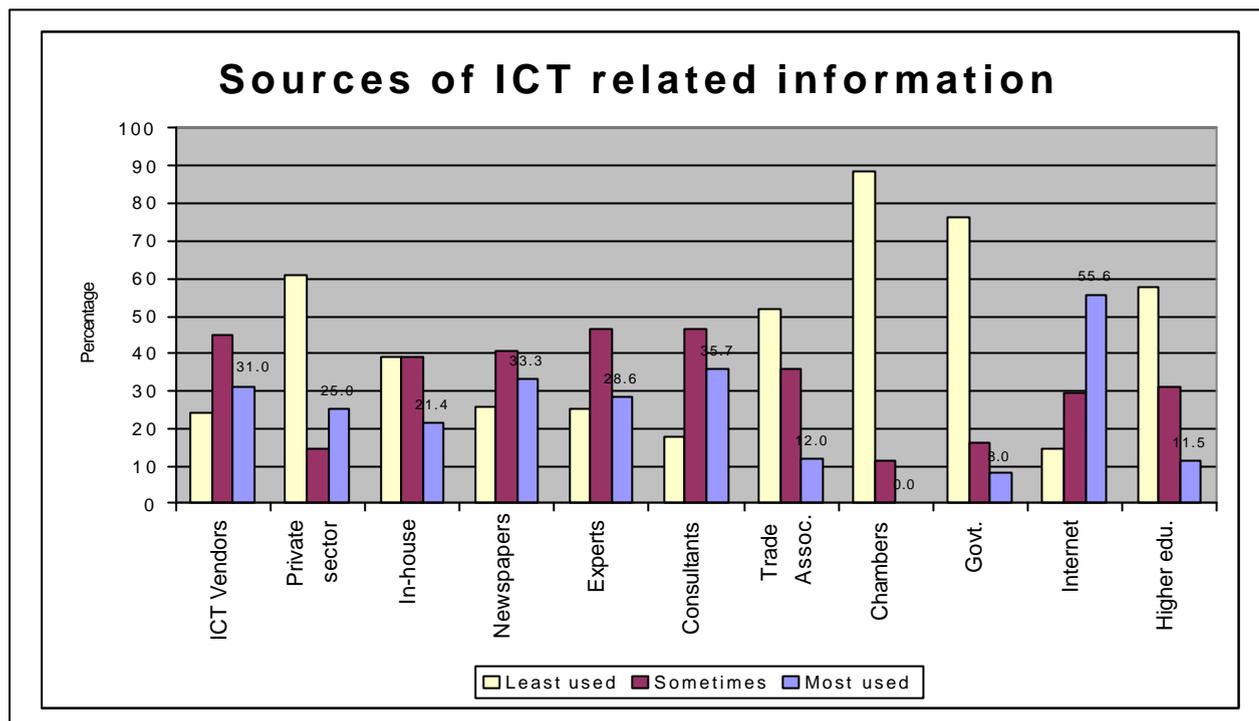
ICT related Training

A similar pattern emerges for sources of ICT-related training. It is apparent that in-house training is the preferred source, followed by e-training on the Internet, and the application of consultant's services. Experts within the institution are also a preferred source to provide training. The Chamber of Business and the government are the least used for training. It would appear that higher education institutions are also not a popular training resource.

In response to the question if professionals are given ICT-related specific training, the following responses were common:

- In-house experts teach those who need to know what they know;

- The professionals trained themselves;

- Specialisation is now driving the market, but the training budget is often the first to be cut;

- Staff of the Grahamstown festival received training in the 'Computicket' system;

- The training was adequate except in the area of Web marketing;

- The real need for training is more for management rather than a specific ICT function.

Management training was seen as a critical success factor. This concurs with a finding of a delegation of US venture capitalists meeting with 12 information technology companies in Cape Town recently. The impression was that South African entrepreneurs were rather naïve in business strategy and the strategic use of intellectual property, according to Geoff Hainebach, the chairman of

the Cape IT Initiative which co-ordinated the visit.[20]. A real need for training focusing on strategy and incorporating intellectual property was identified as a priority concern.

Many of the respondents indicated that e-learning does not yet feature among the survey respondent's companies. The rationale is that e-learning works for self-motivated staff, but not for average computer users. What is quite revealing is that most of the respondents across the spectrum, but with a few exceptions, were not aware of training provided by the government. This could be ascribed to poor communication on the side of government, or industry players not being bothered to stay abreast of the initiatives or to take note of training incentives.

3.2.5 ICT Adoption: Drivers and Barriers

External economic drivers or barriers

The potential for increased global business opportunities is seen as a strong driver. This was reinforced by the general upbeat mood among cultural tourism industry players, following a strengthening of foreign tourist arrivals particularly from Germany during February and March 2002.

