



HELLENIC REPUBLIC  
MINISTRY OF DEVELOPMENT  
GENERAL SECRETARIAT FOR RESEARCH AND INNOVATION  
**HELLENIC FOUNDATION FOR RESEARCH & INNOVATION**

**H.F.R.I. 76089**  
**Protocol Number: 08/12/2023**

Address: 185 Syggrou Ave. & 2 Sardeon St., PC 17121, Nea Smyrni, Athens  
Website: [www.elidek.gr](http://www.elidek.gr)  
Email: [grants.rrf@elidek.gr](mailto:grants.rrf@elidek.gr)  
Telephone: 210 6412410, 210 6412420

## **ANNOUNCEMENT OF THE RANKING OF THE PROPOSALS SUGGESTED FOR FUNDING**

**in the Thematic Area**

**(T.A.1) “Physical Sciences, Engineering Sciences and Technology, Environment and Energy”**

**Sub-action 2 “Funding Projects in Leading Edge Sectors”**

**“Basic Research Funding (Horizontal support for all Sciences), National Recovery and Resilience Plan (Greece 2.0)”**

The Action is implemented under the National Recovery and Resilience Plan “Greece 2.0” with funding from the European Union – NextGenerationEU.



**Funded by the  
European Union**  
NextGenerationEU

The evaluation process of the Proposals submitted under the Call “Funding of Basic Research (Horizontal support for all Sciences),” which is being funded by the Recovery and Resilience Facility Agency under the Action “Promotion of Basic and Applied Research” (measure ID 16618; MIS: 5163923) and the Hellenic Foundation for Research and Innovation (H.F.R.I.) as Implementing Entity, has been concluded.

Subsequent to the issuance of Decision No. 76086/08.12.2023 by the Director of the H.F.R.I. (IUN: ΨΕΩ046Μ77Γ-ΧΤ0), below is the **Final Ranking of the Proposals Suggested for Funding in the Thematic Area 1 (T.A.1) “Physical Sciences, Engineering Sciences and Technology, Environment and Energy,”** based on their classification in the Final Ranking Tables and the available budget.

An electronic letter of approval will be sent to the Principal Investigators of the proposals to be funded, inviting them to submit to the [H.F.R.I. Web Portal](#) the required supporting documents for issuing the Funding Award Decision, in accordance with the [Management and Implementation Guide of the Action](#) (Decision No. 69237/03.07.2023 issued by the Director of the Hellenic Foundation for Research and Innovation, IUN: 9B7046Μ77Γ-ΙΤΘ, Corrected Copy).

In case of a Proposal withdrawal or failure to submit all the required documents, the Proposal following the last Proposal to be funded in the Scientific Area will be eligible for funding, according to the corresponding Final Ranking Table of the Thematic Area.

**The Director of the Hellenic Foundation for Research and Innovation**

**Dr. Aikaterini Kouravelou**

**FINAL RANKING OF THE PROPOSALS**

**THA.1 PHYSICAL SCIENCES, ENGINEERING SCIENCES AND TECHNOLOGY, ENVIRONMENT AND ENERGY**

<b>A/A</b>	<b>Proposal Number</b>	<b>Title</b>	<b>PI Name/Surname</b>	<b>Host Institution</b>	<b>Collaborating Organisations Beneficiaries</b>	<b>Approved Budget (€)</b>
<b>1.</b>	15847	Plastic Waste Valorization Towards Marine Fuels	BEZERGIANNI STELLA	CENTRE FOR RESEARCH AND TECHNOLOGY HELLAS	ARISTOTLE UNIVERSITY OF THESSALONIKI  HIGHER MILITARY EDUCATIONAL INSTITUTIONS (ASEI-ASSY)	399.999,00
<b>2.</b>	16909	Efficient Broadband Energy Harvesting for Self-Powered Small Electronic Devices	TSAKMAKIDIS KOSMAS	NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS	-	300.000,00
<b>3.</b>	15515	Thermal stimuli-responsive 3D printed electroactive polymer nanocomposit	TZOUNIS LAZAROS	HELLENIC MEDITERRANEAN UNIVERSITY	FOUNDATION FOR RESEARCH AND TECHNOLOGY-HELLAS (FORTH)  UNIVERSITY OF PATRAS,	399.553,00

