



Annual Report 2021

The Institute of Energy for South East Europe (IENE)

The Institute of Energy for South-East Europe (IENE) is an independent organization operating on a regional basis in SE Europe, covering the whole spectrum of the energy sector, with a strategy focused on sustainability and energy transition. IENE provides regular information to its members on developments in Greece and the region, prepares studies and research, organizes events (conferences, workshops, webinars) and educational seminars. For more information see <u>www.iene.gr</u> and <u>www.iene.eu</u>.

Institute of Energy for SE Europe (IENE) 3, A. Soutsou str, 106 71-Athens, tel.:0030 210-3628457, fax: 0030 210-3646144 e-mail: <u>admin@iene.gr</u> website: <u>www.iene.eu</u>



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Introduction

This Annual Report (AR) aims to provide accurate and comprehensive information on the Institute of Energy for South-East Europe (IENE) and its activities and is primarily addressed to its Partners. The Annual Report is also useful to its members, individuals and corporate entities, but also to institutional stakeholders as it provides detailed information on IENE's work.

A quick glance at the Annual Report helps to understand the diverse work carried out by IENE. The preparation and regular dispatch to members of energy related information on global and regional issues and latest developments, together with suitable analysis is a core activity of the Institute and finds wide acceptance by members, companies and institutions. In addition, there is ample reference in the Report to the Institute's research and study work which also forms core activity.

Over the last 5 years IENE has expanded considerably its research capability having secured the necessary backing from some of its corporate members. The report also describes IENE's work on education as the Institute has of late placed emphasis in the development of specialized courses in order to cater to the educational and training needs of junior and senior executives. Furthermore, the report describes IENE's activities in the area of events including conferences, workshops and lately webinars, which during the Covid-19 period emerged as a prime area of activity. During most of last year, because of Covid-19, considerable activity was conducted online including conferences, workshops, presentations, webinars and committee work.

In short, 2021 was a year of great challenges for IENE, due to the elaboration of some important studies and related activities and the adjustment of its way of working mode as a result of the restrictive measures due to the pandemic.

May I take this opportunity to point out that IENE thanks to the expansion of its partner's base in 2020/21 is essentially a regional organization operating in the broader area of Southeast Europe. After 18 years of continuous operation the Institute has been firmly established as an independent think tank active in the broader energy field in SE Europe.

Finally, I would like to emphasize that IENE is gradually evolving into a key provider of information and education for the energy sector in SE Europe. A constant goal being the enlargement of its membership with new members, individuals and companies with interest and eagerness for knowledge and education in the energy field.

As Energy Transition gathers pace it is important to remember the vital role that IENE plays and will continue to play as an important reference point for energy developments in the broader SEE region.

Costis Stambolis Chairman & Executive Director Athens, June 2022

A. Administration

Running a small but very active organisation with commitments at home and in the wider geographical area in SEE and the East Mediterranean, with limited human and financial resources, can be a real challenge. As the Institute is engaged in a number of work areas such as the provision of business information, with almost daily feed obligations, research and studies, educational courses and event organisation there are heavy demands on management time.

Planning work well in advance is an absolute necessity as there is very little margin for error and failed undertakings. Such an eventuality could create unnecessary strain in the daily work schedule and affect negatively the wider operation of the Institute. Hence, some information and observations concerning the management of the Institute are pertinent.

The work load of the Institute consists both of short term assignments such as the preparation and dispatch to members of the regular information feed and the undertaking of longer term research and study projects. In between we have the preparation of events and educational courses which require meticulous planning and foresight. Normally all this work is undertaken by different groups of people who without being segregated focus on very specific common tasks and strict delivery deadlines. Yet all people working at IENE, including external associates, are fully aware of the goals and tasks in hand, and try to contribute to the best of their ability in the overall effort.

In terms of Human Resources the Institute had seven full time employees during 2020 who at one point became six after the voluntary departure of one of the three in-house research team members. At the same time the Institute relied on the services of three external associates who provided regular input, weekly and monthly, to its various publications. The Institute continued the outsourcing of a number of important tasks including financial management and accounts, which are being handled by EditCom Ltd which has offices in the same building as IENE, while press relations were looked after by Pitch SA, a specialised agency. In addition, the preparation and page layout of promotional material, reports and book like studies was undertaken by a capable graphic designer, Ms. Elena Isaiah. Another work area which is outsourced to an individual expert involves the technical support of the Institute's IT base while the operation of its two web sites and associated micro sites is supported by Theratron Ltd.

Also, on an ad hoc basis the Institute sought the services of external editors and translators who undertook specific tasks which would otherwise interfere with the Institute's normal flow of work. Another group of external associates paid by the Institute concerns several experts who contribute work in specific research and study projects. A good example is the "SEE Energy Outlook" study where more than 29 experts are involved. Great effort is being made at all times in maintaining a fine balance between the work carried out inhouse and the work which is outsourced.

All Institute activities are being coordinated and supervised by the Executive Director who is assisted by two administrative assistants but who are also involved with other aspects of work such as marketing, event preparation and course organisation and development. Supervising the Institute's financial operation is another important task for the Executive Director who is assisted in this on a daily basis by the business manager who is seconded to IENE by EditCom.

Project development and proposal preparation is another key task as it is directly linked with the securing of much needed research and study work. This work is primarily undertaken by the Executive Director who is assisted by the Head of Studies and by an administrative assistant. The Executive Director is also involved with the coordination of the Institute's Scientific Committees and he is assisted in this task by one of the administrative assistants.

Looking ahead to the future management needs of IENE it is becoming increasingly clear that there is an urgent need for the appointment of a full time senior administrator, with a solid scientific background, who will work alongside the Executive Director and will be trained, in time, to act as his deputy. Another permanent position that has remained vacant, is that of Marketing Manager. This position is currently being filled by a person who is carrying out at the same time several other jobs (e.g. page layout of newsletters, event organisation etc). The Institute has decided to completely reorganize this department seeking to pursue fund raising through specific programs, and therefore finding a competent person for this position is extremely urgent. Another position that needs to be filled is that of the Knowledge Officer, who in addition to managing and utilizing the continuous flow of information of the Institute will also coordinate the Scientific Committees and provide support to the chairmen and their members.

B. Implementing IENE's Strategy Goals

In the context of the IENE development strategy, which was extensively revised in 2018 and approved by the AGM in 2019, the Institute's management throughout 2021 focused its efforts in the following fields:

- (i). Expansion its partners base in all countries of SE Europe in order for the Institute to become even more established in the wider region.
- (ii). Upgrading, streamlining and improving the flow of information sent to members on a regular basis. The information is offered in the form of newsletters, analyses, working papers, briefing notes, news alerts, etc.
- (iii). Further development of the Institute's research capabilities in thematic areas that the Institute selects in consultation with its partners and members after submitting fully documented proposals to the Steering Committee, after prior discussion and approval

by the relevant Scientific Committee. Within 2021 the Institute proceeded to formulate the specifications of three new major studies which will be fully developed within 2022 (see Energy and Employment, Large Scale Wind Farms and impact on the Electricity Grid, a CCUS Roadmap for Greece).

- (iv). Development of a series of Advisory Services for companies, organizations and banks, using the extensive know-how and considerable experience of Partners and Associates. During the design of these Advisory Services, priority has been given to Green Bonds, with IENE acting as a Green Bond Certification Body on behalf of the London based "Climate Bond Initiative", with activity in all its countries SE Europe. As of March 2021, IENE has been certified by the said UK body and provides services to other companies, banks and the public in matters of green bond issuance.
- (v). Organization of conferences and workshops on topical issues and other related events (e.g. seminars, webinars, etc.) throughout SE Europe, responding to the needs of the sector and highlighting specific issues (e.g. decarbonisation, market integration, introduction of new technologies, etc.). In this direction, a whole series of such actions was undertaken.
- (vi). Creation of a series of high-level training seminars addressed to managers and senior executives, responding to pressing market needs (e.g. entry into the new electricity market after the adoption of the Target Model, implementation of energy efficiency measures in buildings and industries, etc.). A new IENE seminar that fully covered the above is the one created by the Institute in collaboration with specialized company "Strategy Technics" and had as its theme "Managing Energy Markets in a Complex World". The first time the seminar ran proved a relative success, while there are possibilities of repeating it twice a year under certain conditions.
- (vii). Strengthening of the Scientific Committees of IENE through regular meetings, expanding their scope of work and increasing their members. The proper functioning of the Scientific Committees of the Institute is of vital importance, as they provide valuable support in the preparation of research and evaluations and in the organization of IENE's actions in this field. The Committees are an indispensable part of the scientific operation and organization of IENE, as in the Committees detailed discussions and exchange of views take place. It is most encouraging that during 2021 all Scientific Committees met at least twice each, while some met even three or four times. All meetings were conducted online.
- (viii). Reorganization of the promotion and publicity mechanism (with full use of social media) so that IENE and its activities become more widely known and the Institute is established as a key information and policy body for energy in SE Europe. Relative progress towards this direction has already been achieved.

C. The Executive Committee

During 2021 IENE's Executive Committee met nine times, on line, as follows: on January 14, February 2, March 23, May 25, June 23, July 23, September 9, October 26 and at an Informal Information Meeting on the 11th of November. The members of the Executive Committee for the whole of 2021 were the following:

- Chairman: Costis Stambolis, who also acts as Executive Director
- Deputy Chairman: Gus Papamichalopoulos
- Secretary General: Costas Theofylaktos
- Members: Dionysios Xenos, Christos Dimas, Thomas Lamnides, Anastasios Tosios

Detailed minutes of all the aforementioned meetings have been kept and are available to all IENE partners.