Supply chain factors

By far the most respondents indicated that a strong driver was the need to be responsive to customer requirements. In a similar vein, almost all the cultural tourism operators were of the opinion that they continuously needed to improve communications. Many of the survey respondents confirmed the necessity to listen to customers' needs. Other supply chain factors did not feature prominently as either barriers or drivers.

Internal factors

From the responses it is clear that the attitude of senior management is more favourable towards ICT than that of the average staff member. The level of ICT skills in the workplace is neither a barrier nor a driver. The same argument applies to the availability of ICT professional skills. The survey respondents were generally not concerned about the availability of IT skills.

Security

Some survey respondents emphasised the ethical dimension of ICT diffusion along the lines of corporate governance, including consumer protection, security of transactions, privacy of records, intellectual property and the treatment of digital signatures. These issues are also contained in the King II Report relevant to good corporate governance.

Closely related to this is the building of trust relationships. This can be important to be accepted as a global player in the market. Small entrepreneurs are particularly vulnerable and face the challenge of building virtual trust to be able to trade effectively in a global market.

ICT Reporting relationships

The reporting relationships are somewhat of a mixed bag. The strategic nature of the CIO is acknowledged. In more progressive institutions, the Webmaster reports directly to the CEO. In other

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[20] Stones, Lesley (2002). "*SA entrepreneurs seen as too naïve*", Business Day, June3, p13

instances there is another layer of executive management in the reporting line, such as to the executive director (ED) strategic services, the ED- IT and Marketing, or the Market Research and Information Manager. In the smaller and micro companies there are no specific positions for the CIO. It is interesting to note that in all the survey respondents there is no instance of the CIO reporting to the ED Finance.

3.2.6 Diffusion of ICT

Product/service innovation

The general spread shows an innovator / early adopter pattern for product/service innovation. More than half of the respondents consider their organisation as being in the innovator and early adopter category. About 35% see their organisation in the early majority and late majority category.

Product/Service Innovation						
	My Organisation		**My sector in SA economy**		**My sector in global economy**	
		%		%		%
Innovator	7	22,0	1	3	3	10
Early Adopter	11	34,5	8	28	6	23
Early Majority	5	34,5	10	36	11	47
Late Majority	6		7	25	3	10
Laggard	3	9,0	2	8	3	10

About a third of the interviewees regard the cultural tourism sector in the global economy following more-or-less the Everett Roger's model that describes ICT diffusion[21] as being innovative (10%) and early adopters (23%). At least seven of the respondents (about 22%) view their cultural tourism organisation as being more innovative in exploring market niches than the perceived experience of cultural industries. Respondents quoted several examples during the interviews:

- *The African Dream Project*

    The founder director of the African Dream Project[22] seemed to indicate that they were ahead in product and service innovation. The role ICT plays in product/service innovation has its own story to tell in the African Dream project (See *Appendix 1* for a more detailed description).

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[21] For more information refer to ICT Diffusion and ICT applications: An International Scan. Prepared for SAITIS by Miller, Esselaar and Associates.

[22] The African Dream Website, *www.africandream.org,* won the 2002/3 Golden Web Award. This is an accolade made the more meaningful in that it is made by peers in the International Association of Web Masters and Designers and is presented to those sites whose web design, originality and content have achieved levels of excellence deserving of recognition.

> **ICTs for Cultural tourism in Remote and Inaccessible Areas**
>
> The use of Internet-based Websites and portals to market and packa[ge]
> cultural experiences to a broader international market is particul[arly]
> important for cultural tourism activities in remote, inaccessible [and]
> underdeveloped areas. This is precisely what the African Dream Website [and]
> WildNet Africa are accomplishing. The African Dream Project now has
> routes covering 7 270 km in 56 towns involving 378 establishm[ents]
> accounting for 3 415 direct full-time jobs in season and 1 503 part-time. [The]
> Website is registering an average of 5 473 hits daily. The diffusion [of]
> knowledge enables networking between route members both internally wit[hin]
> routes and externally among routes.

- *WildNet Africa*

In the run-up to the World Summit, and with its involvement in other events and initiatives such as the end-of-year eclipse, WildNet Africa has entered an important growth period. WildNet Africa is getting ready to track the path of the eclipse as it crosses the northern extremities of South Africa's Limpopo Province on 4 December 2002. A dedicated EclipseLine[23] website and call centre has been established for this purpose in collaboration with the Limpopo Province Tourism and Parks Board. With the eclipse providing local communities with the opportunity to benefit from the tourist influx, the EclipseLine initiative also aims to elevate the profile of community-based initiatives. The site provides information on accommodation, health issues and other opportunities arising from the event.

