Green Economy: Innovation & IPR
The InnoForum Workshop

The organisation and actual proceedings of the 4th InnoFORUM 2012 impressed me very favourably.

The subject was exciting and the programme was balanced. The subject of Green Economy was well-covered and speakers were generally of a high calibre. Timetable was kept, enabling full coverage of all aspects (strategic, innovation, business, legal). AIT campus was an excellent choice as a venue. Finally, but not least the organisation of the whole event was impeccable.

My thanks and compliments to the organisers.

Yannis Palaiokrassas
ex EU Commissioner for Environment and Fisheries, Finance Minister
The InnoForum Workshop

The InnoForum workshop is an annual event, organized by the Research in Innovation and Entrepreneurship Group (RIE) of Athens Information Technology (AIT) that nurtures the innovation ecosystem by exploring the “science of innovation”.

InnoForum aims at promoting innovation and entrepreneurship in the broader South-Eastern Europe, by merging three distinct communities: the business, research and legal communities. This annual workshop explores innovation and IPR (Intellectual Property Rights) issues in emerging thematic areas and provides a forum for individuals, corporate innovators, and IPR experts to meet with innovation stakeholders in order to share their views and communicate their experience in the field.

We believe that innovation is an open and collaborative effort and thus, we are eager to welcome you to our community so as to strengthen the creative potential of our region.

The organizers

Prof. Gregory Yovanof
Associate Dean of AIT

Dr Xenia Ziouvelou
Research Scientist & Teaching Fellow
About AIT

A non-profit, independent technology institute that combines its talented faculty, industry links and partnerships to foster world-class education and advanced research in innovative technologies.

AIT’s faculty of internationally renowned professors and industry experts create an exceptional and environment for technology research, innovation management and education.

AIT utilizes its state-of-the-art facilities, affiliations with world-renowned universities and range of academic programs and scholarships to offer the finest advanced learning for professionals and executives and first class education and career placement to an internationally diverse group of students from all walks of life.

Microsoft research ranks AIT in the top 13% of academic and research organizations world-wide.

Mission
To foster world class education and advanced research in innovative technologies.

Values
Excellence, Knowledge, Innovation

Social Mission
To ensure that no student is deprived of a top quality education due to economic hardship.

420 Scholarships, Awards and Financial Aid Fund have been granted to students from 25 countries since AIT’s establishment for more than 5 million euros.

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www.ait.gr
About RIE Group
(Research In Innovation and Entrepreneurship)

The RIE supports and promotes research that expands the understanding of the theory and practice of innovation. The scope of research covers commercial entrepreneurship and the processes of creative thinking generating innovative practices across a wide spectrum of industry and social enterprise. We investigate and analyze processes that can assist any organization in tackling today’s critical challenges in managing innovation in a technology-driven, globally competitive business environment.

Vision
“Provide an environment to translate knowledge and innovation into creation of successful entrepreneurs.”

Mission
AIT’s RIE group aims at creating an ecosystem that will foster and support innovation and knowledge based entrepreneurship amongst the Greek ICT community leading to the creation of wealth and social value through successful ventures.

RIE Objectives

- Empower creativity
- Stretch innovation capacity
- Cultivate entrepreneurial spirit
- Bridge the gap between knowledge creation and commercialisation
- Contribute to the regional growth

www.ait.gr/ait_web_site/research_IE.jsp
InnoForum 2012:
“Green Economy: Innovation & IPR”

Session 1: Green Economy – Strategic Issues
Session 2: Green Economy- Innovation Perspectives
Session 3: Green Economy- Business Cases
Session 4: Green Economy- Legal Perspectives

InnoForum 2011:
“Social Media: Innovation & IPR Perspectives”

Session 1: Social Media - Innovation Perspectives
Session 2: Social Media - IPR Perspectives
Session 3: Social media in action

InnoForum 2010:
“Intellectual Property Rights & Innovation”

Session 1: IPR & Innovation: Establishing the Linkage
Session 2: Patents & Innovation
Session 3: Trademarks, Industrial Designs & Innovation
Session 4: Copyright & Innovation

InnoForum 2008:
“IPR, Strategy and Innovation”

Session 1: IPR, Strategy & Search Practices
Session 2: Tools for Monitoring Trademarks & Industrial Designs
Session 3: eMARKS- “An electronic Trademark and Industrial Design Service” for the protection of Trademarks/Industrial Designs
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9:30 - 10:00  Registration and Coffee

10:00 - 10:10  Welcome Speech & Workshop Introduction  Dr. G. Yovanof (AIT)

**Session 1: Green Economy - Strategic Issues**  
**Session Chair: Dr. G. Yovanof (AIT)**

10:10 - 11:25  
- **Key Note Speech**  
  "Green Fiscal Reform as an agent of technological innovation and economic transformation"  
  Y. Palaiokrassas (ex EU Commissioner for Environment and Fisheries, Finance Minister)

  - Integrated approach of the water supply and sewerage issue in the Greek islands  
  N. Bardis (CEO, EVDAP)

  - Integrated approach of the water supply and sewerage issue in the Greek islands  
  A. Loukatos (President, EPEM SA)

  - Sustainability through Eco-Innovation: Opportunities and Challenges  
  Dr. P. Panagiotakopoulos (Managing Director, CloseTheLoop)

  - Business opportunities at the convergence of ICT and New Energy technologies  
  A. Tsoukalidis (CEO, Positive Energy)