The Executive Committee is in charge of supervising the overall operation of the Institute, and hence its members are at all times informed by the Chairman of latest developments. At the same time the Executive Committee formulates proposals for the undertaking of new activities but also reviews the performance of existing ones. The Executive Director reports directly to the Executive Committee and strives to keep it informed of all the ongoing and planned activities of the Institute, while he seeks approval of actions which are considered to require a wider consensus and are likely to commit IENE to new obligations, workwise and moneywise. The Executive Committee meets regularly throughout the year and its members are constantly in touch on the phone and via e-mail.

D. Scientific Committees

A number of Scientific Committees have been set up by the Institute and operate on an advisory basis. Any member of IENE, whether individual or seconded by a company, can participate in a Committee and contribute to its activities. Participation is strictly on a voluntary basis. Members may contribute to a Committee's work by presenting reviews of activities and projects in which they are involved or by tabling proposals for projects to be undertaken by IENE or suggest participation in public consultations or intervention(s) on issues of concern.

At present IENE's Scientific Committees comprise the following (7) seven:

- Electricity
- Hydrocarbons Upstream
- Hydrocarbons Downstream
- Natural Gas
- Renewable Energy Sources (RES)
- Energy Efficiency
- Geopolitics

IENE's Scientific Committees have contributed significantly to the work of the Institute throughout 2021, by means of targeted actions, the preparation and submission of well-researched proposals and industry reviews and by providing support for the organization of events. During 2020 the Committees met entirely via the Zoom platform, due to the COVID-19 restrictions, as follows:

The Energy Efficiency Committee met twice (26/1 and 7/6) under the chairmanship of Costas Theofylaktos. The Committee greatly helped IENE in the organization and implementation of the online conference "Energy Efficiency: Business, Industry and Public Buildings" (January 12). The Committee also supported IENE in conducting the educational seminar on "Energy Efficiency in Buildings and Industry" (May-June 2021).

The **RES Committee** met twice (24/03 & 6/10) under the chairmanship of Nikolas Sofianos and assisted in the running of the Webinar "The Road to Decarbonization: Challenges and Opportunities" (18/3) as well as in the organization of the educational seminar, "Introduction to RES and their Role in Sustainable Development" (May 19 - June 10, 2021).

The **Downstream Hydrocarbons Committee** met twice (25/1 and 6/4) chaired by Liana Gouta. The Committee focused on issues such as the organization of IENE's online Conference "Green Liquid Fuels of the Future", which took place online on February 11 & 12. Green Fuels are considered as one of the main pillars of the future activity in the oil downstream sector and will help the shift towards cleaner forms of fuel.

The **Natural Gas Committee**, which also covers hydrogen and biomethane, met five times (17/02, 04/03, 07/04, 18/05, 07/07) under the chairmanship of Theodore Terzopoulos. The topics discussed by the committee included the National Strategies of the EU countries regarding the development of the Hydrogen market, the curtailing of methane emissions from natural gas infrastructure, (i.e. storage, transmission, distribution), the development of the regional n. gas market, the role of biomethane, hydrogen etc.

The **Upstream Hydrocarbons Committee** met four times (16/03, 01/04, 14/04 and 14/12) under the chairmanship of Teresa Fokianou. The topics addressed by the committee included the role of hydrocarbons in energy security and in the Energy Transition. The Committee focused on the preparation of a comprehensive Review on the role of hydrocarbon exploration and production in Greece with the aim of presenting it in the first half of 2022.

The **Geopolitics Committee** met three times (15/03, 26/04 and 18/11) under the chairmanship of Christos Dimas. The Committee focused on the analysis of recent geopolitical developments in the region and globally and on the preparation of the "Geopolitics Bulletin" published by IENE every two months with significant input from

members of the Committee. The Committee also organized an online Book Presentation of a book published by Dr. Michael Myrianthis on "Sovereign Rights and Realism – the Greek-Turkish Conflict and Mineral Wealth in the Aegean and the Eastern Mediterranean".

The **Electricity Committee** met twice (3/3 and 3/11) under the chairmanship of Andreas Petropouleas. Topics of interest for the Committee were the integration of electricity markets in SE Europe, the use of energy storage as a balancing method, Greenhouse Gas Emissions (CO2) and impact on the cost of power generation and issues associated with energy supply etc. The Committee's contribution was crucial in the organization by IENE of the two training seminars for the introduction of the Target Model (September-October 2021)

E. Overview of Activities

E.1. INFORMATION - DISSEMINATION

Throughout 2021 the Institute carried on with the comprehensive briefing of its members by sending them regularly, its weekly and monthly publications as well as by preparing occasional Briefing Notes and News Flashes.

Regular Publications

During 2021 the following publications were sent to IENE members:

- Energy Weekly Report: Issues No. 245 292 (January December 2021)
- SEE Electricity Market Analysis (weekly): Issues No. 110 165 (January December 2021)
- S.E. Europe Energy Brief: Market Watch, Monthly Analysis, Market Fundamentals and Prices. Issues No. 327 - 351 (January - December 2021)
- ✓ Events Bulletin: Issues No. 39 40 (March September 2021)
- Energy and Geopolitics Bulletin: Issues No. 14 18 (April September 2021)
- Analysis of the Greek Energy Sector (weekly and monthly in Greek): Issues No. 173 - 234 (January - December 2021)
- Energy Issues (monthly in Greek): Issues No. 168 175 (January December 2021)
- Views and Opinions on Energy and the Environment (in Greek): Issues No. 39 40 (January - February 2021)

Occasional Briefings

Within the framework of IENE's efforts to provide accurate information to its members on latest developments, IENE published a number of occasional reports as follows:

✓ News Flash

 News Flash No. 26 "EU announces "Toolbox" on how to deal with record-high energy prices", October 2021

✓ News Analysis

- News Analysis No. 2 " On System Separation in the Continental Europe Synchronous Area on 8 January 2021* ", January 2021
- News Analysis No. 3: "Turkey's energy policies", April 2021
- News Analysis No. 4: "IEA global energy review", May 2021
- News Analysis No. 5: "Surging gas prices likely to reverse course", October 2021

✓ Analysis

 Analysis No. 1 " Geopolitical Alliances in the Making in the Eastern Mediterranean Region", April 2021

✓ IENE Comment

- No. 25 " Europe's Just Transition (2): The Politics of Change", March 2021
- No. 26 " Is the EU Asking Too Much of Bosnia and Herzegovina?", April 2021

✓ IENE Company Profile

• No. 6 "Hellenic Petroleum", March 2021

✓ IENE Fact Sheets

Throughout 2021, preparatory work continued for the publication in 2022 of three new Fact Sheets covering topics related to Energy Efficiency, Energy Policies in SEE and Renewable Energy Sources.

E.2. RESEARCH AND STUDIES

In 2021, a series of studies were undertaken which covered important issues of immediate interest to Greece and SE Europe. One of these studies (M48) concerned various countries in the region while the others (M53, M65 and M68) focused on Greece. A large part of the funding for the operation of the Institute comes from Greek companies and therefore it was natural for IENE to deal with issues that are of direct interest to companies based in Greece. The situation with Covid-19 has been a serious inhibiting factor that has made it difficult for IENE to engage with its regional corporate base and to seek wider consultation with companies in other countries of SE Europe. Thus, out of necessity rather than choice, IENE undertook consulting and study work primarily in Greece, where it is located. However, the planning for 2022 aims at greater engagement with the countries of the region and the scaling up of contacts for cooperation at project level with institutions in Bulgaria, Serbia, Turkey, North Macedonia, Hungary and Israel has already progressed significantly.

SE Europe Energy Outlook 2021/2022 (M48)



After the two previous editions of 2011 and 2017, IENE proceeded with the preparation of its new major reference study "SE Europe Energy Outlook". It was initially supposed to be completed and published in the autumn of 2021. However, due to a number of reasons and obstacles, publication within 2021 was not possible. Finally, preparation of this huge study and page layout were completed by December 31,2021 and the study was released in print and online format on March 1, 2022.

As always, this study seeks to provide comprehensive analysis and estimates for the energy sector in SE Europe. It also analyzes the economic, political, geopolitical, legal, financial and other parameters that affect the region's energy sector, focusing on the key

issues that concern it.

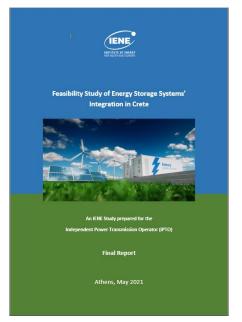
Completing the "SE Europe Energy Outlook 2020/2021" within 2021 proved a real struggle given the voluminous report (1,450 p) and the long delays experienced in the early stages of the Study, the Q1 2019 and Q1 Semester 2020 (see Covid). At the end, 29 contributors from all countries in SE Europe participated, while the Study was sponsored by 16 companies and organizations, raising an amount of €140,000 (+VAT). Special effort was made in editing this huge study with three people sharing the responsibility of shaping the

final texts. The publication of a large reference study such as Outlook for the third time by IENE proved to be a difficult and complex organizational undertaking, mainly due to the lack of a sufficient funds, while the Study itself can be regarded as a milestone in the Institute's development path and a very important and the time enduring legacy.

The study project of "SE Europe Energy Outlook 2020/2021" attracted sponsorship from various companies and organizations in Greece and SE Europe which included the following: Hellenic Petroleum SA. (lead sponsor) with sponsors the Independent Electricity Transmission Operator (IPTO), the Hellenic Energy Exchange (EnEx), DEPA Commercial S.A., EXIST (Istanbul) and ELPEDISON. In addition Study Supporters included the following companies: ElvalHalcor SA, Motor Oil SA, IBEX (Bulgaria), DESFA, DEDA, EDEY, Green Top, ENSCO, ENERGEAN and KG Law Firm.

