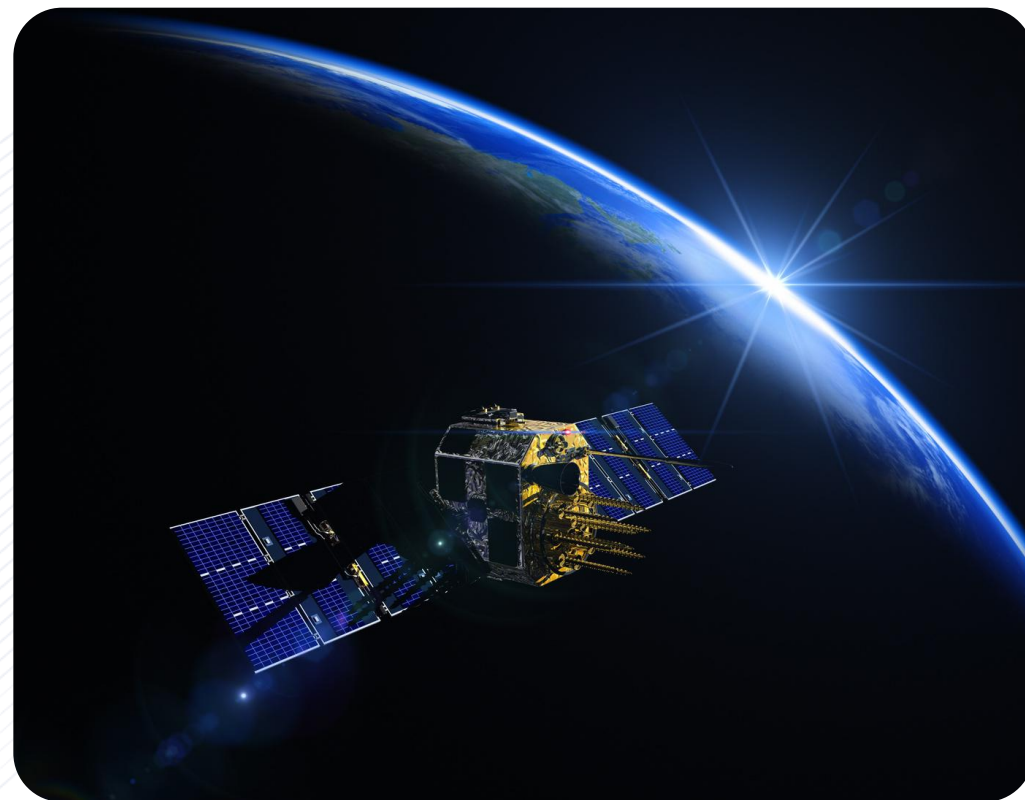


Galileo EWSS

Alerting population from Space

Demonstration at DRM WS in Vilnius

Charly FARADJI – Telespazio France





European Commission

#EUSpace 



Galileo Emergency Warning Satellite Service



Galileo EWSS



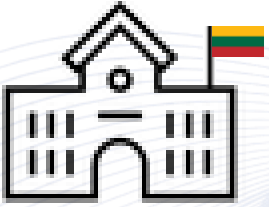
Full version
(3 minutes)
available on YouTube

SCAN ME



[Click to play](#)