11:25 - 11:40  Discussion- Questions

11:45 - 12:00  Coffee Break

**Session 2: Green Economy - Innovation Perspectives**  
**Session Chair: Dr. X. Ziouvelou (AIT)**

12:00 - 13:45  
- **Key Note Speech**  
  "Challenges of newly created companies in the area of waste management in Greece"  
  R. Antonakopoulos (CEO, Waste Syclo SA)

  - Wind energy in Greece amid crisis  
  Dr. P. Papastamatiou (President, Hellenic Wind Energy Association-HWEA)

  - The role of product’s EcoDesign perspective in achieving sustainability  
  Dr. C. Psomopoulos (Assistant Professor, T.E.I. Piraeus)

  - From the Energy Performance of Buildings Directive to Building Information Modeling and Intelligent Services  
  Dr. C. Balaras (Research director, Institute for Environmental Research & Sustainable Development - IERSD, National Observatory of Athens-NOA)

  - The future of near zero energy buildings in Greece: A challenge, an opportunity, a demand  
  Dr. I. Pappas (CEO, GREEN EVOLUTION SA)

13:30 - 13:45  Discussion - Questions

13:45 - 14:45  Lunch Break
### Session 3: Green Economy - Business Cases

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Dr. G. Yovanof & Dr. X. Ziouvelou

AIT - Research in Innovation and Entrepreneurship (RIE) Group

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www.ait.gr/rie
CHALLENGES

Greece needs to move towards a “sustainable development” pathway, which will be based upon three pillars: environmental protection, economic development and social development (United Nations, 2011). The first step towards this pathway is the development of a comprehensive green strategy balancing EU requirements and conditions in Greece.

• Environmental protection challenges
  - Developing national objectives, strategies and policies in alignment with the international commitments regarding the management of the environment and natural resources
  - Developing a strategy that balances the usage of the Greek natural capital within ecological limits, to achieve sustainable growth
  - Environmental policies have been consolidated, strengthened and enforced
  - Regulatory mechanisms such as limits to pollution and emissions, water contamination, and use of environmental taxes and fines, can contribute significantly towards “greening the Greek economy”

• Economic challenges
  - Greening growth, via green fiscal and tax reform, better use of public and private finance, and more vigorous promotion of eco-innovation, could help Greece boost productivity and competitiveness
  - Overcoming the limited access to capital in financing green growth

• Social challenges
  - Overcoming the obstacles to realizing green growth including the difficulty in changing behaviour, government and market failures
  - Ensuring compliance with and enforcement of environmental regulations and policies
  - Raising awareness and educating the public about the benefits of green growth, while providing incentives for public participation in establishing green growth initiatives

OPPORTUNITIES

Our opportunities towards a sustainable growth stem from the utilization of the Greek natural resources, geographical advantages and human capital, which acts as the basis for our national green growth strategy.

• Environmental protection opportunities
  - Developing a comprehensive sustainable waste management strategy as a first step towards a holistic national resource management strategy
  - Achieving sustainable growth via the further development of Renewable Energy Sources

• Economic opportunities
  - Exploiting opportunities for synergy between the digital economy and the green economy
  - Placing emphasis on technological innovation that can increase productivity without consuming additional natural resources
  - Enhancing Greek prospects for sustainable growth by developing strategies for eco-innovation and entrepreneurship
  - Exploiting the rich national biodiversity in creating innovative products and services

• Social opportunities
  - Green growth can contribute to the creation of sustainable ecosystems throughout the Greek territory, thus reducing inequalities with metropolitan areas
  - Investing in the uptake of green technologies we accelerate the development of social, human and knowledge capital, contributing this way to the establishment of a knowledge society in Greece
  - Transforming our education and training system so as to provide Greeks with the knowledge and skills they need, fostering this way green entrepreneurship and innovation
  - Through the implementation of a green national strategy we contribute towards increasing the quality of life
Green Economy - Strategic Issues
Yannis Palaiokrassas
ex EU Commissioner for Environment and Fisheries, Finance Minister

Yannis Palaiokrassas was educated at the London School of Economics and Political Science and has been a visiting fellow of Brasenose College, Oxford. He was Minister of Economy as well as Finance in the Hellenic Government and a European Commissioner for the Environment and Fisheries under Jacques Delors. He has also had a varied career in the private sector, in urban and regional planning, shipping, real estate, banking and financial services. Currently he is active in environmental NGO’s and Chairman of the Lilian Voudouris Foundation in Athens.

4th InnoForum 2012 presentation theme
Green Fiscal Reform (GFR):
as an agent of technological innovation and economic transformation
I define GFR as a neutral shift of the tax burden from labour to the use of energy and natural resources. This is achieved by levying green taxes on the latter and an equal relief in social insurance and income taxes.

- For Greece GFR is the main tool of moving from the present Greek-soviet economy to a NEW DEVELOPMENT MODEL based on equal acceptance of environmental, social, and financial values (nature, labour capital).

- Green taxes change relative prices, hence market signals to technology. Currently technology is labour and not resource-saving oriented because labour is taxed 7 times more, than the overuse of natural resources.

- Green taxes cause a reorientation of technology and a wave of green innovation in farming, industry and services, triggering a mushrooming growth of green technology and green industries.

- In practice this is achieved by pushing resource costs higher and labour costs lower in production structure and management turning away from preoccupation with labour to resource-saving (including energy).

