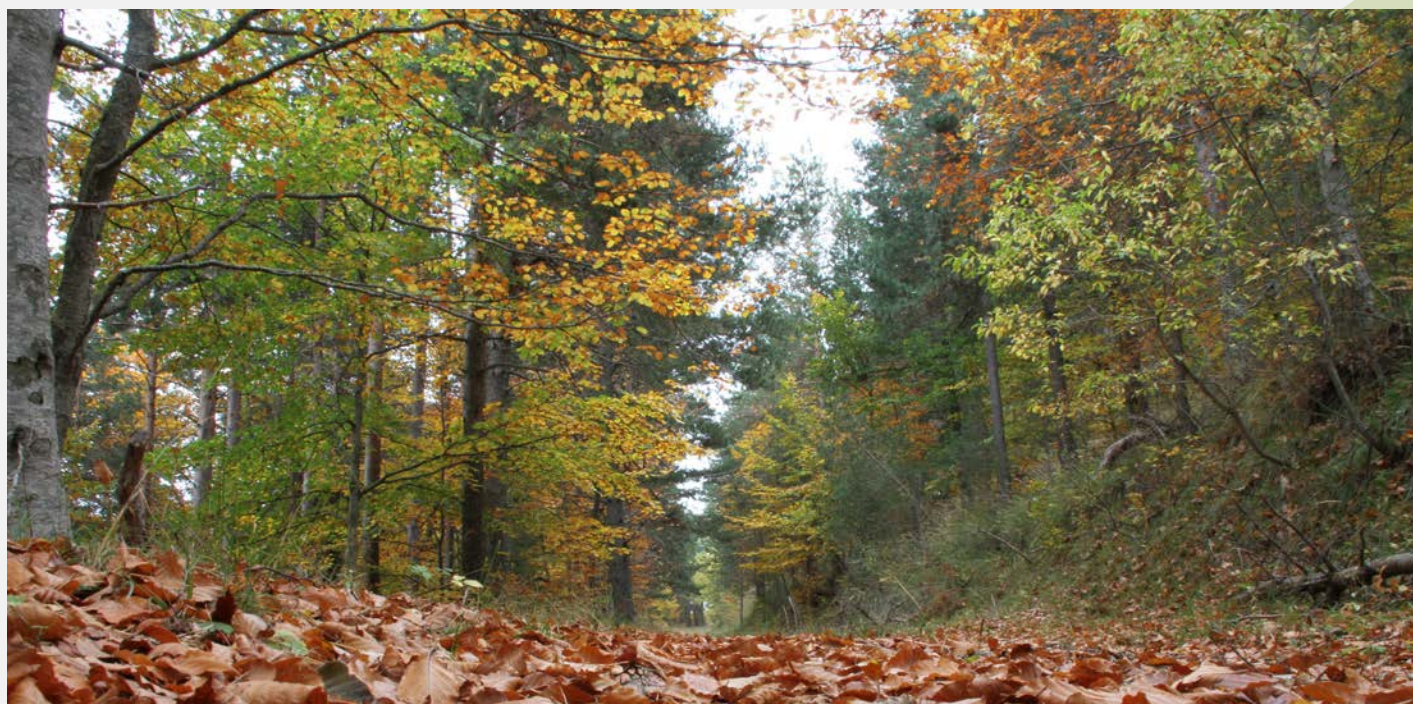




**Annual activities of the
FOREST RESEARCH INSTITUTE
ELGO - DIMITRA
2023**

THESSALONIKI 2024

HELLENIC AGRICULTURAL
ORGANIZATION - DIMITRA

DIRECTORATE GENERAL OF
AGRICULTURAL RESEARCH

FOREST RESEARCH INSTITUTE



ACTIVITIES 2023

THESSALONIKI 2024

Edition editing

Fotios Xystrakis
Ilias Karmiris
Theano Samara
Ermioni Malliarou
Savas Kazantzidis

