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DIGITAL ENTREPRENEURSHIP: EXPANDING THE ECONOMIC FRONTIER IN THE MEDITERRANEAN

Moisés Santana

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IEMed.

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Digital Entrepreneurship: Expanding the Economic Frontier in the Mediterranean

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Overview

The goal of this paper is to introduce the promotion of technology-based entrepreneurship as an engine for Mediterranean economic growth, with an emphasis on the role of entrepreneurs.

Without avoiding or undermining current problems or challenges, this document takes a look at the Mediterranean Basin free of stereotypes and from a constructive viewpoint. Hence it applies to the Mediterranean the words spoken by Shimon Peres when he received the Nobel Peace Prize together with Yasser Arafat and Yitzhak Rabin in 1994: "A Middle East that is not a killing field but a field of creativity and growth."[1]

The first chapter begins by broadly defining to what type of entrepreneurship we are referring and in what context. We live in the post-industrial digital era, under intense and growing economic globalization, and affected by the constant and rapid appearance of new information and communication technologies, the process of digitalization of the economy, and the opportunities and advantages of immediate, low-cost access via Internet. Acknowledging this implicitly dynamic, changing and competitive environment is important for understanding what it is to be an entrepreneur today and the enormous possibilities it offers youth throughout the Mediterranean Region.

The second chapter goes over some of the region's weaknesses and strengths. Economic growth and increased inequality seem to go hand in hand in a phenomenon occurring globally. Economic dynamism does not prevent youth from feeling the need for more and better opportunities to prosper. Though there has been significant progress in gender equality, the full and equal-right inclusion of women in the labour force is still an ongoing process. Nevertheless, to provide a more impartial description in accord with the times, these aspects must be considered together with the energy and optimism displayed in forums and competitions replete with enterprising youth. There are growing venture capital flows in the region and the first successful cases of start-ups are being valued and celebrated. In this section, we delve into areas including non-Mediterranean Arab countries and Iran, because of the logical impact on the Mediterranean countries caused by what is also happening there.

The third chapter focuses on support policies for entrepreneurs in the sphere of foreign policy. The example of the United States Administration is considered, and how it has turned fostering entrepreneurship into a foreign policy diplomacy tool. Reflection is made on possibly developing a European Neighbourhood Policy with a more pro-active engagement with and support of young entrepreneurs. Considering the complexity of coordinating strategies, departments, programmes and budgets, we propose the creation

1 Peres, Shimon (1994)

of a privately-managed public investment fund for Mediterranean entrepreneurs as a priority.

We have taken on the challenge of raising many of the direct and indirect factors involved in the global phenomenon of digital entrepreneurship in a single document. We have also included ideas and analyses necessary not only for the main actors, the entrepreneurs themselves, but also taken from a broad bibliography that can serve as a complement for gaining a greater and better understanding of today's complex world and making progress in new lines of work.

Entrepreneurship, Innovation and Technology: Fundamental Concepts

What Is an Entrepreneur? Who Are Entrepreneurs?

In its most elementary concept, an entrepreneur is an individual who, after identifying a business opportunity, creates and manages a company with the intention of obtaining a certain economic benefit.

Although entrepreneurship has been analysed in a large number of social science disciplines – economic history, psychology, sociology or anthropology – (Swedberg, 2000) it is an area of study that has always been difficult to place within main currents of economic theory, as is the case with microeconomics and business theory. For these disciplines, the entrepreneur has been an invisible figure. By the same token, their impact in the field of international politics has gone unnoticed, despite their having played a certain role that needs to be understood in order to fully grasp the political, economic and social changes of the past decade, including the Arab Spring. Authors such as David Rodhe (Beyond War: Reimagining American Influence in a New Middle East, 2013),[2] Christopher Schroeder (Startup Rising: The Entrepreneurial Revolution Remaking the Middle East, 2013),[3] Maryam Jamshidi (The Future of the Arab Spring: Civic Entrepreneurship in Politics, Art, and Technology Startups, 2013),[4] Elmira Bayrasli (From the Other Side of the World: Extraordinary Entrepreneurs, Unlikely Places, 2015) and Steven Koltai (Peace Through Entrepreneurship: Investing in a Startup Culture for Security and Development, 2016) have approached this phenomenon from various innovative perspectives.

Three economists representing three of the main intellectual traditions (the German, Chicago and Austrian Schools) have supplied the most recognized ideas for defining entrepreneurship: the role of innovation in the economic system and "destructive creation," i.e. "the process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one and incessantly creating a new one" (Schumpeter, 1942); factors of risk and uncertainty (Knight); and the entrepreneur as an alert individual who is able to identify opportunities through "spontaneous learning" (Kirzner).

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2 Rohde, David (2013): "Instead of calling up your dad to call up his friends to get you a government job, now Egyptians are thinking outside of the box; they want to make a difference… We have to nurture this talent, support creativity, and harness the power as an economic solution." p 141.

3 Schroeder, Christopher (2013): "People greatly underestimate the psychology in all this. The power of 'I want to be a part of that because I can be part of that.' It is what drew many people to the Arab Spring. We are in a moment of conceptual change where no one needs to live in a world in which our lives are totally determined by dictators. This is a political expression, but also an economic one that is behind the entrepreneurs you are seeing. And with every example of success, it will inspire so many more to have the courage to say 'I don't need to be a salaried man. I don't need to be in the military to be successful. I don't need to ride the coat tails of some religious organization. I don't need to be from a prominent family. I don't need to go to the West. No longer is my only hope to escape and find some opportunity abroad." p. 201.

4 Jamshidi, Maryam (2013): "Although the development of civic entrepreneurship has not been analyzed on a national or regional level, it is critical to understand the earliest days of the Arab Spring, as well as its future. For too long, stories of these generally uncoordinated grassroots developments have flowed under the radar, largely view as disconnected anecdotes without broader significance. It is time to bring these stories into full focus and to appreciate what they demand: a reassessment of the nature of the Arab Spring, and a reformulation of how we understand concepts like revolution, ideology, and democracy." p. 2

Without a doubt, Schumpeter's is the main theoretical work of reference in the study of entrepreneurship. Entrepreneurship "is the manifest ability [and] willingness of individuals, on their own, in teams, within and outside existing organizations to perceive and create new economic opportunities (new products, new production methods, new organizational schemes, and new product-market combinations), and to introduce their ideas in the market, in the face of uncertainty and other obstacles, but making decisions on the location, form, and use of resources and institutions" (Wennekers, Thurik, 1999).[5] The entrepreneur is therefore an agent of disruptive change motivated by "the will to conquer: the impulse to fight, to prove oneself superior to others, to succeed for the sake, not of the fruits of success, but of success itself. […] Finally, there is the joy of creating, of getting things done, or simply of exercising one's energy and ingenuity" (Schumpeter, 1934).[6] Schumpeter holds that economic development through innovation does not result in an accumulation of capital, but of new combinations, carried out by an entrepreneur: "the carrying out of new combinations means, therefore, simply the different employment of the economic system's existing supplies of productive means…."[7] He distinguished between five different types of new combinations: through the introduction of a) a new product, b) a new production method, (c) a new market, (d) a new supply source for raw materials or semi-finished goods, and e) a new organizational structure.

Expanding on this concept, Philip Auerswald defined entrepreneurship as "an inherently disequilibrium phenomenon that takes place in a world characterized by uncertainty, asymmetric information, indivisibilities, and non-zero transaction costs."[8] Daniel Isenberg recalls the social and economic friction generated by entrepreneurs and warns that "[political] leaders need to think honestly if encouraging entrepreneurs to challenge the status quo is a price they are willing to pay for the benefits of entrepreneurship" (Isenberg, 2013).[9]

Our profile of the 21st-century entrepreneur is, therefore, that of an individual able to perceive, create and capture extraordinary value.[10] Educated and informed, connected, networking, open and with a global vision; a creative, innovative, digital native; inspired by opportunity and not desperate or acting out of need.[11] Willing and committed to transforming and improving their environment, to sharing and collaborating for prosperity, to competing without the will to dominate and not exclusively for their own benefit, but also through social entrepreneurship towards goals such as sustainable and sustained inclusive economic and social development of their immediate environment, their region, their country or the world.

5 Wennekers, S., Thurik, R. (1999), "Linking Entrepreneurship and Economic Growth," *Small Business Economics*

6 Schumpeter, Joseph A. (1934). p. 93.

7 Schumpeter, Joseph A. (1934). p. 68.

8 Auerswald, Philip (2014) p. 66

9 Isenberg, Daniel. (2013). p. 236

10 Isenberg, Daniel (2013). p.3

11 See the Motivational Index in the Global Entrepreneurship Monitor on the relation between need-driven and opportunity-driven entrepreneurship according to economy type: factor-driven, efficiency-driven or innovation-driven economies. http://www.gemconsortium.org/report

In short, it is a disruptive entrepreneur with the vision to detect and not replicate a new product, service or process, and with the ability to take it to the market; capable of working in multidisciplinary teams to solve increasingly complex problems. These entrepreneurs need not be inventors or experts in a complex technology or an innovative new programming language. They only need to be 'doers' with the capacity to convert visions into realities through a continuous, quick process of learning, iteration and validation or lean start-up (Ries, 2011) (Blank, Dorf, 2012). By definition, a start-up (whether low or high-tech) is a technology-based company that requires an initial, low investment but that has a high potential for growth or scaling up (Mason, Colin, Brown Ross, 2014) and for creating (new) quality jobs for the new, 21st-century economy.

The Role of Information and Communication Technologies in the Post-Industrial Digital Era

The information society or the digital age, the digital revolution, technology revolution or Internet revolution, the third or fourth industrial revolution, the post-industrial era – all are concepts associated with the impact of the new information and communication technologies on our society in political and social terms, according to where we place the emphasis or on what time period: advances in electronics and automation during the first half of the 20th century, the exponential increase in the capacity to process and store data, the development, expansion and universalization of Internet and the creation of new digital platforms connecting billions of people, or, more recently, advances in artificial intelligence.