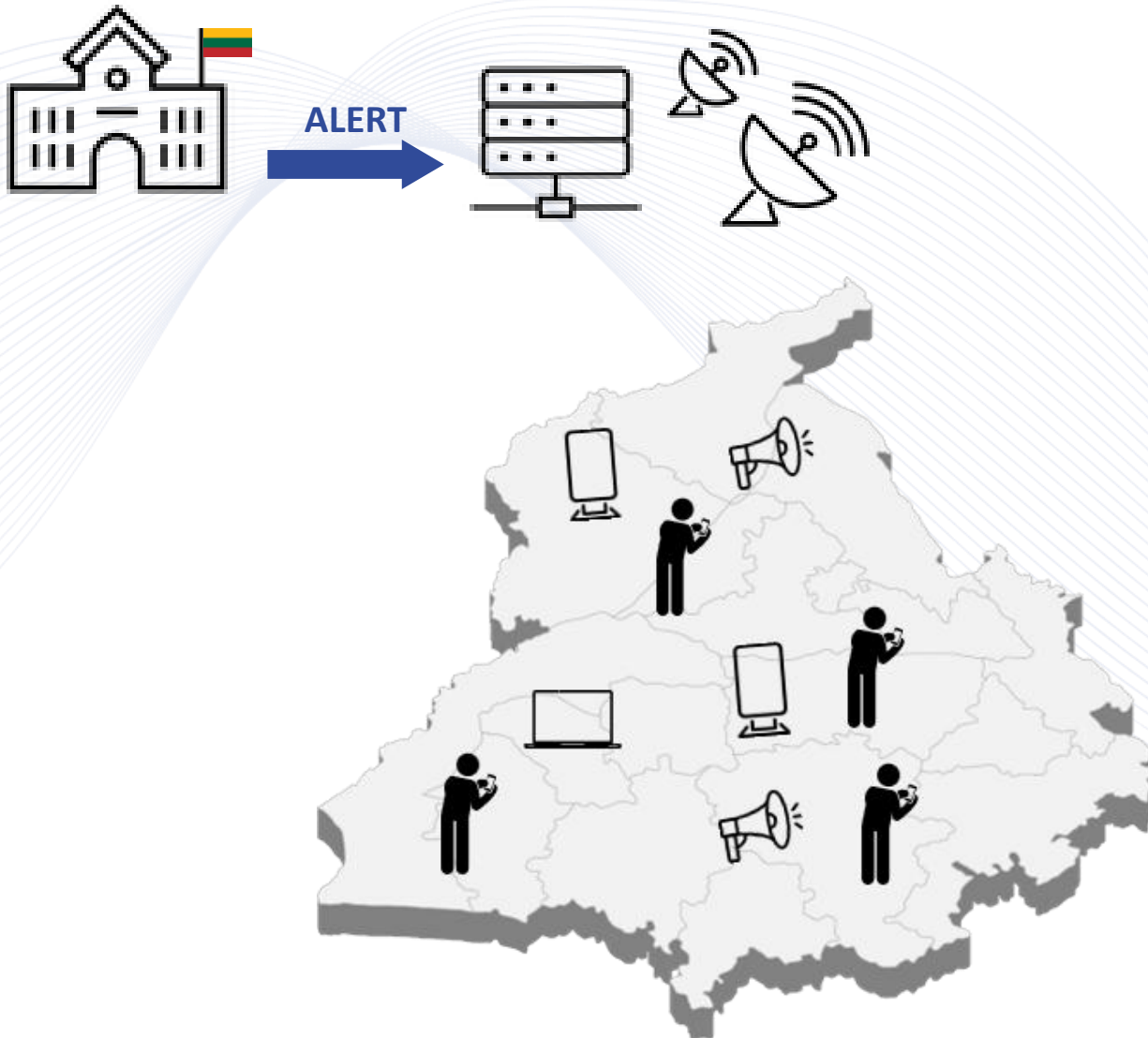
Galileo EWSS



Civil Protection Authorities
can send alerts directly to
affected areas

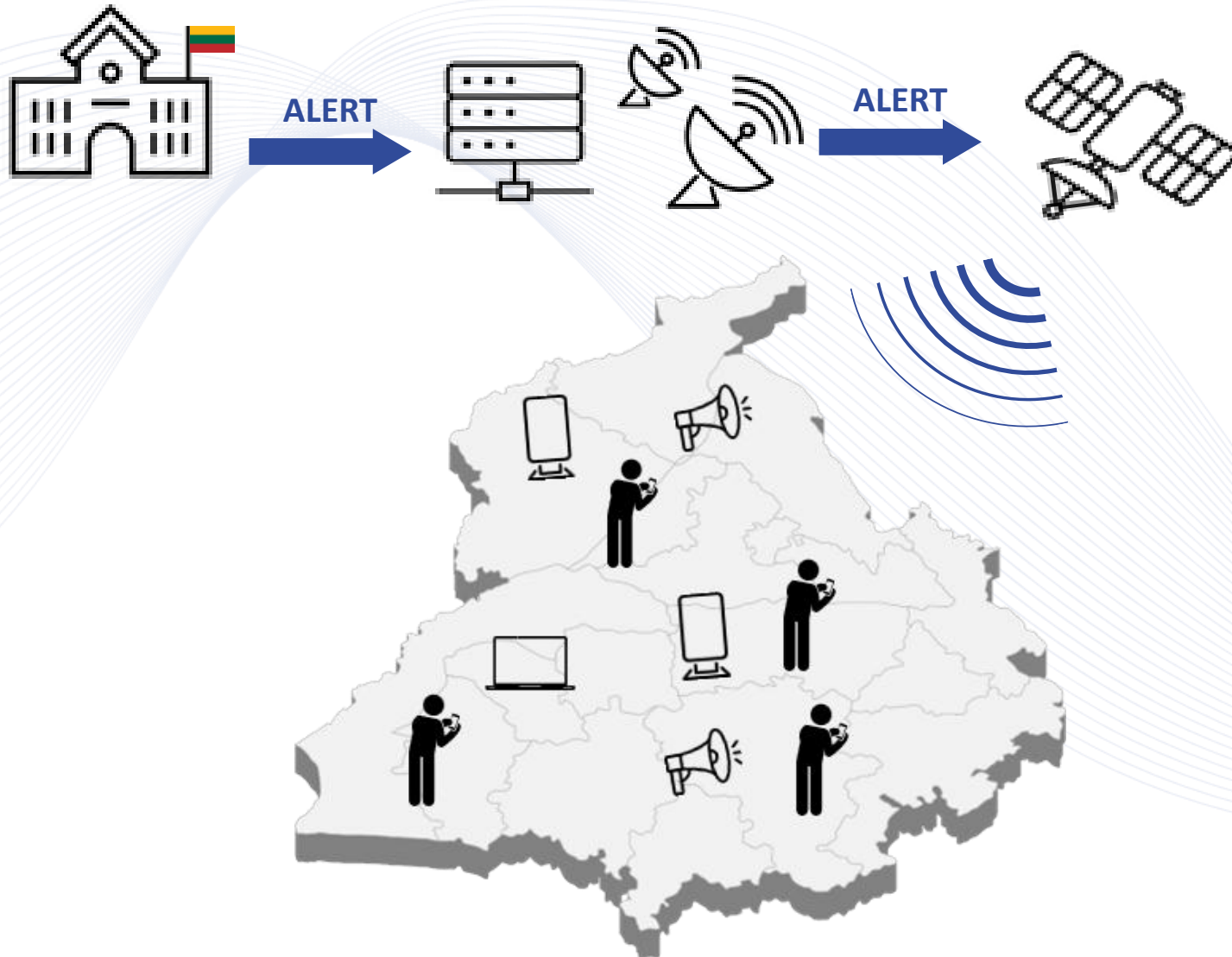


Galileo EWSS



Civil Protection Authorities
can send alerts directly to
affected areas

Galileo EWSS



Civil Protection Authorities can send alerts directly to affected areas



Alerts are broadcasted by Galileo constellation of satellites

Galileo EWSS



Civil Protection Authorities can send alerts directly to affected areas

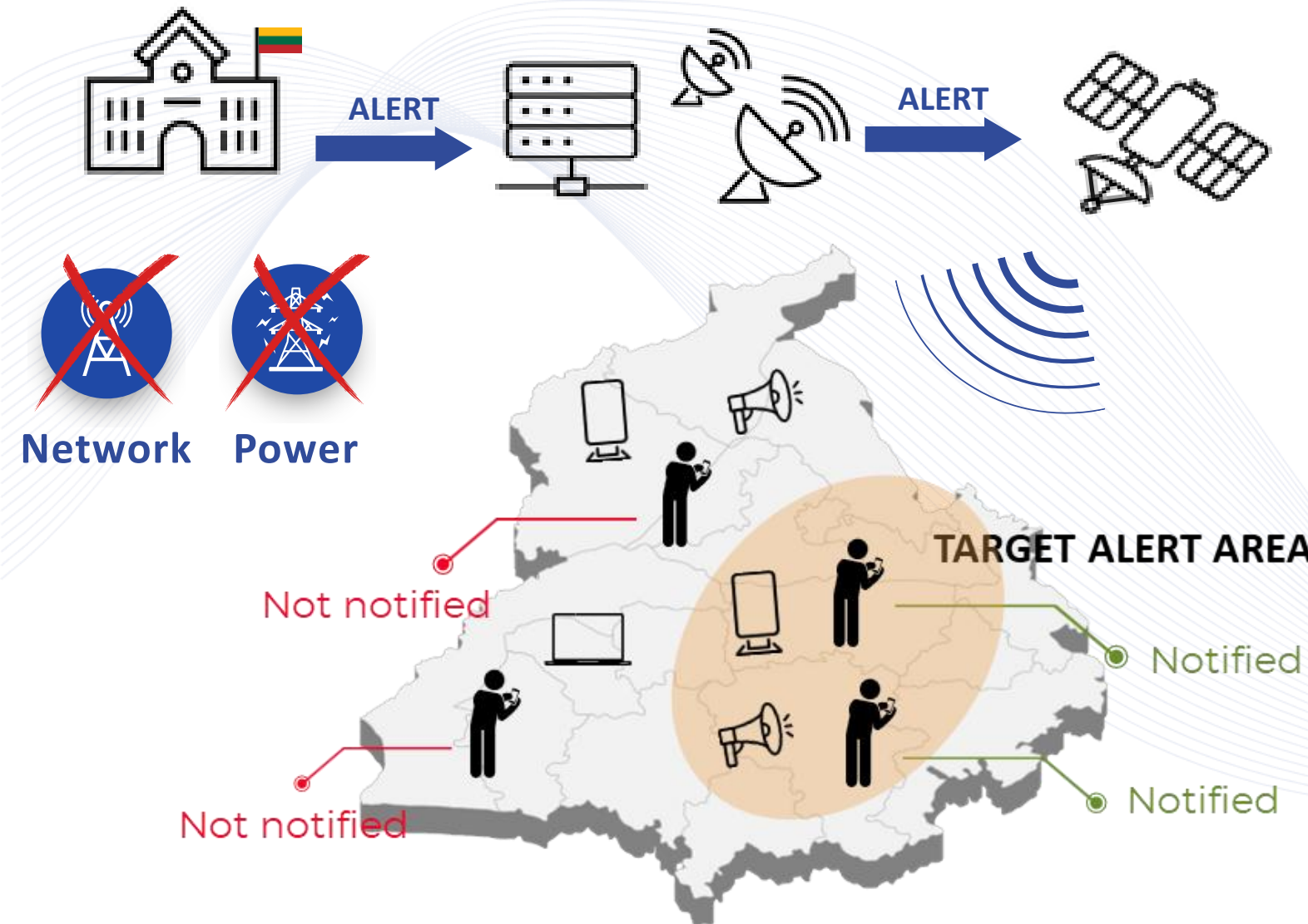


Alerts are broadcasted by Galileo constellation of satellites



