



# FIRE-IN

Fire and  
REscue  
Innovation  
Network  
Thematic Working  
Group Vegetation  
Fires



**EC 20171127**

FIRE-IN has received funding from the European Union's Horizon 2020 Research and Innovation programme under grant agreement N°740 575



# Main Objective

**Improve the National  
and European Fire &  
Rescue Capability  
Development  
Process**



## Activities main lines:

- (i) Identification and harmonisation of operational capability gaps**
- (ii) Scouting of promising solutions**
- (iii) Definition of a Fire & Rescue Strategic Research and Standardisation Agenda**

# | Conceptual Pillars





# 5 Thematic Working Groups + involvement of Associated Experts



**A. Search and Rescue (SAR) and emergency Medical Response**

CFS,  
SAFE, ENSOSP, CNVVF,  
CAFO



**B. Structural fires**

CNVVF  
ENSOSP, CAFO, SGSP,  
MSB



**C. Vegetation fires**

GFMC  
CFS, PCF, MSB, KEMEA



**D. Natural disasters**

THW  
MSB, CNVVF, CFS, KEMEA



**E. CBRNE**

CAFO  
ENSOSP, SGSP,  
KEMEA, CNVVF



FIRE-IN

Associated Experts (AE) community

(international community including key thematic practitioner experts from public, private, NGOs bodies, and representative of thematic working groups from existing networks)

1000 experts expected



# Thematic Group C – Vegetation / Landscape Fires

## Partners

- Global Fire Monitoring Center (GFMC) (lead)
- Catalanian Fire Service
- Pau Costa Foundation
- Int. Ass. Fire & Rescue Services (CTIF)
- KEMEA
- European Associated Experts and thematic networks and other stakeholders (*community of practitioners*)



# Thematic Group C – Vegetation / Landscape Fires

## **Emphasis**

- Science-Policy-Interface
- Underlying causes of landscape fires (socio-economic, vegetation, landscape planning)
- Prevention, preparedness

## **Back-up**

- Global Wildland Fire Network / Regional Wildland Fire Networks covering Europe
- Council of Europe / EUR-OPA Agreement and OSCE



# Thematic Group C – Vegetation / Landscape Fires

## Objectives

- Analyze drivers and underlying causes of increasing wildfire severity and vulnerability of European landscapes and societies
- Exchange views across sectors, responsibilities and borders
- Analyze gaps in the tools for landscape fire disaster-risk reduction
- Define and prioritize future R&D efforts

# Thematic Group C – Vegetation / Landscape Fires

## **Main areas of focus**

### Fires affecting

- Natural landscapes (natural forests, bush/shrub land, range lands, peat lands)
- Cultural landscapes (industrial plantation forests, open land ecosystems such as anthropogenic grasslands / pasture lands, other agricultural lands)
- Protected areas and urban-industrial landscapes.



# Thematic Group C – Vegetation / Landscape Fires

The required expertise to reduce wildfire-hazard and wildfire disaster-risk derived from many scientific disciplines, sectoral institutional knowledge and the known or unknown needs and requirements of affected civil society will need to meet rather diverse challenges:

- Fire prevention (reduced human-caused ignitions)
- Wildfire hazard reduction (fuel reduction)

# Thematic Group C – Vegetation / Landscape Fires

- Fire use in ecosystem management (use of prescribed fire for conservation / biodiversity management and wildfire hazard reduction) and for wildfire suppression (suppression firing)
- Public policies to reduce vulnerability and increase resilience of the environment and society, notably human health and security risks (e.g. through smoke pollution, high-risk residential areas, critical infrastructure, communications, etc.)

# Thematic Group C – Vegetation / Landscape Fires

- Inclusion and empowerment of civil society in wildfire prevention, safe fire-use and self-defense against wildfires
- Innovative development of methods and technologies for suppression of wildfires
- Specialized training and equipment of Fire & Rescue services

# Thematic Group C – Vegetation / Landscape Fires

- Cooperation and interoperability between landscape fire management, structural and HAZMAT fire management for wildfires at the interface between vegetated lands, rural residential and peri-urban areas
- Fire management on dangerous / high-threat terrain (vegetation contaminated by unexploded ordnance [UXO], chemical / waste deposits or radioactivity)

# Thematic Group C – Vegetation / Landscape Fires

- Management of multiple simultaneous wildfire events and extreme wildfire crises
- Cross-boundary / international cooperation in fire management through guidelines, rules and protocols aimed at enhancing coordination, interoperability, safety, effectiveness and efficiency of managing multinational cooperation in wildfire emergencies

# Thematic Group C – Vegetation / Landscape Fires

The partners of the Thematic Working Group are actively reaching out in the Science-Policy-Practitioners Interface (SPPI)

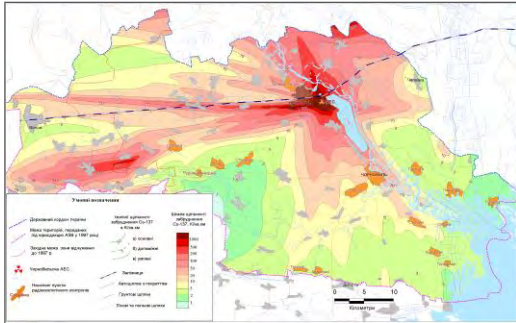
The following events in the last three months will be displayed in the first FIRE-IN Newsletter (in preparation)



# 20170907: Safe Fire Management on Contaminated Terrain – Kyiv, Ukraine

Exchange of experience with between FIRE-IN partner GFMC and neighbors of the EU

Seeking innovative technologies and fire management solutions



► Ukraine – a Horizon 2020 Associated Country – is exposed to high wildfire risk in the Chernobyl Exclusion Zone with associated threats of secondary radioactive contamination of firefighters and the population.