For Nye (2014), the drastic reduction of the cost and time of creating, processing, transmitting and searching for information is the key factor. Information is a source of power which is now more accessible than ever and to anyone thanks to this lowered cost, leading to a diffusion of the power of States to social or private actors. Cohen and Schmidt (2014) indicate that "what might surprise you is how small some of the advances in technology, when paired with increased connection and interdependence across countries, will make your world feel.[12] Auerswald (2014) holds that "[…] now, after four centuries of sustained advance in science, innovation and the organization of society, the frontier of technology is finally reaching the heart of the human community. Never before have more people had a greater opportunity to create value for society, and for themselves, than today. New technologies of communication and collaboration are enabling not just lone innovators, but entire populations, to connect and create at a scale previously unimaginable."[13] To speak of the new digital economy is to speak of Internet, bandwidth, mobile technology and applications, or hardware. Continuous advances in these spheres, marked by greater

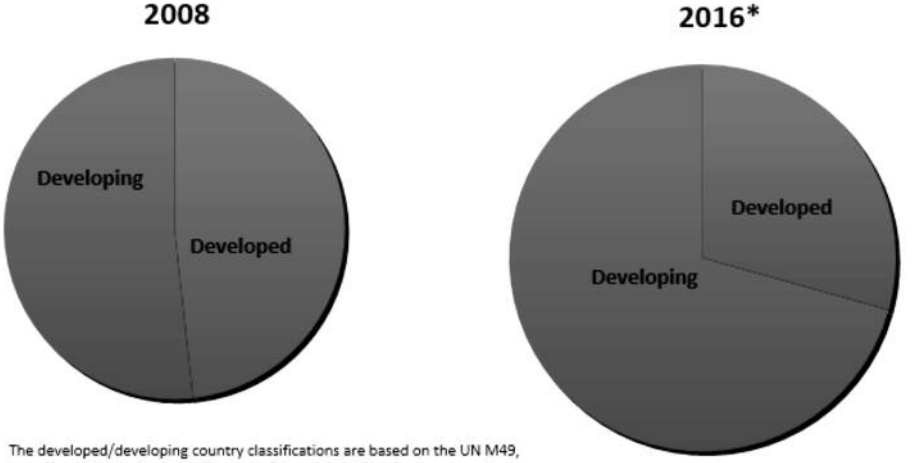
12 Cohen, Jared; Schmidt, Eric (2014). p. 18

13 Auerswald, Philip (2014). p. 41

investment in education, research and development, in science and technology, will accelerate and intensify this transformation. Aperture, reduction of communication and transaction costs, or a regulatory framework adapted to the current economic situation leads to greater business transparency, efficiency and competitiveness.

The International Telecommunications Union (ITU) estimates that, at the end of 2016, 47.1% of the world's population – over 3,500 million people – were using Internet. In 1995, it was less than 1%.

Individuals using the Internet, by level of development



The developed/developing country classifications are based on the UN M49, http://www.itu.int/en/ITU-D/Statistics/Pages/definitions/regions.aspx.html
Note: * Estimate
Source: ITU World Telecommunication /ICT Indicators database

Over 95% live in areas with mobile phone coverage, of which 84% has mobile-broadband network coverage.[14] The economic distribution of Internet is estimated at 4.2 trillion US dollars, and the industry associated with the 'Internet of Things' (IoT) alone could account for an increase of 11.1 trillion dollars in economic growth and efficiency gains in 2025.[15] Nonetheless, not all regions benefit evenly from such gains. On the one hand, there is a digital divide between developed and developing countries, and in the latter, between urban and rural areas, primarily in broadband access;[16] on the other hand, there is a continued disparity between the ratio of access to or use of Internet between men and women.[17] By way of example, in Arabic countries, the Internet user gender gap increased from 19.2% to 20.0% from 2013 to 2016.

The rapid advance of technology and its impact on people has also sparked discussion regarding such topics as the destruction of jobs, inequality and economic progress.

14 ITU (2016) ICT Facts and Figures 2016. http://www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx
15 Chatham House (2016).
16 Measuring the Information Society Report, ITU (2015).
17 ITU ICT Facts and Figures (2016)

Hence Brynjolfsson and McAfee (2014) optimistically argue that the benefits will arrive when institutions and people manage to optimize the true potential of the technology revolution of the past decades. On the other hand, Gordon (2016) is pessimistic and holds that technological change has not had the repercussion of other inventions such as electricity, airplanes or antibiotics.

It is interesting to observe the digital world's impact on the dynamics and patterns of globalization. Though commerce was formerly dominated by the conventional flow of goods, services and finances, now the flow of data and information entailed by the digitalization of the economy and the creation of new digital platforms is acquiring greater weight. This transformation is taking place in two dimensions: first of all, more emerging and developing countries are gradually joining this process, which has ceased to be a unidirectional phenomenon exclusive of more advanced economies, although the latter still have greater weight;[18] and secondly, the players are no longer exclusively governments or large multinationals but rather any entrepreneur or individual has the tools and platforms to make themselves seen and gain access to the global market. According to McKinsey Global Institute (2016), from 2005 to 2014 alone, it is estimated that the transnational bandwidth went from 4.7 to 213 terabits per second. In 2014, the impact of data flows on the Gross Domestic Product on a global level surpassed that of the flow of goods,[19] and paradoxically, it is estimated that the impact of the former can be more decisive for the growth of economies in countries on the periphery of the global network of data flows than those in central positions.[20] This means a window of opportunity for economic growth and development in the Mediterranean Basin if these economies duly adapt to the demands and challenges. Technology, entrepreneurship and human capital are concepts whose weight should increase in the mix of components or instruments of the national power of States.[21] Governments should put their efforts into people, their innovative capacity, and knowledge, in an all-round positive approach. On the creativity of their entrepreneurs.

What is an Entrepreneurial Ecosystem

To facilitate and expedite the creation of new start-ups, it's important there be a space or ecosystem where ideas can be turned into business.

The term ecosystem, adopted from biological or evolutionary models (Auerswald 2012, 2014), was introduced for the first time in an article published in the Harvard Business Review (Moore, 1993). This author held that innovative businesses cannot develop in a

18 See McKinsey Global Institute, Digital Globalization Report (2016).

19 Ibid. p. 75.

20 Ibid. p. 80

21 See RAND Corporation (2000). Measuring National Power in the Post-Industrial Age.

vacuum,[22] but need an auspicious environment of cooperative actors and competition. In a subsequent publication, he emphasized that companies not only compete in efficiency and effectiveness, but also in continuous innovation. Since problems to be resolved are increasingly complex, they cannot change the world in and of themselves, but must seek partners and collaborators to continue being competitive, which he called "distributed creativity," entailing that businesses can and should open themselves up to potential contributors and creative participants from all over the world (Moore, 2006).[23]

A favourable framework or specific singular act of support for the creation of start-ups or high-growth businesses, as, for instance, the creation of specific lines of financing, is not enough. A more holistic, systemic approach is needed (Mason and Brown, 2014). Just as important, if not more, is the productive and cooperative interaction (Global Entrepreneurship Congress, 2014)[24] arising among the different actors through networks – entrepreneurs, business angels, mentors, incubators, universities or research centres – that implicitly become vehicles of transmission. Also necessary are individuals who connect people/businesses and exert influence, though there is no reason why they should be entrepreneurs.[25] The creation of such a dynamic, open ecosystem fosters the creation, development and growth of companies or start-ups.

Of the existing literature, Mason and Brown (2014) define an entrepreneurial ecosystem as "a set of interconnected entrepreneurial actors (both potential and existing), entrepreneurial organisations (e.g. firms, venture capitalists, business angels, banks), institutions (universities, public sector agencies, financial bodies) and entrepreneurial processes (e.g. the business birth rate, numbers of high growth firms, levels of 'blockbuster entrepreneurship', number of serial entrepreneurs, degree of sell-out mentality within firms and levels of entrepreneurial ambition) which formally and informally coalesce to connect, mediate and govern the performance within the local entrepreneurial environment."

The establishment of industrial clusters is a policy that fosters the creation of entrepreneurial ecosystems and the development of a labour force with the appropriate skills. In the words of US President Barack Obama: "[…] And this cluster concept is so important. We're all familiar with clusters like Silicon Valley. When you get a group of people together, and industries together, and institutions like universities together around

22 Moore, James, "Predators and Prey. A New Ecology of Competition," Harvard Business Review, May-June 1993. "Successful businesses are those that evolve rapidly and effectively. Yet innovative businesses can't evolve in a vacuum. They must attract resources of all sorts, drawing in capital, partners, suppliers, and customers to create cooperative networks." p. 1.

23 Moore, James F., (2006): "A business ecosystem can also be conceived as a network of independent networks or interdependent niches that in turn are occupied by organizations. The niches can be said to be more or less open, to the degree that they embrace alternative contributors. One of the most exciting ideas in business today is that business ecosystems can be "opened up" to the entire world of potential contributors and creative participants." p. 34.

24 "An entrepreneurial ecosystem implies cooperative and productive relationships among different organizations. In many countries, these relationships are between startups, established companies, universities, and research institutions. In a vibrant ecosystem, people and ideas flow between these organizations, starting new ventures, joining existing ones, and linking innovations together." Global Entrepreneurship Congress, 2014.

25 Isenberg, Daniel (2014).

particular industries, then the synergies that develop from all those different facets coming together can make the whole greater than the sum of its parts."[26]

Nevertheless, infrastructures and technology parks are not enough. The reduction in communication costs brought about by Internet and its new digital platforms also allows entrepreneurs to work and collaborate virtually, on-line, with the rest of actors from other parts of the world, allowing access to greater and better information. Rapid technological and scientific advances and the development of new business models raise the importance of being up-to-the-minute on events to the critical level. Hence, analysis of entrepreneurship through approaches based on network operation is inevitable. In this regard, Vivek Wadhwa emphasizes that, to be successful, entrepreneurs need to be interconnected via information-sharing networks.[27]

Digital Entrepreneurship as an Engine for Economic Development and Growth

What relationship exists between entrepreneurs, the digital economy, entrepreneurship ecosystems, growth or economic development and technology? Can these concepts be isolated from one another and from the current context in order to ascertain their individual impact and analysed as a whole in this, the post-industrial digital age described above? How should we understand the transformation brought about by companies such as Amazon, Google or Airbnb?