Only the devices located within the defined alert area are notified

Galileo EWSS



Civil Protection Authorities can send alerts directly to affected areas



Alerts are broadcasted by Galileo constellation of satellites



Only the devices located within the defined alert area are notified



Resilient to networks disruption and power outage

Complementary with existing alerting channels

GALILEO EWSS ANSWERS TO KNOWN LIMITATIONS OF POPULATION WARNING

**Resilient to network
Resilient to power**



**Trustworthy signal
authenticated with OSNMA**



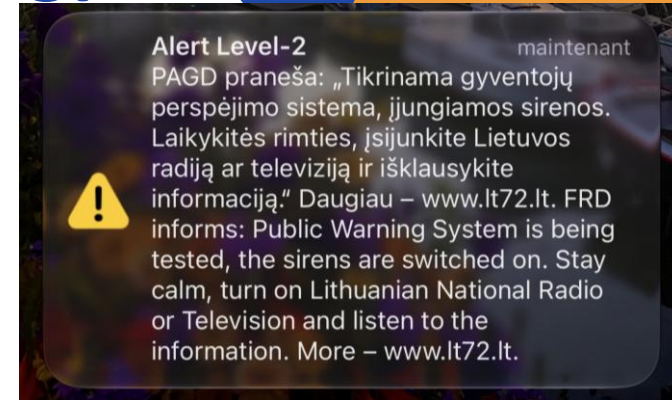
**Extreme geographic accuracy
Extended geofencing area**