**OPPORTUNITIES**

**Impacts from innovation:**

**Short-run: changes in production patterns**
- shift to eco-friendly methods of production, less pollution.
- design and marketing of eco-friendly products and services.
- drop in labour costs, higher productivity and competitiveness.

**Medium-run: after green technology develops**
- higher efficiency, competitiveness, growth in GDP and jobs.
- new green businesses; shift to rail, sea and mass transit.
- change in urban planning and quality of life.

**Specific Green Fiscal Reform proposal for Greece**
- 11 green taxes produce extra revenues of 12 billion euros in 2015 increasing to 14.5 in 2018 and 15.5 in 2021.
- An escalating percentage of 60-80% of above passed on to social insurance funds permits reduction of social taxes from today’s 37% to 16.5% by 2021.

Obviously this will not only consolidate the budget but drastically push Greek competitiveness to the sky, permitting a fast return to growth and further budget consolidation and debt control. In fact it could be the model for all ailing Europe.

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(1) Taxes on plastics, agro-chemicals, aggregates, lignite, electricity and gas, car tolls for congestion, tariffs for water and irrigation, increased taxes on cars, construction outside plan areas, waste collection and disposal, emissions.
Panagiotis (Panos) is the founder and managing director of Close the Loop. He has extensive scientific knowledge in the fields of Sustainability, Environmental Management, Corporate Social Responsibility, Ecolabel Strategies and Organizational Development, both from his postgraduate studies as an Environmental Engineer, and his research during his Ph.D. He has an extensive teaching experience on these fields both at an academic (Democritus University of Thrace and National Technical University of Athens) and a professional level, through the delivery of specialized seminars to numerous organizations and companies. His research and teaching experience has contributed to the provision of high-level specialized consulting services to various public and private organizations. He is Greece’s National Eco-Innovation Expert for OECD, member of the Scientific Committee of the Institute for Interdisciplinary Environmental Studies, Associate of the Chamber of Environment and Sustainability and member of the Network of Project Managers in Greece. Dr. P. Panagiotakopoulos has served as assessor of the IPMA International Project Excellence Award, while the Global Reporting Initiative (GRI) has assigned him as a Quality Control Consultant for its Certified Training Programs in Greece.

www.closetheloop.gr

4th InnoForum 2012 presentation theme

Sustainability through Eco-Innovation: Opportunities & Challenges
CHALLENGES

Adopt a Systems (holistic) approach to Sustainability


OPPORTUNITIES

Vision 2050: Business Opportunities

Abraham Tsoukalidis

CEO, Positive Energy

Abraham began his Career in Monitor Company in London as a strategy consultant. In 2000, he joined Intracom S.A. setting up the company’s bioinformatics and IT Solutions management for the Life Sciences division. Abraham holds a degree in Applied Mathematics and Biology from the Harvard University, Cambridge and a European Master in Total Quality Management. Today, Abraham is the CEO and Founder of Positive Energy S.A. (www.positiveenergy.gr) as well as the Executive Director of Gennet group of companies (www.gennetsa.com). The main activities of the group are Renewable Energy Sources Investment and Construction, as well as Green Technologies and Applications.

4th InnoForum 2012 presentation theme

Business opportunities at the convergence of ICT and New Energy technologies
CHALLENGES

• Enabling Projects in Sustainable Urban (Re) Development

• Grow a Robust Investment Ecosystem

• There is an existing investment and venture capital sector in Greece. The country needs to expand the investment ecosystem and coordinate innovation & entrepreneurship policies

• The country needs to enable projects for the re-development of communities by adopting and implementing a sustainable urban planning and new “Eco-City” Standards

OPPORTUNITIES

• Renewables sector and investment potentials

• Investing in ICT / Move Towards a Knowledge Economy

• Greece has realized that “green development” with the exploitation of environmentally-friendly technologies is perhaps the most important development model in order to boost its economy

• Focusing on the flourishing photovoltaic sector, the Greek market has today a quite favorable legislative framework and has set an important goal for the implementation of projects up to 2020

• The financial sector, amidst an unprecedented crisis, continues supporting renewable energy investments to the extent possible, and the interest shown by domestic and foreign inventors is steady

• At the same time more and more enterprises start their operation by investing in the renewable energy sector. The country has currently five manufacturing facilities producing quality equipment and a considerable number of reliable EPCs and installers with high-level know-how and experience in the implementation of renewable energy projects

• Greece has one of the highest irradiation levels among European countries and is clearly today the leader in the corresponding photovoltaic markets of Southeast Europe with projects of considerable scale (about 400 new MWp were installed in 2011 and more than 150 MWp during the first 4 months of 2012)

• ICT is also another area for Greece to invest by using new financing tools for IT projects, speeding up implementation of existing funding programs and creating a special incentive zone scheme which will attract large companies Research and mainly development centers

• Today the growth prospects of ICT’s are moderately optimistic. The country should contribute more to this growth and support the companies of the field to provide innovative solutions in today’s extroverted business world
Green Economy - Innovation Perspectives
Rodianos S. Antonakopoulos

CEO, Waste Syclo SA

Mr. Rodianos S. Antonakopoulos was born in Athens in 1979. Has a Degree in Environmental Management with specialization in Waste Management from the University of Abertay Dundee, in Scotland. With professional experience from European countries like UK, Italy and Spain, in 2004 he worked as Manager of Environmental Operations to the Organizing Committee for the Olympic Games ATHENS 2004. Since then he worked as General Manager and Legal Representative of URBASER HELLAS, the Greek branch of the multinational company URBASER SA, one of the largest companies worldwide in the field of waste management. After the substantial cooperation between PPC (ΔΕΗ) and URBASER, he holds the position of the CEO of the newly formed subsidiary company WASTE SYCLO SA which has as its primary objective the development of waste management project in Greece.

