CMINE Wilfire Task Group activities and fire risk modelling tools applicable for fire suppression measures

FireLinks General Assembly Meeting
8-9 October 2019

Nina Dobrinkova, CMINE Wildfire Task Group Chair

WHAT DRIVER+ DELIVERS?

Driving Innovation in Crisis Management for European Resilience

- Large EU-funded project, GA 607798, May 2014 – April 2020
- **Trial Guidance Methodology Handbook**
- a **Pan-European Test-bed** for Crisis Management Capability Building
- **Portfolio of Solutions**, many evaluated in DRIVER+ Trials
- Four trials (**wildfires** & cross-border cooperation' multi-hazard; **flood** & large scale logistics management; **earthquake** & **volunteer management**)
- Shared understanding on crisis management, bridging CM communities (PRRD), facilitating innovation (I4CMs)

WHAT IS CMINE ?

TARGET GROUPS OF CMINE

- Born in **DRIVER+** project
- **Community of Practice**
- Facilitate **exchanges at all levels of the crisis management cycle**
- **Fostering innovation** and **enhancing a shared understanding** in the fields of Crisis Management and Disaster Risk Reduction in Europe
    - Through an ***umbrella network of stakeholders***
    - Through an ***enabling environment*** to reduce fragmentation, generate ideas and help identify innovative solutions

CMINE THEMES & TASK GROUPS

REFLECTING DRIVER+ THEMES

CMINE THEMES & TASK GROUPS

Volunteer Management

- Focus: psychosocial support for spontaneous volunteers
- Members from: Estonia, Denmark, Germany, Italy, Israel, Portugal, Switzerland

Wildfires

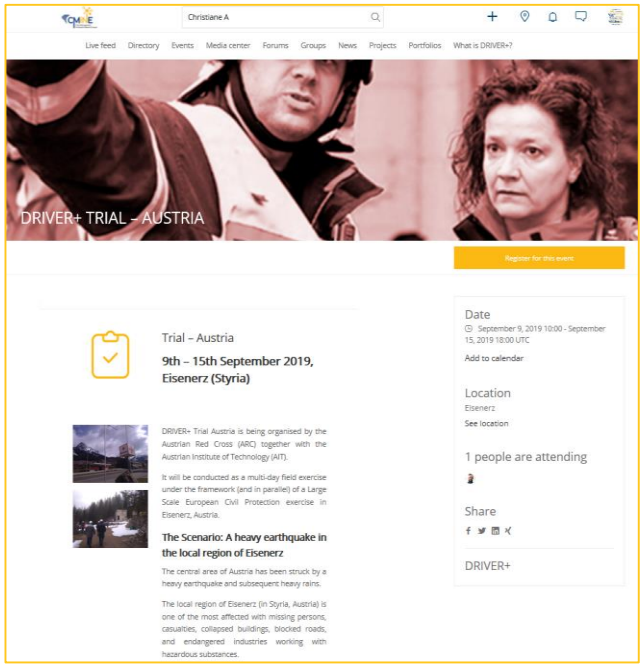
- Focus: making open source data available to practitioners and ensure compatibility across states
- Members from: Cyprus, Germany, Greece, Ireland, the Netherlands, Spain, Portugal, United Kingdom,

Floods

- Focus: assessment of effectiveness of emergency measures in flood risk management
- Members from: Bulgaria, Denmark, France, Germany, Hungary, the Netherlands, Spain