Feasibility Study of Energy Storage Systems' Integration in Crete (M53)

The electricity storage problem of Crete is a problem of integrating new central storage units on an island that has its own wholesale market. In principle, this problem is all complex as Crete has 5 thermal plants, 2 hydroelectric projects and one (1) biogas plant, whose integration planning will be significantly affected by the integration of large-scale storage systems into the electrical system as well as by the power generation of the multiple existing RES units (PV and A/C) that the island has. In order to study this influence on the operation of the existing power plants as well as on the orderly operation of the system after the gradual retirement of the oil fired stations, the problem of integration of the units should be solved according to the standards for solving the pre-day electricity market



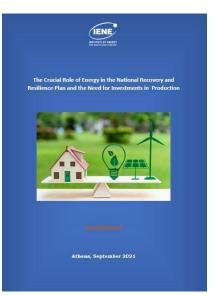
in the interconnected system, in terms of cost optimization (see Target Model). Such a problem should anyway be solved several times, with multiple iterations, since the time balances of energy with the use of storage will affect each other and at the same time the integration of existing units.

That is why it was considered appropriate to build a complex tool (model) which can calculate simultaneously with the integration of the units the marginal cost of the operating the system, i.e. the MSP, of the system within the special biding zone of Crete. In this way, the marginal sale prices (MSP) of stored electricity in the system can also be calculated for which the operator of the storage units will have a benefit for his investment. Hence, we consider that a simple simulation, and not optimization, is possible as this is a multi-type decision system with many parameters, the adjustment of which is not possible without previous experience concerning the detailed operation of the Cretan

system. (A system which is destined to change significantly over the next 5 years with Crete's connections to the mainland and the inclusion of storage).

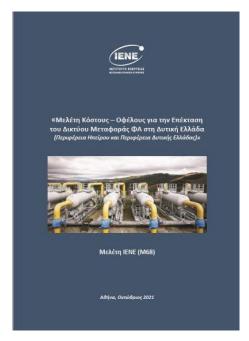
The Crucial Role of Energy in the National Recovery and Resilience Plan and the Need for Investments in Production (M65)

This Report, after analyzing all the data related to Greece's EU backed Recovery and Resilience plan (known as Greece 2.0), focuses on the pivotal role of energy in view of the foreseen high funding and the planning of important infrastructure projects. A key element of concern as highlighted in this IENE report is the fact that from "Greece 2.0" a strategic investment plan for the Greek industry for the production of Renewable Energy products/systems is totally missing. Such a plan would help the industry play a supporting role in the implementation of RES projects and to act as a catalyst in the creation of domestic added value, know-how, and employment resulting from the reduction of imports of RES products and at the same time strengthening related exports.



The full study is available <u>here</u>.

<u>Cost-Benefit Study for the Expansion of the natural Gas Transmission Network in</u> <u>Western Greece (Regions of Epirus and of Western Greece) M68</u>



In the last quarter of 2021 the Institute completed a special study commissioned by Greece's Regulatory Energy Authority (RAE) concerning the feasibility of expanding the natural gas transmission system to Western Greece, to include the regions of Epirus and West Greece. A major task of the study was a cost benefit analysis to compare the relative merits of expanding the national grid via the construction of main pipeline as opposed to the use of a decentralised system based on small scale LNG to be supplied by ship and LNG/CNG trucks.

This specific study is of great interest, because natural gas, as a bridge fuel, can support Greece's energy transition to a zero-emission economy, while the existing transmission networks that are expected to be expanded will be able to distribute gas fuels from RES, such as biomethane and hydrogen.

Therefore, these are infrastructures that will provide the means for the further

penetration of new energy sources, friendly to the environment, into the Greek energy system.

The above study arrived at some basic conclusions, such as that the transport of natural gas either by pipelines or by tankers and/or ships (LNG) presents advantages, but also disadvantages. Undoubtedly, the best option is to combine the methods, to outweigh the advantages of both and to address any obstacles and/or disadvantages of one or the other solution.

Regarding the technological criteria used, various challenges are posed, such as how to build an LNG facility and a regasification station in or near cities, etc. However, it is worth mentioning that such good practices exist and are already being implemented in Europe, while not any significant structural changes in LNG supply systems are expected in the coming years. The continuous and effective training of the staff who will operate the facilities in the cities of the two Regions is considered of critical importance for the purpose of the safe and efficient operation of the said facilities.

A key role in the progress of such an investment is played by the price environment of fuels and in particular of LNG, but also of natural gas sold to the final consumer. At the same time, other important parameters taken into account are the economic situation of the country, the long-term prospects of the economy and trade, the annual growth rate, the level of energy prices in developed and developing markets, since these determine fuel consumption by the final consumer and help develop trade and the economy in general.

IENE believes that this particular study can greatly contribute to the shaping of the future natural gas transmission system of Greece. The full study is available <u>here</u>.

E.3. ADVISORY SERVICES

Until now, the Institute has provided a limited range of Advisory Services, usually in the form of consulting on specific issues, to other organizations, governments and large corporations. These services usually consist of submitting the advice of IENE's research team and selected experts in specific fields, which are often related to policy issues in the field of Renewable Energy Sources, energy efficiency, energy market operation, the granting of exploration licenses for oil and gas, energy infrastructure development, etc. The Institute does not undertake consultancy services on a commercial basis (eg by participating in relevant tenders) as for example in matters related to the design or licensing of RES facilities, conducting energy efficiency audits, drawing up environmental impact studies, etc. This kind of work is usually undertaken by its members, and it is not proper for the Institute to compete with its members in their own field.

A latest example of an Advisory Type service provided by IENE in 2021 was the advice given to the Independent Power Transmission Operator (IPTO) on energy storage in the operation of the electricity supply system of Crete following the interconnection of the island with the mainland, which is scheduled to be completed in two stages in 2021 and 2023. An official contract for the provision of consulting services was signed between IPTO and IENE, with the latter undertaking to submit a full study after close cooperation with

the competent department of IPTO. The study was indeed completed (M53) and delivered on time to IPTO in June 2021.

In addition to the above form of consulting services, the Institute is capable of taking advantage of its extensive experience and organizational skills in all aspects of the energy sector so as to be able to develop more permanent and standardized forms of Advisory Services. This type of work may involve iterative steps in analyzing specific stages of a project, evaluating its progress and then preparing an overall presentation which is useful from the customer's point of view. The provision of Advisory Services on a range of topics could develop into a significant source of income for the Institute precisely because of the repetitive and structured nature of the work.



In this context, IENE in 2021 laid the foundations for its entry into the ESG (Environmental, Social, and Governance) consultancy sector, having already been approved as a Green Bonds verifier by the "Climate Bond Initiative" organization based in the United Kingdom. This accreditation will allow IENE to undertake on a regular basis the verification of

companies and banks wishing to issue Green Bonds in any of the countries of the region. Already during the second half of 2021, IENE organized a series of briefing type meetings, mainly online, with large organizations and companies on the possibility of issuing Green Bonds.

E.4. EVENTS

Due to the Covid-19 pandemic after March 2020, the Institute adopted a special strategy and organized many online events (webinars, online workshops, online training programs, etc.), which continued throughout 2021. The only hybrid (online and live) events that took place in 2021 were the presentation of the "Greek Energy Directory 2021" in collaboration with energia.gr on November 15 in the Athens Chamber of Commerce and Industry (EBEA) lecture hall and the "25th National Energy Conference, "Energy & Development" on December 1 & 2, at the Divani Caravel Hotel, in Athens. Also, a one day seminar on "Hydrocarbons in the Energy Transition: Data and Policies", was organized in collaboration with the Petroleum Research Institute of the Technology and Research Foundation (ITE) at the Technical University of Crete, in Chania, Crete (October 25, 2021). Here is a list of all the events organized by IENE in 2021:

 One day Online Workshop "Energy Efficiency in Industry and Public Buildings", Tuesday, January 12, 2021



Two day Online Conference "<u>Green Liquid Fuels of the Future</u>", Thursday 11 – Friday 12, February 2021



 Half Day Webinar on <u>"The Road to Decarbonization in Greece: Challenges and</u> <u>Opportunities</u>", Thursday, March 18, 2021 (15:00 -18:00)



• Online Presentation of Dr. Michalis Myrianthi's Book on <u>"Sovereign Rights and</u> <u>Realism"</u>, Monday April 26, 2021.



• Webinar on <u>"The role of energy storage in advancing large scale RES Penetration"</u>, Tuesday, April 27, 2021



• Webinar on "Gas Markets in Transition in SEE", Thursday, June 8, 2021



Online Workshop on "<u>Electric Mobility and Smart Cities</u>", Wednesday, September 22, 2021



• High Level <u>Greek-Bulgarian Energy Meeting</u>, in Sofia, organized by the Energy Management Institute (EMI) in collaboration with IENE, Thursday, October 14, 2021, with the physical presence of Costis Stambolis and Costas Theofylaktos.

