



PROGRAMME OF THE
EUROPEAN UNION



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Early warning and monitoring for wildfires:

Wildfires in the European Union in 2023

European Forest Fire Information System (EFFIS) Team

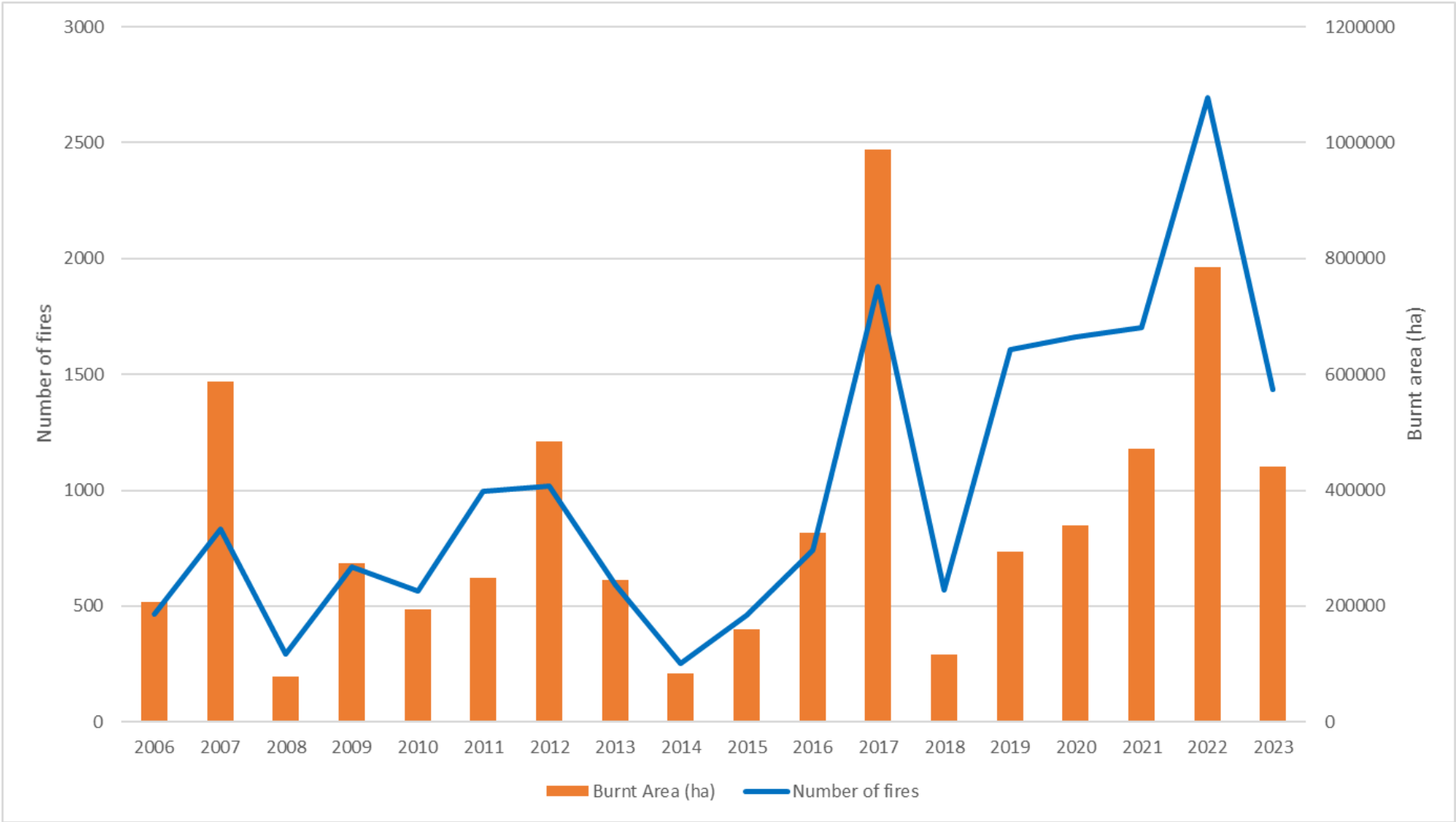
Integrating Disaster Risk Data in Policy

13 October 2023

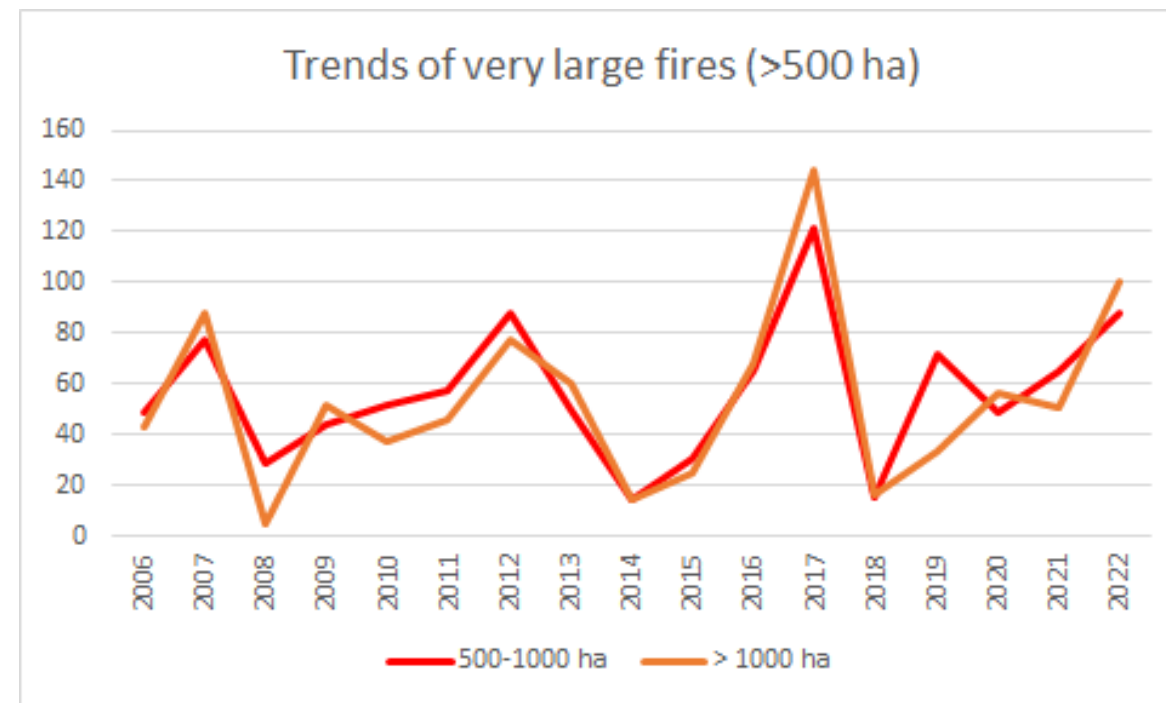
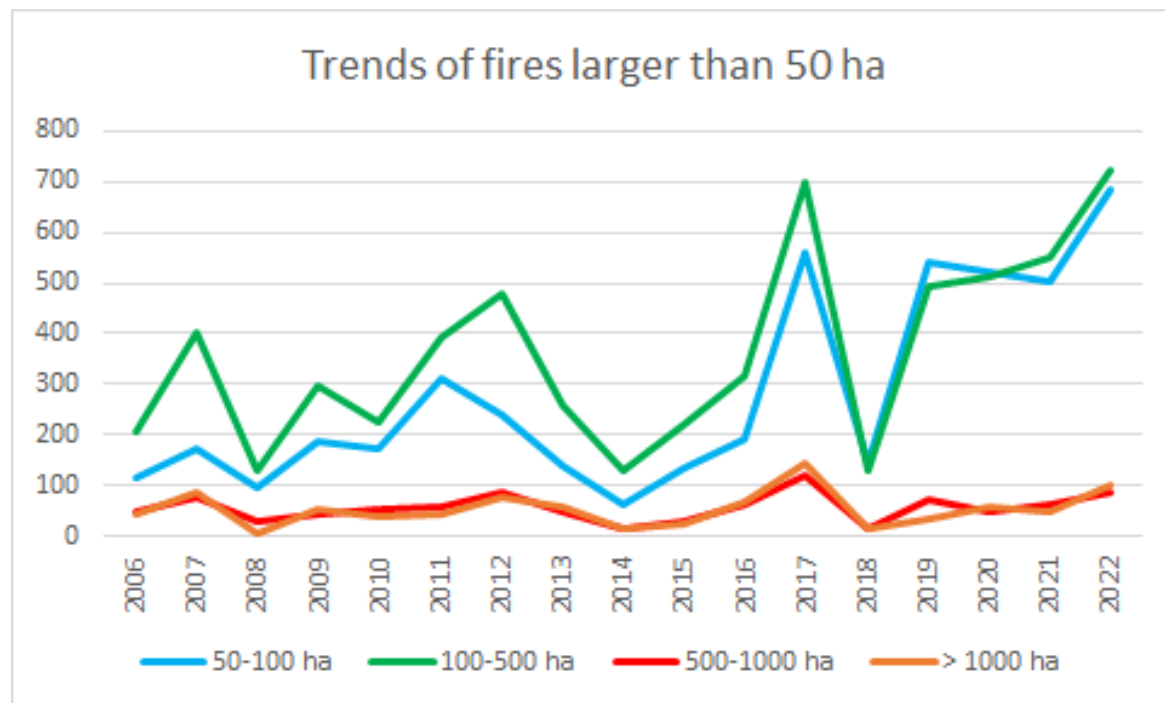
Outline

