



Working in Partnership to Improve  
Public Safety Technology

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# Artificial Intelligence in Public Safety Round Table

25<sup>th</sup> September 2024

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# WELCOME

**Duncan Swan, British APCO COO**  
and  
**Chris Lucas, British APCO Chair**



## Key Words Linking AI and Public Safety

### 1. Surveillance

- Facial Recognition
- Behavioural Analysis
- Real-Time Monitoring
- Crowd Analysis
- Video Analytics

### 2. Predictive Policing

- Crime Prediction
- Hotspot Analysis
- Pattern Recognition
- Risk Assessment

### 3. Emergency Response

- Incident Detection
- Dispatch Optimization
- Resource Allocation
- Disaster Management
- First Responder Support

### 4. Cybersecurity

- Threat Detection
- Intrusion Prevention
- Anomaly Detection
- Fraud Detection
- Data Breach Prevention

### 5. Healthcare and Public Health

- Disease Surveillance
- Pandemic Prediction
- Health Monitoring
- Emergency Medical Services
- AI-Driven Diagnostics

### 6. Communication and Coordination

- AI-Powered Dispatch Systems
- Emergency Communication Systems
- Real-Time Data Sharing
- Coordination of Multi-Agency Responses

### 7. Ethical Considerations

- Privacy Concerns
- Bias in AI
- Transparency
- Accountability
- Legal Frameworks

### 8. Public Safety Applications

- Smart Cities
- Drones for Surveillance
- AI-Enhanced Body Cameras
- Crowdsourced Safety Reporting
- Public Safety Robots

### 9. Training and Simulation

- Virtual Reality for Training
- AI-Based Simulation Models
- Scenario Planning
- Decision Support Systems



## AI in action...

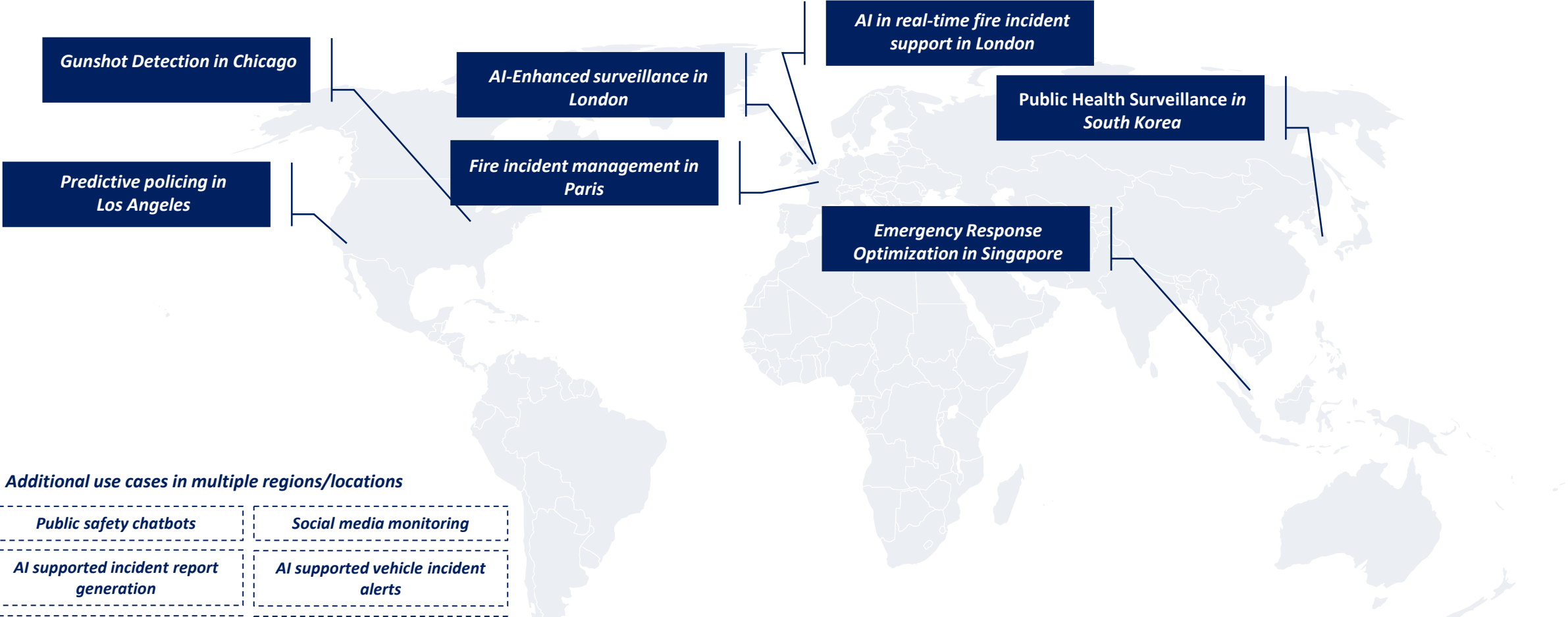
- The universal translator is a wonderful device; it is a marvel of engineering. It was created by Hoshi Sato in the 22nd century, and she was an awesome polygot with the knack for understanding alien languages.
- In the fourth episode of Star Trek Discovery Season 2, a virus from an ancient probe corrupts the ship's universal translator, causing it to translate everything into multiple languages....
- <https://www.youtube.com/watch?v=llKppXg0sYw>

# Aaron Page & Ethan Webb, Actica Bharesh Patel & Reka Pecsí, Mason Advisory



# AI in Public Safety Around the World

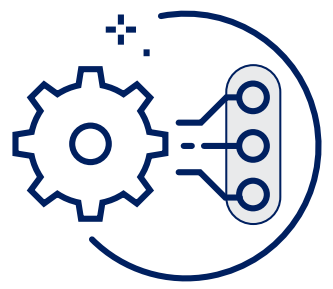
These case studies illustrate how AI is being used to enhance public safety through predictive analytics, real-time data processing, and improved resource management, while also highlighting the need for careful consideration of ethical and privacy issues.



**Additional use cases in multiple regions/locations**

<i>Public safety chatbots</i>	<i>Social media monitoring</i>
<i>AI supported incident report generation</i>	<i>AI supported vehicle incident alerts</i>
<i>AI supported crime analysis and investigation</i>	<i>AI-driven drones/robots assist rescue and search</i>
<i>Cybersecurity Threat Detection</i>	<i>Smart 911 AI system for call analysis</i>

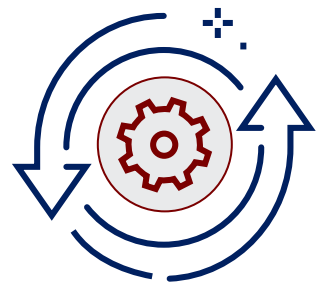
# AI in Public Safety Around the World



## ENHANCED DECISION MAKING

*AI provides actionable insights and predictive analytics, enabling better and faster decision-making.*

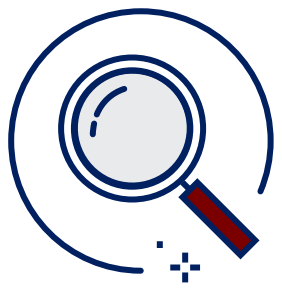
- **Response Time Improvement:** Reduction in the average time taken to respond to incidents.
- **Accuracy of Predictions:** Percentage of accurate predictions for crime hotspots or emergency events.



## INCREASED EFFICIENCY

*AI automates routine tasks and optimizes resource allocation, improving overall operational efficiency.*

- **Operational Cost Reduction:** Decrease in costs associated with manual processes and resource management.
- **Resource Utilization:** Increase in the effectiveness of resource allocation, measured by the ratio of deployed resources to incidents addressed.



## PROACTIVE PREVENTION

*AI enables predictive analysis and early detection of potential threats or risks, allowing for proactive measures.*

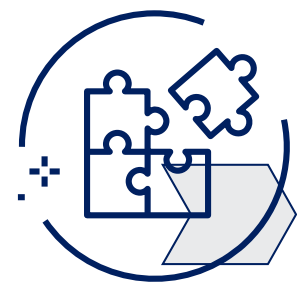
- **Incident Reduction Rate:** Percentage decrease in the number of incidents due to predictive interventions.
- **Prevention Success Rate:** Ratio of successful preventive actions to the total number of interventions.