4th InnoForum 2012 presentation theme

Challenges of the newly created companies in the area of Waste Management in Greece
Challenge #1: All financial parameters of the projects due to the economic crisis.

Challenge #2: Unstable investing environment / high risk for investors.

Challenge #3: Not complete legal framework.

Challenge #4: Long time procedures for the materialization of projects like the ones related to the treatment of waste.

Challenge #5: Local authorities reluctance to proceed in modern waste treatment methods and local communities misinformation related to these projects.

Opportunities:

Waste treatment in Greece – current situation (total quantity > 5 mil t/y)

EU Directives adoption

EU Waste Treatment targets adoption

Treatment of household waste in the EU 27 in 2009. Source: Eurostat
Dr. C. S. Psomopoulos

Assistant Professor, T.E.I. Piraeus

Dr. Constantinos S. Psomopoulos received his diploma degree and Ph.D. thesis in Electrical and Computer Engineering from the NTUA, Greece. Since 2007 he is Assistant Professor in Electrical Engineering Department of T.E.I. Piraeus, Head of Electric Power Division and Head of High Voltage Lab. His working experience includes a several number of projects in the fields of electromechanical installations, energy production and energy efficiency, solid wastes and wastewater management facilities. Before joining the Academic Staff of T.E.I. Piraeus he has worked as a Senior Expert - Consultant in EPTA Ltd (2003-2007) and in Thyssen Krupp Marine Systems – Hellenic Shipyards Skaramanga Yards (2003 to 2006), and as a free lancer consultant worked with several consulting and public works companies. He has also participated as key expert in a number of research – consulting projects funded by EU and Hellenic Republic. His research activities and technical experience involve Eco Design and Energy Efficiency, Materials and Energy Recovery from wastes, Electromechanical Installations and Apparatus, Electrical Measurements and High Field Effects, High Voltage Engineering. He is Reviewer or Member of the Editorial Board in several International Scientific Journals and Member of the International Scientific Committees of several International Conferences. He is author or co-author in over 50 research papers published in scientific journals and international conferences proceedings.

4th InnoForum 2012 presentation theme

The role of product’s EcoDesign perspective in achieving sustainability
CHALLENGES

• Continuous improvement in the overall environmental impact of the products
• Optimization of the environmental performance of products, while maintaining their functional qualities
• Manufacturing Sustainable Products
• Implementation of Sustainable Production Methods
• Achieving Sustainable Consumption
• Transformation to Sustainable Communities

OPPORTUNITIES

• Development of New Materials
• Development of New Design Methods for the Products
• Development of New Materials’ Processing Methods
• Creation of Reusable Components
• Creating New Greener Products
• Green Innovation in daily used products and services
• Transformation to a Greener more Sustainable Communities
Dr. Constantinos A. Balaras

Research Director, Institute for Environmental Research & Sustainable Development-IERSD, National Observatory of Athens-NOA

Mechanical engineer, research director at the Institute for Environmental Research and Sustainable Development, Group Energy Conservation, at NOA a public research organization (National Observatory of Athens). Ph.D. & M.S.M.E. from Georgia Tech., B.S.M.E. from Michigan Tech. Active in the areas of energy conservation in buildings, building energy audits, thermal simulations and solar cooling. Participated in 38 R&D and demonstration projects financed by the European Commission, national ministries and organizations, and the private sector. Author and co-author of 60 publications in international Journals, 138 in conferences, and in 17 contributions in books. ASHRAE Fellow, ASME Fellow, Member of the Hellenic Technical Chamber, Hellenic Society of Mechanical - Electrical Engineers.

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4th InnoForum 2012 presentation theme

From the Energy Performance of Buildings Directive to Building Information Modeling & Intelligent Services
### CHALLENGES

**Existing building stock – Need to achieve tangible results**
- Financial (dis)incentives for implementation of energy conservation measures (ECMs)
  - Move past the mandatory diagnosis using the EPCs to the actual implementation of recommended ECMs
  - The estimated impact of the EPBD recast is energy savings of 60-80 Mtoe in 2020 or 5-6% reduction in total EU energy consumption and about 5% less CO2 emissions
  - Significant energy savings in Hellenic buildings: e.g., potential savings in thermal energy demand by 0.02-1.16 Mtoe & electrical energy demand by 0.08-1.32 TWh in residential buildings

**New buildings**
- Strengthen a holistic building design & construction
- Optimize total lifecycle cost (LCC) of a building

**Inadequate software interoperability for BIM adoption**
- High financial cost as a result of fragmented nature of the building industry, paper based business practices, lack of standardization, inconsistent technology adoption among stakeholders etc)

**NZEBs- Nearly Zero Energy Buildings**
- Nearly Zero Energy Buildings by the end of the decade
- Minimize heating and cooling loads
- Exploit renewable energy sources

### OPPORTUNITIES

**EPBD & KENAK has introduced energy efficiency of buildings onto political agendas, building codes & to public awareness**