The latest Global Entrepreneurship Index report (2017) finds both a positive correlation (0.62) between high-impact productive entrepreneurship and wealth – though this is not always the case in countries with natural resources – and a strong correlation (0.79) between entrepreneurship and digital technology. It estimates that an increase of 10% in each country's global entrepreneurship index (GEI) would have an impact of 22 trillion US dollars on the global GDP.[28]

The industrial revolution we are experiencing is digital. The digital economy is joining the conventional economy and is spreading quickly throughout the planet. New technological tendencies – artificial intelligence, robotics, cloud computing, fintech, network technology or the Internet of the Things (IoT) associated with 3-D printing – provide an unprecedented horizon of possibilities for human beings. Digitalization of the economy is the fundamental mechanism of innovation, competitivity and growth in today's world, which in turn requires a process of adaptation and transformation.

26 Obama, Barack (2011)

27 Wadhwa, Vivek (July 2011): "To succeed, these people need to be connected to one another by information-sharing networks. Basic infrastructure is always needed, but fancy science parks and big industry are just nice to have."

28 The Global Entrepreneurship and Development Institute, Global Entrepreneurship Index 2017, p 16-18.

Digital entrepreneurship, according to the most widely accepted definition, covers all new enterprises and formerly existing companies that have been "transformed" or converted and that create economic and social value through digital technologies. Digital companies are characterized by high intensity in the use of new digital technologies (particularly solutions for the social sphere, big data, mobile phone technology and cloud technology) to improve business operations, invent new business models, improve business intelligence and deal with clients and partners.[29] It rests on five pillars: a digital knowledge base and ICT market; a digital business friendly environment; access to finance; digital skills and e-leadership; and an entrepreneurial culture.

Nonetheless and paradoxically, this transformation has two facets. On the one hand, the knowledge society will require hundreds of thousands of new jobs, which will fundamentally go to youth seeking employment. Many of them will participate in what is known as the gig economy (Sundararajan, 2015). On the other hand, it is acknowledged both that computerization and automation will eliminate jobs – with no clear alternatives for their substitution – and that inequality may spike in the short term.[30] For some authors, the key to meeting these challenges and thus speak of global prosperity lies not so much in creating jobs requiring digital skills. It consists of expanding the opportunities provided by digital disruption in a "good economy" framework: an enterprising economy sustained by strong, real growth entailing progress and prosperity[31] and with instruments for the redistribution of wealth.[32] The aim should be to increase the capacity of an economy (i.e. "grow the pie"), or expand the frontier of production possibilities – the possible combinations of productive factors and/or technologies in which maximum production levels are attained.[33] Static efficiency improvements – growing the productive/technological factors within the economic frontier or maximizing resource use at a given moment – are not enough.

The Schumpeter entrepreneur and not the company (Marshall, 1879) is creating the new combinations of economic activity that will engender these new opportunities: "The key

29 European Commission. https://ec.europa.eu/growth/tools-databases/dem/monitor/project-description

30 For more on this subject, see Benedikt, Carl; Osborne, Michael A. (2013); Acemoglu, Daron; Restrepo, Pascual (2016); "Artificial Intelligence, Robotics, and the Future of Jobs," Pew Research Center, August 2014. http://www.pewinternet.org/2014/08/06/future-of-jobs/; Graham, Paul, Economic Inequality (January 2016) http://www.paulgraham.com/ineq.html; Auerswald, Philip: Technology, its Implications, and Inequality http://www.kauffman.org/neg/section-4#section4technologyitsimplicationsandinequality February 2016.

31 Philip Auerswald and Zoltan J. Acs (2009): "Growth is not an end in itself, and it is not a synonym for prosperity. The beginning, and the end, of growth is nothing other than opportunity. A generation's worth of professional economic work on the determinants of growth, dominated by the obsessions of macroeconomics, has put the cart before the horse, focusing on the factors that result in growth rather than on the dynamics of the societies within which growth occurs."

32 Ibid. Entrepreneurship means making economic activity grow, not transferring wealth from one group to another. Nevertheless, philanthropy is deeply rooted in American culture, especially in the field of technology: "Both theory and historical experience indicate that while markets may be efficient, they are not necessarily equitable. Opportunities draw out entrepreneurial effort, which concentrates wealth, and which in turn may act in its own service to perpetuate inequality. Only through giving—in particular, through the organized large-scale action of philanthropic foundations—is the imbalance inherent in capitalist growth corrected to create a self-sustaining process of wealth creation, social innovation and opportunity. When wealth is reconstituted through giving to create new opportunities, a virtuous cycle ensues: Opportunity creates entrepreneurship; entrepreneurship creates wealth; and wealth, in turn, creates opportunity. Wikipedia. Retrieved from https://es.wikipedia.org/wiki/Frontera_de_posibilidades_de_producción. Philip Auwerswald and Zoltan J. Acs (2009):

33 Wikipedia. Retrieved from https://es.wikipedia.org/wiki/Frontera_de_posibilidades_de_producción

elements of frontier expanding growth are a high rate of innovation made possible by technological change; a large supply of entrepreneurs and new businesses to put the technology into economic form; and a nurturing environment that we (quoting Phelps) called dynamism that supports new ideas, innovation, and entrepreneurs. We think that the implication of this triad of technology, entrepreneurs, and environment is binary: if you have all three, you get frontier-expanding growth; if you don't, you don't. We believe this triad exists or can exist today."[34]

In "The Good Economy" (Cutter et al, 2016), the authors hold that small and large companies competing for new inventions, entrepreneurs taking risks, company birth-death ratios, change and creativity are what define the economic growth characterizing the current period. Thanks to the new information and communication technologies, the results obtained from the velocity, intensity and scale with which all agents interact and the information they can access instantly and simultaneously can be more decisive than those achieved in previous industrial revolutions.

34 Cutter, Bo; Litan, Robert; Stangler, Dane. (2016). p. 60.

Expanding the Economic Frontier in the Mediterranean

The Social and Economic Framework: Demography, Unemployment, Education and Women's Participation in the Labour Market

In the Mediterranean area, the European Neighbourhood Policy (ENP) covers Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Palestine and Tunisia (with Syria and Libya suspended), to which we will add Turkey and Iran for the purposes of this document. With more than 350 million inhabitants, this is a complex region where the impact and consequences of the Arab Spring, a series of protests that rapidly spread with differing degrees of intensity to all countries, are still being felt. There is a broad consensus that states these protests arose from demands by the population on inefficient administrations with high levels of corruption for improved social and economic well-being or, as Hernando de Soto explains, the Arab Spring "was a massive economic protest" (De Soto, 2013). The protests were also closely linked in political terms to greater aspirations for freedom of expression and democracy, in particular among younger people, although some surveys claim that stability is still being put ahead of democracy.[35] In any case, dignity, respect for human rights, inclusive economic growth and greater privacy and data protection are some of the demands that have emerged throughout the entire region and are here to stay.[36]

There is a relevant factor to consider first: the enormous gap between the Gross Domestic Product per inhabitant in South Mediterranean countries and those of the 28 European Union Member States. According to Eurostat (2016),[37] whereas the EU average in 2015 was 28,700 euros, Morocco's was a mere 2,695 euros. Turkey, with a population of 77.7 million, headed the ranking, with 7,819 euros per inhabitant, while in Egypt, with a total population of 88 million, the GDP per inhabitant was just 2,466 euros, with an inflation rate of 9.4% in the 2011-2015 period.

The political, economic and social situation in the Mediterranean cannot be understood without observing the demographic processes in the region. This aspect is critical for entrepreneurship, in particular the type of entrepreneurship being analysed here, based on new ITC. Is the Mediterranean an elderly society or is it young and dynamic, willing to explore the possibilities of the digital age? Is it finding new opportunities to prosper or is it weighed down by economic structures of the past? What roadmap should be followed to allow populations to have hope and confidence in their countries?

The risks of instability and conflict are greater if we consider, in addition to previous poor economic figures, the high demographic pressure, which increases the demand for jobs – insofar as the public sector can no absorb the job demands derived from the population

35 See the Arab Youth Survey (2016).

36 For a critical view of the global transformation we are experiencing, see Green, Duncan (2012).

37 Eurostat, Labour Force Statistics for the Mediterranean Region (2016). Retrieved from http://ec.europa.eu/eurostat/documents /4031688/7596247/KS-04-16-593-EN-N.pdf/99762f1b-caf3-4a22-ac29-ad1ddd14412c

growth–, that the private sector cannot absorb. Whereas in the European Union, the percentage of the population under 25 is 15.6 on average, in the Mediterranean Muslim countries, it is much higher. For instance, youth accounts for 39.6% of the 4.6 million Palestinians; 29% of Algerians; 34.3% of Jordanians and 31.3% of Egyptians.[38] This entails a high rate of dependency among youth. In Palestine in 2011, for every 1000 people of working age (15-64), there were 734 children under 15 (EC, 2014). This indicates that offering a competitive education and facilitating access to the labour market should be a priority in these countries.

This is why the unemployment rate in this sector of the young population as compared to the active population in the same niche (<25) amounts to 40.7% in Palestine, 26.5% in Egypt and 34.7% in Tunisia, assuming in addition that many of these young people are not in the labour market because they are studying, but that they will encounter the same or greater difficulties in securing a qualified job meeting their expectations in the formal economy when they get older. Paradoxically, and this is a fundamental point, a higher level of education in these countries does not guarantee access to jobs either. With the exception of Israel and Lebanon, in countries such as Morocco, Algeria, Tunisia or Egypt, quite to the contrary, the population between 25 and 64 years of age with a tertiary education (over 15 years of education) have higher levels of unemployment. Many of these people end up in the informal economy[39] and will find their expectations for progress, starting a family or reaching a dignified standard of living in accordance with their education level and qualifications under conditions of equal opportunities frustrated. In the majority of cases, certain achievements in the educational system have neither transformed the labour market nor gotten that labour force to participate in the productive process in their countries. Low quality of education, preponderance of the informal economy, which in some cases becomes the norm, persistence of rentier attitudes with an excessively large public sector, a mismatch between skills required on the labour market and education, or insufficient training to complete studies are nearly structural factors that condition the results obtained (Arbak, 2012). In this sense, an economy wishing to compete on the global market should have more professionals in the fields of science, technology, engineering and maths. This would require an educational system adapted to this demand (Schroeder, Kamel, 2016),[40] with adequately trained educators and proper orientation for young people such that their professional curriculums can meet the expectations of the economy in the 21st century. Fostering aspects such as critical thought, creativity and imagination as well as leadership will be critical. The development of new on-line educational tools will also prove decisive.

