



Advance Mobile Location in Estonia

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Why improving caller location?

In Estonia ~90% of calls to 112 are made from mobile phones.

Problems:

- Mobile network positioning method (Cell ID) does not work during every call.
- Cell ID precision in rural areas is about 2 - 25 km.
- Callers are unable (injured/unknown area) to specify their location.

Problems result in longer period of time which is used for specifying the caller's location.

What is AML?

AML = Advanced Mobile Location

- Protocol that enables the provision of handset-based location (GNSS / Wifi) to emergency services;
 - Free of charge
 - Open-source (not proprietary)
- Since June 2016: Featured on all Android smartphones in the world (this is not an app, no download needed). Has to be activated country per country once emergency services are ready.
- Since June 2016: Live deployment in Estonia with support of all MNOs.
- March 2017: AML deployed in Estonia, the United Kingdom, Austria and Lithuania and tested in several EU countries.

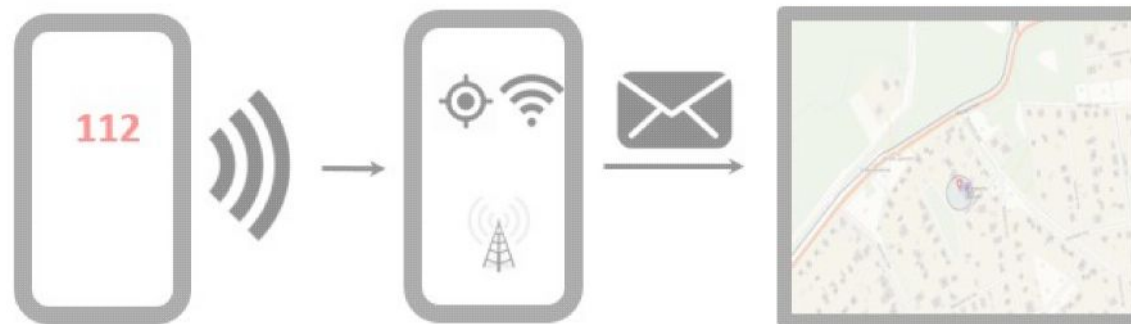
Key figures

**Around
2800
emergency
calls
received
every day**

**Around 700 AML
locations
received every
day**

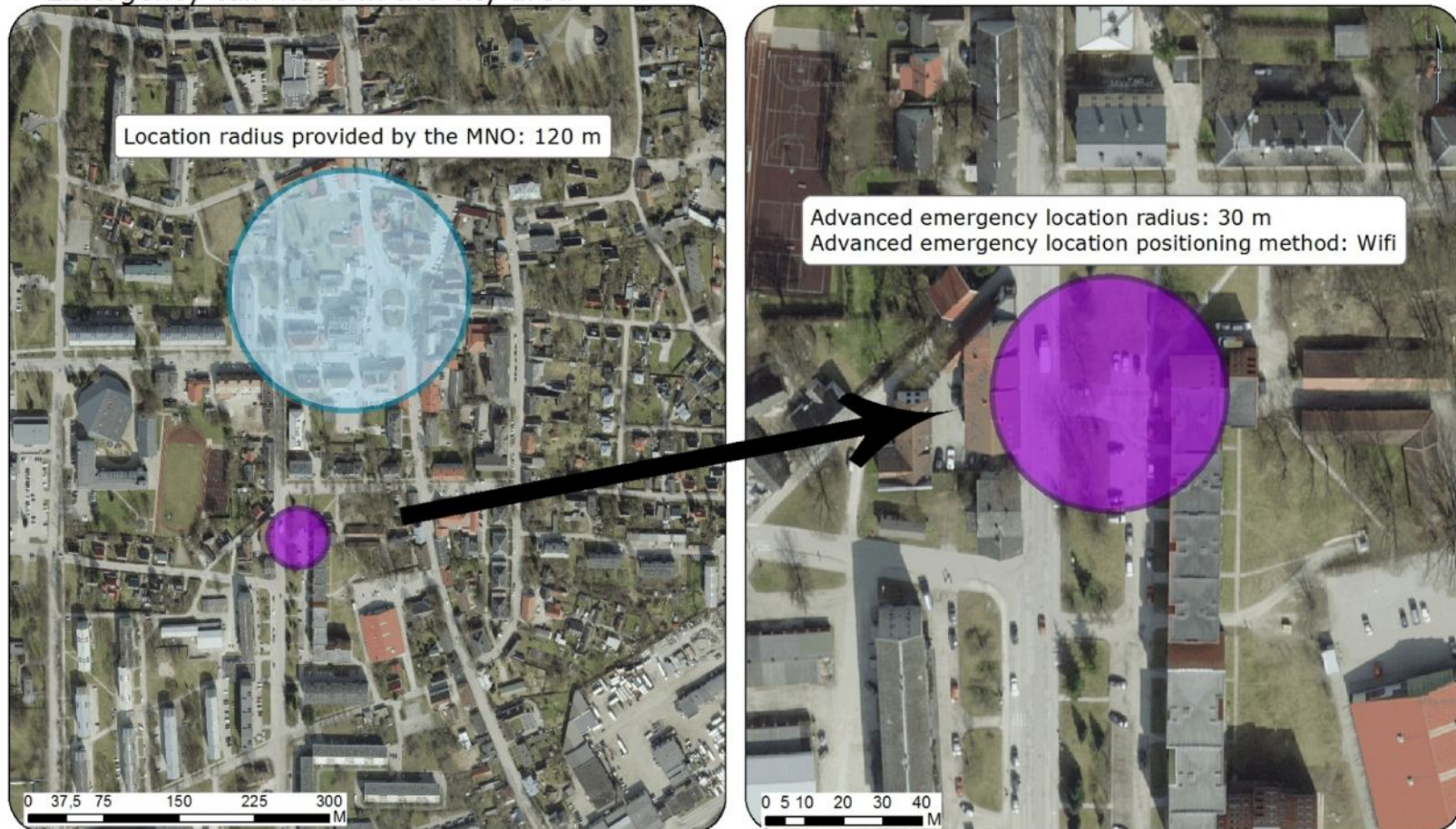
**87% of locations
within 50 metres**

**77% of locations
within 30 metres**




Case studies

Emergency call made in the city area



Legend

