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Eesti tuleviku heaks

Pocket Siren – 5G Media Broadcasting for Emergency Warnings

Ministry of the Interior

Partners: Rescue Board, Defence Forces, Emergency Response Centre, Consumer Protection and Technical Regulatory Authority, SMIT- IT Centre, State Infocommunication Foundation

Agenda

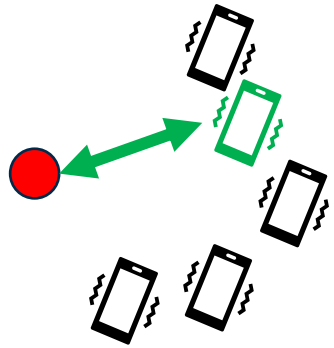
Introduction to public sector innovation fund

About the project

Technical specifications 1

Technical specifications 2

We are looking for a broadcast solution to reach mobile phones

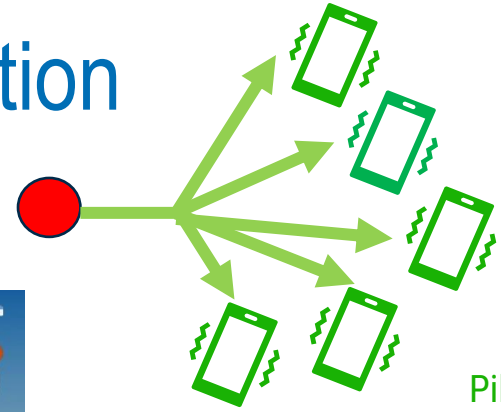


LB-SMS – in use

Reaches 95% of mobiile phones
We can get feedback on how many recipients received it
Easy for the end user
Delivery takes time
Notification similar to a regulaar SMS
Operator´s network must be working

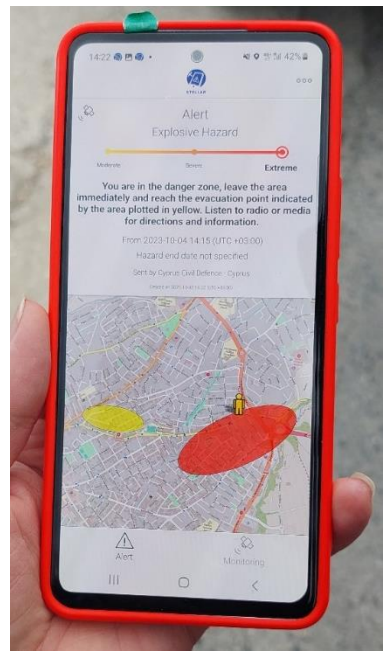
cell-broadcast

- Operator networks (SMS has the same reliability
- An alternative would be building a state network (currently not needed, around 1,000 transmitters)
- Network cell accuracy



Alerts
Fast
Not in all mobiles
Needs getting used to

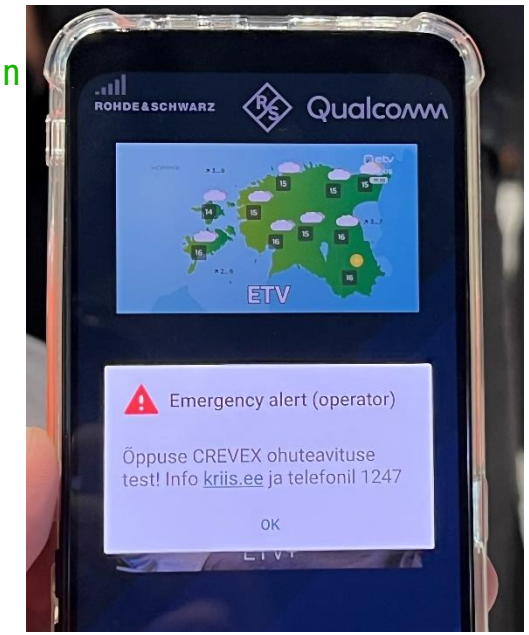
Pilot testing in fall 2024



Galileo Early Warning Service

- Requires downloading a mobiile app
- Predefined texts
- Does not need an operator network
- GNSS accuracy