GLIMPSE INTO CMINE PLATFORM

Events



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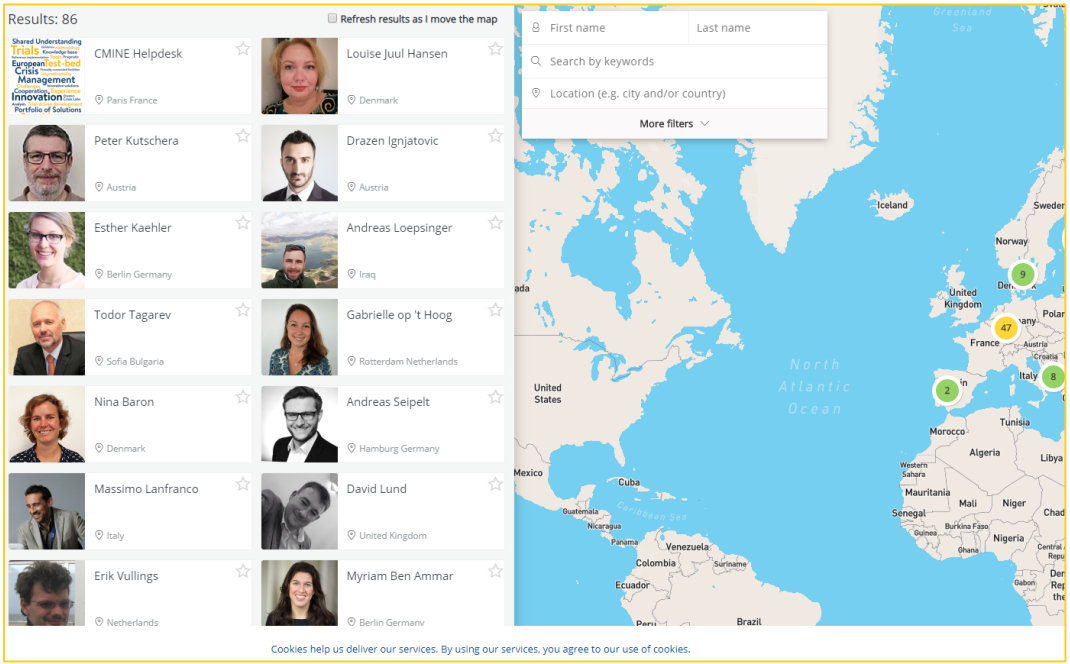
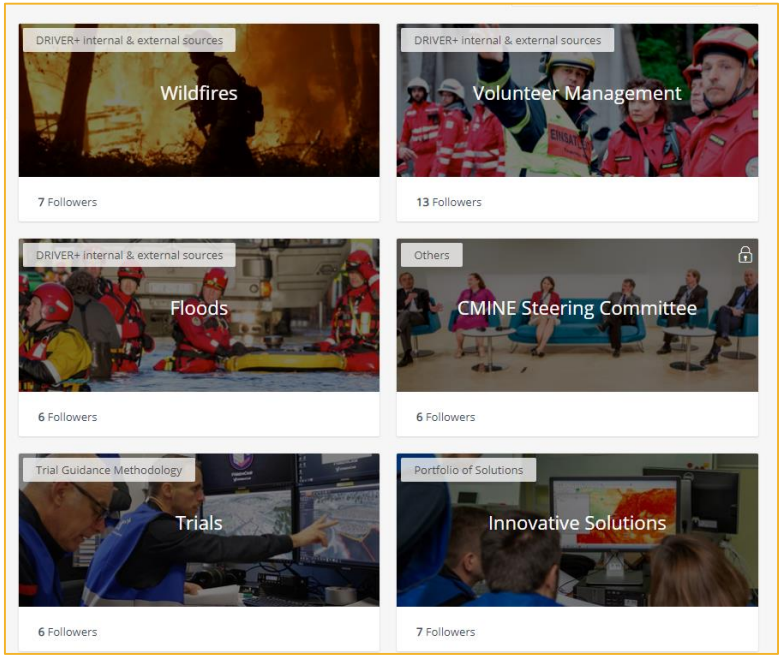
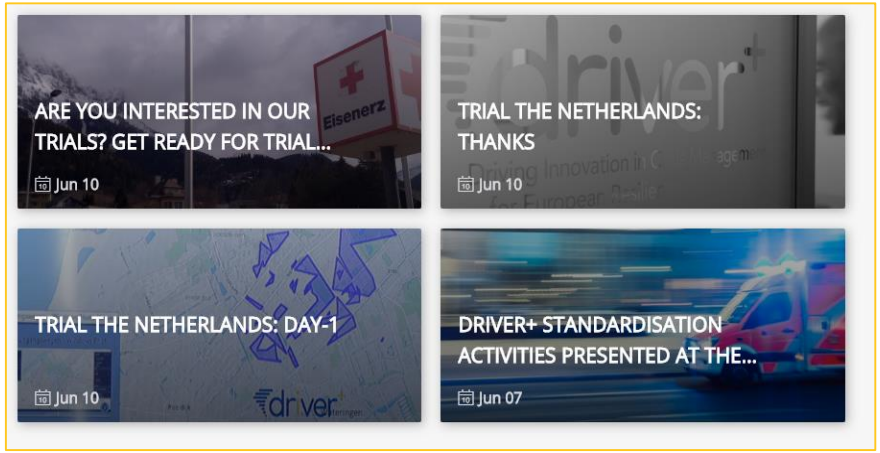


GLIMPSE INTO CMINE

Groups



News



Registration is easy process and can be done at the link: **https://www.cmine.eu/**

WILDFIRE TASK GROUP MEMBERS

The Wildfire Task Group of CMINE consists of:

10 members and 4 reviewers

1. Alexander Held (Germany)
2. Charles Bushey (USA)
3. Marc Castellnou (Spain)
4. Cathelijne Stoof (Netherlands)
5. George Boustras (Cyprus)
6. Georgios Eftychidis (Greece)
7. Ciaran Nugent (Ireland)
8. Craig Hope (UK)
9. Carlos Trindade (Portugal)
10. Adrián Cardil Forradellas (Spain)

1. Peter Moore (FAO - Italy)
2. Alice Clemenceau (VALABRE -France)
3. Rob Testelmans (Geel City - Belgium)
4. Dejan Radović (Serbia)

MEETINGS OF THE WILDFIRE TG

- Kick off for the TG work in March 2019 as a back to back with the 13th Meeting of CoU in Brussels.
- Second meeting of the TG has been done in end of April 2019 as back to back with the 6th Fire Behaviour and Fuels Conference in Marseille.
- 3rd and final meeting will be done in the period 18-19 November 2019 as back to back with the EWWF Wildfire Conference 2019 in Cardiff.

WORK DONE SO FAR

- **Road Map** of the Wildfire Task Group has been elaborated and finalized in June 2019
- **SWOT Analyses** done within the group members in order to spot gaps in the wildfire sector in all of its phases (prevention, preparedness, response and recovery).
- Elaboration of final report under the scope of :

“A Framework for Wildfires Risk Reduction”

based on the task group members best practices and recommendations for improvements in the field.

WHY WE ARE DOING ALL OF THIS EFFORTS?

WHY THIS DISCUSSIONS AND NETWORKS ARE NEEDED?

PORTUGAL FIRE (2017)

WHY THIS DISCUSSIONS AND NETWORKS ARE NEEDED?

