



# Hélice

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**ARTICLES/ESSAYS** dealing with aspects of the interaction between academy-industry-government (Triple Helix) for fostering research, innovation, economic competitiveness and growth. Contributions should be in MSWord, 2500-3000 words, **Contact:** Liana Kobzeva (Editor in Chief), 05.liana@gmail.com,

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**Deadlines for submissions to be included in related quarterly issue:**

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**28 November 2020** for December 2020 issue

**29 February 2021** for March 2021

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that ensure convenient spacing for people listed in the various urban spaces above. Another major challenge is how to ensure social distancing in the remote and slum areas with poorly planned neighbourhoods, infrastructure and services. All these should agitate the minds of spatial planners and development experts on the dangers that this pandemic portends for the slum dwellers and what definitions to give social distancing in such locations.

This is a major concern as in student housing in my university remains short down, there for students like the authors have resulted in shared housing off-campus. The effect of this is increased exposure to the disease in an uncontrolled mobility environment.

Issues raised in this article, therefore, put to test planning principles and standards relating to space in the face of prescribed human ergonomics meant to reduce the spreading of the virus. If this is so, should government now think of a way to localize the radicality of their spaces toward the effectiveness of the social distancing response?

## The Greek National Documentation Centre - Responding to the COVID-19 Pandemic

**SACHINI EVI, MALLIOU Nena, MANIADAKIS Nikos, MEGAS GEORGE, VASILAKI Varvara,  
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### INTRODUCTION

This short paper aims to highlight the actions initiated by the Greek National Documentation Centre (EKT)<sup>1</sup> as a consequence of the COVID-19 pandemic. These actions were taken within the premises of EKT's existing mandate and sought to cover for the lost ground that the ensuing social distancing and lockdown measures had imposed.

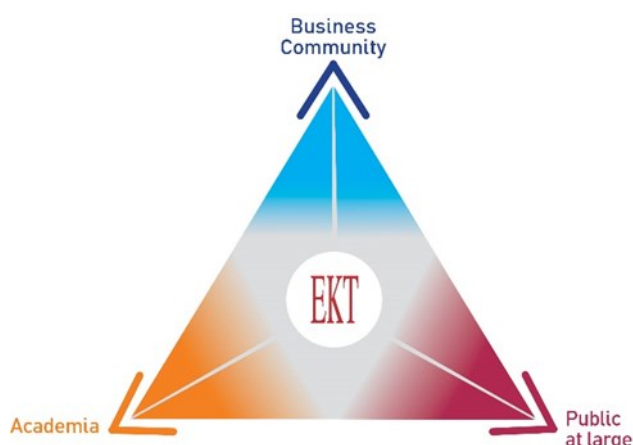
EKT is a public, high-calibre national research infrastructure established in 1980. Its mandate is multi-thematic, ranging from being the National Authority of the Hellenic Statistical System for European statistics on Research, Development and Innovation (RDI), to providing services to connect the academic research bodies with innovative and creative businesses to provide access to funding tools, tech transfer and innovation networking. Also, EKT focuses on creating open access infrastructures for users to access rich content, facilitating online publishing and circulation of content from libraries, archives, museums, higher education, research

centres, scientific and cultural bodies, with the aim of highlighting the Greek wealth of knowledge in the Digital Public Space.

Being a public organisation, these activities are geared towards both public and private actors as well the wider public. Ranging from firm-centered services provision for innovation management for businesses to systematically monitoring critical public aspects of RDI (spending and personnel) and the digitalization and open distribution of both publicly and privately-owned cultural content, means that EKT is in a unique position to regularly and systematically enable the interaction between the actors of the "triple helix" in Greece. As Figure 1 indicates, EKT is placed within the knowledge triangle paradigm and enables a multi-modal interaction with both public and private institutions - according to the different operational arrangements - in addition to giving back to the wider public high quality material.

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<sup>1</sup> [www.ekt.gr/](http://www.ekt.gr/)



**Figure 1: An ideational placement of EKT within a triple helix context**

The rapidity of the COVID-19's spread created an altogether different context in which EKT has been called to operate during the period starting from March 2020. The social distancing regulations and lockdown measures introduced to slow down the spread of coronavirus forced EKT to rethink its operating practices ensuring the service provision to its dedicated communities. Responding to the urgency of the situation, EKT decided to offer a range of new services. As opposed to maintaining a conservative approach to “weather out” the storm, EKT sought to find new, meaningful ways to respond to the pandemic. To do so, a binary approach was employed. Best practices from relevant global actors were sought and examined for possible adaptation to the local context. Also, novel initiatives were formulated based on the deep understanding of the domestic academic, entrepreneurial and policy conditions.

