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Let's grow up together

**Adriatic IPA**

Cross Border Cooperation 2007-2013



Programme co-funded by the EUROPEAN UNION, Instrument for Pre-Accession Assistance



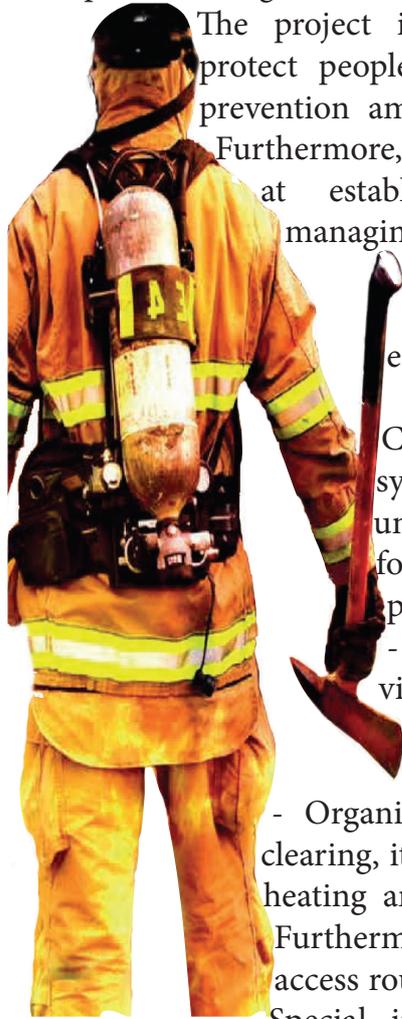
# A JOINT ACTION TO REDUCE THE ENVIRONMENTAL RISKS IN THE ADRIATIC BASIN





### Overview of Holistic Project

Holistic Project has been co-financed by the European Union through the Adriatic IPA Cross Border Cooperation Programme 2007-2013.



The project is intended to reduce the number and the impact of forest fires, to protect people, natural environment and properties, and in particular to promote fire prevention among rural communities in fire prone areas of regions facing the Adriatic. Furthermore, the project provides actions related to earthquakes risk aimed at establishing a permanent instrument for preventing, controlling and managing strategic public buildings from earthquakes' damage risk. The project performs joint initiatives and pilot actions for direct and indirect long, medium and short-term preventive measures in wildfire and earthquake risks to enhance policies, regulations and coordination mechanisms.

Considering that forest fires represent a constant threat to ecological systems, infrastructure, economy and human lives, it is necessary to undertake joint actions towards increasing the level of protection against forest fires. Holistic approach aims at integrating forest fire protection and prevention measures, economic use of biomass, tourism and recreation using:

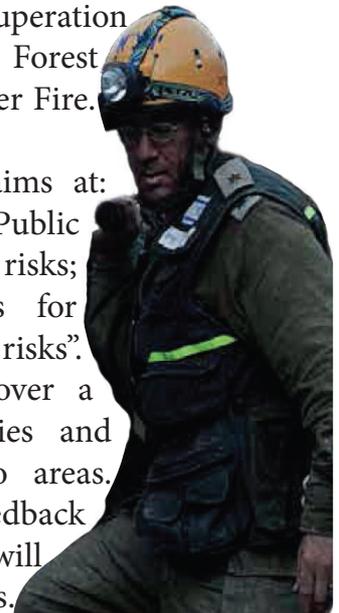
- Advanced forest fire monitoring system conceived of a network of automatic video surveillance and meteorological monitoring stations, supported by advanced regional systems for micro-location forest fire risk indices calculation and simulation of forest fire propagation and behaviour.
- Organised system for collection of forest looping after forest fire thinning and clearing, its cutting and finally its use as a commercial biomass fuel in communal district heating and cogeneration plants, or in individual heating system of public buildings.

