Competiveness, Jobs, and Green Growth: A "Glocal" Model

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This chapter details conceptual and operational research, led by the Victoria University Centre for Tourism and Services Research,[1] to create a system through which destinations can identify optimum green growth development scenarios for Travel & Tourism (T&T) in order to build wealth and create jobs in a sustainable manner.[2] Such a system seeks to take rapidly evolving, global socioeconomic concepts and strategies and provide a practical way to apply them to "base-of-the-pyramid" local development in a "glocal" model.[3] It shows the application of a major strategic vision conducted by the authors in a study undertaken for the government of Indonesia in 2012. It focuses on the research dimension of the vision and on how *The Travel & Tourism Competitiveness Report* could add value to the process. Finally, it outlines the econometric modeling process that is being developed to integrate competitiveness into the structure.

BACKGROUND

For some years, the idea of green growth has been gaining traction in national, regional, and global socio-political strategies, as has the view that Travel & Tourism is a major contributor to the growth of jobs, gross domestic product, and—particularly—development. Significant examples include the following:

- The G-20 Mexico Summit in June 2012 highlighted these issues in its Final Declaration and the Los Cabos Growth and Action Plan, noting:

  We commit to continue to help developing countries sustain and strengthen their development through appropriate measures, including those that encourage inclusive green growth. . . . we commit to maintaining a focus on inclusive green growth as part of our G20 agenda and in the light of agreements reached at Rio+20 and the United Nations Framework Convention on Climate Change (UNFCCC). . . . We highlight that green growth and sustainable development have strong potential to stimulate long-term prosperity and well-being. . . . We recognize the role of travel and tourism as a vehicle for job creation, economic growth and development, and, while recognizing the sovereign right of States to control the entry of foreign nationals, we will work towards developing travel facilitation initiatives in support of job creation, quality work, poverty reduction and global growth.[4]

- The UN General Assembly passed a resolution in December 2012, entitled "Promotion of Ecotourism for Poverty Eradication and Environment Protection," which calls on UN Member States to adopt policies that promote ecotourism, highlighting its "positive impact on income generation, job creation, and education, and thus on the fight against poverty and hunger."[5]

Figure 1: Green Growth 2050 Roadmap stages
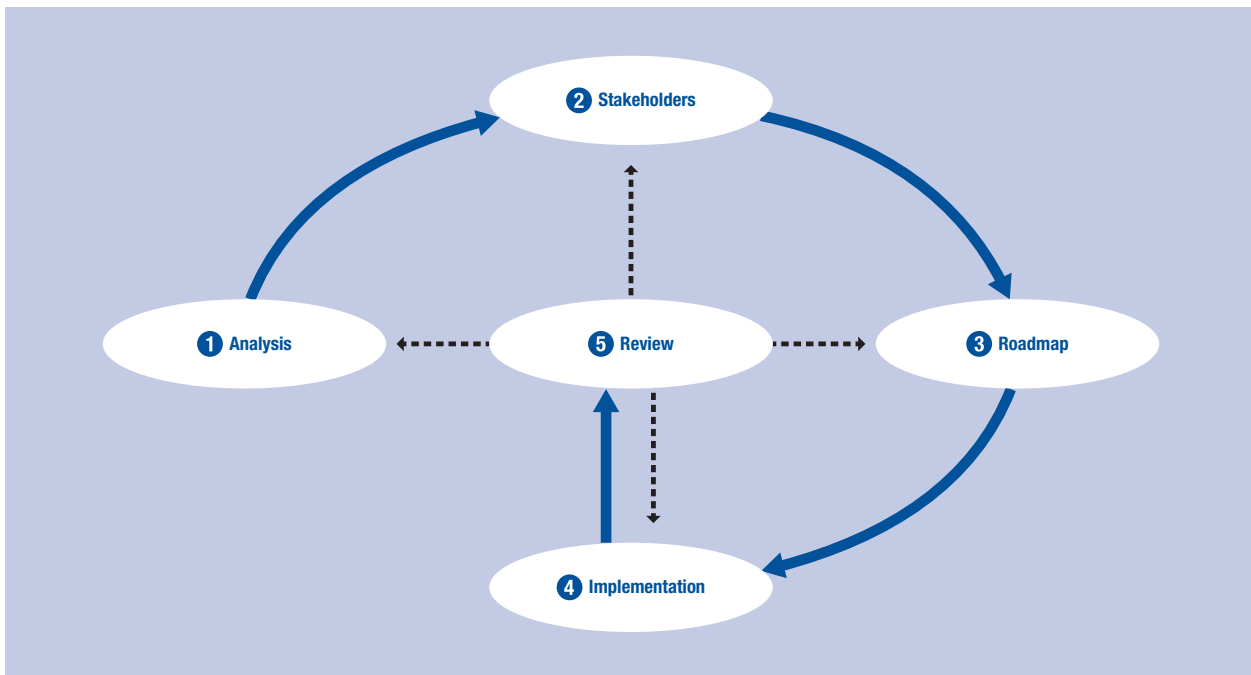
Note: Details for (1) Analysis can be found in Figure 4; details for (2) Stakeholders can be found in Figure 2; details for (3) Roadmap can be found in Figure 3; and details for (4) Implementation can be found in Figure 5.