In the remainder of this article, these actions are presented.

### **Information, dissemination towards the wider audiences, public at large**

As a knowledge-based organisation, EKT swiftly took action in order to inform the public at large of the COVID-19 pandemic. As such, a dedicated portal<sup>2</sup> was created on the 20 March 2020, aiming to provide valid information to researchers as well as to citizens interested in enriching her/his knowledge with the most updated information on the scientific research about the COVID-19 pandemic. Specifically, the portal made accessible the latest scientific publications, catalogues, websites, e-learning opportunities. Such a move aimed at putting in the forefront valid scientific

data and research outcomes; offered the public means to shield against pseudo-science and misinformation, and promoted capacity building and innovation activity through enabling further exploitation of the data easily accessible online. Coupled with the decision made by publishers worldwide to open up access to their journals' content/collections, EKT managed to set up an authoritative science information data source that received more than 27.000 visits.

In the same spirit of informing wider audiences, through EKT's Knowledge and Partnership Bridges Initiative,<sup>3</sup> there has been an effort to share best international practices and initiatives against the pandemic to a network of more than 2.000 highly educated Greeks worldwide. Towards this, science diaspora interviews with academics and entrepreneurs aimed at highlighting potential contributions against the pandemic either on the psychological consequences of the pandemic<sup>4</sup> or as a free of charge business application connecting medical personnel to COVID-19 patients<sup>5</sup>, were issued. Moreover, the 3.500+ Facebook Group of the initiative was used as a relay center for EKT's information on a daily basis.

In addition to the above, a number of webinars were held as a further means to disseminate the relevant information. For example:

-“Guiding businesses and professionals through times of Crisis; a practical guide for survival”<sup>6</sup>, was a webinar co-organised by . shared best practices and tools for products and services EKT and Curious Inc., aimed at empowering enterprises and professionals on surviving the pandemic by providing them with practical guidance. Projecting alternative economic scenarios, the webinar focused on the way pandemic influences consumer behavior, how innovation can be used to help a business, and finally best practices for enterprises and professionals were shared.

-“Implementing design thinking to plan our lives”<sup>7</sup>, was a webinar co-organised by EKT and Curious Incdesign. It was explained how these tools and knowledge can help entrepreneurs to organise their business in times of uncertainty. Addressing a hot topic, the webinar engaged more than 13,000 participants.

-“How digitally capable and prepared are we?”<sup>8</sup> was a webinar organised by EKT in collaboration with the EU Joint Research Centre (JRC). The webinar addressed

<sup>2</sup> [www.ekt.gr/el/covid-19](http://www.ekt.gr/el/covid-19)

<sup>3</sup> [www.knowledgebridges.gr/en](http://www.knowledgebridges.gr/en), see also: Labrianidis et al (2019)

<sup>4</sup> [www.knowledgebridges.gr/el/stories/714](http://www.knowledgebridges.gr/el/stories/714)

<sup>5</sup> [www.knowledgebridges.gr/el/stories/715](http://www.knowledgebridges.gr/el/stories/715)

<sup>6</sup> [www.ekt.gr/el/events/23902](http://www.ekt.gr/el/events/23902)

<sup>7</sup> [www.knowledgebridges.gr/el/node/713](http://www.knowledgebridges.gr/el/node/713)

<sup>8</sup> [www.ekt.gr/el/news/24256](http://www.ekt.gr/el/news/24256)



the issue of 'How digitally competent are we as learners, teachers and educational organisations? Theory and practice'. Research data and tools developed at the JRC were presented. More than 2.200 participants attended the venue. Importantly, the webinar was organised in relevance to EKT's coordinating role in the "National Coalition for Digital Skills and Jobs", aiming to add momentum to the debate on the development of digital skills on the national scale.

### **Supporting the business and academic environment**

- *Actions taken towards enabling the domestic communities of practice to come up with solutions against the pandemic.*

During the first stages of the pandemic in Greece, EKT, took several steps adapting to this fast shifting situation in a manner that safeguarded its institutional role in managing and disseminating knowledge. Specifically, it sought to step up its effort to support its prime partners, companies and research bodies, within an exclusively digital environment.

Firstly, a decision was taken to increase the operational tempo. This choice was made with the aim of decreasing the downsides this, exclusively non-physical, new reality entailed - a reality to which the domestic business community was not entirely accustomed to, it was assumed. As such, teleconferences and webinars became part of EKT's daily routine. This banked on a number of assets. For example, the experience and the reputation of EKT's executives in innovation management and technology transfer, as well as their mentoring capabilities and know-how expertise.

