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## Establishing a Greek Diaspora Knowledge Network through “Knowledge and Partnership Bridges”

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Over the last few decades, many Greek professionals have emigrated to look for professional, academic, and research-related employment. Today and as a result of the decade-long 2008 economic crisis, the number of professionals that work abroad is estimated to be more than 250,000 professionals.<sup>1</sup> Now, with the first signs of economic recovery in Greece, connecting with those individuals and offering pathways through which this highly educated human capital can collaborate with the domestic academic, research, and entrepreneurial system would be beneficial for the country as a whole. Enabling this kind of mutual beneficial networking is the prime objective of the “Knowledge and Partnership Bridges” (Gefyres Gnosis kai Synergias) initiative. This new initiative aims to connect Greek professionals around the globe to form an e-community that can enhance the potential for national growth as well as provide opportunities for the individuals involved. We propose that a Diaspora Knowledge Network enabled by “Bridges” can enhance Greece’s bilateral and multilateral relations and bring together a global S&T workforce to address challenges that extend beyond the capabilities of separate countries.

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## **Greece's Economic Crisis and Outmigration**

In 2008 Greece entered a prolonged economic crisis. It was the worst-hit country in the European Union (EU), losing more than 25% of its GDP. Recession, weak demand, and declines in output undermined job creation; unemployment was nearly 30% at the peak of the crisis, and approached 60% among youth.

Although the old development model (based on consumption and imports, public and private borrowing, state employment, limited competitiveness, rent-seeking activities and extensive tax evasion) seems to be a thing of the past, the performance of the new growth model (based on the knowledge economy, aimed at sustainable and inclusive growth) remains to be proven. This crisis has turned Greece into a significant exporter of highly skilled labor to other countries. Greek scientists and professionals have long left the country in search of better career opportunities and prospects abroad, but this phenomenon has become more pronounced since the 1990s.<sup>2</sup> Over the last ten years of economic crisis, the outmigration of professionals further intensified as job opportunities shrank.<sup>3</sup> As of 2017, more than 250,000 first-generation professionals were working abroad, of whom 200,000 had left the country after 2010.<sup>4</sup> Emigration was a survival strategy for many people who either found it hard to make ends meet or saw their chances of a career severely reduced. A large portion of those professionals have more than one degree in higher education, and have graduated from fields of study that are in high demand in destination countries, such as medicine, engineering and IT.

A general perception exists that brain drain is a result of the oversupply of graduates in the internal labor market; however, this explanation is not borne out by international comparisons.<sup>5</sup> On the contrary, migration of professionals from Greece is mostly a result of low demand for graduates in the private sector. This can be attributed in part to the country not occupying a higher position in the value chain, a position with more innovative products and services in knowledge and technology intensive sectors.<sup>6</sup>

Luring emigrants back to help boost the country's long-term growth is critical, but it is not a simple task, given that some of the underlying conflicting dynamics. For example, it is to citizens' benefit to attempt to maximize their career prospects within the context of policies that emphasize free movement of labor, especially within Europe. This is also the case in the United States where the acceptance of immigrants is partly a function of their education levels (e.g. those who enter on F-1, J-1 visas). Are more prosperous countries to be blamed for offering attractive work packages and making use of these highly skilled workers for their own national technological and industrial strategies? How best can Europe collectively address

the growing imbalances between countries that have a net gain of professionals and those with a net loss, in a manner that advances cohesion across the EU? Finally, if such workers are willing to return to Greece, what are the conditions that facilitate their employment at this time?

Despite signs that the economic crisis is largely over, the recently migrated are also in no hurry to return. A 2017 survey of Greek migrants living in England and the Netherlands found that fewer than 10% of them planned to return in the next three years and only 20% planned to return in the long term.<sup>7</sup> Moreover, better conditions for employment are still not in place, as domestic unemployment remains a problem. According to the Hellenic Statistical Authority,<sup>8</sup> a significant portion of the domestic population remained out of work (18.6%) in 2018, and while most do not fit the same job profile as those abroad, one must avoid creating a divide between those who remained in the country and those who emigrated when addressing human capital and growth policies.

