



# Public Warning Chatbot

Improving Public Warning Messages



Sasha Sukhinich: [www.linkedin.com/in/sukhinich](https://www.linkedin.com/in/sukhinich)

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# Agenda

1. Meet your Speaker
2. Problem Statement and Solution
3. Chatbot Goals
4. Solution Overview
5. CAP Integration
6. Multi-language Support
7. Chatbot screenshots

# 1. Meet your speaker



## Sasha Sukhinich

Intern Software Engineer

- 3rd year Software Engineer student in Saxion.
- Originally coming from Ukraine
- Joined one2many (an everbridge company) as an Intern.
- Working on the chatbot to implement multi-language support

## 2. Problem Statement and Solution

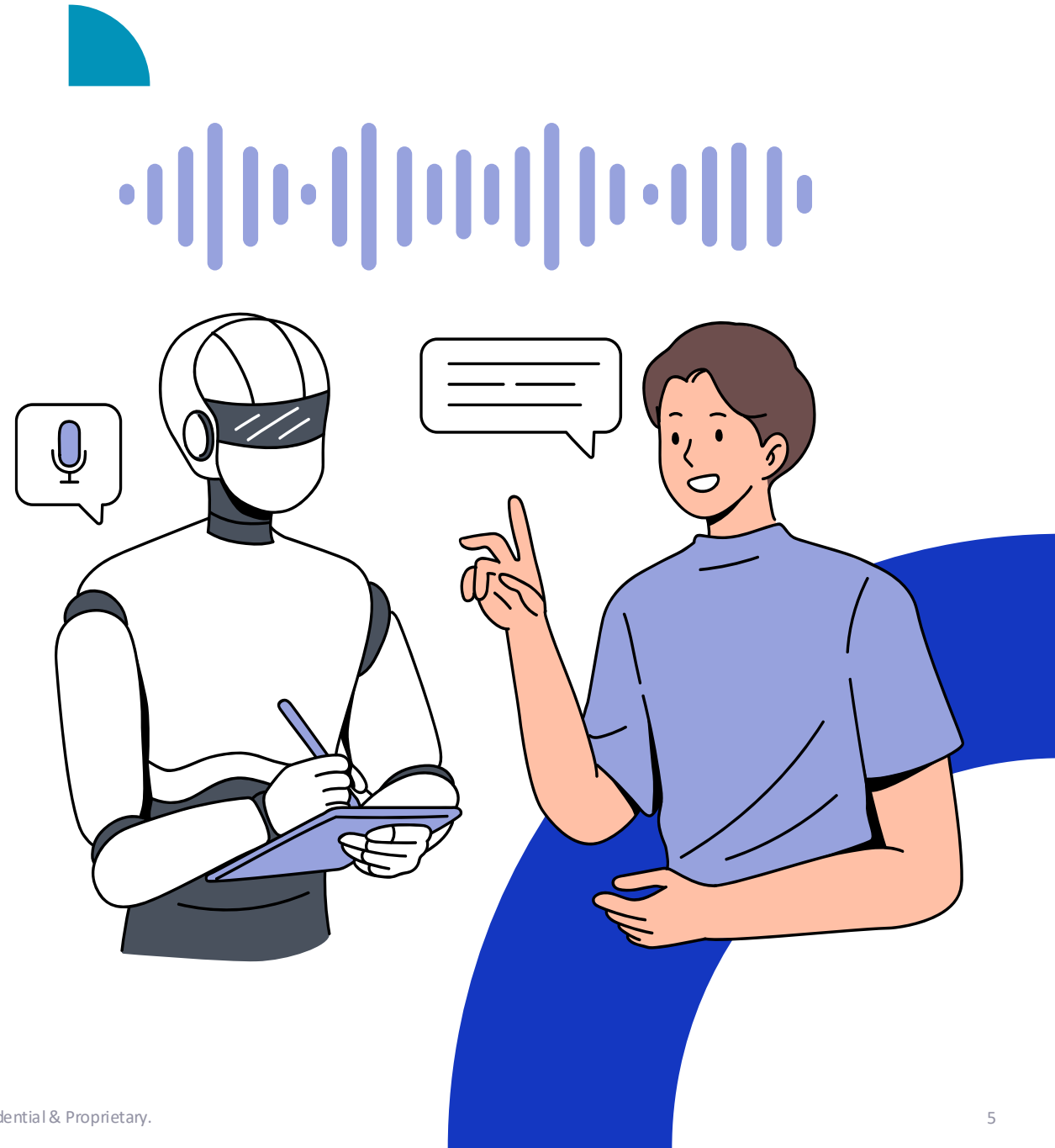


# 3. Chatbot goals

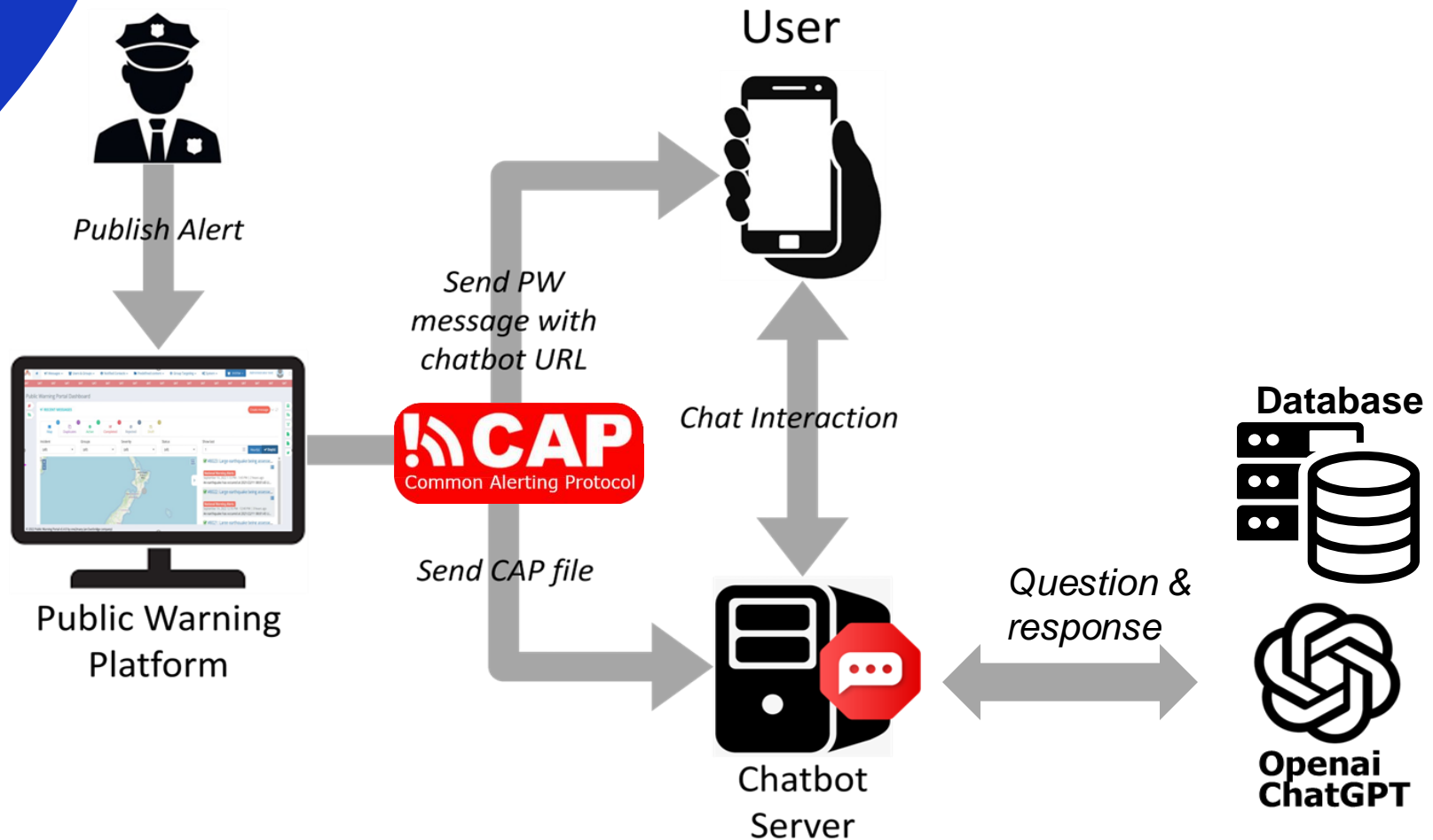
Public Warning Chatbot – software, that delivers a timely and accurate emergency information.