Pilot testing 2025-2026



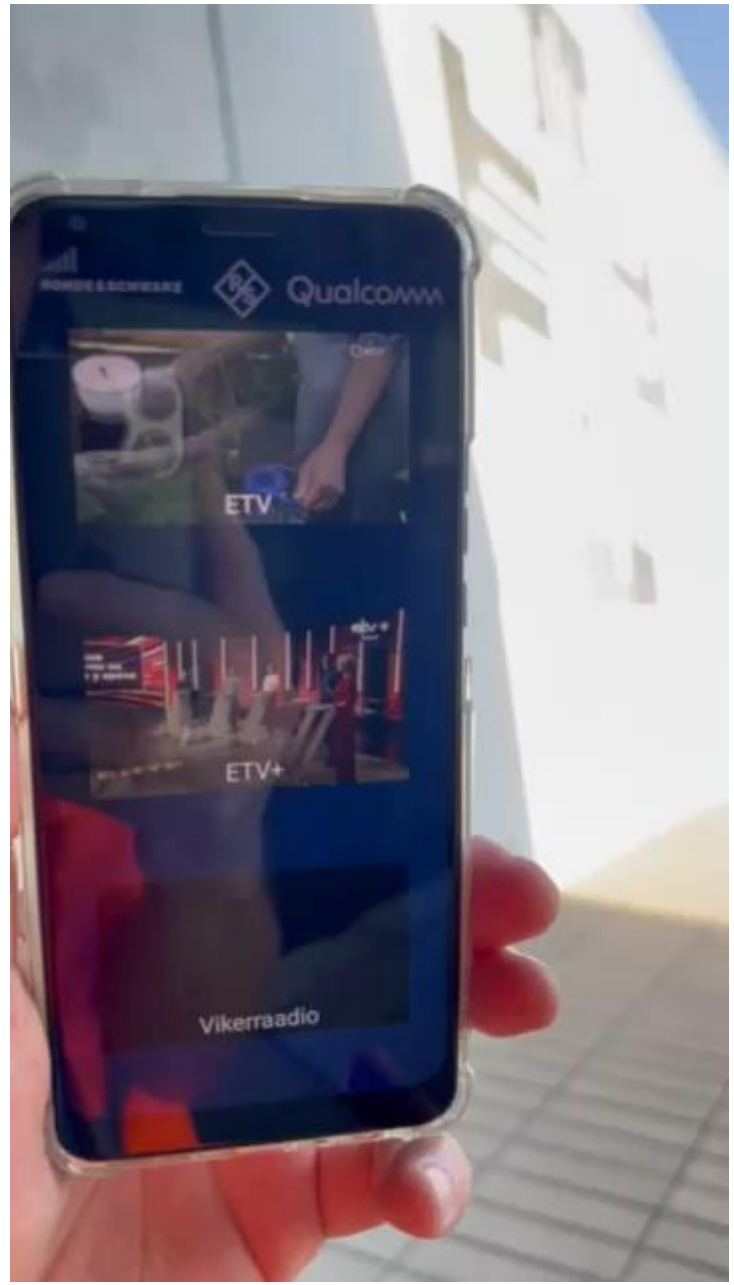
5G broadcast

- High towers for emergency alerting or Broadcasting network (currently none, need about 10 transmitters for full functionality
- Cell-broadcast standard + meedia broadcasting
- Does not need an operator network
- GNSS accuracy, cells

What do we want?

CREVEX testing (video)

CREVEX testing



Pocket Siren – 5G meedia broadcasting for emergency warnings

- Funding: Public sector innovation fund, Government Office
- Project proposal: Ministry of the Interior
- Project timeline: 24 months (procurements) + preparation of procurements
- Project cost: up to 1 250 000 euros

Project activities

Activities	Duration	Expected timeline	Expected total cost (incl. VAT)
The project will be conducted through 2 procurements	24 kuud		1 250 000 €
Procurement Phase 1: Service for emergency warnings through 5G media broadcasting for 1,5 years	6+18 months	01.11.2024-31.10.2026	1 000 000
Procurement Phase 2: Testing of emergency warnings through 5G media broadcasting: **1. Technological tests** **2. Scenario-based emergency tests**	18 months	01.05.2025-31.10.2026	250 000

„Procurement Phase 1: Service for emergency warnings through 5G media broadcasting for 1,5 years“

- Goal: Ensure the broadcast of emergency warnings via 5G media broadcasting for a 15-year pilot period from at least three high towers.
- Inputs:
  - For the pilot project, it is possible to use the E40 multiplex in the Tallinn TV Tower, and, provided that Levira relocates its MUX7 Koeru E41 transmitter to a different frequency (E35 is available), the Koeru E41 and Pärnu E41 could be used for the testing of a single-frequency network.
  - The project partners ensure that during the pilot, emergency notifications will be transmitted according to the Common Alerting Protocol (CAP).