## ENHANCED SITUATIONAL AWARENESS

*AI processes large volume of data from various sources to provide real-time situational awareness.*

- **Data Integration Speed:** Time taken to integrate and analyse data from multiple sources.
- **Situational Awareness Accuracy:** Accuracy of real-time data and insights provided by AI systems.



## OPTIMIZED RESOURCE ALLOCATION

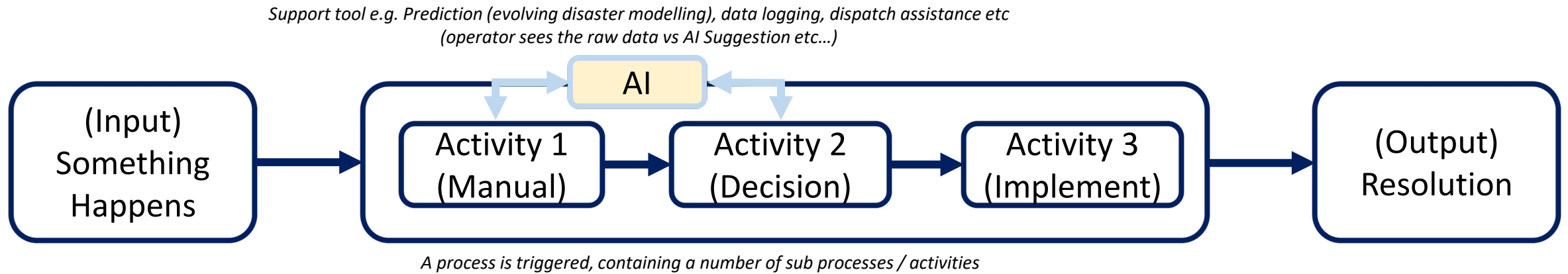
*AI optimises the deployment of resources based on real-time needs.*

- **Reduction in Resource Waste:** Reduction in unnecessary resource deployment, such as overstaffing or deploying equipment to non-critical areas.
- **Average Response Time Reduction:** Decrease in average response times to emergency calls, as resources are more effectively directed to where they are most needed.



Having seen how AI is being used across the world, to realise a range of benefits we need to spend a moment to consider how AI can be implemented into our Business Processes, Data flows and Operational Procedures.

This is explored by considering a generalised process:



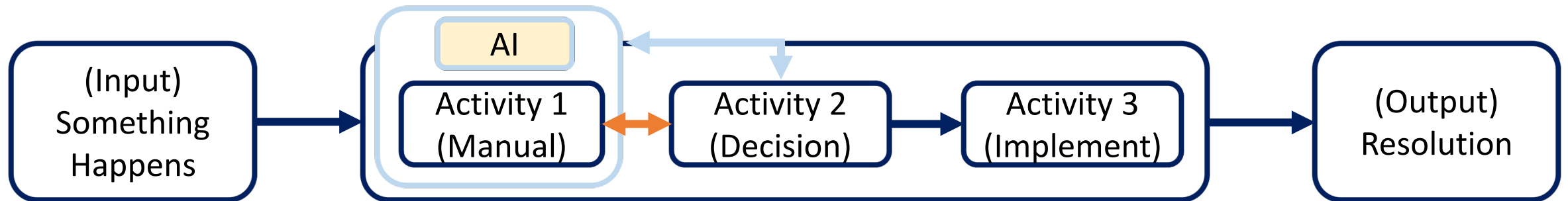
## **AI-Human Collaboration / AI Assistant Implementation**

The aim of the AI is to Augmenting Human capacity, making sure an operator has all necessary information as quickly and readily as possible.

Having seen how AI is being used across the world, to realise a range of benefits we need to spend a moment to consider how AI can be implemented into our Business Processes, Data flows and Operational Procedures.

This is explored by considering a generalised process:

*Processing Tool e.g. data mining, analytics, GPT /BERT implementations etc  
(more challenging for an operator to see how conclusion was made etc...)*



*A process is triggered, containing a number of sub processes / activities*

## Task Automation Implementation

AI as a processing tool, less human involvement – due to greater time requirements. E.g. data mining, language processing / NLP / chat bot...

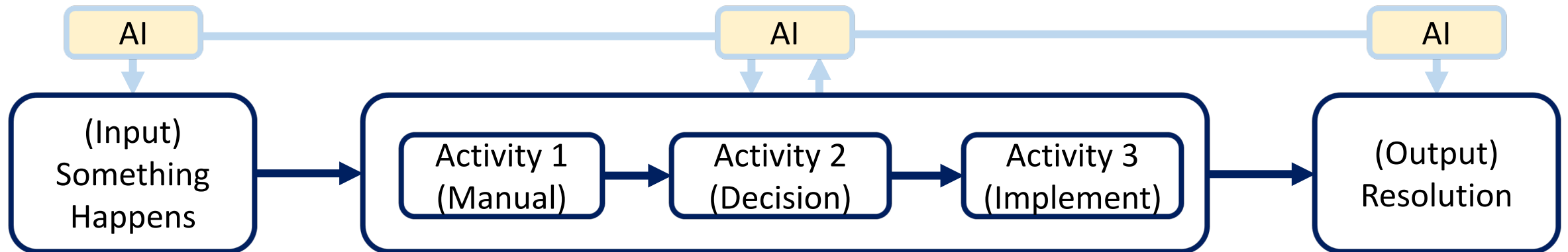
Having seen how AI is being used across the world, to realise a range of benefits we need to spend a moment to consider how AI can be implemented into our Business Processes, Data flows and Operational Procedures.

This is explored by considering a generalised process:

*Live Processing e.g. Classify / identify dangers*

*Live Processing e.g. Identify escalations*

*Live Processing e.g. Monitor environment*



*A process is triggered, containing a number of sub processes / activities*

## AI Monitoring and Reporting Implementation

AI to mine live data; such as processing live CCTV data to identify weapons, groups or incidents.

Round table discussions will take place in the morning and in the afternoon.  
Each table will have the opportunity to discuss all the below topics, each topic will take around 30 minutes.  
Our moderators will facilitate the discussions with initial questions.

***Topic 1: Maximising AI's Potential: Opportunities in Emergency Response | Ethan Webb***

*How AI can improve decision-making and inter-agency coordination.*

***Topic 2: Overcoming Barriers: Technical and Operational Challenges in AI Integration | Reka Pecsí***

*Understanding the roadblocks to effective AI implementation and adoption.*

***Topic 3: Addressing Concerns: Tackling Fear and Uncertainty Around AI in the Public Sector | Bharesh Patel***

*Overcoming reluctance and building confidence in adopting AI in public services.*

***Topic 4: Looking Ahead: Future Innovations and the Next Frontier of AI in Emergency Services | Dr Aaron Page***

*Exploring where AI is heading and how to align stakeholders for the future.*

# Thank you!

Dr Aaron Page, Ethan Webb, Bharesh Patel, Reka Pecsí



# Nick Chorley, Hexagon



# Everyone's talking about “AI”

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- Precursor to what we call AI is sometimes traced to the 1950's with Alan Turing's Theory of Computation
- AI is now pervasive and older forms of AI are considered “routine technology” as technology evolves
- Popular uses:
  - Search engines (Google, Yahoo)
  - Recommendation engines (Netflix, YouTube)
  - Self-driving cars (Tesla)
  - Virtual assistants (Alexa, Siri)
- Decision makers now have a more open approach to using new capabilities like AI, because they are using it every day in their private lives





Too many screens!