The goals are:

1. Deliver extensive information
2. Multi-language support
3. Reduce traffic
4. Enabling a user feedback loop



## 4. Solution Overview



## 4. Overview AI usage

### DeepL

- Machine Translation Tool
- Used for translating CAP

### ChatGPT, OpenAI

- General Purposes Large Language Model
- Prompt engineered to answer like an emergency manager using CAP alert
- Can answer a broader range of questions and add a bit of creativity in the answering
- Used for translations

# 5. CAP Integration

## CAP - Common Alerting Protocol

Purpose: Standardized format for emergency alerts and public warnings.



Key Features:

- **Multi-Channel Distribution:** Sends alerts via radio, TV, SMS, internet, etc.
- **Interoperability:** Integrates with various alerting systems.
- **Pattern Detection:** Identifies emerging threats.



## 5. CAP Integration

### Fire

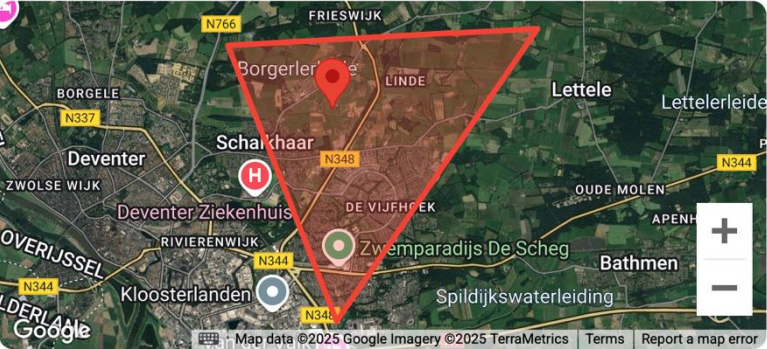
Deventer

Sent at 14-11-2024 09:32 by pwp, expires at 14-11-2024 09:42

**Urgency: Immediate | Severity: Severe | Certainty: Likely**

A fire in Deventer Forest spread quickly due to dry conditions and strong winds. Firefighters worked to contain the blaze as smoke filled the sky, with residents advised to keep clear of the area. Efforts to control the fire continue.

The emergency is located in Deventer. Here it is on a map:



My location

Ask a question

"event": "Fire"

"effective": "14-11-2024 09:32", "expires": "14-11-2024 09:42"

"sender": "pwp"

"urgency": "Immediate", "severity": "Severe", "certainty": "Likely"

"description": "A fire in Deventer Forest spread quickly due to dry conditions and strong winds. Firefighters worked to contain the blaze as smoke filled the sky, with residents advised to keep clear of the area. Efforts to control the fire continue."

"locationName": "Deventer",  
"location": "52.28308,6.18489 52.24154,6.21175  
52.28568,6.26123 52.28308,6.18489"

# 5. CAP Integration

- Example user question: “What should I do?”

## CAP Details

The name of the disaster is **Fire in Deventer forest!**  
The description of the disaster is **A fire in Deventer Forest spread quickly due to dry conditions and strong winds. Firefighters worked to contain the blaze as smoke filled the sky, with residents advised to keep clear of the area. Efforts to control the fire continue.**  
The location of the disaster is **52.28308,6.18489 52.24154,6.21175 52.28568,6.26123 52.28308,6.18489**  
The headline of the disaster is **Fire in Deventer forest!**  
The urgency of the disaster is **Immediate**  
The severity of the disaster is **Severe**  
The certainty of the disaster is **Likely**  
The event type of the disaster is **Fire**  
The date of the disaster is **14-11-2024 09:32**  
The disaster is located at **Deventer**