Market innovation

Market Innovation						
	My Organisation		My sector in SA economy		My sector in global economy	
		%		%		%
Innovator	6	19,4	1	3,6	1	4,0
Early Adopter	12	38,7	8	28,6	5	21,0
Early Majority	4	12,9	9	32,1	11	46,0
Late Majority	6	19,4	6	21,4	4	16,5
Laggard	3	9,6	4	14,3	3	12,5

Market innovation to create new channels for marketing and distributing products through the use of the Internet comes through strongly – the local cultural tourism sector in South Africa sees itself as leading the field as compared to their counterparts in the global economy. During discussion with interviewees it became apparent that the perception of the creativity of South African industry players was inspired (or perhaps even elevated) by the excitement created around Mark Shuttleworth's space odyssey.

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[23] EclipseLine Website is located at: *http://EclipseLine.co.za*

Administrative process management

As in the previous two aspects of ICT diffusion, the respondents conveyed the impression that the South African cultural tourism industry is ahead in using the Web and e-mail to enhance administrative process management. The strong level of positive responses with about 31% viewing themselves as early adopters and nearly 13% as innovators should perhaps be treated with caution.[24]

Administrative Process Management						
	My Organisation		My sector in SA economy		My sector in global economy	
		%		%		%
Innovator	4	12,5	-	-	-	-
Early Adopter	10	31,0	8	28.5	8	33,3
Early Majority	9	28,0	8	28.5	11	46,0
Late Majority	5	16,0	10	36,0	2	8,2
Laggard	4	12,5	2	7,0	3	12,5

Relationship management

Relationship management						
	My organisation		My sector in SA economy		My sector in global economy	
		%		%		%
Innovator	2	6,7	1	3,8	----	---
Early Adopter	4	13,3	3	11.5	5	20.8
Early Majority	6	20,0	10	38,5	9	37.5
Late Majority	10	33,3	7	27,0	6	25,0
Laggard	8	26,7	5	19,2	4	16.7

More that a half (53,3%) of the respondents perceived themselves to be among the late and early majority. Instead of installing new technology they could hone the technology they already have in place, thus improving existing processes that focus on people or the human dimension. This could be expected, as this sector is reliant on personal touch to reinforce customer relationships and is in line with the approach to focus on people contact and human interface rather than relying

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[24] This concurs with research by Palmer Morrel-Samuels, 'Getting the Truth into Workplace Surveys', *Harvard Business Review,* Vol.80, No.2, February2002, p.118

on electronic systems to take care of customer relationship management (CRM). This concurs with an international assessment[25] of how industry is creating closer links with their customers and other stakeholders. A typical pattern is evident, and there were examples forthcoming from the survey responses that demonstrate a real commitment to improve customer relationship management.

In this area, one survey response innovator is Contemporary African Music and Arts (CAMA). It developed a computer-based "context" focussing primarily on African music and art. The project involves building a relationship network, as well as documenting and disseminating audio-visual materials about the lives and work of artists, musicians and others who create culture in Africa and using IT in an African context.[26] This development culminates in the Culture Africa Network - CAN.

Resource management

Resource Management						
	My organisation		My sector in SA economy		My sector in global economy	
		%		%		%
Innovator	4	13,3	1	5,0	1	4.7
Early Adopter	1	3,3	3	12.5	2	8,3
Early Majority	8	26,7	7	29,0	11	46,0
Late Majority	9	30,0	8	33,0	5	20.5
Laggard	8	26,7	5	20.5	5	20.5

No fewer than four of the respondents see their organisations as innovators in the field of resource management. This can be linked to the level of knowledge management (essentially about ideas and translating it into opportunities) in the cultural tourism sector that is perceived to be ahead of their counterparts in the rest of the world.

Use of ICT is increasingly incorporated into cultural, nature and conservation activities. This is particularly relevant in the case of the Peace Parks Foundation, SANParks and Ezemvelo KZN Wildlife, where the use of Geographic Information Systems (GIS) are widely applied for identifying and prioritising areas of cultural and natural heritage. From the responses it became evident that Ezemvelo KZN Wildlife is capturing the rock art on digital technology to build the database and to preserve this rich culture.[27] They are using digital photography to capture San rock art and preserve this for the future.[28]

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[25] Arussy, Lior (2002). *FORETOUGHT, Idea: 'Don't Take Calls, Make Contact'* Harvard Business Review, Vol.80, No.1, January, p16-17.

[26] CAMA also seeks to facilitate the documentation of the wealth of materials from existing holdings within African institutions through: a multi-media network archive for African arts and culture and by exploring ways to acknowledge cultural creativity on a continental scale.