SE Europe's En	ergy Overview and Greek-	Bulgarian Cooperation
	Greek-Bulgarian Energy Mee	ting
Orga	nised by the Energy Management	institute (EMI)
	Sense Hotel - Sofia	
	October 14, 2021	
	A Presentation by Mr. Costis Star	
Ir	Chairman and Executive Direct stitute of Energy for SE Europe (IEN	
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Webinar: Presentation of the IENE Report on: <u>"The Key Role of Energy in the National Recovery and Resilience Plan and the Need for Investments in Production</u>" (M65) (click), Wednesday, October 20, 2021



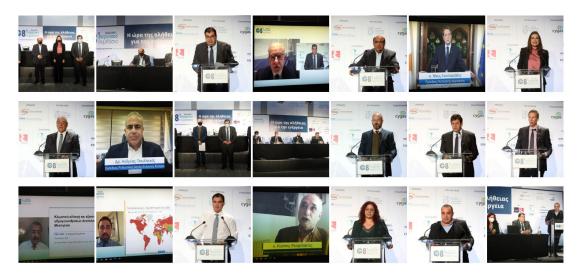
• Hybrid Conference "<u>Hydrocarbons in the Energy Transition: Facts and Policies</u>", organized in collaboration with the Petroleum Research Institute of the Technology and Research Foundation (ITE) of the Technical University of Crete, event at the KAM, Chania, Crete, Monday 25 October 2021







• <u>9th Cyprus Energy Symposium</u>, hybrid event organized in collaboration with FMW-Financial Media Way, Nicosia, Thursday 4 November 2021



• Presentation of the <u>"Greek Energy Directory 2021"</u> in collaboration with energia.gr, hybrid event in the Athens Chamber of Commerce and Industry (EBEA) hall on November 15, 2021





 <u>25th National Energy Conference, "Energy & Development"</u>, Athens, Divani Caravel Hotel, Wednesday 1 - Thursday 2, December 2021, (hybrid & via live streaming)















 <u>The annual IENE "Prometheus" awards</u> bestowed to individuals who distinguished themselves in various branches of the energy sector, in the context of the <u>"Energy</u> <u>& Development"</u> Conference.





In the electricity sector the Award was given to Dr. John Kabouris of IPTO

Στον τομέα των ανανεώσιμων πηγών ενέργειας το Βραβείο απονεμήθηκε στον κ. Κώστα Τραβασάρο, πρόεδρο της ESTIF

E 5. EDUCATIONAL COURSES

During 2021, three intensive training courses were held as follows:

• Energy Efficiency in Buildings and Industry (March 3 – March 31)



 An <u>"Introduction to Renewable Energy Sources and Sustainable Development"</u> (19 May – 10 June)



• Managing energy markets in a complex world, in association with Strategy Technics (1-26 November 2021)



All three seminars were conducted online and streamed via Zoom. More than 100 people in all attended these three seminars.

F. Participation of IENE in Conferences and Events organized by third parties

In the period during January 2021 - December 2021 and upon the invitation of various organizers, IENE actively participated in several international and regional meetings, conferences and events organized by third parties:

- Costis Stambolis, Chairman & Executive Director of IENE participated in the following events:
 - Prospects for Developing Green Hydrogen, a public debate organized by the Institute for Alternative Policies ENA, on January 18, Costis Stambolis acted as moderator of the second Session of the debate on "Prospects for the development and applications of high socio-economic value of hydrogen in Greece, Cyprus and internationally".



 Greece's Energy Security in the Modern Geopolitical Environment, Webinar, organized by the Center for International Strategic Analysis-KEDISA, April 19. Costis Stambolis participated as speaker in the 2nd panel and focused on the topic of "Key Policy Directions for Greece's Energy Security".



 Investing in the Green Energy Transition: Energy Storage - New Technologies – Energy Savings, a conference organized by the A-Energy Investments Initiative -July 20 and 21 at the Athens Divani Caravel Hotel. Costis Stambolis presented a paper on "Prospects and Challenges for the further Penetration of RES in the Greek Energy Market".



• All Things Energy Forum 2021, an online conference organized by Boussias Communications and Natural Resources PC, June 2-4. Costis Stambolis acted as moderator during the 1st day.



• Greece: Investment Strategies in the New Investment and Energy Environment, organized be the Center for Research and Progressive Policies (KEPP) - October 21, with physical presence at the Divani Caravel Hotel, Costis Stambolis delivered an address on Energy Policy Directions in Europe and Greece.



• Sustainable Finance: Paving the Way to a Green Future, Event with physical presence organized by the Hellenic Treasurers Association HAT, on December 10, at Ekali, Athens. Costis Stambolis participated with a presentation on the important investment challenges faced by the "energy transition".



- Costas Theofylaktos, Secretary General and Chairman of the Energy Efficiency Committee of IENE, participated in the following event:
 - High level <u>Greek-Bulgarian Energy Meeting</u>, organized by the Energy Management Institute (EMI), in collaboration with IENE, Sofia, Thursday, October 14, 2021 (via live streaming)



- * Irini Terzidou, Resident Research Fellow at IENE, participated in the following events:
 - Sustainable Finance and Green Bonds as a Financing Tool in Promoting Clean Fuels, section "Sustainable Finance: Paving the way to a Green Finance", an event organized by the Hellenic Treasurers Association HAT, December 10, Life Gallery Hotel, Ekali, Athens.



 Energy Transition and Green Skills, Craft and SMEs VET NET International Online Conference, SMEs Vocational Education Training Providers (VET) "Continuing VET: The Key Factor for SMEs Sustainable Growth – New Challenges & Strategies", September 16- 17, 2021, Thessaloniki



Z. Participation of IENE in Public Consultations

During 2021, IENE participated in a series of Public Consultations as follows:

• HWEA Public Consultation on the New Institutional Framework for Offshore Wind Energy in Greece, February 1, 2021

IENE participated in the public consultation organized by the Hellenic Wind Energy Association HWEA (ELETAEN) on the New Institutional Framework for Offshore Wind Energy in Greece. IENE is positively inclined towards the creation of offshore wind farms in the Greek seas.

According to IENE, the proposed legal framework follows the usual practice with amendments and additions to older RES laws and decisions, pointing out that such an approach increases bureaucracy in a difficult and complex application area, with no previous experience in the country.

The experiences from the proposed demonstration/pilot projects will contribute to the better understanding of suitable locations for the Offshore Wind Parks together with the formation of the new institutional framework for all applications.

Hasty actions should not be taken before the solutions mature in the domestic environment for the Greek seas, which will also lead to affordable costs with benefits to society and the national economy.

At the same time, the Ministry of Energy must exhaust the possibilities of exploiting the wind potential on land with the proper siting of wind farms, freeing investors from bureaucratic obstacles, so that the wind potential can be exploited without delays and with mutual benefits for investors, the economy, society and the environment, contributing to the energy transition.

• RAE Public Consultation Regarding the Framework Governing the Operation of the Natural Gas Trading Platform by the Hellenic Energy Exchange, September 10, 2021

IENE took part in the Public Consultation organized by the Regulatory (RAE) regarding the framework that will govern the operation of the Natural Gas Trading Platform by the Hellenic Energy Exchange.

IENE welcomes the initiative of RAE to put in an electronic public consultation the framework that will govern the operation of the Natural Gas Trading Platform by the Hellenic Energy Exchange. IENE has experience and knowledge on the way that natural gas trading hubs operate in the wider region of SE Europe, having conducted two relevant studies (available here and here) in recent years.

It should be noted that the emergence of the Hellenic Trading Point (HTP), which DESFA already operates, is regarded as a milestone for the creation of the balancing point, which DESFA inaugurated on July 1 of 2018, as part of its plan to create a gas trading platform, based on the obligations deriving from the European Directives and following the European regulations to the letter.

• DESFA Public Consultation on the 2022-2031 DESFA Development Program Plan, November 8, 2021

IENE welcomed the initiative of the Gas Transmission Operator (DESFA) to put the Draft DESFA Development Program 2022-2031 in public consultation. The annual update of the DESFA 10-year Development Program demonstrates the importance of the current and future use of natural gas, as a bridge fuel, for power generation, in the domestic sector and for various industrial uses.

The planned natural gas infrastructure projects in the domestic market are of vital importance and their immediate implementation is expected to facilitate the use of the fuel in question, in a country that is attracting increased interest as a hub for importing and transporting natural gas through existing and planned natural gas pipelines and/or LNG terminals. At the same time, Greece seeks to emerge as an important regional natural gas trading hub in the coming years, being in an advantageous position compared to the neighboring countries in SE Europe, according to the results of the 8th assessment of the European Federation of Electricity Traders of Energy Traders (EFET).

H. New IENE Members

Well-known companies active in the wider energy sector of SE Europe joined the Institute as new corporate members during 2021. A total of three new companies, including the Energy Regulatory Authority, joined IENE in 2021. The new corporate members of IENE are the following:

- Eunice Trading SA, (<u>www.eunice-group.gr</u>) is a well known company in energy trading
- > The Law firm Papapolitis & Papapolitis (<u>www.papapolitis.com</u>)

The Regulatory Authority for Energy (<u>www.rae.gr</u>)

At the end of 2021, IENE had 87 corporate members with 752 accredited executives/officers and more than 498 individual members from all the countries of SE Europe (i.e. a total of 1,227 people).

The inclusion of the above companies in IENE not only contributed to the strengthening of the Institute's member base but also improved the prospects of expanding its programs. At the same time, the addition of new members is a tacit recognition of the high level of IENE's work and the services it provides (to its members and to the energy community as a whole). The inclusion of new members, especially companies and independent authorities, is a positive sign and helps straighten IENE as an organization.

In 2021, 38 new individual members registered at IENE. In December 2021, the total number of energy professionals from Greece and abroad who were registered as members at IENE were 498 people.

If we include the companies and their executives who are accredited as members of IENE, the total number of members who are recipients of the Institute's information exceeds 1200.

The full list of corporate members of IENE is available on the website <u>www.iene.eu</u>.