Calls volumes rising YOY, doubling every 8

80% of calls are not related to Emergencies

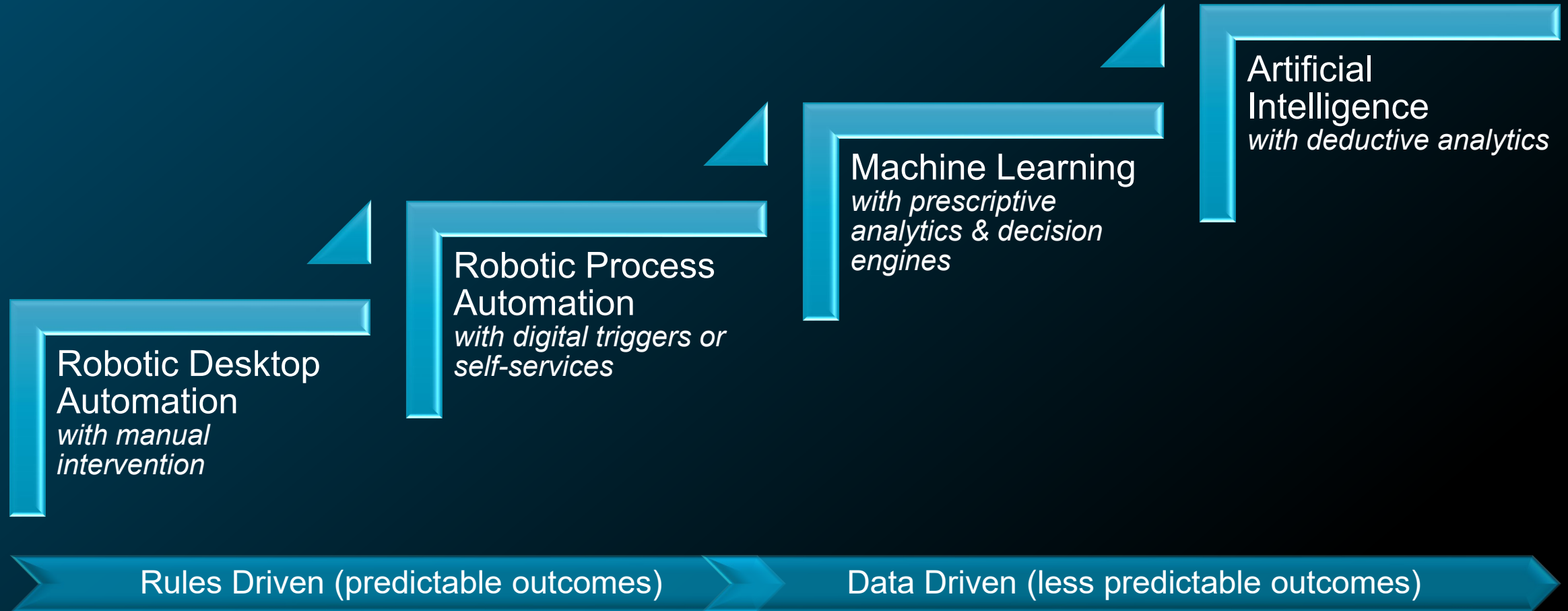
Information overload

- Disparate types of contact: voice, DM, video
- More data: images, video, XY updates, etc.
- Social Media posts
- Meta-data: enhanced XY, telematics, etc



# Automation vs. Artificial Intelligence

What sort of automation is appropriate in the control room?



After Siyong Liu, Quora.com

# Why Assistive AI in Public Safety?



## Human centred approach to embedding AI in CAD

- Augmenting operator judgement - not replacing it
- Aiding better decisions, amplifying intuition, and buying time



## Operational blind spot

- Missing connections and opportunities to reduce impact
- Time lag between data capture and realisation



## Pressure to perform

- Help see the wood for the trees – save time
- Be alerted to performance issues and how they could be mitigated



## Detecting & acting on connections in “live” events

- Retrieving the historical context into decision making
- Early containment of rapid onset events

# What are we doing at Hexagon?

# HxGN OnCall Dispatch | Smart Advisor

## What?

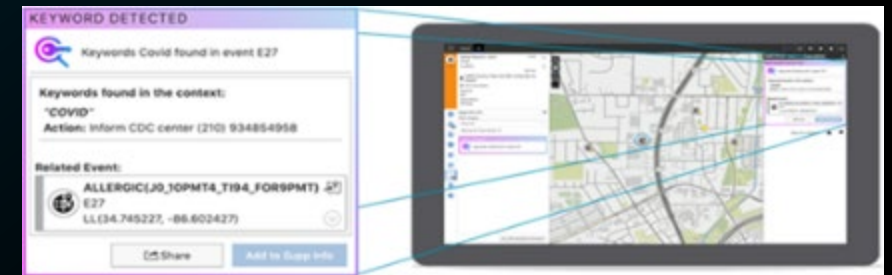
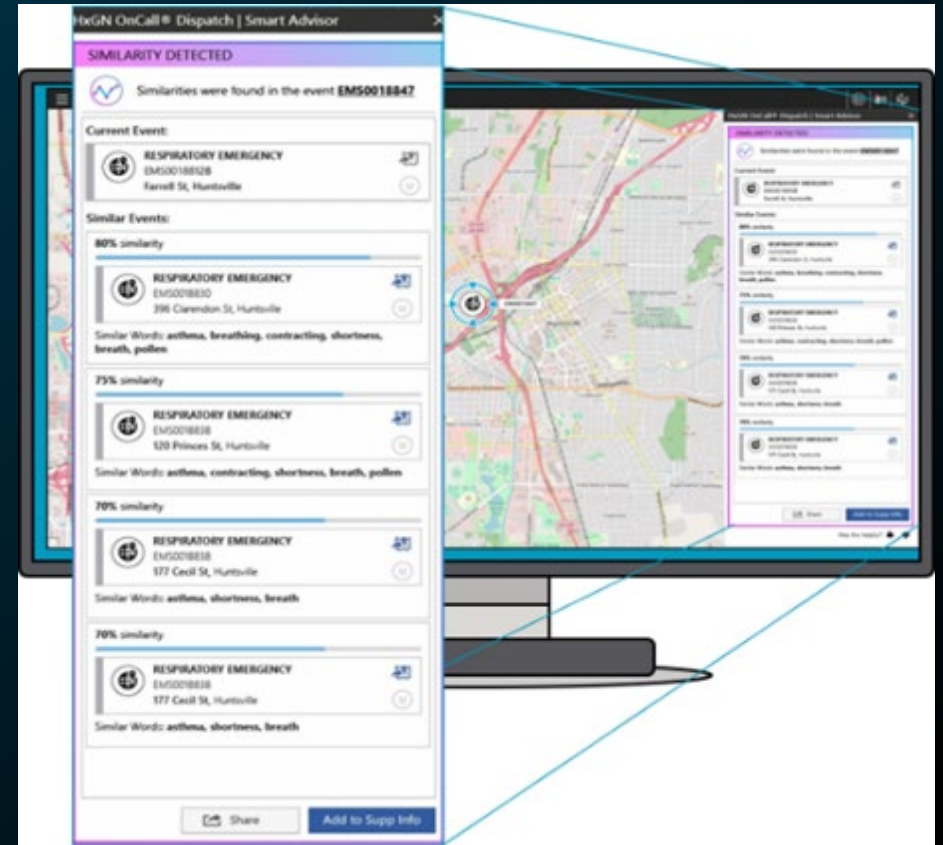
- First assistive AI embedded within C&C software to help Public Safety staff detect and respond to complex emergencies sooner

## How?

- Continually mines and analyses operational data using AI, Advanced Stats, and ML to alert users to trends, anomalies and similarities

## Explainable & Ethical









- “Glass Box” not “Black Box”
- Focus on Events not People
- Not “Predictive Policing” or citizen profiling
- Admins can “tweak” settings



# Smart Advisor Agents

## Agent Capabilities

Agents are Enabled by default. To disable an agent, click the Disable button. Click Reset to troubleshoot system responses to missions