[27] The Kamberg Rock Art Interpretive Centre is a joint venture between Ezemvelo / KZN Wildlife, Amafa/Heritage Association, the Natal Museum, and the University of Witwatersrand.

[28] More information on how local communities can benefit from this initiative is available in **Appendix 2**.

The respondents identified the following novel ideas regarding projects / incentives / schemes:

- Joint marketing initiatives with greater multimedia applications;

- Create new access to markets by capitalising on an innovative element;

- Building of trust relationships particularly on the Web; as this can be important to be accepted as a global player in the market;

- Focus on the ethical dimension along the lines of the lines of good corporate governance[29] and provide for the necessary capacity building;

- Community-based internet cafes - creating broader access, also for communities;

- Library patron Internet access and information kiosks, as in the case of initiatives around libraries in the Cape;

- Collaboration with other sectors for better use of limited resources in a more synergistically and cost effective way;

- The Western Cape Tourism Board is developing an e-business system that will incorporate most of the above-mentioned features;

- Capacity building and training of all staff on 'how to maximise' ICT benefits and use;

- Establishment of call centres for the provinces and the cities that are focused on customer needs;

- Need specialist and general IT support to 'e'-enable current processes and systems;

- Investing in areas that show demonstrated Return-On-Investment (ROI), such as in Websites;

- Involve communities with the tourism industry in various pilots to refine R&D where that stimulates the use of new technology in the cultural tourism sector.

4. Conclusions and Recommendations

The survey broke new ground by giving an indication of the level of ICT diffusion taking place in the cultural tourism economy. Analysing the ICT diffusion shows cultural tourism as a communications-intensive industry with high-levels of e-mail and Internet use in the established part of the sector. The situation in the emerging sector is improving with specific initiatives targeted around community initiatives, particularly in the Western Cape, such as, for example, the level of empowerment taking place through the 'Sonke Forum.' This initiative was constituted as a vehicle

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[29] These issues were mentioned during the survey interviews and also concur with the King2 Report on Corporate Governance. The corporate governance principles are mandatory for all private and state controlled companies and all public sector administrators. The code will ensure that directors kept their eyes on internal operations. A culture of corporate governance would be developed whereby there would be constant pressure from all including the media to ensure adherence to the principles to build investor confidence. Non-financial issues, such as ethics and ICT are incorporated, and because of compliance and enforcement the necessary capacity should be built so that the dimension of transparency is adhered to in the code of good corporate governance.

to provide small business owners, artists, crafters and tour operators in the townships with information technology training, but much still needs to be done to make communications accessible to remote areas.

ICT plays a crucial role in stimulating development by modernising delivery systems. As the survey results indicate, the challenge in South Africa is to catalyse the rural economy to leapfrog development. The lack of connectivity and the relative high cost of ICT / Internet access are serious barriers and require investment in ICT related infrastructure, the systems to build it, and know-how for using the Internet.

To become connected in the e-commerce pyramid and integrated in the regional and world economy, a technological intervention and partnerships are needed. The process reviewed the ICT infrastructure in support of cultural tourism development. The need to expand along a continuum into rural and peripheral areas to make access available to community initiatives is evident.

The interviews identified impacts on costs and resources. The survey explored how to leverage the efficiencies of digital networks towards training. Opportunities to translate the principle of 'learning by doing' into concrete actions incorporate computer-based instruction. The Internet came through as a powerful tool for this purpose.

Cultural tourism role players are working to ensure that the tourism sector becomes globally competitive and that the services are of global standards. It is not surprising that the cultural tourism role players see themselves as being highly innovative and as early adopters and even world leaders in the areas of product and service as well as market innovation. Increasingly the focus shifts towards innovation and creativity to explore opportunities for marketing. Knowledge on how to create value from innovation, invent new markets, reinvent existing ones is supported by the survey responses.

As could be expected, in the area of relationship management the survey outcome supports the notion that personal contact and the human interface is more important than electronic systems in building customer relationships. A strong presence of innovation is also discernible in the field of resource management where GIS is applied for nature and conservation management.

The diffusion of technology, more experienced and discerning travellers and the environmental limits to growth all augurs for a new paradigm in cultural tourism. Global forces of competitiveness, information technology and social-cultural dynamics are impacting and shaping tourism destinations significantly. The key interventions for sustainability now incorporate technology, territory and lifestyles. At the same time the World Tourism Organisation (WTO) is calling for a regeneration of tourism's job creation potential by improving information networks, incorporating innovation and capitalising on its human resource capital.