**Energy efficient new buildings (since end-2010); Lower operational cost, improved indoor environmental quality**

Exploit large cost-efficient energy savings potential
- Huge market potential
- Support efforts in meeting the climate & energy targets

Gain in-depth understanding of the energy performance of building stock or owner/building portfolios (TABULA: www.building-typology.eu)

Facilitate energy experts for performing a first assessment of a building’s energy performance & possible energy advice (eKIA: www.energycon.org/ekia.html)

BIM & Intelligent Services could play a crucial role: Improved visualization & productivity due to easy retrieval of information, Increased coordination of data & speed of delivery, Reduced cost.
- Integrate, complement and empower existing tools for design & operation management to a Virtual Energy Lab (ISES: http://ises.eu-project.info)
Dr Ioannis Pappas has a Diploma in Mechanical and Aeronautical Engineering, a PhD in Mechanical Engineering and a Post-Doc in Applied Mechanics in Energy Applications. He is a Senior Consultant in Carbon Finance and Energy Markets, with experience since 2001, Coordinator / Manager for more than 20 National & EU Research Projects and has been a Research Fellow in Joint Research Centre of the European Commission. He was a Special Advisor on Energy and Carbon Finance for Greek Government, the Principal Administrator of Greek GHG Registry, Greek Government, the Nominated Greek Representative as Expert for ITL Technical Issues, UNFCCC and the Greek Administrator of International Transaction Log, UNFCCC. He was also a Special Advisor on Emission Trading & EU Legislation TAIEX-EC, DG Enlargement, and a Senior Advisor for EC on Climate Change Adaptation in Middle East & North Africa and he has certified as European Energy Manager. He is a Co-Founder and CEO of GREEN EVOLUTION, a unique Advising Company in Environment, Energy & Carbon Finance in Greece, while he has been an active participant member of various international working groups (UNFCCC, CITL, ITL, CEN, TAIEX).

4th InnoForum 2012 presentation theme
The future of near zero energy buildings in Greece
A challenge, an opportunity, a demand
CHALLENGES

The Challenges for Green Economy

• To engage towards Sustainable Development / Green Economy the required enabling conditions

• To include in these, changes on national regulations, policies, subsidies, incentives and social/cultural patterns

• To believe and perceive that this as an opportunity for the country to obtain real long-term competitive advantage

• To cleverly combine these required enabling conditions with the changes and reforms we are about to start

The Challenges for Greece

• To clearly, at the political level, understand the distinction, the interdependence and the necessity for the combined Sustainable Development / Green Economy pathway

• To elevate this combined development pathway as a national strategic decision

• To establish the necessary new enabling conditions to promote the transition towards Sustainable Development / Green Economy

• To give to this pathway the necessary systemic / institutional character in space and time and among sectors (against the usual accidental, sporadic, non institutional approach)

• To ensure adequate transition rates to obtain the foreseen results while this allows for the adaptation of the slow followers

OPPORTUNITIES

Agriculture          Gastronomy - Agriculture, Aquaculture
Buildings           Manufacturing including food industry processing
Energy              Technology – Innovation
Transport           Tourism - Culture
Forest              Waste
Green IT             Water
Green Economy - Business Cases
Dr. Georgios Ayeridis

General Director, Centre for Renewable Energy Sources and Saving – CRES

Dr Ayeridis works at the Centre for Renewable Energy Sources (CRES) since 1993. Started by Sector Promotion of Energy Technologies and International Cooperation with the primary responsibility international cooperation projects. Then he was responsible for investments in energy Second Community Support Framework and by early 2007 she had the responsibility of the Directorate Finance & Management. From February 2007 until today holds the position of Director of the Division of Energy Efficiency of CRES. In 1982 he received his degree in Mechanical Engineering from NTUA and in 1990 a PhD degree from the same University. His professional experience began in 1984 as a researcher in the Laboratory E.M.Polytechniou aerodynamics, where she and teaching experience. He has worked in the fields of renewable energy and the protection of environment as engineer-designer and consultant in the private and public field. For many years he was an expert on insurance companies specializing industrial plants. She also participated as a speaker at various seminars on energy and technology control air pollution. He is a member of many associations and associations in Greece and abroad. Since October 2007 is the President of the Greek Association of Cogeneration and Heat. Has contributed to the writing of three books, and is author of numerous publications scientific conferences, and various articles in technical and scientific magazines.

4th InnoForum 2012 presentation theme

Green Island - Ai Stratis
CHALLENGES

• Green Economy consists of a new market for all over the world.

• As a new sector, all people involved (entrepreneur, producer, trader, etc.) is beginning from the same starting point.

• Mainly, there is no need for heavy industry products and the relative infrastructure and know how needed.

• There is a vast field for creativity and innovation using in extension information and communication technologies (ICT) available to big companies and young individuals as well.

OPPORTUNITIES

• Green Economy enters to all human activities, offering a huge economic potential.

• Creation of new jobs in innovative but also in conventional sectors.