 <p><b>Correlation Agent</b> Watch variables to detect correlations that can lead to predictions. Can use continuous learning to adjust.</p> <p>Reset Disable</p>	 <p><b>Janitor Agent</b> Agent intended to perform scheduled cleanups on the database in order to keep only relevant data.</p> <p>Reset Disable</p>	 <p><b>Pattern Scout Agent</b> Monitor for a keyword</p> <p>Reset Disable</p>
 <p><b>Recurrency Agent</b> Monitor for recurring or duplicate events based on location &amp; timeframe.</p> <p>Reset Disable</p>	 <p><b>Rule Agent</b> Build a custom rule with statements to specify a new objective and response action. Rule statements can stack in complexity.</p> <p>Reset Disable</p>	 <p><b>Similarity Agent</b> Find similarity remarks, sample information, and me</p> <p>Reset Disable</p>
 <p><b>Statistic Agent</b> Track a single variable over time to detect outliers &amp; anomalies. Can use continuous learning to adjust.</p> <p>Reset Disable</p>	 <p><b>Weather Agent</b> Monitor for Weather conditions by an event.</p> <p>Reset Disable</p>	

Early detection & forecasting

Leverages AI and ML

Learns user preferences

Works behind the scenes

Provides proactive notifications

Conducts continuous, real-time data mining

**Thank You**

# Nick Cooper, Content Guru



# AI in Public Safety Roundtable

Nick Cooper, Derek Townsend  
Wednesday 25<sup>th</sup> September 2024

External – Confidential





# About Content Guru



We provide CX  
solutions through  
the cloud

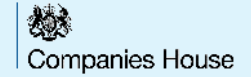
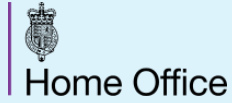


CX services and  
CCaaS run on our  
cloud platform



AI applications run  
using our **brain**®  
service layer

# Public Sector Clients



# Some of the Many Uses of AI

Validation  
Verification  
Visualisation

Preparing complex  
enquiries for human  
decision-making

Updating  
record  
systems

Screen-pop  
relevant  
information

Automated  
assessment  
and auditing

Automated  
ID&V

Form-  
filling

Knowledge  
management

Sentiment  
analysis

Intelligent  
Routing

Intelligent  
self-service  
options

Automated  
enquiry  
resolution



# AI in Quality Management

What is Quality Management?

Post-Event Assessment

QM in Real-Time

Practical Considerations

## What is QM?

The assessment of activities undertaken to assist customers

Making sure the service provided to customers is highest quality

QM considers technical, logistical and emotional aspects

## Why use AI in QM?

Assessment takes time.  
Manual assessment takes effort

Manual assessment of all  
interactions is impossible

Assessment requires an objective  
response to subjective measures

## Post-Event Assessment

### Why assess?

Onboarding

Continuous improvement

Contention resolution

### AI brings:

Speed, scale and coverage

Management focus

‘Expert witness’

Emotions – sympathy and empathy

Neutrality

## QM in Real-Time

From assessment to assistance

Prevention is better than cure

Dynamic sentiment observation

Agent knowledgebase

Supervisor alert

Reduce burden

Solution research

Wrap-up and documentation



## AI Considerations

Solutions to suit problems

Analytical vs generative

Situation and location

Ownership and Privacy



**contentguru.com**

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# Round Table



# Jonathan Sinclair, Inclutec Ltd





**INCLUTECH**

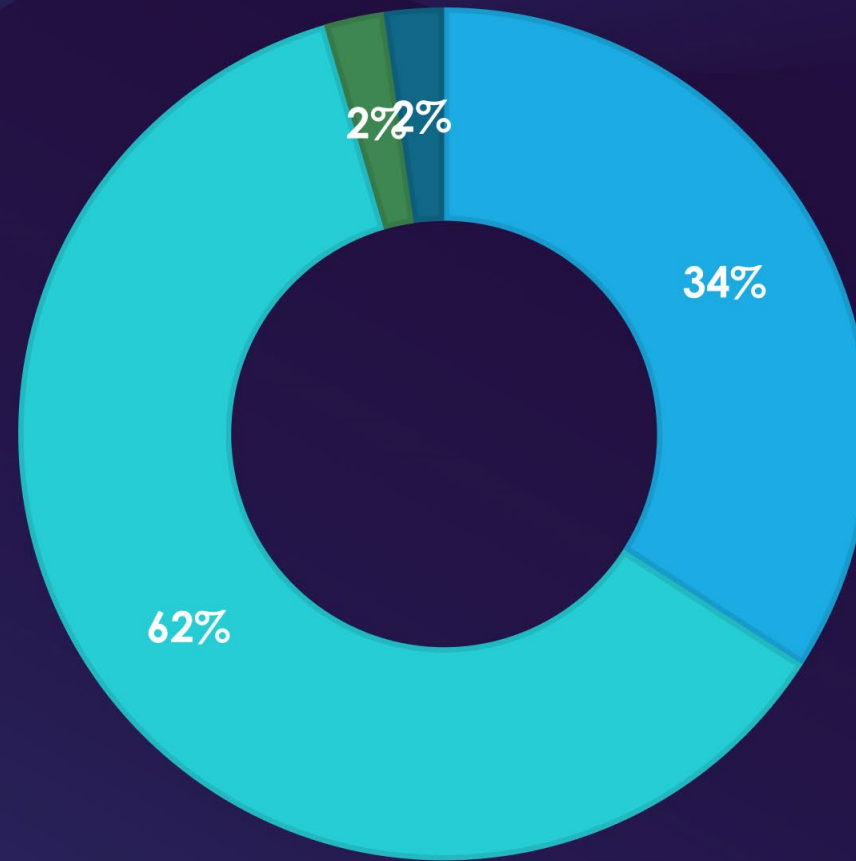
MAKE . IT . BETTER



[jonny@inclutech.co](mailto:jonny@inclutech.co)

# PROFESSIONAL NETWORK VIEWS

DO YOU BELIEVE AI SHOULD BE USED IN PUBLIC SAFETY TECHNOLOGY?



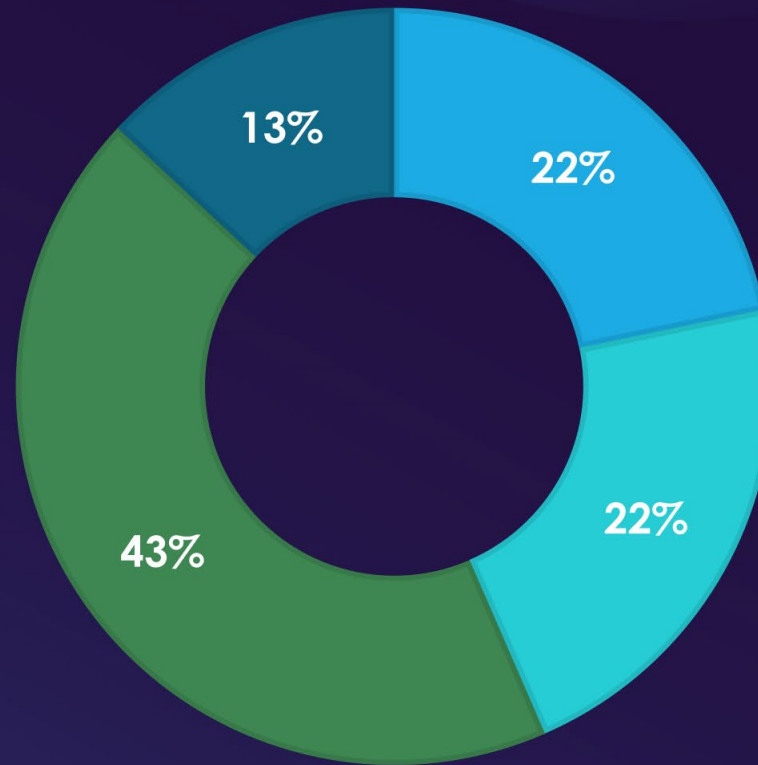
■ Yes, absolutely   ■ Yes, but with caution   ■ No, it's too risky   ■ Not sure



INCLUTECH

# PROFESSIONAL NETWORK VIEWS

WHAT DO YOU BELIEVE COULD BE THE MOST SIGNIFICANT BENEFIT OF AI IN PUBLIC SAFETY?