Fast time to alert



**Population equity
EU Sovereignty**



GALILEO EWSS ANSWERS TO KNOWN LIMITATIONS OF POPULATION WARNING

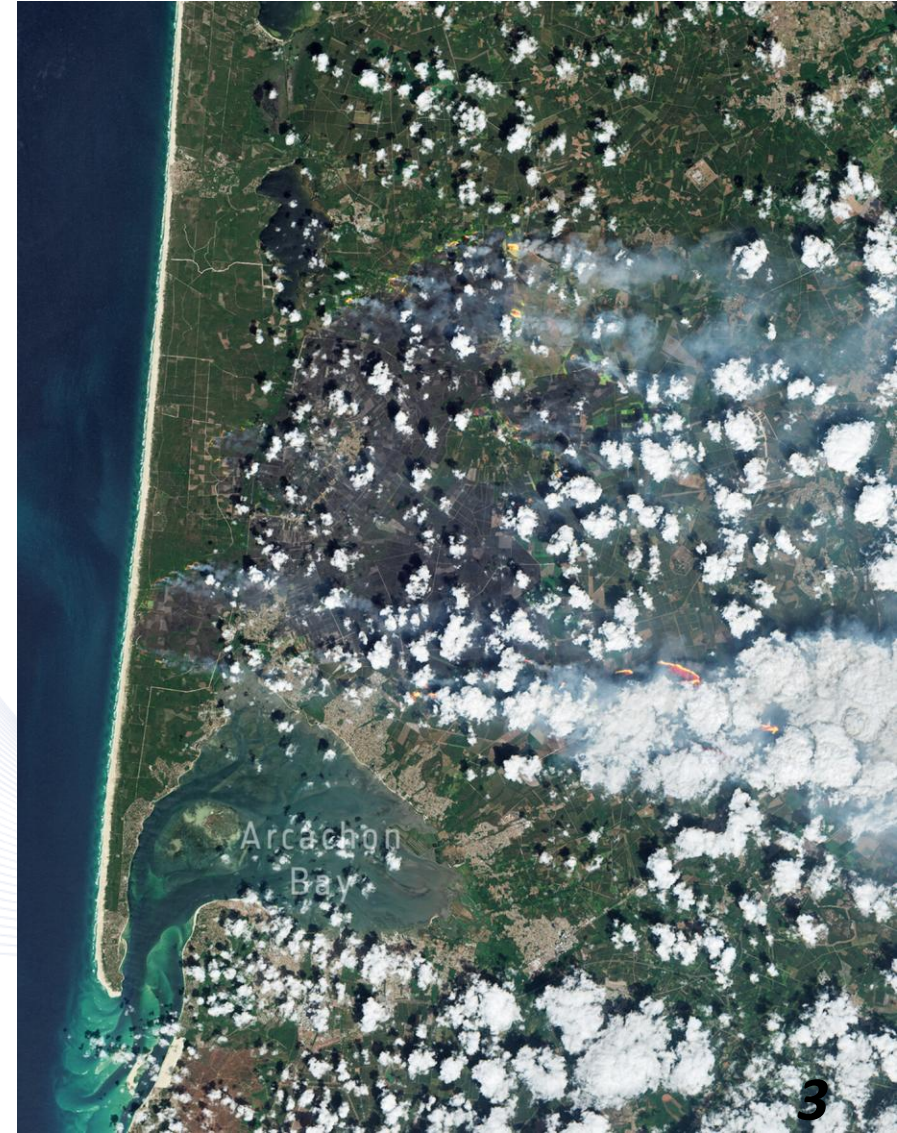
When the network fails

**the alert
must not**

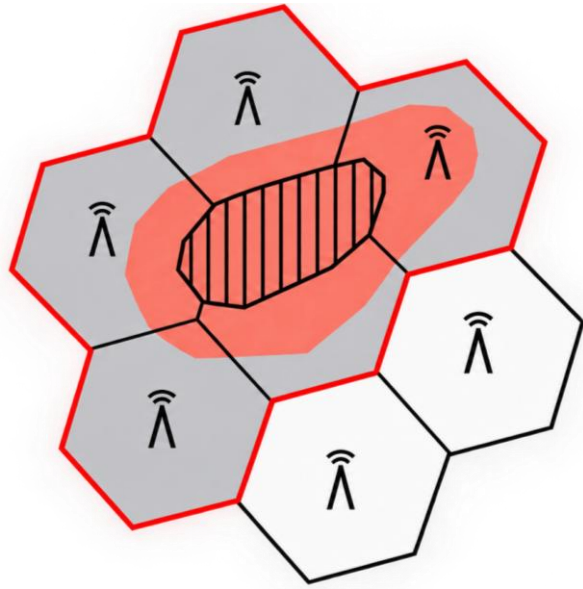
The moment you most need to warn people
is the moment the networks are jeopardized

Gironde, France — 26 July 2026

Copernicus Sentinel data (2026), processed by ESA — CC BY-SA 3.0 IGO

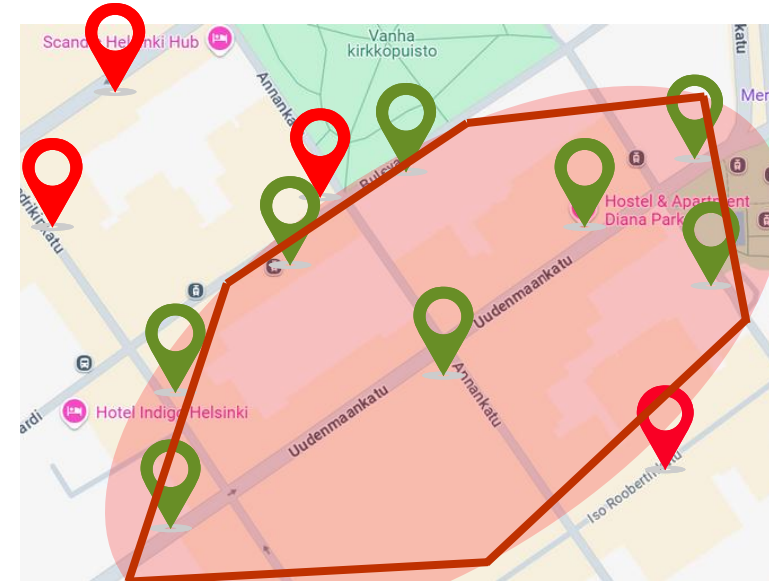


GALILEO EWSS ANSWERS TO KNOWN LIMITATIONS OF POPULATION WARNING



Cell Broadcast

Measured accuracy of
hundreds of meters



EWSS

Accuracy of GNSS:
few meters

GALILEO EWSS ANSWERS TO KNOWN LIMITATIONS OF POPULATION WARNING

An alert that cannot be faked

A public warning channel is a target. A false evacuation order is a weapon. Authentication is not a feature — it is the precondition



