

# Exploring the AI Frontier

Turning boundless  
opportunity into  
sustainable growth

Daniel Stuart



This is not the “next big thing” of the past years - this is game changing

This can replace or augment human capabilities that have not been automated before

## A Pervasive Wave of Opportunity/Risk

AI can create a unique opportunity to excel in public sector services.

This game will be won with who has the best AI skills & practices



# Executive Survey: AI's Productivity Outlook



# What is AI Co-working?

## **Adopting AI as a set of tools**

You build skills and adopt AI as part of your job. You look at AI as added support

## **AI as a team member**

AI handles part of your workflow and tasks. It has a specific role and function like any other worker

## **Your AI Digital Twin**

Your personal AI twin can act in your behalf, make recommendations, be your intermediary

## **AI as a Boss**

AI recommends or assigns tasks, makes projections, identifies risks and actions

Like any new technology, those that embrace AI are the ones that will thrive.



# THREE APPROACHES TO USING AI

## ➤ **Build your own AI Solutions**

- Microsoft
- Google

## ➤ **Use stand alone tools**

- ChatGPT
- Midjourney

## ➤ **Integrated AI Capabilities in your current applications or “Applied AI”**

- Microsoft Copilot
- Salesforce Einstein GPT



# Capability Levels: Sophistication States

## SELF LEARNING

An ability to observe data and results and build new rules and algorithmic variables in order to achieve better outcomes

## SEMI AUTONOMOUS

Can perform a percentage of processes and decisions without human help with the balance being provided by people

## FULLY AUTONOMOUS

Can perform a process without any human intervention (except in a rare disaster situation)

## SELF AWARE/COGNITIVE

Is aware of its mission, has the ability to correct actions on its own based on research and new data. Can interact with people easily.





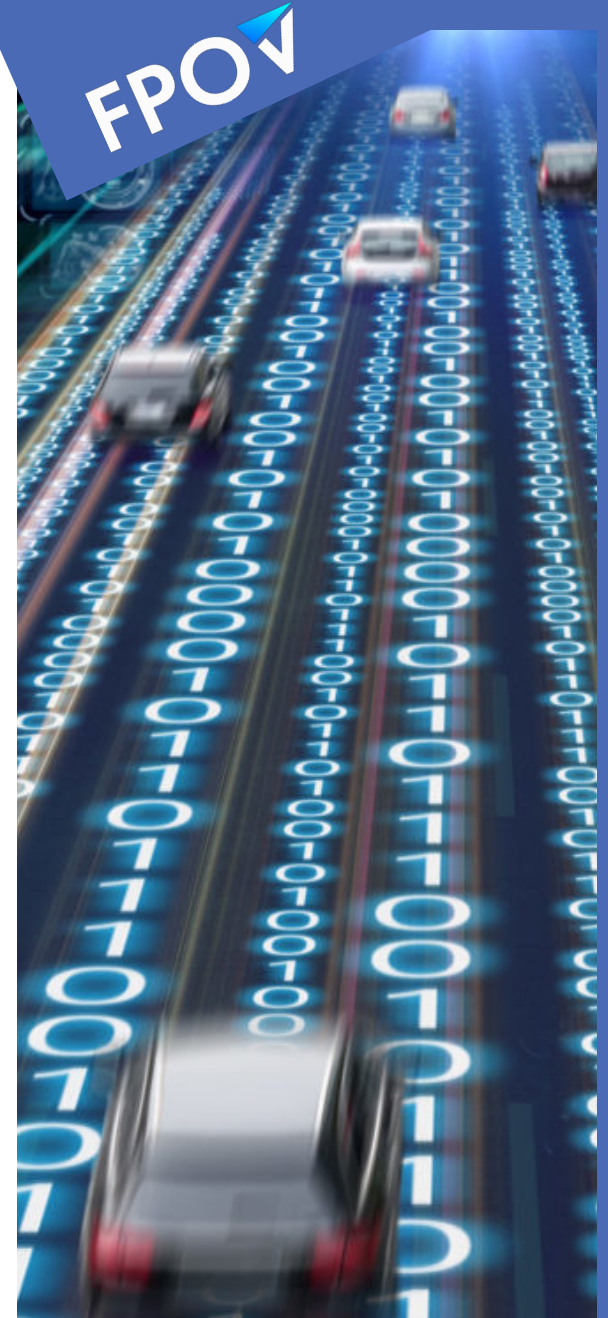
# Intelligent Automation

Automation tools like UiPath and Power Automate are used to automate business process (Robotic Process Automation).

