Estonia’s Public Warning System EE-ALARM:

Today and in the Future

Public Warning and
Communications Department

Argo Kerb | 22.10.2026

PÄÄSTEAMET
Estonian Rescue Services Agency

EE-ALARM Activations 2026

Drone-related incidents

- Potential air threat due to loitering drone/drones
- March 25 and 31; May 3 and 19; June 3; September 1
- Public warnings activated by the Estonian Defence Forces
- Location-based SMS alerts and app notifications

Carbon monoxide threat in Narva – May 19

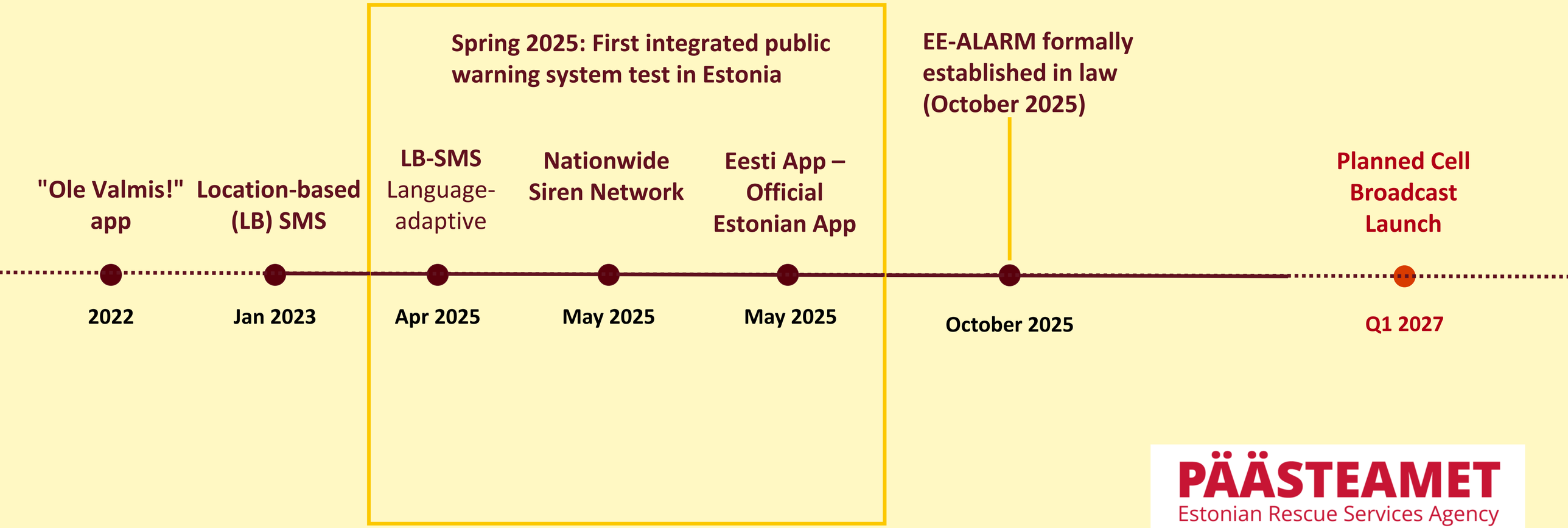
- 19 emergency callouts and one hospitalization in couple of hours
- Public warning activated by Rescue Services
- Location-based SMS, advising residents to turn off gas appliances due to an increased risk of carbon monoxide poisoning

Nationwide public warning tests

- Three nationwide full-scale tests, including siren activation



EE-ALARM Timeline



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Doctrine

EE-ALARM system is activated:

- **Time-critical** situations with **immediate** threat to **many** lives
- **Multiple channels** used considering the scope and severity
- **Alerts in three languages** – Estonian, English, Russian
- **Guidance** provided together **with threat information**