• China—which is likely to have the largest domestic, inbound, and outbound travel markets in the world by 2015—has made tourism a strategic pillar of the economy and identified it as a vital engine of consumption in its most recent five-year development plan. This plan is the first time that China has decisively moved its economy onto a green growth path. "China's 12th Five-Year Plan has outlined massive investments in environmental protection and green growth," says European Council President Herman Van Rompuy.[6]

ACTIONS

In order to translate these ideas into practical T&T operational possibilities, the Victoria University Centre for Tourism and Services Research has undertaken a number of interrelated actions under the direction of the authors, increasingly in collaboration with other academic institutions.

Green Growth and Travelism

First, in a volume released at the Rio+20 Earth Summit, we formally identified a conceptual framework for green growth and travelism. This work states that governments, industry, and civil society around the world are urgently focusing on green growth as the best strategy to overcome economic free-fall, pervasive climate change, basic resource depletion, rapidly increasing populations and debilitating poverty. The aim of green growth is to create a fairer, happier society, based on renewable energy, web dynamics, social inclusion, and biodiversity conservation—with global temperature stabilization

by 2050 through green transformation of production, consumption, and investment. Travelism—the entire customer, company, community value chain—can play a much more significant role in this transformation.[7]

In this work, we engaged some 50 thought leaders from around the world, both inside and outside the sector, to comment on its relevance and direction. Among these leaders were those who manufacture aircraft, campaign for civil society, and explore futures; heads of governments, ministries, and international agencies; those who shape transport, trade, development, and capacity-building policies; those who run airlines, hotels, trains, cruise ships, convention centers, and national parks; those who provide Internet information as well as the software that runs it; and those who teach and train.

All of these leaders have quite different perspectives and interests, but they share a vision that the most-sought-after human economic activity on the planet—travel—can seriously help in the transformation of our world to a cleaner, greener, fairer future. Many ideas about what Travel & Tourism needs to do to play a key role in societal change, and to shape it in a positive way, are currently being considered. Among these are new transport platforms, networks, and bio-fuels; new climate-proofed hotel design and construction; new green models for business meetings; new tactics for community engagement that are centered on the base of the pyramid; new approaches to financing and investment; new visions for education and training; and new, more coherent, institutional arrangements. The stakes are high, both in terms of the future of our

planet and also economically: hundreds of trillions of transformation dollars are going to be spent, and the big question is who pays and how.

