



## **Q4'24 Council Meeting**

December 18, 2024

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*This call will be recorded.*

# Agenda

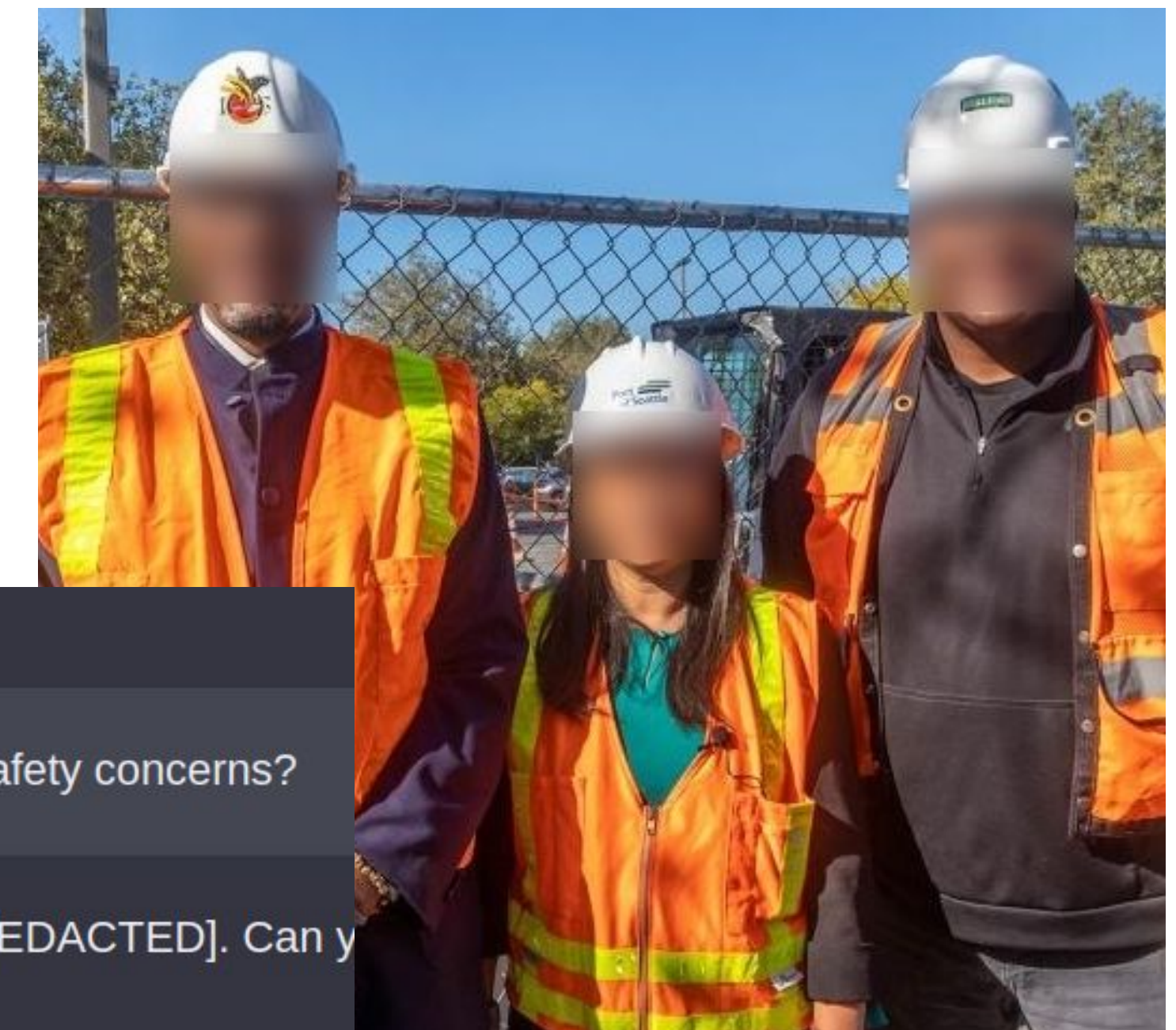
- ChatSafetyAI Updates
- Survey Results
- 2025 Roadmap
- New In-House Deployment Option

# Adoption

- ChatSafetyAI was launched in its current production / demo form last April.
- Current usage:
  - 695 unique verified all-time users.
  - 100 frequent users (>1M tokens used).
  - 14,216 conversations (+8.5k in last 4 months).
  - 414 M tokens consumed.
- 4 new very large companies starting pilots in January.

