



IASP 2010 DAEDEOK CALL FOR PAPERS

XXVII IASP World Conference on Science and Technology Parks, 2010

Global Green Growth (G³) : Challenges and Opportunities for Science and Technology Parks

> May 23-26, 2010 Daejeon Convention Center, Daejeon, Republic of Korea

> > www.iasp2010ddi.com

INTRODUCTION

IASP 2010 Daedeok (XXVII IASP World Conference) brings together experts from government, STPs (Science and Technology Parks) academia and business to discuss and debate the true significance of the globally emerging

developmental model "Green Growth" for STPs. This conference will feature presentations and discussions about global STP strategy in a series of in-depth discussions of the future direction of science and technology and the implications of "green growth."

The imperative of the coming Copenhagen Conference on Climate Change requires quick and effective changes in technology and economic policy around the world, and the STP is in the best position to lead the implementation of reforms. The specific role to be played by the STP in the age of global green growth will be debated and opinions from around the world will be gathered together as a historic "Daedeok Green Initiative" to be announced at the closing of the conference.

STPs have the full range of technologies and systems necessary to create in miniature a paradigm nations, regions and the world of what a low-carbon, sustainable economy can be. We will consider best practices of outstanding innovation clusters, defining the STP as the leading player in the green revolution.

Moreover, although climate change and the energy crisis are problems that must be dealt with through coordination and consensus on a global level, the response must be local. The STP, a leading part of the local and regional economy, but part of a global network, is in an ideal position to play the central response to this challenge through global green growth. Innovation is the only response, but we need to speed up the implementation of reforms and the adoption of new technologies.

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IASP 2010 STEERING COMMITTEE SECRETARIAT (for sending abstracts and papers) : Tel : +34 95 202 8303 Fax : +34 95 202 0464 Website : www.iasp.ws Email : iasp2010papers@iasp.ws





The conference organizers welcome proposals for papers to be presented at the sessions described below. Papers should showcase innovative approaches to "green growth" within the STP and explore creative new strategies for cooperation and implementation. Traditional papers on STP policy and technology policy not directly related to green growth are also welcome.

PROGRAM

The program for the two and a half day conference will be divided into an opening ceremony, four plenary sessions, two round table discussions, and fourteen

parallel sessions on specific topics. Each session and round table discussion is distinct and unique in content and emphasis.

Attention is focused on the role to be played by STPs in responding to the global challenge of climate change and the environmental/energy crisis, a topic embodied by the expression: "Global Green Growth." Talks will consider distinct aspects of this new developmental model for the world, its implications for regions and the role that STPs should take in leading the way.

The presentations and discussions in plenary sessions I and III are connected by the common theme of Global Green Growth, while plenary sessions II and IV are primarily concerned with STPs. Plenary session I focuses on policy and innovation systems with experts from the fields of government, academia & STPs, and plenary session III takes up the topic of the commercialization of green technology with the participation of business, academia and STPs.

Presenters and 50 pre-registered applicants will participate in in-depth discussions on those themes in Round Tables I and II, following the plenary sessions I and III, respectively. Speakers for plenary sessions I and III and their respective round tables will be invited directly by the Steering Committee. Therefore papers submitted for these sessions will be for inclusion in the Conference Proceedings only (see notes on pages 3, 5 and 7). The rest of the plenary and parallel sessions offer the usual options (oral presentation and/or publication in the Conference Proceedings).

The 14 parallel sessions will address three main topics: 8 sessions for the next generation STPs of each nation and region, 2 sessions for the current technology foresights, 4 sessions for SMEs and regional development, etc.

The highlight of this conference will be the announcement of the "Daedeok Green Initiative," the articulation of a new paradigm for global green growth in STPs based on the consensus among participants. The Daedeok Green Initiative will lay the foundations for a new developmental and industrial model.

TIMELINE

Submission of Abstracts Notification to Authors Submission of Full Papers Notification to Authors 23 October 2009 23 November 2009 23 February 2010 26 March 2010



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Plenary Sessions

Plenary Session 1

Policy and Innovation Systems for Global Green Growth (Speakers from 3 fields: government, STP management and academia)

Green growth implies a quantum leap in how we conceive growth, technology and the economy at every level. All systems of science, government and academia must be rethought to accommodate such a transformation in both the STP and the nation as a whole. But equally necessary is the creation of effective systems to promote innovation in emerging and existing technologies. How can STPs become the leading institutions in institutional and technological innovation and how can they serve as models for the rest of the economy and society? This session will consider the essential challenges to creating effective policy and innovation systems for green growth that can liberate us from a carbon-dependent economy and give hope for a long-term solution to the challenge of climate change.

