

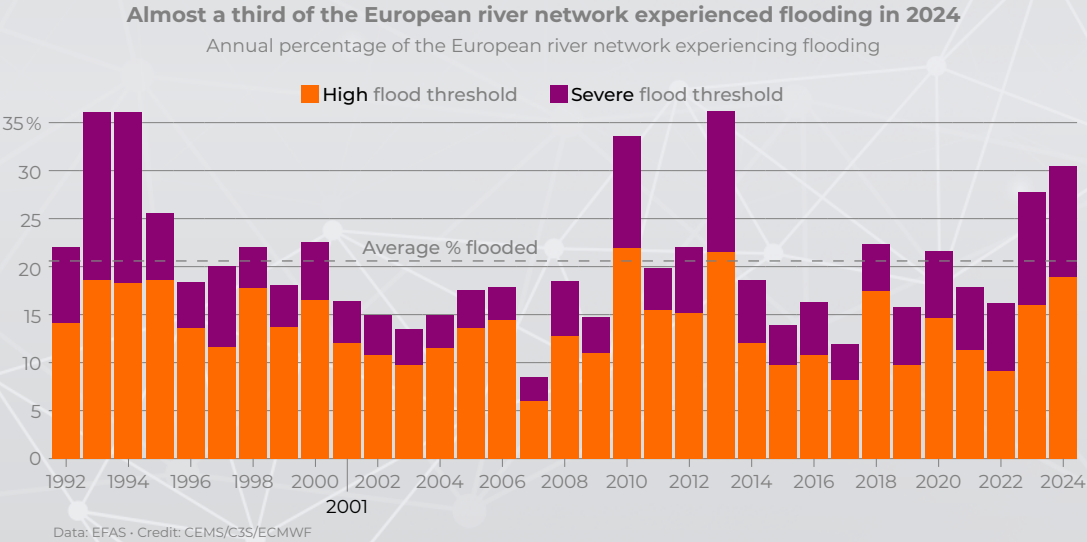
# INNOVATIVE APPROACHES TO AUDIT IN THE FIELD OF PREVENTION AND ELIMINATION OF THE CONSEQUENCES OF DISASTER

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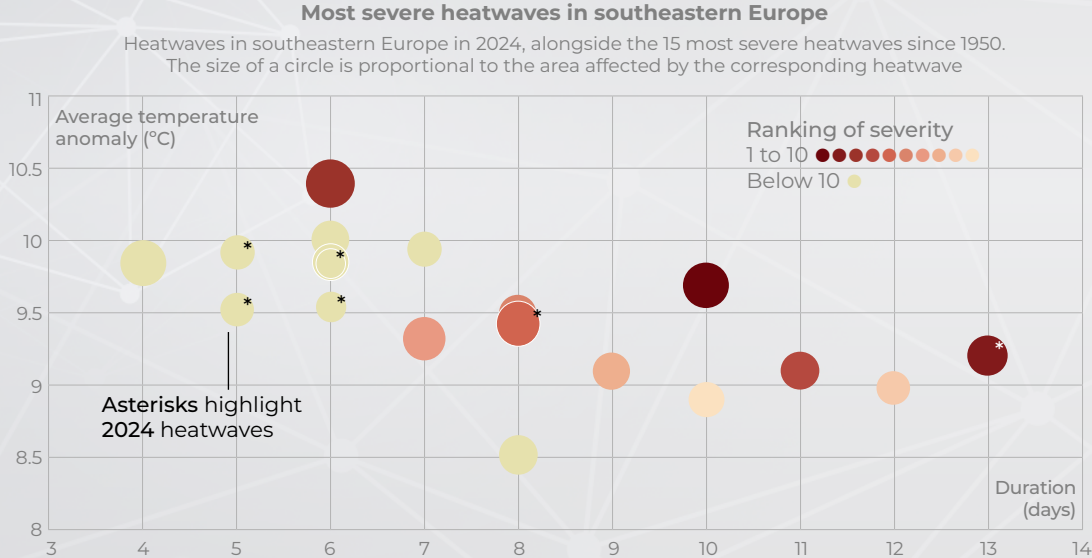
**Ms Iryna Yurshevska,**  
State Auditor,  
Accounting Chamber of Ukraine