Intelligent Automation uses AI features where AI is making decisions instead of just following a set of predefined steps.

## Key Components of Intelligent Automation:

- **Rule-Based Automation:** For repetitive and well-defined tasks.
- **Machine Learning:** For tasks that require pattern recognition or predictive capabilities.
- **Natural Language Processing:** For tasks involving human language, like chatbots or sentiment analysis.
- **Decision-making Algorithms:** For optimizing operations, scheduling, and various logistical tasks





# What can AI be used for?

**ANALYTIC** (CREATING NEW INSIGHTS)

**DIAGNOSTIC** (EXPLAINING THE WHY)

**PREDICTIVE** (MODELING THE FUTURE)

**PRESCRIPTIVE** (ACHIEVING A PREFERRED FUTURE)

**SIMULATION** (INTELLIGENT DIGITAL TWINS)

**GENERATIVE** (AI/HUMAN COLLABORATION)



# WHAT IS GENERATIVE AI?

Capable of creating new data points, whether it's text, images, music, or even code.

Self taught, learning from a large data model

can create intricate and highly complex **Outcomes**



This is an  
unimaginable  
improvement in  
the world



**SOLVES THE BLANK  
CANVAS PROBLEM**

**DELIVERS NEW IDEAS &  
ADDITIVE KNOWLEDGE**

**REPLACES SOME TASKS FORMERLY  
DONE BY PEOPLE**

**IMPROVES THE SPEED AND QUALITY OF  
WORK**



# ChatGPT



# HOW DOES CHAT GPT WORK?

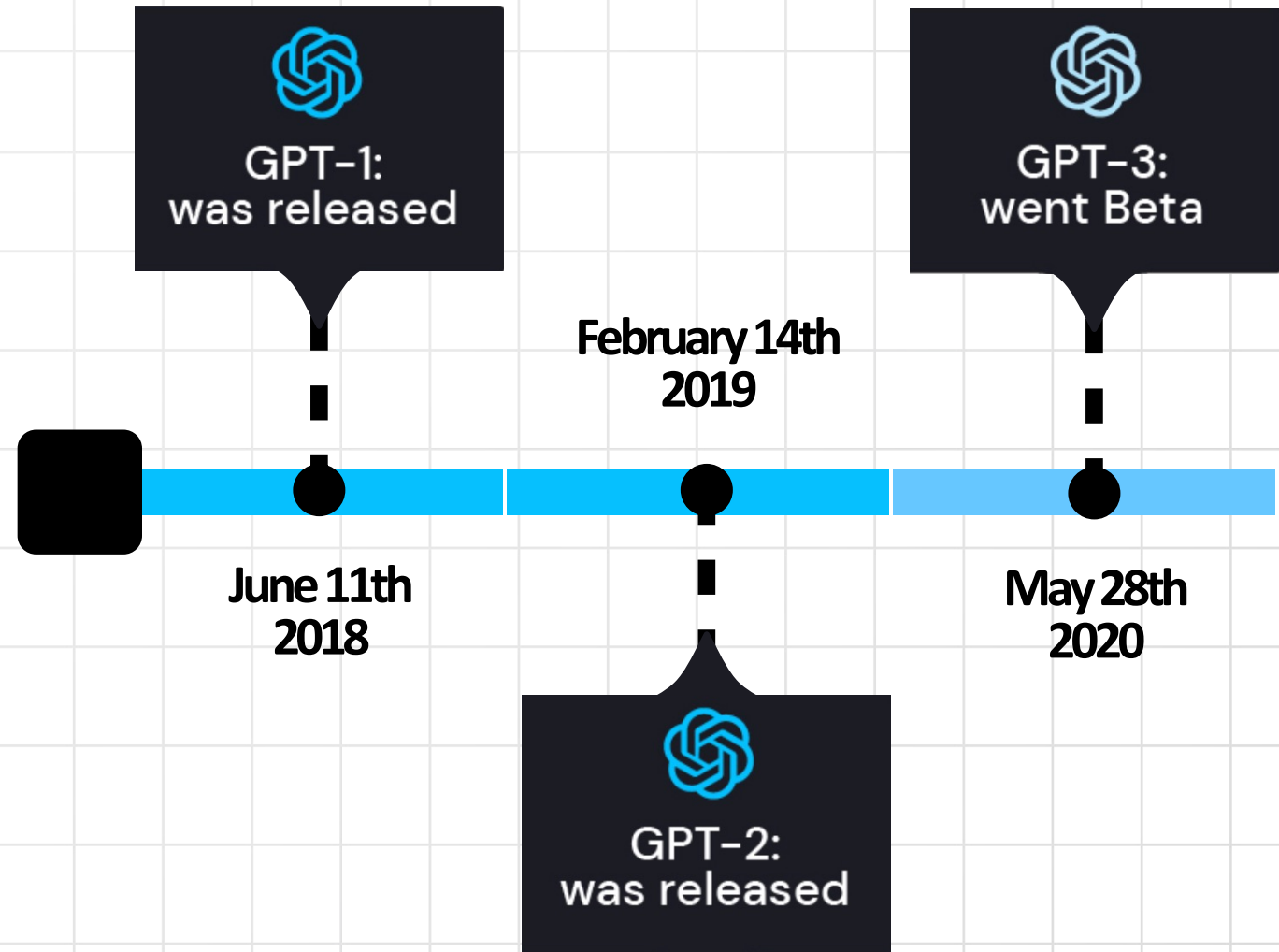
G.GENERATIVE  
P.PRETRAINED  
T.TRANSFORMER