OSNMA signature

Galileo signs every message

Spoofing detection

Fake and jammed signals rejected



CAP integration

Plugs into your existing platform

GALILEO EWSS ANSWERS TO KNOWN LIMITATIONS OF POPULATION WARNING

A sovereign European asset

Owned by the European Union

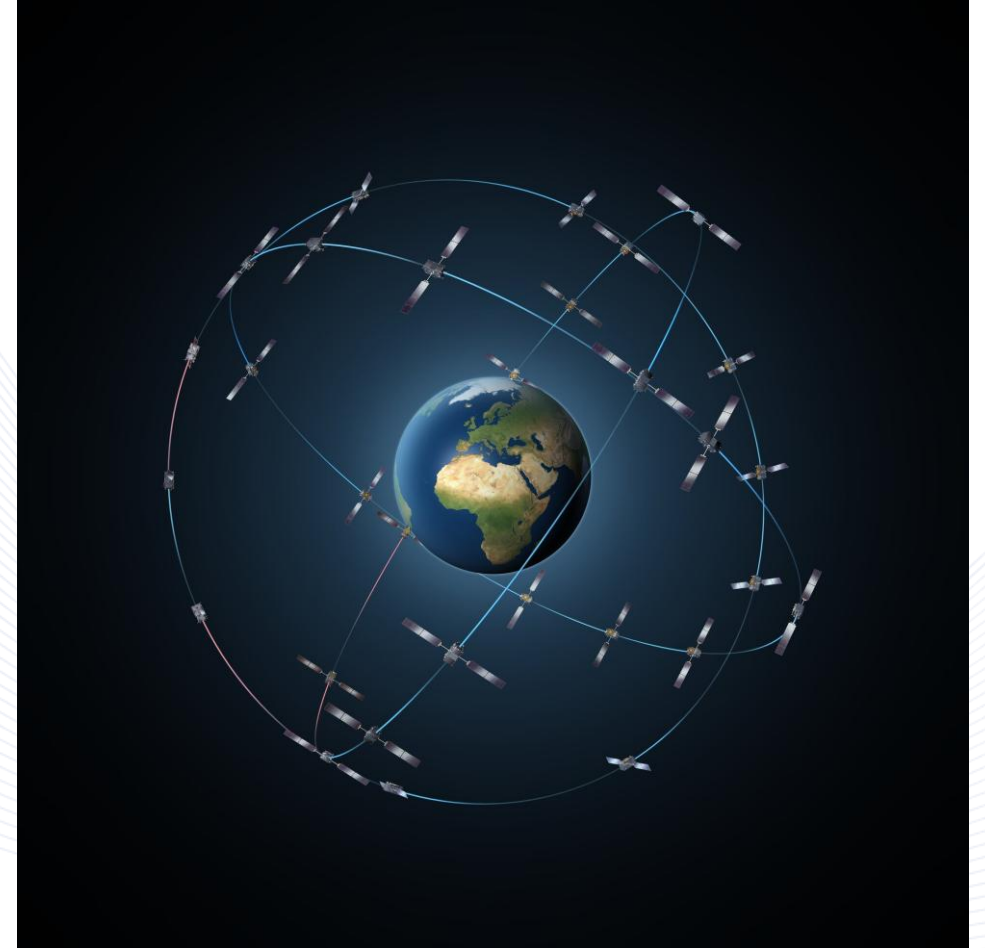
28 satellites

At least four always in view

Already in every pocket

In every EU smartphone since 2022

Used in more than 4,5 Billion devices worldwide





AWARE: Fixed devices to complement smartphones



AWARE Consortium

AWARE's mission was to develop reliable, resilient and trustworthy solutions for Galileo EWSS reception on existing public warning devices



This project has received funding from the European Union Agency for the Space Programme under HORIZON-EUSPA-2021-SPACE grant agreement No 101082555.

AWARE SYSTEMS

1

EWSS Receivers

Device integrating satellite receiver to transmit the secured satellite-based message

2

Warning Devices

Display the alert received over different sensory channels

3

Service Centre

Monitor the service and support CPA analysis

Long Range Acoustic Device

Logarska Valley, Slovenia



JCDecaux, Plaisir, France



Live demo at EENA26, Riga



AWARE Project - Live Demonstrations Showroom 1

Experience Emergency Warning by
Satellite at the AWARE Showroom
to see Galileo EWSS in action!

Live Demo | Wednesday 15 April

10:15-11:00 - Showroom 1

15:35-16:15 - Showroom 1

Live Demo | Thursday 16 April

10:45-11:30 - Showroom 1

15:45-16:30 - Showroom 1



- ✓ Genuine Galileo EWSS alerts broadcasted live
- ✓ Scenario based on an industrial accident
- ✓ Illustrating AWARE Indoor Warning System
- ✓ Also showing prototype of the digital panel and long-range speaker



EWSS Demonstration

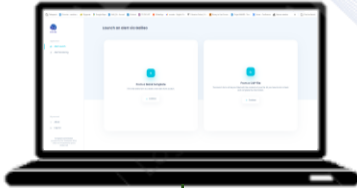


Demonstration principle

1 Hazard is detected

Demonstration principle

- 1 Hazard is detected
- 2 Civil Protection Authority creates the Alert on dedicated platform



EUSPA EWSS WEB
INTERFACE

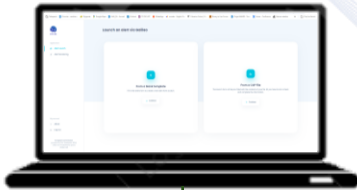
Alert



Demonstration principle

1 Hazard is detected

2 Civil Protection Authority creates the Alert on dedicated platform



EUSPA EWSS WEB
INTERFACE

ERAS (EMERGENCY
ALERTING SYSTEM)



Alert



3 Alert is processed by Galileo ground segment and relayed to satellites

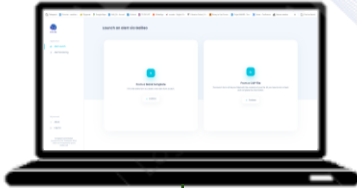


GROUND
SEGMENT

Demonstration principle

1 Hazard is detected

2 Civil Protection Authority creates the Alert on dedicated platform



EUSPA EWSS WEB
INTERFACE

ERAS (EMERGENCY
ALERTING SYSTEM)



Alert



3 Alert is processed by Galileo ground segment and relayed to satellites



GROUND
SEGMENT

4

Alert is broadcasted by satellite
repeatedly



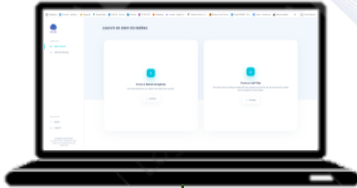
SPACE
SEGMENT



Demonstration principle

1 Hazard is detected

2 Civil Protection Authority creates the Alert on dedicated platform



EUSPA EWSS WEB
INTERFACE

ERAS (EMERGENCY
ALERTING SYSTEM)



3 Alert is processed by Galileo ground segment and relayed to satellites



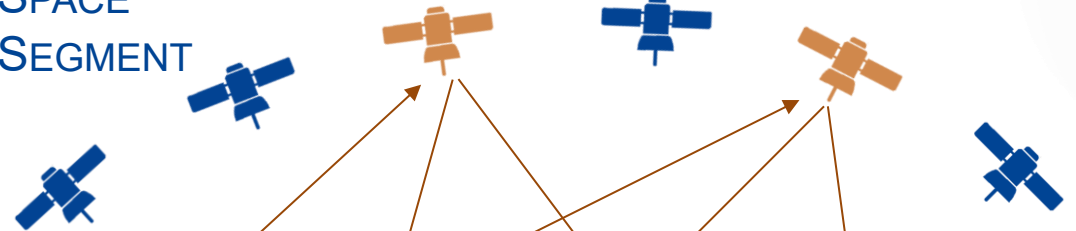
GROUND
SEGMENT

4

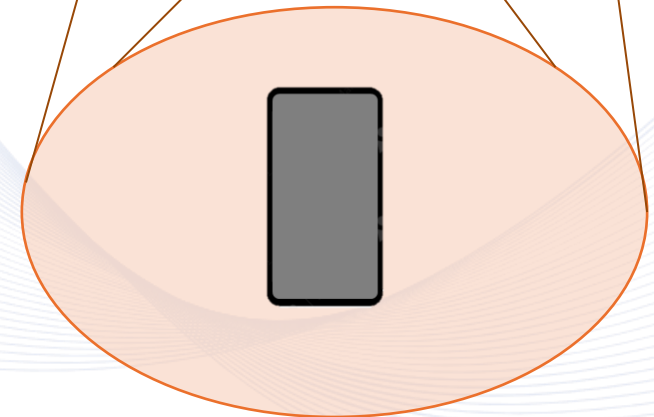
Alert is broadcasted by satellite
repeatedly



SPACE
SEGMENT



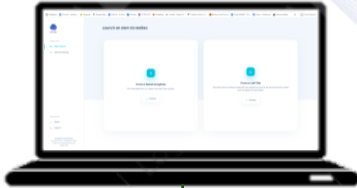
Alert



Demonstration principle

1 Hazard is detected

2 Civil Protection Authority creates the Alert on dedicated platform



EUSPA EWSS WEB
INTERFACE

ERAS (EMERGENCY
ALERTING SYSTEM)