• This jobs are mainly brain intensive instead of capital one, offering opportunities for significant added value to local societies.
Sofia Spirou

Consultant, Organization Earth

Sofia Spirou is a consultant at the Organization Earth and an external researcher at Athens University of Economics and Business and freelance consultant in environmental economics and communications. She holds a BSc in Economics as well as an MSc in Theory of International Relations both from the LSE. Beginning in 1999 until 2011 she has held professional appointments with international organisations active in the field of environmental protection including the Ramsar Convention on Wetlands and the United Nations Environment Program. She has served as Head of Communications for a series of international projects with clients such as the European Commission, the World Bank and the Global Environment Facility, the Canadian International Development Agency, the German Development Agency. Her work clusters mainly on policy, management and economics of water resources including freshwater and marine ecosystems with a geographic focus in the Mediterranean region. She has worked as editor to a number of environmental policy works including ‘Trading in genes- development perspectives on biotechnology, trade, and sustainability, ‘Transboundary Diagnostc Analysis of Pollution in the Mediterranean Sea’. She has represented inter-governmental entities in meetings around the world, received funding for communications and awareness activities from various institutions and foundations and has organized a number of international conferences. She recently received funding as member of team led by Athens University of Economics and Business to complete research on the evaluation of the Greek Gene Bank with the support of the John S. Latsis Public Benefit Foundation.

www.organizationearth.org

4th InnoForum 2012 presentation theme

Valuating biodiversity services for food, agriculture and rural development in Greece
CHALLENGES

• Biodiversity is being degraded and lost and the world has failed to meet international goal to halt this decline by 2010 as had been agreed through the Convention on Biodiversity. For crop diversit
y and particularly modernisation of agriculture put very simply has increased output per person while decreasing the variety of plants. It is estima
ted that crop biodiversity in Greece has decreased by as much as 90% over the past half century.

• Although rescued to a significant extent and held in trust by the Greek Genebank, diversity of Greek crops faces challenges relating to institutional drawbacks affecting the work of the Bank. Stored in the form of seeds this stock of biodiversity presents challenges in terms of its future maintenance as Genebanks worldwide face problems in funding as well as difficulties in ensuring effective implementation of intellectual property right agree
tments.

• In order for markets of biodiversity related goods and services to work better accounting standards and metrics for audit/assurance of Biodiversity impacts are needed. Businesses need better guidance to address risks and opportunities relating to ecosystems. Although business NGOS and governments have begun efforts in col
eration to produce guidelines and tools in this area these initiatives often acknowledge the need for better metrics to valuate impacts of biodiversity especially in terms of human welfare.

• Governments have an essential role to play in providing an efficient enabling and fiscal environment. This includes removing environmentally harmful subsidies, establishing stronger environmental liability; develop
ing new ecosystem property rights and trading schemes; encouraging increased public access to information through reporting and disclosure rules; and facilitating cross sector collaboration.

OPPORTUNITIES

• Greece is home to exceptionally high biodiversity of plants, edible or not living in the Mediterranean region that can serve to develop new food products. Rescued and stored by the National Genebank of Greece, Thesaloniki diversity of Greek crops can play a role in food security in the coming century. Through plant breeding for improved crops genetic variety available in Greecem can contribute to developing new foods with enhanced characteristics such as higher yields or disease resistance.

• Development of new varieties is considered to be of strategic importance to meeting the planets future needs for food. An increase of global food production of 70 percent will be needed by 2050 to meet global food needs according to projections made by the Food and Agriculture Organization. Having contributed significantly to bettering food production over the past half century, with the share of crop improvement estimated to account for 20-40% of increase in agricultural output, crop diversity has great scope in helping improve agricultural pro
ductivity to enhance food security.

• Diversity of crops can moreover cater to the growing demand for certified agricultural products. Forecasts of growth in market for certified agricultural goods indicate an increases in total value from $40 billion in 2008, to an estimated $210 billion in 2020 and $900 billion in 2050.

• Having a high biodiversity contributes to sustaining complex agro-ecosystems adapted through long peri
dods of time to local needs and conditions. For instance terrace farming in the Aegean region of Greece has co
developed with biodiversity through the gradual emerging of drought resistant varieties. Helping sustain multi purpose farming agricultural biodiversity is increasingly acknowledged as a benefit of having high agricultural biodiversity. By including agro-ecosystems among its target areas the EU Common Agricultural Policy presents additional opportunities for development of biodiversity friendly agricultural produce.

• Finally crop diversity is especially important in the context of climate change. It is widely acknowledged that in order to help agriculture adapt to changing growing conditions developing of new varieties with climate adapt
ed characteristics such as tolerance to drought or disease resistance will be important. Having a wide gene
pool from which researchers can draw beneficial traits to confer climate resilient characteristics to crop varieties is important to help agriculture meet climate change challenges.
Ben Gill

Scientific Advisor, ECOWEEK, International Manager, BioRegional - One Planet Communities

Having worked in most aspects of the environmental field for 10 years; energy, waste, sustainable agriculture and behaviour change, I decided I needed a fresh challenge and so have relocated to Greece. The experience of moving from a country where the environment is an acknowledged priority to one where it is essentially unheard of has really deepened by understanding of how to best communicate the need for change.