# CLIMATE DATA FROM THE COPERNICUS CLIMATE CHANGE SERVICE

2024 saw the most widespread flooding since 2013, with river flows in 30% of the European river network exceeding the „high” flood threshold and 12% exceeding the „severe” flood threshold



July 2024 saw the longest heatwave on record for southeastern Europe



**Heatwaves** are defined as periods when the maximum temperature exceeded the 98<sup>th</sup> percentile of the 1961–1990 reference period, and exceeded 28°C, for a period of three or more days. **Southeastern Europe** is defined here as 39°–46°N, 15°–30°E.

Data: E-OBS - Credit: DWD/C3S/ECMWF

<https://climate.copernicus.eu/esotc/2024/trends-climate-indicators>



PROGRAMME OF THE EUROPEAN UNION



IMPLEMENTED BY



# INNOVATIVE APPROACHES TO INFORMATION COLLECTION

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**Geographic information systems and satellite data for loss assessment**

**Big Data and Artificial intelligence for analyzing response effectiveness**

**Drones for safe information collection**

**Digital twins for risk assessment**

**Blockchain for tracking humanitarian aid**

**Mobile platforms for collecting information from the population**

**Scenario audit and stress testing of response systems**





# **SUPREME AUDIT INSTITUTION**

**can effectively contribute to strengthening the global capacity  
to respond to natural disasters**





# CURRENT INITIATIVES AND PROJECTS AIMING TO ACHIEVE EUROSAI STRATEGIC GOALS

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# ACTIVITIES OF THE EUROSAI WORKING GROUP

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**Recommendations  
on best practices for audits  
of Funds Allocated to Disasters  
and Catastrophes**



**Recommendations  
on best practice for conducting  
audits in the field of flood  
prevention and liquidation**





# BASIC INNOVATIVE TOOLS AND APPROACHES IN AUDITS

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## A BLOCK CHAIN

is a special kind  
of database maintained  
by numerous computers  
located around the world

# BASIC INNOVATIVE TOOLS AND APPROACHES IN AUDITS

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## REAL TIME AUDITING

is the auditing of actions as they occur and the publishing of findings before the audited action was completed



