

# We choose life

LIFE+ FLIRE is a demonstration project aiming to the development of an integrated Decision Support System (DSS) for both flash floods and forest fires risk assessment and management in the peri-urban environment of the Eastern Attica region in Greece



Floods and Fire  
Risk Assessment and Management



Imperial College  
London

irpi



algosystems

FORTH



FLIRE is 50% co-financed by  
LIFE + financial instrument  
of the European Union

[www.flire.eu](http://www.flire.eu)



# FLIRE project

## Floods and Fire Risk Assessment and Management

FLIRE is a demonstration project aiming to develop an integrated Decision Support System (DSS) for both flash flood and forest fire risk assessment and management. The DSS tool will be designed by using state of the art tools, technologies and methods; taking into account prevention, adaptation and interaction issues.

The final model will be available online to key stakeholders and relevant authorities (local and national) for the combined, effective and efficient management of flood and fire risks.

Project's code  
LIFE11ENV/GR/975

Budget  
€1.617.734

Duration  
01/10/2012-30/09/2015

## Objectives

Minimize of the impact of floods and forest fires on human lives, ecosystems and properties

Reduce the level and occurrence of flooding

Improve the mitigation of flash floods

Improve the prevention of forest fires and general forest protection

Raise awareness of the dangers of both flash floods & forest fires, and their environmental & socio-economic impacts on Eastern Attica and the city of Athens



## Area of Implementation

FLIRE's area of implementation is the peri-urban environment of the Eastern Attica region; more specifically the Rafina river basin (Greece). This is a typical Mediterranean area extending over approx. 130 km<sup>2</sup> with rapid and uncontrolled urbanization.

This pilot area is quite prone both to flash floods and forest fires, resulting in its gradual ecological degradation, with significant consequences for the almost 5 million inhabitants of Athens.

## FLIRE activities

- Development of a Weather Information Management Tool (WIMT)
- Development of a near real-time flood risk management tool (Early Flood Warning System)
- Development of a near real-time forest fire risk assessment and management tool (Early Fire Warning System)
- Integration of these components into a common Decision Support System Tool (DSS)
- Implementation and testing of the system in Eastern Attica
- Public consultation with local stakeholders and end-users through training workshops, meetings, interviews and public events
- Dissemination activities to inform and sensitize local citizens on the hazards of floods and fires, and their combined impact on human life: environmental, social and economic
- Extraction of transferable lessons to ensure the project's uptake in other similar regions

## Why FLIRE?

FLIRE aims to change the paradigm for the combined, effective and robust risk assessment and management of both flash floods and forest fires, using state of the art tools, technologies and methods and taking into account prevention, adaptation and interaction issues.

Floods and forest fires are among the most devastating natural disasters, with severe socioeconomic impacts, including loss of human life; ecological degradation; reduced health and quality of life, destruction of private and public property; and disruption of economic activities. Both disasters have considerable aesthetic impacts and often threaten the cultural heritage of the affected areas.

At the European level, flood events are the most frequently reported natural disasters, affecting 25% more people than any other type of natural disaster. On the other hand economic damages resulting from wildfires (including for example the reduced ability of a burnt forest to offer recreational opportunities) are also significant, especially in Mediterranean regions, where their frequency is considerably high (Eurostat, 2007).

Both disasters cause significant degradation of ecosystem services. This ecological degradation becomes even more severe when they occur in the same area, which is quite common. The occurrence and the extent of both natural disasters strongly depend not only on the existing weather conditions in an area, but also on human intervention, which is particularly pronounced in peri-urban areas and can magnify their environmental impacts.

## Public Participation

FLIRE is directly applicable to all local and national authorities, to the General Secretariat for Civil Protection, to NGOs who are focused on environmental protection, to the inhabitants of Eastern Attica, and to every active citizen who is interested in the environmental problems of both floods & fires and their combined consequences on ecosystems, the economy and society.

Public consultation with local stakeholders, such as community organizations and NGOs based in Eastern Attica and Athens, is of crucial importance to receive valuable feedback on the state of affairs in the area, to fill knowledge gaps, and to ensure the successful adoption and use of the DSS platform by the relevant authorities. For this purpose a special users' group will be created where representatives and members from all relevant stakeholder groups are invited to participate: local and regional administration authorities, public services with responsibility for the management of floods and fires, NGOs and community organizations/citizens' committees.

[flire.eu/participate](http://flire.eu/participate)

Visit FLIRE's website to find out about upcoming activities and events

## LIFE+ Programme



The project is co-financed 50% by the European Commission General Directorate for the Environment, LIFE+ financial instrument. LIFE+ Environment Policy and Governance is one of the strands of the European Union's main funding programme for the environment. It supports technological projects that offer significant environmental benefits. This part of LIFE+ also helps projects that improve the implementation of EU environmental legislation, that build upon the environmental policy knowledge base, and that develop environmental information sources through monitoring. The general objective of LIFE is to contribute to the implementation, updating and development of EU environmental policy and legislation by co-financing pilot or demonstration projects with European added value.

LIFE began in 1992 and to date there have been three complete phases of the programme (LIFE I: 1992-1995, LIFE II: 1996-1999 and LIFE III: 2000-2006). During this period, LIFE has co-financed some 3,104 projects across the EU, contributing approximately €2.2 billion to the protection of the environment

## Consortium

The FLIRE consortium is formed of six organizations, five of which are academic and research centres from Greece, the UK and Italy with expertise in hydrology, water resources management, floods assessment and informatics. The sixth project partner is a Greek private company which is specialized in providing of high-tech products and solutions for the operational and organizational needs of modern enterprises, organizations and industries.

Coordinating Beneficiary



National Technical University of Athens

Imperial College London

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Italian National Research Council



National Observatory of Athens

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