3 Alert is processed by Galileo ground segment and relayed to satellites



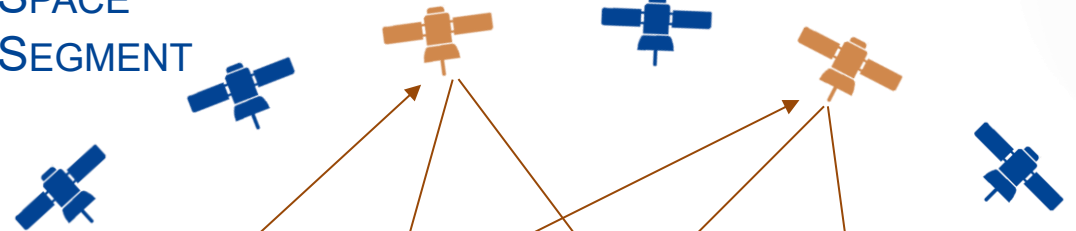
GROUND
SEGMENT

4

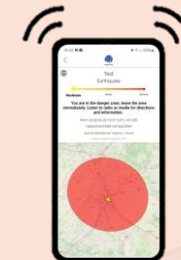
Alert is broadcasted by satellite
repeatedly



SPACE
SEGMENT



Alert



EUSPA APP

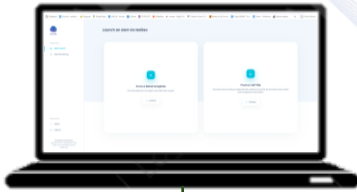
5

Alert is notified by the terminal

Demonstration principle

1 Hazard is detected

2 Civil Protection Authority creates the Alert on dedicated platform



EUSPA EWSS WEB
INTERFACE

ERAS (EMERGENCY
ALERTING SYSTEM)



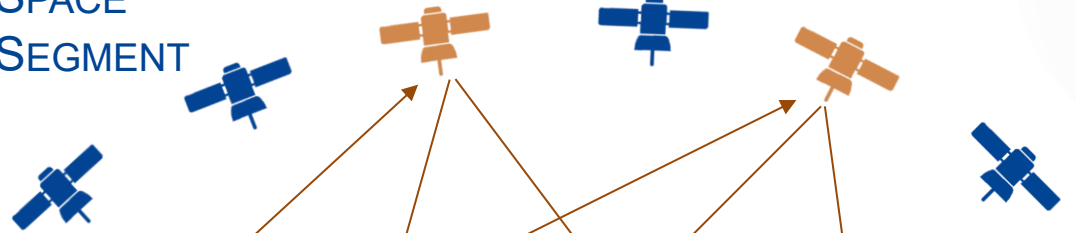
3 Alert is processed by Galileo ground segment and relayed to satellites



GROUND
SEGMENT



SPACE
SEGMENT



4

Alert is broadcasted by satellite
repeatedly

Alert



EUSPA APP

5

Alert is notified by **ALL** terminals



Inspired from 2024 events



Inspired from 2024 events

29-30 July 2024, Vilnius



Severe thunderstorms / strong winds



Intense rainfall and flash-flooding risk



Falling trees and direct risk to citizens



Power outages



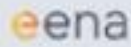
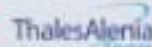
Urban infrastructure damage

Demonstration Scenario

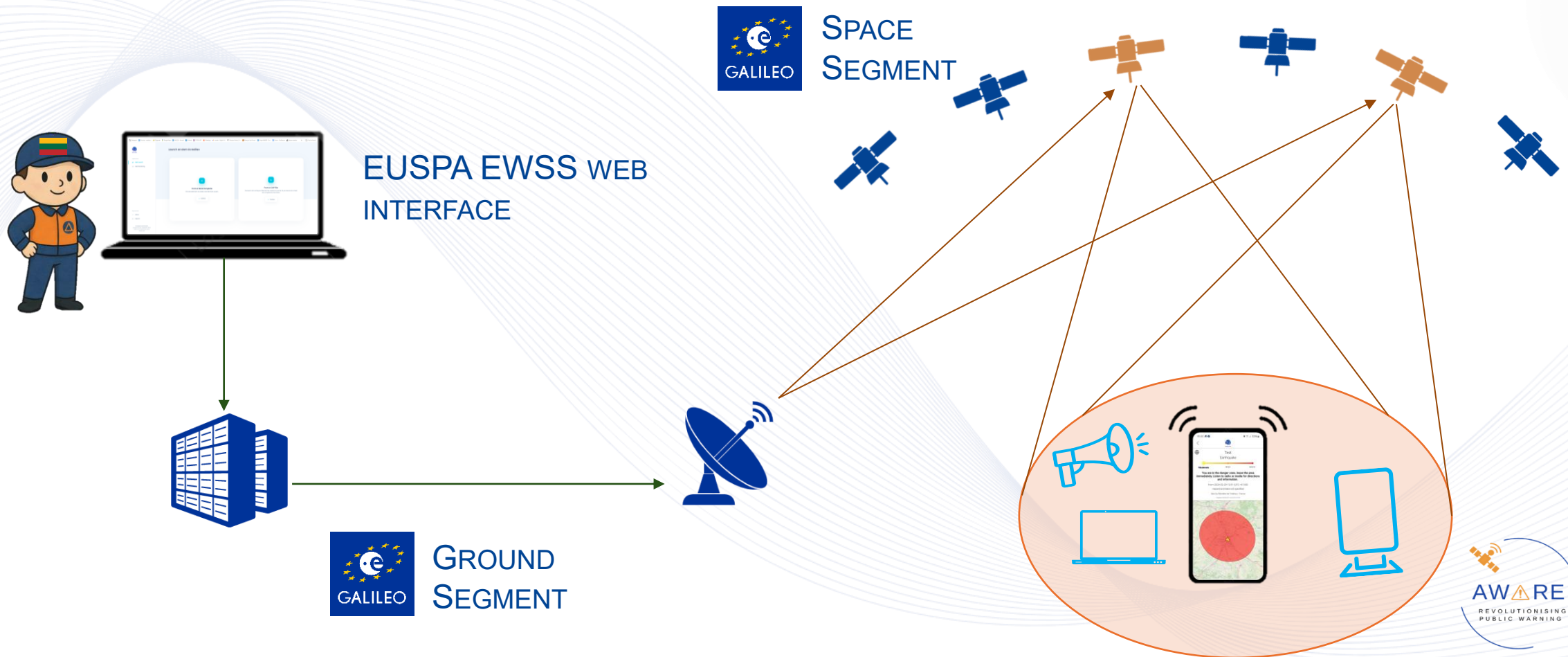
High risk of very strong winds and a **severe storm** affecting Vilnius, expected **during the evening**