Real Time Audit Data

Real Time Control Monitoring

Real Time Risk Monitoring & Assessment



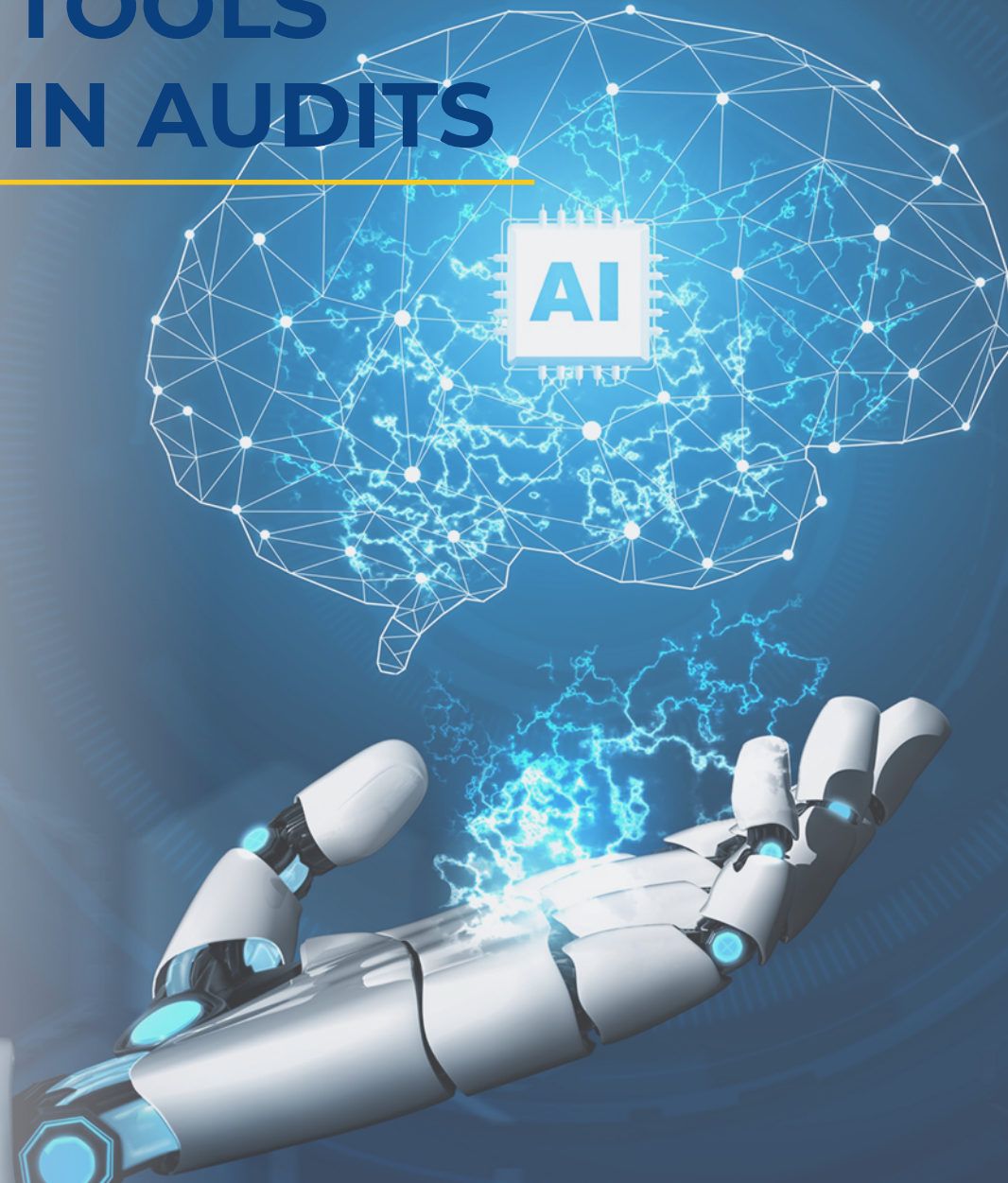


# BASIC INNOVATIVE TOOLS AND APPROACHES IN AUDITS

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## Artificial intelligence

can be used to analyze  
data and identify  
potential risks  
or problem areas





# BASIC INNOVATIVE TOOLS AND APPROACHES IN AUDITS

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**The adaptation  
of electronic audit  
accounting systems has  
a huge potential to improve  
the efficiency and accuracy  
of processes**

The use of electronic systems  
helps reduce opportunities for error  
and fraud, providing a more accurate  
and reliable audit process



# BASIC INNOVATIVE TOOLS AND APPROACHES IN AUDITS

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Open source intelligence,

**OSINT** —

the concept, methodology  
and technology  
of obtaining and using  
financial, economic,  
military, political  
and other information  
**from open sources**





**New technologies and innovations play one of main role in our collective ability to predict and therefore reduce the risk of disasters**

**Innovative applications can easily visualize/simulate the effects of a dam breach and resulting flooding or the likely speed and direction of a wildfire under current meteorological conditions**

**Satellite images of the Earth, collected over decades, now allow us not only to monitor the current situation in any part of the world, but also to compare data and analyze long-term trends**



# Disasters — a test of Global humanity

They define who we are, and how we respond to them shows our strength and cohesion



EUROSAI

Working Group on the Audit of Funds  
Allocated to Disasters and Catastrophes



**Together against disasters:**  
auditing that saves lives and restores the future



**The Accounting Chamber**  
Supreme Audit Institution of Ukraine



**EUROSAI**

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# THANK YOU FOR ATTENTION!

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