This was coupled with the state-of-the-art datacentre and e-infrastructure. The uninterrupted services' provision and a wide spectrum of digital activities, including a three-digit number of users to receive cloud computing services and access to digital content such as electronic data libraries and online seminars to staff teleworking were of the highest importance in an all-digital environment.

A third parameter to EKT's quick reaction relates to its long experience in health-related projects. Being the National Contact Point for Horizon 2020 on the health sector, this has allowed the organisation to follow significant initiatives. Executing its advisory services, EKT supported the Greek company (EXUS), leader of the one of the most topical European projects - that of "STAMINA".<sup>9</sup> The project aimed at optimizing the national health planning systems from strategy development up to operational level, to prevent pandemic crises and optimizing the authorities' responses.

In other words, this project is steered towards coping with situations such as the current! Being involved in this and other similar processes add up to EKT's accumulated experience and build its capacities for resilience and effective response to the actual situation.

Within the context of supporting the Health sector, EKT advised and guided more than one hundred researchers, research entities and enterprises that wanted to participate to specific European calls and challenges. Additionally, utilizing its network of associates, EKT initiated a range of COVID-19-related awareness-raising events. Also, capitalized on its decades-long coordination and participation in the Greek node of the Enterprise Europe Network (EEN-Hellas) consortium, one of the most important networking projects worldwide. Given the long-standing communication lines, EKT was in a position to easily channel through COVID-19-related information on programs, partnerships, digital solutions, new technologies, and funding opportunities to the domestic academic and business community.<sup>10</sup>

Similarly, EKT being the hub of EIT Health in Greece, offered a range of services to health innovators and the wider community. Given the obvious importance of this initiative in terms of early-response to the pandemic, EKT increased the number of the staff involved in these activities. Being the gateway to all specialized programs in Greece related with the health sector for entrepreneurs, researchers and students, EKT supported thirteen start-ups during the proposing process of the Headstart competition (EIT Health sub-project), which was claiming for mature solutions against COVID-19. Moreover, twenty-five start-ups were encouraged to take part in competitions and accelerators of EIT Health.<sup>11</sup> Additionally, EKT responding to EIT Health's call for matching specific needs related to COVID-19 with solutions, posted five matches on the general electronic platform of the program, following an evaluation process. Finally, EKT participated in the co-organization of HelloAIRIS (EIT Health sub-project), targeted at students and graduates, offering training on Artificial Intelligence in healthcare.

- *Co-organising hackathons and other digital initiatives*

With the aim of mobilising the development of innovative solutions against COVID-19, EKT supported a number of hackathon competitions. Based on the realisation that hackathons, due to their high-intensity processes and multi-level support, receiving mentoring from participating academic, business and state bodies, may kick-start COVID-related solutions, EKT took an active role by offering knowledge and allocating resources and tools to the following hackathons:

<sup>9</sup> <https://cordis.europa.eu/project/id/883441> ('Demonstration of intelligent decision support for pandemic crisis prediction and management within and across European borders')

<sup>10</sup> See: [www.ekt.gr/en/news/24012](http://www.ekt.gr/en/news/24012) and <https://aaic2020.b2match.io/>

<sup>11</sup> See: [www.ekt.gr/el/news/23760](http://www.ekt.gr/el/news/23760)

- Ø The 'Antivirus Crowdhackathon'. A remote innovation hackathon organized by (among others) Crowdpolicy and the Region of Attica, it was successfully held from 2 to 5 April 2020, and was attended by more than 250 participants. Teams presented more than seventy new ideas and proposals aimed at tackling the COVID-19 pandemic.
- Ø The 'HackCoronaGreece'. A remote hackathon organized by Dataconomy and Data Natives and partners from the health and technology sector, took place from 7 to 13 April 2020, with the aim of identifying innovative solutions for Greece's National Health System. The hackathon was attended by three hundred participants and fifty-five teams working with the support of mentors for three days to develop their solutions.
- Ø The (still ongoing) initiatives by the Ministry of Digital Governance: a) #COVIDhaikimogisGRG, aiming to explore new innovative solutions to address the needs of the National Health System, and b) 'Rapid Implementation of Mature Solutions', aiming to identify new solutions that have the potential for immediate implementation.
- Ø The #EUvsVirus hackathon, for tackling the COVID-19 pandemic. The first cycle of European competition was held from 24 to 26 April 2020. Of the 2,150 solutions submitted by 20,900 participants, 117 stood out and were invited to participate in the second cycle of "Matchathon". The Ministry of Digital Governance coordinated national hackathons to shape Greece's national participation, entitled #GreeceVsVirus, and resulted in 671 entries (eighth place), with Greek members participating in seven of the 117 teams nominated after the first cycle.