Photos: Dr. Savas Kazantzidis, Dr. Fotis Xystrakis, Dr. Gavriil Spyroglou

Table of contents

Edition editing	2
Note from the Director of the Forest Research Institute	5
The Forest Research Institute	6
The mission of the Forest Research Institute	7
Administration bodies	7
Staff of the Forest Research Institute	8
Financial report	11
Research projects	12
Sources of funding for implemented projects	13
The farm of the Forest Research Institute	14
Scientific Publications	15
Publications in scientific journals and conference proceedings	15
Participation in journal editorial boards and paper reviews	16
Provision of products and services	17
Organization of conferences, workshops & scientific meetings	18
Participation in Boards of Directors, Scientific Councils of organizations & Scientific Societies	19
Educational Activity	21
Advisory & examination committees	21
Proposals to postgraduate studies programs	21
Training for geotechnicians, cultivators and farmers	22
Education of students in the context of internship	22
Presentation and dissemination of the work of the FRI	23

Note from the Director of the Forest Research Institute

The mission of the Forest Research Institute is to conduct research, develop technology and transfer know-how for the sustainable management of forest ecosystems, the protection of the natural environment and the qualitative and quantitative improvement of the products and services produced.

In the above context, during 2023, the Institute's contribution to both Science and Society continued with research actions (new or continuous from previous years), cooperation with agencies (state and private) and publication of research results.

In the research sector, during 2023, 43 projects with a total funding of approximately 2 million EUR were being implemented at the Institute of Forestry Research. Of these, 23 were ongoing projects from previous years, while in 2023, funding programs of >600,000€ were approved. The main source of funding for the new projects came from competitive proposals.

In the field of publicizing and promoting the Institute's research work, at least 28 articles were published in international scientific journals. At the same time, the Institute's researchers participated in twelve international and eleven national conferences, presenting the results of their research projects to the scientific public. In addition, at least ten researchers participated in editorial boards of international scientific journals of nine publishing houses and the same number in organizational and scientific boards of six international and national conferences. Moreover, at least ten researchers participated in workshops, conferences and lectures in Greece and abroad.

In addition to the above, researchers from the Forest Research Institute participated in at least 23 international and national scientific committees and councils of scientific bodies, working groups. Additionally, the researchers provided advisory work to State bodies as well as to committees of the country's universities.

All the above was achieved thanks to the consistency and hard work of the researchers as well as the multifaceted support of non-research staff (administrative and scientific staff) without whose contribution little could have been implemented.

I appreciate that the entire staff of the Forest Research Institute actively and responsibly participated in the activities for the realization of the goals of the Forest Research Institute and the deeds prove it.

I hope that the collective effort and cooperation between us will continue in 2024 so that the goals of the Forest Research Institute will come even closer.

Dr Savas Kazantzidis

Director of the Forest
Research Institute

The Forest Research Institute

The Forest Research Institute (FRI) was founded in 1961 and initially operated as the Macedonia-Thrace Forest Research Station. The objects in which it was active were the cultivation and production of improved poplar clones as well as the ecology and improvement of mountain pastures. Until its current form, the Institute has evolved many times and has gone through numerous turning points until 2011, when a new Organization was established under the name HELLENIC AGRICULTURAL ORGANIZATION - DIMITRA, to which it is affiliated.



The mission of the Forest Research Institute

The Forest Research Institute's mission is to conduct research, develop technology and transfer know-how for the sustainable management of forest ecosystems, the protection of the natural environment and the qualitative and quantitative improvement of the products and services produced.

Administration bodies

The administrative and operating bodies of the FRI in the year 2023 consisted of the following staff:

DIRECTOR

Dr. **Thomas Papachristou**, Research Director

FRI SCIENTIFIC COUNCIL

Dr. **Savas Kazantzidis**, Research Director (Chairman)