Possible topics for papers:

- Strategies for encouraging innovation within national innovation systems in green technologies.
- Imagining the national innovation systems as the engine leading a global green transformation of business and manufacturing.
- Creating consensus and momentum for green growth between divergent groups.
- Making the national innovation system itself sustainable by applying the technology it develops to its own environment.
- Effective models for innovation in government, R&D, technology transfer, commercialization, financial systems, training and development and the transformation of culture and institutions around the world.
- Responding to the challenge of the "green divide" between nations and regions: how to encourage cooperation through innovation.

Note:

Papers for this session will be considered for publication in the conference proceedings only, and not for oral presentation at the conference.

Plenary 1 will only be composed of speakers invited by the Conference Steering Committee. Paper proposals submitted through the Call for Papers for this session will be for inclusion in the Conference Proceedings (subject to approval by the Steering Committee). The same technical specifications apply to this session as per pages 15-17.

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Plenary Session 2 The Role of the STPs in Economic Development: Retrospect and Prospect

The STP has experienced major shifts in its ecosystem over the last few years as the world economy is subject to rapid changes in the cost of energy, contraction in the availability of finance and debates over the importance of government and global institutions. Such an environment offers a golden opportunity to rethink globally the role of the STP in economic development both locally and regionally. How has the transformation of the global economy, innovation in technology, the emergence of brain networks and the dominant concepts of "openness and convergence," knowledge-based economy, green growth and innovation cluster transformed the landscape in which the STP finds itself? This session will consider the history of the STP and its prospects for the future.

Possible topics for papers:

- Successful strategies of STPs in responding to the global financial crisis through innovation and international collaboration.
- The Financial crisis: encouraging protectionism or inspiring higher levels of international collaboration?
- Responding to the challenge of convergence, international accessibility and financial constraints.
- Implementing Copenhagen: The Copenhagen convention will have set out a range of ambitious goals for the world that require radical reconstruction of economies, new priorities in R&D and a rethinking of habits and culture. What will the STPs role be in the implementation of the Copenhagen agenda?
- What are the prospects for close collaboration between STPs post-Copenhagen?
- What incentive systems can be constructed to effectively encourage the commercialization of technologies of STPs and apply them to the challenge of climate change? How can we establish effective incentive systems for the long haul?

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Plenary Session 3 Commercialization for Global Green Growth (Speakers from 3 fields: business, STP management and academia with a focus on business concerns)

The global challenge of climate change, combined with the financial crisis, has led to a fundamental reevaluation of commercialization and the rapid and effective implementation of new technologies. Transparency, innovation and collaboration are increasingly demanded to effectively commercialize and realize the full potential of technologies for the environment. This plenary session will consider effective means of evaluating the potential of technologies, encouraging their development and commercialization and securing the financing required for commercialization from diverse sources globally.

Possible topics for papers:

- Financing commercialization for universities, government and businesses: new challenges, new innovations.
- The special needs in commercialization of STPs in emerging economies.
- Intellectual Property, green growth and innovation in the commercialization process.
- Creating win-win alliances for commercialization globally.
- Attracting venture capital and intellectual capital in commercialization of green growth.
- The role of MNCs (Multinational Corporations) in the commercialization of green growth and the response of SMEs and STPs.
- Regional and developmental variations in commercialization for green technologies: finding the perfect fit.

Note:

Papers for this session will be considered for publication in the conference proceedings only, and not for oral presentation at the conference.

Plenary 3 will only be composed of speakers invited by the Conference Steering Committee. Paper proposals submitted through the Call for Papers for this session will be for inclusion in the Conference Proceedings (subject to approval by the Steering Committee). The same technical specifications apply to this session as per pages 15-17.

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Plenary Session 4 Global Collaboration in Technology Capacity Building: Encouraging the Diffusion of STP Best Practices

One of the most important roles of IASP is the introduction of successful models for the planning and administration of STPs to local and central governments that desire to establish their own STPs to aid technological and economic development. The diffusion of best practices to increase technological capacity is a critical element in this process, one made even more essential by the emergence of global challenges to the environment, energy and food.

In order for local governments to establish successful STPs and business incubation, know-how must be introduced, including the specific history, culture and industrial-business precedents of successful STPs and innovation program. That process is intimately linked to the larger challenge of increasing national competitiveness through international collaboration.

Therefore attempts to promote global collaboration in technology capacity building must be linked to a firm understanding by decision makers of the implications of that project for national and regional competitiveness. How can examples of best practices in STPs be accurately and effectively passed on to central and local government, and businesses? How can those best practices be made relevant to the present moment and shifting economic and technological conditions?