■ Improved response times  
■ Better resource allocation

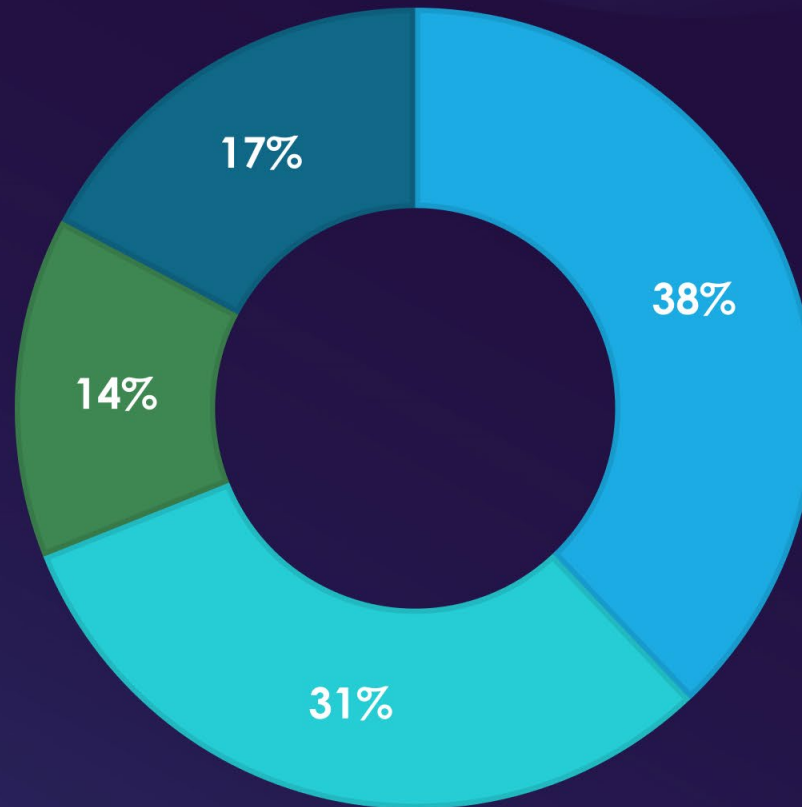
■ Enhanced decision-making  
■ Analytics for crime prevention



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# PROFESSIONAL NETWORK VIEWS

WHAT IS YOUR BIGGEST ETHICAL CONCERN REGARDING THE USE OF AI  
IN PUBLIC SAFETY?

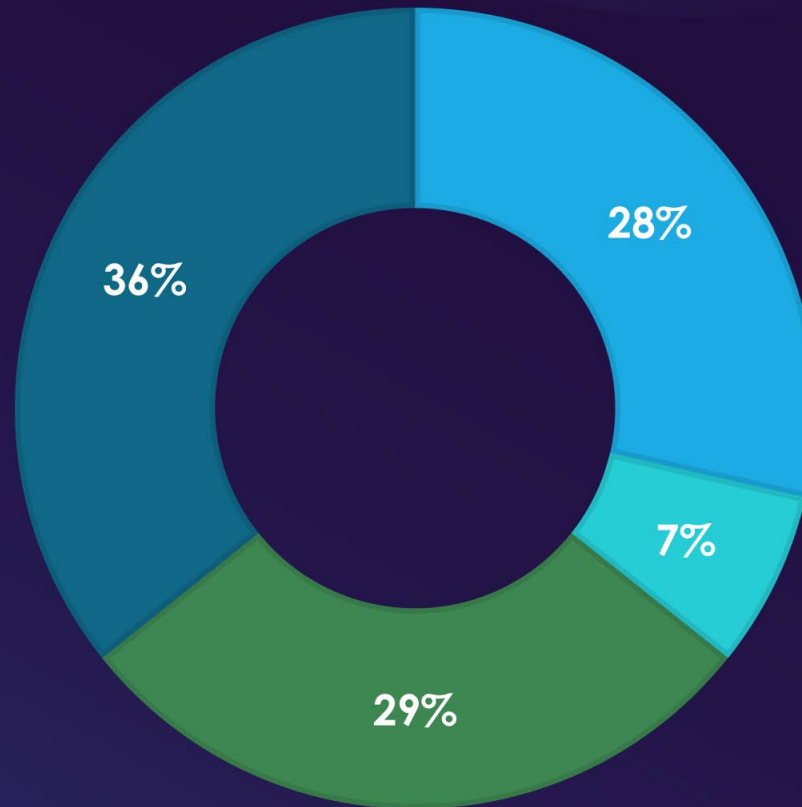


■ Privacy and data security ■ Bias in AI algorithms ■ Accountability of AI decisions ■ Lack of transparency



# PROFESSIONAL NETWORK VIEWS

WHAT DO YOU THINK IS THE BIGGEST CHALLENGE IN IMPLEMENTING AI  
IN PUBLIC SAFETY?



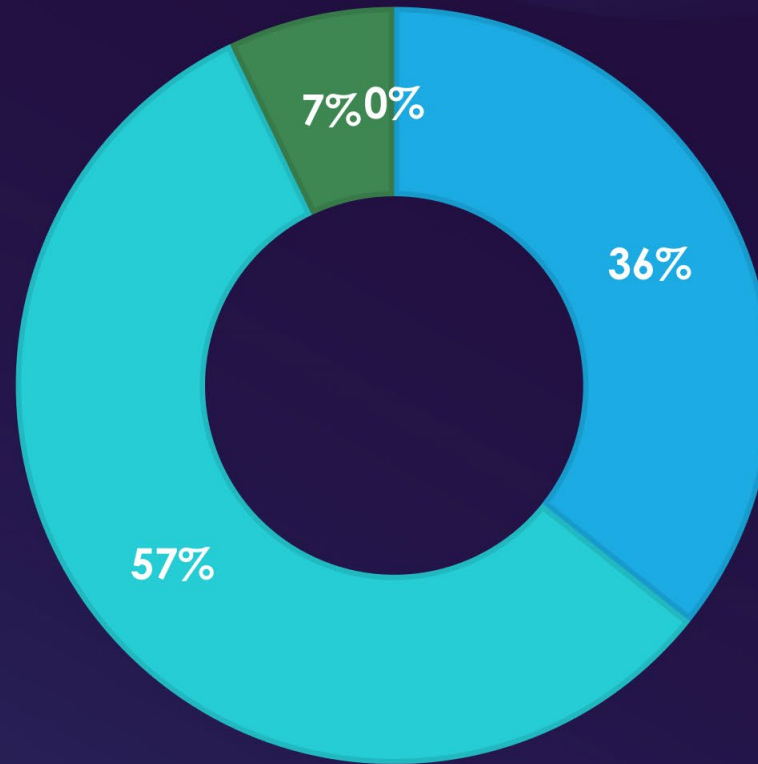
■ Lack of technical expertise ■ Budget constraints ■ Resistance to change ■ Regulatory hurdles



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# PROFESSIONAL NETWORK VIEWS

WHERE DO YOU SEE THE BIGGEST GROWTH POTENTIAL FOR AI IN PUBLIC SAFETY OVER THE NEXT DECADE?



- Surveillance and monitoring
- Emergency response
- Criminal investigation
- Public safety communications



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# QUOTES

**Kate Crawford, "Atlas of AI"**

*"AI systems are deeply influenced by human processes, labour, and resources. This reflects the idea that AI, despite its name, is rooted in human experience, making it no more objective or superior than the people who build it."*

**Andrew Ng, Co-Founder of Google Brain and Coursera**

*"AI is no smarter than the data you give it. It's like training a child — if you teach it bad habits, it will learn them."*

**Joanna Bryson, AI Researcher and Ethicist**

*"AI is made by humans, for humans, with human limitations."*

**Timnit Gebru, AI Researcher and Ethics Advocate**

*"AI is not neutral, it is a reflection of our society. It inherits all of our biases and prejudices."*

**Cathy O'Neil, Author of "Weapons of Math Destruction"**

*"Algorithms are opinions embedded in code."*



**INCLUTECH**

???

Is AI the issue here or are we, society, the issue; do we already have issues with privacy & trust in our people, process and technology ?