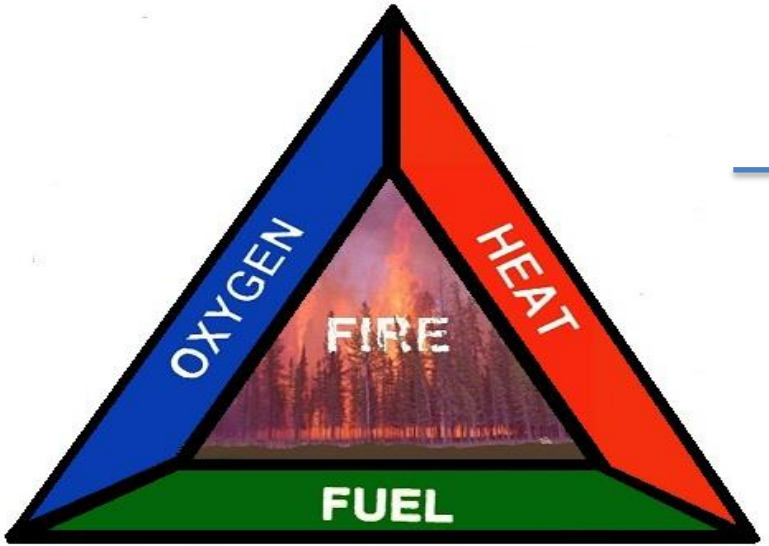
GREECE FIRE (2018)

WHY THIS DISCUSSIONS AND NETWORKS ARE NEEDED?

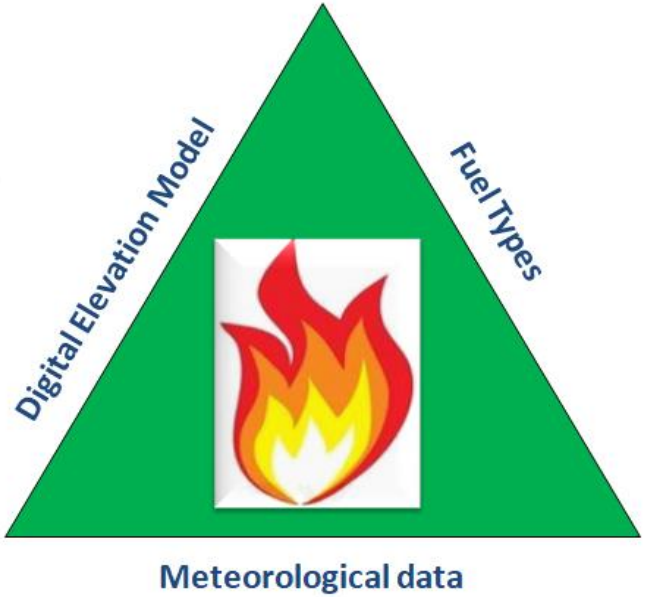
BULGARIAN FIRE (2017)

WE NEED TO LEARN FROM OUR PAST AND AVOID REPEATING IT IN FUTURE

Wild Land Fires Nature



Simulation preparedness actions



technosylva
Advanced Solutions for Wildland Fire

THE ULTIMATE SOFTWARE FOR ANALYZING WILDFIRE GROWTH AND BEHAVIOR

Wildfire ANALYST

REAL-TIME ANALYSIS OF WILDFIRE BEHAVIOR

WILDFIRE ANALYSIS

Wildfire Analyst is software that provides real-time analysis of wildfire behavior and simulates the spread of wildfires. Simulations are completed quickly, in seconds, to support real time decision making. Wildfire Analyst provides a range of analytical outputs, available as GIS maps and charts, that empower more accurate and timely decision making. For wildland fire, time is of the essence, whether through the desktop platform, or web and mobile enabled applications, capabilities and results are deployed to those who need it, when they need it, without delay.

- SIMULATION MODES
- FIRE BEHAVIOR OUTPUTS
- REAL-TIME PERFORMANCE
- SEAMLESS INTEGRATION
- CUSTOM APPLICATIONS

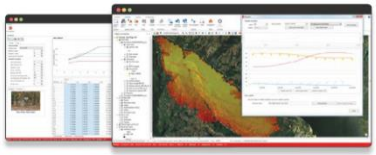
www.technosylva.com www.wildfireanalyst.com

CHECK OUT OUR WEBSITE FOR MORE INFORMATION!

Wildfire ANALYST

PROVIDING THE BEST TOOLS FOR MORE INFORMED DECISION MAKING

INCREDIBLE PERFORMANCE



Wildfire Analyst was designed to be used at the ICP, operations center, or directly on scene. The software can use predefined weather scenarios, or current and forecasted weather, to model fire behavior and provide **outputs within seconds**.

This fast performance facilitates use of the **outputs in real-time**, and allows for constant adjustment based on field observations and deployment decisions by the incident team.

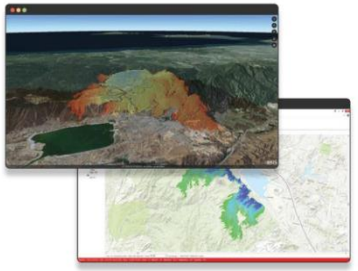
COMPREHENSIVE OUTPUTS

Wildfire Analyst provides a **comprehensive set of outputs and tools** for each simulation that is tied directly to the time stamp of the weather conditions and data inputs for an incident.

The real time performance allows you to create **multiple simulations for an incident, easily and quickly**, reflecting changing conditions and response tactics during the incident lifecycle.

Outputs & Tools Include:

- Time of arrival & fire permiters
- Conventional fire behavior
- HD wind field generation
- Campbell Prediction System
- Fire behavior calculator
- Fuels mapping adjustments
- Critical fire paths
- Suppression capacity