Information and Verification Channels

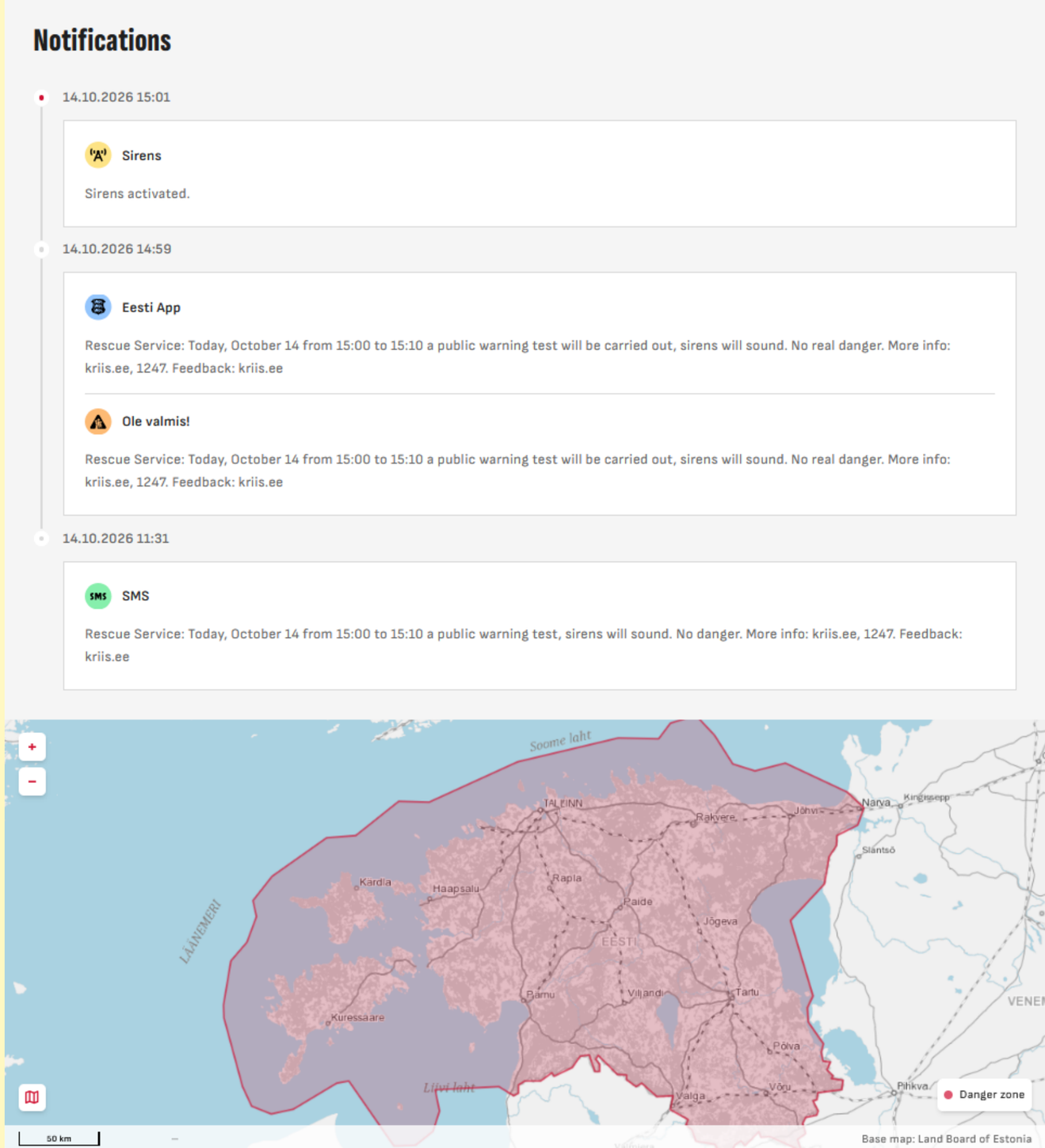
Websites: kriis.ee, olevalmis.ee

- Automated integration, successfully tested one week ago

State Helpline: 1247

Public broadcaster (ERR) and other media outlets

Official government websites and verified social media channels



EE-ALARM Channels Today

Currently in use:

- Location-based **SMS** in recipients' preferred language
- **Two mobile apps**:
  - Eesti app (official state application)
  - "Ole Valmis!"
- Modern **siren network** (covers approx. 66% of the population)
- Alert overlay on **public broadcaster ERR**'s TV channels, news website and mobile app



Location-Based SMS (LB-SMS)

