

**FOOD
SAFETY
INNOVATION
CONFERENCE
2023**



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AI INNOVATION IN FOOD SAFETY MANAGEMENT

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WHO AM I?

Founder & CEO of
Agroknow

PhD in agricultural
data management

>20 years of experience
on food & agriculture
data challenges



WHAT IS AI?



A branch of computer science dealing with the simulation of intelligent behavior in computers

The capability of a machine to imitate intelligent human behavior



IMITATES HUMAN INTELLECTUAL PROCESSES

- to discover meaning
- to generalise
- to learn from past experience



THE TURING TEST

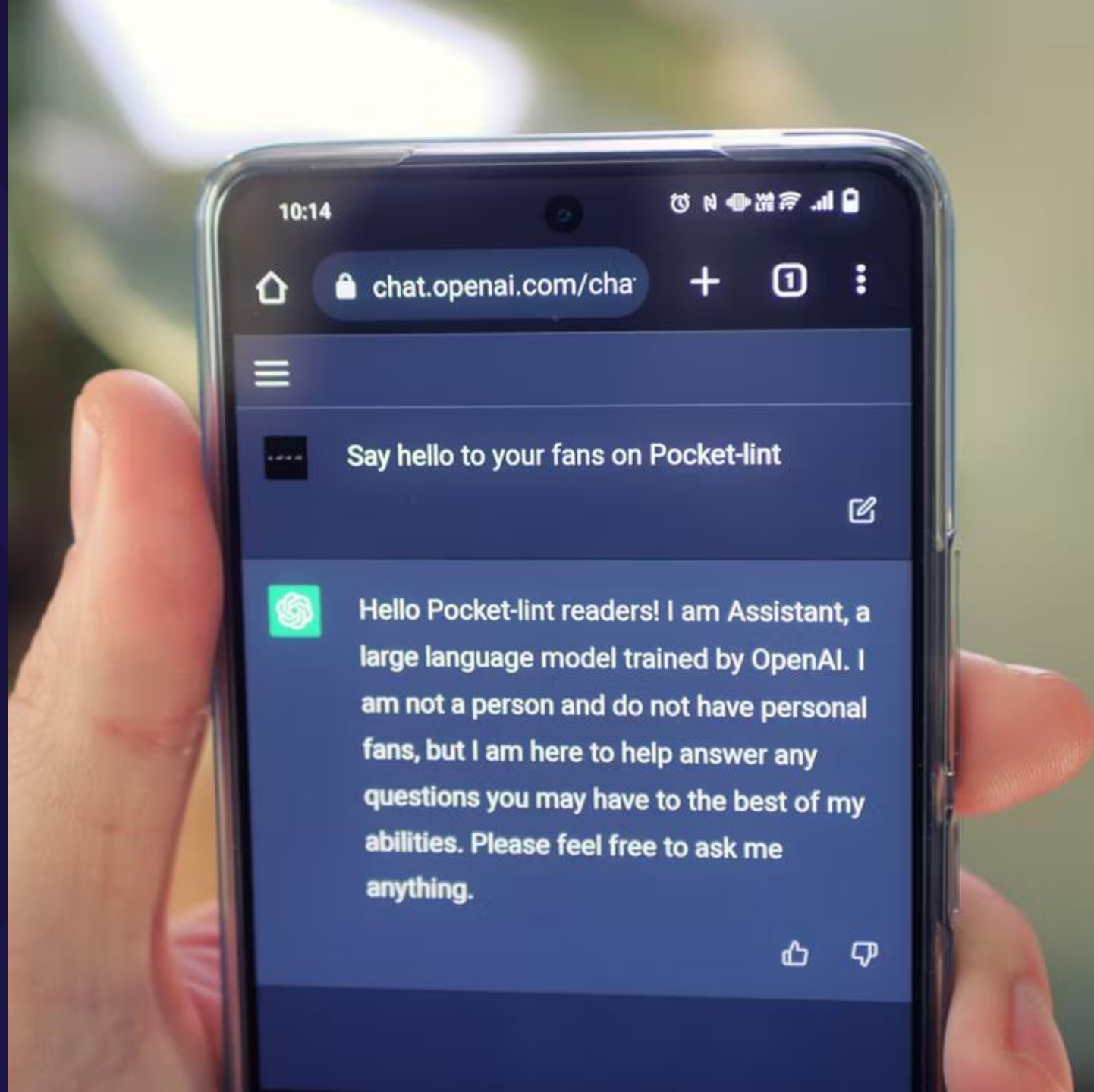
“I propose to consider the question: can machines think?”