### **EKT's contribution in the above was multifold:**

- Ø EKT actively promoted the initiatives making use of EKT's existing information-diffusion channels (website, Facebook, Twitter, LinkedIn, Newsletters to more than 33.000 recipients) to raise awareness and ensure that a sufficient number of proposals would be submitted.
- Ø EKT's personnel participated in the evaluation process. With their extensive experience in innovation matters stemming from their participation in European R&D projects and actions promoting innovation and entrepreneurship, EKT's staff supported the emergence of promising proposals.
- Ø EKT provided "skills mentoring" to over twenty different proposals to improve their innovation management, product development and market approach. Indeed, one participant in the European hackathon ("Platex-Reusable Face Masks") stood out in the challenge of "Protective equipment" in the "Health & Life" section.

- Ø Moreover, participants were informed:
  - on financial opportunities so as to encourage their participation in European R&D consortia,
  - on networking and international business partnerships' potential through participation in digital European platforms (e.g. EEN's Care and Industry together against CORONA, EEN networking platform, COVID-19 EIT Health connecting innovators)
  - on participating in international hackathons and virtual B2B meetings.

### **Capacity building activities. Promoting digital, high-quality cultural and educational content.**

Having digitised more than 500,000 digital cultural items, of which 320,000 are already online, EKT is a catalyst in the digital transformation of the cultural heritage sector of the country. Also, it is the accredited national cultural content aggregator for Europeana<sup>12</sup>, the European portal for cultural heritage that promotes the transformation of cultural institutions. Within this context, EKT has been developing the national cultural heritage online portal "SearchCulture.gr"<sup>13</sup>.

During the pandemic, EKT was swift to roll out a new section of "SearchCulture" named "Thematic exhibitions". Herein, seventeen new digital exhibitions were made accessible. Exhibits of cultural significance were provided from high-profile cultural institutions. The themes ranged from mythological iconography to byzantine jewelry and Olympic Games. The objective was to raise awareness and disseminate high-quality cultural content in an open and accessible manner that due to the lockout would have an even higher impact, given the multiple measures inter alia the social distancing, suspension of the operation of academic institutions, libraries and other cultural organisations. In addition to making it available for potential utilisation and valorisation, this large-scale cultural permeation sought to become a source of inspiration and creativity as well as peace of mind for all citizens during these difficult times - as art and culture should always be.

In this context, EKT's culture-related services for the development of related e-content and the digitisation of the Greek cultural heritage contribute in preserving, promoting as well as facilitating research. Similarly, these digitalised services can be used as input material or inspiration for other innovative initiatives. Importantly, the collaborative manner in which those private sector institutions came forward in offering their content to a public organisation such as EKT with the aim of disseminating the content in a digitalised manner can be seen, in these difficult times, as

<sup>12</sup> <https://pro.europeana.eu/organisation/greek-aggregator-searchculture-gr>

<sup>13</sup> [www.searchculture.gr/](http://www.searchculture.gr/)

culture democratisation conducive to community engagement and eventually social cohesion. Hence, the response to the initiative has been remarkable considering that there was an increase by 200% in website traffic in April 2020 compared to January 2020 with 15,664 compared to 46,718 unique visitors respectively.

Closely associated is EKT's role as a knowledge management organisation that makes available online educational science-based content. Again, responding to the COVID-19 pandemic, EKT redesigned a new version of its MITIDA (ΜΗΤΙΔΑ)<sup>14</sup> platform. MITIDA is an online learning platform developed by EKT that enables educators to create engaging educational content through the use of contemporary online collaborative tools and open content from EKT's resources, repositories and databases. Its objective is to support collaborative work among the educational communities of Greece.

Given the urgent need for digital education content for all levels of education as a means to counter the social distancing measures concerning schooling and academic activities, EKT moved quickly to upscale MITIDA. By providing access to a contemporary toolbox and open educational resources, it enabled 'lockdowned' educators and organisations to create their own digital interactive educational content. Specifically, the platform offered tools and content based on valid scientific data and research outcomes for the production of digital educational material, including creation of e-classes that favor a versatile and experiential approach of knowledge as well as resilient and active learning; creation of thematic maps that propose an attractive and user friendly geographical navigation; creation of learning scenarios which promote the interdisciplinarity and creative use of the internet; and participation in working groups and collaboration teams. The effort was endorsed by the educational community which was translated in an increase by over 300% of the unique visitors in April 2020 compared to the traffic of January of the same year (1.003 visitors in Jan. 2020 to 4.727 April 2020).