I. Annual Accounts 2021

The total revenue for 2021 (excluding VAT) reached $\leq 324,784.93$, some 5.2% lower compared to the previous year, when it was $\leq 342,512.68$. This small decrease is justified given the negative economic climate that prevailed in the business world for most of the year due to the persisting pandemic, and the relevant restrictions and social distancing measures that accompanied it. We should note that 2020 and also 2021, were years of sluggish business activity in the field of services due to the Covid-19 pandemic, and IENE's income from all kinds of activity was reduced compared to 2019, which was the last normal year in terms of economic activity. So, from a total revenue of $\leq 357,336$ in 2019, this fell to $\leq 342,512$ in 2021 and further reduced in 2021 to $\leq 324,784$. That is a total drop of $\leq 32,552$ in the two years 2020/2021. With most of the reduced revenue corresponding to event sponsorship as no major events were held during this time.

The complete cancellation of in person events and their replacement by online ones, webinars, etc. resulted in a dramatic decrease in income from sponsorship and registrations to conferences, workshops, etc. However, we should note that part of the

lost income was made up by the organization of online educational seminars as well as by the expansion of the Institute's research projects.

At the same time, the Institute's operating costs for 2021 remained at reasonable levels, at \leq 306,036.52 (plus VAT \leq 32,256.74) compared to \leq 292,830 (incl. VAT) in 2020. Earnings before interest, taxes and depreciation (EBITDA) reached to \leq 18,748.41 and profits after taxes at \leq 14,623.76. The income statement for 2021 is included in the balance sheet which follows. This was prepared by the appointed accountant of the Institute, Mr. Dimitris Kosmas. The tax paid for 2021 was \leq 4,124.65, as this was determined following the submission of the income statement.

Tables 1 and 2 summarize the income and expenses of the Institute for the years 2019-2021, so that a comparison between the different years and categories can be made.

	2021	2020	2019
Membership Fees	108.164,93 (33,3%)	108.170,00 (31,6%)	98.266,36 (27%)
Conferences and Webinars (sponsorship & registrations)	90.000,00 (27,7%)	22.500,00 (6,6%)	117.470,00 (33%)
Research/Studies	109.820,00 (33,8%)	177.780,00 (51,9%)	91.500,00 (26%)
Educational Courses (sponsorship & registrations)	16.800,00 (5,2%)	34.062,68 (9.9%)	50.100,00 (14%)
Sub Total	324.784,93	342.512,68	357.336,36
VAT	77.932,80	81.219,71	85.706,40
Total	402.717,73	423.732,39	443.042,76

Table 1 – IENE Income (2019-2021)

Table 2 – IENE Expenditure (2019-2021)

	2021	2020	2019
Office Rent, utilities ao.	27.395,96	24.774,00	13.802,30
Institute operating expenses ¹	56.032,18	45.452,00 ¹	24.615,48
Salaries, insurance, tax contributions etc.	52.534,06	76.903,00	78.201,81
Consulting Fees to Associates	105.785,01	116.000,00	59.940,86
Organizational expenses for events and educational courses	64.289,31	29.945,00	179.839,39
Sub Total	306.036,52	268.300,00	356.399,84
VAT	32.256,74	24.530,00	34.282,99
Total	338.293,26	292.830,00	390.682,83

¹includes printing costs, IT maintenance, purchase of new electronic equipment, PR outsourcing, subscriptions, etc..



Figure 1. Revenue Analysis 2021

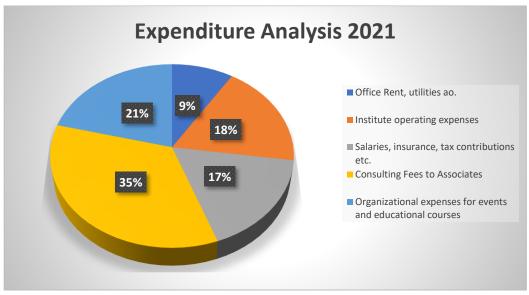


Figure 2. Expenditure Analysis 2021

2021 Balance Sheet

The balance sheet for 2021 offers the opportunity for some useful observations concerning the financial situation of IENE during the past year.

(a) Total revenue in 2021 amounted to €324,784.93, down 5.2% compared to 2020.

(b) This marginal decrease in revenues is justified by the relevant drop in income from conferences and other events that were cancelled due to the restrictions brought about by the pandemic.

(c) However, we cannot refrain from making reference to the rising competition by energy focused entities (i.e. associations, study and research centers) mainly in Greece, but also by non energy actors active in the organisation of energy related events (i.e. conferences and event organisation). This is another reason why the Institute has not been able to increase (as it should) its revenues during the past year. These entities thanks to their broad public relations network are managing to absorb considerable amounts of funding in the form of sponsorship for well publicised and highly promotional type events. The proliferation of "instagram type" activities by the above entities is certainly draining resources from the market as considerable amounts are being directed away from IENE.

(d) Last year the revenue from membership subscriptions was at exactly the same level as in 2020. In spite the fact that we had new membership registrations, there were also non-renewals so that the final result was neutral. Income from membership fees in 2021 corresponded to 33.8% of the total income of IENE, compared to 31.6% in 2020 – which is very supportive of the way an independent Institute operates, where a significant part of its income is expected to derive from subscriptions of its members, individuals and companies. This development is considered particularly positive, demonstrating that IENE continued to gain recognition and acceptance even during a difficult year such as 2021.

(e) There was also significant income last year from fees and sponsorship related to research and studies, prepared by the IENE and financially supported by some corporate members but also for studies assigned directly to the Institute by independent authorities (RAE and IPTO). The total revenue from studies in 2021 amounted to €109,820 which corresponds to 33.8% of the total revenue of IENE, but less €67,690 compared to 2020, where it corresponded to 51.9% of the total revenue.

(f) IENE's revenues from event sponsorships (conferences, seminars, workshops) increased significantly in 2021 and reached €90,000, which corresponds to 27.7% of total revenues. Compared to 2020, revenues from conferences, webinars and events appear to have increased by 400%. This big difference is due the return to almost normal operation of the Institute in the second half of the year and the organization (in a hybrid format) of the Institute's annual conference, the 25th National Energy Conference, "Energy & Development 2021"(December 2021).

(g) The Institute's income from educational seminars was noticeably reduced in 2021 compared to the previous two years and reached only €16,800, which corresponds to 5.2% of the total income. The main reason for the reduced income is the low attendance at the two seminars organized by IENE in 2021, i.e. (a) Managing Energy Markets in a Complex World and (b) Introduction to RES and their Role in Sustainable Development. Apparently, there was an oversupply of seminars organized by several entities in Greece and Europe, during the period of incarceration and this partially justifies the abstinence.

(h) The 2021 expenses of IENE were higher compared to 2020 by 15.5%. The increase in expenses came mainly from the higher amounts that needed to be spent in organizing events and webinars and on the operational costs of the Institute.

IENE Revenue Analysis for 2003-2021

IENE has already completed 19 financial years of operation. The variation in revenue during this period makes interesting reading. In the last three years (2019-2021) the income seems to have stabilized at an average of \leq 340,000 per year, demonstrating the financial recovery of the country after the biggest recession that Greece has lived between 2012-2018, as shown in Figure 3. As economic conditions in the country tend to improve, despite the current energy crisis, the outlook in terms of increased revenue for the Institute appears positive and on the strength of current financial data, next year should see higher income.

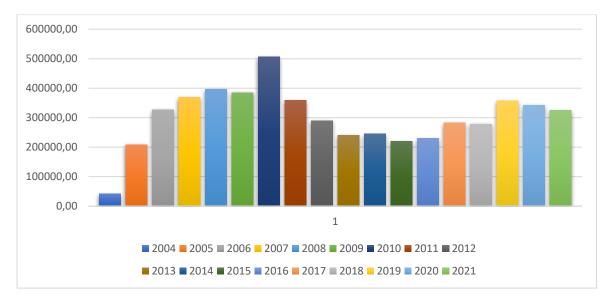


Figure 3. Revenue Analysis 2003-2020

Balance sheet IENE, 2021.	(01/01/2021-31/12/2021)