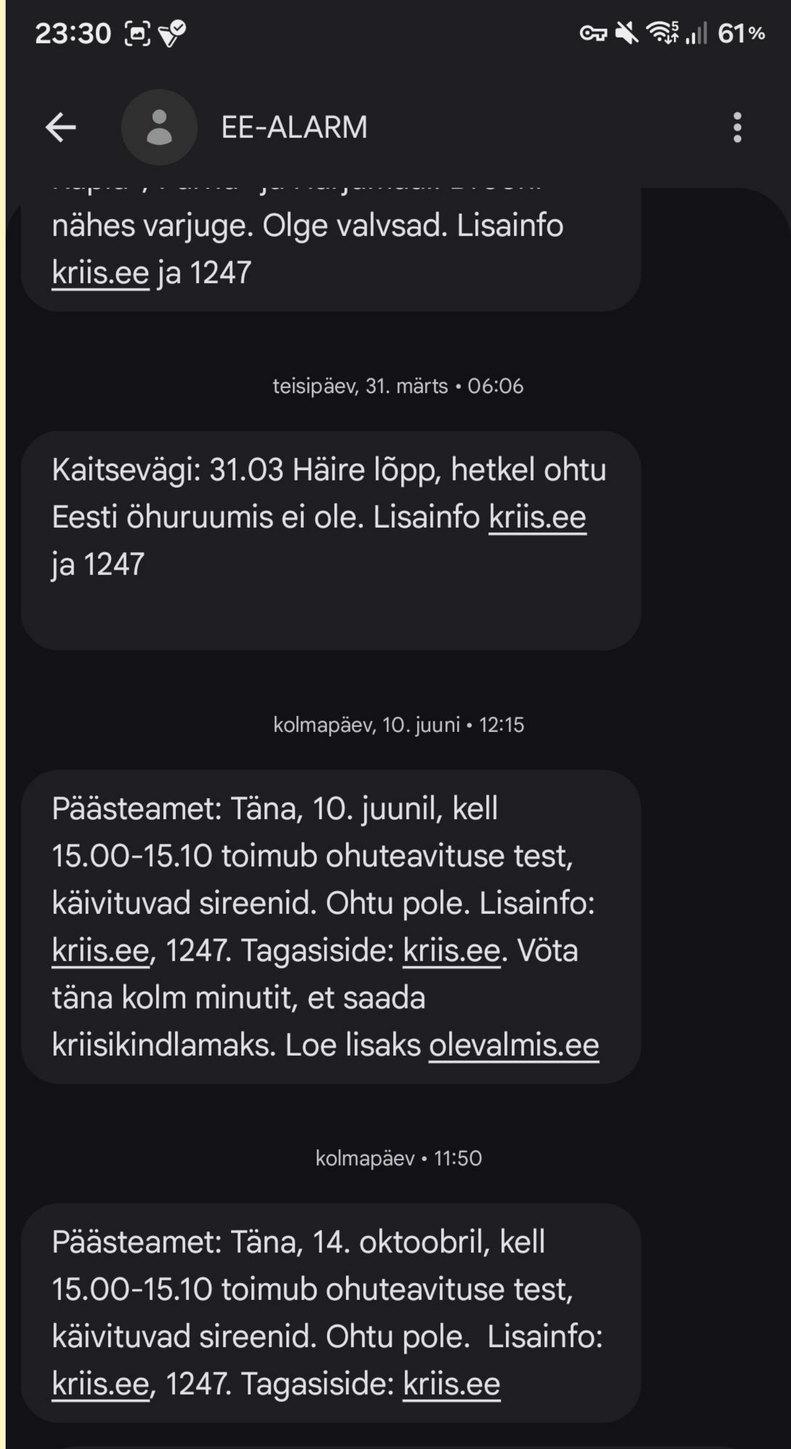
First operational in 2023; is language-adaptive since spring 2025

Delivery speed depends on mobile network infrastructure, the number of recipients and message length

Nationwide alert delivery takes approximately 35 minutes

Latest test (Oct 14)

- SMS alerts were sent to approximately 1.57 million devices
- Within 17 minutes, SMS alerts had reached one million devices