1. General trends of burnt areas and number of fires
2. Trends of fires by fire size
3. Contribution of fires of different sizes to the total burnt area
4. Trends of number of fires, burnt areas and fire danger in northern, central and southern EU
5. Wildfire emissions
6. Wildfires larger than 30 ha mapped in EFFIS in 2023 – current situation in the EU
7. Area burnt in Natura 2000 sites
8. Economic losses by wildfires
9. Fire danger and climate change
10. Summary

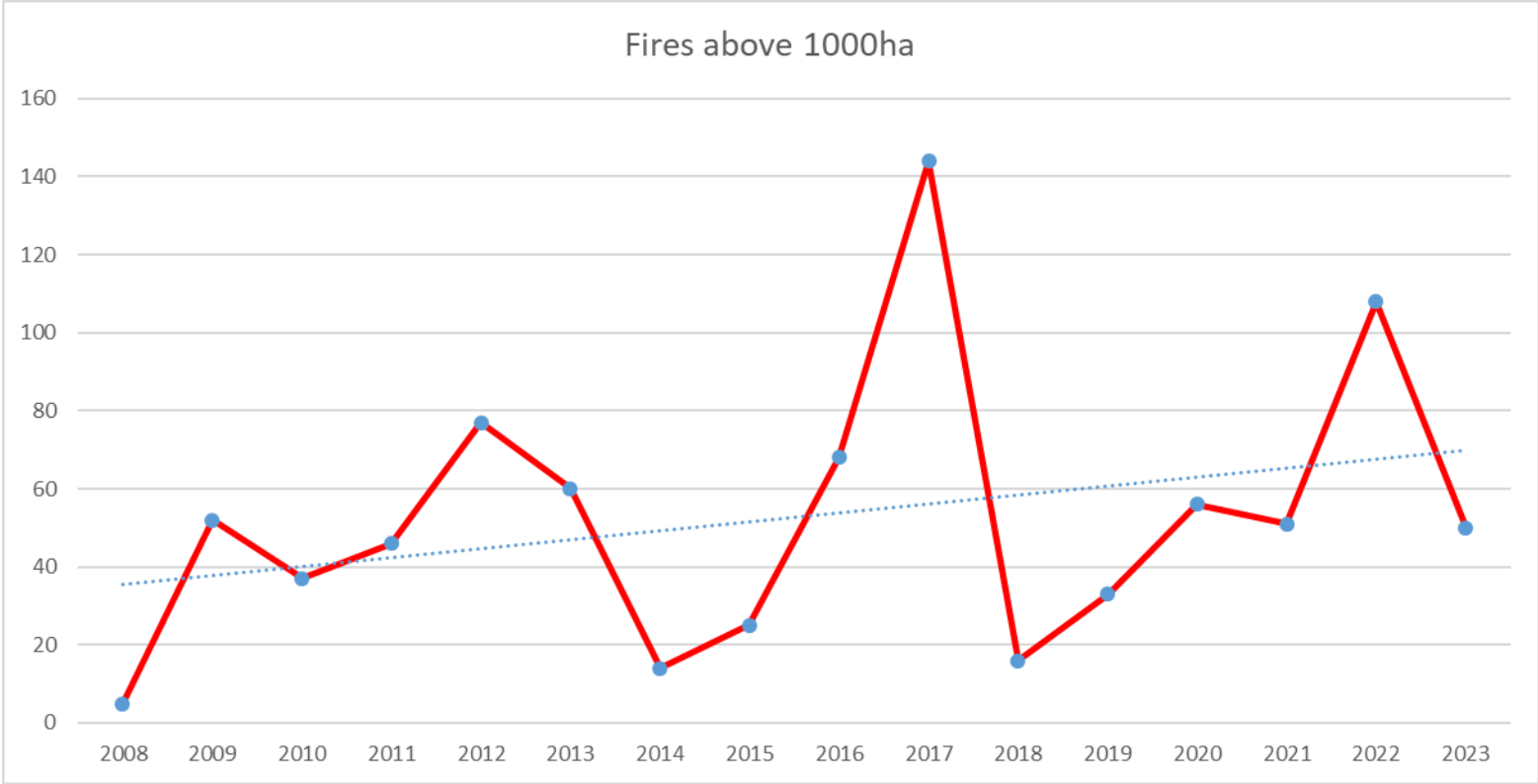
General trends in the period 2006-2023



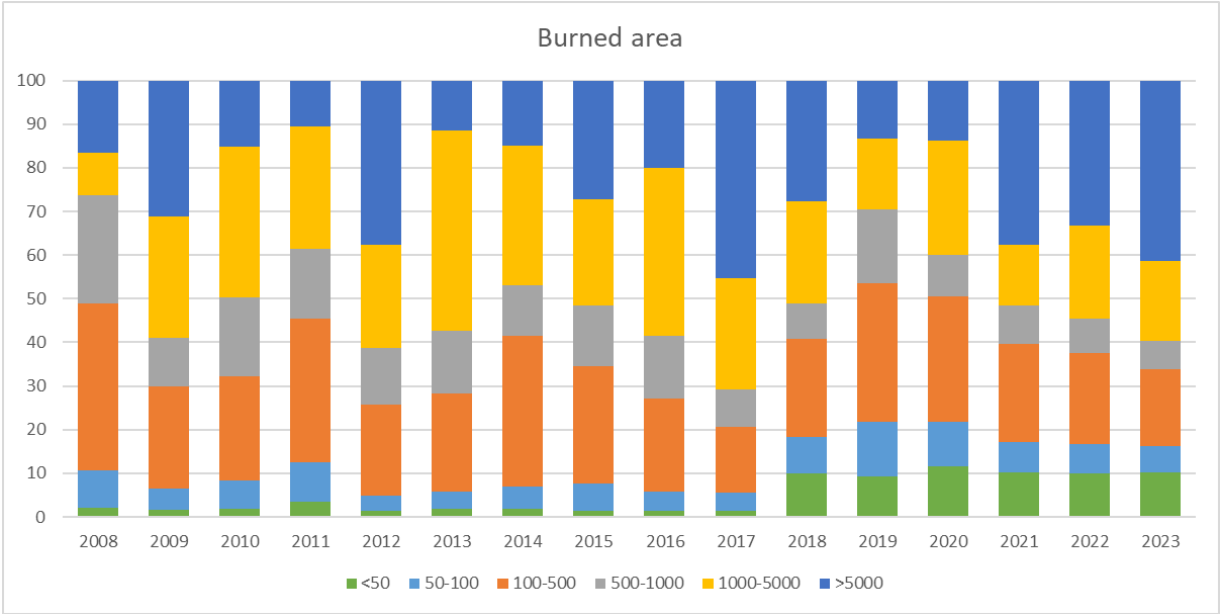
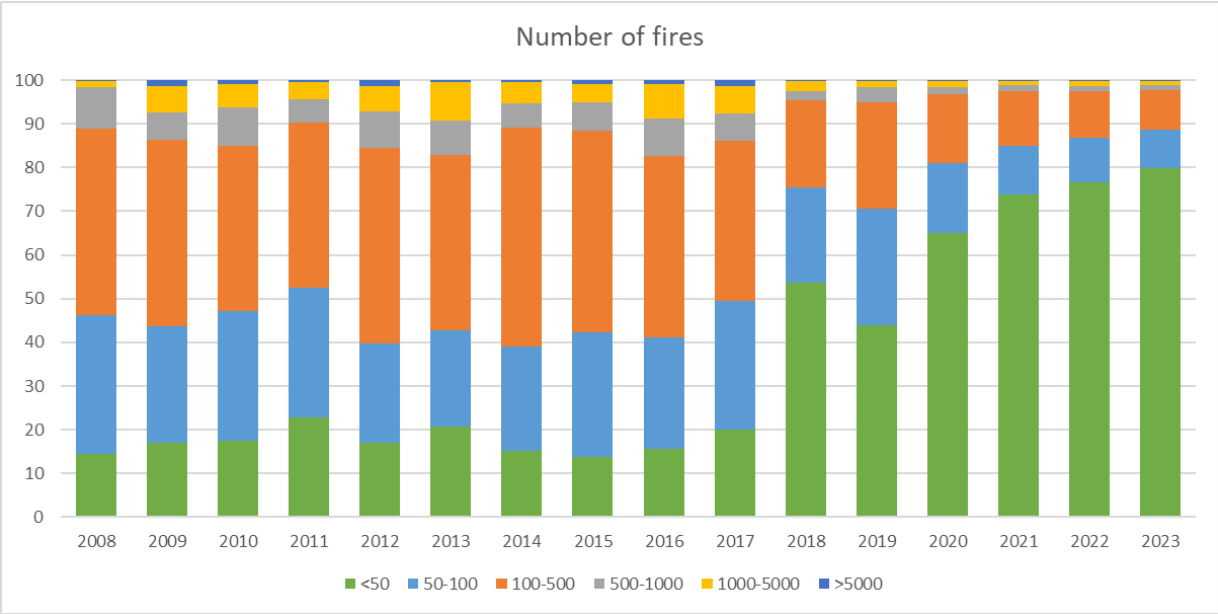
General trends in the period 2006-2022