# Recent Updates

- Privacy: faces and logos blurred in photos; names of people, places, and organizations, redacted in text.



ChatSafetyAI

M

Start a new chat


Share this chat


Anonymize


Autoscroll

Suggestions

HAZWOPER Training ...

SAFETY  Hello! 🚧 How can I assist you today with your construction safety concerns?

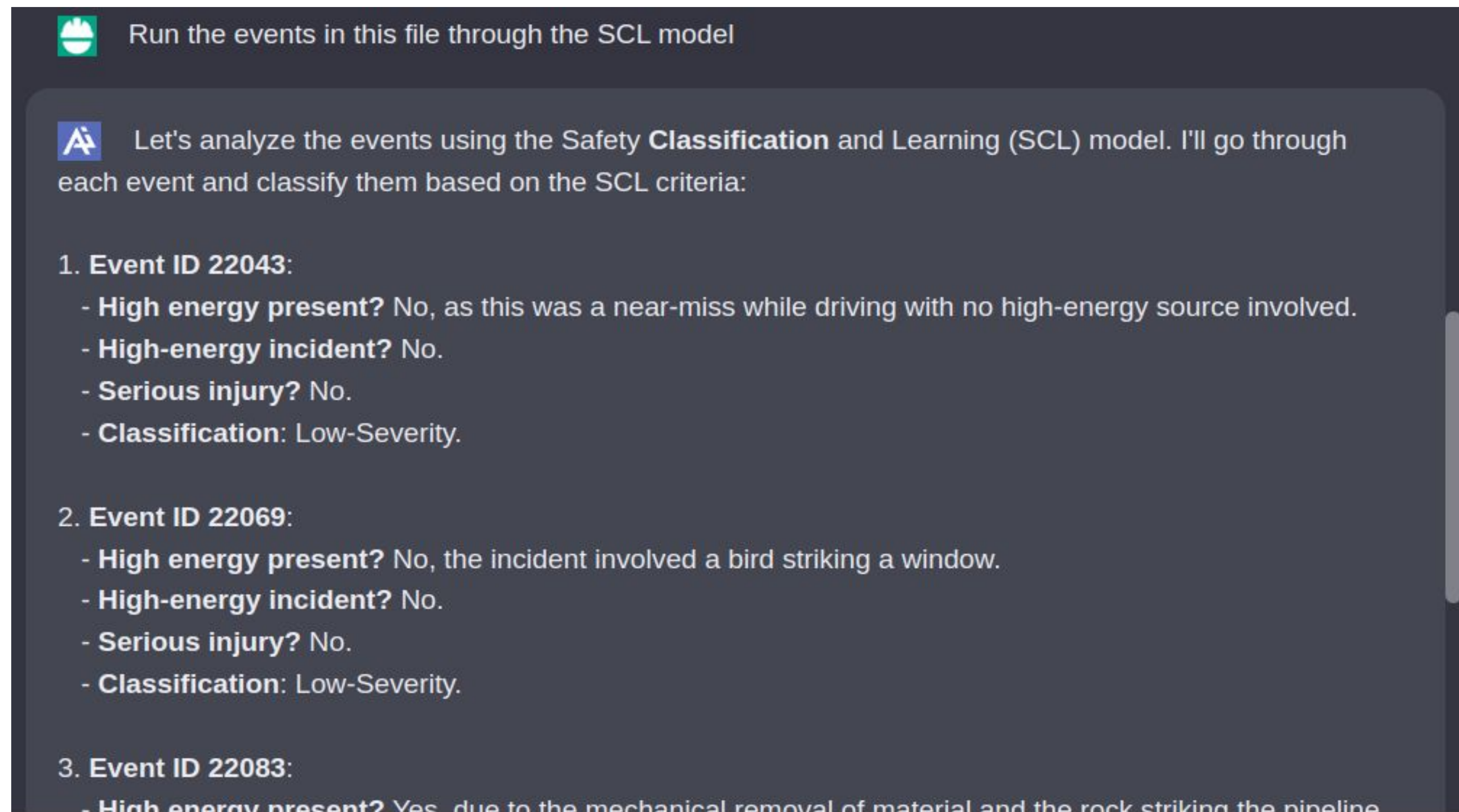
 Hey, my name is [REDACTED] and I work for [REDACTED][REDACTED]. Can you help me understand the HAZWOPER training requirements per OSHA?