*Describe the day's weather for North Dakota in December*

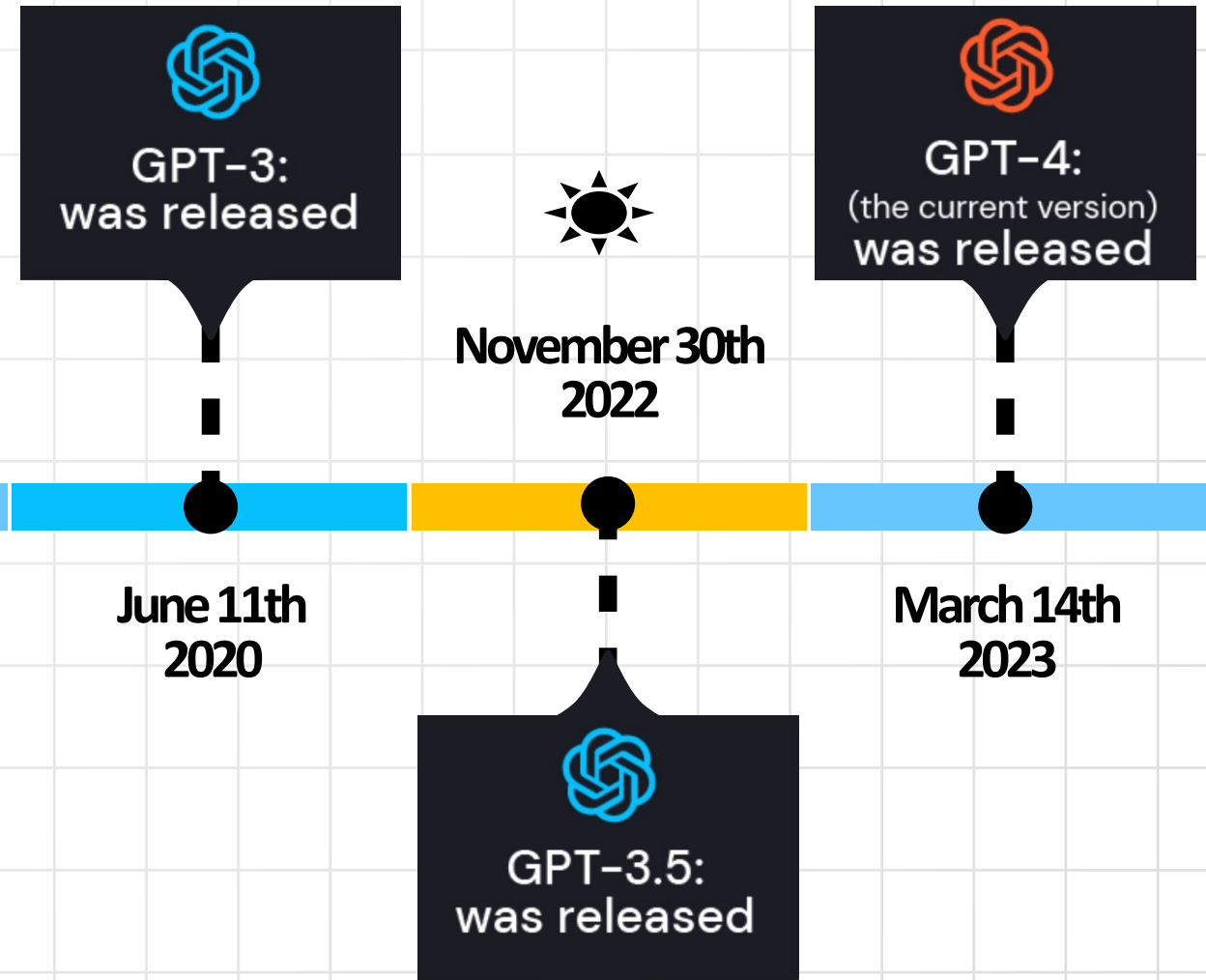
Today, the weather will be snowy  
sunny  
windy  
rainy  
cloudy