SIMULATION MODES

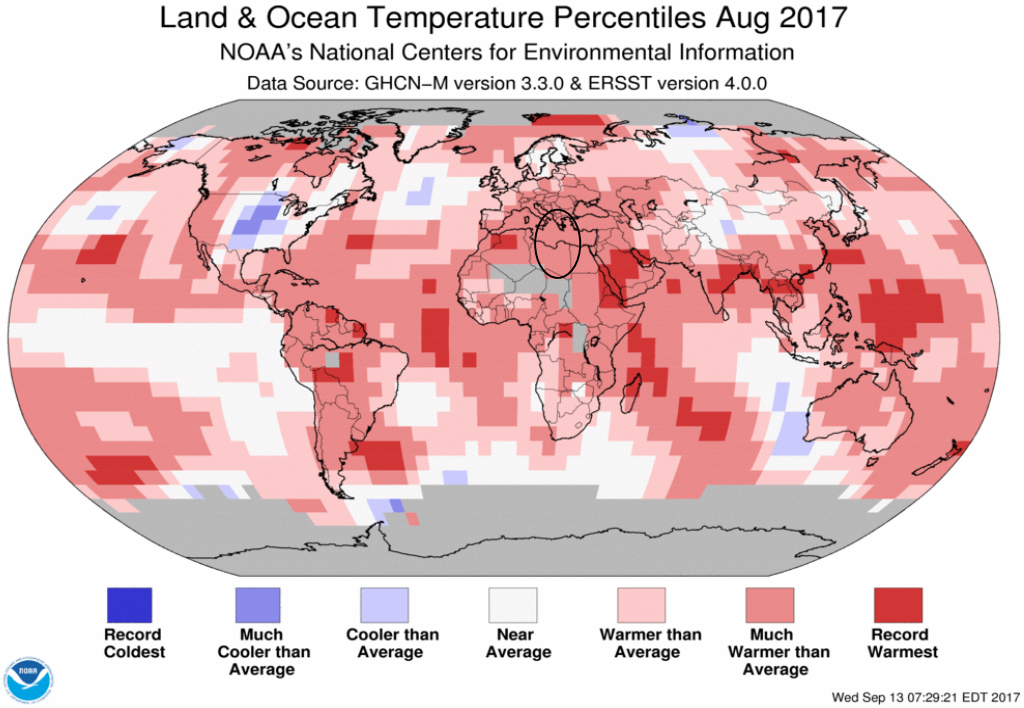
Wildfire Analyst offers a variety of simulation modes capable of meeting user's simulation needs and requirements. These simulation modes include: conventional fire spread, reverse time, evacuation time, probabilistic analysis and adjustment mode.

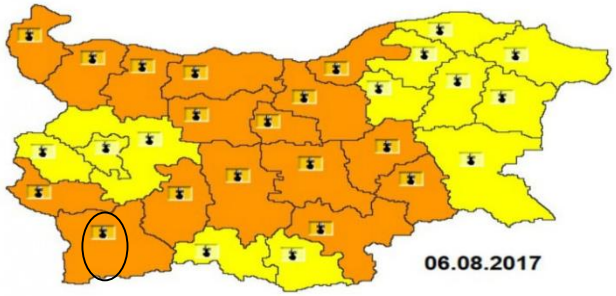
contact@technosylva.com 970.213.4635

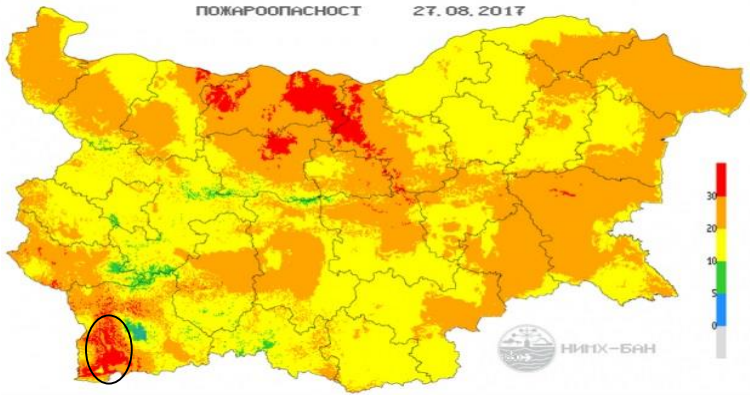
CONTACT US FOR A DEMO TODAY!

Weather Conditions Before Kresna Fire

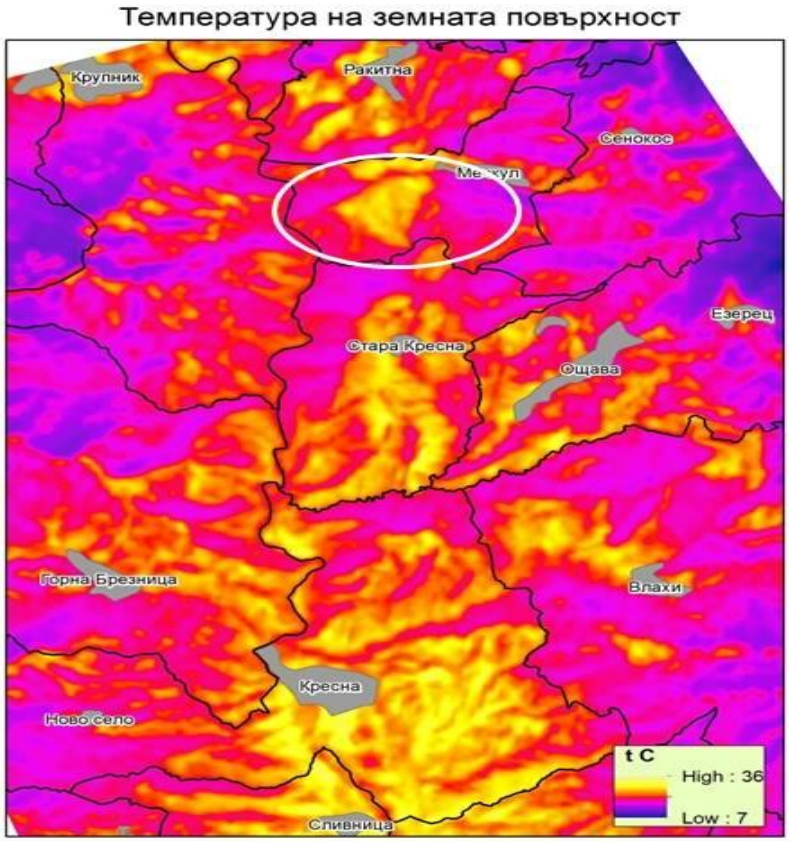
August 2017 is with extreme weather for the Bulgarian territory.