► The GFMC and its regional branch – the Regional Eastern European Fire Monitoring Center (REEFMC) - are implementing the project *Improving Radiological and Environmental Awareness in Territories affected by the Chernobyl Accident in Belarus and Ukraine with a Focus on Wildfire Management*, sponsored by the Organization for Security and Cooperation in Europe (OSCE).

► An inception meeting was held in Kyiv, where guidelines on fire management on contaminated terrain were introduced

► For more information about the event: Coming up!

# 20171003-04: Creating Preparedness and Interoperability for Wildfire Crises – Chile

Following up the wildfire emergency in Chile in January / February 2017

Shift from international ad-hoc response to enhanced preparedness & interoperability in cross-boundary cooperation in fire management

- ▶ The wildfire emergency in Chile prompted countries from throughout the globe to assist Chile in handling the extreme situation. Much of the foreign aid came too late and was ineffective due to the lack of international standards, protocols and preparedness.
- ▶ After the evaluation of the wildfire crisis in April 2017 the GFMC, acting as FIRE-IN partner and *Euromediterranean Specialized Center of the Major Hazards Agreement (EUR-OPA)* of the Council of Europe, supported by Germany, facilitated a regional consultation with 9 South American countries, which paved the way for the *Viña del Mar Declaration on Cross-boundary Cooperation in Fire Management* and a regional cooperation agreement



With support from



by decision of the German Bundestag



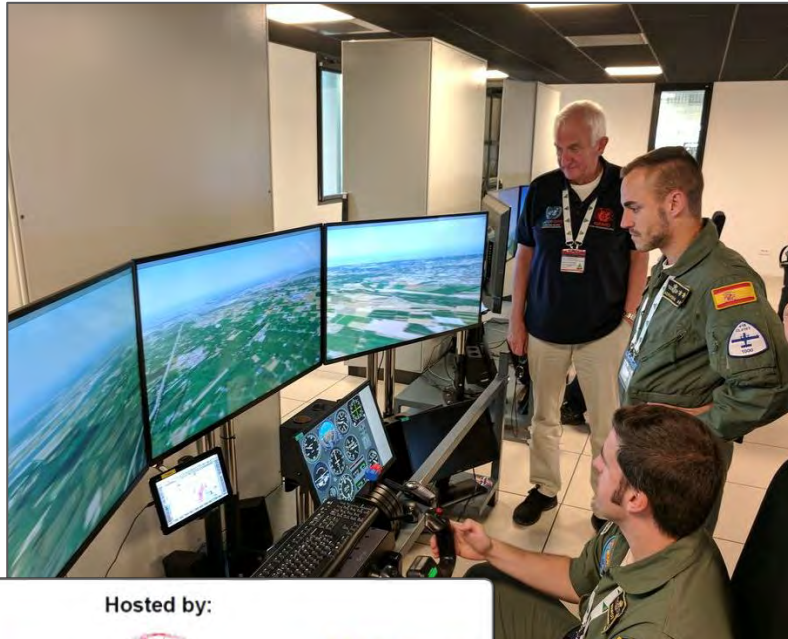
# 20171015-18: Aerial Firefighting Conference Europe 2017, Nîmes – France

Presentation of the FIRE-IN project and co-sponsorship of the Interoperability Workshop

## Linking aerial and ground resources in managing wildfire crises

- ▶ SAFE cluster presented the FIRE-IN project, and its potential for RDI and standardization on aerial fire fighting.
- ▶ TWG-C co-hosted the Interoperability Workshop, organized by the International Fire Aviation Working Group (IFAWG) and the Global Fire Monitoring Center (GFMC)
- ▶ The event aimed at connecting the world of aerial firefighters; helping shape the tactics and technologies of the AFF community, understanding the capability gaps and stakeholder priorities as well as creating interoperability. An international aerial firefighting simulation and live exercise involved aerial firefighting crews of four countries.
- ▶ For more information about the event:

<https://www.aerial-firefighting-europe.com/> and  
<http://www.ifawg.org/>



Hosted by:



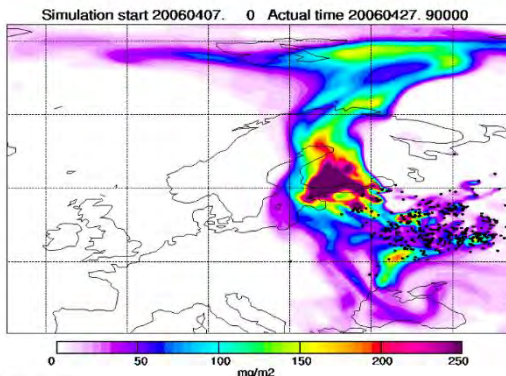


# 20171026-27: National and Regional Round Tables on Fire Management – Kyiv, Ukraine

The complexity of landscape fires and the responsible actors require the development of an informed National Fire Management Policies and regional cooperation agreements