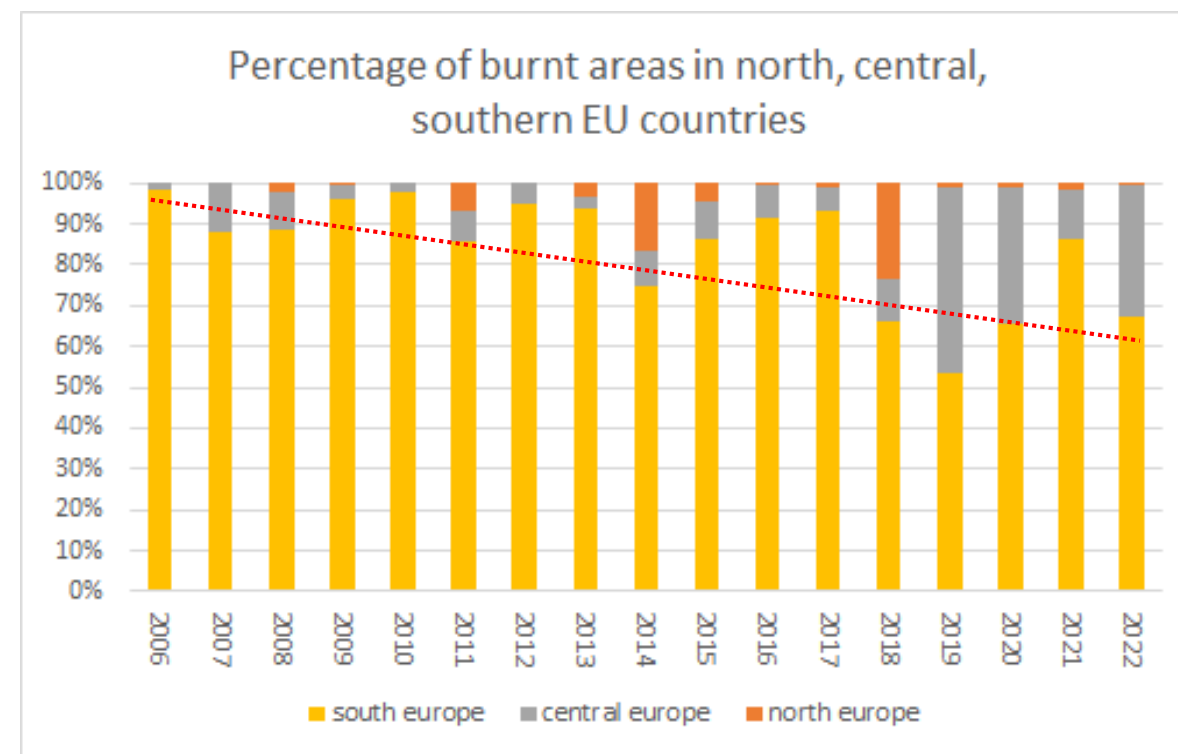
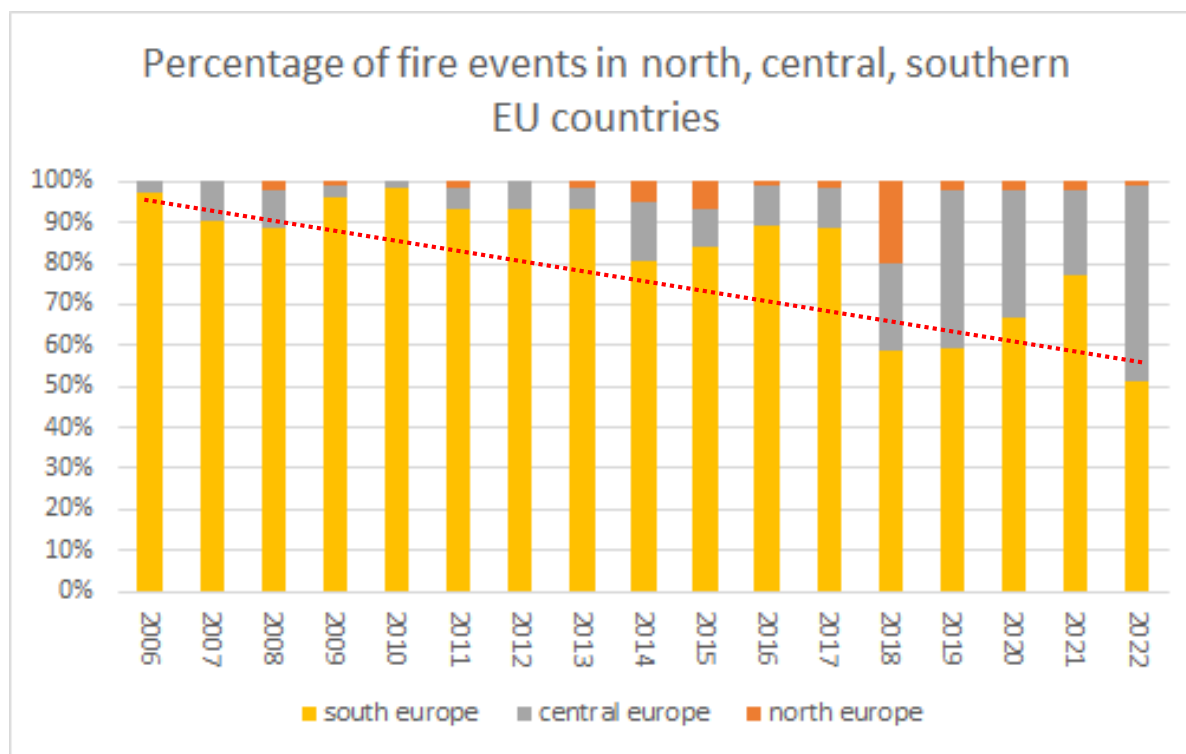
General trends in the period 2006-2023