Is AI simply about providing us improved automation and decision augmentation, increasing our finite (potentially bias) people resource and brains virtually ?

Do we think we can train, improve, reduce bias/prejudice easier in AI ,ourselves as a society or neither ?



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# THANKS



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MAKE . IT . BETTER



[jonny@inclutech.co](mailto:jonny@inclutech.co)

# Reinard van Loo, Frequentis



## AI in Communication Solutions & International View

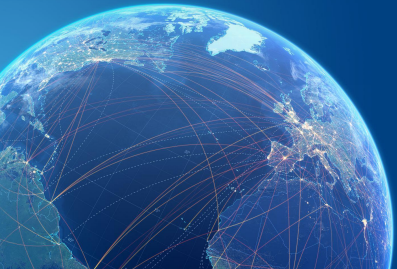
Opportunities, Guardrails, and are we solving the right problems?

# AI around the world in Communications

- **Opportunities:** Some Typical Applications of AI in Communication
- **Guardrails:** International Regulations determine what is allowed to do
- **Solving the right Problem**



# Opportunities



## Typical AI in Communication Solutions

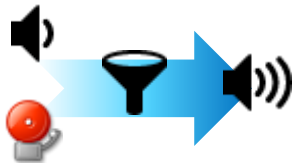
Artificial intelligence in the public sector can contribute to:

- more relevant advice and services to citizens in different situations in life
- better decision-making support for public-sector employees
- rationalising processes and optimising resource utilisation
- improving the quality of processes and services by automatically detecting possible deviations
- predicting trends based on data from both agencies and their environments
- **natural language processing for sorting and categorising, and for translating between different languages and language forms**

# Typical AI in Communication Solutions



IVR Speech Recognition



Improve Audio/Remove noise

Chat 00:26  
Αχιλλεύς <achilles@example.com>  
Thomas

12:06:16 AM  
Καλημέρα  
Translated from Greek  
Good morning

12:06:16 AM  
Έχουμε δημιουργήσει ένα δώρο για την Τροία - ένα μεγάλο ξύλινο άλογο.  
Translated from Greek  
We have created a gift for Troy - a big wooden horse

12:06:35 AM  
PLease be carefull!  
Translated to Greek  
ρνζκδξ λξ κγκζοζφφ!

12:06:41 AM  
φρνζκδξ λξ κγκζοζφφλκ, κωζ δκκ?  
Translated from Greek  
"PLease be carefull", you say?

Send

End conversation

Translation of text chats

Intercom History Action pad External ONDEWO

my name is wolffibnd wolffried **FIRST NAME** braun **LAST NAME** there is a huge **fire** **THREAT** at favolliens lase i saw **four** **CARDINAL** people **LINK** on fire **THREAT**

**Contact**  
First name wolffried  
Last name braun  
Number 099 345 6576

**Emergency**  
Category Police  
Location NOT FOUND  
Threats fire on fire

**Credits**  
Powered by **ONDEWO**

End conversation Route

Speech/Topic Recognition in emergency calls

# Transcription and Translation of live voice / recording

**Voice Call with...**

**Life Video Feed**

**Recognised Speech**

**Translated Speech**

**Text-to-speech entry**

01:41

(04IS) Emergency  
0043664608503254

Hang up

4:50:36 PM  
Ik heb hulp nodig  
Translated from Dutch  
I need help

4:50:51 PM  
What do you need help with  
Translated to Dutch  
Waar heb je hulp bij nodig?

End conversation

**FREQUENTIS 3020LifeX** 4:47:30 PM  
Search & Replay 09/22/2024

Investigation sessions

Search

Direction

- Incoming (126)
- Outgoing (134)
- Unknown (149)

Communication category

- Emergency (221)
- Intercom (177)
- callType-radio (1)
- callType-tetraGroupCall (1)

Direction	Number	Emergency	Operator	Time
Incoming	Saphira Jossa (0318) 563755657 Melindagässchen 51644	03:16 min.	Lucien Tischmann +49-252-3717575 OP9	03/30/2016 3:54:44 PM
Incoming	Emmely Göbel (04741) 5055700 Colleenstraße 75475	00:58 min.	Hr. Bilal Gehrig (04865) 2387374 ROLE_5 OP1	03/30/2016 3:54:32 PM
Outgoing	Justin Neubert (02672) 6637414 Corstrücke 72746	03:47 min.	Cedrik Lewin (01534) 8637181	03/30/2016 3:54:32 PM

221 out of 410

Replay

Saphira Jossa (0318) 563755657  
Melindagässchen 51644

Emergency 03:16 min. Lucien Tischmann +49-252-3717575 OP9

03/30/2016 3:54:44 PM

warning The integrity check failed

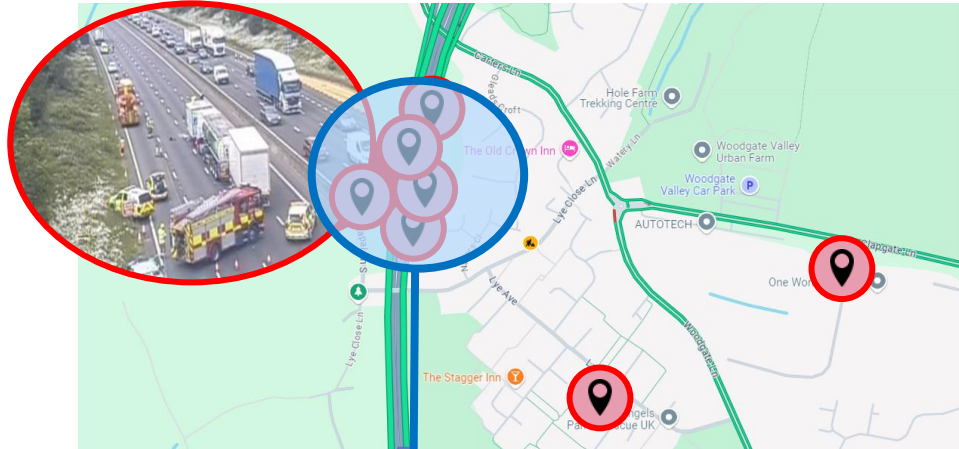
**AI Transcription of recording**

# Queue Jumping, Auto Call back abandoned emergency calls

(Carbyne Emergency Call Triage)

(Peel Region PSAP, Canada)

**Goal: Reduce redundant and abandoned calls, decrease calls in queue**



While queuing, go through IVR:

***Is your call about car accident on M5? If no, stay on the call.***

***If yes: We are aware and working on it. Please state additional information or hang up.***

***[STT of additional information], „We will expedite your call“***

Route with higher priority!

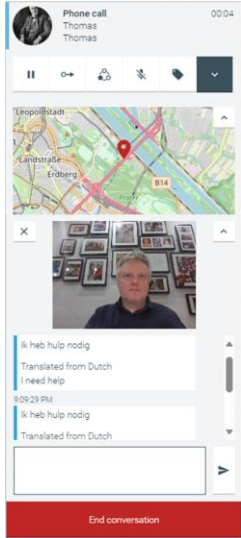


Month	911 Calls	Non-Emer	Manual Callbacks	Avg CB	Avg 911 Wait Time	% of Calls Ans in 10s	% of Calls Ans in 20s
March	60,028	11,875	14,968	7:35	85s	30%	37%
2024	53,501	20,397	-	7:35	11s	80%	86%
April	62,725	11,031	16,292	7:35	82s	29%	35%
2024	54,117	21,409	-	7:35	11s	81%	87%

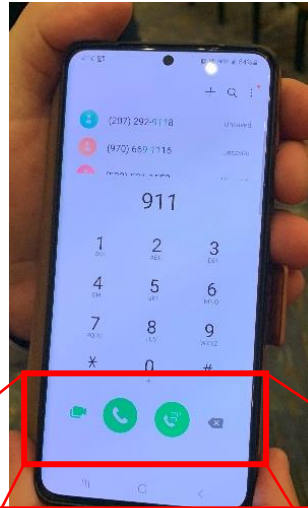
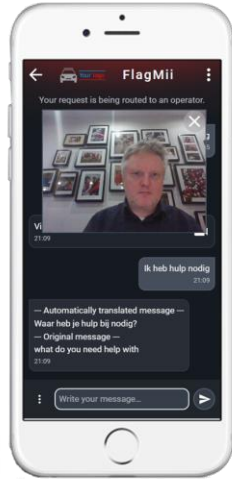
**Automatic callback of abandoned emergency calls using IVR, STT**