# HOW FAST IS CHATGPT IMPROVING?



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# HOW FAST IS CHATGPT IMPROVING?



GPT-4:  
(the current version)  
was released

October  
2023



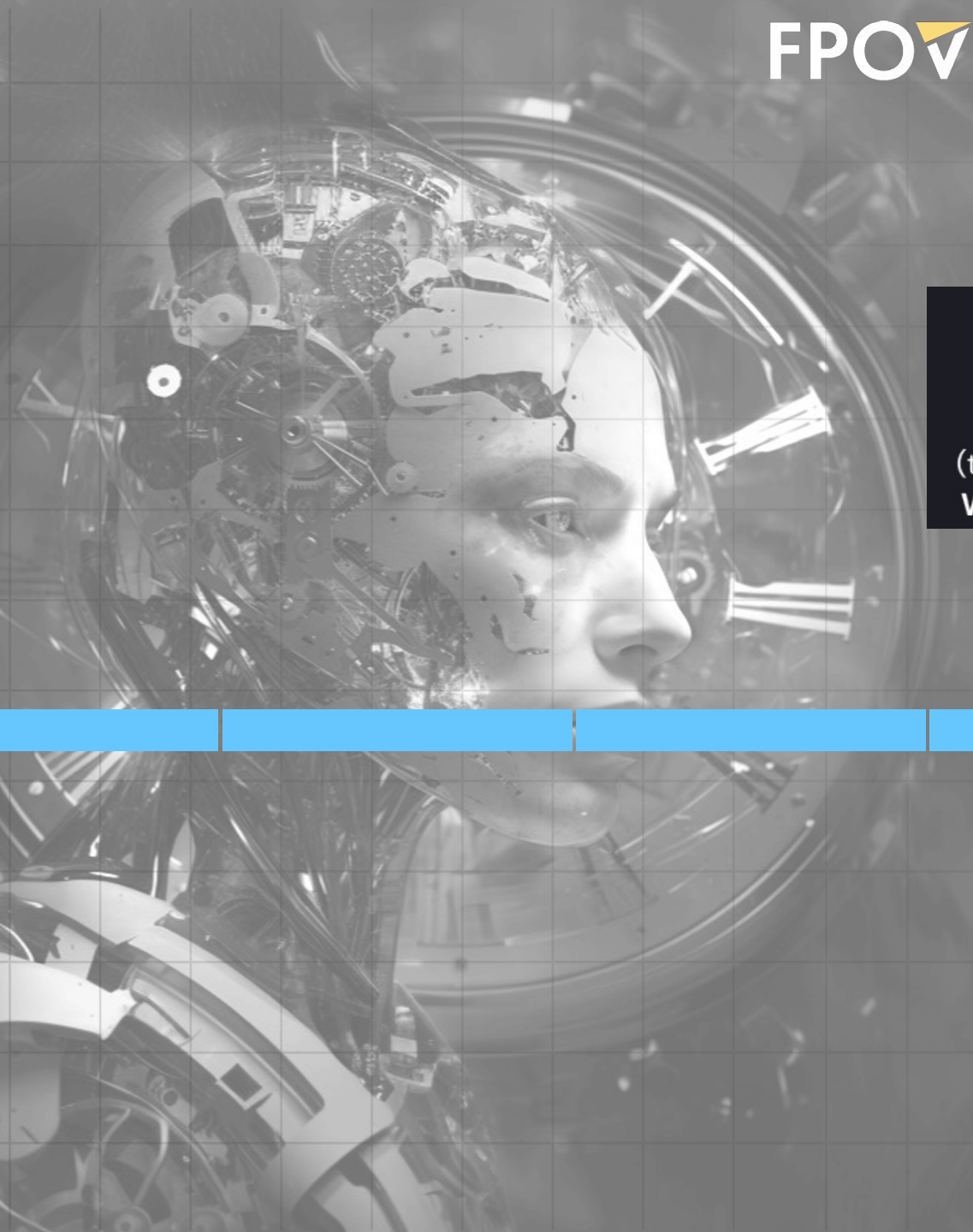