For example, Maurice Strong, a key architect of sustainable development, is calling for a tougher T&T green agenda with real action, targets, and measurement. The prime minister of Bhutan identifies the T&T sector as a key potential contributor to his concept of Gross National Happiness. Tom Enders, the chief executive officer of EADS (the parent of Airbus), is calling for a paradigm rethinking education and financing the future. Marthinus van Schalkwyk, the tourism minister of South Africa, discusses the breaking out of the subsector silos to mainstream Travel & Tourism in central policymaking. Sir Richard Branson, chairman of the Virgin Group, shares his views on how we can have a carbon-clean air transport sector in 10 years. Tony Tyler, the director general of the International Air Transport Association (IATA), considers the central role of connectivity in the travelism value chain. And Taleb Rifai, secretary general of the World Tourism Organization (UNWTO), explains the potential of a billion sustainability-minded travelers.

These ideas will form the basis for a continuing academic and policy evaluation around the intersections of green growth and travelism. A particular focus should be placed on education and training, where there is a massive untapped potential and a real opportunity to change mindsets. Through education and training we can move to a more sustainable path and develop future generations of transformation-inspired leaders. This focus on education applies to industry employees, destination residents engaged in the visitor economy, community decision makers, and travelers themselves.[8]

Destination-focused evaluations

Second, in a series of destination-focused evaluations in Africa, Asia, the Pacific and the Caribbean, over the past five years we have been developing a comprehensive framework to bring the global concept of green growth and travelism to the local level.[9] In 2012, this work culminated in a major green growth and travelism–based study of Bali, Indonesia. The study was conducted with local partners for the Minister of Tourism and Creative Economy in Indonesia and the Provincial Governor of Bali.[10]

The resultant Green Growth 2050 Roadmap is a model for this type of approach. It has five distinct phases (Figure 1):

1. Mapping and projecting forward the "visitor economy"
2. Stakeholder engagement and analysis
3. Development of the roadmap
4. Implementation cluster
5. Annual review and course correction

Starting with basic desk and field research, we mapped and modeled the Bali visitor economy in an intensive data-gathering and forecasting exercise. We used international and nationally published economic, trade, development, and environment statistics. Host and visitor surveys formed an integral part of this model. We used forecasting and scenario modeling techniques to create a range of projected environmental, economic, community, travel, industrial, and service alternative futures.

This was followed by in-depth stakeholder visioning sessions that took place in two intensive workshops with some 70 local public, private, and civil society representatives. These sessions considered a wide range of destination needs, including the roles to be played by low-carbon goals and climate resilience; natural resources and waste management; product and destination management; brand marketing and e-distribution; capacity building and green jobs; infrastructure, technology, and communications; and policy reforms, public-private partnerships, finance and investment, and innovation (Figure 2).

These visioning sessions led to the formulation of a structured, bottom-up strategy following best-practice patterns and governance demands, with measurable key performance indicators such as human development, visitor yield, and reduced greenhouse gas emissions. The process built on a community-led, sustainable development and authenticity base by considering strategy factors such as climate, environment, community well-being, jobs, products, markets, infrastructure, and investment. These strategic factors were then framed into a green growth roadmap for 2050 (Figure 3 shows this roadmap for Bali).

Although the strategies have a core goal of greenhouse gas reduction, in line with national commitments, they also considered the enhancement of environments and ecosystems generally, and factored in economic and cultural imperatives within the destination. Other vital considerations included the changing and greening of market demand (i.e., green consumerism), supply chain dynamics, destination competitiveness, brand positioning, and traditional as well as new funding options. Specific policies, actions, and timelines were detailed in each of the key strategic areas.

It is important to emphasize that stakeholders in the value chain were engaged in the process from the outset. They included air, land, and water transport operators and accommodation owners, tour operators, and tourist attractions on the supply side; they also included tourists themselves on the demand side. Separate oversight by the local community and national governance was also a critical element for project control, as was our seminal partnership with a local university and local adviser.

Figure 2: A model for stakeholder engagement

Note: PPP = public-private partnership.

The development of the green growth roadmap for tourism should enhance the long-term competitiveness of destinations and the supporting industries. It must be compatible with national travel, transport, tourism, and trade strategies as well as carbon commitments. It must ensure that socioeconomic growth is inclusive and provides decent jobs. Ultimately, it must bring about new demand and empower communities in the context of a broader balance sheet of societal well-being, including quality of life and environmental sustainability. In this context, carrying capacity and lifecycle analysis were pivotal. Overall, a green growth roadmap must deliver sustainable mobility, lifestyles, and communities.