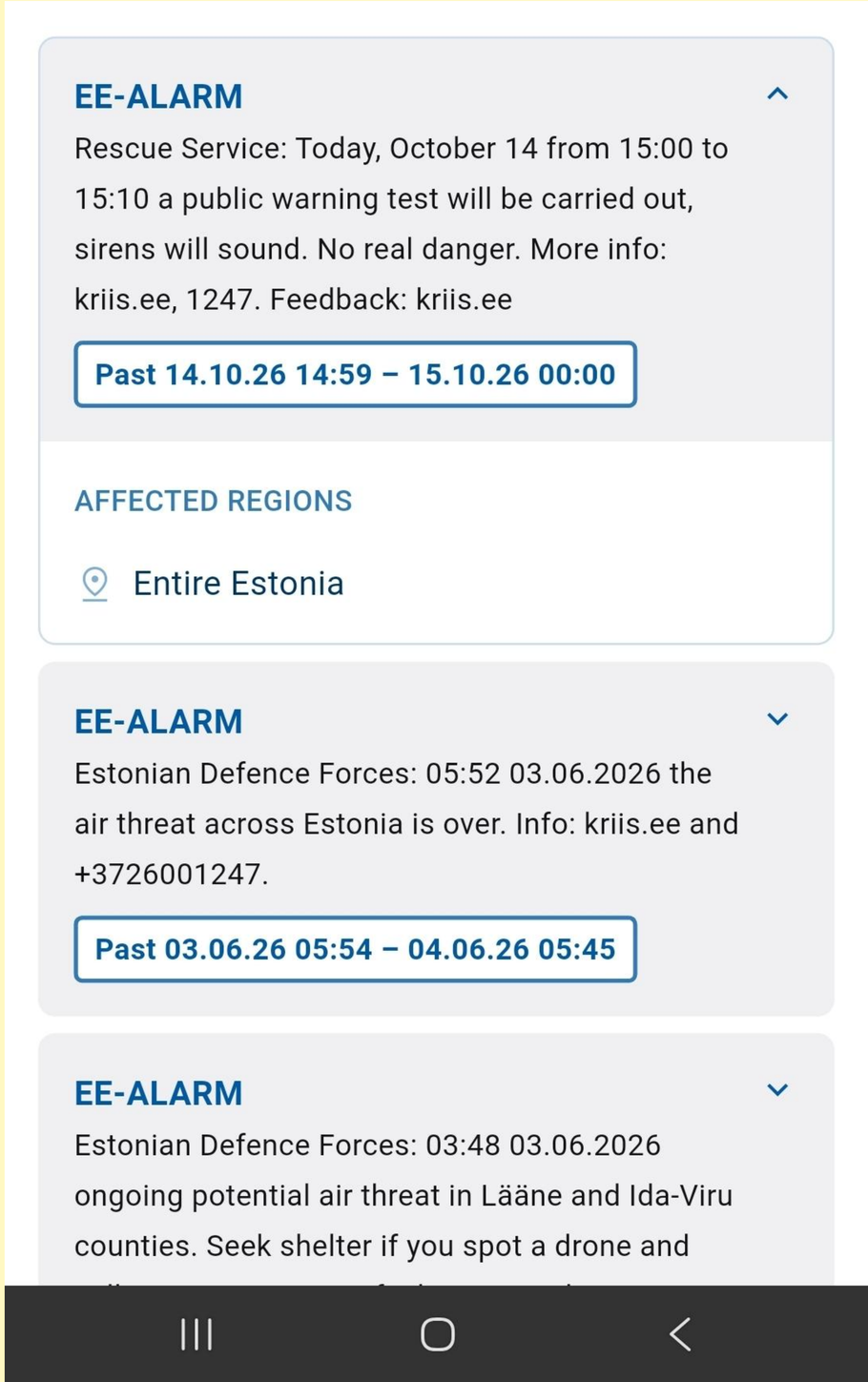
Public Warning Mobile Apps

Eesti App

- 340,000 downloads as of Oct 2026
- Legally designated as the official national public warning app
- Developed by the Estonian Information System Authority (RIA)

"Ole valmis!" App

- Around 20,000 active users
- Developed by the Women's Voluntary Defence Organization (Naiskodukaitse)