SAFETY  The HAZWOPER (Hazardous Waste Operations and Emergency Response) training requirements outlined in the OSHA Standard 1926.65. Here are the key points regarding the training requirements:


- 1. Initial Training:** Employees involved in hazardous waste operations must receive initial training. For all employees, this training should be at least 24 hours long. This training is essential to ensure that employees understand the risks associated with hazardous waste operations and the proper safety procedures to follow.

# Recent Updates

- Better knowledge of the SCL model and high-energy / direct control criteria.
- Support for DOCX, XLSX, and PPTX files.



 Run the events in this file through the SCL model

 Let's analyze the events using the Safety **Classification** and Learning (SCL) model. I'll go through each event and classify them based on the SCL criteria:

- 1. Event ID 22043:**
  - **High energy present?** No, as this was a near-miss while driving with no high-energy source involved.
  - **High-energy incident?** No.
  - **Serious injury?** No.
  - **Classification:** Low-Severity.
- 2. Event ID 22069:**
  - **High energy present?** No, the incident involved a bird striking a window.
  - **High-energy incident?** No.
  - **Serious injury?** No.
  - **Classification:** Low-Severity.
- 3. Event ID 22083:**
  - **High energy present?** Yes, due to the mechanical removal of material and the rock striking the pipeline.

# Recent Updates

- Compound questions now handled by regulation mode.
- Numerous other improvements and bug fixes:

<https://github.com/safetyAI/ChatSafetyAI/blob/main/README.md#version-history>



# Survey Results

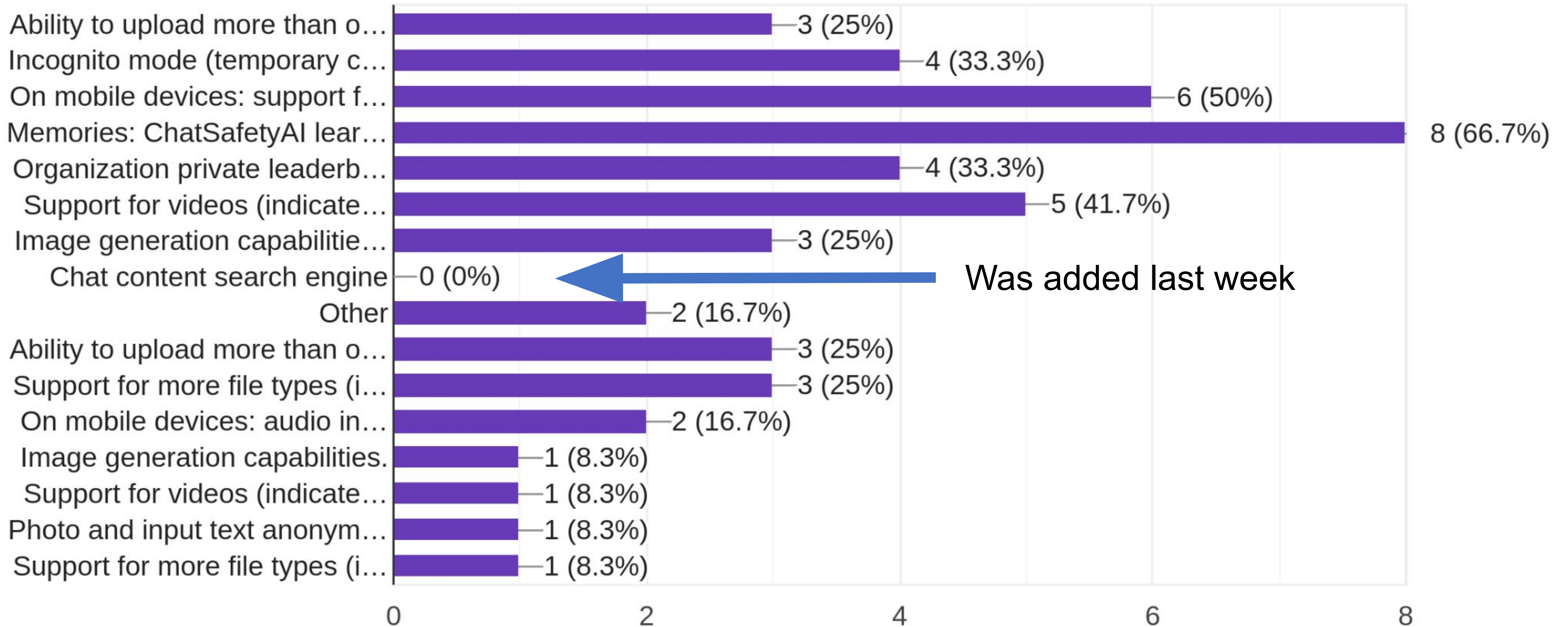
Survey is anonymous, and still open: <https://forms.gle/zi3RZvkkEWX4Xmsx8>

Which new features would you like to see in ChatSafetyAI?

- Ability to upload more than one file or photo at the same time.
- Incognito mode (temporary chats).
- On mobile devices: support for audio recording, e.g., to record a meeting.
- Memories: ChatSafetyAI learns about the user from the conversations (e.g., first name, location, preferred language and output format, role, etc.), for a more personalized and effective experience. User has the ability to delete one or all memories.
- Organization private leaderboard, with stats showing the number of users and their overall consumption, what features each user uses the most, etc. Only one or two managers would have access.
- Support for videos (indicate your use case in the free text field below).
- Image generation capabilities (indicate your use case in the free text field below).
- Chat content search engine

# Survey Results

We received 12 responses so far:

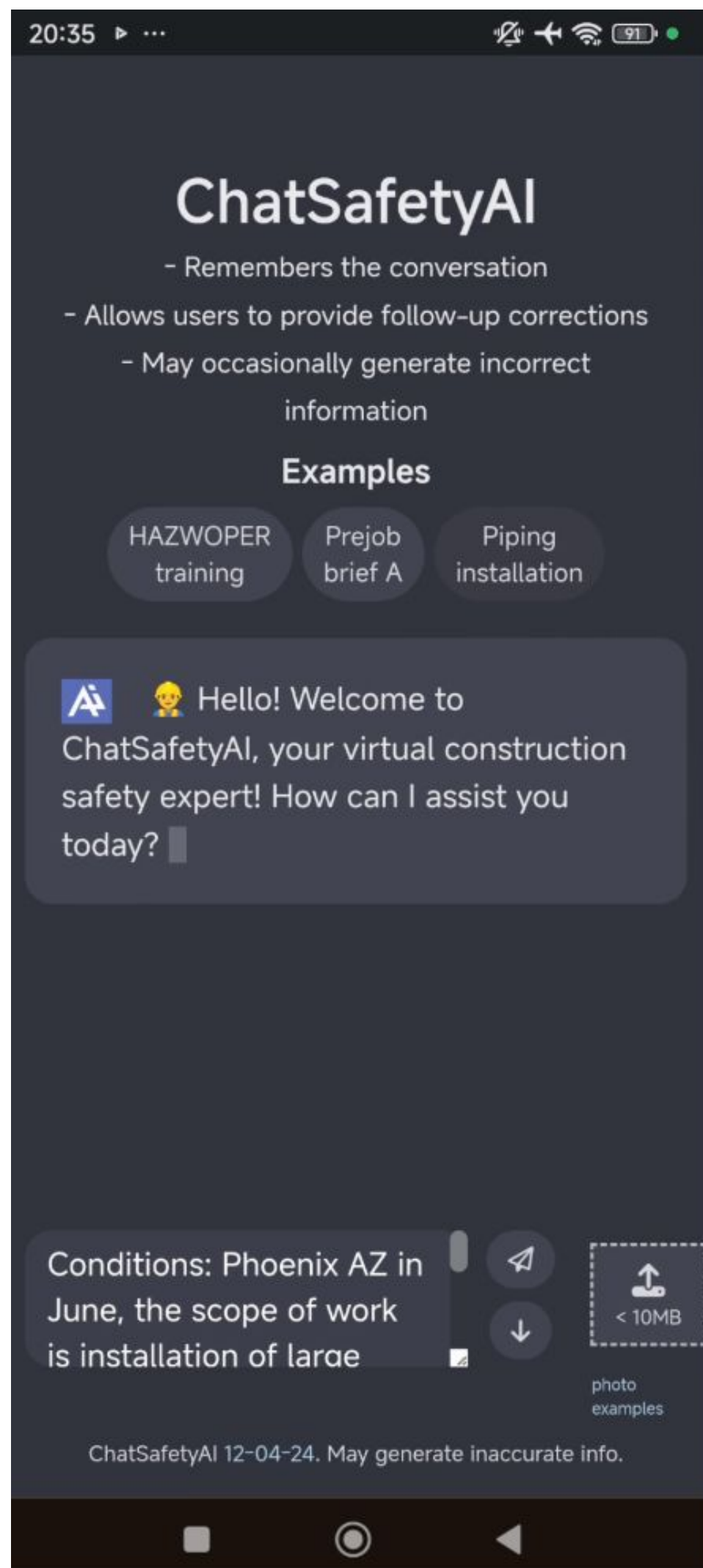




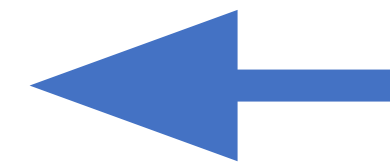
# Added to 2025 Roadmap

- Upload multiple files/photos at once.
- Support for voice input on mobile.
- Private dashboard / leaderboard to measure adoption and key stats (HECA score evolution, trending energy sources...)
- Incognito mode for added privacy (conversation only lives during session).
- Memories (chatbot remembers about the user).
- Support for videos.

# Survey Results




Added to to-do list




What other features, use cases, and ideas do you wish to see implemented?

8 responses

If it was an app that could be installed on a phone or tablet instead of having to go to a website, that would be a huge improvement. **Already possible** 

Recently we have developed a boiler plate for a guidance to our teams. A overall reference guide with key words in a readout r tab would be beneficial to user experience. **Demos on our [website](#) + help built in chatbot.**

Good morning, ability to rename the chat, ability to provide a graphs 

None at this time

i would like to see if addition information can be added such as when doing investigations having chatsafetyAI have the ability to use platforms such as SCAT DNV dictionary's and other investigation models.; Also with heca evaluations multiple area photos uploads would help get more correct evaluations. I am finding i can do Mutiple uploads and then ask it to do the heca evaluation for the 3 or 4 last photos uploaded as one specific area.

Word,excel **Done** 


**Yes, if publicly available, or if you can share the documentation with me.**

<https://vimeo.com/1040168376>

As a web app, can be used on any device w/o installation.

We could develop a native mobile app in the future.