Wildfire by size in the period 2006-2023



Number of fires and burnt areas in northern, central and southern EU 2006-2022



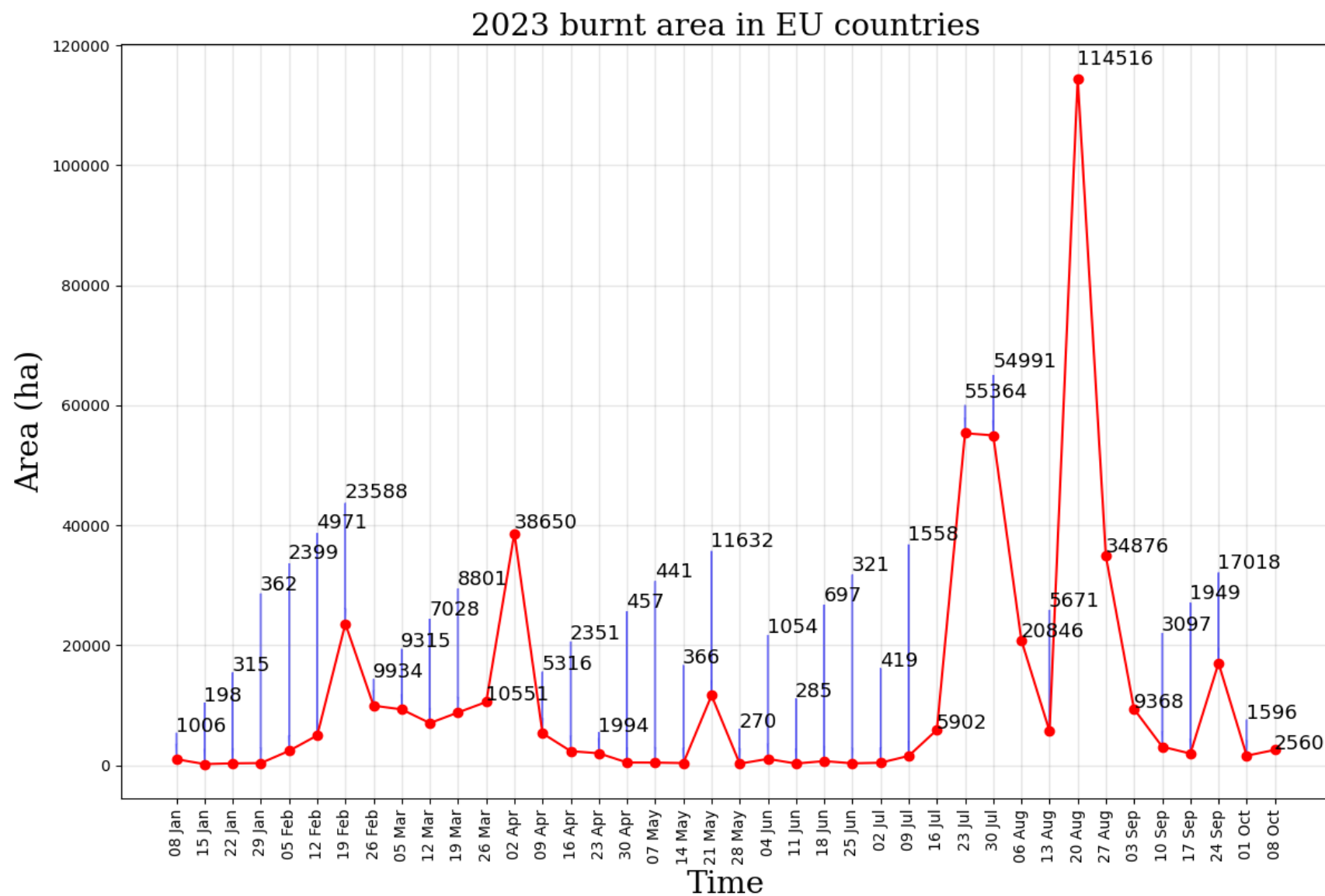
Largest wildfires in the EU in 2023

Year	Burnt area	Country
2023	96610	Greece
2023	18626	Greece
2023	11923	Spain
2023	11662	Greece
2023	10843	Spain
2023	9722	Spain
2023	8634	Greece
2023	8145	Portugal
2023	6679	Portugal

Largest wildfires in the EU since 2000

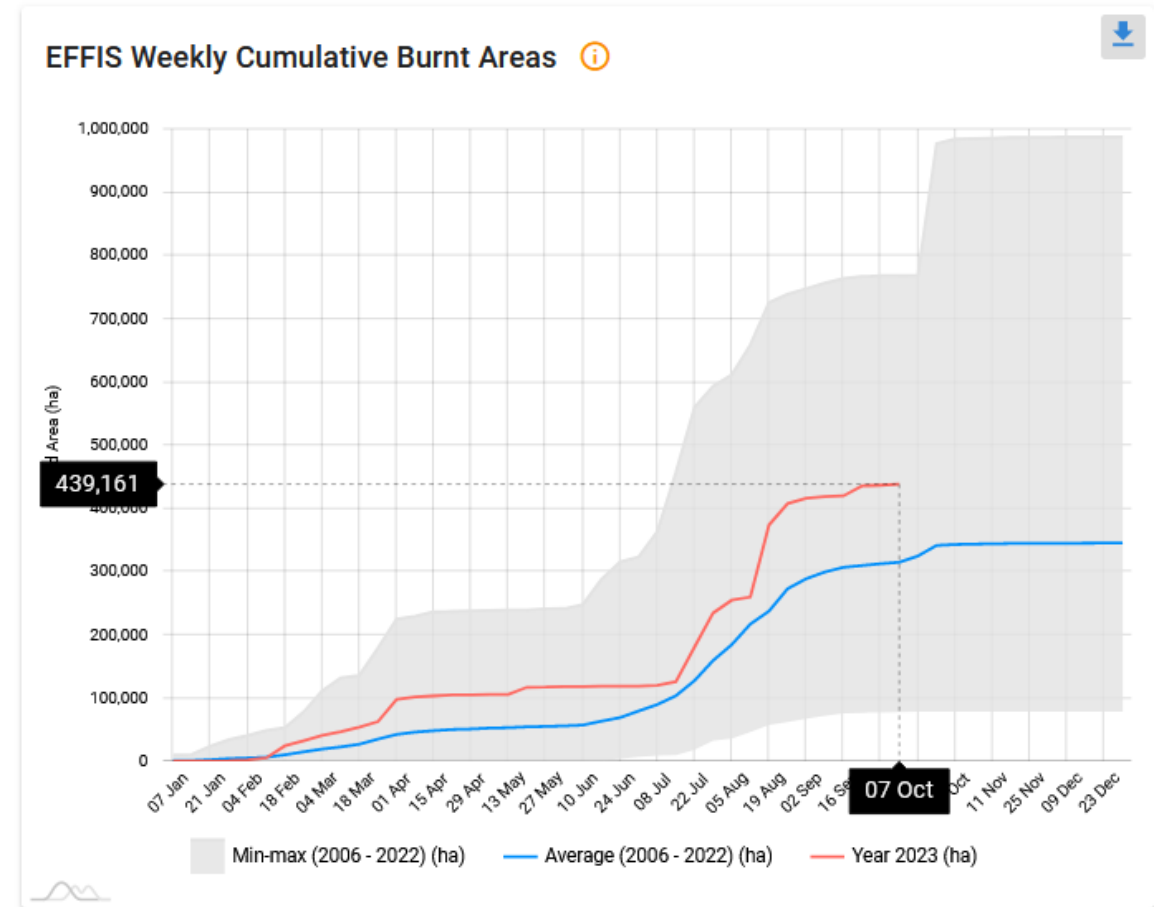
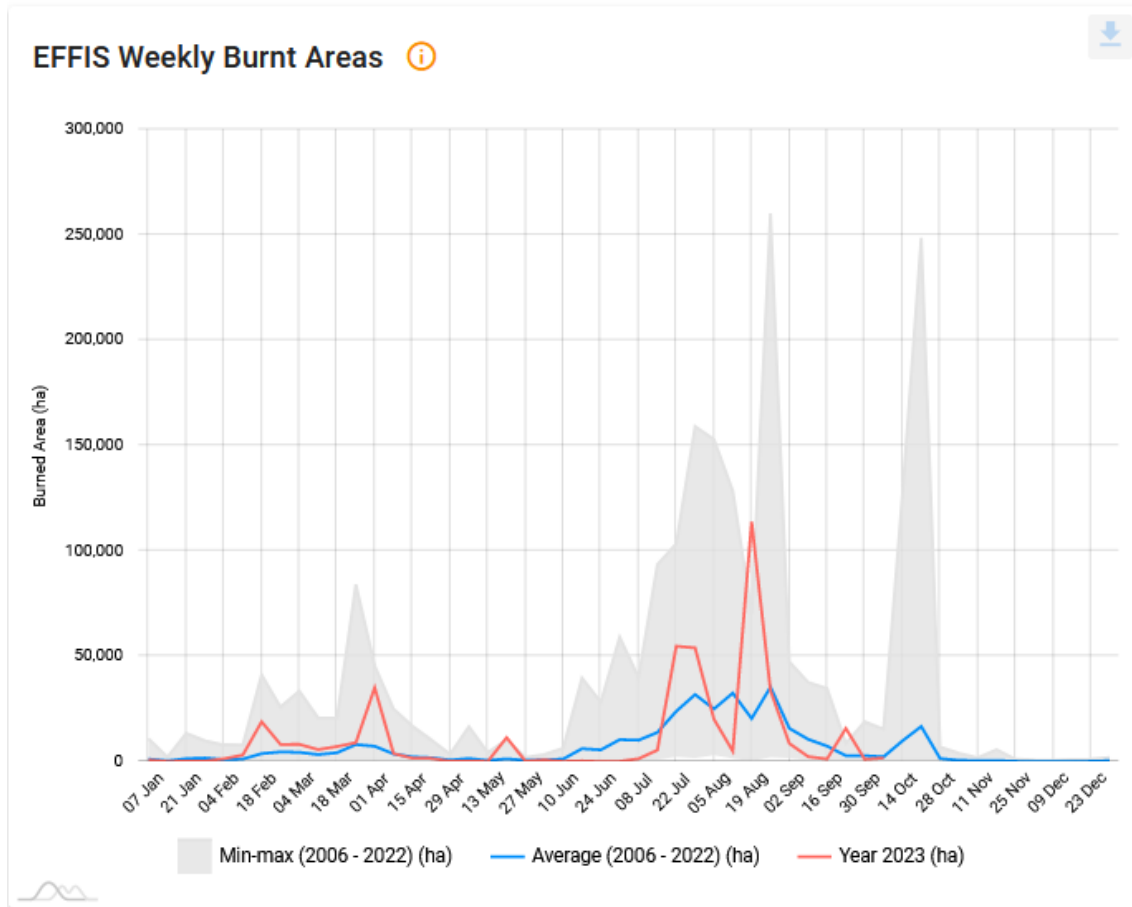
Year	Burnt area	Country	Region	Province
2023	96610	Greece	Eastern Macedonia, Thrace	Έβρος
2017	67521	Portugal	Centro (PT)	Viseu Dão Lafões
2017	64321	Portugal	Centro (PT)	Região de Coimbra
2003	59156	Portugal	Centro (PT)	Beira Baixa
2003	53568	Portugal	Centro (PT)	Médio Tejo
2003	52233	Portugal	Algarve	Algarve
2021	51881	Greece	Central Greece	Εύβοια
2007	45809	Greece	Western Greece	Ηλεία