To complete the description, the gender gap in Arab-Muslim Mediterranean countries must be discussed. The competitivity of an economy is determined in great measure by

38 Euro-Mediterranean Statistics (2015), http://www.eesc.europa.eu/resources/docs/eurostat-med-stats-2015.pdf, Publications Office of the European Union, 2015.

39 The percentage of workers in the formal sector in the MENA region is 19% according to the World Bank: "Startups and Innovators Wanted: Private Sector Growth and Job Creation," World Bank MENA Regional Issues Brief: Jobs or Privileges, No. 2.

40 Schroeder, Christopher M.; Kamel, Sherif (2016), p. 9

the skills and productivity of its labour force, and by its opportunities for accessing the labour market. In this region, half the labour force,[41] i.e. the female population, has unemployment rates that in 2015 were twice as high – and in 2010 triple as high – as the male population, reaching the 40% level, which conditions inclusive growth and economic development. McKinsey Global Institute (2015)[42] indicates that promoting gender equality could raise the global GDP by 11% by 2025. In South Mediterranean Countries, eliminating the barriers to women's access to the labour market could mean a GDP increase of 1.3% in the 2015-2030 period only. In this respect, a relevant factor should also be put in perspective. According to the Economist Intelligence Unit (2012), in Arab countries, not only are there more women than men in science or technology courses and study programmes, but they also get better qualifications. The difficulty encountered by women in accessing the labour market becomes the main handicap, although in cities such as Amman, the percentage of entrepreneurial women is 35, greatly surpassing the world average of 10%.

All of this must be considered in the context of an intense urbanization process on a world-wide level, with a fundamentally young population wishing to improve its living conditions and find new opportunities for quality employment. According to World Bank data (2016), Morocco's urban population went from 48% to 60%; Algeria's from 52% to 70%; and Turkey's from 59% to 73% from 1990 to 2014.

	Urban population					Population in urban agglomerations of more than 1 million		Population in the largest city		Access to improved sanitation facilities			
	thousands		% of total population		% growth	% of total population		% of urban population		% of urban population		% of rural population	
	1990	2014	1990	2014	2014	1990	2014	1990	2014	1990	2015	1990	2015
Algeria	13.496	27.304	52	70	2.8	7	7	13	9	92	90	68	82
Bahrain	437	1.208	88	89	1.0	..	..	29	33	99	99	99	99
Egypt, Arab Rep.	24.52	38.581	43	43	2.3	23	26	40	48	92	97	59	93
Iran, Islamic Rep.	31.64	56.932	56	73	2.0	24	26	20	15	78	93	62	82
Israel	4.211	7.565	90	92	2.0	58	57	49	47	100	100	100	100
Jordan	2.461	6.188	73	83	3.0	25	15	35	19	98	99	95	99
Kuwait	2.017	3.69	98	98	4.4	68	71	69	73	100	100	100	100
Lebanon	2.247	4.92	83	88	6.1	48	39	58	44	..	81	..	81
Libya	3.331	4.904	76	78	0.1	20	18	26	23	97	97	96	96
Morocco	12.074	20.251	48	60	2.2	21	23	22	17	81	84	26	66
Oman	1.198	3.269	66	77	8.7	..	..	29	25	95	97	55	95
Qatar	442	2.154	93	99	3.4	..	..	53	32	100	98	100	98
Saudi Arabia	12.53	25.613	77	83	2.5	36	46	19	24	92	100	92	100
Syrian Arab Republic	6.093	10.748	49	57	-2.2	33	47	28	33	95	96	75	95
Tunisia	4.725	7.329	58	67	1.3	18	18	31	27	94	97	43	80
Turkey	31.966	56.508	59	73	2.4	26	37	20	25	96	98	64	86
United Arab Emirates	1.432	7.747	79	85	0.8	57	51	33	30	98	98	95	95
West Bank and Gaza	1.339	3.222	68	75	3.3	..	..	20	19	97	93	80	90
World	2,258,356	3,863,696	43	53	2.1	18	22	17	16	79	82	34	50
Middle East & North Africa	139.648	266.086	55	64	2.4	24	27	28	26	88	93	55	87

Most Recent Value (MRV) if data for the specified year or full period are not available; or growth rate is calculated for less than the full period.

Source: World Bank

The concentration of human capital in cities, where the development of infrastructures or access to education is usually easier than in more remote, less competitive rural areas,

41 See Mogahed, Dalia (2012). p. 12

42 Woetzel, Jonathan; Madgavkar, Anu; Ellingrud, Kweilin; Labaye, Eric; Devillard, Sandrine; Kutcher, Eric; Manyika, James; Dobbs, Richard; Krishnan Mekala (2015), *The power of parity: How advancing women's equality can add $12 trillion to global growth.* McKinsey Global Institute.

also entails dynamics that foster the interaction of ideas, network creation, the generation of (positive) synergies or the accumulation of knowledge. Thus, some cities become technology hubs or 'tech hubs' (World Bank, 2015),[43] where new sources of employment and growth make them more competitive. They are large 'smart cities'[44] with a young, educated population seeking to prosper, cities that can become engines for growth (Glaeser, Pekkala Kerr, R. Kerr, 2015) to combat poverty and create shared prosperity if conditions are fostered for the emergence and development of an entrepreneur-friendly culture. Providing constant feedback, some authors suggest that cities with talent, technology and tolerance are key factors for attracting more creative individuals (Florida, 2012). There is an abundance of literature holding that entrepreneurship and innovation are phenomena strongly tied to urban environments, and describing how the very design of the cities conditions the creation of an entrepreneurial ecosystem (Katz, Wagner, 2014). It is no longer just Tel Aviv. Cities such as Amman, Beirut, Cairo or Casablanca have become vibrant, dynamic cities attracting and concentrating more entrepreneurs, investor networks or accelerators and start-up incubators. And that's not all. Arab youth educated in the United States or Europe are returning to their countries of origin, attracted by the opportunities offered by growing economies and an environment more likely to allow new ideas to become reality in order to help solve numerous problems affecting their societies.

This reflects an objective phenomenon. As global inequality is reduced, emigration patterns change. Global competition for talent transcends reductive clichés of the developed or developing worlds.[45] For a young South Mediterranean Arab educated in their country or in the United States, what city should be more attractive for launching a start-up? San Francisco, Paris, Beirut, Dubai, Cairo, Ramallah? The answer is no longer as obvious or immediate as it would have been only a decade ago.[46]There are examples illustrating a changing trend, such as that of Eve Tamraz, Chief Scientific Officer and co-founder of the Lebanese White Lab start-up. Residing in London, having studied in Paris and the US, and selected by the MIT Technology Review Arab Edition as one of the top five innovators under 35 in 2016,[47] she is planning on returning to Beirut, where she perceives a more dynamic start-up scene than Paris (Allford, 2016)[48]. Or Faris Zaher, a 29-year-old Palestinian who, after studying at the University of Warwick and the University of Hong Kong, returned to Ramallah to launch Yamsafer, an on-line hotel reservation platform which has not only gained investments – 3.5 million US dollars recently – but has also created over 70 jobs and has become one of the benchmarks for travel agencies in the region: "The people we hire are more hungry than people you would have hired in Dubai, Jordan or elsewhere," he states. (Reed, 2016).

43 Mulas, Victor; Minges, Michael; Applebaum, Hallie Rocklin (2015)

44 Deloitte (2015). p.9.

45 See September 2010 Gallup Poll data on the desires of the employed and unemployed youth sector of the MENA population to emigrate and differences within the region (North Africa and Gulf States).

46 For more on this topic, see Center for Global Development (2005).

47 http://technologyreview.me/en/tr35middleeast/

48 Eve Tamraz: "The startup scene in Lebanon is moving faster than Paris; you can feel this… this drive they have to make things happen. If you give people the tools to grow, of course they'll grow, and they have such great ideas – it's incredible." Quoted in: Allford, Jonathan (June, 2016). Retrieved from https://www.theguardian.com/technology/2016/jun/22/women-tech-games-industry-middle-east-iran-lebanon.

The following section presents various indicators showing some of the progress and trends in the Mediterranean and the entire MENA region towards surpassing previous economic models with the aim of creating some of the 85 million jobs it is estimated will be needed by 2023 to be on a par with developed countries in employment rates (Wamda Research Lab, 2016)[49]. In this regard, Oraibi and Jarrar (2012)[50] propose a change in the paradigm for considering job creation. Governments should develop policies fostering success stories such as those of Eve and Faris, policies creating conditions allowing the private sector and civil society to ensure those jobs are created in an environment of transparency. And at the same time, given that employment in this region primarily comes from small and medium-sized companies, instead of promoting start-ups with low productivity, and subsistence-level activity with little economic dynamism, governments should support such ventures as White-Lab and Yamsafer, innovative, high-growth companies[51] only viable in a competitive environment devoid of barriers.