The survey on the levels of ICT diffusion provides a tool for giving cultural tourism enterprises a way of letting government know about some of the obstacles they face in running their businesses and to capitalise on the efficiencies ICT. The identification of problems is often a powerful spur to action. The survey assessment has to be guided by a realistic assessment of the elements of the prospects for improving Internet access and affordability to community tourism operators to overcome infrastructure bottlenecks. At the same time, one has to consider the governance aspects of e-business and e-travel.

Some survey respondents emphasised the ethical dimension of ICT diffusion along the lines of corporate governance, including consumer protection, security of transactions, privacy of records, and intellectual property and the treatment of digital signatures. These issues are relevant to the recommendations on good corporate governance contained in the King II Report and need concerted attention by both the industry and the government.

Closely related to this is the building of trust relationships. This can be important to be accepted as a global player in the market. Small entrepreneurs are particularly vulnerable and face the challenge of building virtual trust to be able to trade effectively in a global market.

Another challenge is to lower the hurdles of ICT access. Location is relevant for ICT diffusion to outlying areas where they cannot operate, for example, a 56K modem. Location supposedly does not matter in a virtual world, but as the examples in remote areas of South Africa demonstrate, where affordable technology options are still very limited.

High access costs are a serious deterrent to wider diffusion. Telecommunication monopolies are one contributing factor to the high costs, but low telecommunications network density in rural areas can also prevent connection to the Internet via a local phone call, that have rising cost implications. The leased line charges and the high Telkom rates are deterrents to wider ICT diffusion.

One option to overcome this hurdle is by providing access to communities in remote areas. One option is Internet cafes that would make telecommunications more accessible in remote areas. The cost problem may explain why the Internet remains simply a medium for providing e-mail services in periphery areas. E-mail is cheaper because it requires minimum time online, but while it may provide communications cost savings and other benefits to users, it is an under-utilisation of the Web's potential, as demonstrated by the value of portals.

The daunting task for policy makers is to measure the likely effect of ICT on development and make recommendations for its diffusion and to guard against exaggerated claims about the Internet's potential to resolve a host of development problems that have so far proved intractable.[30]

Ultimately the intention is to come to policy decisions that can most likely expand the frontier of opportunity and working on the climate of expectations to crowd in investments. What can be done will be addressed in the sections that follow:

What can the Sector do to better exploit ICT?

In discussion with stakeholders and role players in the cultural tourism industry the following issues emerged during the interview process that are relevant, not only to the sector, but also impact on economic development:

- In the human resources sphere, opportunities should be pursued to translate the principle of 'learning by doing' into concrete actions that incorporate multimedia options and computer-based instruction. The Internet could be a powerful tool for this purpose. Private business is working to ensure that the tourism sector becomes globally competitive and that the services are of global standards. Becoming truly competitive requires being responsive to and focus on global opportunities, while at the same time responding to local customer needs.

- All the issues impacting on and being a deterrent to the diffusion of ICT into the cultural tourism sector need to be tackled in a concerted way by industry stakeholders and role players alike. Often this implies using existing ICT infrastructure more effectively before investing in new technologies.

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[30] Goldstein, Andrea and David O' Conner, 2001. 'Navigating between Scylla and Charybdis', *OECD Observer*, February 8, 2001

- Develop regional portals

  By international standards the marketing budgets do not measure up to competitor norms. By consolidating various web initiatives under one domain provides for a more focused approach to marketing and e-business. Information that shapes travel demand to cultural destinations is readily available in the tourism origin countries in the form of multimedia and other applications. A myriad of multimedia technologies, virtual reality and digital image technologies now cater for cultural heritage development. Cultural activities offer learning experience, imparting life skills to communities and visitors that incorporate the arts, culture and heritage.

  The World Bank's Development Gateway[31] and the Center for Arts & Culture portal[32] are valuable sources to access knowledge on the dynamic interface between culture, community and development. In South African cultural tourism can play an important role in development by harnessing the potential of portals as the survey outcome demonstrates.

What can the ICT Industry do for this sector?

- Create partnerships with community tourism operators through twinning and mentoring relationships to secure an appropriate transfer of ICT and business skills.

- Create linkages with the New Africa Partnership for Development (NEPAD), as the African Dream Project and Contemporary African Music and Arts (Cama) are already operating in various countries on the African continent[33].

- Appropriate target marketing is important to the cultural tourism industry - joint marketing initiatives with greater multimedia applications, such as the Joint Marketing Initiative (JMI) in the Western Cape is an important example of the type of integration that is taking place to make marketing more effective. By linking with multimedia companies servicing international clients, cultural tourism industry players could apply for international marketing support under the Export Marketing Investment Assistance (EMIA) programme[34].