**Transport of Fire Emissions to the European Arctic**  
Satellite images courtesy of Norwegian Meteorological Institute



Wildfires are burning across the natural, cultural and urban-industrial landscapes

- ▶ The assessment of the causes and consequences of wildfires throughout Europe reveal the need for cross-sectoral (inter-agency) cooperation and involvement of civil society in fire management.
- ▶ The excessive use of fire on actively managed and on abandoned agricultural lands results in severe collateral damages at national and regional scale, including transboundary air pollution and its consequences on the environment.
- ▶ The Regional Eastern European Fire Monitoring Center (REEFMC) with the support of FIRE-IN partner GFMC and financed by the EUR-OPA agreement came up with recommendations for change of policies and establishment of partnerships in the region

# 20171106-07: Briefing of the European Major Hazards Agreement, Paris – France

Presentation of FIRE-IN at the Meeting of the Permanent Correspondents and Directors of Specialized Centers of the European Major Hazards Open Partial Agreement of the Council of Europe (EUR-OPA)



## Offering synergies between FIRE-IN partners and EUR-OPA

- ▶ The Global Fire Monitoring Center (GFMC), coordinator of the FIRE-IN Thematic Working Group *Landscape Fires*, is serving as Euro-Mediterranean Specialized Center of the European Major Hazards Agreement, in collaboration with the European Centre for Forest Fire Center (ECFF) (General Secretariat for Civil Protection and National Technical University of Athens, Greece). Both Specialized Centers provide Networking expertise and exchange with FIRE-IN
- ▶ The decision was made to establish the *European Team of Specialists on Landscape Fire Management* under the auspices of the Council of Europe's Open Partial Agreement EUR-OPA, in cooperation with the UNISDR and the OSCE
- ▶ For more information follow the events on <http://www.fire.uni-freiburg.de/> (soon: gfmc.online)



# 20171110: Briefing of the Prime Minister and the Cabinet of Ministers – Portugal

Presentation of FIRE-IN at consultative meeting convened by Prime Minister António Costa



## Seeking innovative solutions for fire management in Portugal

- ▶ After the devastating fires season in Portugal in 2017 the government has set up the Task Force *Estrutura de Missao para a instalacao do Sistema de Gestao Integrada de Fogos Rurais* and is seeking expert advice for the definition of holistic approaches in fire management.
- ▶ A group of national and international experts provided analysis, strategic visions and recommendations for action
- ▶ The GFMC, also in its function of coordinator of TWG-C “Landscape Fire Crisis Mitigation”, presented the expertise in addressing the complexity of cross-sectoral responsibilities and challenges for management of fires in the intermix of natural, cultural and urban-industrial landscapes...
- ▶ More information on the meeting: To follow



# 20171114-15: Exchange of Experience in Holistic Landscape Fire Management

Inputs by FIRE-IN partner GFMC to the International Conference *Protection of Human Settlements and Social Infrastructure from Wildfires*, Moscow, Russian Federation



Rural exodus and agricultural burning practices – main reasons for local and regional wildfire damages

- ▶ The conference, which was co-organized by EMERCOM of Russia and the United Nations International Strategy for Disaster Reduction (UNISDR) and supported by the EUR-OPA Major Hazards Agreement and FIRE-IN partner GFMC, included participation from European neighbors, including the leadership of Civil Protection of Italy.
- ▶ FIRE-IN partner GFMC explored the theme of *Holistic Approaches in Landscape Fire Management in Eurasia: Experiences and Prospects*
- ▶ The parties attending the workshop will convey the findings of the conference to the next European Forum for Disaster Risk Reduction (EFDRR) to be held in Italy in 2018.
- ▶ More information on the meeting: To follow



# 20171121-23: Advances in Integrated Fire Management – Brasilia, Brazil

International Seminar on Integrated Fire Management (IFM): Results of the Cerrado Jalapão Project revealed the success of five years of international cooperation and exchange



## The Cerrado, a Brazilian savanna ecosystem, requires integrated fire management solutions

- ▶ Savanna ecosystems throughout the world are fairly well adapted to natural and cultural fires. Thus, the traditional approach in attempting to exclude fire from these ecosystems resulted often in changes of fire regimes associated with more intense and severe fires, resulting in ecosystem degradation. The revival of traditional early burning, as was practiced by indigenous populations in the Americas, Australia and Africa, result in less damaging fires, thus higher amount of tree cover and carbon stocks.
- ▶ The project in Brazil, implemented between 2012 and 2017, was sponsored by the German Government under the International Climate Initiative. GFMC as TWG-C coordinator has supported the project through active work at the Science-Policy-Practitioners Interface.
- ▶ More information on the meeting: To follow





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# FIRE-IN

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