### **Exploring the influence of the pandemic on the activity of Greek researchers**

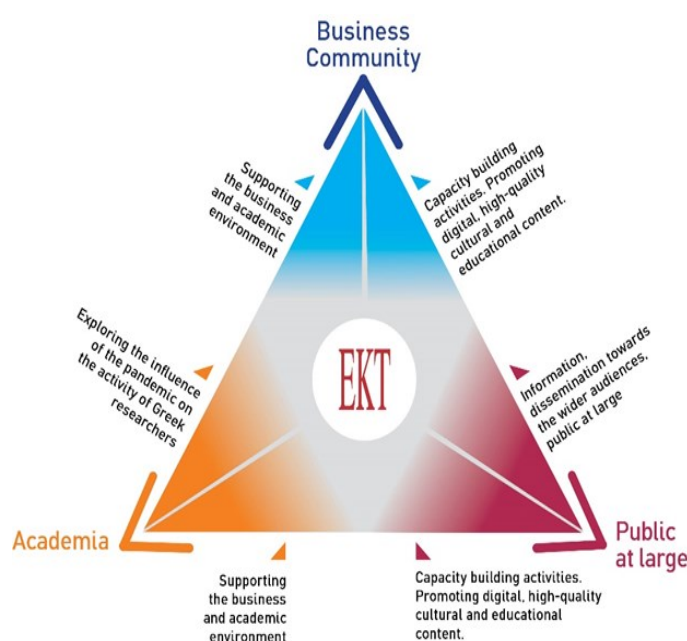
Standing on EKT's role on producing RDI statistics and more specifically concerning the highly educated human capital, understanding COVID-19's impact on the research activity and personal life of the domestic research base was the objective of a very recent, nation-wide survey. An electronic questionnaire was sent to 4,557 researchers addressing several topics. For example, it sought to understand the extent to which social distancing had affected their capacity to perform research activities, the psychological state as well as their family environment and

the manner in which the COVID-19 pandemic is being received by the researchers themselves. That is, is it being viewed exclusively as a situation of crisis or as a situation that presents itself also as an opportunity?

With a response rate of 51%, it is one of the largest studies on the topic globally. A report is already authored and a follow up academic publication is in the workings<sup>15</sup>. Importantly, the findings have been taken into consideration by policy makers for shaping the appropriate science and technology public policy measures.

### **Conclusion-take away messages**

As Figure 2 indicates, EKT's actual initiatives towards both public and private actors and the wider public fit well within the "triple helix" model.



**Figure 2:**  
**Actual placement of EKT with triple helix actors in Greece during COVID-19**

Undoubtedly, the pandemic is a crisis situation. To cope with this situation, EKT implemented a set of measures. Firstly, it was quick to realise the systemic changes ahead and, thus, allowed for attentive forward planning. This presented an opportunity window to set things in order before moving to an all-digital operational tempo. Secondly, EKT adopted a pro-active approach and sped to offer more services and enrich existing ones to key stakeholders, including the research community and private sector, but also to the wider society and individual citizens. As such, EKT increased its participation and look-out on relevant global and European initiatives. Also, operating for four

<sup>14</sup> [www.mitida.gr](http://www.mitida.gr)

<sup>15</sup> <https://metrics.ekt.gr/publications/402>, including a Research Note in eng

decades in Greece, EKT certainly has a profound understanding of the country's idiosyncrasies and culture, and has established strong relations with key local stakeholders, that both contributed to offering "tailor-made" services to local communities fully aligned within the local context and more importantly to create synergies and implement activities with high impact. This increased and topical information flow coupled with its high-quality human capital and the uninterrupted operation of its e-infrastructure allowed EKT to fulfil its institutional mandate.

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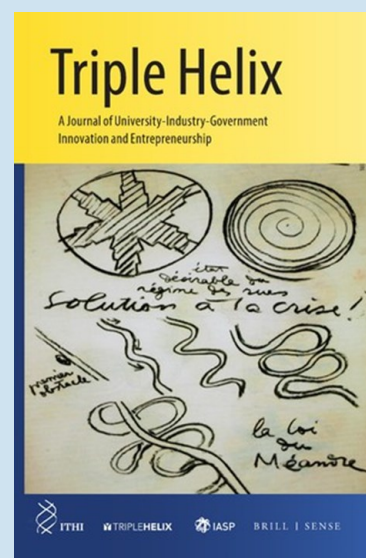
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