The report and underlying research framework have been specifically developed to serve as a readily adaptable model green growth 2050 roadmap for Travel & Tourism (travelism) for any country, city, or community with a like-minded vision for green growth and travelism. It helps those who use the framework to:

- respond effectively to a rapidly moving marketplace in very uncertain times;

- engage travelism in a transformation to a low-carbon, resource-efficient future;

- thoroughly assess trends to improve competitiveness and the overall visitor economy;

- handle increasing numbers of visitors and their impacts more sustainably;

- integrate travelism into overall community development, focusing on local livelihoods;

- engage local stakeholders and industry employees in the transformation;

- access global education and training programs for capacity building in the sector;

- consider new and traditional sources of funding to help with implementation; and

- routinely review progress and adjust to both planned and unplanned changes.

The framework allows any country, city, or community to consider these elements through an intensive scoping and visioning program that engages

Figure 3: The structure of green growth roadmap strategies for Bali
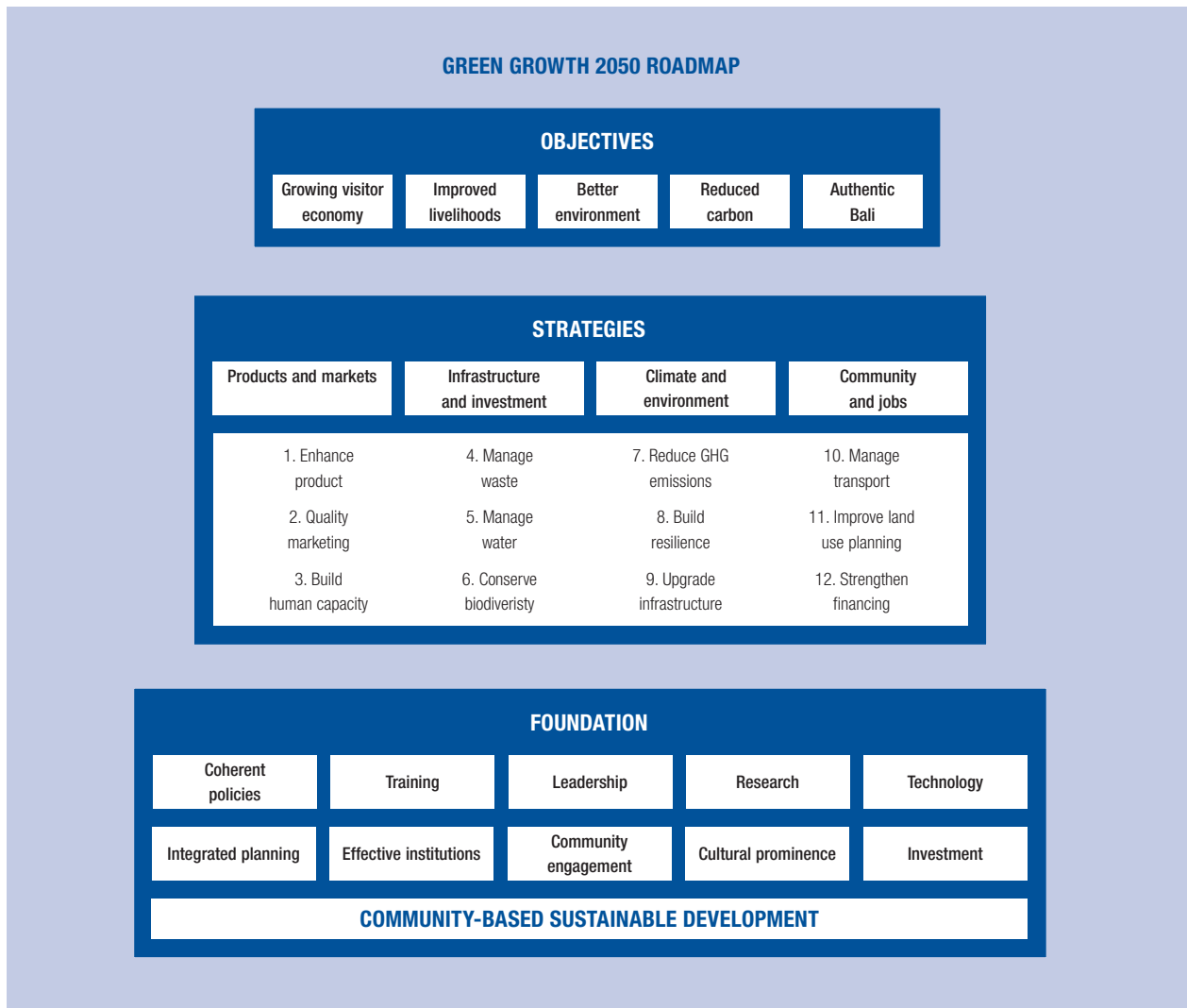
Note: GHG = greenhouse gas.