# Survey Results

Good use case. API  
for live video  
processing 

Video analysis - more specifically livestreaming video of a project site and the ChatSafetyAI model analyzing the stream and flagging potential hazards to onsite crew leaders. Matt/Antoine - I know this is a moonshot but I cant help but think we are but a few steps away from this functionality. Our newest 'hardhats' are coming equipped with visors, supplant visors with google or trimble lens technologies and power up through capable lithium batteries (already attached on hardhats for headlamps). Integration of foregoing with smartgrid and NAN (neighborhood area networks...) might get us close to what Im thinking about. Look forward to talking about this with you.

Having the ability to do gap analysis between HSE programs or even Job hazard analysis. Ideally , with the knowledge we have , we should have a master JHA that can be used and challenge within the system. From a pre-job or pre job preparedness we would be challenging ourselves at an earlier stage in the process

Gap analysis: should already be possible by uploading files or describing the HSE programs.  
Master JHA: interesting idea. To be further discussed.

# Added to 2025 Roadmap

- Chat renaming functionality + search engine, folders...
- Data visualization: charts, plots, diagrams...
- Integration with external databases / internal documentation: contact me. Already ongoing for some companies (+ using custom PPT template, prefilling custom forms)...
- API for live video processing. Angle and zooming level critical. Future: additional sound and thermal inputs ?
- Master JHA.
- Added during call: formal testing of ChatSafetyAI's hazard recognition capabilities via annotated datasets / comparison with other tools.

# Added to 2025 Roadmap

*From offline discussions.*

Combining existing functionalities into new modes to serve specific use cases (UI/API):

- HECA + predictions + PDF generation: from a set of photos, generate a self-contained handout with everything needed for a tailgate meeting, in an easy-to-consume / visual way. HECA, barplot of likeliest incident characteristics, bodymap...
- Object detection + regulations: point what is not compliant in a photo. Google's Gemini will be used for object detection (bounding boxes).

Also:

- Greater context size, to analyze bigger files w/o truncation. Gemini will be explored, as it offers a [2M-token context window!](#)
- Anthropic's [Claude 3.5](#) is already being used for images due to frequent false alarms with GPT-4o's guardrails

=> ChatSafetyAI starts capitalizing on the respective advantages of major LLMs !