Weekly burnt areas in 2023



<https://effis.jrc.ec.europa.eu/apps/effis.statistics/seasonaltrend>

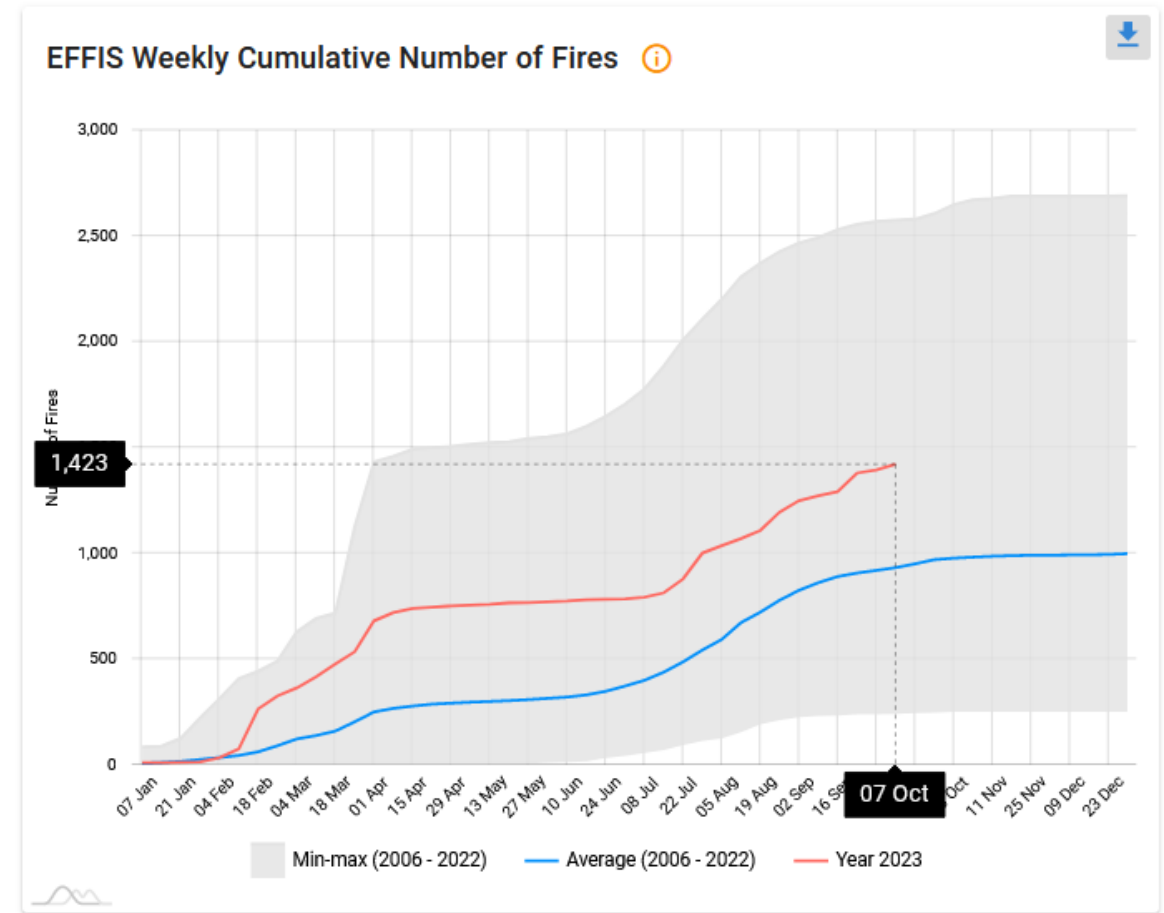
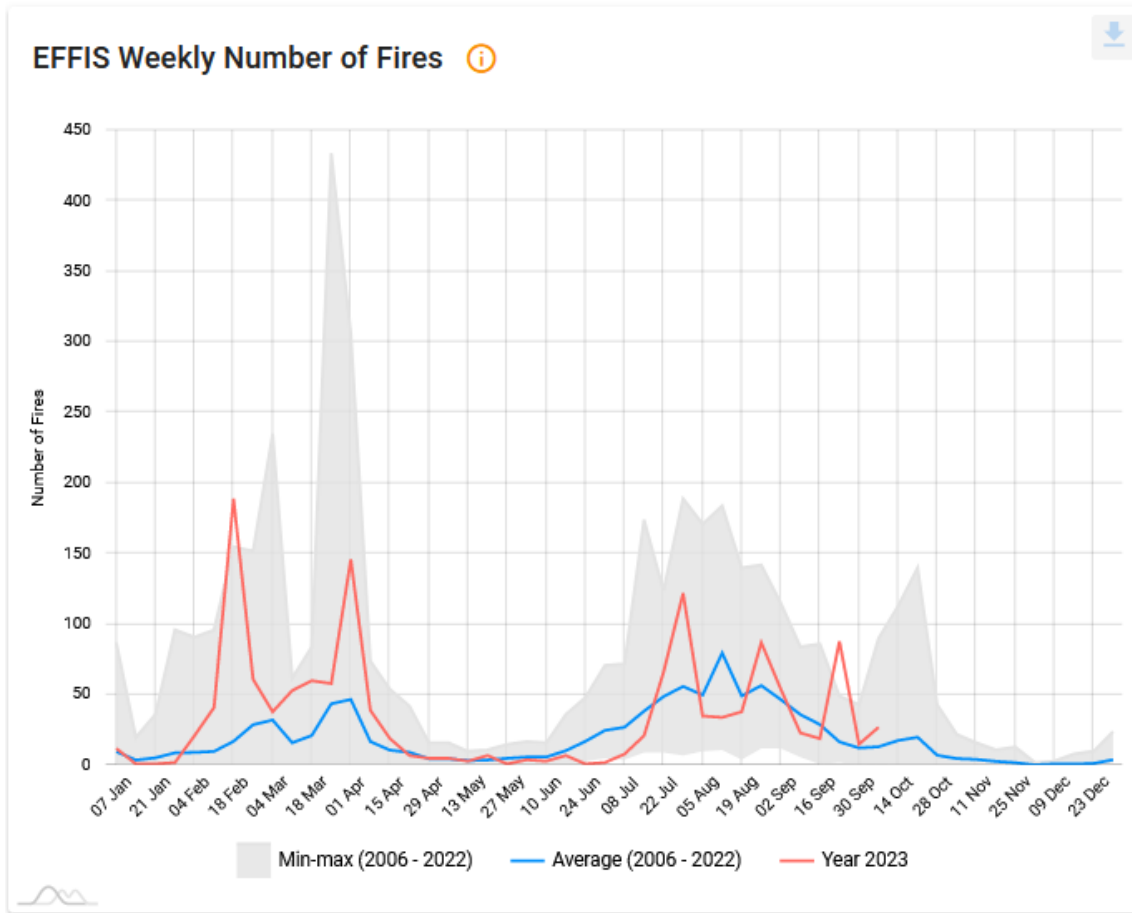
Burnt areas in 2023



