

**FROM TACTICAL FRAGMENTATION TO STRATEGIC INTEGRATION:
THE OPEN INNOVATION DIPLOMACY CONCEPT
AND
THE HELLENIC-AMERICAN INNOVATION BRIDGE**

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Developed and developing economies alike face increased resource scarcity and competitive rivalry. Science and technology increasingly appear as a main source of competitive and sustainable advantage for nations and regions alike. However, the key determinant of their efficacy is the quality and quantity of entrepreneurship-enabled innovation that unlocks and captures the pecuniary benefits of the science enterprise in the form of private, public or hybrid goods. Entrepreneurship and Innovation are human endeavors and socio-economic phenomena that are *intrinsic to human nature* as well as constitute both social and political *engines of positive change and growth* provided they are balanced and guided by effective and transparent regulatory and incentive systems in place.

Current local (Greek), regional (European) and global economic and financial conditions and trends make the need to *trigger, catalyze and accelerate high quantity and quality entrepreneurial initiatives* that are based on *high quality and quantity innovations* (low-tech, medium-tech and high-tech) even more clear and present as this is one of the major ways and means to target and achieve *real, sustainable and eventually accelerating GNP growth*. Such growth is much more likely to come from new and qualitative different and superior initiatives (from "sunrise" industries) rather than re-structuring existing (and perhaps "sunset") industries. It may be strategically more prudent to invest scarce and precious resources in carefully calculated strategic "bets" rather than keep throwing them after waning industrial sectors and declining firms and in that sense, it may be best to provide aggressive socio-economic re-training, re-insertion and/or early retirement programs to allow for real growth strategies to be implemented.

Moreover, we believe that the concepts of *robust competitiveness* and *sustainable entrepreneurship* (Carayannis, 2008) are pillars of a regime called "*democratic capitalism*" (Carayannis and Kaloudis, 2009) (as opposed to "popular or casino capitalism"), where real opportunities for education and economic prosperity are available to all and especially the younger people (but not only).

This would be the direct derivative of a collection of *top-down policies* as well as *bottom-up initiatives* (including strong R&D policies and funding but going beyond that to the development of *innovation networks and knowledge clusters across regions and sectors* (Carayannis and Campbell, 2005)

In this context, *linking university basic and applied research with the market, via technology transfer and commercialization mechanisms including government-university-industry partnerships and risk capital investments, constitutes the essential trigger mechanism and driving device for sustainable competitive advantage and prosperity*. In short, university researchers properly informed, empowered, and supported are bound to emerge as the architects of a prosperity that is founded on a solid foundation of scientific and technological knowledge, experience, and expertise and not in fleeting and conjectural "financial engineering" schemes.

Building on these constituent elements of technology transfer and commercialization, *Open Innovation Diplomacy* encompasses the concept and practice of bridging distance and other divides (cultural, socio-economic, technological, etc) with focused and properly targeted initiatives to connect ideas and solutions with markets and investors ready to appreciate them and nurture them to their full potential. More specifically, *Open Innovation Diplomacy leverages Entrepreneurship and Innovation as key drivers, catalysts and accelerators of economic development and envisions in particular the development of efforts and initiatives along the following axes concerning in particular the socio-economic condition and dynamics in Greece currently* (excerpted from Carayannis, Keynote Lecture, BILAT, Vienna, Austria, March 2011).

THE WHAT:

1. *Re-engineer mindsets, attitudes and behaviors in Hellas* to help people - and especially the younger ones - realize the true nature and potential of innovation and entrepreneurship as a way of life and the most powerful lever for a pathway to sustainable growth and prosperity with positive spill-over effects staunching the braindrain, reduced cynicism and increased optimism and trust in the future and each other, reduced criminality and social unrest, higher assimilation of migrant groups, etc.
2. *Engage in sustained, succinct and effective dialog with stakeholders and policy makers within Hellas as well as the European Union* to pursue the reform and as needed re-invention of institutions, policies and practices that can make flourish entrepreneurship and innovation in areas such as related laws, rules and

regulations, higher education, public and private Research and Development, civil society movements and non-Governmental organizations, etc.

3. Identify, network and engage purposefully and effectively with the Hellenic Diaspora professional and social networks around the world to trigger, catalyze and accelerate their involvement and intervention in a focused and structured manner to help with goals 1 and 2 above as well as help establish, fund and manage entrepreneurship and innovation promoting and supporting initiatives and institutions such as business plan competitions, angel and other risk capital financing of new Hellenic ventures, mentoring of and partnering with said ventures to ensure their survival, growth and success both within Hellas and in the global markets. Of particular interest and importance would be communities of practice and interest among the Hellenic Diaspora that would include the ship-owners, large trading concerns, and technology entrepreneurs in countries such as the US, Canada, Australia as well as the European Union and the rest of the world.