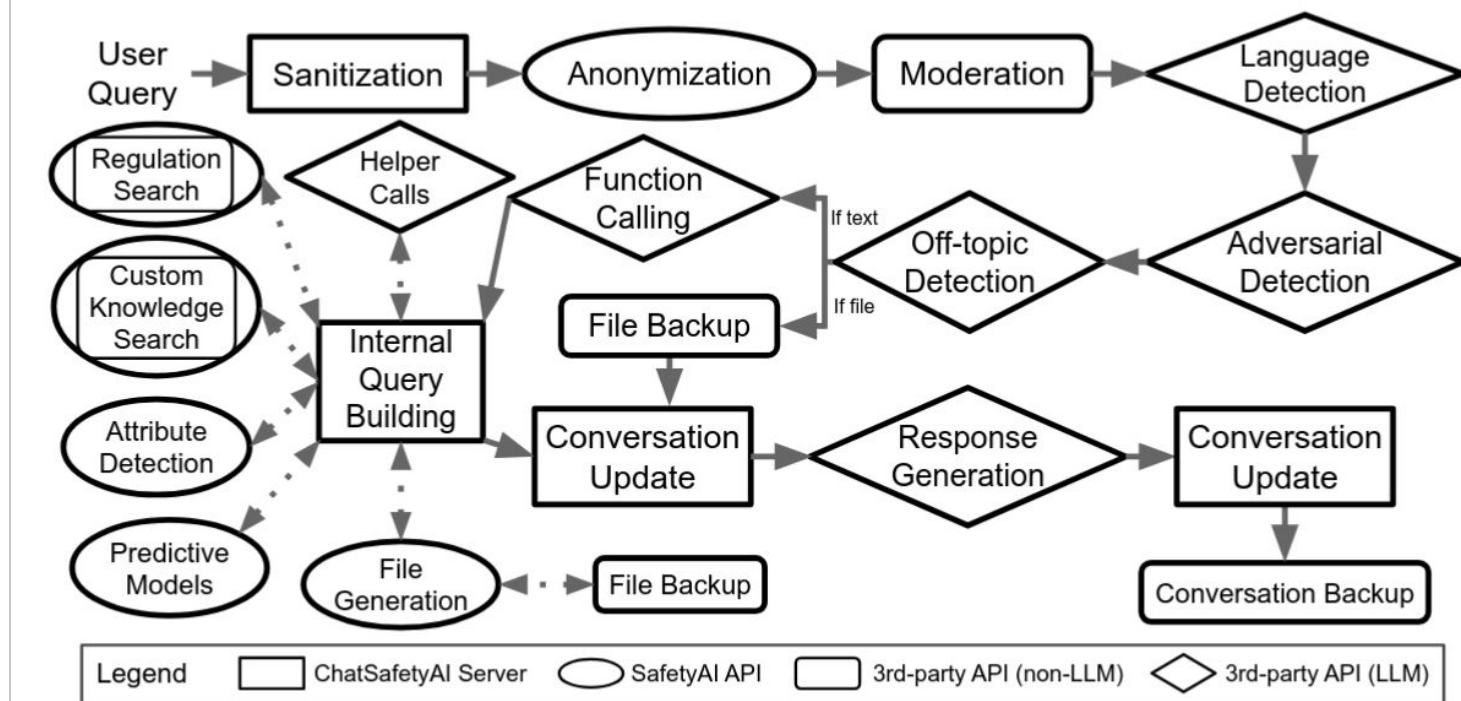
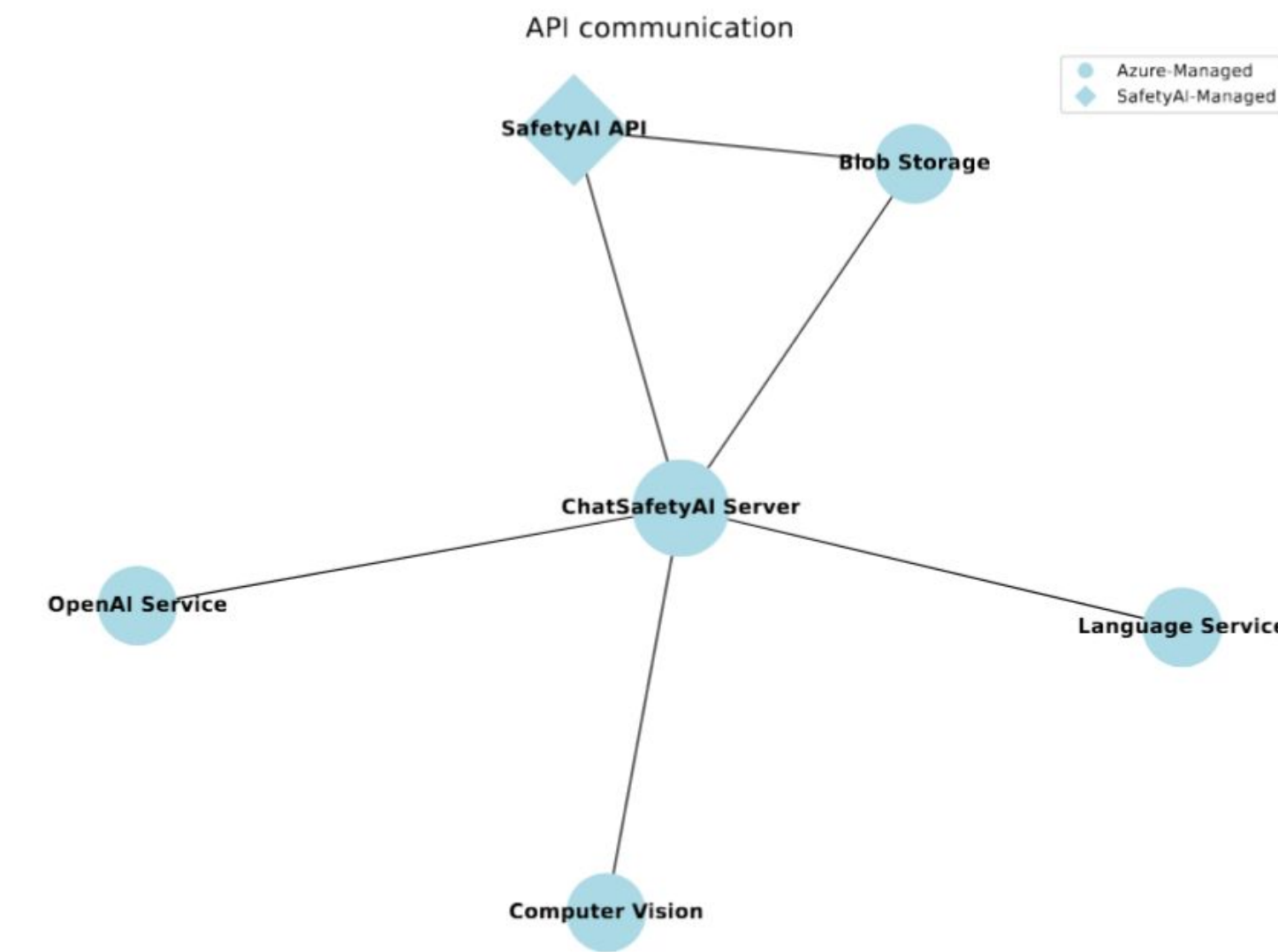
# In-House Deployment