Estimate of 498308 ha burnt by fires of all sizes October 10th, 2023

<https://effis.jrc.ec.europa.eu/apps/effis.statistics/seasonaltrend>

Number of fires in 2023



Estimate of **1423** fires larger than 30 ha mapped until October 7th, 2023

Rapid Mapping of wildfires

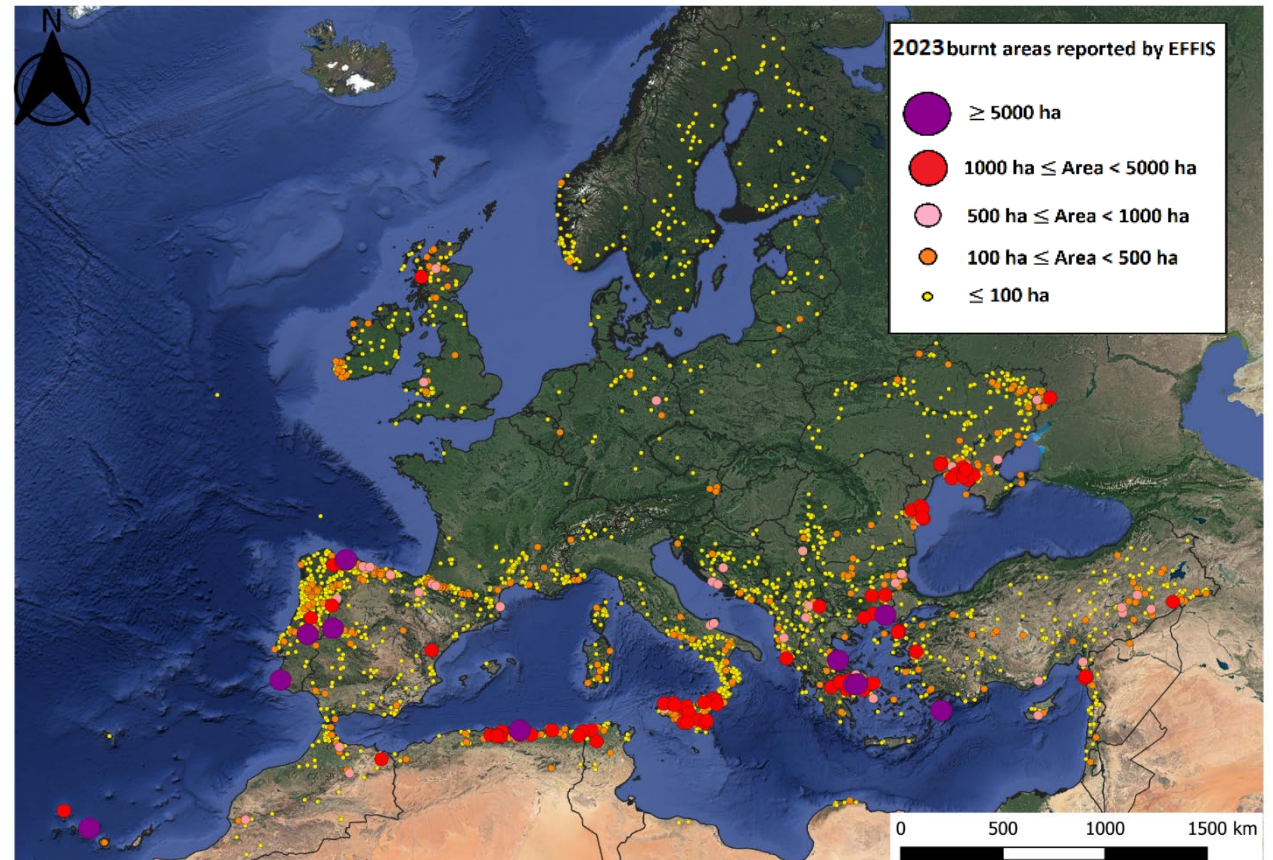
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EFFIS wildfire monitoring - 2023