	2021			2020				2021	2020
	Acquisition Value	Depreciation	Net Book Value	Acquisition Value	Depreciation	Net Book Value			
Non-Current Assets							Net Position		
Property, plant and equipment							Paid-up capital		
Property							Capital	20.000,00	20.000
Machinery							Premium		
Other equipment							Owner Deposits		
Investment properties							Own titles		
Biological assets							Paid-up capital	20.000,00	20.000
Other tangible assets	36.079,44	9.516,61	26.562,83	36.079,44	9.516,61	26.562,83	Fair value defferences		
Property, plant and equipment	36.079,44	9.516,61	26.562,83	36.079,44	9.516,61	26.562,83	Changes in value of Property, plant and equipment		
Intanoible assets							Changes in value of available-for-sale assets		
Development costs							Changes in value of cash flow hedges		
Goodwill							Fair value defferences	0,00	c
Other Intangible assets								0,00	
Intangible assets	0.00	0.00	0.00	0.00	0.00	0.00	Reserves and Retained earnings		
	0,00	0,00	0,00	0,00	0,00	0,00	Reserves Laws or Statute		49.682
Advances and Non-current assets under construction							Untaxed Reserves		
Financial assets							Retained earnings	39.579,69	24.95
Loans and receivables							Reserves and Retained earnings	39.579,69	74.638
Held-to-maturity investments							Exchange differences		
Interests in subsidiaries, associates and joint ventures							Net Position	59.579,69	94.638
Available for sale							Provisions		
Financial assets for hedging							Provisions for employee benefits		
Financial assets	0,00	0,00	0,00	0,00	0,00	0,00	Other Provisions		
Deferred taxes								0.00	0
Non-Current Assets	36.079,44	9.516,61	26.562,83	36.079,44	9.516,61	26.562,83	Provisions	0,00	U
Current Assets							Liabilities		
Inventories							Long-term liabilities		
Finished and Semi-finished goods							Loans		
Merchandise							Other long-term liabilities		
Raw materials and Production supplies							Government grants		
Biological assets (inventory)							Deferred taxes (liability)		
Advances for Inventories							Long-term liabilities	0,00	0
Other Stocks							Short-term liabilities		
Inventories	0,00	0,00	0.00	0,00	0,00	0,00	Bank loans		
Financial assets and Advances	0,00	0,00	0,00	0,00	0,00	0,00	Current portion of longterm borrowing		
Trade receivables			48.373,01			70.535,00	Trade liabilities	17.378,78	
Accrued income			-10.373,01			/0.535,00	Income tax		
Other claims							Other taxes and charges	4.124,65	16.310
Trading Book							Social Security Funds	2.088,41	
Prepaid expenses							Other liabilities		4.049
Cash and cash equivalents			8.235,69			17.900,06	Accrued expenses		
Financial assets and Advances	0,00	0.00	56.608.70	0,00	0.00	88.435,06	Deferred income		
							Short-term liabilities	23.591,84	20.359
Current Assets	0,00	0,00	56.608,70	0,00	0,00	88.435,06	Liabilities	23.591,84	20.359
tal	36.079,44	9.516,61	83.171,53	36.079,44	9.516,61	114.997,89	Total	83.171.53	114.997

	2021	2020
Earnings after tax		
Earnings after tax		
Earnings before interest and tax		
Gross earnings		
Turnover (net)	324.784,93	342,512,68
Cost of sales		
Gross earnings	324.784,93	342.512,68
Other normal income		
Administrative Costs	-306.036,52	-292.830,35
Selling Costs		
Other costs and losses		
Impairment of assets (Net)		
Gains and losses on the disposal of non-current assets		
Gains and losses from the fair value measurement		
Holding and investment Income		
Gain if bargain purchase		
Other Income and gains		
Earnings before interest and tax	18.748,41	49.682,33
Credit Interest and similar income		
Debit interest and similar expense		
Earnings before tax	18.748,41	49.682,33
Income tax	-4.124,65	-11.923,76
Earning after tax	14.623,76	37.758,57
otal	14.623,76	37.758,57

Table 2: Income Statement, December 31, 2021

G. Outlook for 2022

With lockdown and several restrictions in place in most European countries in the first half of 2021 and prospects for a strong recovery in the second half of the year proving bleak, the expected course of business activity was not as had been expected, and this obviously affected IENEs income as we observed in the previous chapter. However, the year began with intense activity on the part of IENE, as the program of events and studies expanded considerably. The explanation for this course for its of activities and the heavy workload it entailed lies in the rapid adjustment process that the Institute, and many other companies and organizations internationally, had to undergo in the previous year (2020) in order to continue operating. In this context, and after a fairly quick shift in the direction of its business model and activities, which are more decentralized than ever before, the Institute was able to face the growing challenges of the time of the pandemic but also in the post-Covid era.

This change in focus means that the Institute, by necessity rather than premeditated design, has been forced to reorganize the range of its activities, while developing sharper reflexes and greater flexibility to the opportunities that present themselves. One of the areas that developed in particular was that of education. Thus, IENE in 2021 (by organizing 3 training seminars) capitalized on its adaptation to the new work and operational environment, achieving greater efficiency for the trainees as well as the lecturers. This was achieved by making the most of its collective knowledge, extensive know-how but also taking advantage of a wide range of experts and partners available for teaching and counseling in the various fields related to energy transition.

If anything, the experience of the pandemic contributed to making the IENE more versatile and improving its operational capabilities so that it can function and perform satisfactorily even on a fully decentralized basis.

Promoting extensive digitalization at the operational level is not as difficult a process as it sounds, since the Institute, even before the pandemic, was already using digital means to carry out most of its work. With the coronavirus, the IENE team was forced to go one step further and integrate web conferencing and remote working into its daily routine, while discovering new ways to leverage the new media. Thus, within a few months, in the 2nd half of 2020, the Institute was able to fully digitize its activities, from publications to meetings, webinars and conferences, and even organize comprehensive education and training programs. This process carried on well into 2021 and has helped transform the operational model of our organization.

After evolving its business structure and professional capability as described above, the Institute is now in a much better position to take advantage of emerging opportunities. In this sense, IENE has outlined the scope of its activities for 2022. Below is a list of projects and tasks that the Institute is ready to undertake or is already promoting.

- In the field of research and studies, the first priority is the publication of the "SEE Energy Outlook 2021/2022" report, which was successfully completed on 31.12.2021. Delays in the completion of some very demanding chapters and the peer review process contributed to the project's three-month delay. The release of the Outlook in the end of February 2022 is already planned with the organization of roadshows in the countries of SE Europe from March to June 2022.
- Also, in the field of research, an important study on "Energy and Employment" was launched in September 2021. The Institute undertook a similar study back in 2012/2013, and its purpose is to establish the number of workers employed in the energy sector, with 2020 as the base year, and the distribution of employment per type of activity and energy branch. Data from all countries in the region will be included, with Greece used as the reference country for the analysis. This study will be carried out on a multiclient basis and is planned to be completed by November 2022.
- The role of Carbon Capture Utilization and Storage (CCUS) in reducing emissions in Greece and SE Europe is the subject of yet another important study that IENE is going to undertake on behalf of a group of clients (another multi-client study). This study is of particular interest to most countries in SE Europe which rely heavily on coal/lignite for power generation but also to industry. After extensive preliminary research and consultation with experts in this field, the project is set to begin in Q2 2022 with the participation and financial support of major industrial companies. The study will develop with a time horizon of ten months with completion foreseen in March/April 2023.
- "The Role of Oil and Gas in the Economy of SE Europe", is the provisional title of another study that the Institute intends to launch in early 2022. The study will seek to demonstrate the pivotal role of oil and gas imports and exports in the economic activity of the region and their impact on the economy of SE Europe.
- Publication of papers and monographs by IENE researchers and associates in recognized international journals and conference proceedings is another important priority for the Institute. Despite the fact that several pioneering studies have been carried out by IENE over the last five years or so only a very small number of papers and reports, authored by IENE researchers, has appeared in journals and specialised publications outside the Institute's own series of Working Papers, Analyses and Studies. Hence, there is a need to reach out to the scientific community at large through publication in well known journals and bulletins which report work in the energy field. Already a number of such papers is being prepared by the authors involved, drawing material from a number of completed studies, to be progressively submitted to various journals from September until the end of November 2022 with the prospect of publication in the first half of 2023.

- Consolidation of its special "Consulting Services" to be provided by IENE experts to companies and organizations, is another important axis of activity for the Institute during the next two years. With cutting-edge certification services for the issuance of Green Bonds, the Institute will seek to enter this apparently lucrative services market. We should mention that from February 2021 IENE is officially accredited as a verifier organization for the certification of Green Bonds by the UK based "Climate Bond Initiative".
- The further development of specialized training programs in the energy sector is also an important activity promoted by the Institute. Judging by the positive response so far to the programs organized by IENE in the years 2019-2021, education could indeed develop as a core activity of the Institute with multiple benefits for all involved. On the part of IENE, organizing high-level programs on a regular basis will ensure additional income and, more importantly, contribute to making the Institute better known to a wider energy conscious audience. This will inevitably attract fresh members and open new avenues of work.
- The inclusion of more persons and companies as members of the Institute is a
 permanent goal and requires team effort. But if it is organized on a proper basis,
 e.g. with the appointment of a membership secretary, this effort could be carried
 out more systematically and yield results much faster. The annual subscriptions of
 the members now correspond to approximately 30% of the budget of the Institute,
 and therefore this is regarded as an important activity which must be supported in
 several ways.
- In the following months within 2022, especially in the second half of the year, greater emphasis will be placed in improving the Institute's image so as to make it more recognizable. Efforts in this field are already underway, and a start has been made with the regular preparation and distribution of IENE press releases concerning its various activities, by publishing the "IENEs News" newsletter and by engaging the specialist company Pitch SA. Organizing press conferences is also part of this strategic effort, as is presenting studies and special projects or reports live or via webinars. In this respect, IENE regularly appears as a partner or media sponsor of events organized by third parties which cover energy and related activities.

K. The Challenges Ahead

In the second half of 2023, IENE will celebrate 20 years of continuous operation. After a particularly difficult period due to the coronavirus pandemic, which we hope will soon be a thing of the past, a clear vision for the future is necessary at this time.

Given its regional reach, which has now been consolidated through the recent expansion of its partner group (see partners), the increase in the number of its members, the high

quality of its studies (e.g. the SEE Europe Outlook 2021/2022) and its diverse interests and activities across the entire spectrum of the energy sector, the Institute justifiably wishes to further improve its position and strengthen its role by becoming a point of reference for developments in the field of energy in Greece and SE Europe. However, realizing these prospects requires a serious effort in order to significantly improve its capabilities in the field of research and in managing the huge flow of information it has to deal every day, both incoming and outgoing. At the same time, an upgrade of its office space is urgently required through the move to new offices, so that they can cover the expected increase in staff, the reorganization and expansion of its library (which could become available and accessible to external researchers and academics), in addition to the provision of meeting rooms and workspaces for visiting partners and trainees.