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Evaluation criteria, phase 1

No	Name	Type / Evaluation method	Weight (%)
1	Project plan	Quality – evaluated by the contracting authority	50
2	Total cost of the proposal	Cost – lowest is best	50

Project plan:

A maximum of 50 points can be awarded for the "Project Plan" criterion. Points are assigned based on the chapter "Project Plan Evaluation Criteria," where the points for each evaluation criterion are multiplied by the corresponding weight.

Total cost:

A maximum of 50 points can be awarded for the "Total Cost of the Proposal" criterion. The lowest-value proposal receives the maximum number of points. Other proposals receive points calculated using the formula: "lowest value" / "proposal value" * "weight."

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Procurement Phase 2: Testing of emergency warnings through 5G media broadcasting:

Activity 1: Technological Tests

Goal: Measure the 5G media broadcasting network created for testing and model a network covering the largest possible part of Estonia. Test the functionality of emergency services provided through 5G media broadcasting.

1.1. System technical tests

1.2. Technical tests/measurements for emergency notification functionality

1.3. Modeling a 5G media broadcasting network covering the largest possible part of Estonia

Activity 2: Testing of Emergency Scenarios

Goal: Develop the processes necessary for adding and implementing the 5G media broadcasting solution into the national emergency notification system.

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Evaluation criteria, phase 2

No	Name	Type/evaluation method	Weight (%)
1	Vision	Quality – evaluated by the contracting authority	50
2	Total cost of the proposal	Maksumus - vähim on parim	30
3	Team and experience	Quality – evaluated by the contracting authority	20

Vision

A maximum of 50 points can be awarded for the "Vision" criterion. Points are assigned based on the chapter "Vision Evaluation Criteria," where the points for each evaluation criterion are multiplied by the corresponding weight.

Total cost of the proposal

A maximum of 30 points can be awarded for the "Total Cost of the Proposal" criterion. The lowest-value proposal receives the maximum number of points. Other proposals receive points calculated using the formula: "lowest value" / "proposal value" * "weight.„

Team and experience

A maximum of 20 points can be awarded for the "Team Composition and Experience" criterion. Points are assigned based on the chapter "Team Composition and Experience Evaluation Criteria," where the points for each evaluation criterion are multiplied by the corresponding weight.

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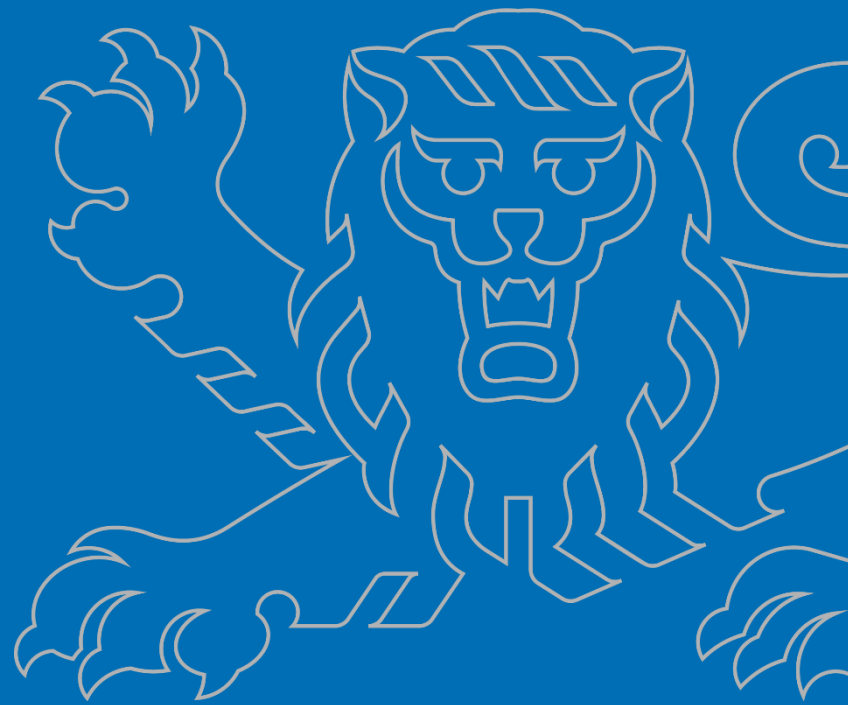
Project manager: Kadi Luht-Kallas,
kadi.luht-kallas@siseministeerium.ee
Innofund contact: Johanna Rodima, Government Office
johanna.rodima@riigikantselei.ee