# Fudder for AI: Voice, Real Time Text, Video, Pictures and Location

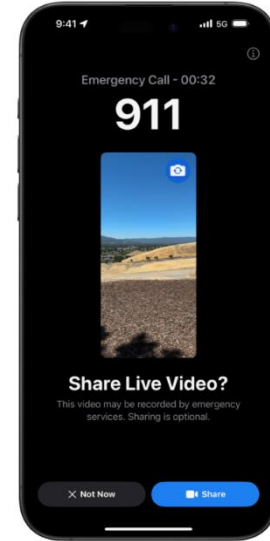
e.g. OTT chat/Video, NGx and Apple Emergency SOS Live Video



OTT Chat/Video

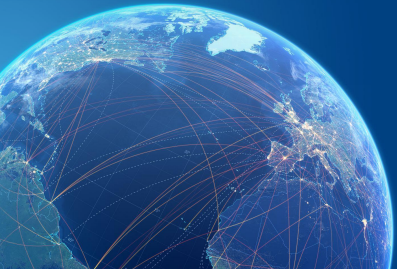


NGx



Apple Emergency SOS Live Video

# (International) Guardrails



# EU Regulations for High Risk Application of AI

- “...**AI systems used to evaluate and classify emergency calls by natural persons or to dispatch or establish priority ... should also be classified as high-risk** ...”

- “... AI systems **include mechanisms to guide and inform a natural person to whom human oversight has been assigned** to make informed decisions if, when and how to intervene in order to avoid negative consequences or risks, or stop the system if it does not perform as intended.”

- “...Can be used but needs Risk/Conformity assessment”

[https://www.europarl.europa.eu/doceo/document/TA-9-2024-03-13\\_EN.html#sdocta2](https://www.europarl.europa.eu/doceo/document/TA-9-2024-03-13_EN.html#sdocta2)

- USA: “...Unlike the EU’s comprehensive AI regulation, U.S. AI regulation consists of a patchwork of rules, legislation and executive orders...”

**AI Risk Classification Framework**

Risk-Based Approach - Classifying AI systems into four categories:

- Unacceptable Risk:** Systems prohibited due to significant harm (e.g., social scoring by governments)
- High Risk:** Requires strict regulatory oversight (e.g., AI in medical devices, autonomous vehicles)
- Limited Risk:** Subject to transparency requirements (e.g., AI-generated content or chatbots)
- Minimal Risk:** Few or no regulatory requirements (e.g., simple AI applications like spam filters)

## Article 5 - Unacceptable Risk – Prohibited

**Prohibited AI Practices**

- 01 Deploying subliminal, persuasive, or deceptive techniques to distort behavior and impair informed decision-making, causing significant harm, e.g. buying products
- 02 Exploiting vulnerabilities related to age, disability, or socio-economic or cultural differences to distort behavior, causing significant harm
- 03 Biometric categorization systems filtering positive attributes (race, political opinions, trade union membership, religious or philosophical beliefs, sex, etc. or sexual orientation)
- 04 Social scoring, i.e., evaluating or ranking individuals or groups based on social behavior or personal characteristics, causing unfavorable treatment of those people
- 05 Assessing the risk of an individual committing criminal offenses solely based on profiling or personality traits
- 06 Compiling facial recognition databases by untargeted scraping of facial images from the internet or CCTV footage
- 07 Inferring emotions in workplaces or educational institutions, except for medical or safety reasons
- 08 Mainframe remote biometric identification (MBI) in publicly accessible spaces for law enforcement
- 09 Exemptions generally for law enforcement and security agencies

**Non-compliance**  
 \* Fines of EUR 35 Mio or 7% of global turnover

Starts: 1 Feb 2025

## High Risk AI Practices

**Can be used, but needs risk assessment**

**Annex I (starts: 1 August 2026)**

Used as a safety component or a product covered by EU laws AND required to undergo a third-party conformity assessment.

**Annex III Use Cases (starts 1 August 2027)**

- 1 Biometric identification system
- 2 Critical infrastructure – safety components
- 3 Educational and vocational training
- 4 Employment
- 5 Access and enjoyment of essential public and private services
- 6 Law enforcement
- 7 Migration, asylum and border control management
- 8 Administration of justice and democratic processes



# Prohibited?



European  
IP Helpdesk

www.iphelpdesk.eu

## Article 5 - Unacceptable Risk – Prohibited

### Prohibited AI Practices



Compromise privacy



Human dignity



Human Autonomy



Deep fakes

01

Deploying **subliminal, manipulative, or deceptive techniques** to distort behaviour and impair informed decision-making, causing significant harm, e.g. buying products

04

**Social scoring**, i.e., evaluating or classifying individuals or groups based on social behaviour or personal traits, causing detrimental or unfavourable treatment of those people.

07

**Inferring emotions in workplaces or educational institutions**, except for medical or safety reasons.

02

**Exploiting vulnerabilities** related to age, disability, or socio-economic circumstances to distort behaviour, causing significant harm.

05

Assessing the risk of an individual committing **criminal offenses** solely based on profiling or personality traits.

08

'Real-time' remote biometric identification (RBI) in publicly accessible spaces for law enforcement.

03

**Biometric categorisation systems** inferring sensitive attributes (race, political opinions, trade union membership, religious or philosophical beliefs, sex life, or sexual orientation).

06

Compiling facial recognition databases by untargeted scraping facial images from the internet or CCTV footage.

09

**Exemptions generally for law enforcement and security agencies**

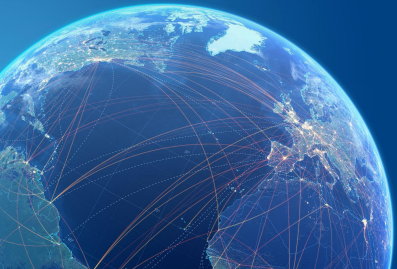
### Non-compliance

- Fines of EUR 35 Mio or 7% of global turnover

# Regulatory Issues

- GDPR
  - E.g. „...no external cloud services allowed to be used...“, only on-premise processing = \$\$\$€€€£
- Data Residency & Data Sovereignty
  - Still not ok to host, e.g. a critical Dutch police system in Austria...
- Government and Agency internal policies on AI
  - Some decided that „For now“, no AI based transcription/Keyword Recognition, no AI based Chatbot, no Knowledge based routing of conversations

# The Right Problems



# Customer Structuring of Problem space

© David Jackson



High

## ■ Automate

Via SMS Chat dialog design refer to self service web forms,  
Web chat standard responses with links

## ■ Managing Demand & supply

Transform into conversation to 999/101, use  
pictures/video received and store/forward

Low

High

**PSAP**

## ■ Eliminate

Via SMS Chat dialog, refer to external parties or  
automatically but politely end. Web chat standard responses  
with phone numbers, links or politely end

## ■ Simplify

In SMS/Web chat dialog: “Hook” customer, forward to “one-stop simple form”  
to enter intelligence and perform sanity check, transform into conversation to  
101, crimestoppers, Anti-Terrorist hotline...

Low

...and the right problems are?