		es towards 4D “programmable” geometries			ARISTOTLE UNIVERSITY OF THESSALONIKI	
4.	14728	Printable memristive solar cells for self-powered Internet of Things edge computing	KIMAKIS EMMANOUIL	HELLENIC MEDITERRANEAN UNIVERSITY	-	400.000,00
5.	14791	Aesthetic PHOTO- rechargeable storage cell Fabricated via precision laser manufacturing	STRATAKIS EMMANUEL	FOUNDATION FOR RESEARCH AND TECHNOLOGY- HELLAS (FORTH)	HELLENIC MEDITERRANEAN UNIVERSITY	400.000,00
6.	15949	Green and Sustainable Photochemical Upcycling of Plastic Waste and Biobased Polymers to	KOKOTOS CHRISTOFOROS	NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS	ARISTOTLE UNIVERSITY OF THESSALONIKI	400.000,00

		High-Added Value Chemicals			TECHNICAL UNIVERSITY OF CRETE	
7.	16103	Integrated sustainable process for ionic liquid-based carbon dioxide capture and its subsequent biotransformation into fuels and useful chemicals from extremophiles	KLAPA MARIA	FOUNDATION FOR RESEARCH AND TECHNOLOGY-HELLAS (FORTH)	-	300.000,00
8.	16880	The Smart Energy Edge box enabling Distributed AIs for low-cost energy management applications	KOSMATOPOULOS ELIAS	DEMOCRITUS UNIVERSITY OF THRACE	-	399.985,00

9.	15155	improvements in the simulation of aerosol-climate linkages in earth system models: From global to Regional scales	MYRIOKEFALITAKIS STYLIANOS	NATIONAL OBSERVATORY OF ATHENS	FOUNDATION FOR RESEARCH AND TECHNOLOGY- HELLAS (FORTH)  TECHNICAL UNIVERSITY OF CRETE  UNIVERSITY OF CRETE  ARISTOTLE UNIVERSITY OF THESSALONIKI	399.999,00
10.	17007	Incorporating Conjugated Polymers and Non Fullerene Materials of Long Exciton Lifetimes and Low Synthetic Complexity Into Printable Indoor Organic	CHOCHOS CHRISTOS	NATIONAL HELLENIC RESEARCH FOUNDATION	UNIVERSITY OF IOANNINA	400.000,00

		Photovoltaics From Sustainable Solvents				
<b>11.</b>	16465	Green Perovskites/2 D Conjugates: From Materials Design to High Energy Li-ion Cells	KIOSEOGLOU GEORGIOS	FOUNDATION FOR RESEARCH AND TECHNOLOGY- HELLAS (FORTH)	HELLENIC MEDITERRANEAN UNIVERSITY  DEMOCRITUS UNIVERSITY OF THRACE	399.989,00
<b>12.</b>	15117	Hybrid multifunctional cooling metamaterials for next- generation high- efficiency solar cells	KAFESAKI MARIA	FOUNDATION FOR RESEARCH AND TECHNOLOGY- HELLAS (FORTH)	NATIONAL CENTRE FOR SCIENTIFIC RESEARCH "DEMOKRITOS"	400.000,00
<b>13.</b>	16196	Blending Earth observations and agricultural knowledge	KONTOES CHARALAMPOS	NATIONAL OBSERVATORY OF ATHENS		361.475,00