A.M. Turing (UoManchester), "Computing Machinery and Intelligence", *Mind*, Oxford University Press, Vol.LIX, Issue 236, 433–460, October 1950.



LET'S ASK A MACHINE

How to best use AI to innovate food safety management decisions?



CHATGPT, THE FLOOR IS YOURS

Help me pick

a gift for my dad who loves fishing

Brainstorm content ideas

for my new podcast on urban design

Write a Python script

to automate sending daily email reports

Design a database schema

for an online merch store

How can AI innovate food safety management?



FOOD RISK INTELLIGENCE

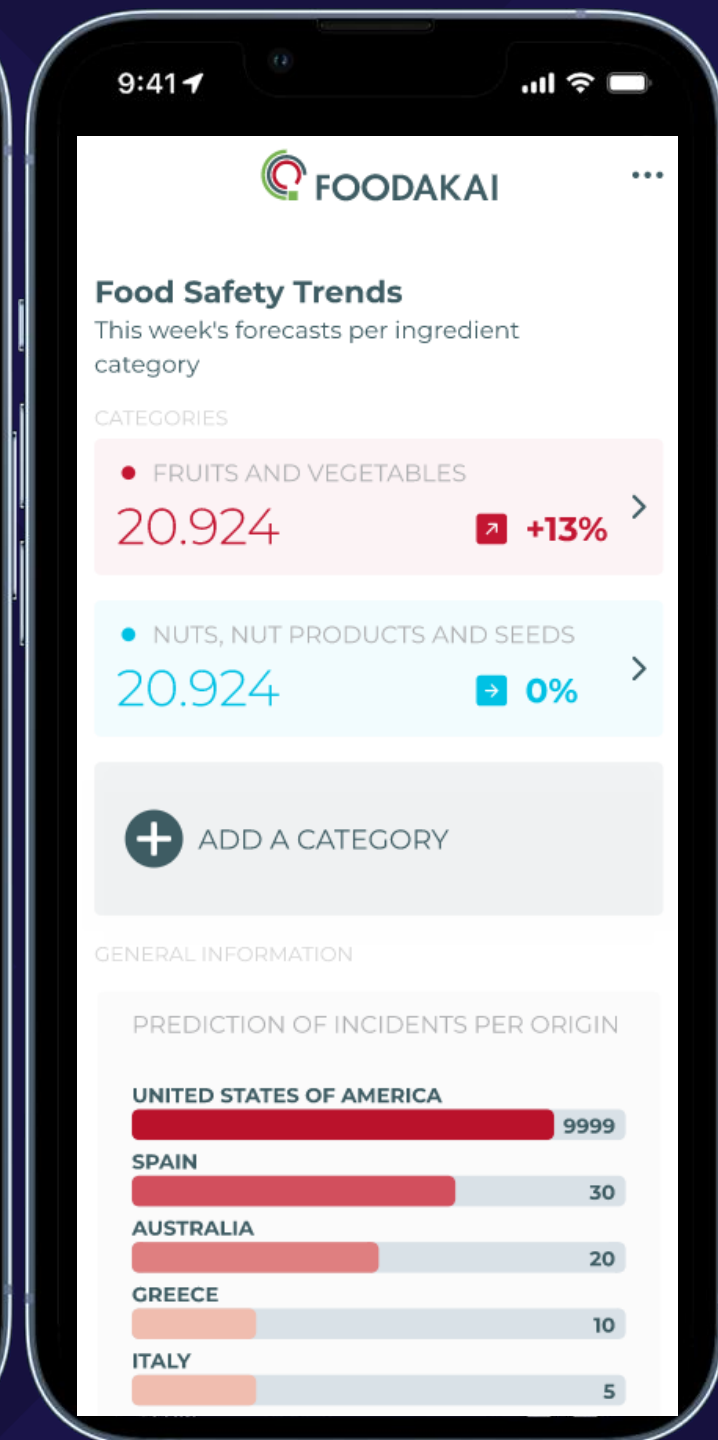
Monitoring as many information sources as possible, trying to identify relevant incidents or potential threats