## Static Context

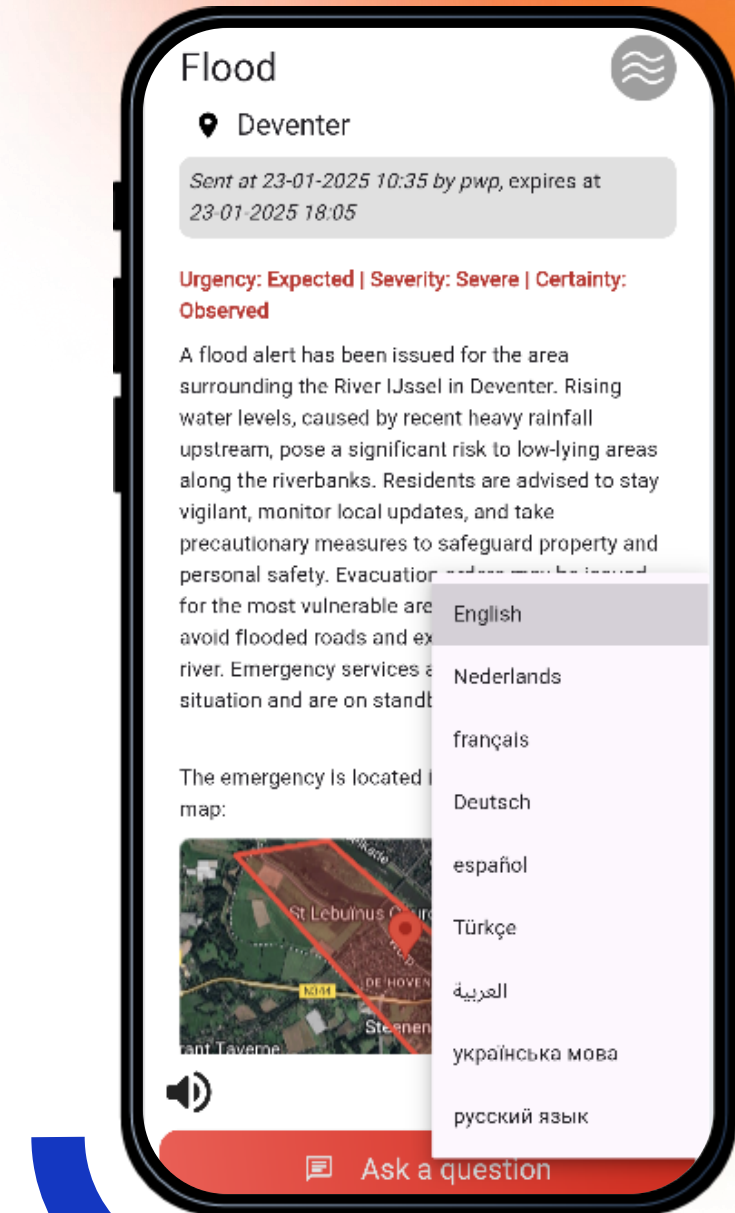
**Only use the information above to answer the user's questions. Do not use any other information. Please answer the question in the language, the user asked the question. Think before answering!**

## Question

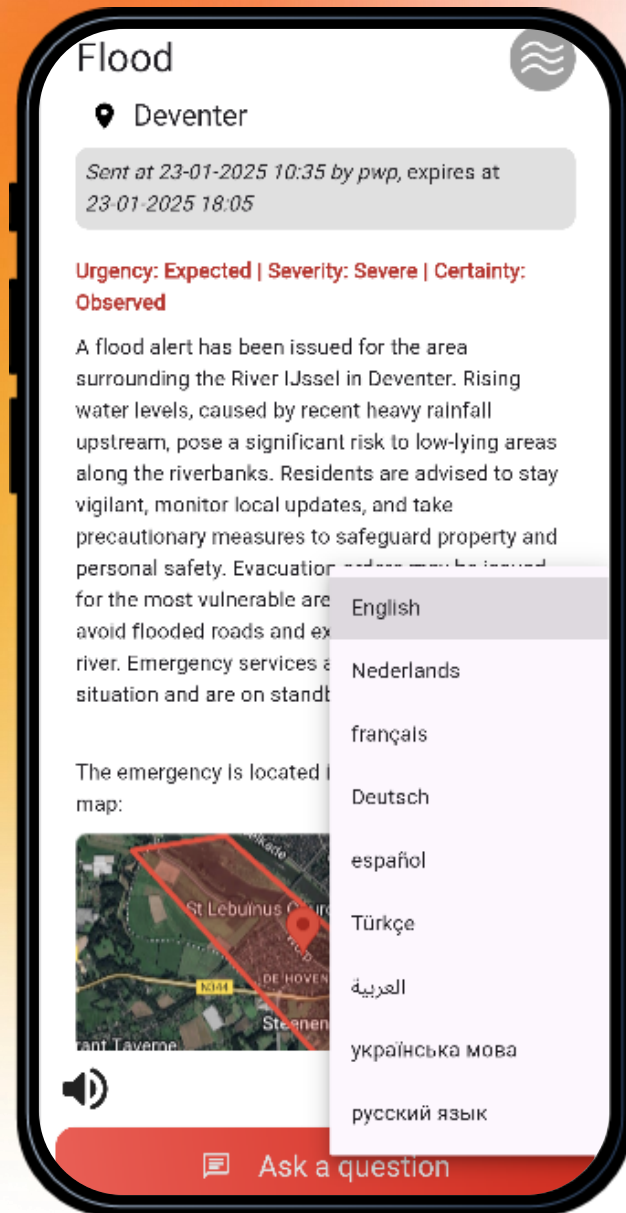
As an emergency manager, can you answer: “What should I do?”