THE HOW:

Greek companies (especially small and medium size firms) need to begin with as high quality tools and expertise at their disposal (in terms of business planning, risk capital financing guidance and sources as well as strategic partners, complementors, suppliers and customers - in short a business ecosystem they can thrive in both locally, regionally and globally).

a.. This should begin with **a mindset shift** from only short-term, survival mode thinking which is normal for entrepreneurs especially in their early business stages to more strategic, globally as well as locally attuned thinking and acting which nowadays could be greatly enabled and empowered via social networking tools and methodologies as well as blended (real/virtual) teaching/learning./consulting/mentoring environments.

b.. Moreover, in the case of a country like Greece, **a local, regional and global perspective** would be critical given the small size of the local market. In this regard, Greece should pursue an effective and efficient strategic integration of its knowledge-generating assets in the universities (this is also further discussed at the end) as well as its industry and its government sectors and leverage them fully along with EU and Greek Diaspora resources, expertise and experience to promote the creation of a new breed of start-ups (preferably - but not exclusively - as high technology as is sustainable technologically and commercially).

c.. These start-ups would aim to form **a critical mass of an entrepreneurial innovation ecosystem** in the form of *locally and globally inter-networked and competitive* firms that would more organically and sustainably allow Greek innovators and entrepreneurs to tap and expand

into the world's markets while remaining, researching and creating in Greece.

d.. I have called this concept "**co-location**" in the sense that it aims to retain the knowledge creators and potential entrepreneurs based in their mother country while enabling them to set up a bridgehead and become active in larger markets such as the US. I have been doing this for the last five years with some success with Hellenic high tech spin-offs from Research and Development Centers and Universities in Greece co-locating in the US.

e.. A balanced approach with a **win-win-win mindset** is key combining short-term with long-term considerations. People, culture and technology need to be organically aligned so that resources used lead into results obtained in as short-term a context as possible to establish credibility and gain cooperation and support from civil society.

f.. For that, **top level champions** are needed as well as **a strategic leveraging of social networking structures and infra-structures**. In the past, regions around the world - whether the Silicon Valley in California, or the Route 128 region in the Boston area or others - have been identified as success benchmarks for innovation and entrepreneurship - however, simply emulating those has not always led to successful results as people and culture are finicky and there are higher order inter-dependencies and complexities involved.

g.. Here are some ideas as to how to set up policies and frameworks to provide as conducive as possible conditions for the creation of a sustainable and competitive **Entrepreneurship and Innovation Ecosystem**:

g.1. Advocate the need for **a non-political, institutionally and meritocratically established** entity that would function as part of the government in Greece and all other EU countries and could be called "**Ministry for Innovation and Entrepreneurship**" but set up in a flexible manner to avoid becoming part of the problem.

g.2. Advocate the need for an "**Ombudsman for Entrepreneurs and Innovators**" with proper authority, visibility and resources to intervene and resolve barriers to Innovation and Entrepreneurship (E&I) in Greece and across the EU (this is the institutional civil society role in support of E&I as part of the **Quadruple Innovation Helix** concept (Carayannis and Campbell, International Journal of Technology Management, Spring 2009) - government, university and industry working effectively with civil society to support and promote E&I)..

g.3. Advocate the need for high caliber volunteers among the Hellenic Diaspora as mentors as well as potential risk capital investors and strategic partners - in this context, I would propose forming a "**Global Hellenic Diaspora Angel Investor Network**" and "**The Global Hellenic Diaspora Bond Issue for Entrepreneurs & Innovators**" and to have the funds managed by a professional entity that is subject to the Diaspora members in a transparent and efficient manner. The intent would be to allow for a pooling of

resources so along with large scale donations, many small size but cumulatively substantial contributions could start being made on a streamlined and sustainable basis and always focused on supporting and promoting Entrepreneurship and Innovation initiatives and efforts (a working case of that can already be seen in Denmark where a micro-finance and micro-enterprise fund - "My C 4" - is already succeeding to pool thousands of investors with thousands of entrepreneurs leveraging social networking and clear vision and execution (www.mc4.org).

h.. My descriptions of entrepreneurs and academics, based on 20 years of experience working with academics as well as entrepreneurs are as follows:

h.1. that entrepreneurs exhibit strongly the attributes of "*obsessed maniacs*" *focused on realizing their vision and "clairvoyant oracles" seeing the opportunities and how to exploit them ahead of all others and being able to share that vision effectively with their key partners, investors and other early stakeholders* (Carayannis, GWU Lectures, 2000-2010, Carayannis and Formica, Intellectual Venture Capitalists, Industry and Higher Education, 2008) - case in point is someone I met at the Innovation-driven Entrepreneurship conference in Vilnius this past week - Daniel Williamson and the venture "Connections" he is helping develop further (www.cnx.org).

h.2. that academics ideally should be "*entrepreneurs of the mind in the business of growing people intellectually and spiritually*" (Carayannis, Higher Education Manifesto, Industry and Higher Education, 2007) - facilitators of a lot of "*happy accidents*", that is knowledge exchanges and partnerships being spawned in the context of this event.

h.3. Based on these descriptions, one should aim to inspire, empower and liberate the individual aspiring entrepreneurs (whether academic researchers and/or graduate students in science and engineering as well as other fields) to dare to dream big and dream in scientific/technological as well as commercial terms and to dare to take the next huge step of forming a company and asking people to invest in their dreams.

h.4. One of the ways to do so would be *to establish across all of Greece's universities inter-linked, complementary and reinforcing, cross-disciplinary graduate degrees focused on Entrepreneurship and Innovation with emphasis on practice and aiming to produce at their conclusion working prototypes in the related science and engineering fields of the participants* (from medical devices to agricultural techniques to software programs) and provide support and guidance for proper follow through leading to the establishment of intellectual property rights (patents, trademarks, copyrights, trade secrets, etc) as well as the formation of companies to commercialize those prototypes. These companies should be supported by *Advisory Boards* as well as potential investors from both internal / domestic networks as well as the Hellenic Diaspora including the *Global Hellenic Diaspora Angel Investor Network* and others.