– also known as horizon scanning, surveillance or foresight activities



THE WEATHER FORECASTING ANALOGY

AI-powered forecasting models already at our fingertips



RISK MONITORING

“Uncertain if food safety incident alerts received are accurate, complete and up-to-date”

“Difficult to identify data relevant to specific teams & roles in large and heterogeneous pools”

RISK ASSESSMENT

“Critical ingredient & supplier risk assessment using spreadsheets”

“Lack of an integrated system for risk and vulnerability assessment of suppliers”

“Lack of systematic & informed way to design/update food risk prevention plans in real time”

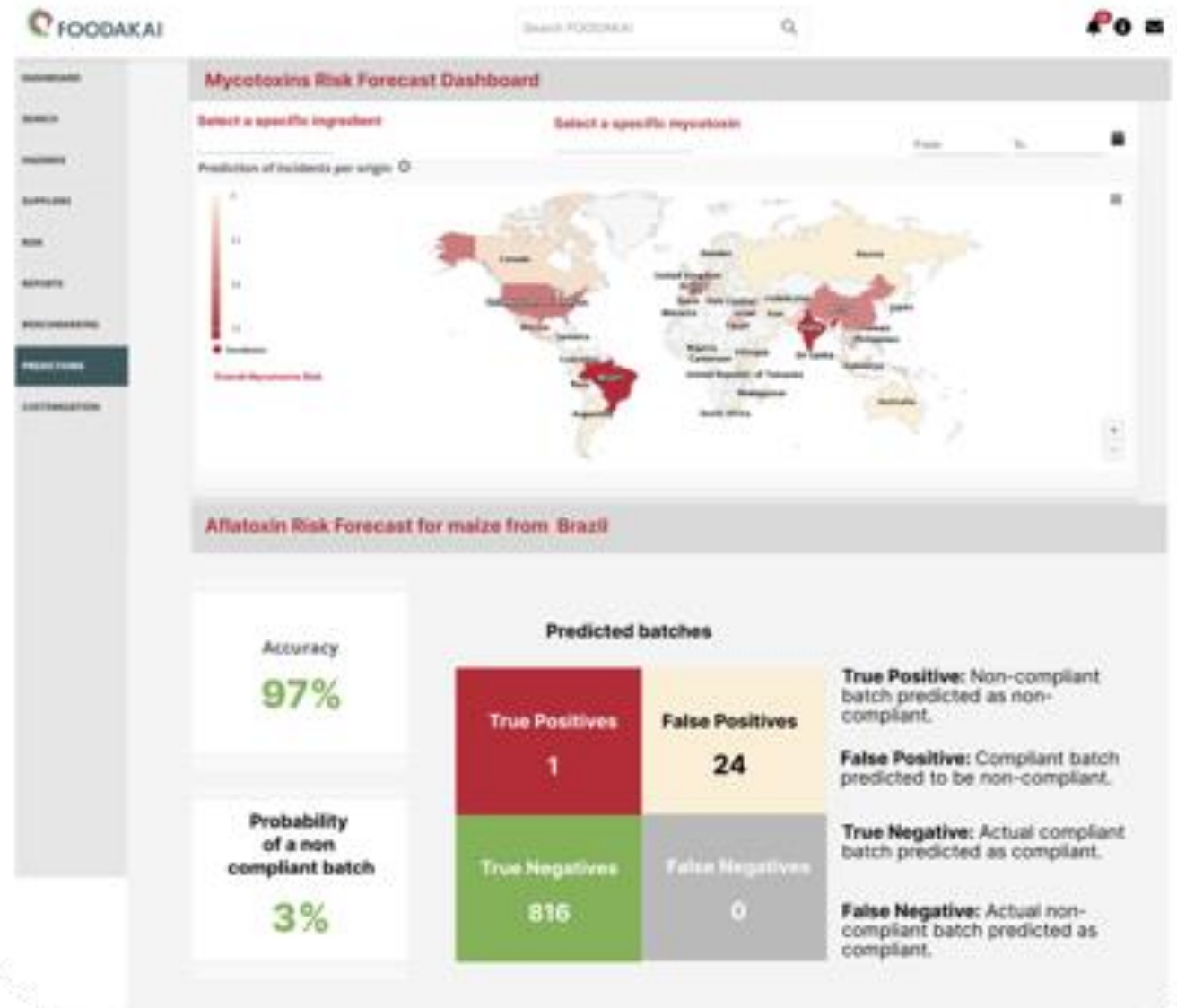
“Increased concern about unexpected, unforeseen food safety risks that may emerge in supply chain”