## 6. Multi-Language Support

- Recognition of user's preferred language.
- The interface is fully supporting predefined languages.
- Chatbot responses provided in the preferred language.



# 7. Examples

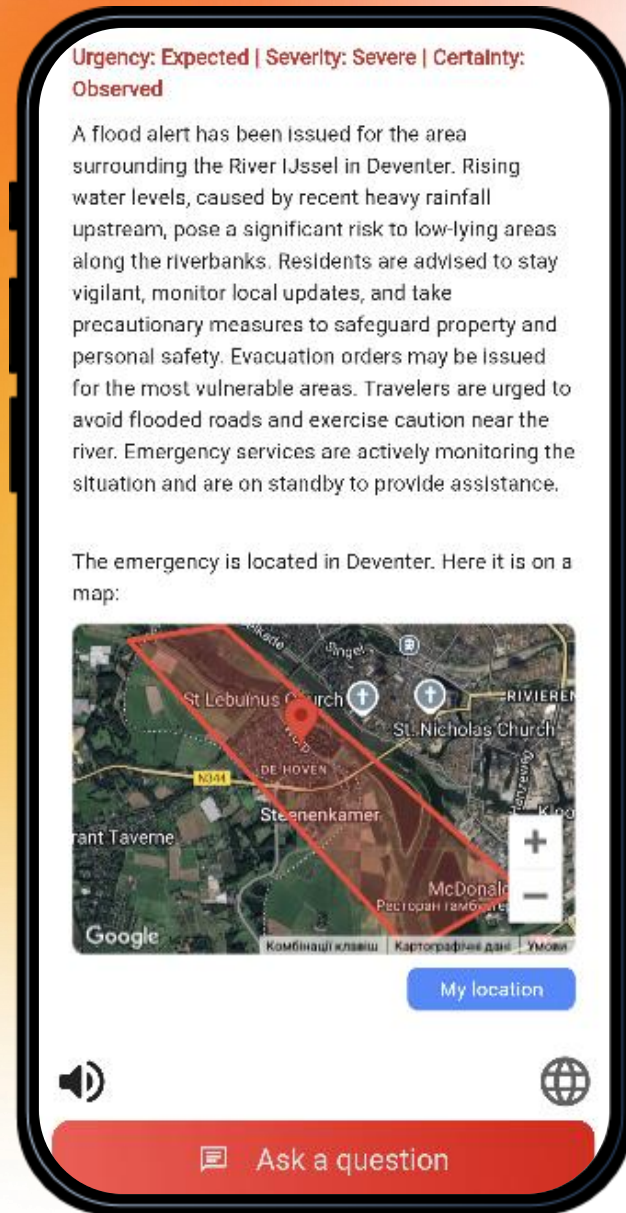


Choose Dutch(Nederland)