4th InnoForum 2012 presentation theme

Opportunities for environmental entrepreneurship in a Greek crisis
CHALLENGES

• The state

• Bureaucracy

• Not creating an enabling environment

• Current uncertainty causing a paralysis

• Basic infrastructure

OPPORTUNITIES

Physical
• Sun and wind
• Dense mixed development

Economic
• Environmental benefits of saving money
• Local exchange networks (LETS ATI)
• Specific products

Social
• Entrepreneurial attitude
• Young (un)deremployed) people wanting to make a difference
• Pride and patriotism
• Community actions strengthening society (Athenistas, LETS ATI)
• Links to the agriculture and ‘the village’
Alice Corovessi

Founder & Managing Director, Plus Energy LAB

Plus Energy LAB specialises in the design and construction of Energy Efficient Buildings including Passive Buildings (Passive House Standard), Zero Energy Consumption Buildings (Zero Energy Homes – ZEH) and upgrading of existing conventional buildings into energy efficient, low or zero energy buildings, according to new construction standards and European Union directives. Plus Energy LAB develops and delivers complete, reliable and effective solutions for all types of building, from permanent and holiday homes, to office buildings, hotels, commercial and industrial buildings. Our aim is to create a new building generation that meets the standards of sustainable construction. Reduce or eliminate energy consumption costs, minimize your carbon footprint and contribute positively to the environment.

www.plusenergylab.com

4th InnoForum 2012 presentation theme

Enable Project: innovative and sustainable living
**CHALLENGES**

Improving energy security.

Minimizing the waste of natural resources.

Job creation in many fields.

Educate people and communities to live and act sustainably.

Develop new techniques in construction tailored to the local climate.

Develop new materials and know how, compatible to sustainable and energy efficient construction according to the local architecture styles.

Implementation of the three main aspects of sustainability in existing communities i.e. Economic, Environmental, Social aspects.

New funding tools for initiatives that will apply these new techniques in sustainable and energy efficient projects.

**OPPORTUNITIES**

High quality Construction: Following the new construction standards and using new, eco friendly and certified materials we ensure the excellent quality in construction of our buildings.

Profitable investment: The main element of the “new generation” of buildings is minimum and zero energy consumption. This means a maximum annual saving in companies’ and families’ budget. The positive result is visible and measurable from the first year of usage of a building which is built or upgraded in accordance with new standards.

Job creation in many fields.

Improving energy security.

Minimizing the waste of natural resources.

Positive contribution for a sustainable environment by

- Reducing carbon emissions (CO2)
- Using eco-friendly materials
- Minimizing the waste of natural resources
Green Economy - Legal Perspectives
Theodore Pistiolis


Theodore’s practice includes commercial and corporate litigation and arbitration - both national and international. He also serves as general counsel for corporations and organizations and represents them in all aspects of their corporate life across a variety of industries such as Real Estate Construction & Land Development; IT, Media; Pharmaceutical; Food and Beverage; Transport; Consumer products; Sports; Retail; and the Public Sector. Theodore has successfully represented in courts as well as in dispute resolution organisations, such as mediation and arbitration, across numerous industries. His expertise extends to issues such as change of control transactions, restructuring, schemes of arrangement, statutory and regulatory compliance, shareholder meetings and agreements, corporate counseling, insolvency & financial restructuring, government contracts, venture capital, private equity, shareholder litigation, project development and finance, mergers, acquisitions and joint ventures.

www.ptlegal.eu

4th InnoForum 2012 presentation theme
Solar Energy:
An opportunity to boost local and foreign investment in Greece
CHALLENGES

- Investor with sufficient capital may be excluded or forced to purchase a license
- Absorption capacity limitations may block serious investors
- Unstable tax environment
- Constantly changing regulatory framework
- Late payments
- Scarce financing
- Public Sector inadequacy
- Hostile and poorly informed local communities

OPPORTUNITIES

- Superb solar resources, among the best in Europe
- Priority dispatch by the system operator
- High feed in tariffs
- 20-year PPA (power purchase agreement)
- Favourable, long-term legislative framework, ensuring investment reliability
- Tax benefits regarding VAT
George Konstantakis

Management Consultant, ITA GROUP

Mr. George KONSTANTAKIS is a Mechanical, Electrical & Systems Engineer with a M. Sc. Degree from the National Technological University of Athens (1967) & from the University of Pennsylvania (1971). He has a large experience in the Energy Sector, since he worked for several years in the Oil & Gas Sector in the HELPE Group, mainly as a Business Development Manager in Asprofos Engineering, as well as in the R.E.S. Sector for ITA Group (www.itagroup.gr), where he is presently acting as a Management Consultant. He is a member of HELLABIOM. Mr. Konstantakis is married with two children.

www.itagroup.gr

4th InnoForum 2012 presentation theme
Institutional framework for RES & CHP investments in Greece
CHALLENGES

Planning & actions by the State aiming at:

- Reduction of Bureaucracy.
- Improvement of Infrastructure in electrical networks.
- Completion of land registry.
- Solving the lack of liquidity in the Banks.

OPPORTUNITIES

The potential investors should consider:

- The large wind, sun & geothermal potential in Greece.
- The relatively low cost of land.
- The high tariff/subsidy incentives.
- The relatively “virgin” green investment areas, such as biomass & biogas.
Dr Ioannis N. Tzortzis

Attorney at Law, Supreme Court of Greece
Legal Counsellor, Regulatory Authority for Energy, RAE

Dr Ioannis N. Tzortzis is an Attorney at Law at the Supreme Court of Greece, and a Legal Counsellor of the Regulatory Authority for Energy (RAE, www.rae.gr), Greece, specialised in Energy Law, Environmental Law and European Law. He holds a PhD in Law of the University of London, an LLM of the London School of Economics and Political Science, a DEA in European Law of the European Academy of Legal Theory, Brussels, a MA in Culture Management of Panteion University, Athens, and a Law Degree of Athens Law School. He is Energy Expert of the European Renewable Energy Council (EREC) and the EU Technical Assistance Information Exchange Unit (TAIEX). He is an internationally acclaimed photographer, member of the Royal Photographic Society of Great Britain. He is the President of the “Green Project Organisation” for raising environmental awareness through photographic art (www.green-project.org).

www.rae.gr
www.green-project.org

4th InnoForum 2012 presentation theme

Legal implications in developing RES in Greece: The Green Project Organisation role in dealing with the issues of carrying capacity and visual impact
CHALLENGES

The mayor obstacles in renewable energy sources (RES) development in Greece are considered to be the reactions of local communities regarding environmental issues, i.e. “carrying capacity” & “visual impact”.