The Digital Mediterranean: Indicators and Parameters for an Entrepreneurial Economy

There is no single parameter nor recipe on which to base the perfect image of the where, when, how and why of entrepreneurship and innovation. One approach for analysing the impact and potential digital entrepreneurship could have in the Mediterranean is to combine different statistics, projecting certain behaviours and attitudes. We can reach certain conclusions by studying the high percentages of urban, educated youth in the population in relation to a series of parameters and political and economic indicators such as the world Bank's Doing Business, the World Economic Forum's Global Competitive Index or the Global Entrepreneurship and Development Index. Considering that the specific political, economic and social circumstances are varied throughout the Mediterranean Region and the indisputable fact that there is no universal formula for creating an entrepreneurial ecosystem or attempting the impossible feat of replicating the Silicon Valley model, there are certain a priori factors that help us evaluate each country: what stage of development their economies are in, their connectivity and ICT development, start-up friendliness and access to financing, and entrepreneurial culture. A review of these indicators serves as a guide for establishing whether or not the right steps are being taken towards transformation requiring complex, cross-cutting reform throughout the economic and social sectors whose results will not be seen in the short term.

49 Assaf, Teeb; Haddad, Habib; Wyne, Jamil; Soueid Katerina (2016)

50 Mina Al Oraibi, Yasar Jarrar (2012). p. 30.

51 The World Bank, World Bank MENA Regional Issues Brief: Jobs or Privileges. "Startups and Innovators Wanted: Private Sector Growth and Job Creation."

Most certainly, some of the most decisive aspects are connectivity (or broadband access), education, and knowledge and acquisition of technological skills. Some have used the term *technographics* to describe the rapid, intense appropriation by Arab youth – the generation born between 1977 and 1997, or the 'Arab Digital Generation'[52]– of the new information and communication technologies. Here are a few examples: 83% of them use Internet daily, and of these, 40% does so for at least five hours a day; 78% choose to connect to Internet via the television; 54% have a higher education – 60% of these are women –; and 53% searches for companies and products on-line (Strategy&, 2012).

The Measuring the Information Society report (ITU, 2015) contains some of the main aspects describing the development level of information and communication technologies, but it also goes beyond this. It takes the pains to analyse to what degree the development level is accessible to the population such that it facilitates meeting the main goals established in the Connect 2020 Agenda: a) economic growth through increased access to and use of the ICTs; b) more inclusive access through reduction of the digital divide, providing broadband for all; c) that the growth be sustainable in accordance with the United Nations' Sustainable Development Goals (SDGs); and d) that it manage to create synergies through innovation and new partnerships. These concepts are closely linked to a country's entrepreneurial capacity.

In the 2010-2015 period, the ICT Development Index (IDI) improved for all countries in the region across all parameters: internet access, education, broadband access, mobile technology subscriptions, homes with a computer and internet access. Insofar as the Arab countries in the region, Bahrain, Qatar, United Arab Emirates and Saudi Arabia led the ranking, not only on the regional level, but worldwide as countries that progressed the most in that period. It is important to emphasize this aspect because interactions of different types – political, economic, commercial, social or cultural – between the powerful Gulf State economies and those of the Southern and Eastern Mediterranean, together with the competition for regional leadership between Turkey and Iran, result in positive synergies of change that will most certainly accelerate and intensify investment in those sectors.

This transformation is perhaps more important insofar as it is being fostered from the bottom up and in cross-country networks by the dynamism of broad sectors of the young population who are urgently demanding improvements of their governments in telecommunications infrastructures, network access and adequate, quality education in technological skills as fundamental elements for a modern economy. This pressure should trigger regulatory reform to liberalize markets and eliminate barriers to new investment and greater competition, which directly affects the price consumers and clients must pay.

52 Strategy& (2012), "The Arab Digital Generation: A Key Actor in Shaping the Future of the MENA Region."

In this context, the publication of the ICT Price Basket (IPB) since 2009 should be noted.[53] This index relates the price basket of the public network of land lines, mobile telephony and fixed broadband with the monthly Gross Domestic Income per capita for each country. Beyond statistics on the penetration and use of new technologies, the IPB allows a crucial factor to be evaluated: to what degree the population concerned can afford acquiring and using these services and therefore, ascertain whether telecommunications infrastructure development is truly reaching the people. This report shows that cell phone services in Arab countries generally have affordable prices.[54] That is, the quick, intense switch from fixed to mobile technology is not leaving behind or *disconnecting* part of the population. This explains how in only ten years in the Arab region, new mobile-cellular telephone subscriptions rose from 26.8% in 2005 to 109.9% in 2016, and how active mobile-broadband subscriptions went from 5.1% in 2010 to an estimated 47.6% by the end of 2016 (ITU, 2016).

According to the Measuring the Information Society Report (MIS, 2015), in the Mediterranean Region, only Lebanon is among the group of eleven countries in the world that rose the most on the ICT Development Index (IDI), a ranking in which four other Arab economies are also included, namely Bahrain, the UAE, Saudi Arabia and Oman.

Together with the MIS, an overview of the rankings of the Doing Business Report, the Global Competitive Index, and the Global Entrepreneurship and Development Index also provides relevant information on what characteristics, potentials and main challenges face the countries in the region, keeping in mind the different development stages of their respective economies with relation to the economic frontier introduced in the first chapter (factor, efficiency or innovation-driven). Data on macroeconomics, regulatory reform, infrastructure, education, scientific technological skills, human capital supply, network access or entrepreneurial culture and innovation mark a trend in all of these countries (see Annex for the charts, where you can select data by country).

Based on the observation of these data, it is interesting to dedicate some brief reflection from a geo-economic view born of the entrepreneurial perspective. First of all, note the synergy that can be generated between the private sector and civil society in the Mediterranean Basin and Europe and Israel, insofar as the latter is the country with the best level in terms of science, technology, innovation and entrepreneurial culture. Furthermore, note the excellent position of the Gulf State economies – UAE, Saudi Arabia, Qatar, Bahrain and Oman – not only for attracting foreign investment but also for fostering development and investing in the knowledge economy, turning their cities into engines of growth as tech hubs and, through new foreign policy instruments, promoting support for entrepreneurship throughout the region in a model that should be win-

53 Measuring the Information Society Report 2015. ITU, p. 5; p. 207
54 Ibid. p. 5; p. 103

win. According to Arabnet (2015), 43% of investors in the region are in the UAE (27%) and Saudi Arabia (16%), followed by 13% in Lebanon, 11% in Egypt and 8% in Jordan, in an economic market of approximately 350 million people. In the third place, note the relevance of Turkey and Iran. Beyond their geostrategic positions, their imperial histories or the size of their markets, these two countries will gain great importance if their administrations allow the dynamism, creativity and preparation of their youth and the whole of their civil society to flourish. And lastly, it is necessary to note that, neither the statistical data nor the rankings of the major indices, nor even the size of the economic market completely reflect the true dimensions of the entrepreneur. If entrepreneurship is associated with the micro, the invisible, what is happening under the radar, what requires collaboration and audacity, identification of opportunities or engagement with society, what is occurring in Gaza and the West Bank invites profound reflection. Looking at these territories from the dynamic perspective of the extraordinary example and constructive attitude of young Palestinian entrepreneurs offers a view and expectations radically different from doing so through the frozen lens of the conventional storyline. What is happening there is not an anecdote or an isolated case.[55] Christina Ganim is a young, talented entrepreneur who, breaking stereotypes, gave up the comfortable life and opportunities of the United States to return to Ramallah and contribute to the economic reconstruction of her country by launching Kenz Woman, an on-line shop selling lingerie, something she compares to a political act in itself (Lindsey, 2016). Between power outages, the Gaza Sky Geeks start-up accelerator, in partnership with Mercy Corps and Google, has organized over 100 competitions since it was established in 2011, with an impact on more than 2,000 young entrepreneurs in 2016 alone.[56] Since 2013, the Palestinian NGO, Leaders Organization, with the support of Euromed, USAID and the United Nations, among others, has been providing various support programmes to digital entrepreneurs, with exchange programmes with Silicon Valley, the creation of an accelerator and an incubator and educational action. They have helped twelve start-ups go from an idea to reality. The list of initiatives underway clashes with the complex political situation.[57]

Impact of the Digital Economy on Development in the Region: From e-Commerce to the Internet of Things

In "The Post-American World: And the Rise of the Rest," Fareed Zakaria (2012) criticizes that the front page of newspapers, inundated with news about bombs, terrorism or failed states, seems disconnected from the business section. He believes that, since the end

55 Schroeder, Christopher M., "Gaza is attracting the attention of Silicon Valley as young tech entrepreneurs push to solve problems themselves," *Recode*, January, 2017.

56 Fernholz, Tim, Quartz, Palestinians in Gaza are bypassing a decade-old blockade by creating digital startups and telecommuting, https://qz.com/872402/the-google-backed-gaza-sky-geeks-is-helping-palestinians-bypass-a-decade-old-blockade-with-digital-start-ups-and-telecommuting/ December, 2016

57 See Gordon, Declan, European Union-Palestine: Entrepreneurship and Culture of Innovation, Enhancement of the Business Environment in Southern Mediterranean, http://www.ebesm.eu/template/default/files/Palestine%20II/6%20Entrepreneurship%20and%20Culture%20of%20Innovation%20DGC.pdf October 2014

of the cold War, we are living in the paradox of perceiving world policy in conflict, but with a global economy continually on the rise. Auerswald (2012) asserts that, "on the surface, the relentless notion of humanity can appear turbulent and threatening. But beneath the surface flows a deep and steady current of positive change. (…). Contrary to a century's worth of predictions made by prophets of doom, ours is an era of unprecedented opportunity."[58]

The political tension suffered in the past few years across Arab countries in the Southern and Eastern Mediterranean is undeniable. It is true that pending problems and challenges persist, but also that no governor has the desire or the interest to heighten or extend the frustration of millions of young people.

This is why there are two ways to read a newspaper, especially the ones covering this region. One is to remain on the first page and adopt a pessimistic, narrow and short-term view – some would say realistic, and they would be right – in reference to the scarcity of opportunities in the subsidized, rentier economies of the past century, burdened by structural problems and corruption of institutions and political leaders, irregular immigration, political instability and the perception of societies paralyzed by violent extremism. The other is to skip to the business or technology sections of many other media that, thanks to the inquiring minds of journalists, researchers or entrepreneurs who break with the conventional storyline, describe with increasing frequency and detail – some would say idealistically, and they would also be right – vibrant, dynamic cities where young people, for some, the 'Arab Digital Generation,' for others, the 'Participation Generation' (Schroeder, Kamel, 2016)[59] are getting deeply involved in the transformation and modernization of their societies, without getting bogged down by criticism or desperation, optimizing all tools – as a liberating force[60] – offered by the new digital age. Start-ups and small and medium-sized enterprises (SMEs) are key in the transition towards a knowledge economy.

