# Ministry of Interior, Estonia

**Innovative emergency response system helps save lives.**

Estonian Emergency Response Centre's (EERC) "GIS-112" project seeks to reduce the response time between answering emergency 112 calls and the arrival of emergency services at the scene. As part of the project, CGI developed and implemented an innovative emergency response system designed to dramatically speed up response times and save lives. The system successfully went live in the summer of 2014.

## ABOUT THE PROJECT

EERC is a national government institution governed by the Ministry of the Interior. Its main responsibilities are to process:

- **Emergency calls** to the single European emergency number (112)
- **Help and information calls** to a Help Line for the local municipalities (1345), the Rescue Service Information number (1524) and the Environmental Inspectorate Hotline (1313).

The "GIS-112" project was launched in 2010 to help reduce the response time of emergency services to help save more lives and reducing property damage. Developed within the Estonian-Swiss cooperation program, the project highlights the strong collaboration between the two nations.

## THE CHALLENGE

EERC's information and communication technology tools not only must be in good working order, but also are subject to demand for constant innovation and updating. They needed a system to help them determine the locations of incidents faster and more precisely in order to send more timely help. According to Vallo Pensa, Service Manager of Information Technology and Development Centre (SMIT) in the Estonian Ministry of the Interior, this was a technologically challenging project with multiple interfaces and data layers.

For CGI, the biggest challenge was mapping exact needs, beginning with the analysis of rescue work operations and through to the training of rescue personnel on how to use the new system.

## THE SOLUTION

CGI developed and implemented the innovative emergency response system in collaboration with the EERC, SMIT, the Estonian Rescue Board and the Estonian Health Board. CGI also helped with training of rescue staff.

*"This common operational tool is the first of its kind in the emergency services that covers the entire chain of activities from the emergency call center to arrival of help at the scene. The tool provides a shared platform for all emergency services. The project has already taken a new direction by the prospect of adding the police to the system."*

**Janek Laev**, Director General, Estonian Response Centre

At the heart of the system is a user-friendly digital map, located both in the control rooms of the EERC and within the rescue vehicles and ambulances. Real-time data is fed in from multiple mobile devices, and the system recommends the most appropriate resources to respond to the emergency. The map displays the scene of the incident, the fastest route and the real-time location of available resources.

In short, the system has two components:

- Rescue center system in the command and control center which includes an emergency call registration system and a rescue planning and dispatch system
- m-Rescue mobile application on board all emergency vehicles.

The system will help decrease the number of casualties during fire accidents and speed help to the injured, thereby increasing the number of resuscitated patients and minimizing environmental and property damage from these accidents. The solution enables:

- **Faster location of the scene of an accident** by positioning the caller or accident location on a digital map
- **More flexible and efficient decisions** by displaying all resources and their status on the digital map
- **Faster and accurate sharing of information** by exchanging data electronically between the EERC, rescue teams and ambulance brigades
- **Getting help to the scene faster** using electronic map-based data exchange, drawing up the fastest set-off plan for each event, and displaying the fastest route to the scene
- **A complete view of the events** and more efficient resource management by showing rescue and ambulance events on the map chronologically and geographically.

### THE RESULTS

The new system not only will improve emergency response operations, but truly will save lives. Estonia will increase the number of successfully resuscitated patients and continuously decrease property damage.

In 2014, the new system received the Logistics Deed of the Year award from the Estonian business newspaper *Äripäev* — an annual award that recognizes innovation in logistics management.

**Connecting to the X-Road**

X-Road is the backbone of e-Estonia. It is the invisible yet crucial environment that allows the nation's various e-services databases, both in the public and private sector, to link up and operate in harmony. GIS-112 is connected to the X-Road interface. This enables efficient sharing and exchange of information with other X-Road users, including the Estonian Health Insurance Fund and Ministry of Social Affairs.

**KEY BENEFITS**

- Faster identification of emergency scenes
- Faster and more efficient deployment of emergency resources
- More accurate emergency information
- Faster exchange of emergency information among first responders
- Faster arrival at the scene of an emergency
- Accurate geographical overview of emergency scene and assigned first responders

*"CGI provided much needed expertise during the requirements analysis and development stages and also suggested innovative solutions for building the system."*

**Vallo Pensa**, Service Manager of Information Technology and Development Centre (SMIT), Ministry of Interior