RISK PREVENTION

LOTS OF DECISIONS...

... require a variety of forecasting models

... supported in real time through different platforms



THE AI PROMISE

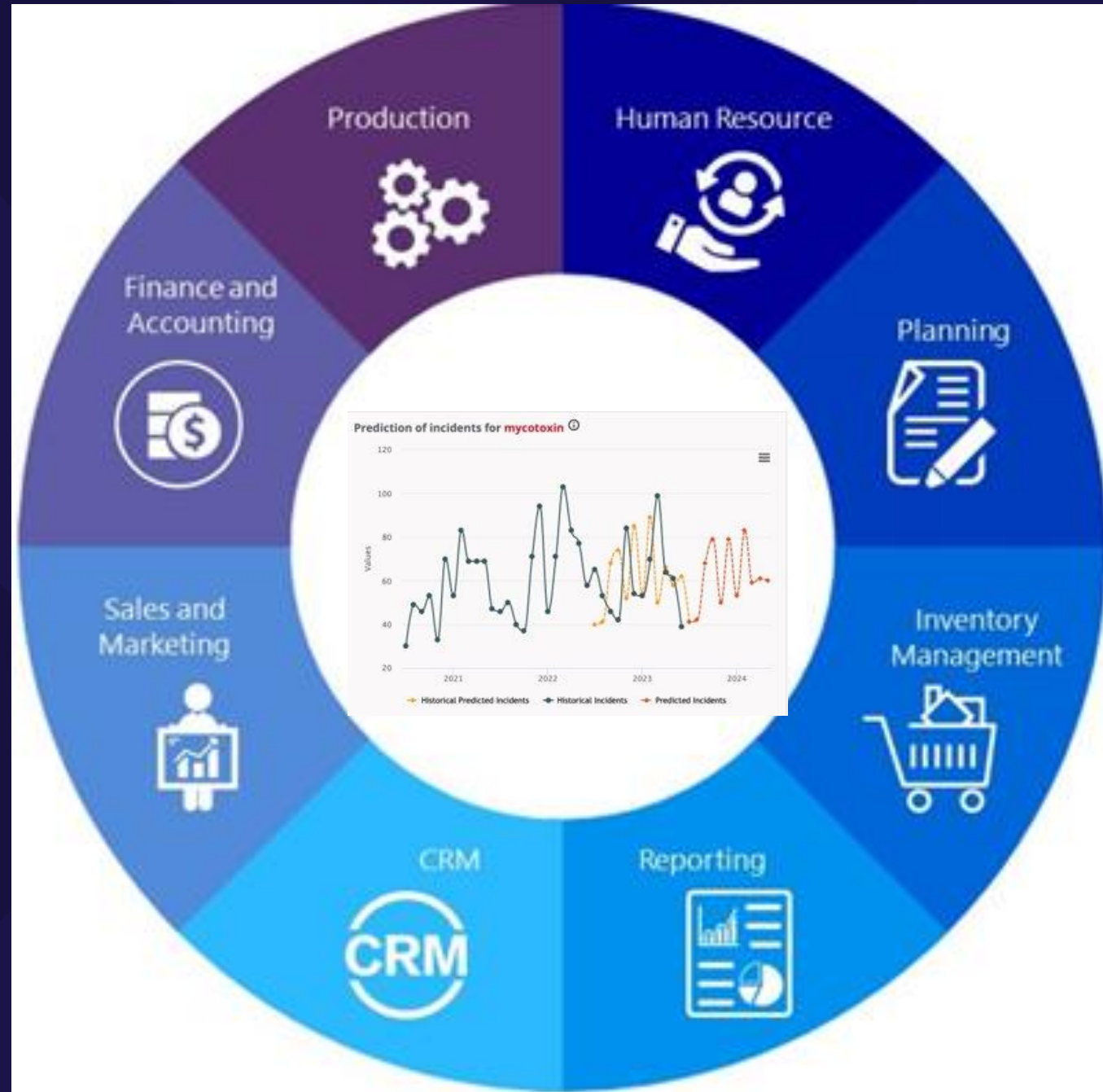
Reliable risk forecasting from thoroughly tested & highly accurate AI models