In the majority of cases, these young people are already participating in the digital economy, whose size in the MENA region is estimated will double by 2018, reaching 27 billion euros (Deloitte, 2015). Some sources estimate the value of e-commerce by 2020 at 180 billion dollars,[61] as it has grown an annual 33% since 2012, despite the fact that mistrust of paying on-line means 70% of transactions still take place in cash (Kerr, 2015). The revenue from services associated with the IoT industry is estimated at 1.5 billion euros (Deloitte, 2015).[62] Adaptability and resilience to change by these societies, open access to Internet and an unrestricted flow of goods, services, capital, data and skills are prerequisites for its development (Chatham House, 2016).

58 Auerswald (2012). p. 12.

59 Schroeder, Kamel (2016). p 3.

60 Strategy& (2012), "The Arab Digital Generation: A Key Actor in Shaping the Future of the MENA Region."

61 MENA Private Equity Association (2015). p. 25

62 Deloitte (2015). p. 8

Although the general data published about support to entrepreneurship or existing investment in technology are not precise nor do they coincide,[63] there is a shared belief in the existence of a changing trend intensified by low gas and oil prices. As the World Bank states (July 2016),[64] the persistence of these low prices is forcing a change in the economy of countries in the region as well as a change in the social contract: increased taxes, elimination of fuel, electricity and gas subsidies, and reduction of jobs and salaries in the public sector. States are starting to opt for the private sector as an engine for employment and the empowerment of their citizens. All of these factors can be seen in a trend towards greater capital involvement in the knowledge industry, among other consequences.

Wamda Research (2016) analysis[65] indicates that the number of infrastructures supporting entrepreneurial activities in the MENA region went from 183 in late 2010 to 483 in 2015, including venture capital funds, business angels, incubators, accelerators and specialized organizations.[66] It also indicates that 60% of these were independent of the government, academic sector or major companies. In 2016, 15 accelerators were created, doubling the number from 2015, to reach a total of 52. During the course of that year, some 200 events were held relating to entrepreneurship, start-ups, technology and innovation for an average of one every two days, which was 50% more than in 2015.[67] Arabnet (2015) assures that 759 million dollars were invested in 480 start-ups, of which 81% continue functioning, with the greatest success case being Lebanon. And data presented by the MENA Private Equity Association (2015) also bolster the theory of a growing interest in risk capital investment in information technology, a sector that attracted the largest number of transactions by volume (33% in IT, as compared to 15% in consumer goods, 8% in health and 2% in oil and gas),[68] with a greater distribution throughout the region in 2015 than in 2014.[69]

In terms of global investment attracted to tech start-ups (private equity and venture capital), in 2015, the MENA region achieved little over 2% of the total signed agreements that were reported (of a total of 7,872 worldwide, MENA attained 172, according to Arabnet (2015)[70] or 175 according to MENA Private Equity Association (2015),[71] which stated that it was the highest figure reached since 2008, at 1,487 million dollars). Israel

63 MENA Private Equity Association (2015). p. 15

64 The World Bank (July, 2016).

65 Haddad, Habib; Boustani, Elias; Assaf, Teeb (2016).

66 Arabnet (2016), which will publish its next report in 2017, calculates 95 organizations, from investors to accelerators.

67 Assaf, Teeb, "2016 was very generous to MENA's startups," Wamda Research Lab, https://www.wamda.com/2017/01/roundup-wamda-2016 January, 2017.

68 Ibid. p. 18.

69 MENA Private Equity Association (2015). In 2014, the UAE and Saudi Arabia attracted 55% and 21%, respectively (followed by Turkey and Egypt with 6% each); in 2015: Saudi Arabia, 21%; Egypt 19%;Turkey 15%; Jordan 13%; Tunisia 8%. 10th Annual MENA Private Equity and Venture Capital Report 2015. p. 19.

70 Arabnet (2016). p. 6.

71 MENA Private Equity Association (2015) breaks these 175 agreements down into 122 in Venture Capital investment, an investment clearly associated with tech start-ups, and 33 in Private Equity). 10th Annual MENA Private Equity and Venture Capital Report 2015.E p. 13 and p. 24.

and Lebanon[72] are the countries of the Mediterranean Region with the most venture capital investment in relation to the GDP allocated to technology companies (0.60% and 0.20%, respectively), surpassing the UAE and Saudi Arabia in the MENA ranking.[73] This data translates into concrete results and actions. Maktoob, an idea by two young entrepreneurs, was acquired by Yahoo for 166 million dollars in 2009, ten times more than what it was valued at in 2005. Souq, the most important on-line shopping site in the Arab countries, has been valued at 500 million dollars. In the regional level, in late 2015, 500 Startups announced the creation of a 30-million-dollar seed capital fund (Haider, 2015). There are investment funds exclusively for Palestinian start-ups such as those created by Ibtikar, with 12 million dollars, or Sadara Ventures and Abraak Capital (Hamdan, 2012), with the information technology outsourcing business in this area estimated to already be providing jobs for nearly 3,000 people. In Egypt, Good Smart was launched, an on-line supermarket established in 2014 by 24-year-old Mostafa Adel, 23-year-old Lydia Kamiel and 21-year-old Ahmed Fawzy, who manage a 500-strong customer base and have created 20 jobs in less than two years (Primo, 2015).[74] In the meantime, in March 2015, Sawari Ventures announced the opening of its first venture capital fund in this country, to invest 50 million dollars over four years in start-ups in advanced stages of development.[75] At the same time, accelerators such as Flat6Labs, with a network of 200 mentors and offices in Cairo and Abu Dhabi, have opened branches in Tunisia and Lebanon. And private funds are not the only things available. International organizations such as the World Bank have pledged seed capital funds for co-investing in the early stages of innovative companies in Lebanon (Bell, 2016) and Morocco (Mayard, 2016).

This interest and dynamism demonstrates an economic potential that should continue to consolidate. It is estimated that, by improving their Global Entrepreneurship Index results by 10%, the Mediterranean Basin countries as a whole will add 592 billion dollars to their GDP.[76]

Mediterranean Start-Ups

Beyond quantifying this phenomenon in figures regarding investment, economic impact or the employment that it's beginning to create, there is a less tangible thermometer that also describes the state of entrepreneurship in the region.

72 The Central Bank of Lebanon (Circular 331) has earmarked 400 million dollars for tech start-up investment.

73 Venture Capital Investments as a Percentage of GDP, 2014. International Monetary Fund, World Economic Forum 2014 Report. Reproduced in Arabnet, "The State of Digital Investments in MENA," p. 7.

74 Primo, Valentina, *Cairo Scene,* "25 Under 25: The Entrepreneurs Driving Egypt's Startup Revolution," August 2015 http://www.cairoscene.com/BusinessAndPolitics/Egypt-s-25-Under-25-The-Entrepreneurs-Driving-Egypt-s-Startup-Revolution.

75 Reuters, "Egypt-based Sawari Ventures to close $50 mln fund to new investors by year-end," April 2015, http://www.reuters.com/article/egypt-sawari-investment-idUSL5N0X52GV20150408.

76 There is no data for the Palestinian Territories or Syria. With Turkey and Iran, the regional GDP would rise by a trillion dollars, and about 1.2 trillion if Saudi Arabia, Qatar, Oman, Bahrain, Kuwait and the United Arab Emirates were included. Data obtained from The Global Entrepreneurship and Development Institute, Global Entrepreneurship Index 2017, p 16-18.

In December 2015, Rise Up Egypt[77] convened nearly 3,000 entrepreneurs, 100 investors and 240 speakers. At the Start-up Istanbul 2016 edition,[78] 500 start-ups competed and there were 4,000 participants. A total of 80,000 individuals registered for the MIT Enterprise Forum Arab Competition[79] in its nine editions, where 71% of finalists have at least one female member on their team. Every two years, the MENA ICT Forum[80] turns Amman into the capital of the MENA region with regard to information technology and the digital economy. By the same token, Google for Entrepreneurs, under the label "Startup Weekend," organizes local entrepreneurial competitions in all the capitals of the region year-round which are filled to capacity, and under the label "Startup Grind," offers networking opportunities. In 2014, Endeavor, already active in Egypt, Jordan, Lebanon and Turkey, provided support for 50 high-impact start-ups in Morocco as well, calculating that by 2020, it will have created 19,000 jobs and 1.25 billion dollars in revenue in that country (Hazzaz , 2015).[81] Specific programmes have been created, such as the UK Lebanon Tech,[82] and there are information and research platforms such as Wamda,[83] which at the moment is the leading platform for exploring the region through entrepreneurship, innovation and technology. All of these events, initiatives, platforms and programmes are contributing to a situation that the American entrepreneur and investor, Christopher Schroeder, has described in "Startup Rising: The Entrepreneurial Revolution Remaking the Middle East":[84]

> (…) And this new generation is hungry. If there was one universal sentiment that connected every young entrepreneur I met it was this: their revolution was not merely about overthrowing longstanding dictatorships, but challenging a generational premise and complacency of their parents that things could not change. "Why should we accept mediocre Jobs in lumbering large companies or the government – assuming we can even find those?" one Jordanian founder told me. "In fact, I don't understand why my parents accepted it!" One of the most common themes in emails I received during and after the Arab Uprisings was a disdain for the word "stability." As one Egyptian executive wrote me, "It's not that we don't appreciate stableness – that the most successful ecosystem for entrepreneurs has this at their foundations. It's that the word 'stability' was used by the regimes and our parents as an excuse for accepting an unacceptable status quo. We can be better."