Possible topics for papers:

- Successful experiences in STPs and national competitiveness: the essential link.
- New horizons for the STP movement. The next models. Are there significant qualitative changes in perspective?
- What can be, or cannot be, transferred from one successful cluster to an emerging cluster: The cultural, historical and developmental limits of best practices and strategies.
- How can STPs strategies and models from one place best be applied and adapted to other places? And in particular, how can Asia make best use of other STPs experiences and adapt them to its features and needs?

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Round Table Sessions

Round Table Session 1 Policy and Innovation Systems for Global Green Growth (Speakers from the fields of government, STP management and academia)

This round table session brings together experts in policy and innovation systems for an in-depth discussion of specific and concrete examples related to the presentations on policy and innovation systems in Plenary Session I. The discussions will focus on critical topics, thereby allowing for more extensive debate and discussion on effective methods for innovation that will contribute to the **Daedeok Green Initiative**.

(Admission is limited to fifty; registration and submission of questions in advance)

Round Table Session 2 Commercialization for Global Green Growth (Speakers from 3 fields: Business, STPs and Academia with a focus on business concerns)

This round table session brings together experts in commercialization for an in-depth discussion of specific and concrete examples of successful commercialization in green growth related to the presentations in Plenary Session III. The discussions will focus on critical topics, thereby allowing for more extensive debate and discussion on effective methods for commercialization that will contribute to the **Daedeok Green Initiative**.

(Admission is limited to fifty; registration and submission of questions in advance)

Note:

Panellists for round table sessions 1 and 2 will be speakers at plenary sessions 1 and 3. Paper proposals cannot be submitted for the round table sessions.

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Parallel Sessions

Parallel Session 1.1 The Next Generation of STPs in China

China is rapidly emerging as a center for advanced research of an increasingly global nature. As China comes of age, Chinese STPs are grappling with new problems: How to generate new technologies in emerging fields? How to recruit global talent? How to deal with issues of intellectual property and international finance? These challenges call for significant innovation and a new emphasis on green growth in China.

Possible topics for papers:

- Chinese STP strategies for relations with multinational investors and local government.
- Chinese approaches to evaluating the viability of technology in STPs.
- Chinese STP and green growth.
- New approaches to financing Chinese STPs.
- Cooperation between local, central and international players in the Chinese STPs.
- Chinese STPs address intellectual property rights concerns.

Parallel Session 1.2 The Next Generation of STPs in Asia

Asia is increasingly integrated both economically and technologically and a new generation of science is emerging in Northeast Asia, Central Asia, the Middle East, South and Southeast Asia as well as Russia. (For example, Taiwan, Saudi Arabia and etc) Many of these STPs are pioneering innovative approaches to assisting local and national growth, particularly in the environmental fields. This session will consider new trends in STPs throughout Asia and prospects for the future.

Possible topics for papers:

- New approaches to international collaboration between STPs in Asia.
- The impact of the financial crisis on Asia's STPs.
- Encouraging innovation in Asian STPs.
- Strategies for bringing together government, business and academia to effectively develop STPs in Asia.

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Parallel Session 1.3 The Next Generation of STPs in Japan

Japan was the innovator of STPs with Tsukuba in the 1960s and has a record of developing clusters with the highest levels of technological capability. But Japan is changing rapidly and internationalization is entering into a new level of intensity in Japanese technology clusters. This session will consider what to expect from the next generation of Japanese STPs and how Japan plans to assert global leadership.

Possible topics for papers:

- Japan's advantages in technology and their implications for its STP.
- The next wave of Japanese internationalization in business, government and academia.
- What is the Japanese model for R&D, incubation and technology transfer today?
- How is Japan coordinating work on green growth in STPs?
- Best Practices from Japan's new wave of internationalization.

Parallel Session 1.4 The Next Generation of STPs in Europe

Immense economic, social and environmental changes are sweeping across Europe opening up unprecedented opportunities for cooperation between STPs and also serious challenges that must be addressed head on. All three regions are grappling with the need to concentrate economic and scientific know-how in order to respond to current challenges. This session will consider what specific strategies are most appropriate to the regions and examine examples of successful collaboration.

Possible topics for papers:

- Climate change, green growth and the unique regional conditions for STPs in Europe.
- What can European STPs learn from parks from other regions?
- Internationalization strategies: transnational STPs within Europe; European STP initiatives in other regions of the world.

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Parallel Session 1.5 The Next Generation of STPs in Africa

Africa faces tremendous challenges economically, but at the same time great opportunities as its STPs are new and vibrant. This section will address effective strategies for African STPs to rise to the next developmental level and realize their full potential.