stakeholders at the core. It also provides a framework for integrating the evolution of global and national policy with local implementation (Figure 4).

We are building and refining a number of new tools to support this process. Our toolkit includes a coordinated resident and visitor survey model; a scenario design and decision option model; a structured stakeholder visioning framework; a strategy evaluation program; and the implementation of a cluster systems approach (Figure 5) that specifically uses Internet-based crowdpacting techniques to fully engage potential investors, including visitors themselves;[11] and an annual course correction analysis.[12]

Continuing GETS-led research

In a third interrelated action, we will continue to push the envelope forward in all these areas of green growth 2050 roadmapping by adding experience-based input from continuing studies and projects. However, our central and immediate research focus is on the green economy tourism system (GETS) modeling program. GETS has the capacity to give communities a comprehensive and better decision-making framework, and hence provide an incentive for evaluating the green growth and travelism options.

The GETS model tests green growth and travelism options by integrating large and diverse datasets. It is designed to work in settings characterized by complexity and uncertainty, where limited data availability and an absence of existing frameworks hinder development of targeted, effective strategies.

GETS presents an approach for a decision-support system to assist destinations address challenges and opportunities in periods of rapid change while integrating its core requirement of low-carbon transformation. It incorporates the benchmark principles of sustainable tourism, destination management, competitiveness, and system dynamics. A key design factor of the GETS model is the capacity to support decision making for tourism destinations of varying sizes (from small locations within a country to transnational regions) and varying economic structures (from regions exclusively reliant on tourism to
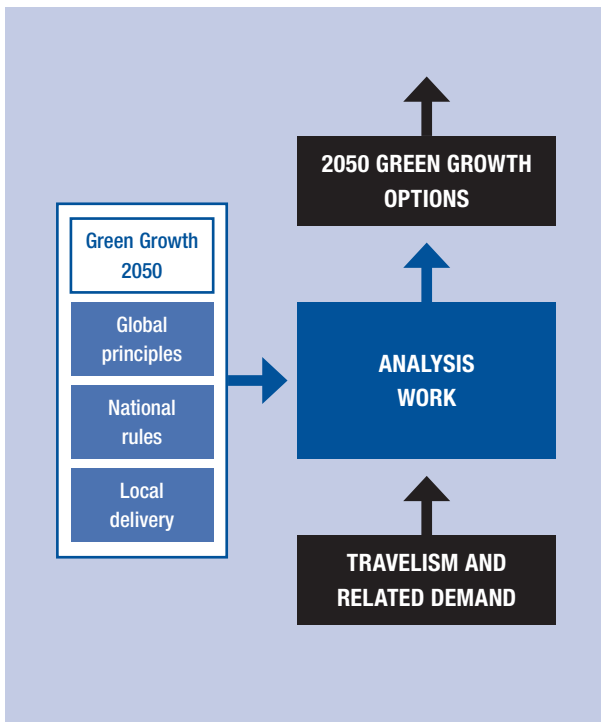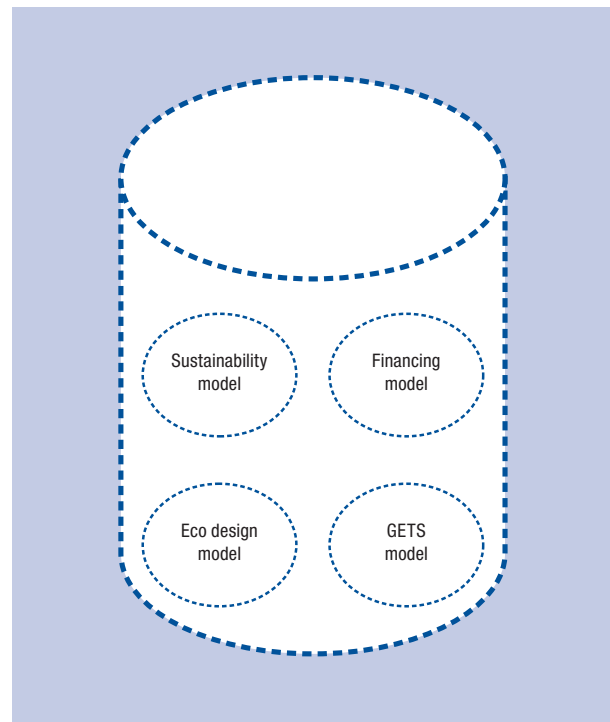
Figure 4: Analysis