- To become more astute in participating in global markets, one possibility is to run workshops for IT entrepreneurs, focusing on business strategy and incorporating issues relating to intellectual property.

- As part of travel management, the Industry can opt to use teleconferencing and videoconferencing.

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[31] *www.developmentgateway.org*
[32] *www.cuturecenter.org*
[33] NEPAD is an African wide initiative and both the African Dream project and CAMA are operating in various African countries. CAMA established documentary centres in seven countries: Mali, Ghana, Sudan, Ethiopia, Kenya, Mozambique and South Africa. The project aim is to facilitate the local gathering and sharing of excellent digital documentary resources for education, research and the promotion of Africa's artistic heritage and 'culture-makers'.

[34] Details on the EMIA is available from the DTI

What can Government do?

As a developing economy the government essentially provides the catalysts, such as institutional and infrastructure delivery support. New technologies can open up access to capacity building and training opportunities. While reluctance is evident among the survey participants to avail them of government incentives, a concerted drive to catalyse human resources development is needed to set the country on a renewed growth and development path.

- For the purpose of linking tourism entrepreneurs into the global tourism system to deliver services of international standards and beyond to become globally competitive, the government can partner with the private sector to replicate the Leonardo Project, a European Union sponsored programme. The Leonardo Project addresses the quality of vocational training in Europe, but through pilot projects using ICTs, the programme can be applied to empower tourism entrepreneurs locally. This can be accomplished by providing incentives that at the same time contribute to the future growth of the industry.

- Government needs to give clear guidance on the issue of intellectual property rights and strengthen patent law. One possibility is to run workshops for IT entrepreneurs, focusing on strategy and intellectual property.

- The same applies to the issue of security of transactions, privacy of records and the treatment of digital signatures.

- Perhaps most important is to create an investment climate that will attract investment and also be conducive to enable small entrepreneurs to trade effectively in the local and global market.

- To demonstrate real commitment to both the ICT and the cultural tourism industry, government should create the necessary platform and engage all the stakeholders in the NEPAD initiative.[35]

- The government needs to step up its sponsorship of culture and the arts in partnership with the corporate sector and private foundations to ensure that new technological inventions embedded in incubators flourish in dynamic innovation processes.

  Exposure to the arts and humanities help people understand other perspectives and foster greater awareness of others' needs and aspirations and is therefore critical to participating in our increasingly multi-cultural, global society. The arts and humanities promote forms of thinking that allow people to deal with ambiguity and complexity, to treat situations flexibly and to form imaginative responses. Creativity, an important part of people's cultural identity, is expressed in different ways. These creative skills are essential for the new economy. With an economy that is ever more knowledge-based and global, our competitive strength depends on the imagination and innovation of our industries and institutions and its people and are important dimensions to succeed in cultural tourism enterprises in both the local and the global economy.

  The challenge is to understand cultural heritage in all its diversity and draw on this knowledge to make social and economic development more effective. Moreover, consider how the impact of ICT and multimedia is transforming the dynamics of the sector and its networks and contribute to knowledge exchange by adding value to ideas and providing people with opportunities to think in new ways. The government should incorporate these as key elements/incentives in a forward looking support programme.

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[35] This is already happening in the regional World Economic Forum taking place in Durban in June 2002.

Appendix 1: The African Dream Project

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African Dream project

ICT enables and drives the African Dream project.
Linking with NEPAD the project's reach can be extended across the entire African continent.
No matter how remote an attraction or facility, the system devised makes comprehensive
information available instantly and globally at the cost of a local telephone call.

Since the method of information presentation is interactive, it is more credible than advertising
(which in any case is prohibitively expensive for all but the really big players). The information is
relevant and accurate from a consumer point of view, superior to brochures, whilst from a management
point of view it is also spatially oriented (each facility is listed according to exact geographic
coordinates using GPS). Information is available as to who is doing what, where, and gaps are
identifiable in terms of training needs, investment opportunities, and infrastructure.

The system allows for access, meaning there are no barriers to entry, which makes this probably the
only development scheme in tourism that genuinely creates entry points for the disadvantaged.

Whereas everything relative to consumers regarding routes is accessible on *www.africandream.org* the
same applies to potential participants, who can access everything via hotlinks from there or
directly at *www.openafrica.org*

The initiative is a holistic system, which incorporates a vast number of the variables and key
factors associated with development on the one hand and tourism and conservation on the other,
integrating them in a sustainable way (the holistic part), and funnels them into a process (the system part).

The data opens up a research field for more intelligent marketing. Currently two post-graduate students
doing research on Afrikatourism Routes and the National Research Foundation has a specific
thrust to encourage this.