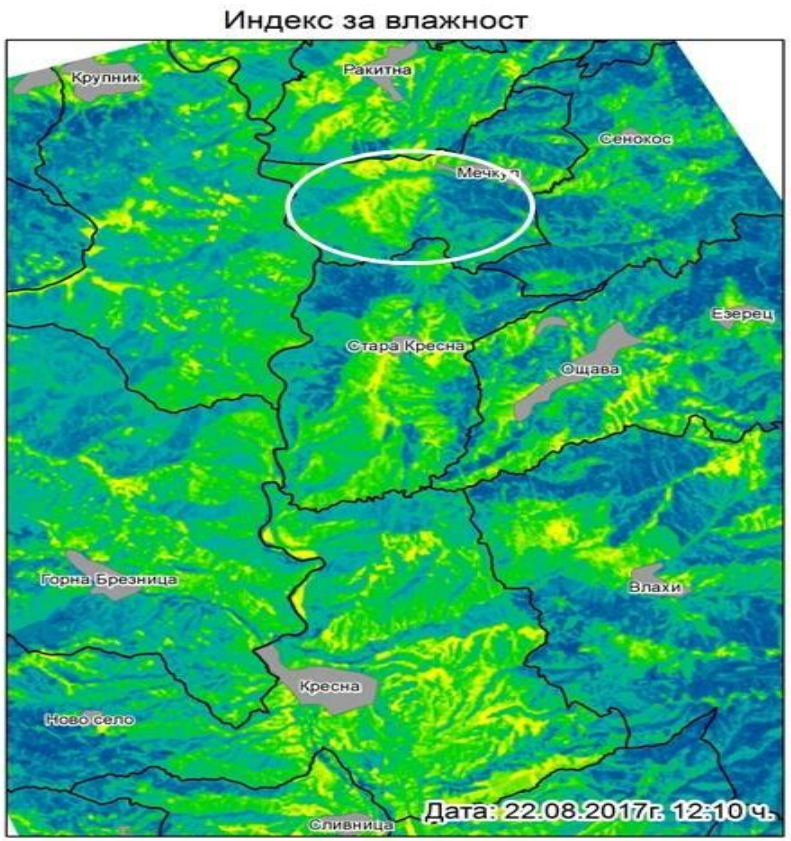




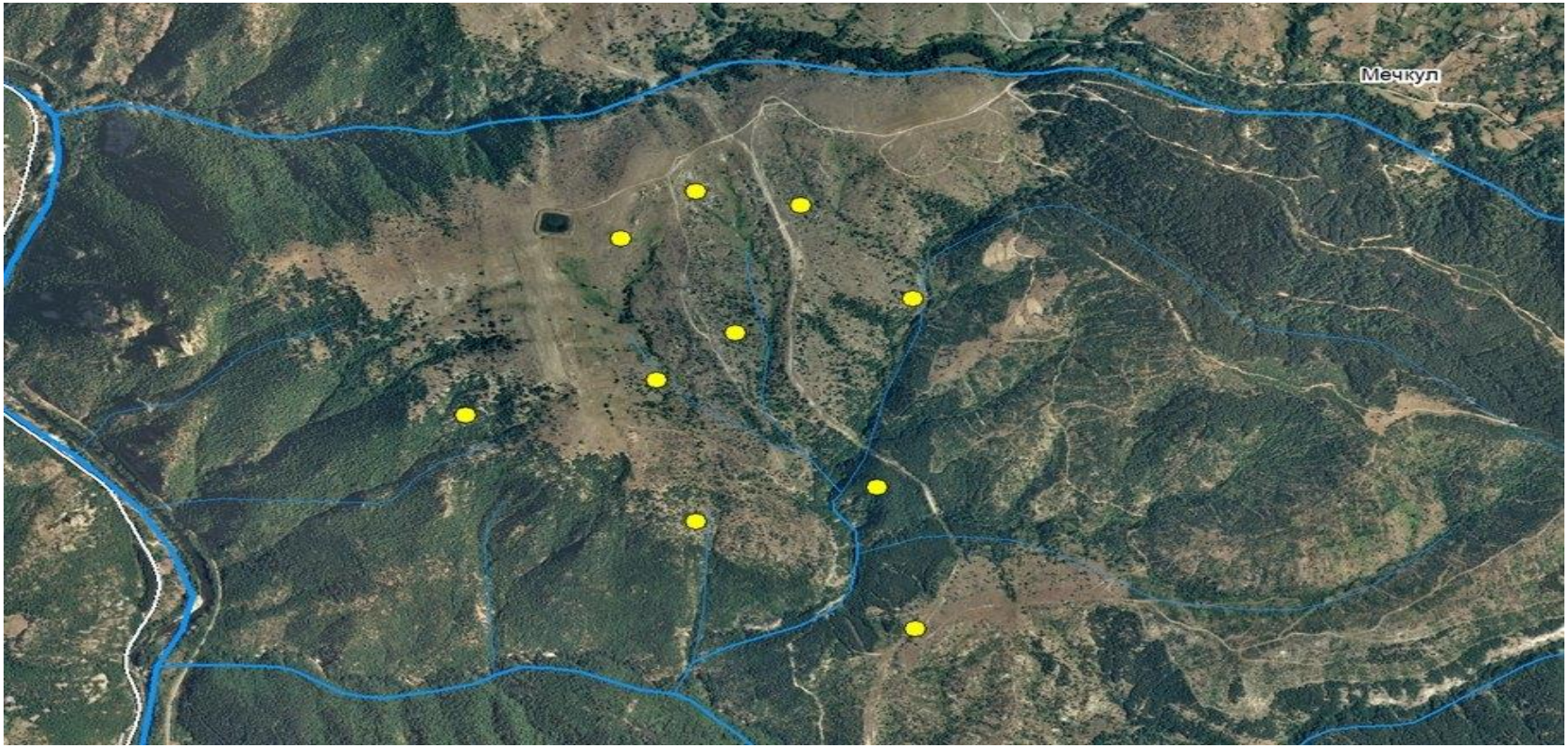
Temperature of the earth surface