Figure 5: Implementation

those where tourism is a major or even a minor industry) and varying composition (from a destination comprised of large, international, Western-style hotels and resorts to one with small individual businesses with a large number of ecotourism attractions and activities).

GETS does this by maintaining an ever-expanding series of databases of key elements. These include tourism volumes, expenditure patterns, and behaviors; high-level engineering analysis of the impact of various tourism activities on greenhouse gas production; and precedents and models of comparable tourism destinations around the world.

Although the system is strongly centered on systematic analysis and simulation of quantitative data, a key strength of GETS is its interactive scenario analysis. Using this technique, local tourism planners and decision makers can discuss various policy settings, input these into the model, and simulate their impact on the tourism in the region in terms of several key measures: the expected number of visitors; the amount each visitor spends; the amount of infrastructure, labor, and training required by the destination; and the amount of greenhouse gas produced. These different scenarios can then be analyzed to facilitate more informed long-term planning for the green growth 2050 roadmap against the quadruple bottom line of economic growth, cultural and social development, environmental factors, and climate change impacts.

As our field projects have developed, we have been able to refine techniques and processes. For example, in Australia we were able to integrate the two major national tourism databases: the International Visitor Survey (which provides data on international visitors) and the National Visitor Survey (which provides data on residents holidaying in Australia) with the national census statistics (which considers the resident population). Combined surveys can provide a key insight into tourism activities in local areas with relatively higher confidence levels than that provided by the International Visitor Survey or the National Visitor Survey alone. Each of these databases has more than 1 million records with up to 1,700 variables. Data quality has been further enhanced by overlaying Australian Bureau of Statistics data on hotel and motel accommodation performance.

The GETS model can integrate a wide variety of local geographic-based data, such as road traffic counts; the volume of liquid and solid waste generated by an area; and the population's level of literacy, household wages, and life expectancy, (among others). Therefore this approach can provide stakeholders with additional insight into the *relative* performance of local townships, settlements, and villages within a regional geography or between different subsectors of a region, or along a coastline, major road, or tourism circuit.[13]

The GETS model integrates databases from government, nongovernmental organizations, and businesses, as well as from travelism and other sources, while at the same time maintaining the inherent integrity and confidentiality of each database. This provides a basis for a wide range of data analyses— from big data to macro or micro data analyses—and scenario developments. At the assessment level, we

use transformational analytics, which allows us to expand and extend relevant datasets for econometrics, forecasting, and statistics, as well as combining them in multiple ways, using perfunctory measures of ratios, means, frequencies, cross tabulations, and so on, as well as using advanced multivariate techniques.