Once part of a route, interests can be leveraged and dealt with more effectively on all fronts, be
 it in negotiations, representation at expositions, garnering support systems such as with training, or
raising finance.

Branding and packaging - within the mother branding of Afrikatourism, routes pan out in a range of
sub-brandings that package the offerings of particular areas, making them easier to sell and buy.

Flexibility is possible as the technology enables changes to be made to offerings instantly and at will.
The system is elegantly simple, largely due to ICT and therefore applicable especially at
grass-root community level irrespective of literacy levels. Routes are established within a period of 90
days from conception.

The positive impact on the confidence levels of participants is remarkable.

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Appendix 2: South African Examples of Empowerment and Community Involvement

Tourism should provide an important means and motivation for communities to care for and maintain their heritage and cultural practices and bring benefits. There are no easy answers, but generally the empowerment models have to be tailored to the specific requirements of the location and the resource base and needs of the community. Community based tourism projects require accessible and effective communication in order to reach their target markets – also through Internet access.

Meaningful work on community empowerment models and SME development are receiving attention and could contribute to local economic development. Of particular concern is the Black empowerment of the industry, not only in SMEs, but also in career-pathing in key areas in the hospitality industry. The following developments of relevance emerged during the discussions and the interview process that have implications for community tourism:

Technology for a Rock Art Interpretive Centre

A group of rock art enthusiasts have set themselves the task of photographing thousands of San (Bushman) paintings and recording them on a digital database. They are working towards capturing the rock art on digital technology to build the database and to preserve this rich culture for posterity.[36] Some rock art in the Drakensberg date back 3000 years.

Situated in southern Drakensberg, the area forms part of the UKhahlamba-Drakensberg World Heritage Site. The Kamberg Rock Art Interpretive Centre, a joint venture between Ezemvelo / KZN Wildlife, Amafa/Heritage Association, the Natal Museum, and the University of Witwatersrand and a number of poverty-alleviation community-based tourism programmes.

The Department of Environmental Affairs and Tourism (DEAT) funded the R1.2 m centre. An entry fee of R40 includes a glossy brochure on the history of the area, a 20-minute film production on the Western and Khoi San perspectives of the area and a guided tour to Game Pass Shelter which hosts one of the world's largest concentration of rock art.

ICT Harnessed for Cape Townships Development

Cape Town's townships are poised to become tourism destinations in their own right. This follows the establishment of the community-owned and operated Sonke Cape Route under the auspices of the African Dream Project, a continent-wide initiative.

Sonke (meaning 'all together') focuses on the energy and fascination of Cape township culture through a variety of novel attractions and experiences. These range from the township shebeens (taverns), to bed and breakfasts in townships. Arts and crafts centres, restaurants serving traditional or contemporary multi-ethnic cuisine, taverns, jazz dens and music venues, flea markets and emporia, cultural and historical discoveries are just some of the allures of the Sonke route.

The communities of the Cape, traditionally a melting pot of nations, have long been fractured and separated," says route coordinator Dale Isaacs. "As alluded in our slogan, 'Sonke alles together', our aim

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[36] Cook, Louise, 2002. ' Recording the Rich fascinating culture of the San' Business Day, May 16, p.2

is unify all the participants - 35 from the townships[37], and bring them into the international tourism mainstream."

Route Forum, initially constituted as a vehicle to provide several small-business owners, artists, crafters, teachers and tour operators in the townships with information technology (IT) training. The group's desire to promote their products and services via the Internet led to the involvement of Team Africa, driver of the African Dream project and custodian of the Website[38], The site is the premier source of information, maps and visuals about the rapidly-expanding network of Afrikatourism routes.

Entrepreneurs and Local Communities to Benefit from Archaeological Find

With the aim of promoting cultural and community tourism, the Melkhoutfontein / Stilbaai Adult Learning Programme for Tourism was launched at the coastal town of Stilbaai in early April 2002. This will centre on the archaeological Blombos Cave[39] discovery in the region, by empowering the local community to reap the benefits of increased cultural tourism. Prospective entrepreneurs in the field of cultural tourism will be equipped via educational programmes to promote tourism as a generator for economic upliftment. Such projects can benefit from the experience gained on the Leonardo-type training programmes, where ICTs are leveraged effectively

Inanda Heritage Route creates Jobs for the Community

The Inanda Heritage Route outside Durban showcases the history of the area while creating much-needed jobs for the local community. The Inanda route includes a visit to the Ghandi Settlement, showcasing Mahatma Ghandi's house. The Inanda Heritage Route is unique and rich in history, making it a prime tourist destination[40].