Possible topics for papers

- Recent trends in international collaboration between Africa and the world
- Climate change, green growth and the unique regional conditions for STPs in Africa
- Reducing the gap: Strategies for African and Middle East clusters to leapfrog to the next level
- Asia's presence in Africa and the implications for African STPs

Parallel Session 1.6 The Next Generation of STPs in Korea

Korea has emerged in a short time as a major leader in technology and innovation thanks to the STPs like 'Daedeok Innoplis'. It now has an immense presence in emerging markets. At the very moment that Korea is playing a larger global role, symbolized by the presence of Ban Ki-moon as Secretary General of the UN, we find that Korea has ambitious plans for a new generation of global innovation clusters and STPs. This session will explore the new approaches being undertaken by Korea today in its STPs and their possible application in other regions. Korea is currently the developmental model for much of the world and its STPs will play a correspondingly more important role in the years to come.

Possible topics for papers:

- New innovations and best practices in Korean STPs.
- Korea and the world: how Korea's STPs engage the global community.
- The Korean STP and its models for cooperation between government, business and academia.
- The Korean STP and the emerging STP community.

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Parallel Session 1.7 The Next Generation of STPs in North America

North America pioneered the STPs movement, which today is very active in the USA and Canada. New STP models, the dynamical tension between the need to serve their local markets, which are huge, and ensuring a global dimension, the role of governments and public administrations in the STP development and their position within the new green-growth paradigm are crucial topics for their future.

Possible topics for papers:

- Best practices in STPs in North America and their global application.
- New trends in North America and their implications for business.
- STP Alliances through the Americas
- Green Growth in North America.

Parallel Session 1.8 The Next Generation of STPs in Latin America

Integration in Latin America is much impacting the STPs as a new era of openness and growth unfolds. This section will focus on contemporary trends in Latin America and consider future prospect.

Possible topics for papers:

- Best practices in STPs in Latin America and their global application.
- New economic and scientific trends in Latin America and their implications for business.
- North-South STP Alliances.
- Green Growth in Latin America.

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Parallel Session 2.1 Technology Session 1 (Wind power, solar power, fuel cells, efficiency, nuclear power, new materials etc.)

STPs are engaged in a massive reassessment of existing technologies and diverse intellectual capital in the face of the demands for green growth. The evaluation and promotion of viable environmental technologies is an increasingly important part of the STP's role. This session will focus on success stories and potential for breakthroughs in next-generation fuel cells, wind power, efficiency, nuclear power and new materials at STPs around the world. What are the trends and what will be required for STPs to be effective in the development and diffusion of relevant technologies in these fields?

Possible topics for papers:

- New approaches to promoting innovation in fuel cells and solar cells.
- Potential in wind and thermal power
- Multi-disciplinary approaches to energy efficiency
- Innovation in the field of new materials and the role of the STP
- Convergence between solar, wind, hydro power.
- New approaches to promoting innovation in nuclear power (and its spin-offs) for green growth.
- Market creation for new energy technologies, i.e. wind power, solar power, fuel cells, efficiency, nuclear power, new materials, etc.

Parallel Session 2.2 The Role of SMEs: Job Creation

The global financial crisis poses serious challenges for workers around the world in research and manufacturing. Increasingly, SMEs are proving to be the most resilient companies with the full potential, along with venture companies, of generating substantial job opportunities in new fields. This session will consider strategies for increasing employment through innovation in technology and in systems with an emphasis on the evolving status of SMEs.

Possible topics for papers:

- Best practices: creating jobs through SMEs and innovative technologies.
- The changing landscape of employment: Redefining priorities for workers in SMEs.
- Regional and local factors in job creation.
- The STP and the SME: coalition for job creation?

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Parallel Session 2.3 Technology Session 2 (biotechnology, nanotechnology & convergence technologies)

Three major fields of technology that are gaining attention in the global green growth initiative are biotechnology, nanotechnology and convergence technologies. All three fields are undergoing a revolution as a result of the environmental crisis, with some unexpected results. Moreover, there are considerable potential for innovative collaboration between these three fields and the prospect of valuable spin offs.

Possible topics for papers:

- New approaches to promoting innovation in biotechnology for green growth
- New approaches to promoting innovation in nanotechnology for green growth
- New approaches to promoting innovation in convergence technologies for green growth.

Parallel Session 2.4 Green New Deal: Strategies for Finance and Increased profitability

There is massive investment taking place globally in environmental technologies and a strong commitment to developing next-generation technologies. At the same time, however, concerns remain as to how green growth will be financed and whether a green bubble is waiting around the corner, even if the long-term value of green technologies remain important. This session will consider innovative approaches to generating profit and building finance models to make the global implementation of green growth viable.