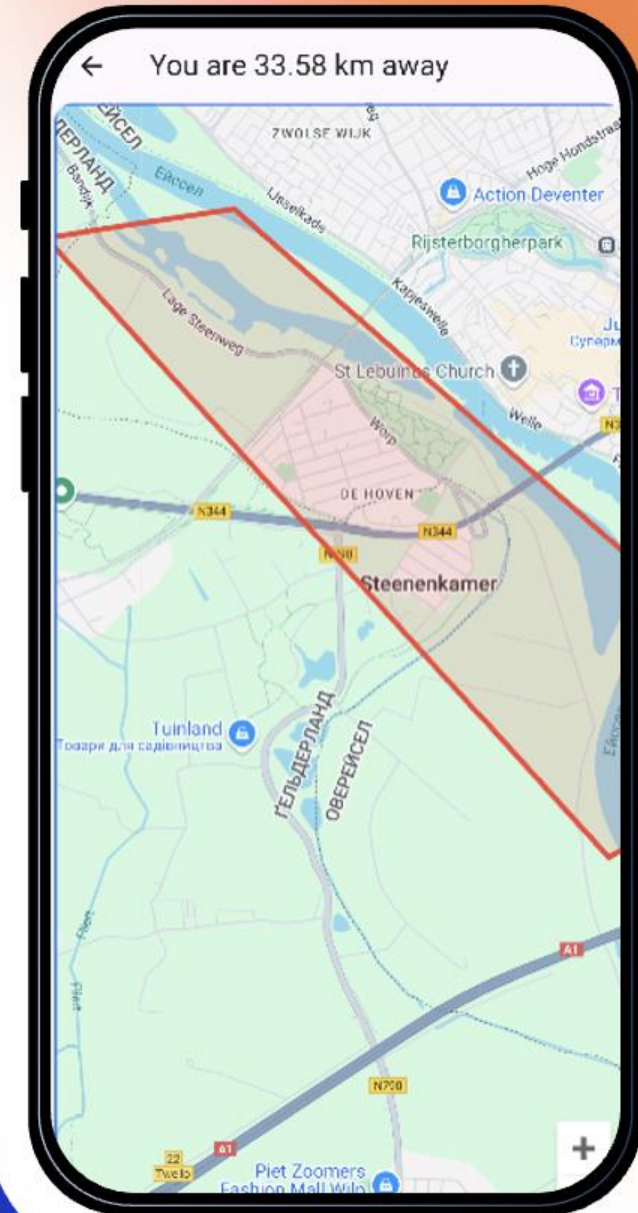




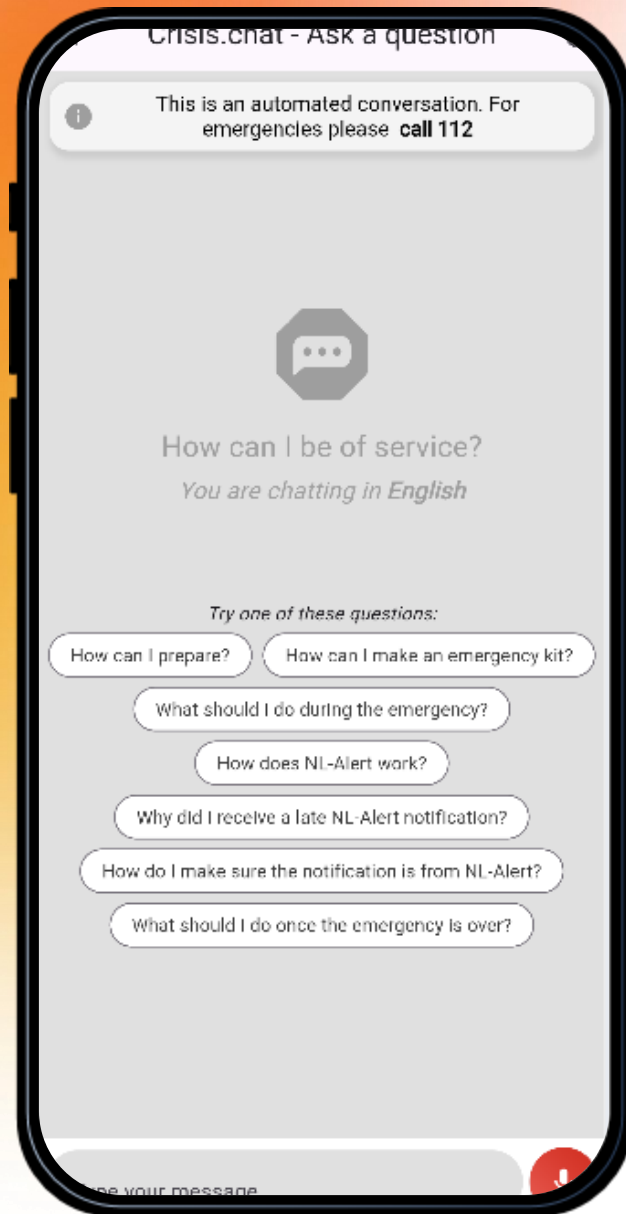
# 7. Examples



Press button “My location”