Civil Protection Entity decides to broadcast an **EWSS alert** instructing people in Vilnius to:

- stay indoors and avoid unnecessary travel in advance
- using an approximately 250 km radius ellipse

**STELLAR**

Happening now for real





Priešgaisrinės apsaugos ir gelbėjimo departamentas Prie Vidaus Reikalų Ministerijos

Pavojus: Smarki audra arba perkūnija

Pavojaus lygis: Aukšto lygio pavojus

PAVOJAUS PRADŽIA: 2026-10-01T12:00:00+00:00

NUMATOMA TRUKMĖ (valandomis): NEŽINOMA



Nurodymus

**Neikite į lauką. Laikykitės atokiau
nuo medžių, stogų ir bokštų.
Laikykitės ne mažiau kaip 20 m
atstumo nuo elektros linijų.
Saugokitės skriejančių ir krintančių
daiktų.**



TELESPAPIO
a LEONARDO and THALES company

Last updated: 1:36:57 PM





Fire protection and rescue department Republic of Lithuania

Alert: Storm or Thunderstorm

Severity: Severe

HAZARD ONSET: 2026-10-01T12:00:00+00:00

ESTIMATED DURATION (in hours): UNKNOWN



Instructions

Avoid going outdoors. Keep away from trees, roofs, towers and masts. Keep at least 20 m away from power lines. Watch out for flying and falling objects.



TELESPAPIO
a LEONARDO and THALES company

Last updated: 1:36:27 PM





Alert

Storm or Thunderstorm



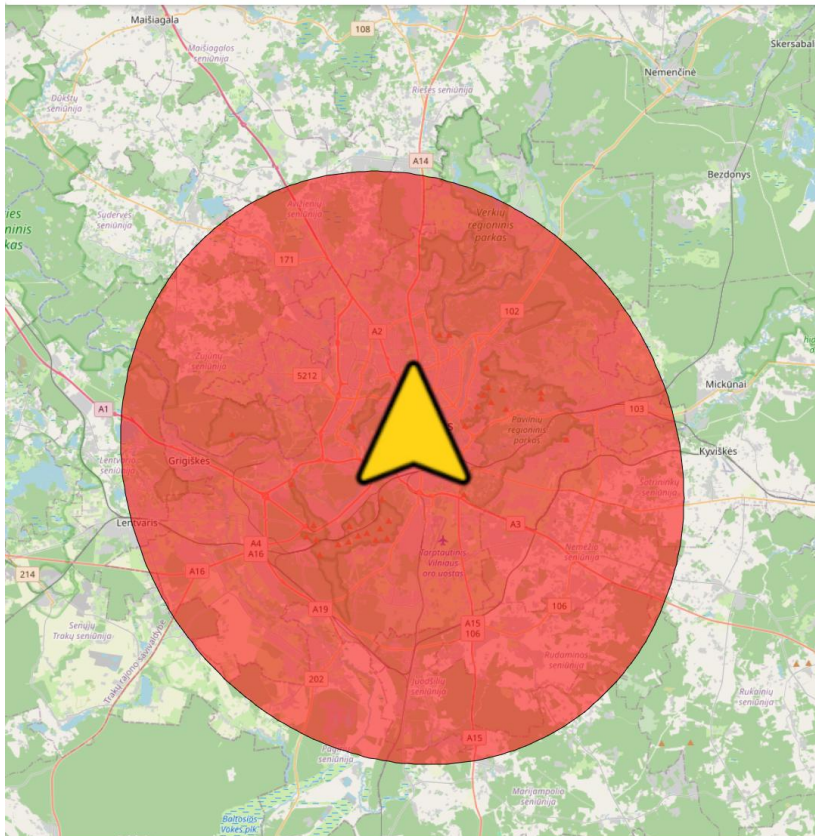
Avoid going outdoors. Keep away from trees, roofs, towers and masts. Keep at least 20 m away from power lines. Watch out for flying and falling objects.

From 2026-09-17 10:00 (UTC +02:00)

Hazard end date not specified

Sent by LT Ministry Of Interior - Lithuania

Created on 2026-09-18 16:32 (UTC +02:00)



Pavojus

Smarki audra arba perkūnija



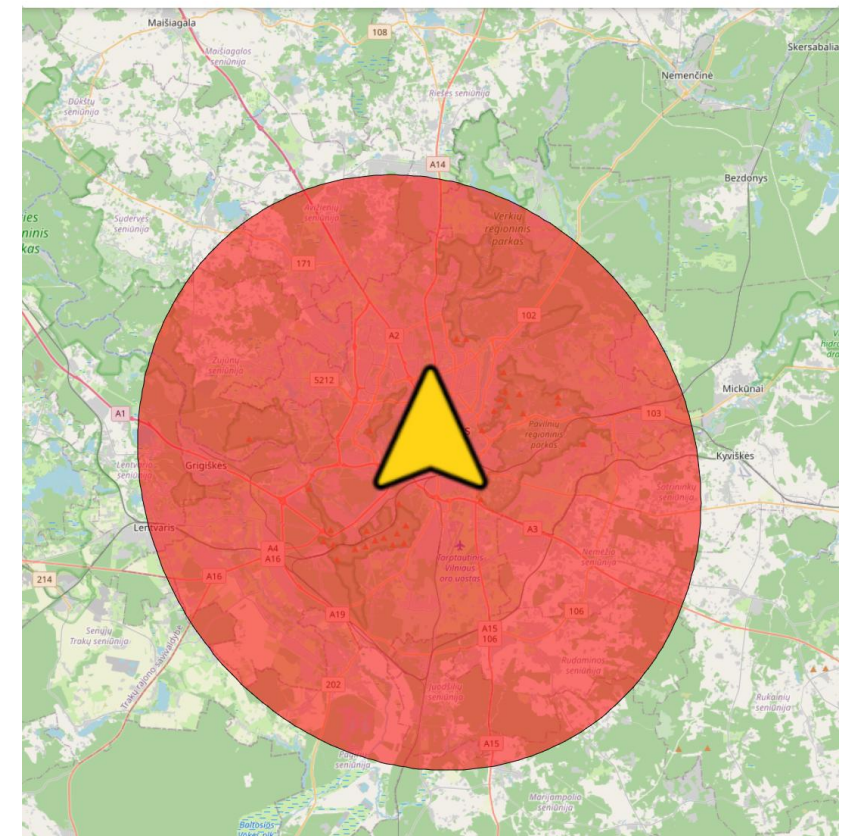
Neikite į lauką. Laikykitės atokiau nuo medžių, stogų ir bokštų. Laikykitės ne mažiau kaip 20 m atstumo nuo elektros linijų. Saugokitės skriejančių ir krintančių daiktų.