In addition, the move to new offices will help boost staff morale and send a strong message of renewal to members and partner companies and organisations. According to the plan drawn up by the Steering Committee, the new office premises, after a thorough energy audit, could be fully renovated to become energy efficient and demonstrate the basic principles of energy efficiency. Operating on an energy-efficient model this would further enhance the image of IENE as an organization that cares about the environment and puts into practice its energy-saving ideas. In addition, the establishment of new offices and the associated publicity will attract interest from new professionals and entrepreneurs in the field of energy, who may wish to become members of IENE.

Both the move to new offices and the strengthening of the Institute's research capabilities and its desire to play a more active role in energy developments in SE Europe, will require adequate funding, and this is the second most important challenge that the Institute will be facing in the coming years. It is clear that with a budget of €400,000-€500,000, which is the current situation, the Institute cannot go very far. But even these funds are sometimes difficult to secure, as the Institute depends on the renewal of annual subscriptions from companies and individuals and sponsorship income from companies participating as partners in multi-client type studies. Income from events and webinars is completely dependent on sponsorship, which is unpredictable and sporadic, and it will take two more years for the organization of educational courses to become a significant source of income, at the same level as annual membership fees and research work.

Fundraising

In order to bridge the funding gap - while avoiding dependence on the whims and fancies of any government or major corporations in the region - there is only one way forward. The establishment by the Institute of a separate fundraising division to lead a well coordinated effort to attract funds from international sources and donors. A brief search identified over 300 foundations and organizations internationally that fund institutes like IENE and to which IENE could turn for support. In other words, what is needed is a permanent "fund-raising" mechanism through which the Institute will approach in a coordinated manner many of these potential sources of funding. In this context, IENE could identify various funding sources that will be linked to one or more of its current programs. Approaching the EU with the aim of joining one of its "programmes" is another opportunity, but it is more complicated, time-consuming and highly uncertain. In most cases it means that the Institute will have to devote valuable time and resources in preparing proposals, securing partners from different countries and submitting thorough proposals, while facing stiff competition. In the past (2008-2012) the Institute successfully participated in a European Intelligent Energy Europe Program for geothermal energy (titled Geofar) and later worked as a subcontractor of BPIE (Building Performance Institute, based in Brussels) for energy efficiency. But when in 2017 the Institute responded to a tender of the European Commission for a regional program, estimated at €1.2 million, to address the energy deficit in the Adriatic region, it formed a consortium for this purpose and as head (leader) of the group and submitted a fully documented proposal, the European Commission took over 20 months to evaluate it, and then, to our great dismay, canceled the entire program without offering the slightest explanation. And the European Commission did not even respond to IENE's requests for information and finally the Institute was forced to turn to the European Ombudsman to find out what happened to its submitted bid!

In view of the above, the Institute has decided to participate in EU projects only as a partner and not as a leader in consortia and only if invited to participate by a much larger consortium that has undertaken the preparation and submission of the proposal, and when the probability of success is judged to be more than 50%. Alternatively, the Institute may decide to participate in EU-funded projects if it is directly invited by the European Commission to submit a proposal or to participate in one of its working groups, or to act as a subcontractor to a company or organization that has been awarded a project by the European Commission.

Organizing regular fundraising events and crowd funding campaigns are two other alternative ways the Institute could pursue to raise funds once a fund raising officer has been appointed.

In whatever way the Institute decides to move, there will always be a permanent need for funding and this is one of the main challenges that IENE has to face in the coming years. Without regular funding it will be very difficult, if not impossible, for the Institute to fulfill its wider role as a leading provider of objective and fact-based information and analysis while being able to express its views in a forthright and always thorough manner, serving the needs of society and the energy sector in particular.

Facing competition

Finally, as far as challenges are concerned the Institute, without this becoming a top priority, should not disregard competition arising from other local or regional organisations involved in one way or another in energy related work.

Although there is merit in the approach that IENE should not concern itself with competition since it's structure and outlook is unique and therefore no other similar entity exists which could pose a real danger, one is obliged to look around and notice where

money and funding in general is going to in supporting similar activities in energy related activities similar to the ones that the Institute is engaged in. This is necessary in order to find out what, if any, other organisations and companies are doing better which helps them attract financial support and sponsorship.

Although it is useful to monitor what other organisations are doing and how they move around the market to attract funding, this by no means should become a fixation. As already discussed extensively in the Executive Committee over the past year the best way to fend off competition is to always try to improve the services offered by the Institute to its members and the community at large. This means improving the quality of its newsletters, the ability to respond quickly to market changes and provide timely and accurate information, organising timely events with first class content and of course communicating appropriately its activities to media but also directly to key players in the energy field.

In short, and according to current thinking within the Institute, the best way to face rising competition from different quarters will be to focus our efforts and attention in excelling in whatever activity we are involved in together with a more savvy approach when it comes to planning activities and work in general. Being able to sense around what is happening in the market place and what are the real needs of companies and governments, so as to be able to respond accordingly, is equally important in the Institute's effort to keep ahead of competition and not trail behind developments.

Annex I: IENE Partners – Board of Governors*

On December 31, 2021, the Partners of IENE included the following:

Prof. Vesna Borozan, Professor, Faculty of Electrical Engineering & Information Technologies, St. Cyrillus and Methodius University, North Macedonia

Mr. Emilios Boussios, Electrical- Mechanical Engineer, Greece

Prof. Pantelis Capros, ex chairman of the Regulatory Energy Authority (RAE), Professor of Energy Economics, National Technical University of Athens (NTUA) and Scientific Coordinator, E3Modelling, Greece

Mr. John Chadjivasiliades, Mechanical-Electrical Engineer, Independent Energy Consultant, Athens (IENE's past Chairman), Greece

Dr. Gina Cohen, Lectrurer and Consultant on Natural Gas Industry, Israel

Mr. Yiannis Courouclis, President and CEO, Elin Verd, Greece

Dr. John Desypris, Chemical Engineer, Special Adviser Regulatory Affairs, Mytilineos SA (IENE's Chairman 2009 - 2013), Greece

Dr. Stavri Dhima, Independent Energy Consultant, Albania

Mr. Christodoulos Dimas, Civil Engineer, former President of the Greek-Russian Chamber, Greece

Mr. Vladimir Djurovic, Independent Energy Consultant, Croatia

Ms. Tereza Fokianou, Geologist, President & CEO, Flow Energy S.A., Greece

Dr. Nickolas Frydas, Mechanical-Electrical Engineer, Principal, Head of Electricity, Grant Thornton, Greece

Dr. Eugenia Giannini, Lawyer, E. Giannini & Associates Law Firm, Greece

Mr. John Grigoriou, former CEO, HELPE Upstream, Greece

Ms. Eugenia Gusilov, Managing Director, Romania Energy Center (ROEC), Romania

Mr. Iosif Iosif, CEO, Financial Media Way and Chairman, Cyprus Energy Agency, Cyprus

Mr. Fadil Ismajli, CEO, New Kosovo Electricity Company (NKEC), Kosovo

* According to the Articles of Association of IENE (see <u>www.IENE.eu</u>) the partners of the Institute are the shareholders of the civil and non profit company which is IENE. These partners form the General Assembly of the Institute which is ultimately in charge of all major decisions concerning the management and further development of the Institute. In this context and in line with international practice the role of partners is that played by governors in similar type organisations. Hence, for convenience shake from now on IENE partners are also to be known as Governors of the Institute. Engineer, Professor at the Department of Electrical of Engineers, Athens Technical University, SVP Mitsubishi Power Europe, Greece

Dr. Konstantinos Karayannakos, Executive Director Commercial Division, DEPA, Greece

Mr. Elias Karydogiannis, Electrical Engineer, Managing Director, ENSCO, Greece

Mr. Petros Kassapis, Transportation Engineer, Greece

Dr. Vassilios Kougionas, Scientific Officer, DG Research, European Commission, Belgium

Mr. Thomas Lamnides, Lawyer and Partner of Lamnidis Law, Athens, Greece

Mr. Mihailo Mihailovic, Independent Energy Consultant, Serbia

Mr. Aleksandar Mijuskovic, Advisor to the Director, Coordinated Executive Auction Office in South East Europe (SEECAO), Montenegro

Mr. Slavtcho Neykov, Chairman of the BoD, Energy Management Institute, Bulgaria

Dr. Constantinos Nicolaou, Petroleum Geologist, Managing Director, Kanergy Ltd. and Deputy Chairman, Energean Greece

Mr. Spyros Paleoyiannis, Chemist, Deputy Chairman, CEO, Public Deputy Gas Corporation (DEPA), Managing Partner, Medgas & More Services LTD, Cyprus

Mr. Alexandros Papadopoulos, Mechanical-Electrical Engineer, Independent Energy Consultant, Greece

Dr. Dimitris Papakonstantinou, Mechanical-Electrical Engineer, former Director for Strategy & Planning, HEDNO, Greece

Prof. Emmanouil Kakaras, Mechanical - Mr. Gus Papamichalopoulos, Lawyer and Senior Partner, Head of Energy Infrastructure and Chairman of the Management Committee, Kyriakidis-Georgopoulos Law Firm, Greece

> Dr. Marios Patsoules, Petroleum Geologist, Reservoir Engineer, Independent Energy Consultant, Greece

> Mr. Andreas Petropouleas, Energy Management Director, Elpedison, Greece

> Politopoulou, Ms. Sophia Director of Regulatory Affairs, HEDNO, Greece

> Mr. Mirsad Sabanovic, Independent Energy Consultant, Bosnia – Herzegovina

> Mr. Nikos Sofianos, Independent Energy Advisor, Greece

> Mr. Costis Stambolis, Architect and Energy Consultant, Managing Editor www.energia.gr, Greece

> Mr. Constantinos Theofylaktos, Mechanical -Engineer, former Chairman, Centre of Renewable Energy Sources (CRES), Partner, EssenCon, Greece

> Mr. Anastasios Tosios, Deputy CEO & Executive Member of the Board of Directors at EYDAP SA, Greece

> Mr. Alexandros Vrachnos, Chemical Engineer, Independent Energy Consultant Greece

> Mr. Dionissios Xenos, Chemical Engineer, Energy and Environmental Consultant, ex. Hellenic Managing Director, Aerospace Industries, Greece

> Mr. Gokhan Yardim, Partner and Manager, ADG Anadolu Naturalgas Consultancy and Trade Ltd., Turkey

Annex II: The IENE Team

The following was the resident IENE Team during 2021:

Executive Director



The current Executive Director of IENE is *Mr. Costis Stambolis* who at the same time is the Institute's Chairman for the period June 2019 – June 2021. He has a background in Physics and Architecture having studied at the University of London, at the Northeast London Polytechnic (NELP) and at the Architectural Association in London from where he holds a Graduate Diploma in Architecture and Energy Studies (AA Dip. Grad). He

also holds a professional practice license from the Technical Chamber of Greece (TEE), and Graduate Diploma (Master's Degree) from the Said Business School, University of Oxford, where he studied "Strategy and Innovation".