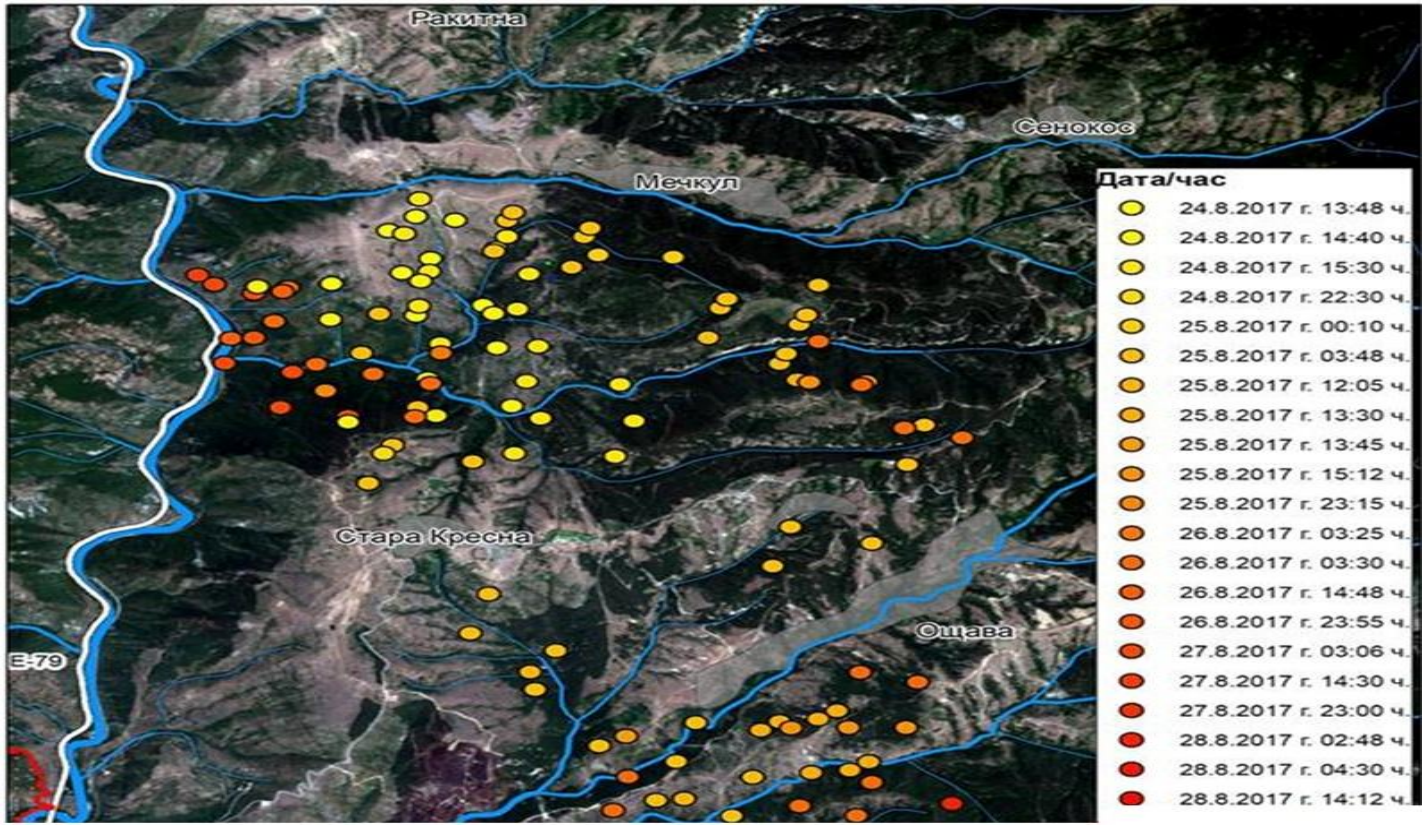
Humidity index



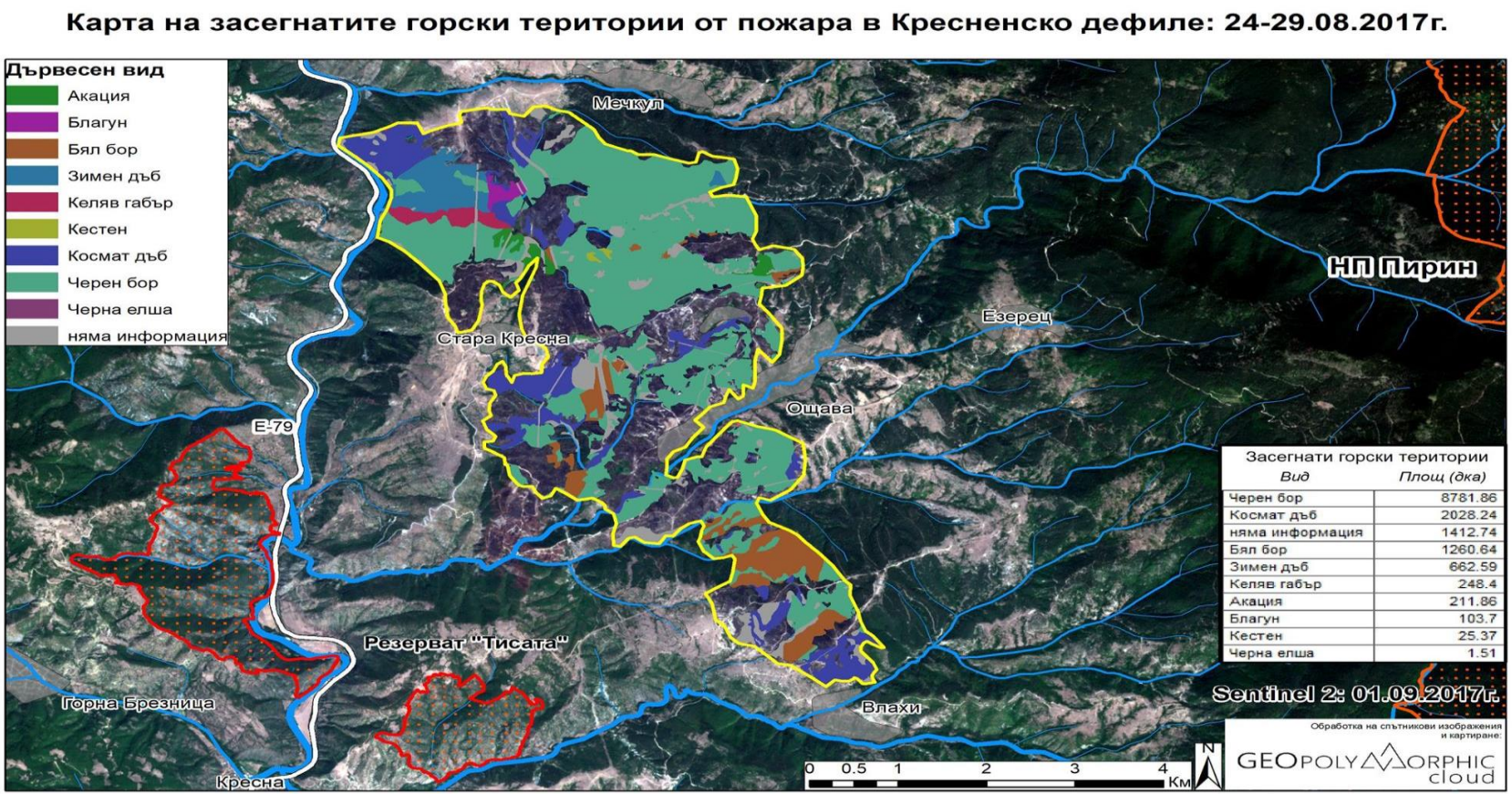
Satellite VIIRS Active Fire Product from 24.08.2017 – Temperature anomalies

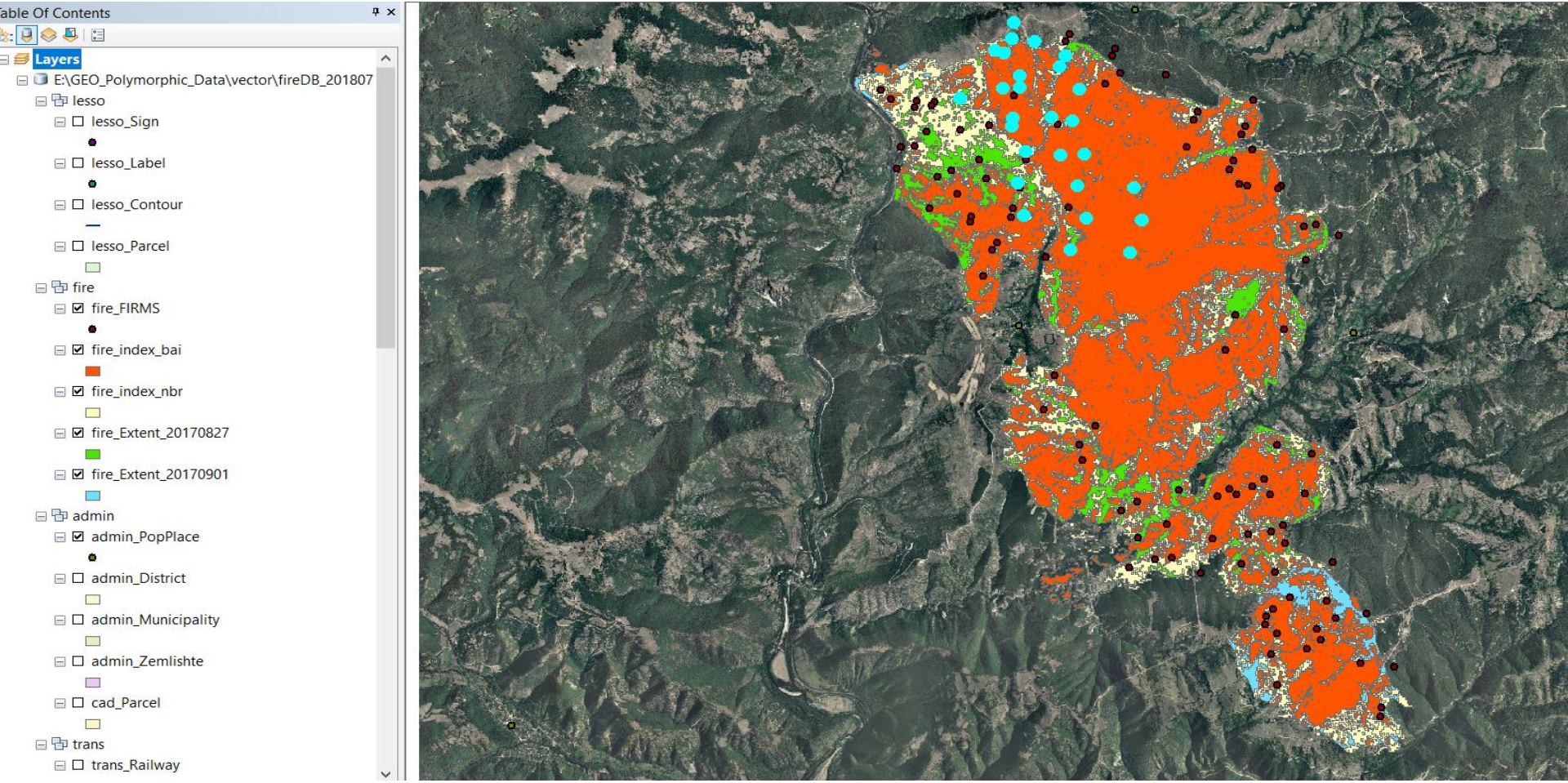


Satellite VIIRS and Modis – Temperature anomalies (24-29 August 2017)