WHERE WE AIM TO

Risk intelligence delivered internally wherever it really matters

Risk likelihood to inform any decision with a food safety management component



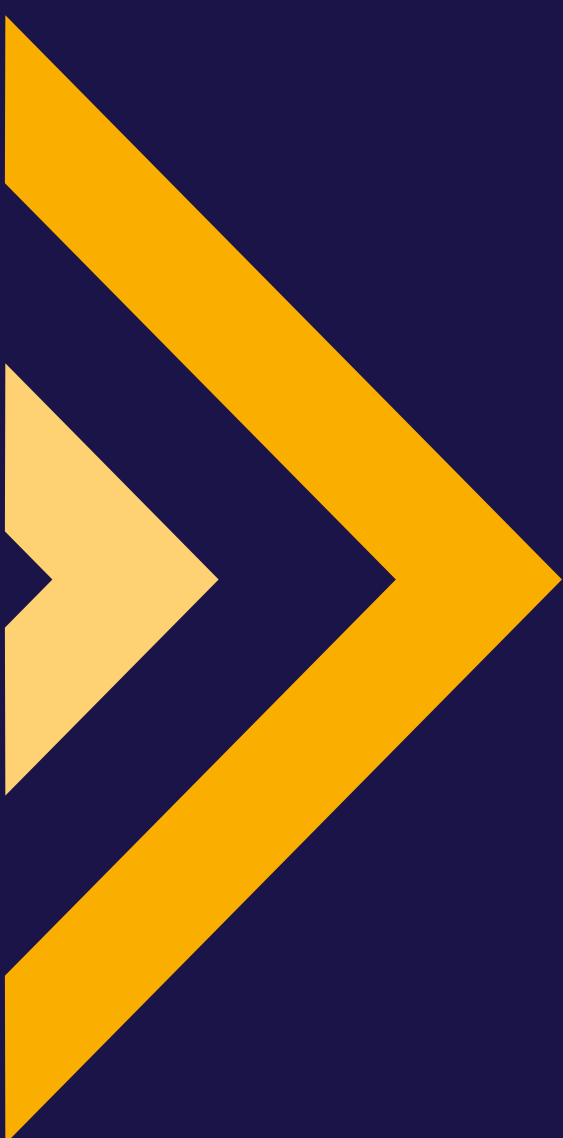
WORKSHOP ON PREDICTIVE ANALYTICS

- Focus on use cases of incident & hazard forecasting
- Demo & reflect upon FOODAKAI dashboards
- Discuss about relevant decision settings & use cases

Your live Risk evolution and prediction for aflatoxin in **nuts, nut products and seeds** ⓘ

An increase in the risk by 8.94% is predicted to happen in 10 months





THANK YOU

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