Dr. **Ioannis Spanos**, Research Director

Dr. **Gavriil Spyroglou**, Principal Researcher

Dr. **Christos Astaras**, Principal Researcher

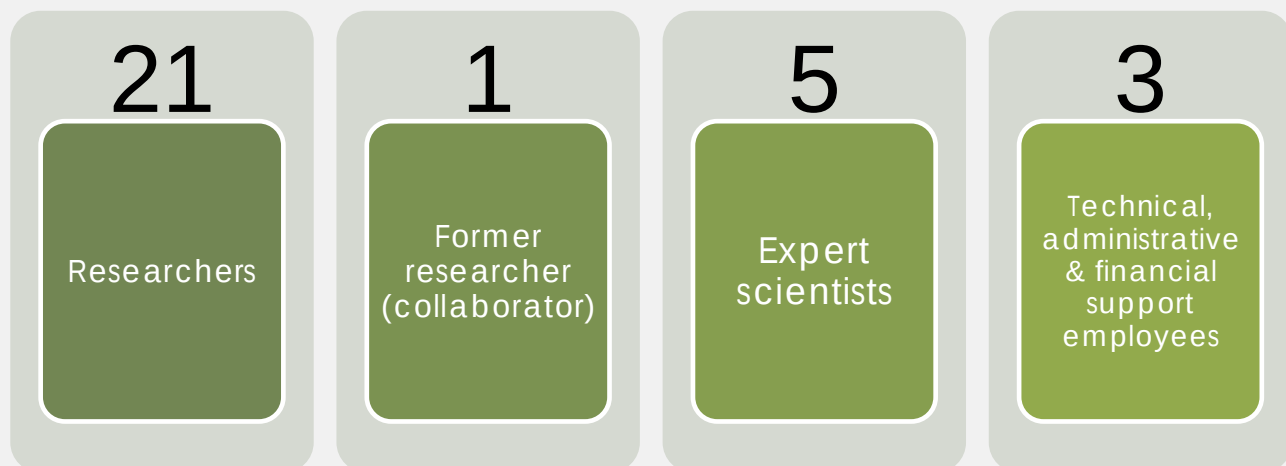
Dr. **Dimitrios Fotakis**, Principal Researcher

Mr. **Evangelos Chavales** (Representative of Regular Non-Research Staff)

Mr. **Dionisios Gaitanis** (Secretary)

Staff of the Forest Research Institute

The staff of the FRI consists of research, scientific and technical staff. In addition to the permanent staff, **ten** external collaborators collaborated in the research programs during the year 2023.



The staff of Forest Research Institute, May 2024

Full name	Research Topic	Telephone extension	e-mail
Avtzis Dimitrios	Forest Entomology	213	dimitrios.avtzis@elgo.gr
Astaras Christos	Wildlife	204	christos.astaras@elgo.gr
Gallis Christos	Forest Utilization – Forest Environment and Human Health	215	cgalis@elgo.gr
Ioannou Konstantinos	Forest Informatics & Applications in Forest Policy	225	ioanko@elgo.gr
Kazantzidis Savas	Wildlife Management	214	savkaz@elgo.gr
Karmiris Ilias	Rangeland Ecology and Management - Animal Species Interactions and Grazing Management	241	iliask@elgo.gr
Malliarou Ermioni	Conservation and management of forest genetic resources	205	emalliarou@elgo.gr
Markos Nikolaos	Forest Climatology – Interactions of Forest Ecosystems and Climate Change	237	nmarkos@elgo.gr
Meliadis Ioannis	Remote sensing - G. I. S.	201	meliadis@elgo.gr
Xystrakis Fotios	Forest Phytosociology	236	fotios.xystrakis@elgo.gr
Papachristou Thomas	Ecology and management of rangeland resources	229	thomas.papachristou@elgo.gr
Pleniou Magdalini	Forest Fires	240	mpleniou@elgo.gr
Samara Theano	Silviculture and Ecology of Forest Ecosystems – Urban Forestry	205	theasam@elgo.gr
Spanos Ioannis	Silviculture – Forest Ecology	218	ispanos@elgo.gr
Spanos Konstantinos	Forest Genetics – Genetic Breeding of Forest Species & Biotechnology	202	kspanos@elgo.gr
Spyroglou Gavrill	Forest growth and yield, Management of forest ecosystems	233	spyroglou@elgo.gr
Stefanidis Stefanos	Forest Hydrology	204	sstefanidis@elgo.gr
Topalidou Eleni	Forest Pathology	216	etopal@elgo.gr
Tsiourlis Georgios	Forest Ecology – Ecology of Mediterranean Ecosystems	245	gmtsiou@elgo.gr
Fotakis Dimitrios	Spatial Planning of Natural Resources	235	fotakis@elgo.gr
Fotelli Mariantzela	Forest Ecophysiology	238	fotelli@elgo.gr