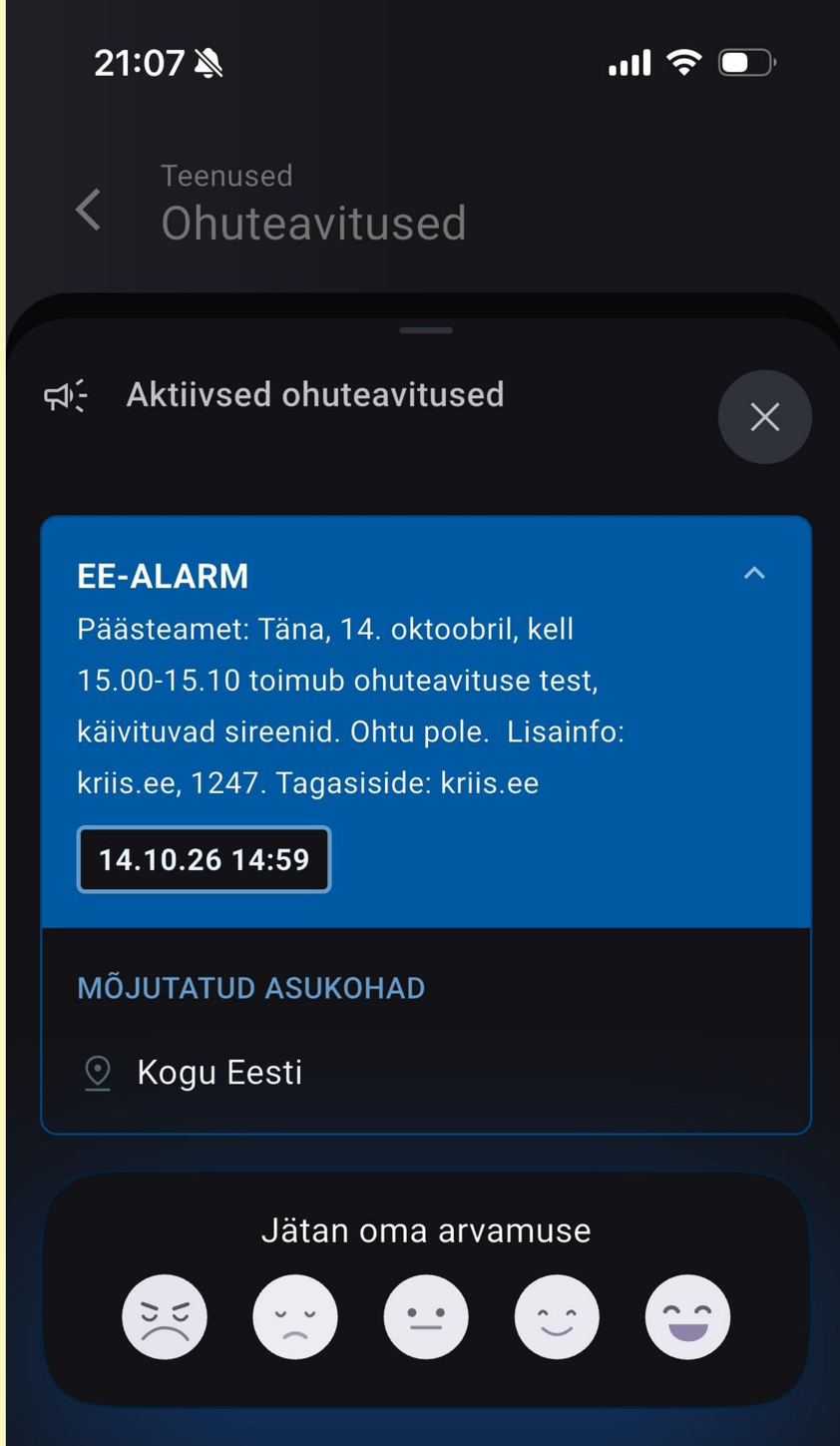
App-Specific Features

Users select their alert area and sound in the app settings

- The smallest selectable area is a county; most users have selected the whole of Estonia
- Notifications use a sound selected by the user; Critical Alert functionality is being developed

Advantages:

- Possibility to develop additional features
- Alerts can be received wherever Wi-Fi and a wired internet connection are available
- Lessons from Ukraine and Israel – having a public warning app is critical