		through Artificial Intelligence towards a scalable monitoring and assessment scheme for agricultural ecosystems			HELLENIC AGRICULTURAL ORGANIZATION (ELGO)-"DIMITRA"	
<b>14.</b>	16555	Advanced H2 Storage Materials with Enhanced Adsorption properties and Optimal Working Capacities	STERIOTIS THEODORE	NATIONAL CENTRE FOR SCIENTIFIC RESEARCH "DEMOKRITOS"	UNIVERSITY OF CRETE	399.676,00
<b>15.</b>	15024	Chemoenzymatic recycling of mixed plastic waste	TOPAKAS EVANGELOS	NATIONAL TECHNICAL UNIVERSITY OF ATHENS	UNIVERSITY OF PATRAS	400.000,00
<b>16.</b>	15451	Achieving sustainability of livestock	KATI VASILIKI	UNIVERSITY OF IOANNINA		375.965,00

		farming in the high mountains under climate change			AGRICULTURAL UNIVERSITY OF ATHENS  UNIVERSITY OF PATRAS  UNIVERSITY OF THESSALY	
<b>17.</b>	15478	High resolution gridded CLIMAtE change DATAsets for Greece	GIANNAKOPOULOS CHRISTOS	NATIONAL OBSERVATORY OF ATHENS	-	359.801,00
<b>18.</b>	16580	4D-Printed PIEZOelectric FUNctional MetaMaterial s for Enhanced Sensing, Energy Harvesting and Dissipation	SARAVANOS DIMITRIS	UNIVERSITY OF PATRAS	ARISTOTLE UNIVERSITY OF THESSALONIKI	400.000,00

19.	16258	Management of Mediterranean pine forest for optimizing carbon and water balance under climate change	RADOGLOU KALLIOPI	DEMOCRITUS UNIVERSITY OF THRACE	UNIVERSITY OF THE AEGEAN  HELLENIC AGRICULTURAL ORGANIZATION (ELGO)-"DIMITRA"	400.000,00
20.	16540	Auction Based AI-Assisted Multi-Modal Traffic Management for Seamless Mobility	VLAHOIANNI ELENI	NATIONAL TECHNICAL UNIVERSITY OF ATHENS	-	329.900,00
21.	15144	Space derived aerosol-dependent CLOud PropertiEs	GIANNAKAKI ELENI	NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS	-	194.100,00
22.	15522	Valorization of green energy for enhancing the robustness and	LYMPERATOS GERASIMOS	NATIONAL TECHNICAL UNIVERSITY OF ATHENS	-	400.000,00

		upgrading the performance of anaerobic digestion systems				
23.	16568	Data-Driven Design for the Production of Innovative Photovoltaic Cells	BOUDOUVIS ANDREAS	NATIONAL TECHNICAL UNIVERSITY OF ATHENS	NATIONAL CENTRE FOR SCIENTIFIC RESEARCH "DEMOKRITOS"	396.204,00
24.	16761	Environmental digital Twin for smart cities	MELAS DIMITRIOS	ARISTOTLE UNIVERSITY OF THESSALONIKI	CENTRE FOR RESEARCH AND TECHNOLOGY HELLAS  TECHNICAL UNIVERSITY OF CRETE	398.000,00
25.	14943	Fate and impact of bioplastics in the bioprocesses of anaerobic digestion and	KORNAROS MICHAEL	UNIVERSITY OF PATRAS	-	399.400,00

		composting in the context of sustainable waste management				
26.	15231	Plasma Assisted Chemical Solvolysis of Carbon and Glass Fibers Reinforced Polymers	AMANATIDES ELEFThERIOS	UNIVERSITY OF PATRAS	NATIONAL TECHNICAL UNIVERSITY OF ATHENS	400.000,00
27.	16202	Development of an advanced healing control strategy for lithium battery storage system properly adapted for electric vehicles	KOLTSAKIS GRIGORIOS	ARISTOTLE UNIVERSITY OF THESSALONIKI	-	395.300,00