Furthermore, it includes the systematic clearance of forest corridors not only as easy access routes for fireman, but also as routes for sport, recreation and village eco-tourism. Special information system for planning fire prevention, early detection of fire, fire fighting management and post-fire planning the recuperation of the burned areas has to be conceived. Benefits of Holistic Forest Fire Protection model are in all forest fire stages: Before Fire, During Fire and After Fire.

Strategic buildings' earthquake risk assessment, prevention and monitoring aims at:

- establishing instruments for monitoring Strategic Public Buildings (SPBs) (D.G.R. n. 438), from earthquakes' damage risks;
- developing joint proposals for legislative and institutional regulations for SPBs' protection, based on the "protection of SPBs from earthquake's risks".

The action focuses on the monitoring of changes in SPBs' vulnerability over a defined time period due to the natural degradation of material properties and cumulative damage from continuous low-level seismic activity in the two areas. The lessons learnt, the faced shortcomings and the related feedback from an IPA and EU policy makers' seminar on the topic will be the base to draft proposals for SPB protection policies.



### 4th Holistic Project and steering committee meeting in Belgrade - 24-26 of November 2015



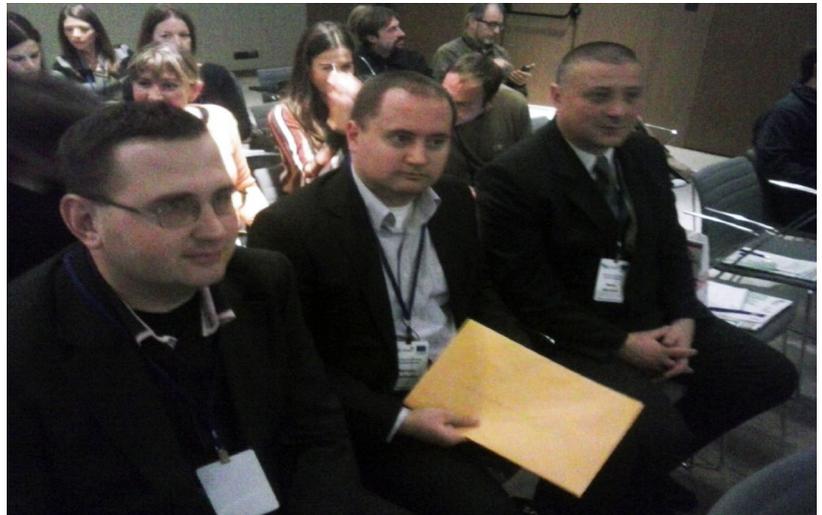
On the 24-26 of November there took place in Belgrade the 4th Holistic Project and steering committee which has been organised by the Serbian Ministry of Interior, Sector for Emergency Management.

It's been the occasion to inform all the participants partners, media representatives and general public on the state of the art of the implementation of the project within dedicated sessions of workshops on each of the 9 working packages of activities, with the assessment of the outputs and relevant results achieved so far by the partnership and the review of future steps and activities still to be implemented.

The meeting aimed also at updating the partnership on the overall financial aspects (both on expenditure

progress and forecast) in the view of the postponement of the project deadline which has been set to the end of september 2016.

On the second day of the meeting it also took place a Conference lead by the Head of Sector for Emergency Management of the Serbian Ministry of Interior, Mr. Predrag Marić, who addressed the welcoming salute to the holistic partnership and focused his contribution on the importance of the implementation of European territorial cooperation project, specifically in the field of environment protection, risk prevention and amelioration of protocols of intervention through the exchange of good practices and the development of common tools and procedures between different Adriatic Countries.



### Roundtable in Dubrovnik and Neretva Region - 22th of January 2016



Within the activities of the project HOLISTIC, in Dubrovnik was held a round table discussing possible application of best practices in the field of prevention and protection against fire from the participating countries in the fire protection system in the area of Dubrovnik and Neretva Region.