Siren Network – Key Facts

124+ siren installations

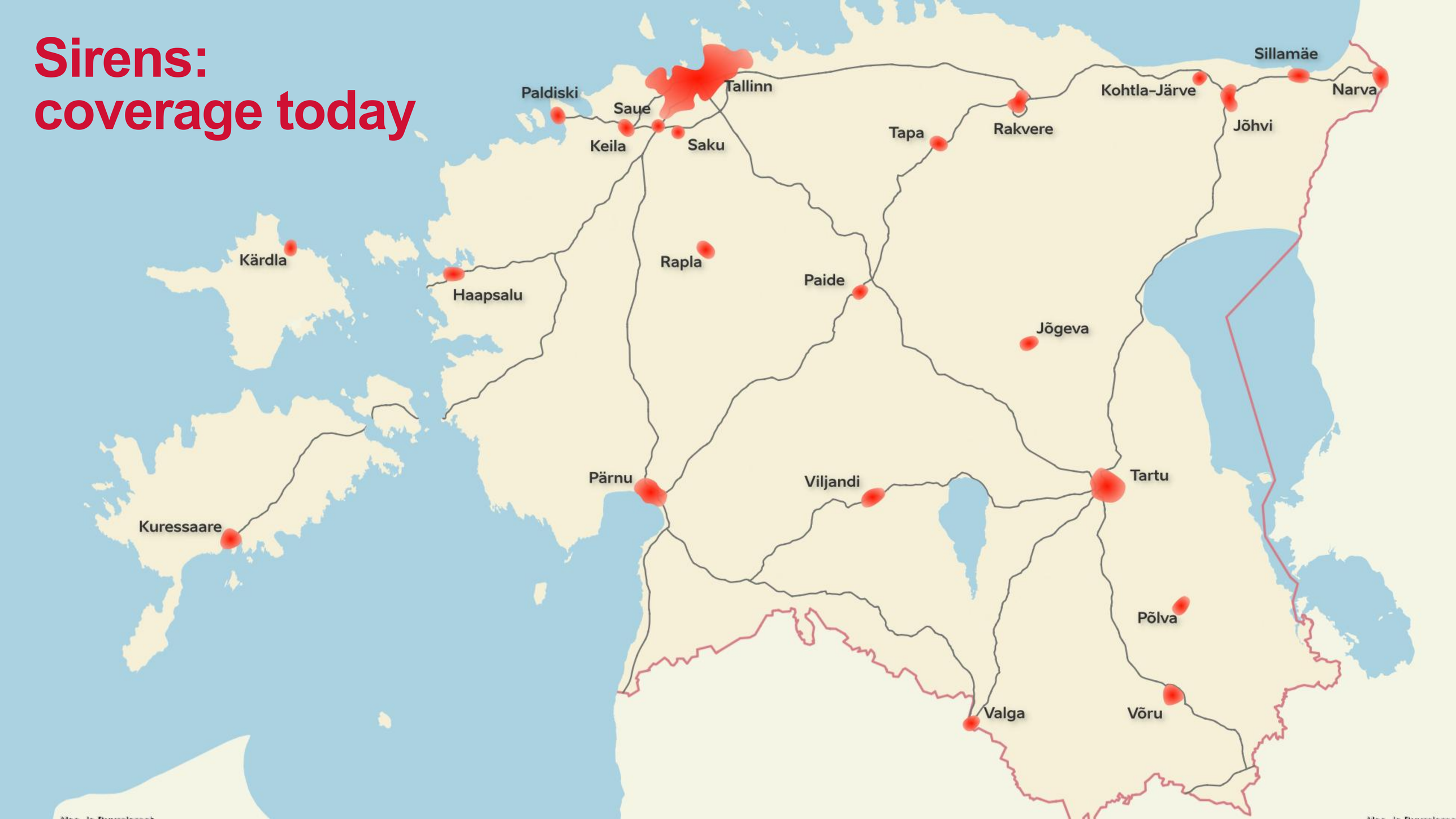
- One of the most advanced siren system in Europe

Estimated coverage: 66% of the population

- Extensive sound pressure measurements and analyses conducted during recent tests
- Further expansion of the network needed