- Move towards SOC-II / ISO 27001 certification in 2025, but takes a lot of time and efforts. We would rather prioritize R&D.
- To transfer privacy and security concerns: in-house deployment approach.
- 3 new council members will be conducting pilots in January, having me deploy ChatSafetyAI on their Amazon and Azure private environments.
- I can then easily reproduce it for anyone else. Contact me if interested!

# In-House Deployment



Service	Default	Amazon	Azure
Text Anonymization	Google Sensitive Data Protection	Comprehend	Language Service
Image Anonymization	Google Vision Logo and Face Detection	Rekognition	Computer Vision
Text Moderation	OpenAI Moderation	Bedrock Guardrails	OpenAI Service or Content Safety
Image Moderation	Google SafeSearch	Rekognition	Computer Vision or Content Safety
File and Conversation Backup	Dropbox	S3	Blob Storage + Front Door
LLMs	OpenAI Chat Completion	Bedrock Converse	OpenAI Service
Search APIs	OpenAI Embeddings	Bedrock Embeddings	OpenAI Service
SafetyAI APIs	EC2	Elastic Container Registry + Beanstalk or App Runner	Container Registry + App Service
ChatSafetyAI Web App Hosting	Shinyapps.io	Elastic Container Registry + Beanstalk or App Runner	Container Registry + App Service
User Management	Shinyapps.io	Amazon Cognito	MS Entra ID



# Predictive Models Update

Still ongoing due to long wait for everyone's dataset.

Big improvements to expect:

- Weather variables + attributes.
- Attribute extraction accuracy improved by local LLM.
- More datasets => more training data.

Note: observations & inspections contain success cases.

Future: use them to predict success vs. failure, in addition to the characteristics of failure.



# Discussion, feedback

## Thoughts?

Remember, the survey is still open, and anonymous:

<https://forms.gle/zi3RZvkkEWX4Xmsx8>

# Thank you!

Get access to the production app:

[https://safetyapp.shinyapps.io/chatsafetyai\\_access\\_request/](https://safetyapp.shinyapps.io/chatsafetyai_access_request/)

Get access to the demo:

[https://safetyapp.shinyapps.io/chatsafetyai\\_demo\\_access\\_request/](https://safetyapp.shinyapps.io/chatsafetyai_demo_access_request/)

Prod. app lives at: <https://safetyapp.shinyapps.io/chatsafetyai/>

Demo lives at: [https://safetyapp.shinyapps.io/chatsafetyai\\_demo/](https://safetyapp.shinyapps.io/chatsafetyai_demo/)

# Thank you!