COLLABORATING RESEARCHERS

Full name	Research Topic	e-mail
Grigoriadis Nikolaos	Silviculture – Forest Ecology	grig_nick@elgo.gr

SCIENTIFIC AND TECHNICAL STAFF

Full name	Position	Telephone extension	e-mail
Gaitanis Dionisios	Forest engineer, M.Sc.	210	dgaitan@elgo.gr
Giantzi Maria	Administrative	226	giantzi@elgo.gr
Karamanoli Aikaterini	Forest engineer	228	karamanoli@elgo.gr
Klimi Anastasia	Forest engineer	227	klimi@elgo.gr
Chavales Evagelos	Forest engineer	217	vageha@elgo.gr
Mpataka Alkmini	Agriculturist	203	alkminimp@elgo.gr
Vogiatzis Dimitrios	Security guard	250	
Φουκαρίδου Γεωργία	Administrative	254	foukaridou@elgo.gr

EXTERNAL PARTNERS

Full name	Research Topic
1 Stefanos Papaioordanidis	Forester
2 Charalambia Charalampidou	Forester
3 Despina Migli	Forester
4 Aggelos Geroulanos	Informatics
5 Nikoleta Elefteriadou	Forester
6 Nikoleta Simopoulou	Forester
7 Christos Damiantidis	Forester
8 Ekatenini Ainali	Forester
9 Dimitrios Platis	Forester
10 Natassa Kiorapostolou	Forester

Financial report

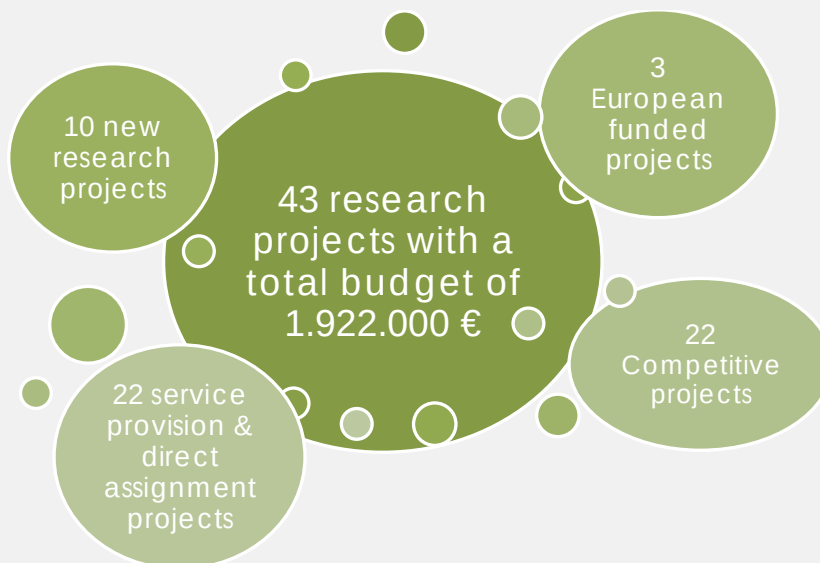
The main financial resources of the FRI come from the Ministry of Rural Development & Food through the funding to ELGO - DIMITRA, which concerns the **payroll** of the staff and the **operating expenses** of the unit.

The operating expenses per expense category as well as the corresponding revenues of the unit are analyzed in the table below.

Operating Expenses	
Electricity & telecommunications invoices	29.537 €
Heating fuels	10.990 €
Cleanliness	8.121 €
Other provisions	5.956 €
Fixed equipment maintenances	5.705 €
Consumables	4.629 €
Traffic fees	2.025 €
Travel expenses	1.757 €
Supply of permanent equipment	925 €
Postage & Miscellaneous expenses	465 €
Total	70.111 €
Covering operating expenses	
Annual unit budget	52.000 €
Development & Support of Scientific Projects	34.588 €
Service Provision	1.538 €
Total	88.126 €

Research projects

In 2023, the planned work of the research programs implemented in the FRI continued and a large part of their data has already been processed (laboratory and statistical analyses) while their results have been included in the interim or final progress reports.