Sirens: coverage today



ERR channels: the Backbone of Official Info Dissemination

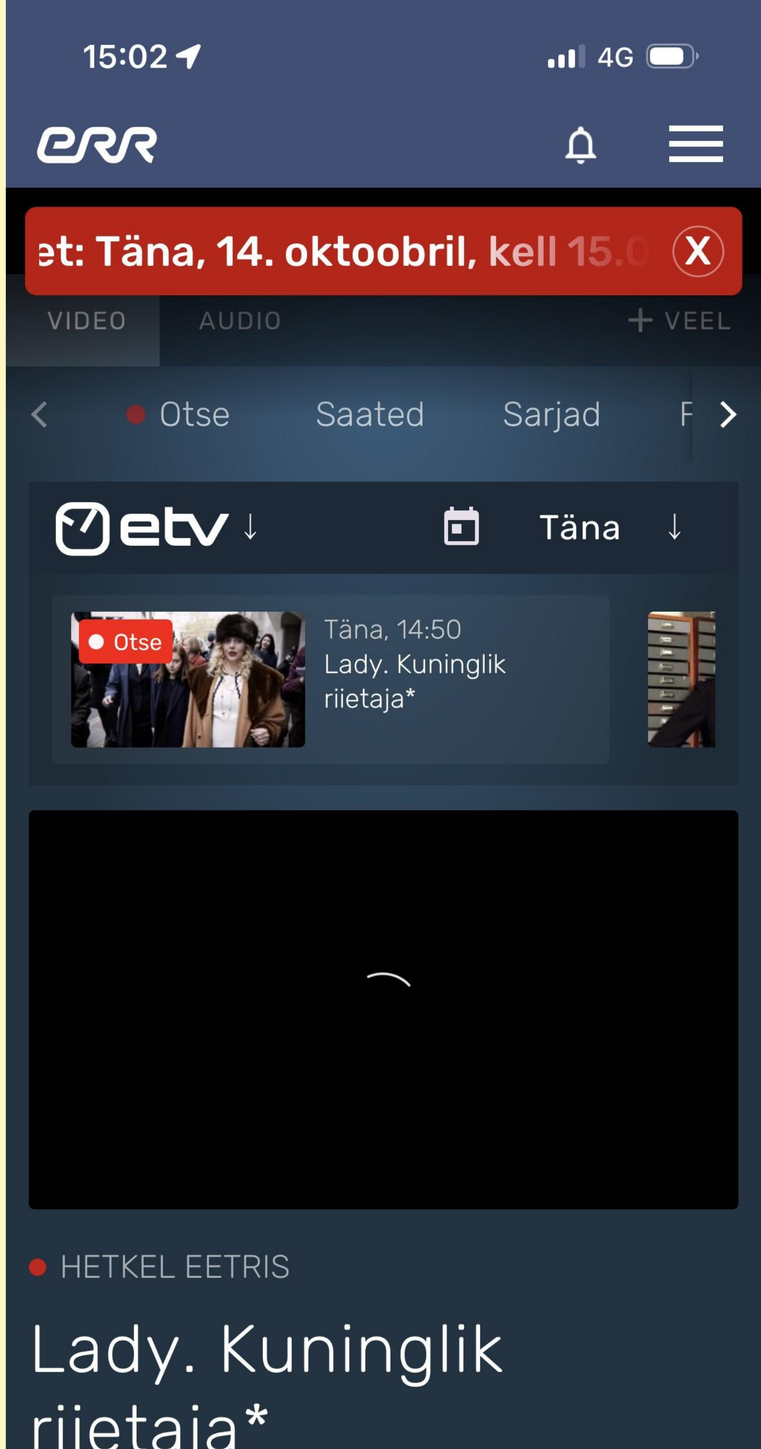
Activation during events with nationwide impact

ERR news portals

the ERR News app

ETV and ETV+ television channels





Last but Not Least:

Integrated, Centrally Activated and Managed

Activation rights and access

Designated key agencies have access to the system and the authority to activate public warning channels

The Estonian Rescue Services Agency is responsible for training and system development

Authorized agencies have the responsibility to use the system (the Estonian Defence Forces, Police and Border Guard Board, and Estonian Rescue Services Agency, etc)