In its early stages, the GETS model was operated at a fairly basic manual level. However, the processes have become increasingly automated and current activity is focused on delivering a fully automated "high tech, high touch" system. This system will draw data from a wide array of public and private sources, especially online datasets such as those published by governments and major nongovernmental organizations. The advanced system dynamic modeling at the heart of GETS configures those data into strategically meaningful insights. This results in scenario options, in dashboard form, for user assessment and manipulation, allowing users to assess the local economy, investment, employment, resident and visitor satisfaction, the environment, greenhouse gas emissions, and so on.

As we construct the automated version, we are undertaking a proof-of-concept test on a discrete subset model showing the interrelationship among tourist arrivals, investment in infrastructure, and the impact of tourists on the labor market, the environment, and community attitudes. Here we are using investment as the major vector. We show how altering this key variable will affect the community, employment, and the environment. The results are available in various dashboard configurations.

Working with the World Economic Forum
Finally, as a result of discussions in the World Economic Forum's Global Agenda Council (the Council),[14] we are exploring the potential for integrating data from *The Travel & Tourism Competitiveness Report* into this modeling process. The focus of the Global Agenda Council New Models of Travel & Tourism is currently concentrated primarily on the ability of the sector to generate employment. The Council would like to create a methodology to quantify the impact of new investments in the T&T sector in terms of job creation, both at the national level (a macro perspective) and at the company level (a micro perspective).

The Council is considering the Travel & Tourism Competitiveness Index and the indicators in *The Travel & Tourism Competitiveness Report* for possible measures of impacts. We are working with the Council to evaluate how this might be accomplished in the context and framework of GETS modeling. There is a clear correlation between the Index and tourism receipts, and we are exploring other potential data links that are relevant for employment. Among these are log linear and data envelope analysis of infrastructure, investment, competitiveness, and levels of employment, as well as

the Boston Matrix analysis of "quality" and "sustainability" of employment outcomes and transformational strategies.

A LOOK TOWARD THE FUTURE
As this work evolves, we will be engaging with the Council and other travelism stakeholders doing similar work to test the concepts in key collaborating markets. In the broader context, we will keep our eye on the green growth and travelism dimension. We will ensure that the techniques used and correlations explored factor green growth into the outcomes of low-carbon linkages, smart border strategies, and green jobs.

NOTES
1 Victoria University, Centre for Tourism and Services Research, Australia and Greenearth.travel, Belgium—also including Oxford Brookes University UK.

2 Lipman and Vorster 2011.

3 *Glocal* principles are those with specific local implementation approaches.

4 G20 Los Caberos Leaders Declaration, Mexico, June 2012.

5 UN General Assembly Resolution A/67/441, December 21, 2012.

6 Remarks of President of the European Council Herman Van Rompuy on China's Five-Year Development Plan. See Fu 2001.

7 Lipman et al. 2012.

8 A Green Growth and Travelism Institute has been established in Belgium with the support of the Province of Limburg to spearhead a global network of universities committed to advancing this conceptual framework and introducing it into graduate and postgraduate programs.

9 These evaluations took place in Sri Lanka—*an Earth Lung*, in 2007: in Sharm El Sheihk, Egypt in 2008; in the Turks and Caicos in 2009: and in Bali, Indonesia, in 2012.

10 Republic of Indonesia, Ministry of Tourism and Creative Economy 2012.

11 *Crowdpacting* is a specific form of crowdfunding that focuses on "impact investment," namely for projects that contain a strong socially or environmentally responsible element.

12 See www.greengrowth2050.com and www.gatetrip.com.

13 In a North Queensland project, for example, we were able to identify and quantify the relative tourism performance in three towns in the Atherton Shire, as well as a new tourism entity made up of townships located along the Kennedy Highway, which has tentatively been named the "Kennedy Tourist Route."

14 Global Agenda Council for New Models of Travel & Tourism. Dubai 2012.

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