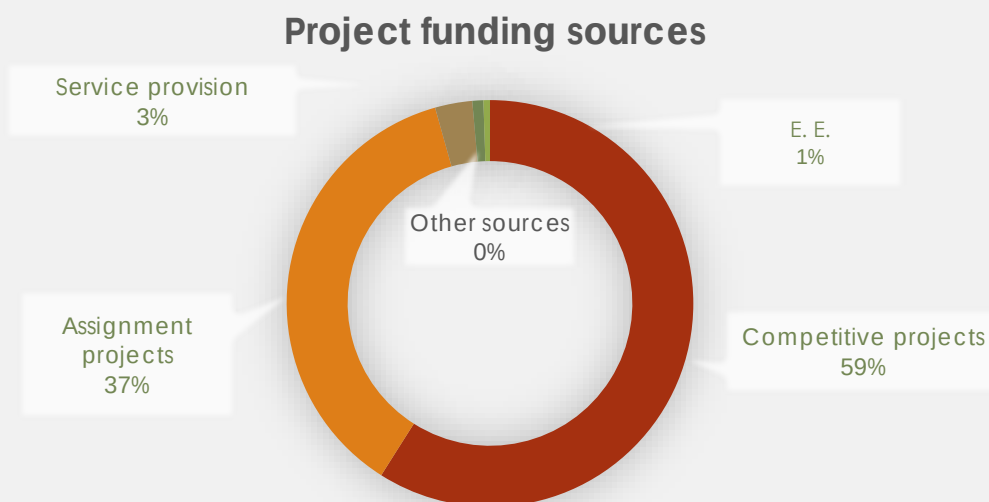


In 2023, at least 43 research projects with a total budget of 1,922,000€ were implemented in the FRI. Three of them were competitive projects with a budget of approximately 500,000€ and were financed by European funds. In addition, three projects with a total budget of 330,000€ were being implemented, which are part of Action II of measure 16.1-16.5 of the Ministry of Rural Development and Food. The Natural Environment and Climate Change Agency of the Ministry of Environment and Energy was the financier of twelve competitive projects related to the protection, promotion and conservation of biodiversity, with a total budget of 250,000€.

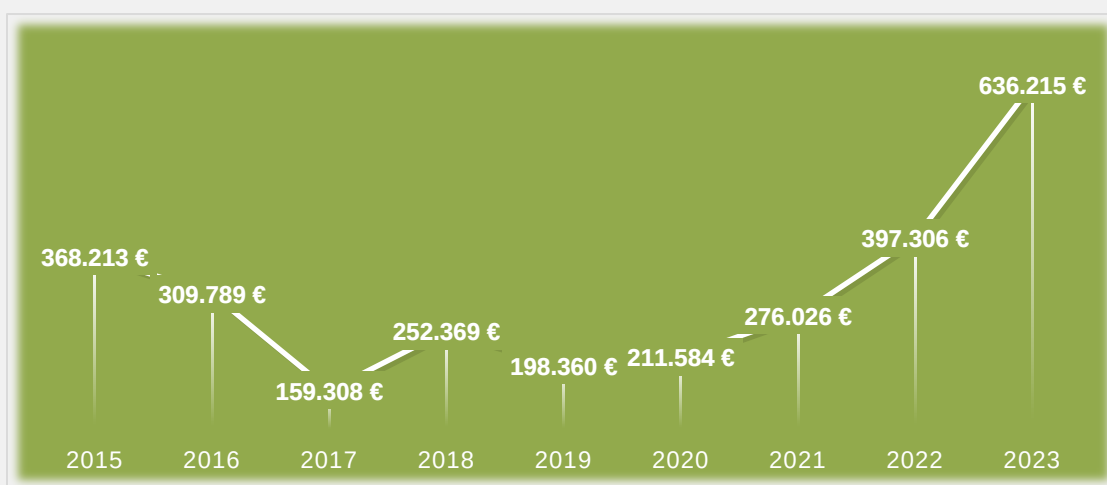
Furthermore, FRI researchers participated in research projects of third parties as well as in actions related to networking and communication between scientists. In the above context, eight FRI researchers participated in seven networking actions (COST, IMPEL, HORIZON-MISS).