Rapid Mapping: 22 fires mapped

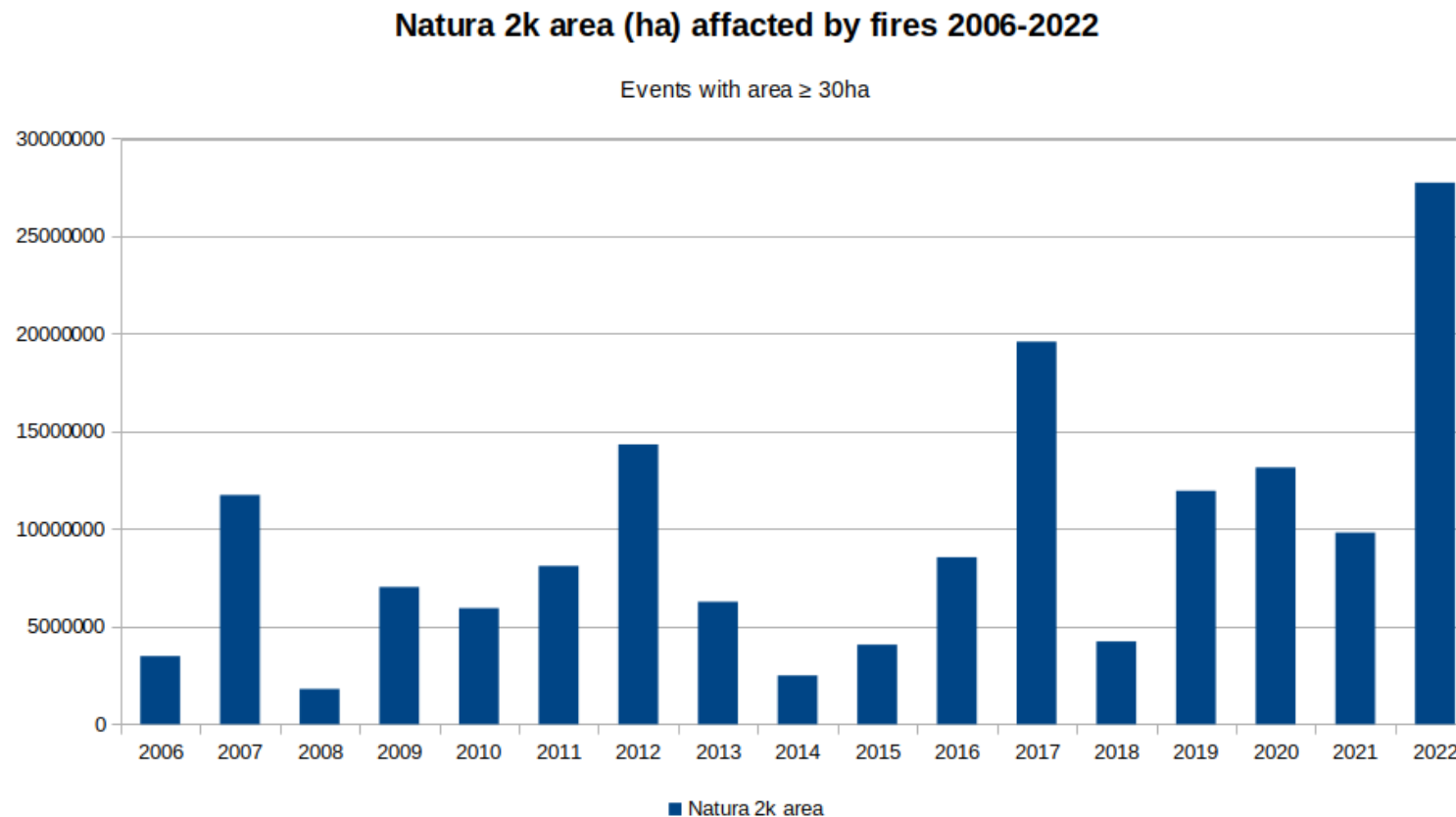
Act. Code	Title	Act. Date	Type	Country/Terr.
EMSR690	Wildfire in North Attica, Greece	2023-08-23	Wildfire	Greece
EMSR689	Wildfire in Rodopi, Greece	2023-08-22	Wildfire	Greece
EMSR688	Wildfire in Euboea Island, Greece	2023-08-22	Wildfire	Greece
EMSR687	Wildfire in Sterea Ellada Region, Greece	2023-08-22	Wildfire	Greece
EMSR686	Wildfire in East Macedonia, Greece	2023-08-20	Wildfire	Greece
EMSR685	Fire in Tenerife, Spain	2023-08-16	Wildfire	Spain
EMSR682	Wildfire in Portbou, Spain	2023-08-05	Wildfire	Spain
EMSR681	Wildfire in Portugal	2023-08-05	Wildfire	Portugal
EMSR679	Wildfire in Thessaly region, Greece	2023-07-27	Wildfire	Greece
EMSR678	Wildfire in Euboea Prefecture, Greece	2023-07-24	Wildfire	Greece
EMSR677	Wildfire in Corfu, Greece	2023-07-24	Wildfire	Greece
EMSR676	Wildfire in Aigio, Peloponnese, Greece	2023-07-24	Wildfire	Greece
EMSR675	Wildfire on Rhodes island, Greece	2023-07-19	Wildfire	Greece
EMSR674	Wildfire in Eastern Peloponnese Region, Greece	2023-07-18	Wildfire	Greece
EMSR673	Wildfire in western Attica, Greece	2023-07-18	Wildfire	Greece
EMSR672	Wildfire in Attica, Greece	2023-07-17	Wildfire	Greece
EMSR671	Wildfire in La Palma, Spain	2023-07-15	Wildfire	Spain
EMSR670	Wildfire in eastern Germany	2023-06-28	Wildfire	Germany
EMSR669	Wildfire in Germany	2023-06-12	Wildfire	Germany
EMSR667	Wildfire in Caceres, Spain	2023-05-19	Wildfire	Spain
EMSR660	Forest fire in Ulricehamn region, Sweden	2023-05-10	Wildfire	Sweden
EMSR656	Fire in Castellon and Teruel provinces, Spain	2023-03-24	Wildfire	Spain

EFFIS: 4714 fires mapped



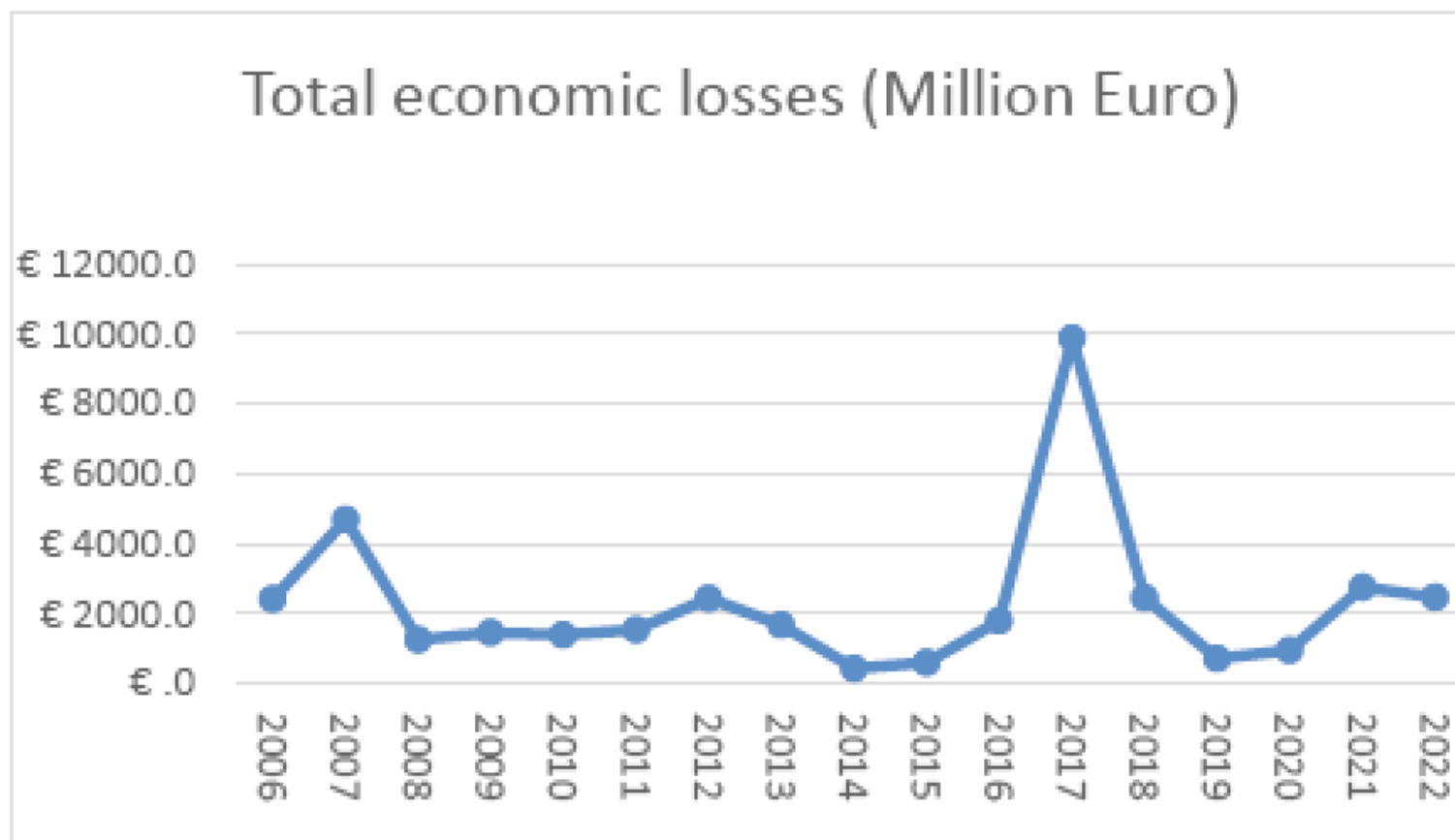
1423 fires larger than 30 ha mapped until October 7th, 2023