From 2026-09-17 10:00 (UTC +02:00)

Hazard end date not specified

Sent by LT Ministry Of Interior - Lithuania

Created on 2026-09-18 17:25 (UTC +02:00)





Alert

Storm or Thunderstorm



Avoid going outdoors. Keep away from trees, roofs, towers and masts. Keep at least 20 m away from power lines. Watch out for flying and falling objects.

From 2026-09-17 10:00 (UTC +02:00)

Hazard end date not specified

Sent by LT Ministry Of Interior - Lithuania

Created on 2026-09-18 16:32 (UTC +02:00)

Category



Pavojus

Smarki audra arba perkūnija



Neikite į lauką. Laikykitės atokiau nuo medžių, stogų ir bokštų. Laikykitės ne mažiau kaip 20 m atstumo nuo elektros linijų. Saugokitės skriejančių ir krintančių daiktų.

From 2026-09-17 10:00 (UTC +02:00)

Hazard end date not specified

Sent by LT Ministry Of Interior - Lithuania

Created on 2026-09-18 17:25 (UTC +02:00)

Instructions

Hasard start

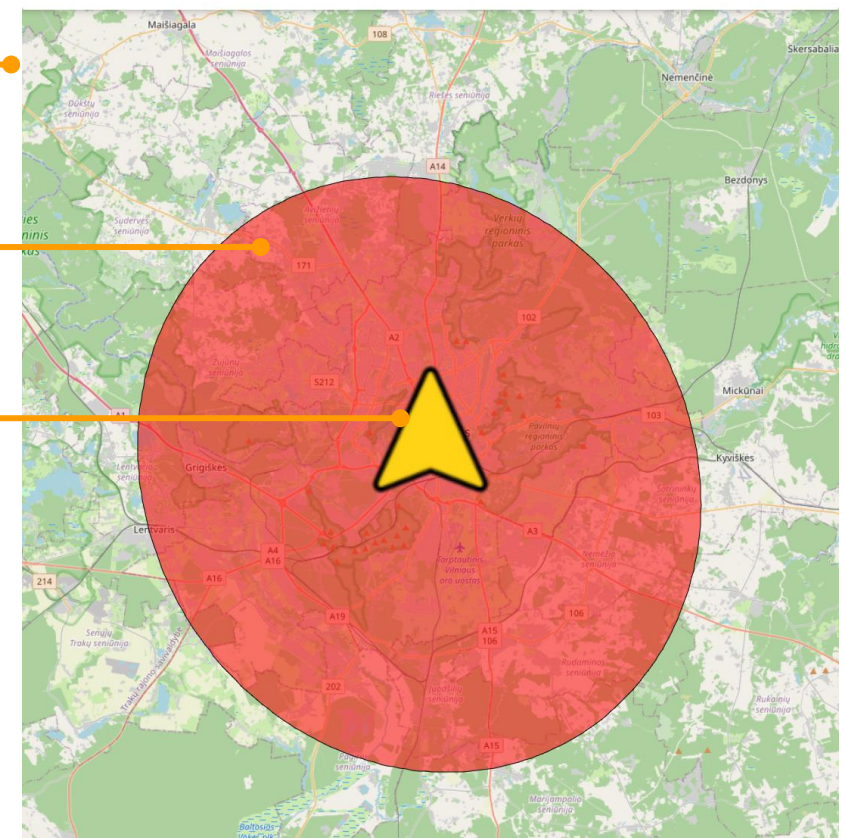
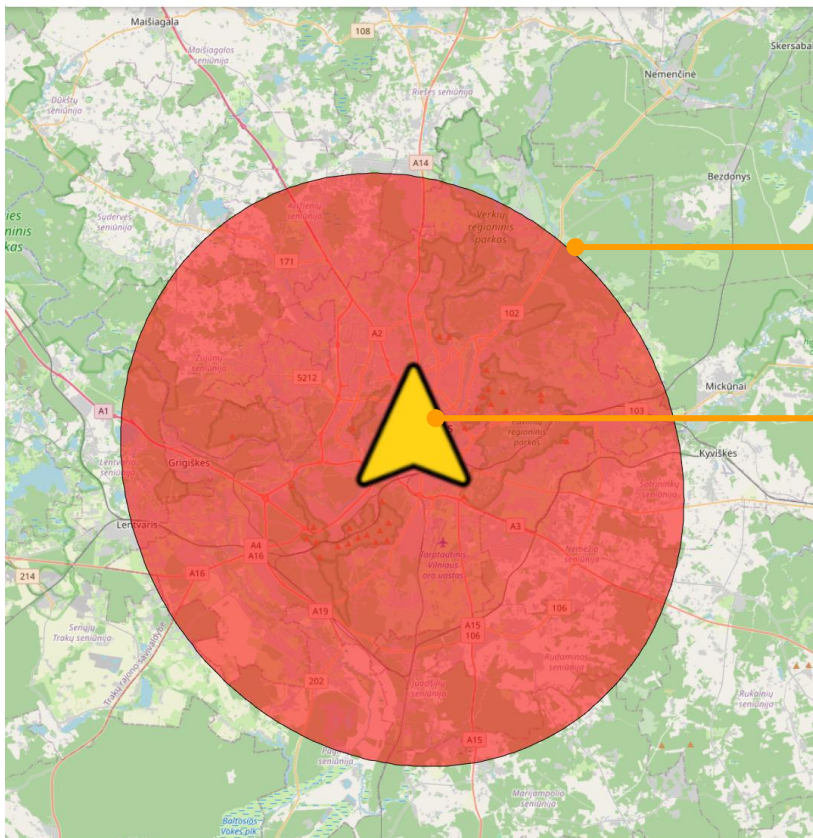
Hasard end

Authority

MAP

Alert area

User position





EWSS Demonstration

Any questions or comments?

Four Ways to Start Now



A pilot on your own devices

On the equipment you already operate



Receivers for your sirens

Retrofitted onto installed networks



EWSS in your alert platform

Added to your national system, in CAP



Training and a roadmap

From institutional barriers to procedures

READY TO ENHANCE YOUR ALERT SYSTEM? LET'S TALK!



aware@telespazio.com