GPT-5  
possible AGI

?

March 14th  
2023



GPT-4.5



# ChatGPT Enterprise: Now Available

## CURRENT PRICING

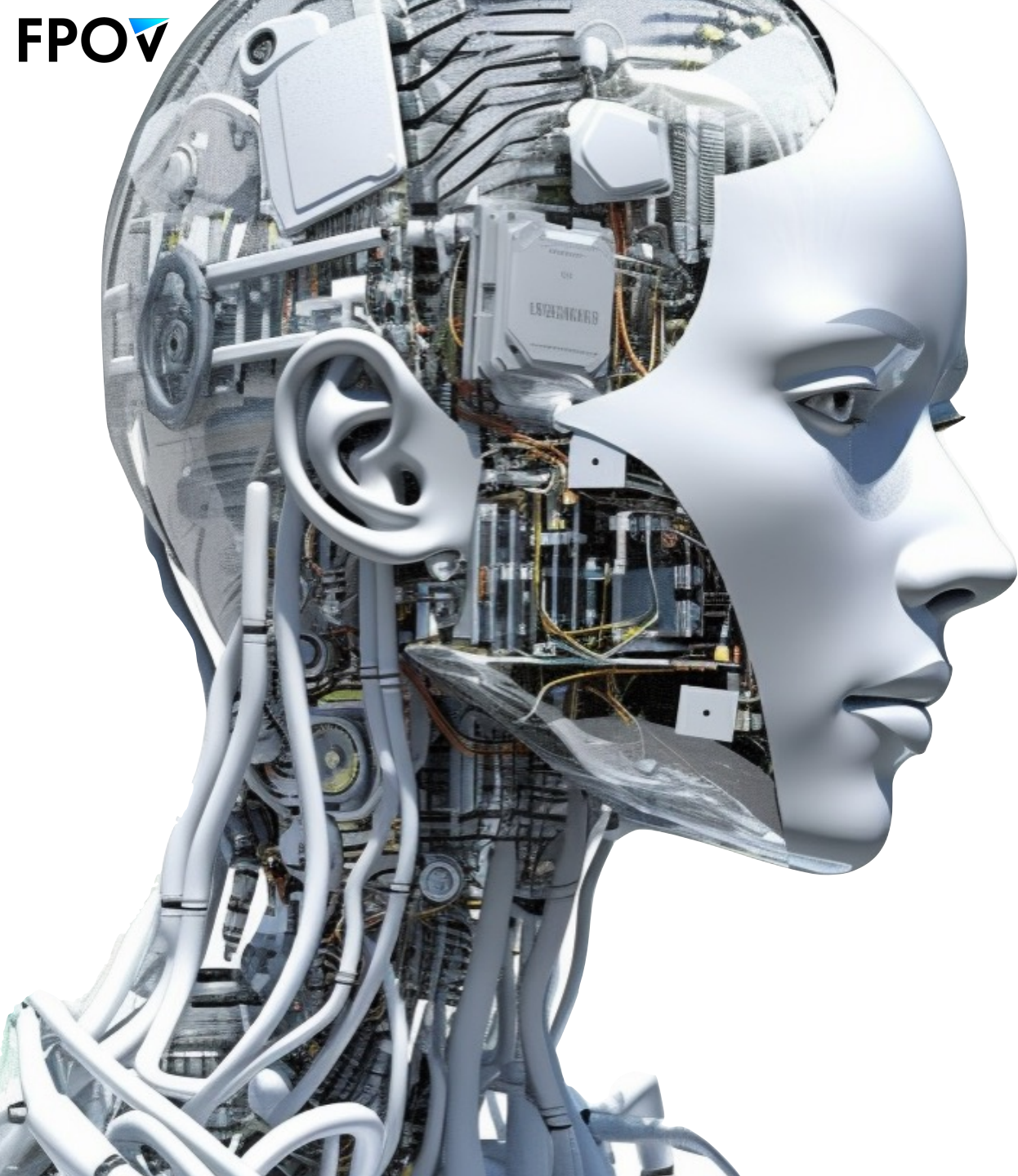
- \$20/person/month
- Priority access
- Full features