- The terms of “carrying capacity” and “visual impact”, are relatively vague and embody a very high symbolic value.
- The “carrying capacity” is the maximum allowable wind power stations’ density at a Local Authority Level.
- “Visual impact” is used to determine the aesthetic impact that RES installations might have on the landscape.

RAE’s practice of evaluating the “carrying capacity”, based on existing production licenses, led to premature saturation of several areas. Scientific research carried out in several EU member-states has proved that the less informed about the RES are the legislators, the judges and the general public, the more concerns about their “visual impact” arise.

- There is an increasing tendency that these terms are used in petitions of “stay” or “annulment” against RES production licenses.
- In the Greek CoS jurisprudence, there has been a tendency to accept petitions of “stay” against RES production licenses that raise environmental concerns, i.e. decision CoS DS 367/2008. In some cases, the Council would even accept petitions of “annulment”, i.e. decision CoS (E’) 2464/2009.

OPPORTUNITIES

There are already signs of change in the Greek public opinion about RES, which in turn heavily influences the application of the above legal terms of “carrying capacity” and “visual impact” by the judges.

- An important step towards the institutional strengthening of RES, has already been made by the decision CoS (E’) 2474/2011, which referred to the House because of the major importance of the issue of the long-term environmental benefits provided by the installation of wind power plants, before the “impact” on the immediate preservation of forests.

There is a growing Greek civil society movement to make the issues of RES “carrying capacity” and “visual impact”, more favorable to the general public, i.e. the case of the “Green Project Organisation” (GP)

- GP is a non-profit organization, which grew in 2008, out of the voluntary initiative of 300 active citizens, scientists and artists, and is aimed at stirring environmental consciousness through photographic art.
- GP communicates RES to the general public, by organizing “green photo journeys” to provide energy education and to record on site, “points of green interest” in relation to best RES practices. It runs under the auspices of UNESCO.
- After the successful “GP Asia 2008: Athens-Beijing” and “GP Africa 2010: Athens-Cape Town”, all is welcome to participate in “GP Europe 2012: Athens-North Cape".
Epaminondas Euergetis

Scientific Consultant, Organization Earth

Epaminondas Euergetis studied Agricultural Science & Engineering (M.Sc.) and Natural Products Chemistry (Ph.D. candidate). He has worked extensively, on contract basis, in Research and Rural Development projects both Greek and international. Mr Euergetis’ environmental concerns drove my participation in the Parnassus Natura 2000 site administrative council, and lead me to serve the NGO sector from various positions. Nowadays, he works as project manager of the LIFE+ project FRAMME, and serve Organization Earth as Scientific Consultant.

www.organizationearth.org

4th InnoForum 2012 presentation theme

EU Agricultural Quality Policy as an intellectual property scheme for biological material
CHALLENGES

- Overcome obstacles generated by the current drivers of Greek economy
- Re-Orientation of the national research priorities.
- Incorporation of biodiversity and culture into the National Capital.
- Restructuring of the productive sectors.
- Complex Geography
- Development of a coherent and open minded legislative framework

OPPORTUNITIES

Renewable Energy Resources

Rich habitat diversity including from alpic meadows to volcanic deserts, enabling the production of almost every crop.

Genetic Resources in the form of wild biodiversity.

Availability of Human Resources, as indicated by the unemployment rate.

Genetic resources in the form of cultivation varieties and livestock races.

Abundance of water resource

Rich cultural heritage, which provides arguments for the localization and protection of numerous products and methodologies.
6,4 ΧΙΛΙΟΜΕΤΡΑ ΑΠΟ ΤΗΝ ΟΜΟΝΟΙΑ.

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Who we are

KiNNO Consultants Ltd. focuses on Technology, Innovation and Entrepreneurship and has established strategic partnerships in the Mediterranean countries with SMEs, Universities and Research institutions, as well as Public sector. The company aims at constantly and significantly enhancing Technology integration & Innovation Capacity, Technology Transfer & Commercialization and Competitiveness.

The company provides a portfolio of services covering all the phases of Innovation process such as knowledge identification and acquisition: technology scouting, licensing-in and spinning-in ventures; collaborative innovation: customer and lead user involvement, R&D collaboration, expert knowledge; knowledge commercialization: marketing R&D and technologies, licensing out, spinning-out new ventures; and technology sale and cross-cutting services: strategic analysis, technical and commercial evaluation of knowledge and technologies, legal services and IPR management, access to finance, and open Innovation training.

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“Για την σημαντική συνεισφορά του στην επιστήμη και την πρωτοποριακή του έρευνα στην νανοτεχνολογία”

Παύλος Αλιβιζάτος

Καθηγητής Νανοτεχνολογίας στο University of California, Berkeley και διευθυντής του Lawrence Berkeley National Laboratory

Απονομή, την Παρασκευή, 14 Δεκεμβρίου 2012
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