DEAT has allocated a total of R152m for 60 poverty relief projects in KZN, aimed at putting money in the pockets of the poor while building the tourism infrastructure and rehabilitating the sensitive environment of the province. R90m of this budget has already been spent, with 255 000 temporary jobs already created. These projects are aimed at the long-term upliftment of the poor.

Investment in Infrastructure for Cultural tourism in the Northern Province

A qualitative study undertaken in the Northern Province on the use of Internet Tourism Networks and marketing revealed that while other parts of South Africa had a highly developed Internet infrastructure, the Northern Province lags far behind on the development of physical infrastructure. Consequently this will take precedence and will have to be addressed before tourism can be marketed effectively on the Internet.[41] Other projects that were mentioned that required investment in infrastructure to open up the way for ICT investment included among others, the following:

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[37] Including Bo-Kaap, Langa, Nyanga, Gugulethu, KTC, Crossroads, Khayelitsha, Lwandle, Manenberg, Montana, Athone and Mitchell's Plain

[38] *www.africandream.org.*

[39] Complex geometric patterns engraved on bits of stone have been unearthed from the floor of Blombos Cave in the southeastern Cape, South Africa.

[40] This is an example where the development of infrastructure takes precedence before ICTs are added.

[41] ICT Diffusion and ICT applications in usage sectors: An International Scan. Prepared for SAITIS by Miller, Esselaar and Associates.

Investment in Travel Clinic for tourists in Mpumalanga

Mpumalanga' s first Travel Clinic catering specifically for tourists will provide malaria prophylaxis and testing facilities, but will also offer vaccinations, laboratory pathology services, over-the-counter medication, and expert pre/post travel advice. The next step will incorporate the necessary linkage to a medical travel online system.

A linked tourism health shop, will also offer tourists first aid kits, homeopathic medicines, local health foods, traditional tonics and vitamins, natural inspect repellents, sunscreens and other items for adventure, safari and cultural tourists. It is located in the Kingdoms of Africa Complex on the main road to the Kruger National Park

Investment for old mining town village

An innovative approach is adopted to maintain and manage the popular museum village of Pilgrim's Rest. To keep the old mining town as an international tourist attraction and the village on the tourist map, the department has established a business plan to make Pilgrim's Rest more profitable. The provincial department of finance and economic affairs has also set aside R 4m for the Highlands Meander region. The money will be used to establish craft and souvenir production centers on the Cultural Heartland route. An integrated development business planning system (IDP) will require electronic enablement and the issue is receiving the attention of local authorities.

Appendix 3: Other Items

Africa, birthplace of humankind and also custodian of most of the world's remaining animal and plant species. Africa could become custodian of the cultural and heritage treasures of the environmental age of the 21st century[42].

Despite Africa's relatively small share of the world tourism market, it already accounts for 16,5-million jobs on the continent. However, a serious obstacle is that poverty is ravaging the resource base of Africa's cultural and natural assets. Key to achieving sustainability requires finding a balance between tourism, job creation and conservation in a manner where they would be mutually sustaining.

With this rationale, a holistic system was devised that represents a world first for Africa. Each element of an integrated strategic, creative and technical system works as follows:

Mission – to turn Africa's natural and cultural resources into one of the most valuable products on earth.

Branding – Afrikatourism says that the product is exclusive to Africa (and thus a niche in which this continent can gain global supremacy). This is intended to become a generic term for tourism in Africa – something of a step up from what the rest of the world is calling ecotourism.

Vision – to link the splendours of Africa culture and heritage in a continuous network of Afrikatourism routes, from the Cape to Cairo – a goal that can be achieved, that people can genuinely believe in, and from which everyone can benefit.

Enabler – the African Dream Project, a systemised and community-participative method of developing the Afrikatourism routes envisaged above can be accomplished within a period of 90 days.

Mechanism – the Website, *www.africandream.org,* which is the result of integrating satellite ground-positioning technology (GPS) with the Internet, constitutes a method of giving wings to the vision whilst providing a platform for marketing what Afrikatourism routes have to offer.

Outputs – the routes,[43] which can be any length, covering all attractions and be traversed by any means (of which there are already 23, involving 56 towns with 378 establishment participants over a distance of 7 270km, accounting for 1430 jobs directly. The website is presently registering an average of 5473 hits daily and there are 1385 individual, corporate, institutional, and professional and partner Team Africa members).

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[42] The Open Africa example demonstrates an integrated strategic, creative and technical system can be developed leveraging the efficiencies of ICT across the African continent.

[43] The route system was deliberately chosen on the strength of the success of the Wine Route in the Western Cape. Started 27 years ago with little thought of tourism, but rather the sale of wine in mind, analysis of why the first wine route was so successful led to the idea that the concept should be replicated across the entire continent.