Costis has been the Institute's General Manager and subsequently its Executive Director since the Institute's founding in 2003. Costis has a long track record in energy studies and analyses having participated as invited speaker in numerous conferences while he has published widely on RES, natural gas and energy markets. He is the author of a number of books on energy issues. Since 2018, he is a member of the Greek government's Standing Committee on "Energy & Climate" (NECP).

Research Fellows



Dimitrios Mezartasoglou commenced his cooperation with IENE in 2015 as an inhouse researcher and he is currently Head of Research. He has studied Economics and he holds two Master's degrees from the University of Strathclyde on Global Energy Management and from the University of Exeter on Money and Banking.

Whilst at IENE, Dimitrios has contributed to a number of research projects, and major studies including "SE Europe Energy Outlook 2016/2017", the Greek Energy Sector Annual Reports (2019, 2020), "Prospects for the Establishment of Gas Trading Hubs in SE Europe", while he is Assistant Editor of "Market Fundamentals and Prices", "Monthly Analysis" and several other IENE's newsletters. In addition, since 2016, he is a contributing editor of energia.gr where he regularly contributes articles and analyses on energy market, the economy and banking.



Alexandros Perellis * is a Senior Researcher at IENE. He is an Industrial Engineer, graduate of Democritus University of Thrace's School of Engineering (DUTH). In addition, he holds an MSc degree in Sustainable Energy Engineering from Technical University of Denmark (DTU). He has experience in the elaboration of projects related to solar energy systems, modeling and analysis of sustainable energy systems, energy efficiency,

feasibility studies and system assessment of energy technologies.

He joined IENE's research team in November 2017. He is responsible for the publication of "Electric Mobility Update" (Bimonthly Newsletter of IENE) and "SEE Electricity Market Analysis" (Weekly and Monthly Newsletter of IENE) and participates in the elaboration of the Institute's research projects and analyses, with main focus on RES and sustainability. He is the main author of several IENE studies.

* He voluntarily resigned from IENE on May 30,2021.



Costas Theofylaktos is a USA trained Mechanical Engineer, with a BSc and an MSc from the University of Evansville, Indiana, with 33-yrs experience in the energy sector and in the study, design and supervision of energy efficient systems for any type of buildings and for industry.

Costas's special interests include Energy Policy, Energy Efficiency, RES and Cogeneration of Heat and Power. He is currently the President of Greece's Association for Cogeneration, HACHP.

He served as Chairman and CEO of the Centre of Renewable Energy Sources (CRES) and he has an extensive experience in EU- and EBRD-funded energy projects in SE Europe, Asia and Russia.

Mr. Theofylaktos is a partner, Member of the Board of Directors, and Chairman of the Energy Committee of IENE. He actively participates in the research and study work of the Institute as a Research fellow.



Terzidou Eirini joined IENE in 2021. She is a graduate from the department of Chemical Engineering of Aristotle University of Thessaloniki and holds an MSc degree in Environmental Technology from University of Manchester Institute of Science and Technology (UMIST) and a Master of Business Administration (MBA) from the European University of Cyprus.

Eirini has strong background related to the environment and energy sector. In 2013, she was hired by the Centre for Renewable Energy Sources (CRES) to be involved in the licensing process of renewable energy sources (RES) projects (issuing

production/installation/operation license) for the Department of Renewable energy sources in the Ministry of Environment, Energy and Climate Change. She was also responsible for providing information to investors on the institutional, legislative, fiscal and financing framework necessary for the licensing procedures for investments in RES. In addition, she has worked in the area of management systems, especially in designing and implementing quality and environmental management systems.

and implementing quality and environmental management systems (ISO 9001/ISO 14001) in different kind of companies.

Eirini has also conducted sector studies in the field of renewable energy sources, waste management and recycling.

Research Associates



From 2007 until the end of 2017 *Nicholas Sofianos* held various positions at IENE completing his tenue as the Institute's Coordinator of Research and Deputy Executive Director. At IENE he carried out research on Renewable Energy Sources (RES) and their application in SE Europe. He was IENE's coordinator in the EU funded GEOFAR project, part of the Energy Intelligence programme. He also has a strong interest on energy

policy issues and he is the Assistant Editor of Energy Matters" (Monthly newsletter of IENE) and of the "South East Europe Energy Brief" (a series of monthly IENE newsletters). He is the author of many articles on energy and he has participated as a speaker in several conferences, seminars and workshops in Greece and other European countries. He has an Mphil Development Studies degree from the University of Glasgow in Scotland.

Nicholas Sofianos maintains a close working relationship with IENE and currently he is ae Senior Research Associate of IENE and a Member of the Board of Directors.



Anastasios Mastrapas worked for two years (201-2016) at the Institute as resident Research Associate. He is an Electrical Engineer with a MSc in Economics and Finance (AUEB). He was Assistant Editor of "Market Fundamentals and Prices" (Bi-monthly Newsletter of IENE) and participated in the development of Institute's research projects. He has a 6-year working experience in the Renewable Energy Sources (RES)

sector.

He is currently an external Research Associate contributing regularly analysis on energy market issues.



Dimitrios Faros is a graduate (2003) of the Department of International and European Studies of the Panteion University of Social and Political Sciences of Athens, Greece. He has also attended Summer School courses at the London School of Economics and Political Science (LSE) on Modern Political Theories (2001).

Almost ever since October 2008 (2008-2018, 2020-), he has been working as a Research Associate at the Institute of Energy for South East Europe (IENE) (Athens, Greece), co-ordinator of the Institute's website (www.iene.gr) and editor of the energy portal www.energia.gr.

He speaks English (fluently), French (very good level of knowledge) and German (good level of knowledge).

He has written several articles, published in Greek websites, on Greek and European politics, as well as on international relations.



John Psaropoulos is an independent journalist based in Athens. He has covered Greece and southeast Europe since the fall of communism. He has been Al Jazeera's Greece correspondent since 2012. John holds a BA and MA in Ancient Greek from King's College London. He cut his teeth in journalism working as a producer for CNN International in Atlanta. From 1999 to 2009 he was editor-in-chief of the Athens News, Greece's historic, English-language newspaper. He has written for publications including The

Weekly Standard, The American Scholar, The Daily Beast, the Times Literary Supplement and The Washington Post. His personal blog is thenewathenian.com.

Administrative Staff



Adam Adamopoulos is a journalist who works at IENE since May 2018 as Press Officer. He has been responsible for compiling international energy news for "Energy" magazine (Delos Communications), editor of international financial news in Financial Times for SKAI radio, TV show "Teleoikonomia" (ERT) and newspapers "FILEELEFTHEROS" of Cyprus, and DAILY of Athens, as well as editor-in-chief, international correspondent, commentator and TV

broadcaster at "New Channel".

He has written the script for the international TV show of introducing the FTSE indexes, on the Athens Stock Exchange, on behalf of Delos Communications, as well as the script for the history of Energy on behalf of Delos Communications. He has attended the Stavrakos Film School and he speaks English. Along with his collaboration with IENE, he works as an editor at Energia.gr.



Katerina Stergiou is the Marketing Manager of IENE. She has extensive experience in customer management, strategy and design and implementation of marketing plans. She has contributed to the organization of hundreds of conferences, seminars, press conferences and business meals and to the organization of events in Greece and abroad in general. She is also involved in the advertising and promotion of the

Institute by establishing contacts with many companies as a representative of IENE. The design of promotional campaigns and targeted awareness and promotion actions is a key occupation of Katerina Stergiou.



Eleni Myrilla joined IENE's team in September 2020. She has studied at the School of Balkan, Slavic and Oriental Studies at the University of Macedonia in Thessaloniki. Currently she is an MSc student in «Energy: Strategy, Law and Economics» at University of Piraeus. She speaks English and Russian. She works at IENE as an Assistant Project Officer.



Chrissa Farlani is working at IENE since September 2021. She has many years of experience in planning and implementation of seminars, events and subsidized educational programs. She is responsible for subscriptions and event coordination, with the main responsibility of organizing and coordinating conferences and other events in Greece and SE European

countries.

Annex III: IENE Sponsors and Supporters

During 2021 a number of companies and organizations actively supported the Institute through sponsorship of its various activities. The following is a list of Sponsors and Supporters as per area of activity:

The main sponsors of IENEs research projects and studies are the following companies and organizations:



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