Future Developments of EE-ALARM

2027

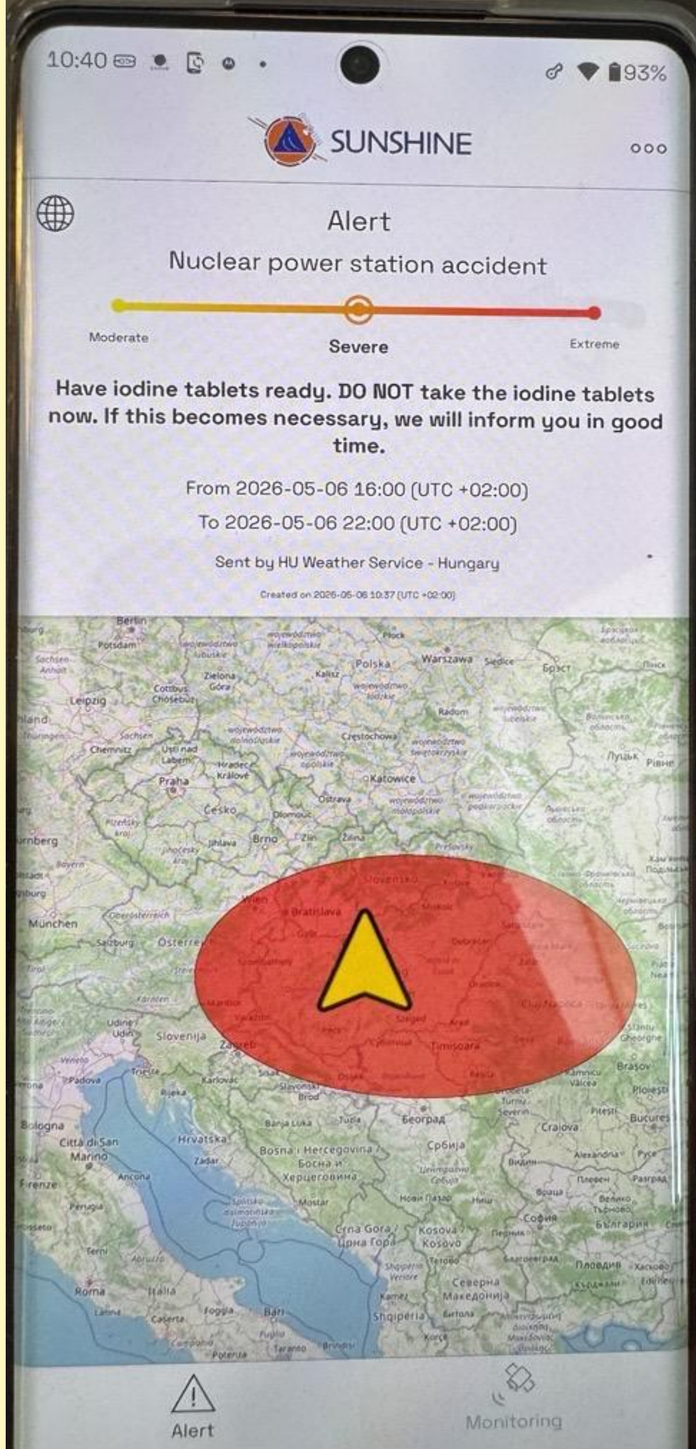
- Cell Broadcast
- Public APIs

2028

- Digital displays in public spaces
- Digital set-top boxes (on-screen TV alerts)
- Galileo Emergency Warning Satellite Service

2029+

- 5G Broadcast (Pocet Siren)



What to Consider When Expanding and Developing the System

- ✓ Resilience and redundancy – ensure the system works even when parts of it fail
- ✓ Speed – ensure rapid public warning
- ✓ Manageable complexity and cost – control technical and operational complexity; adding channels, consider removing channels
- ✓ Does it make keeping our people safe easier, faster and more effective



Testing.
Learning.
Improving.

A reliable public warning system must perform when it matters most. Continuous improvement is essential

Our approach:

- ✓ Test regularly
- ✓ Learn from other countries
- ✓ Learn from our own use cases



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