## FUTURE PRICING

- Possible by December 2023
- Special pricing tiers
- Lower cost per person







**Midjourney**



Version 5.2  
Version 3

Midjourney's  
interpretation of the  
prompt:  
{{a human hand}}  
versions 1 - 5.2





Wix AI

Web Design



# ONYX FITNESS CLUB

Dynamic In-Person And Online Workouts

BOOK  
NOW





# MORE EXAMPLES OF GEN-AI

## Chatbots



ChatGPT



Claude



Bing Chat

## Audio Editing



Descript



Adobe Podcast

## Content Generation



Jasper



## Image Generation



Midjourney



Adobe Firefly

## AI Solutions - Grant and Community Investment Management:

**Optimy:** An AI grant management software

**ChatGPT:** A platform that helps grant writers write full proposals

## Spreadsheets



Nurx



Tome

## Meeting Recording



Vowel



Fireflies

## Chat with PDF



ChatPDF

## Personal Productivity



Rewind



Mem

## Synthetic Voices



ElevenLabs



Play.ht

# How Will AI Reshape the Municipalities Space?

Every industry will be impacted by the implementation and pervasive use of AI engines.

The more accurately we can predict these impacts, the more wisely we can invest in the skills and tools needed to win in that future.

Let's paint a picture of Municipalities in the AI era.