***To a [tech'] person with a hammer every problem looks like a nail***

Input for the round table: How can, among others, AI help

- ... to make more optimal use of scarce human resources?
- ... to create and retain skilled operators?
- ... to improve service to Public?
- ... to improve efficiency of services provided?
- ... to... “*solve [XXX], that would be soooo good...*”



# FREQUENTIS

FOR A SAFER WORLD

# Dan Maund, Leonardo



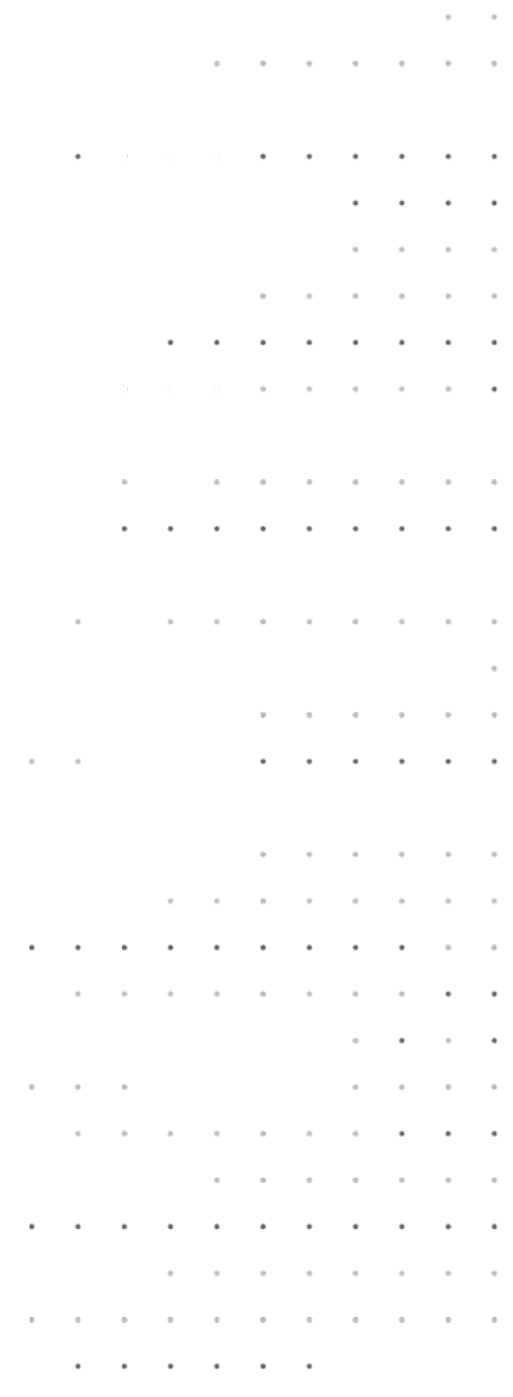
Leonardo Cyber & Security Solutions

# Are you ready for AI?

BAPCO Roundtable 2024

London

25/09/2024



Electronics



Helicopters



Aircraft



Cyber & Security



Space



Uncrewed Systems



Aerostructures



# Introduction & Objective

## Setting the Stage

- Who am I?
- How do you feel about security risk?
- Questions rather than Answers



# CONSIDERATIONS

- Risk Exposure
- Confidentiality
- Authenticity
- Accuracy
- “Skynet”
- Response
- Questions



# Risk Exposure

What is the effect on risk of introducing the AI solution into our environment?

- Criticality (CS – Resilience BCDR)
- Sensitivity
- Threat Modelling
- New Vulnerabilities
- Security Assurance



# Confidentiality

Where and how is sensitive data exposed to ensure the AI solution works effectively?

- AI built on data model
- Effectiveness linked with data size and quality
- Data/results shared with provider?
- Access/privilege of the AI
- Access/privilege of the user



# Authenticity

Has the AI system been trained to produce authentic results?

- Who creates the data?
- Who controls the data?
- Who verifies the data?
- World view: morals, ethics, politics?
- Bias or reality?
- Impact of adjustment on accuracy?



# Accuracy

How accurate is the system?

- Human error - comparative
- Criticality of function
- What is published tolerance?
- How is published tolerance measured?
- What is your tolerance?



# “Skynet”

How prepared are we for the weaponisation of AI?

- Amplified threat actor capability
- Example – [Calculator ChatGPT](#)
- Identifying & treating existing risk – risk management
- Validation of controls – security assurance
- No rogue time-travelling sentient machines (yet)



# Responses

How do we prepare for secure AI?

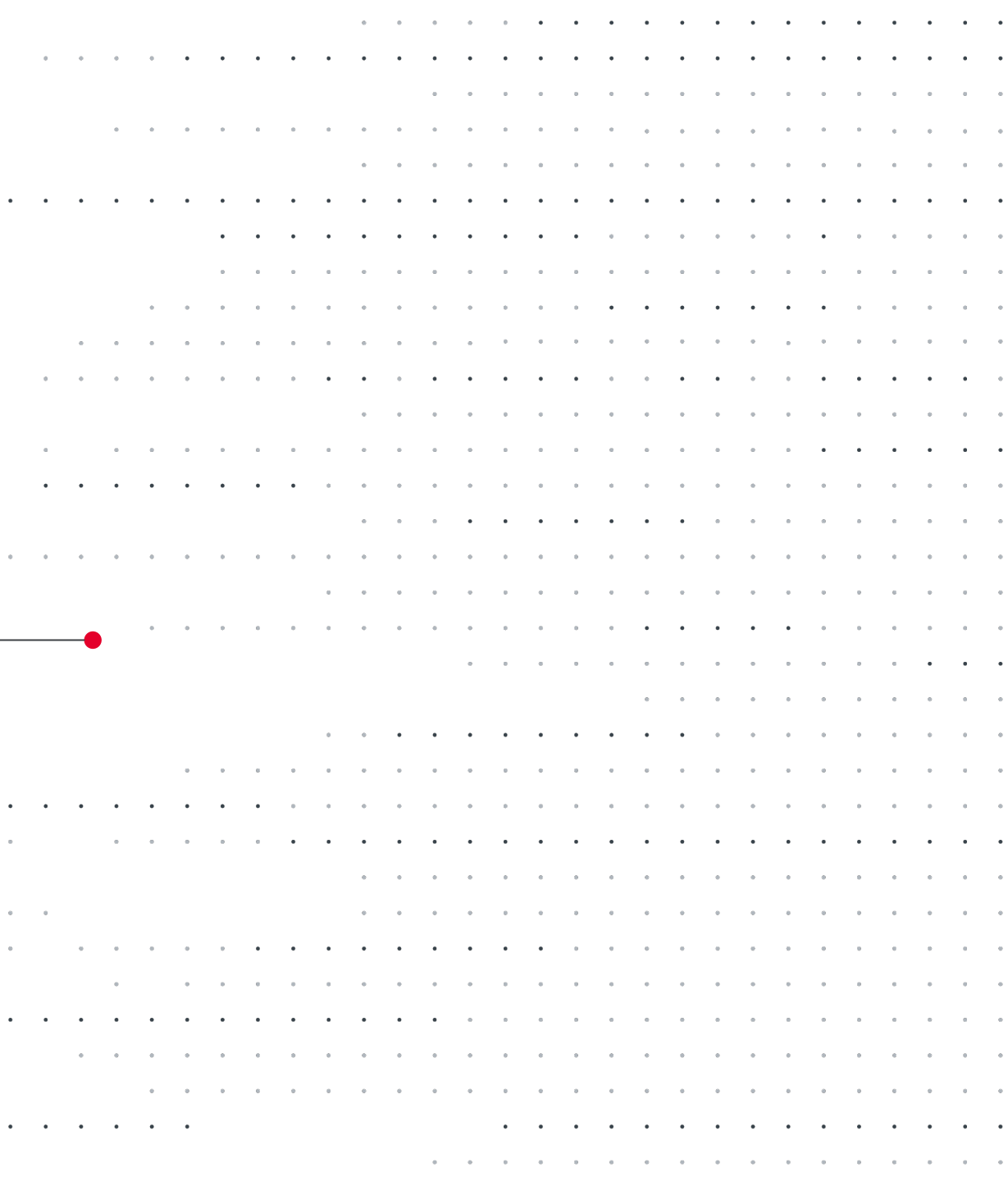
- Threat Intelligence
- Threat Modelling
- Risk Management
- Security Assurance
- Supply Chain Assurance
- Detection/Response

These could be delivered/supported by AI!





# QUESTIONS



# CONTACTS

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THANK YOU  
FOR YOUR ATTENTION

[uk.leonardo.com](http://uk.leonardo.com)



# Robert Hogg, Black Marble



# Round Table



**THANK YOU**