## **A Policy Proposal**

A policy response to jump-start the economy or increase employment needs to take this social and economic context into consideration. This is especially important if such a policy is to upgrade the existing technological and know-how capacity of domestic production by creating more value-added jobs and companies with growth potential. These objectives have been incorporated into a medium- and long-term national growth strategy and roadmap (see Greek Growth Strategy, 2017-2021)<sup>9</sup> and major funding mechanisms (e.g., the investment platform EquiFund,<sup>10</sup> the developmental law 4399/2016 providing state aid and incentives for private investments,<sup>11</sup> the Erevno-Dimiourgo-Kainotomo program).<sup>12</sup> What is missing, however, is a way to inform the recently expatriated of such developments consistently and coherently, and a way for them to stay connected to the research and production system of Greece. Given the reservations that the expatriate communities had about the existing economic system (as its very inefficiencies were prime reasons for emigrating), the formulation of any method to network and enable the transfer of knowledge should be based on an electronic and virtual community as a first step. This would allow expatriates to explore the potential for such a homecoming while maintaining employment and business opportunities abroad. More broadly, it would begin to enable expatriate professionals to form working partnerships with Greeks living within the country.

## **Enter “Knowledge and Partnership Bridges”**

These are the conditions under which “Knowledge and Partnership Bridges” was conceived. “Knowledge and Partnership Bridges” is a national initiative of the General Directorate of Strategic and Private Investments of the Ministry of Economy and Development, realized by the National Documentation Centre of the National Hellenic Research Foundation since 2017.

The overall objective is to bring together high-quality human capital and create collaborative links among them by providing a networking platform between Greeks, irrespective of location. Such networking within and outside of Greece through the formation of an e-community can strengthen the growth prospects of the country. This initiative is not aimed only at first-generation emigrants – the 250,000 professionals who were born in Greece and now work abroad – but also the professionals of the Greek diaspora more broadly, a population of more than 8 million people. This would allow the country’s scientific and highly educated professionals living abroad to have a direct, active role in transforming the Greek economy, by forming nodes of productive and innovative international centers, transferring know-how, and/or directly engaging with S&T and entrepreneurial activities. Such a network would include graduate and undergraduate students, physicians, businesspeople, and professionals in fields such as science, technology, engineering, and math, therefore facilitating connections among skilled professionals in order to promote common entrepreneurial and/or research activities.

As the majority of expatriates do not intend to return in the near future, “Bridges” focuses on the virtual return of knowledge and experience as well as interconnectivity with the country. This is enabled by an interactive networking platform (<https://www.knowledgebridges.gr/>) designed to provide the following:

1. A registry of highly skilled Greeks who live and work abroad,
2. A global map and network of Greek scientists, professionals, and entrepreneurs, and
3. Updated information on funding opportunities in Greece.

Through this platform, expatriates are invited to register and enter their educational and professional information, including employment status and current position, as well as technological and industrial fields that they are interested in connecting to. Domestic professionals also record their technological and entrepreneurial requests, problems, ideas, and more. Profiles are then matched by the “Bridges” personnel on the basis of common research,

technological, and industrial characteristics. These profiles allow “Bridges” to identify compatible professionals within and outside the country, and help bring about collaborative schemes with the potential for developing into fully fledged entrepreneurial and/or partnered research activities. Closely associated is the potential for mentoring. Teams can be identified and appointed to serve as mentors for selected individuals and/or to help their business/research ideas mature.

Such a platform has the following advantages:

- **Locating diaspora communities:** it records and maps professionals of Greek origin active in the academic, research, and entrepreneurial realms abroad.
- **Maintaining connections:** it allows for professional expatriates to maintain links with the domestic knowledge and production system and thus keep open the possibility of returning to Greece.
- **Forming networks:** it allows for the formation of knowledge networks within the research community of Greek origin as well with other research communities. This enables synchronized and vertically-integrated approaches to problems within sectors, different fields of science, or particular locales, and horizontally-integrated approaches to problems that span multiple countries or are global.
- **Enabling the flow of knowledge:** it enables the flow of both tangible and tacit know-how towards Greece’s nascent knowledge economy, enhancing the impact of development-oriented public policies.
- **Strengthening efforts to unite and mobilize diasporas:** it is similar to other country-level initiatives that are mapping their respective science bases in their diasporas to promote domestic development and economic growth.

It is by virtue of these points that this initiative fits within the science diplomacy analytical framework, providing empirical findings on the paradigmatic case of Greece. A further advantage in establishing this platform has to do with demographics. By opening a window of potential homecoming, it could reactivate families’ decisions to have children, a decision that many postponed because of the crisis,<sup>13</sup> which could help lower the rising median age of the population.