28.	16559	Valorizing industrial by-products to produce high added value chemicals by engineering Yarrowia lipolytica microorganisms	MAKRIS ANTONIOS	CENTRE FOR RESEARCH AND TECHNOLOGY HELLAS	-	290.432,00
29.	15922	Massive production of breathable O2 from CO2 using ultra-short laser pulse technology	TZALLAS PARASKEVAS	FOUNDATION FOR RESEARCH AND TECHNOLOGY-HELLAS (FORTH)	-	398.400,00
30.	16381	Development of an Eco-Efficient AI-based Digital Platform for Fault Diagnosis in Drivetrain Systems	FASSOIS SPILIOS	UNIVERSITY OF PATRAS	ARISTOTLE UNIVERSITY OF THESSALONIKI  NATIONAL TECHNICAL UNIVERSITY OF ATHENS	400.000,00

		Under Varying Environmental and Operating Conditions				
31.	16529	Optimising driver behaviour for safe, green and energy efficient mobility	YANNIS GEORGE	NATIONAL TECHNICAL UNIVERSITY OF ATHENS	-	400.000,00
32.	16743	Next generation green functional surfaces	GOGOLIDES EVANGELOS	NATIONAL CENTRE FOR SCIENTIFIC RESEARCH "DEMOKRITOS"	UNIVERSITY OF THE AEGEAN	400.000,00
33.	14696	Upgrading a climate model to improve regional climate projections	KATRAGKOU ELENI	ARISTOTLE UNIVERSITY OF THESSALONIKI	FOUNDATION FOR RESEARCH AND TECHNOLOGY-HELLAS (FORTH)	400.000,00
34.	14812	Expanding BIPV city deployment against urban	KARAMANIS DIMITRIOS	UNIVERSITY OF PATRAS	NATIONAL TECHNICAL	358.788,00

		and climate change related temperature increases			UNIVERSITY OF ATHENS UNIVERSITY OF IOANNINA	
35.	15243	Adaptation of light-harvesting and energy-transfer processes of marine photosynthetic membrane proteins (Lhc) to different light qualities probed by ultrafast transient absorption spectroscopy	LOUKAKOS PANAGIOTIS	FOUNDATION FOR RESEARCH AND TECHNOLOGY-HELLAS (FORTH)	-	400.000,00
36.	15795	Low Value Bio-based Feedstock to High Added Value	KALOGIANNIS KONSTANTINOS	UNIVERSITY OF WESTERN MACEDONIA	AGRICULTURAL UNIVERSITY OF ATHENS	400.000,00

		Functional Nano-Materials via a Hybrid Biorefinery Concept			CENTRE FOR RESEARCH AND TECHNOLOGY HELLAS	
37.	16592	The impact of a Just Transition Observatory on energy transition. Exploring synergies with spatial justice and place-based governance through a comparative perspective	TOPALOGLOU ELEFThERIOS	UNIVERSITY OF WESTERN MACEDONIA	CENTRE FOR RESEARCH AND TECHNOLOGY HELLAS UNIVERSITY OF THESSALY	396.520,00
38.	16916	Innovative design of stable, efficient and in situ regenerable nanocatalysts	YENTEKAKIS IOANNIS	TECHNICAL UNIVERSITY OF CRETE	UNIVERSITY OF IOANNINA	400.000,00

		for CO2 recycling by CO2 methanation and CO2 reforming by methane processes				
<b>39.</b>	16283	Multi-Functional Solid Oxide Electrolysis Cells for Renewable Hydrogen Production and reCycling of Carbon Dioxide	BALOMENOU STELLA	CENTRE FOR RESEARCH AND TECHNOLOGY HELLAS	UNIVERSITY OF IOANNINA	400.000,00
<b>40.</b>	15890	Optimum Bioplastics Production from Organic Wastes via Dark Fermentation	VELONIA KALLIOPI (KELLY)	UNIVERSITY OF CRETE	HELLENIC MEDITERRANEAN UNIVERSITY  TECHNICAL UNIVERSITY OF CRETE	399.718,00