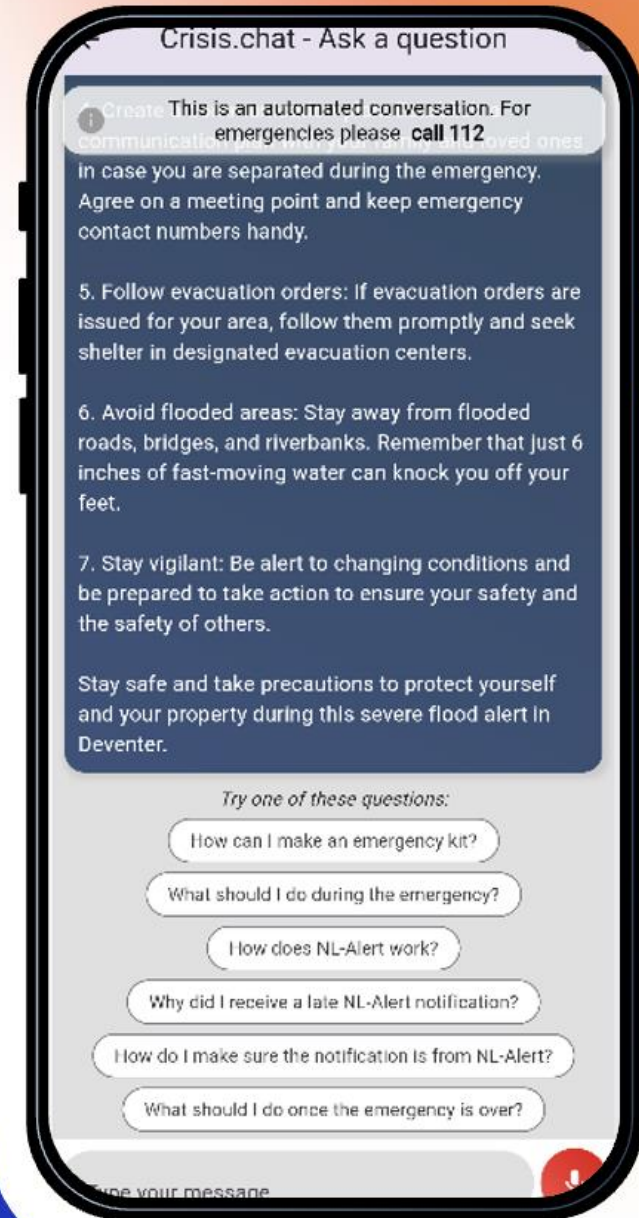


# 7. Examples



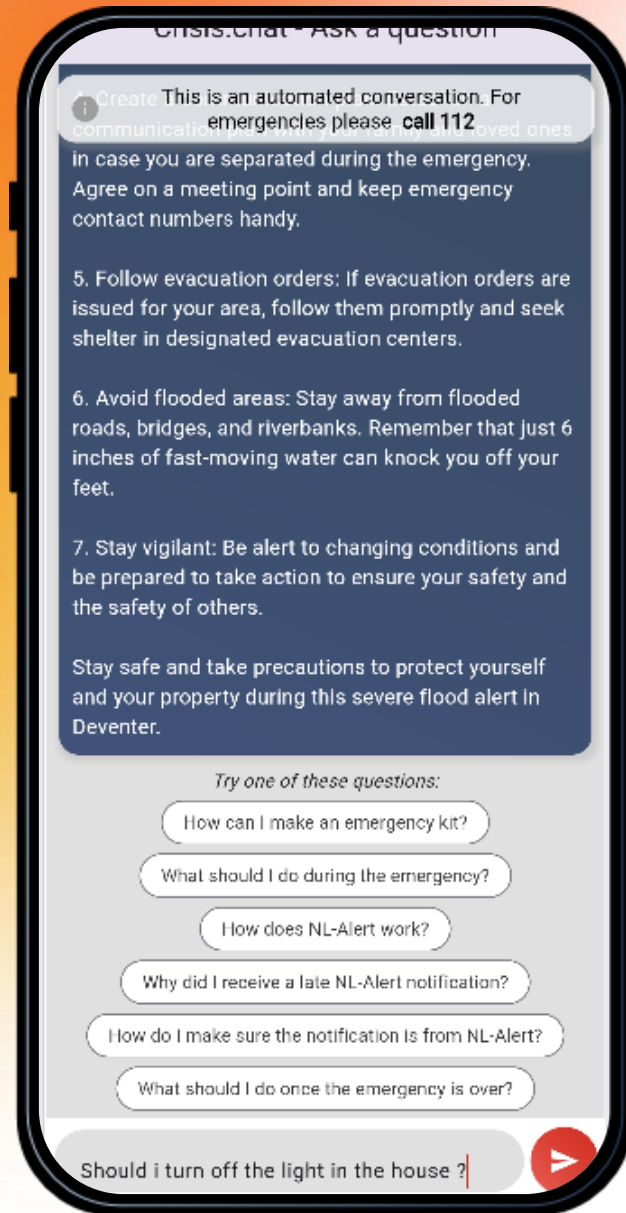
Press on suggestion chip  
with question  
“How can I prepare?”