On that occasion the project of integrated early warning systems and management of fire fighting, Western Attica, Greece was presented to the participants of the meeting. It is a system which was developed in 2010, which aims to combine the use of technologies such as satellite imagery, orthophoto maps, the application of geographic information systems and various model simulations of fire which would protect the area of Western Attica against natural disasters, especially forest fires. Also the

case studies from Slovenia were presented: the long-term assessment of forest fires in Slovenia and meteorological risk of fire in Slovenia by the Canadian system for assessing the risk of fire, conducted jointly by Slovenian Forest Management and Slovenian Forestry Institute.

The participants concluded that presented case studies from Greece and Slovenia show the need for modernization of the existing fire-fighting infrastructure, with the application and use of modern information and communication technologies in fire protection. Slovenian project of Long-term assessment of forest fires in Slovenia, unlike the other two presented at the meeting, is difficult to apply in the area of Dubrovnik and Neretva Region due to the lack of updated maps and data on forests.

Ph.D. Damir Krstinić from the Faculty of Mechanical Engineering and Naval Architecture from Split, presented the project of video monitoring of Dubrovnik and Neretva Region, which by HOLISTIC project envisages setting up cameras in three locations: in the area of the lake Kuti in the Neretva valley, on the island of Mljet, and the area of Osojnik. It is estimated that the project of video surveillance of those areas should be completed by the start of this year's fire season.

Tomašević on that occasion presented an analysis of vegetation fire in the area of Dubrovnik and Neretva Region, especially highlighting several multiple fires in Dubrovnik coast in 2001, on the island of Lastovo in 2003 and on the island of Korčula and Pelješac peninsula last year. A special part of the round table was dedicated to the application of meteorology in fire protection. The impact of climate change on the potential risk of forest fires and weather conditions during the fire fighting plants was discussed by Ivana Tomašević from the Meteorological and Hydrological Service of the Republic of Croatia.

The round table brought together fifty participants, members of the public fire brigades and volunteer fire associations from the area of Dubrovnik and Neretva Region, the National Protection and Rescue Directorate and representatives of Istria, Sibenik-Knin and Zadar County.

### Video Links



### Presentation of the Surveillance System in Ajdovščina



On the 24th of September 2015, the Municipality of Ajdovščina held a promotional event, in which its monitoring system for early fire detection and automatic warning was presented to Holistic partners, civil protection operators, the media and the general interested public.

After the greetings from the Mayor and the presentation of the Holistic project, made by the project manager, Dr Stipaničev by the University of Split presented the idea behind the Holistic monitoring system. Afterward, equipment producers and software developers of the Ajdovščina system presented their work in details.

The Municipality of Ajdovščina monitoring system consists of static and dynamic units: 3 static systems are set on 3 surrounding hills and are composed of daily and infrared cameras while dynamic units consists

of a terrain vehicle and a drone, both with integrated daily and infrared cameras. All units are coordinated from the operational room, located in the premises of the Fire Fighting and Rescue Centre Ajdovščina.

For a better presentation of the system, a short video was broadcasted, showing the functioning of the monitoring system when a wild fire is being detected. At the end, all visitors might see the static camera, terrain vehicle and the drone, which were exhibited in the lobby.

The event was well attended: representatives of the Ministry of Defence and its project group for unmanned aviation attended as well as representatives of the Administration for Civil Protection and Disaster Relief; national inspectorate for natural disasters; Slovenian Fire fighting Association; uniformed and border police, local fire fighters and other interested public. Also several Holistic partners took part in the event.

At the end of the event the Holistic coordinators at the Municipality of Ajdovščina expressed their wish that the presented system would become an example of good practice in Slovenia, as well as internationally.



### International seminar on Modelling of Wildfires and their Environmental Impacts - Trieste



Holistic project coordinators from the Municipality of Ajdovščina and Friuli-Venezia Giulia Region participated in the international seminar on “Modelling of Wildfires and their Environmental Impacts” which has been held in Miramare (Trieste), Italy and organised by the Abdus Salam International Centre for Theoretical Physics.