### Locating and mobilizing expatriate professionals

Locating and mobilizing expatriate professionals is not a simple task. It is visit-intensive, in that “Bridges” need be established within the high-tech sector and

academic/research capitals of the world where many Greek expatriates now work, to explain the initiative personally — an expensive and time-consuming process. To address these difficulties, a two-sided process has been devised. In-person visits are coupled with the use of digital meeting and conferencing apps to reach out to wider audiences. Locating these audiences requires a multi-pronged approach, including bibliographic analysis (described below), news analysis, information from established diaspora associations, and networking through invited talks across Europe.

In addition to these outreach activities, “Bridges” follows a more proactive approach to identify expatriate professionals, enabled by the National Documentation Centre’s expertise in S&T metrics. Specifically, we make use of bibliometric analyses and data on the career paths of doctorate holders. This allows for individuals to be tracked by the geographical affiliation of their publications, allowing for customized and personalized outreach. Still, individual self-registration in the “Bridges” platform usually allows for the collection of more up-to-date information and the identification of individuals who have not published (ever or for a long period) or are in a field or sector where publishing in peer-reviewed journals is uncommon. As of May 2019, more than 1,250 Greek expatriates have registered for the platform and more than 210,000 unique visitors have been recorded.

In 2019, “Bridges” plans to appoint high-profile individuals as science ambassadors. They will be similar to science diplomats,<sup>14</sup> in that they will seek to enable networking between expatriates and domestic human and industrial capital to benefit both Greece and destination countries. Such individuals will act as intermediaries who, by virtue of their prestige and topical, geographical, or industry-related expertise, will be able to garner support for the initiative, thus further increasing the number of registrations. In addition, these science ambassadors will seek out potential collaboration schemes that would enable partnering opportunities between Greece and countries of residence. Based on their expertise, these individuals can identify realms of potential high yield scientific initiatives to engage the Greek state. Such input can be highly beneficial for the public authorities to decide the fields in which to make inroads. This approach to science diplomacy is a means to facilitate international scientific cooperation (diplomacy for science).<sup>15</sup>

Establishing science and technology partnerships on topics of mutual interest through “Bridges” may also help Greece strengthen its foreign relations.<sup>16</sup> While a partnership as a result of the initiative has not materialized yet, the geopolitical alignment between Greece and Israel which is being mirrored upon the multiple

rounds of bilateral R&D calls stands as an example of how science and technology partnerships can enhance foreign relations and vice versa.

Further interest in the platform will be attracted by making it a direct source, or source of, information on funding, via prizes and comprehensive updates on funding and scholarships. Starting in 2019, “Bridges” will organize competitions to encourage entrepreneurial and/or research networking and partnering. The first call for proposals is scheduled to be out by June 2019. The competition aims to encourage two types of networking activities. The establishment of research partnerships between Greek young researchers and scientists working both inside and outside of the country to form extended expert communities, enhance the international visibility of their work, etc. And, the establishment of entrepreneurial partnerships between Greek-based firms and international ones in order to exploit a tech-based idea, service, product, etc., portion of which will be produced in the country. Financial prizes of up to €25,000 will be distributed for both types of networking activities.

In addition, funding and scholarship-related information will be uploaded on the platform concerning existing public financial and non-financial programs that address some of the wider interests of the expatriate community, including issues of military service, taxation, family, and more. Key here is the issue of offering comprehensive and reliable information that is regularly updated, so that the platform becomes an essential window onto topics of interest for expatriates.

## **Conclusion, or building a diaspora knowledge network**

As Yevgeny Kuznetsov put it: “Expatriates do not need to be investors or make financial contributions to have an impact on their home countries. They can serve as ‘bridges’ by providing access to markets, sources of investment, and expertise.”<sup>17</sup> In the “Bridges” initiative, the objective is to maximize the potential for partnerships and help establish a network that includes highly-skilled expatriates and the domestic S&T and production ecosystem.

It is our belief that building a network or virtual community of highly skilled and professional Greeks in Greece and around the world will prove helpful in many ways for Greece. It has the potential to help the economy grow and transition in the “Industry 4.0”, which would provide for more and sustainable employment positions and enable the conditions for expatriate professionals to sustain links to with their home country. The initiative may benefit the hosting countries as well; as Kathy Wren has written, “properly leveraged, these networks could [...] improve diplomatic relations between countries.”<sup>18</sup> This could be pursued by the expatriates promoting Greece in the research, development and business community of their

resident countries, or establishing joint scientific or business projects. Building the Greek diaspora knowledge network presents an opportunity to look at the circulation of knowledge, an asset of expanded networks where social capital, including its technical and institutional nodes, can and should be used towards positive spillover for both the home and hosting country.<sup>19</sup> In these ways, such an initiative only advances the objectives of science diplomacy. **SD**

## Endnotes

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