Response retrieved  
from database



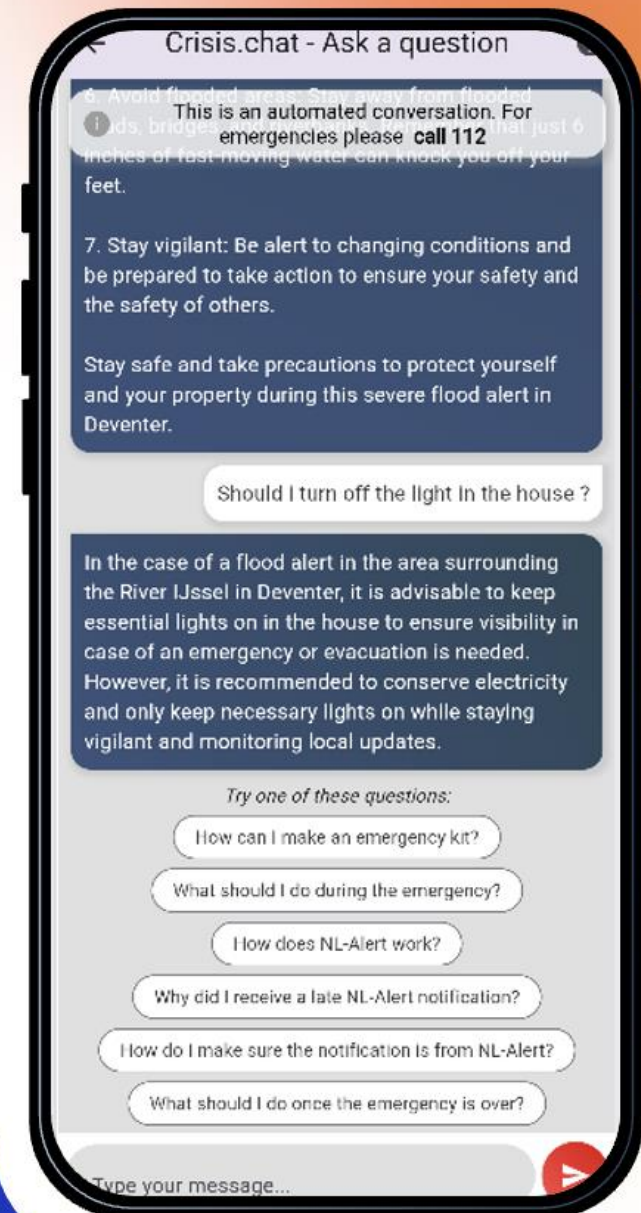


# 7. Examples



Ask custom question  
in the input field  
“Should I turn off the light in the  
house?”

Response generated  
by ChatGPT





# Any question ?

<https://crisis.chat>

*Work in progress!*

For further questions contact:

Menno Bot: [menno.bot@everbridge.com](mailto:menno.bot@everbridge.com)  
Solange van der Kolff: [solange.vanderkolff@everbridge.com](mailto:solange.vanderkolff@everbridge.com)  
Sasha Sukhinich: [sasha.sukhinich@everbridge.com](mailto:sasha.sukhinich@everbridge.com)