Sources of funding for implemented projects

The most important source of research funding at the FRI, in 2023, came from competitive projects highlighting the dynamics of the unit's scientific and research staff. The total funding for the FRI of competitive research projects for the year 2023 amounted to **636,215€**. The distribution of funding across project categories is shown in the chart below.



Revenues from the research activity of the FRI show a steady upward trend during the last five years, as can be seen in the following graph.



The farm of the Forest Research Institute

Special mention should be given to the research activities carried out on the two farms managed by the FRI: The one in Chrysopigi Serres (50 ha) and the one at the FRI's facilities in Vasilika Thessaloniki, with an area of 30 ha.

In 2023, measurements of growth characteristics of forest and other species (*Quercus suber*, *Paulownia* spp., *Fraxinus* spp., *Aronia* spp.) continued on the permanent experimental plots of the farm in Vasilika.

In addition, at the farm in Vasilika, research activities were carried out which related to the recording of climate data from the permanent meteorological station installed there, while data related to the physiology of forest species as well as the carbon footprint were collected.

Moreover, data collection on wildlife species was carried out.

Finally, in 2023, annual measurements were carried out within the framework of research projects and international collaborations.



Scientific Publications

Publications in scientific journals and conference proceedings

One of the most important, measurable products of our unit is research publication. The activity of FRI researchers has led to the publication of a significant number of papers in prestigious international and national journals. Moreover, the participation of the FRI researchers in international and national conferences contributed to the dissemination of scientific information resulting from the implemented projects.



28 in international scientific journals with impact factor

12 in proceedings of International and National conferences



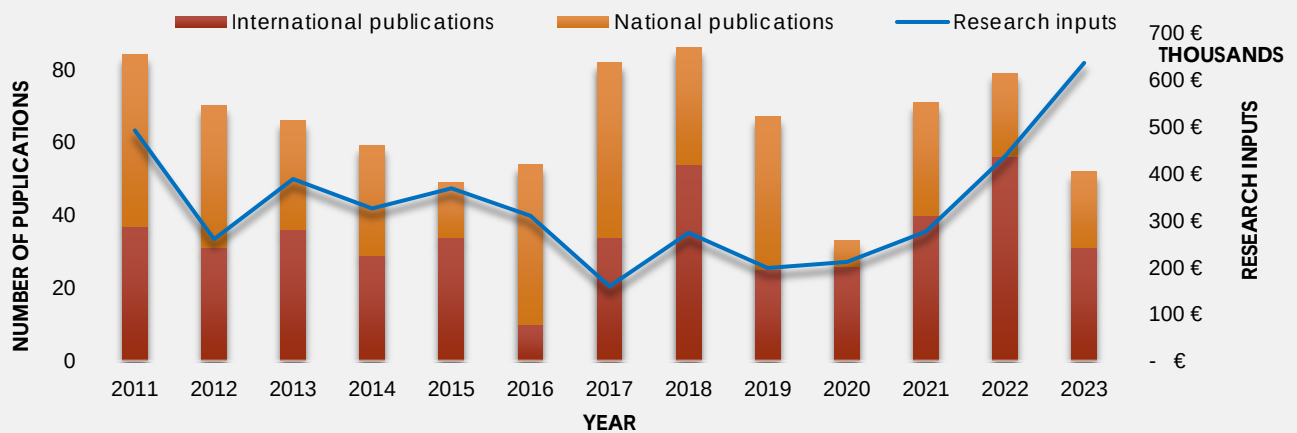
11 in international and national conference abstract volumes

11 final project reports



1 book chapter

An important parameter for the evaluation of research activity is the relationship between the number of publications and funding. In recent years, after the establishment of ELGO DIMITRA, both the number of publications and funding have increased on average. However, in 2023, the number of publications did not follow the upward trend of recent years despite the upward trend in financial inflow from research.



Participation in journal editorial boards and paper reviews

Ten FRI researchers participate as editorial board members in international scientific journals of **nine** publishing houses.



Fifteen FRI researchers evaluated scientific publications in **59** scientific journals with and without Impact factor and/or in proceedings of national or international conferences.