This phenomenon has crossed political, ideological and religious borders and proposes a new reading of what the countries are like in the 21st century and how they understand their relations. Another article recently written by Christopher Schroeder for *Politico* offers a reading of Iran that has little to do with the conventional image of that country (Schroeder, 2015).

77 http://www.riseegypt.org

78 https://startupistanbul.com

79 http://www.mitarabcompetition.com/workshop?id=37

80 http://www.menaictforum.com/about.html

81 Amine Hazzaz, "Inside Endeavor's process to finding North Africa's entrepreneurial diamonds in the rough," February 2015, http://www.wamda.com/2015/02/inside-endeavor-process-find-entrepreneurial-diamonds-in-the-rough.

82 https://www.uklebhub.com

83 http://www.wamda.com

84 Schroeder, Christopher (2013), p. 13.

The magazine Fortune also hones in on Iran's Start-up Spring (Walt, 2016), a country with a market of nearly 80 million people, a young, educated population with a high level of training in Science, Technology, Engineering and Mathematics (STEM). It is a little-known fact that many of the executives and founders of companies such as Apple, eBay, Dropbox, Google, Yahoo, Twitter and Y-Combinator are members or children of the Iranian diaspora. With an "innovation economy" vision, iBRIDGES[85] gathers thousands of these entrepreneurs. The 2015 edition held in Berlin was filled to capacity, gathering over 1,000 participants and followed by over 3,000 on line. Barcelona hosted the latest edition of this meeting in December 2016. Some hold that this initiative has advanced and surpassed the international relations logic: the international embargo that distanced Iran from the West can be reversed by such initiatives as iBRIDGES (Kamali, 2015). In this spirit, Jonathan Ortmans, Chairman of the Global Entrepreneurship Congress, argues that through entrepreneurs alone, the tension with Iran has decreased (Ortmans, 2014) and he refers to the globalization of the start-up movement. More importantly, he speaks of entrepreneurs as the greatest force for achieving peace (Ortmans, 2013).

85 http://ibridges.org

Entrepreneurship and Diplomacy: A New Foreign Policy Instrument?

Entrepreneurship as a Diplomatic Tool in US Foreign Policy

> On economic development, we will create a new corps of business volunteers to partner with counterparts in Muslim-majority countries. And I will host a Summit on Entrepreneurship this year to identify how we can deepen ties between business leaders, foundations and social entrepreneurs in the United States and Muslim communities around the world (Obama, Cairo, 2009).

It is complicated to explain in the field of international relations experts and analysts how and why fostering entrepreneurship, and in addition, the type of entrepreneurship described in this paper, can and should become a foreign policy tool for countries. Indeed, the announcement by US President Barack Obama at Cairo University (2009) committing to organize an entrepreneur summit hardly garnered any attention in the media.

In the previous sections, we have broadly discussed what entrepreneurs are, their goals and needs, what the post-industrial digital age is, some of the characteristics and indicators of the Mediterranean Region, and examples of the impact and potential of the globalized start-up movement. We have also noted that the entrepreneurial phenomenon extends under the radar, and that entrepreneurship promotion policies must take a long-term approach. Moreover, we know that creating an entrepreneurial ecosystem is a complex job. There is no single set of instructions, nor is entrepreneurship the solution to all of society's problems. Nor, naturally, do all young people wish to become entrepreneurs, nor are they all capable of becoming one. It is simply an option among many others. Many who do wish to fail in the attempt, and this failure and the absence of new opportunities can stigmatize them in their societies or families. In many cases, it is still considered more prestigious to work for the public administration or a major company than to become an entrepreneur. Nor are all countries mature and prepared for promoting and funding innovation-based entrepreneurship with rapid-growth companies. But what does seem clear and definitive is that, since foreign policy is increasingly economic and the economy is increasingly digital, foreign policies should be equipped with ad hoc tools.

Barack Obama's rise to the presidency of the US gave impetus to this concept of a "liberal" or "idealist" perspective of world policy based on a view of the world as interconnected, with complex characteristics of interdependence, with citizens empowered by technology and with immediate access to information. A world where governments are no longer capable of meeting current challenges alone, such as climate

change, environmental protection, protection of the oceans, water scarcity, new sources of alternative energy or health improvement. They are finding they need the involvement of the private sector in new public-private partnerships, and above all, they need the assistance of global talent, of people. It is a world where power is not exercised *over* others but *with* them (Nye, 2011). A world where wars are more economically and politically costly for those starting them, because no citizen having reached a level of prosperity wishes to move backwards insofar as their personal wellbeing. Because in the digital age, the economy of knowledge is foremost, competition to secure talent becomes a critical variable, and the national power of countries is based more on the education and creativity of its citizens – of all of them, including women (underrepresented in the labour force in Arab countries). Entrepreneurship, the capacity for innovation, technological leadership and human capital have become components of power that, in turn, to the extent to which it places a country in the economic vanguard, strengthens that country's capacity to exert influence.

The United States' diplomatic promotion of entrepreneurship, initially designed for Muslim-majority countries and communities, particularly the Arab countries, – and subsequently extended to other parts of the world – has various facets. It is a public diplomacy strategy of 'soft power' (power through attraction, influence), but certainly also of economic diplomacy, due to the implications of the new digital economy on the global flow of data or on-line commerce. It takes a long-term perspective, avoiding overreaction in crisis situations; a perspective that focuses on strategic patience (Noonan, 2015). Its impact is transversal in various spheres – political, economic, social – in a strategic but highly sensitive region. The fact that it is the countries in the region themselves that have requested assistance in converting and diversifying their economies strengthens their legitimacy and projection. This is consistent with a bottom-up foreign policy whose target is fundamentally the young population in countries with the characteristics we have analysed, based on an idea that young people want political change, but they also need to eat, or as Madeleine Albright summed up: "people want to vote, but they also want to eat." Koltai (2016) asserts that "doing entrepreneurship is not about picking winners, but about bolstering the ecosystems – influencing them – so that more young firms have more chances for more success over more time, and so they can generate more jobs and more economic hope in the places that need it most." It is therefore consistent with a new, more transparent, direct approach to development aid that involves mobilizing the private sector, which in turn fosters the internationalization of companies, American ones in this case, and the gradual, less invasive opening of new markets. It is a strategy that lends citizens the tools and skills to prosper, and those having attained a level of autonomy and independence will demand greater efficiency of their governments, less corrupt, rentier behaviour, and improved regulations. In countries where disruptive entrepreneurship flourishes, the administrative and legislative

structures tend to be more prepared for other State engines of growth to function better (Schroeder, Kamel, 2016).[86]

This foreign policy is spreading through a new concept of diplomacy hat not only harnesses existing technologies and their potential, but also, logically, takes an interest in the entrepreneurs and innovators behind them. Interaction with this talent is important, not only as potential leaders and game changers in their countries of origin, but also as potential qualified immigrants, agents of economic progress in the US over the past few decades (Blau, Mackie, 2016). The first and second Quadrennial Diplomacy and Development Review reflect this perspective, which is, in turn, included in the US National Security Strategy (2015).

Implementation of this foreign policy, which began in 2010 with the Global Entrepreneurship Program, was gradually expanded through a series of transversal actions and programmes on different global and regional levels, with goals within the framework of the so-called Government Spark Programs. US initiatives active in this sphere in the Mediterranean include: Global Entrepreneurship Summit (GES), Global Innovation Through Science and Technology (GIST), Women's Entrepreneurial Centers of Resources, Education, Access, and Training for Economic Empowerment (WECREATE), Presidential Ambassadors for Global Entrepreneurship (PAGE), Partnering to Accelerate Entrepreneurship (PACE) Initiative, Development Innovation Ventures (DIV), Entrepreneurship & Innovation Programs (EIP), Global Entrepreneurship Program (GEP), and Resilient, Entrepreneurial And Dynamic Youth (READY).

Public-Private Partnerships

Public-private partnerships[87] also entail an innovative, collaborative approach to entrepreneurship promotion. The US Department of State has been collaborating with UP Global, a global support programme for innovative ecosystems development, bringing numerous mass-participation initiatives and events to Southern and Eastern Mediterranean cities, such as: Startup Weekend, an uninterrupted, 54-hour competition where groups of entrepreneurs compete to turn various ideas into business; Startup Next,[88] the main pre-accelerator on the global level; Startup Digest,[89] defined as a guide for the entrepreneur; or Blackbox Connect, a Silicon Valley immersion programme for start-up founders from around the world. The State Department's Corporate Social

86 Schroeder, Kamel (2016). p. 13

87 The US State Department and USAID provide the following definition: "Public-Private Partnership (PPP or P3) is a collaborative working relationship with external, [non-US Government] partners (such as businesses, financial institutions, entrepreneurs, investors, non-profits, universities, philanthropists, and foundations) in which the goals, structure, and governance, as well as roles and responsibilities, are mutually determined and decision-making is shared. PPPs are distinct from traditional contractual arrangements – such as grants, cooperative agreements, and contracts – in that they are rooted in co-creation, co-design, and co-resource mobilization towards a shared and mutually beneficial objective. Further, PPPs are characterized by jointly defined objectives, and collaborative program design and implementation. Successful partnerships entail: complementary equities; transparency; mutual benefit; shared risks and rewards; and accountability."

88 http://www.startupnext.co

89 https://www.startupdigest.com

Responsibility public diplomacy section[90] and the Office of Global Partnerships are also working in this direction.[91]

Finally, two PPPs are particularly relevant for their impact in the MENA region, namely:

- Partners for a New Beginning, chaired by Madeleine Albright, with a presence in Algeria, Egypt, Jordan, Libya, Morocco, Palestine, Tunisia and Turkey. Among its goals are promoting economic opportunity by increasing employment and access to funding; incentivizing innovation in science and technology; improving educational opportunities and fostering exchanges on different levels: educational, research and company exchanges;

- The Stevens Initiative, created in honour of the US ambassador assassinated in Libya in September 2012, is a multilateral public-private partnership. In addition to private US-based organizations, the Kingdom of Morocco is also participating. Its creation was announced by Vice-President Joe Biden before 4,000 young entrepreneurs during the Global Entrepreneurship Summit held in Marrakesh in November 2014. It fosters youth exchange between the MENA region and the US, promotes respect and mutual understanding, facilitates education and training in skills and abilities for the 21st-century economy, and fosters increasing connectivity and the productive use of technology.[92]

The European Union and the European Neighbourhood Policy: What Role?