MAP OF ALL AFFECTED FORESTRY AREAS IN KRESNA FIRE 24-29.08.2017

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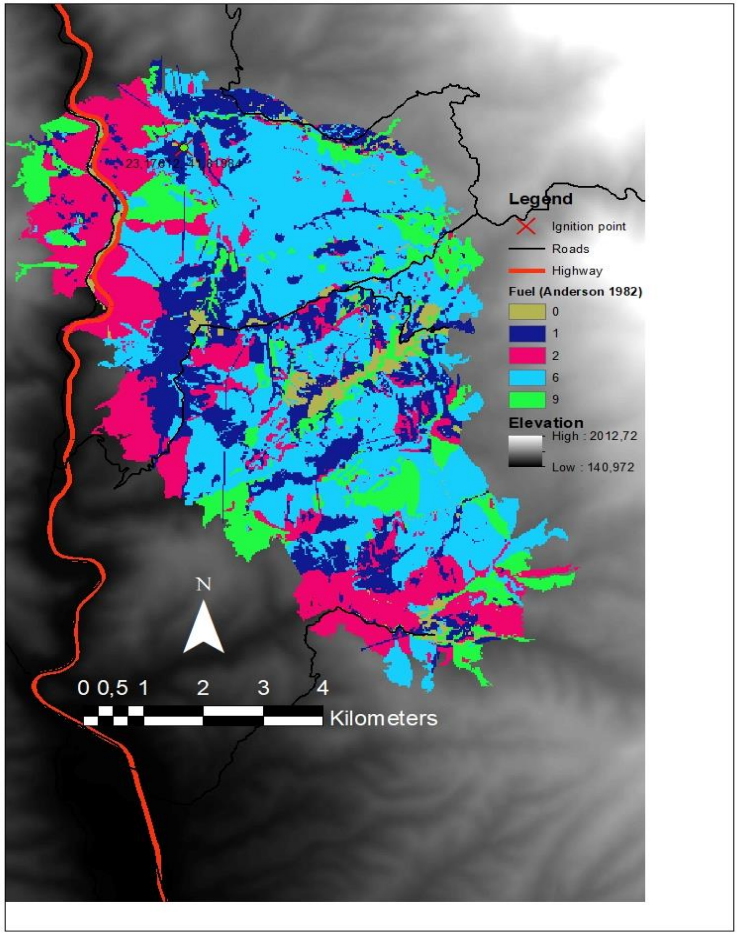
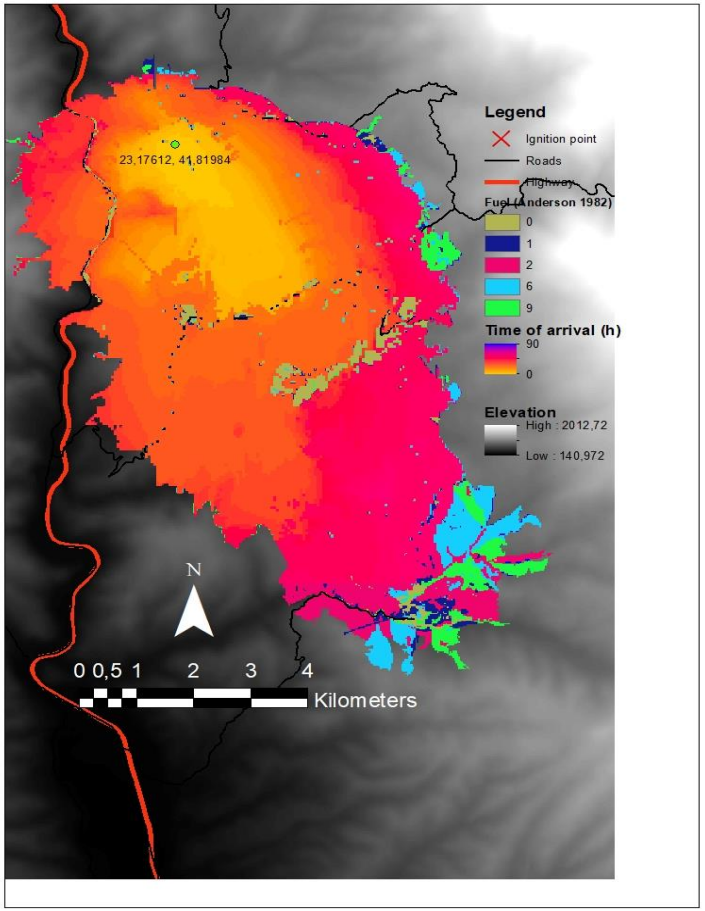
FBFMs with WFA



Simulation results with WFA



KRESNA FIRE VIDEO

CONCLUSION

Fire is part of the natural life cycle of the wildlands. We can not stop it, but working together with multidisciplinary approach can deliver as a final result:

Resilient Landscapes, Adapted Communities, Adequate Response!

THANK YOU FOR YOUR ATTENTION!

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ninabox2002@gmail.com