Possible topics for papers:

- Assessing profitability in green technologies.
- Financing the Green New Deal
- Creative approaches to generating profit from green growth
- Avoiding the "green bubble" in your field.
- Regional issues in financing and profitability.

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Parallel Session 2.5 Opportunities for Funding Green Projects

Green projects are by nature international and require complex global coalitions to be successful. This session will consider creative international funding structures including the private sector, local and central governments, the United Nations, World Bank and other international institutions and NGOs. What do developers of new technologies need to know about getting funding through international coalitions and how can they become more effective? How can the risk be properly distributed through a global funding system so as to encourage innovation and global collaboration in research and policy?

Possible topics for papers:

- Forming coalitions for international funding.
- Best practices for international funding and creative finance of green growth.
- The future of global institutions like the UN its implications for green growth and STPs.
- Private foundations and green growth.
- Development directors, STPs and green growth.
- Roles of venture capital to promote new green technologies.

Parallel Session 2.6 Regional Development and the STP

The STP plays an essential role as a stimulus to regional development and the diffusion of technology and best practices at the local level. This session will consider what exactly the needs of important regions are today and how the STP needs to evolve to meet those needs.

Focus will fall on issues of governance, best practice, cultural and social transformation and the diffusion of critical technologies.

Possible topics for papers:

- The STP and regional economic development: best practices by region.
- STP and global institutions working together to promote development
- How to use the STP strategically to achieve developmental goals
- Green Growth and regional development

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Technical Specifications for Paper Proposals

Abstract submission is open to everyone.

Authors do not need to be members of IASP and participation from varied organizations is welcomed.

Proposals to present papers at the XXVII IASP World Conference on Science and Technology Parks, 2010 will undergo the below review process. Selections will be made according to the paper content and its ability to address the topics and themes articulated above. The conference organizers will aim to include papers from the broadest range of expertise and perspectives.

Selection of Abstracts

Anyone interested in presenting a paper at IASP 2010 Daedeok (XXVII IASP World Conference) must first submit an 800-1200 word abstract to the Steering Committee Secretariat (iasp2010papers@iasp.ws) no later than 23rd October 2009.

All abstracts must be in English and submitted in Microsoft Word (or compatible word processing software) format. Microsoft PowerPoint and Adobe PDFs will not be accepted. Abstracts submitted MUST include a cover sheet with the information noted under "form for submission."

Abstracts will be evaluated by the Conference Steering Committee and review panel. The authors will be notified by 23rd November 2009 of whether their abstracts have been selected. Authors whose abstracts have been selected must submit their complete papers for review no later than 23rd February 2010. <u>Only those authors whose abstracts have been approved may submit a full paper for evaluation by the Steering Committee and review panel</u>.

Selection of Full Papers

Full papers will be evaluated by the review panel. The panel will select the final papers that best contribute to the theme and desired discussion at the conference based on the clarity and relevance of their argument. Authors will be notified by 26th March 2010 of whether their full paper has been selected for inclusion in the XXVII IASP World Conference on Science and Technology Parks, 2010. IASP 2010 Daedeok reserves the right to decide which session a talk is assigned to.

Submitted papers will be evaluated according to the following criteria: relevance to the selected session, clarity of argument, originality of the argument, proficiency in English and effectiveness of argument.

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Given the limited number of speaking opportunities at the Conference, some of the full papers approved by the review panel may not have allotted time for oral presentation at the conference, but will be included in the Conference Proceedings.

Submission Timeline

Submission of Abstracts Notification to Authors Submission of Full Papers Notification to Authors 23 October 2009 23 November 2009 23 February 2010 26 March 2010

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Coversheet Information for Submission

Abstracts submission: Steering Committee Secretariat at <u>iasp2010papers@iasp.ws</u>

Abstract for the XXVII IASP World Conference on Science and Technology Parks, 2010	
Title of the Paper	
Preferred Session	
Author and Paper Presenter	
Given Name	
FAMILY NAME*	
Position	
Organization	
Mailing Address	
Phone & Dialing/Area Code	
E-mail Address	
Fax (optional)	
Co-Author(s)	
Given Name	
FAMILY NAME*	
Position	
Organization	
Mailing Address	
Phone & Dialing/Area Code	
E-mail Address	
Fax (optional)	
I confirm my ability to present my paper in English	
Date	
Signature	

*Please use capital letters for the family name. (Examples : Russell HANKOCK, Yingqi XIA) In addition to using capital letters for the family name, please also include the organization for each co-author if he/she belongs to a different organization than the main author and paper presenter. If there are more than three co-authors, please feel free to list them after the coversheet.

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