Provision of products and services

Researchers of the Forest Research Institute responded to requests from individuals and/or Services and provided consulting services in more than **17 regions** in Greece. The requests concerned autopsies and diagnoses of subjects related to forest entomology and pathology, proposals for highlighting forest ecosystems, support of the Forestry Service in matters of forestry, diagnoses of planted fields, tree dating reports, consulting on cultivation procedures of forest species.

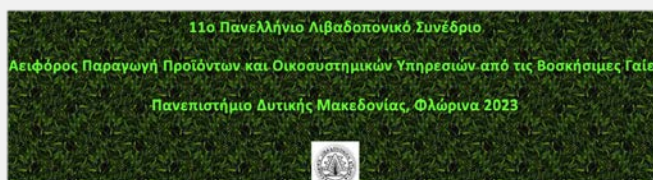


An important part of the provision of services is the implementation of the International Standard of Phytosanitary Measures of the Food and Agriculture Organization which aims to limit/eliminate the risk of spreading quarantine pathogens with wooden packaging. Finally, the FRI provided technical consultant services to the "Hellenic Republic Asset Development Fund" S.A. during the process of posting forest maps.

Organization of conferences, workshops & scientific meetings

Aiming at the promotion of knowledge and the dissemination of its research activities and results, the FRI (co)organized and supported during the year 2023 international conferences and particularly interesting and important scientific events.

Ten FRI researchers participated in the Organizing or the Scientific Committee of **six** international and national conferences in Greece and abroad.



Additionally, **eight** FRI researchers organized workshops, workshops and lectures to disseminate the scientific achievements of their research projects. At the same time, **ten** FRI researchers participated as invited speakers in 21 workshops, sessions and lectures, online and in person, in Greece and abroad.

Participation in Boards of Directors, Scientific Councils of organizations & Scientific Societies

FRI researchers participate in regular committees of International and National Organizations, as well as in Boards of Directors of scientific societies and organizations, as well as in various committees and working groups.



HELLENIC FORESTRY SOCIETY



HELLENIC
RANGE & PASTURE
SOCIETY

Eleven FRI researchers participate as regular or alternate members in the following committees, boards and working groups:

International

- EUFORGEN (E.U.)
- GLOBAL OBSERVATION RESEARCH INITIATIVE IN ALPINE ENVIRONMENTS
- IPC - INTERNATIONAL POPLAR COMMISSION
- IUFRO WP 7.03.05 "Ecology and Management of Bark and Wood boring beetles"
- Mediterranean working group "pilot action plan" for the continuation of the "NATURA2000 Biogeographical process" in the Mediterranean region
- ProSilva Europe (<https://www.prosilva.org/>)
- ProSilva-Greece (<https://www.prosilva.org/members/full-members/pro-silva-greece/>)
- Sani Environmental Observatory (SEO) (<https://deims.org/4c875c34-27f9-4ae5-9790-460ee47924d2>)
- WildTrack - Non-Invasive Wildlife Monitoring / WildTrack Specialist Group (WSG) (<https://www.wildtrack.org/>)
- Worldwide Annotated Bird Dataset - working group (WABiD)
- International Network iLTER
- International Scientific Network BugNet (<https://www.bug-net.org/>)
- IUCN International Specialist Group on the Glossy ibis (*Plegadis falcinellus*) and the Eurasian spoonbill (*Platalea leucorodia*) - IUCN SSC - Stork, Ibis and Spoonbill Specialist Group

- International Group ICP-Forests, Working Group on Tree Physiology

National

- National Committee on Invasive Alien Species
- Hellenic Network LTER-GREECE
- Hellenic Center for Bird Ringing (<https://hbrcweb.wordpress.com/>)
- Scientific Authority CITES (<https://cites.org/eng>)
- NATURA 2000 Committee
- European Network eLTER (<https://elter-ri.eu/>)
- European Scientific Network EUFORGEN
- Central Advisory Committee for Wildlife Care Centers
- A group of graduates of the Department of Forestry and Natural Environment of the Aristotle University of Thessaloniki for the certification of the Department's Undergraduate Curriculum by the External Evaluation and Accreditation Committee of the National Higher Education Authority Review committees of faculty members and researchers.