The digitalization of the economy is not an end but a means to improve competitiveness, create more jobs and achieve greater stability. All the EU initiatives underway in Europe are working towards these goals. The Europe 2020 Strategy[93] (2010) established the pillars for intelligent, inclusive and sustainable growth. the Horizon 2020 programme[94] (2014-2020) funds innovation and research, with a budget of 80 million euros. The Entrepreneurship 2020 Action Plan[95] (2012) has been another decisive step towards eliminating obstacles to entrepreneurship development. And lastly, accompanying the Digital Single Market Strategy (2015), both the final recommendation of the Strategic Policy Forum on Digital Entrepreneurship[96] (2016) and the package of measures announced this year[97] establish a clear roadmap in this regard.

90 "Public Private Partnerships & Social Entrepreneurship: Building Solutions for Good," US State Department (2012) http://www.state.gov/e/eb/rls/rm/2012/197570.htm

91 http://www.state.gov/s/partnerships/

92 http://stevensinitiative.org

93 http://ec.europa.eu/europe2020/europe-2020-in-a-nutshell/flagship-initiatives/index_en.htm

94 http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/index.html

95 https://ec.europa.eu/growth/smes/promoting-entrepreneurship/action-plan_en

96 http://ec.europa.eu/growth/sectors/digital-economy/entrepreneurship/strategic-policy-forum/

97 http://europa.eu/rapid/press-release_IP-16-1408_en.htm

This digital transformation opens up new channels for institutional and civil cooperation and dialogue between the EU and the Southern and Eastern Mediterranean. But it calls for the participation of all private social actors: businesses, universities, research centres and NGOs. With these organizations, the shared economic and social challenges, as well as the challenges of inclusive growth, sustained and sustainable throughout the region, can be met by sharing and integrating human capital, technology, innovative capacity and the creativity of youth on both shores of the Mediterranean. The transformational change we are experiencing demands transformational external policy action.

One of the main challenges lies in how to get EU external action, specifically the European Neighbourhood Policy and its economic instruments, to adapt to the digital scene. It is a complex, arduous challenge in both form and substance, one that requires time and leadership. The European Neighbourhood Policy should establish mechanisms for connecting with, listening to and providing support to entrepreneurs in the region. In this regard, the September 2014 Final Declaration of the Union for the Mediterranean Ministerial Meeting on the Digital Economy[98] is opportune and relevant. The progressive implementation of its decisions will most definitely provide outstanding momentum for strengthening the strategy of a Euro-Mediterranean Digital Economy.

Nonetheless, turning entrepreneurship promotion into a diplomatic tool for European external strategy could be a premature goal. There is a long way to go within Europe's borders and there is no *European Silicon Valley* to inspire and activate youth in the region. Moreover, developing an external policy of this type requires complex, cross-cutting co-ordination involving different instruments, policies, programmes, departments, policymakers and civil servants. Moreover, it also demands a clear strategy and clear goals, the allocation of a budget, and a generous, long-term approach.

On the basis of this description, the following recommendations are viable:

- Continue defining and developing the new, 21st-century diplomacy. A European External Action Service adapted to the new digital economy, in which civil servants and embassies of EU countries understand its potential and implications. It is not just a question of putting new technologies to use, but also of getting to know the entrepreneurs and innovators behind them. European External Action, and therefore the European Neighbourhood Policy, should promote initiatives such that EU countries' diplomatic corps and programmes for cooperation and development aid redefine initiatives and projects bottom up, adapted to this new economic model.

98 European Commission, Union for the Mediterranean Ministerial Meeting on the Digital Economy, Final Declaration. Retrieved from https://ec.europa.eu/digital-single-market/news/union-mediterranean-ufm-ministers-charge-digital-economy-launch-new-digital-cooperation September, 2014.

- Accelerate the implementation of decisions made at the 2014 Union for the Mediterranean Ministerial Meeting on the Digital Economy. Reinforce the actions and implement the recommendations of the Euro-Mediterranean Digital Economy and Internet Access Expert Working Group established at said Ministerial Meeting.

- Continue to advance in a coordinated fashion with Southern and Eastern Mediterranean Countries on an open data policy that will improve the efficiency and effectiveness of governments, foster innovation and create new economic opportunities. In conjunction with this, continued support must be provided to creating telecommunications infrastructures, universal broadband access and connectivity throughout the region, thus reducing the digital divide across the Mediterranean and within the countries in the region.

- Promote the creation throughout the Mediterranean region of platforms and cross-country networks of entrepreneurs, investors, mentors, conveners and all economic and social actors linked to the digital economy, including the educational sector. Identifying talent and educating and training youth in the region in the new skills demanded by the knowledge economy is crucial. On-line learning tools or student exchange programmes and entrepreneur-in-residence (IER) programmes apply to this strategy. Foster the creation of public-private partnerships in this regard.

- Highlighting the importance of the Med4jobs Initiative launched by the Union for the Mediterranean,[99] this programme should play a cross-cutting role in the UfM's contribution to job creation and in facilitating Southern Mediterranean youth's access to value-added work.

- Set the creation of a specific fund for public investment in private management for Mediterranean entrepreneurs as a priority.

Regarding this last key point, it must be kept in mind that so-called financial instruments have been used in European cohesion policy since the 1994-1999 budgetary period. The scarcity of public resources and the need to optimize them fostered their use in the 2007-2013 period and they will play an even greater role in the current 2014-2020 period (EC, 2014). The advantages of the use of financial instruments[100] over conventional grants in supporting projects with potential economic viability are the facts that:

- The funds are revolving and can be reused as the applicant returns them. This way the same euro can be used for various business projects (the "revolving effect");

99 http://ufmsecretariat.org/mediterranean-initiative-for-jobs-med4jobs/

100 Repayable investments or loans with better conditions than those offered on the market, such as lower interest rates or more flexible guarantees for repayment.

- The projects to be financed have a greater probability of "surviving" and being viable after receiving public funding;

- Applicants acquire the co-responsibility of returning the funds received;

- Private funds are mobilized that would not otherwise reach entrepreneurs;

- To develop some of these instruments, private financial intermediaries must be involved, whose contributions increase the resources made available to the end user ("financial leverage effect") as well as providing experience in the financial sector;

- They can be combined with other subsidies and aid should the funding conditions require improvement.

The creation of a mechanism of this type could lend European External Action and the European Neighbourhood Policy a powerful, efficient strategic instrument of high impact in the Mediterranean Region, strengthening European leadership and placing its external policy at the vanguard of the latest dynamics of the digital age.

Recommendations and Conclusions

The Mediterranean is a region of wealth and dynamism. The digitalization of its economies accelerates and intensifies changes in modernizing societies. Consequently, the economic and social friction inherent in this process should be channelled and lent resources, solutions and above all, opportunities, fostering the productive combination of talent, technology and training as a win-win situation.

Digital or technology-based entrepreneurship in stable political and economic contexts is a rapid source of quality job creation that leads to sustainable, inclusive regional growth and development. Countries whose economies have reached an economic ceiling need to open themselves to the outer world and participate in the global economy. Entrepreneurs are building the links of this new cross-country network of economic relations and interests and filling them with content, with a will not only to prosper personally, but also to improve their societies.

On the European level, there is no *inside* and *outside* the European Union. Everything is interconnected. The digitalization of the North Mediterranean economy is useless if it is an island of data separated from the South and East. Hence, the European Neighbourhood Policy must strengthen and step up its strategy for the entire region to advance at the same speed into the digital age. External action and its policymakers must take note of this global phenomenon.

In the first place, it is necessary to distinguish and understand entrepreneurs and not put up barriers to their disruptive capacity. Technology and talent cannot be circumscribed within legislative or regulatory borders. To limit this infinite source of wealth only serves to slow down a country's progress and accumulate frustration among young doers with ambition.

In the second place, the European Neighbourhood Policy should involve and attempt to coordinate the European technology sector and the rest of private actors through support programmes for innovation and telecommunications infrastructure development. An economy based on the constant flow of data should have the appropriate technology and it should be available to all citizens everywhere. The creation of public-private partnerships should also be bolstered.

And lastly, modern, flexible financial instruments should be promoted to provide support for innovation in those countries as part of a broader external policy of support to entrepreneurs.

These three aspects will benefit the entire region. They will accelerate a new, constructive dynamic that will attract and connect broad, influential sectors of society throughout the

Mediterranean (including Arab-Muslim-majority countries and communities and Israel), fostering cooperation between individuals/societies beyond any political conflicts. With this in mind, Europe should use positive channels for dialogue and entrepreneurial action to reconcile young communities who need one another because they want to collaborate in the challenge of attaining a future of shared prosperity.

Digital entrepreneurship, by definition, connects individuals, transfers knowledge and generates networking. All of this should be bolstered and fostered in the Euro-Mediterranean Region.

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IEMed.

The European Institute of the Mediterranean (IEMed), founded in 1989, is a consortium comprising the Government of Catalonia, the Spanish Ministry of Foreign Affairs and Cooperation and Barcelona City Council. It incorporates civil society through its Board of Trustees and its Advisory Council formed by Mediterranean universities, companies, organisations and personalities of renowned prestige.

In accordance with the principles of the Euro-Mediterranean Partnership's Barcelona Process, and today with the objectives of the Union for the Mediterranean the aim of the IEMed is to foster actions and projects which contribute to mutual understanding, exchange and cooperation between the different Mediterranean countries, societies and cultures as well as to promote the progressive construction of a space of peace and stability, shared prosperity and dialogue between cultures and civilisations in the Mediterranean.

Adopting a clear role as a think tank specialised in Mediterranean relations based on a multidisciplinary and networking approach, the IEMed encourages analysis, understanding and cooperation through the organisation of seminars, research projects, debates, conferences and publications, in addition to a broad cultural programme.