Natura 2000 damages from forest fires in the period 2006-2022

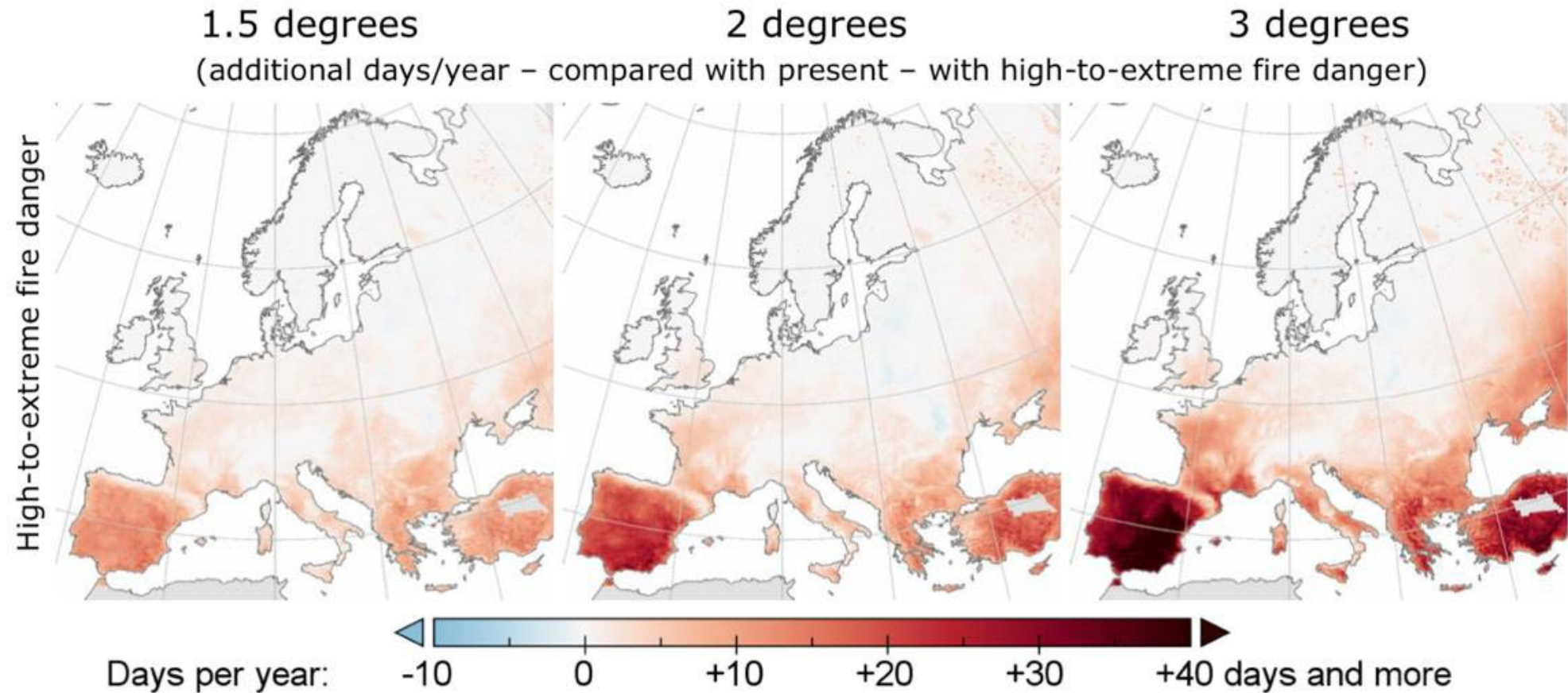


192,109 ha burnt in Natura2000 areas 2023, which is about 40% of the total burnt area this year

Economic losses from wildfires in the period 2006-2022



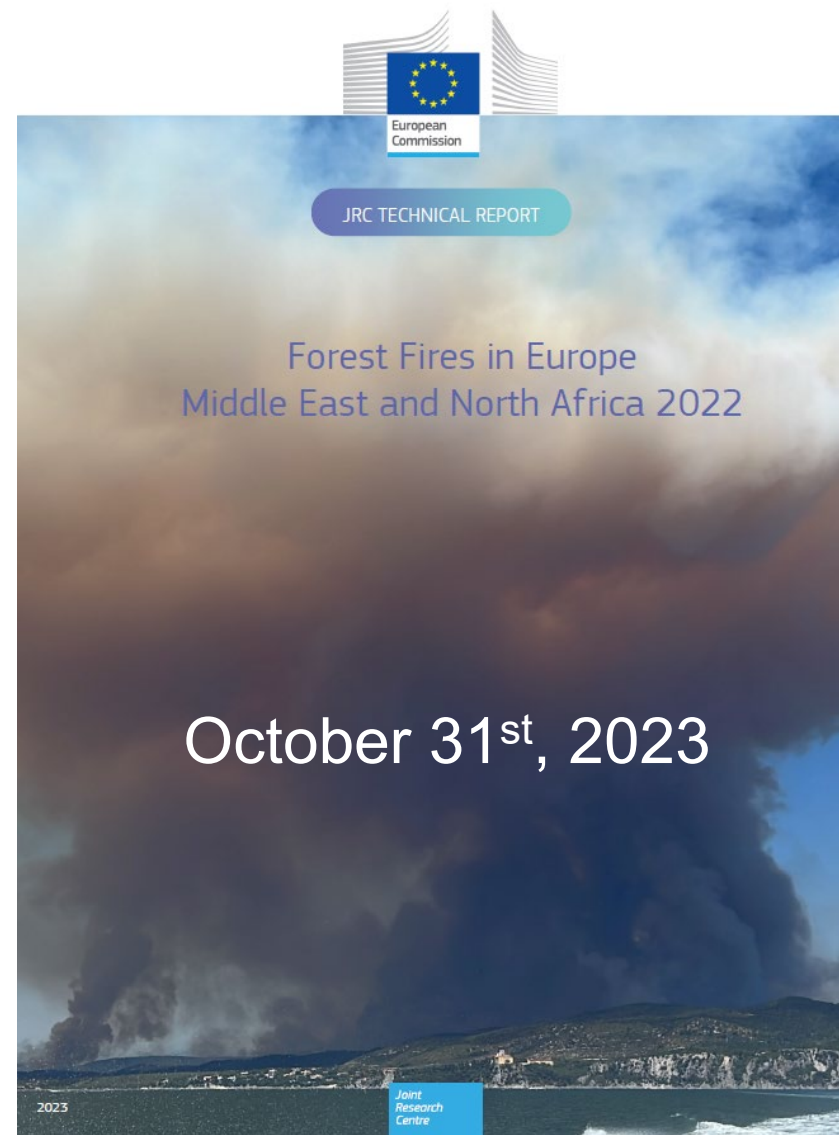
Fire Danger and Climate Change



Peseta IV report - Costa, H., de Rigo, D., Libertà, G., Houston Durrant, T., San-Miguel-Ayanz, J., **European wildfire danger and vulnerability in a changing climate: towards integrating risk dimensions**, EUR 30116 EN, Publications Office of the European Union, Luxembourg, 2020, ISBN: 978-92-76-16898-0, doi:10.2760/46951, JRC119980

SUMMARY

- Since 2006, there is a general increasing trend in the number of fires and burnt areas in the EU, with recent critical years such as 2017, 2021, 2022 and 2023..
- 2023 saw the largest fire episode in the EU, since 2000, with critical fires in several Mediterranean countries
- In the last years, the number of wildfires and burnt areas in central and northern Europe has increased. The amount of burnt areas has increased in countries not commonly affected by wildfires in the past.
- The length of the fire season has increased beyond the traditional months of July, August and September, with many wildfires and critical events outside that period.
- The level of wildfire emissions, which is highly correlated with that of burnt areas, became noticeable in critical years like those mentioned above.
- Over 192,109 ha have burnt in 2023 (about 40% of the burnt area) within Natura 2000 protected areas.
- The economic losses due to wildfires in 2023 are above 2.5 billion Euro, every year.
- Future climatic projections indicate higher fire danger levels in Europe; higher fire danger values will likely lead to more intense fires and larger burnt areas.



<https://effis.jrc.ec.europa.eu/reports-and-publications/annual-fire-reports>

Additional information at:

<http://effis.jrc.ec.europa.eu>

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