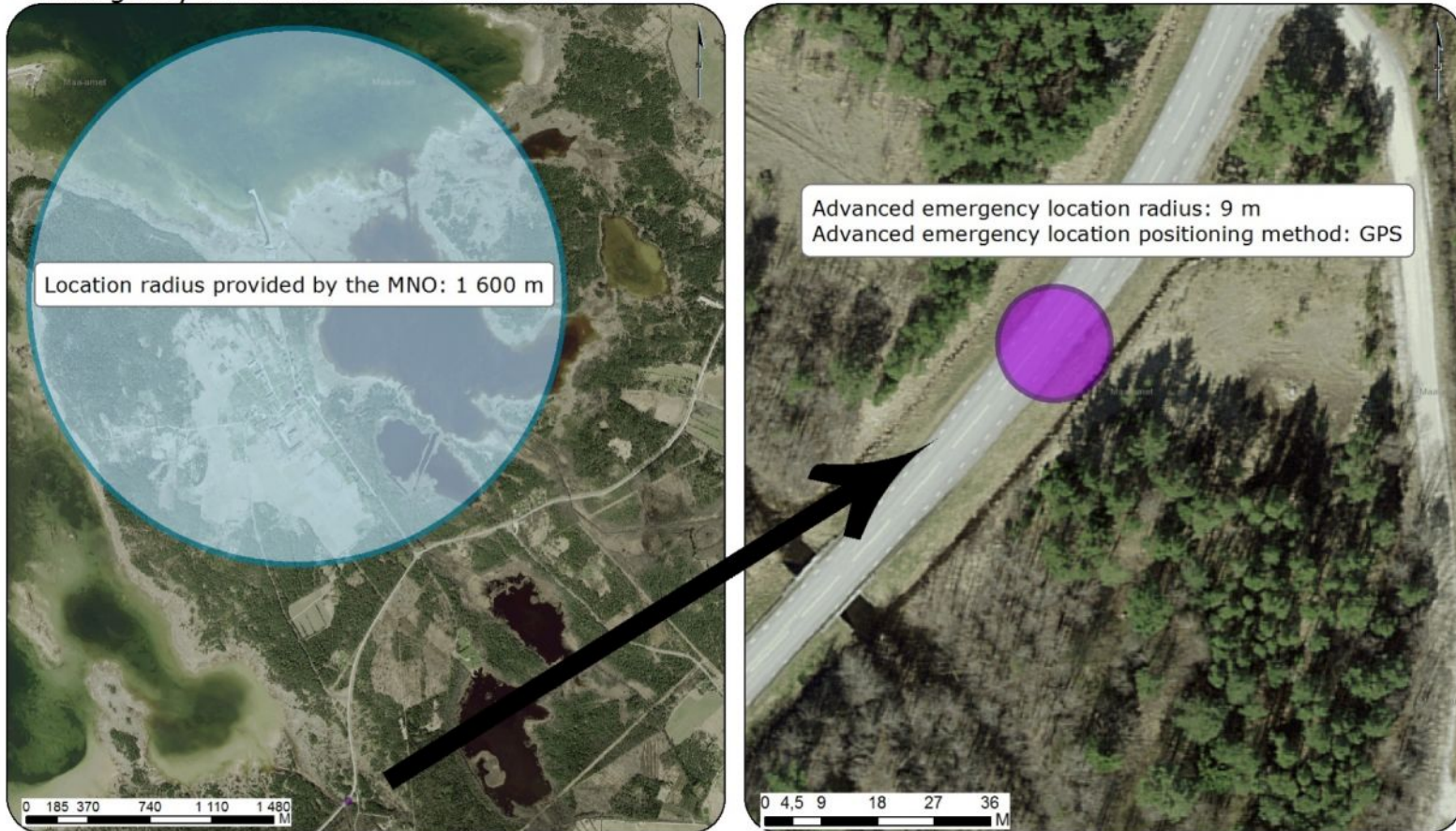
 Location provided by the MNO

 Advanced emergency location



Basemap: Ortophoto Estonian Land Board (15.03.2017)

Case studies

Emergency call made in the rural area



Legend

-  Advanced emergency location
-  Location provided by the MNO

Base Map: Ortophoto Estonian Land Board (14.03.2017)

AML and the EECC

- Article 102 paragraph 5 of the proposal:
General provisions on caller location of emergency calls
- Recital 259: "handset-based location technologies have proven to be significantly more accurate and cost effective due to the availability of data provided by the EGNOS and Galileo Satellite system and other Global Navigation Satellite Systems and Wi-Fi data. Therefore handset-derived caller location information should complement network-based location information".
- **Handset-based location should be included in the binding articles of the proposal.**

Impact of such a mandate

- A study conducted under the Help 112 EU-project calculated the economic and social impact of mandating handset-based location in the European Union*:
 - €95 billions saved over 10 years
 - 7,500 lives saved over 10 years
- AML usually well supported by MNOs, as they do not have to install any additional equipment.

THANK YOU!

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KINDEL / KIIRE / ASJATUNDLIK

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