Discussions held at the workshops stemmed from the fact that wild fires pose a direct threat to populations, ecosystems and economy and are a dangerous source of air pollution. What is more, wild fires are becoming more frequent in certain regions due to the climate and land use changes. Consequently, it is important to better understand the occurrence and the dynamics of wild fires as well as their environmental impacts. One of the methods for better understanding is also numerical modelling, which was the main topic of the Trieste workshop.

The workshop gave an overview of the state-of-art in wildfire modelling and existing model applications ranging from explicit simulations to risk assessment. Speakers, coming from the European Union and the United States of America, shared their expertise in different domains including computational fluid dynamics, meteorology, climate and ecology.



Workshops were open for participation for scientists and students from all countries, which are members of the United Nations, UNESCO or IAEA. Participants from African, Asian, South American and European countries attended the workshop, meaning that knowledge exchange and collaboration between students and specialists of fire modelling from all around the world was fostered.

Holistic coordinators informally presented project’s objectives, outputs and concrete results to interested participants and explained Holistic’s contribution to a better fire safety.



### Round table in Herzegovina - Neretva Canton - Mostar

As part of the IPA project HOLISTIC, and in organisation of the Civil Protection and Fire Fighting Administration of Herzegovina – Neretva Canton, a round table was held in Mostar on November 17th, 2015 - “Presentation and analysis of selected best practice in forest fires fighting.”

In presence of the representatives of the Government of Herzegovina – Neretva Canton, professional and volunteer fire brigades, civic associations (hikers, Mountain Rescue Service), civil protection services from HNC region and partners in the HOLISTIC project, Government of West Herzegovina Canton, the round table presented the experiences through selected best practices of the project partners from Slovenia and Italy, and discussed the possibilities of their applicability in the area of Herzegovina – Neretva Canton.



## Video contents



HRT Dobro Jutro (12.11.2015) - Panel warning on the wildfire risks (HR audio)



IPA and EU Policy Makers International Seminar in Dubrovnik



TV broadcast on project HOLISTIC benefits



Molise Region - Awareness campaign in forest fire prevention



(connect to HOLISTIC Youtube channel: [click here](#))

## Audio contents

1.  Description of the HOLISTIC project, distressing the objectives and goals of the activities. This was an opportunity to talk about upcoming IPA and EU Policy Makers International Seminar which was held in Dubrovnik
2.  IPA and EU Policy Makers International Seminar: statement given by PhD Marijan Herak on the importance of the HOLISTIC output in correlation with his public lecture held during the seminar "Earthquakes on the Croatian Adriatic natural seismicity and the ability to induce earthquakes during the exploitation of hydrocarbons".
3.  Interview on the conclusions of the IPA and EU Policy Makers Seminar in Dubrovnik
4.  Interview on the installation of video surveillance system at the Dubrovnik and Neretva Region as well as correlation of the HOLISTIC with the other similar project implemented by the Dubrovnik and Neretva Region
5.  Awareness campaigns, the WP 9 outputs, video surveillance and warning panel installation – benefits.

### Holistic Project Partnership



  
CROATIA



  
ITALY



  
BOSNIA & HERZEGOVINA



  
ALBANIA



Split Dalmatia County



Marche Region - Security and Civil Protection



Government of West-Herzegovina Canton



Faculty of Forest Sciences, Agricultural University of Tirana



Croatian Forest Research Institute



Veneto Region Civil Protection Bureau



Civil Protection and Fire Fighting Administration of Herzegovina Neretva Canton



Croatian Firefighting Association



Europe Point Teramo Consortium



Šibenik-Knin County



Molise Region - Agriculture, Forestry and Fishing Department



Zadar County



Management Body for Parks and Biodiversity - PO Delta



Dubrovnik Neretva County



Friuli Venezia Giulia Region - Civil Protection



Region of Istria



  
GREECE



  
MONTENEGRO



  
SERBIA



  
SLOVENIA



Decentralized Administration of Peloponnese, Western Greece and Ionian



Municipality of Cetinje



Ministry of Interior of the Republic of Serbia



Municipality of Ajdovščina