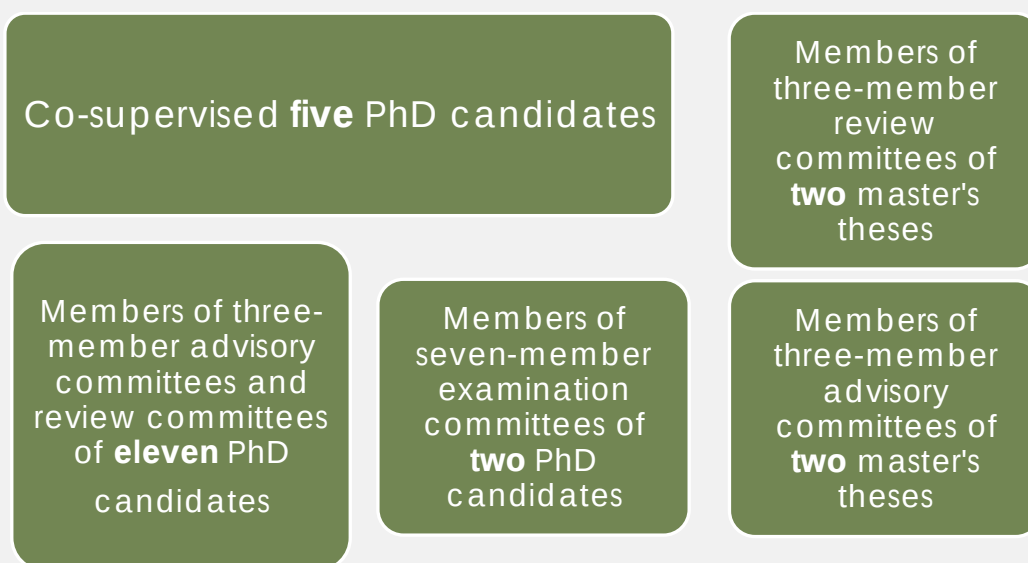
Six FRI researchers were members of advisory committees, crisis committees as well as electoral bodies for the filling of positions of researchers and faculty members, both in Institutes of ELGO DIMITRA and in University Departments.

Educational Activity

The contribution of FRI researchers to the education of young scientists and professionals is also significant.

Advisory & examination committees

In 2023, **five** FRI researchers participated as members in advisory and examination committees, in review committees of PhD candidates and postgraduate students.



Proposals to postgraduate studies programs

Eight FRI researchers participated as lecturers or co-teachers of courses in **six** Master's degree programs of three universities, namely the **International Hellenic University**, the **Aristotle University of Thessaloniki** and the **Democritus University of Thrace**.

Training for geotechnicians, cultivators and farmers

At the FRI farm and pilot farms (FRI experiments in areas of Serres, Thessaloniki, Grevena, Kozani & Pieria), geotechnicians, cultivators and groups of producers were trained in the cultivation of chokeberries, cornel, cork oak and paulownia.

In addition, more than thirty participants attended a five-day training (30 hours) on the value chain of medicinal aromatic plants and small forest fruits.

Education of students in the context of internship

In 2023, **five students** from educational institutions in Greece and abroad were admitted to the FRI to carry out their internship:

- WeihenStephan-Triesdorf, University of Applied Science
- Department of Biology, Aristotle University of Thessaloniki.
- Department of Biology, University of Göttingen, Germany
- Department of Forestry and Natural Environment, International Hellenic University
- Department of Environment, University of the Aegean

In 2023, the FRI hosted **five postgraduate students** from the Aristotle University of Thessaloniki, the Democritus University of Thrace and the University of the Aegean.

Furthermore, within the framework of wider collaborations, PhD candidates, undergraduate and postgraduate students as well as scientific collaborators utilized the equipment and facilities of the FRI.

Presentation and dissemination of the work of the FRI

The dissemination of research activity to society is a key objective of the FRI. In this context, interviews were given, popular science texts were written, and lectures were organized on current issues of protection and management of the natural environment as well as on the FRI's research activities.

Five environmental education visits - guided tours were held at the Forest Botanical Garden of the FRI in 2023. Approximately 150 primary school students (public and private) were informed about the research activities of the FRI as well as the protection and management of the natural environment.





The Forest Research Institute from above, 2023.