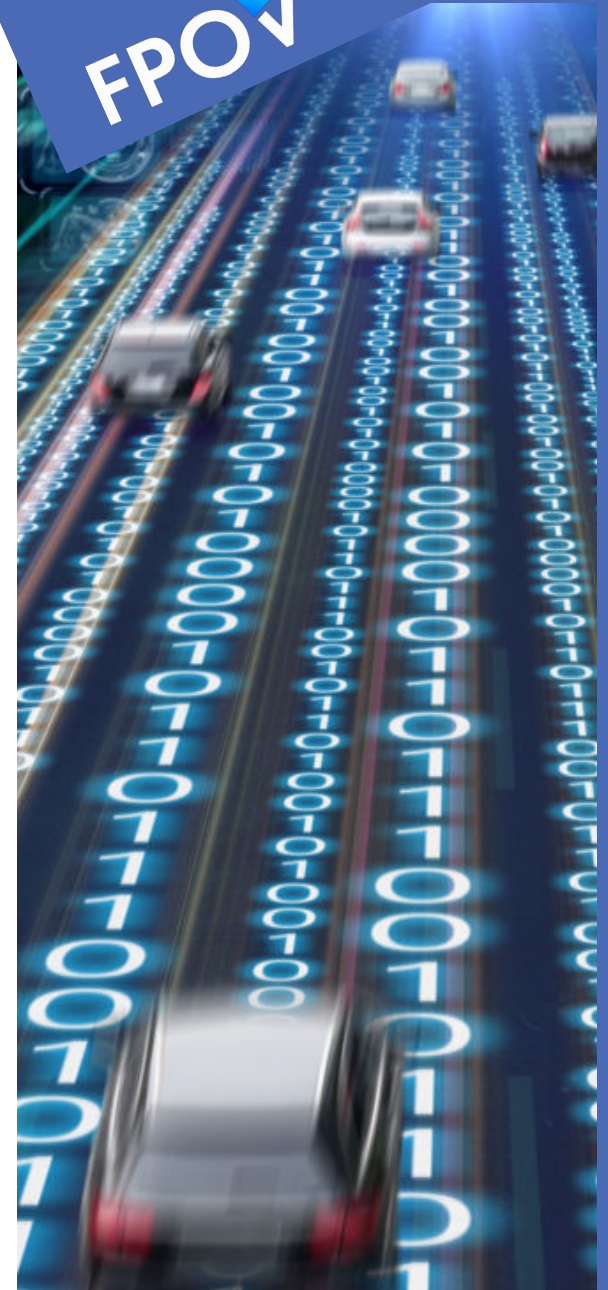
# Wired Magazine

- “We’re more about what you can do, not what you can’t do,” says Sybil Gurney, Alameda County’s assistant chief information officer. County staff are “doing a lot of their written work using ChatGPT,” Gurney adds, and have used Salesforce’s Einstein GPT.”
- “At every level, governments are searching for ways to harness generative AI. “
  - Sybil Gurney, Alameda County

TODD FEATHERS

SECURITY SEP 11, 2023 7:00 AM

FPOV



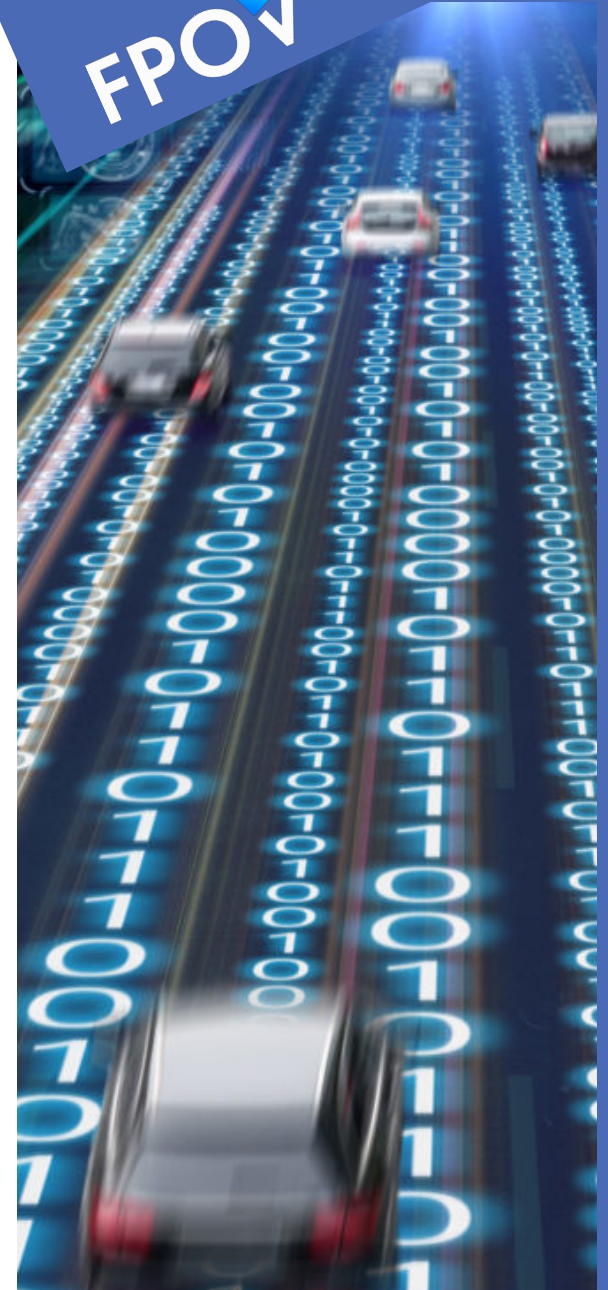
# Wired Magazine

- “guidelines in San Jose, Seattle, [Boston](#), and the state of Washington require that employees disclose their use of generative AI in their work product while [Kansas’ guidelines](#) do not.”
- “The earliest government policies on generative AI have come from cities and states, and the authors of several of those policies told WIRED they’re eager to learn from other agencies and improve their standards.”

TODD FEATHERS

SECURITY SEP 11, 2023 7:00 AM

FPOV







# Generative AI Use Cases

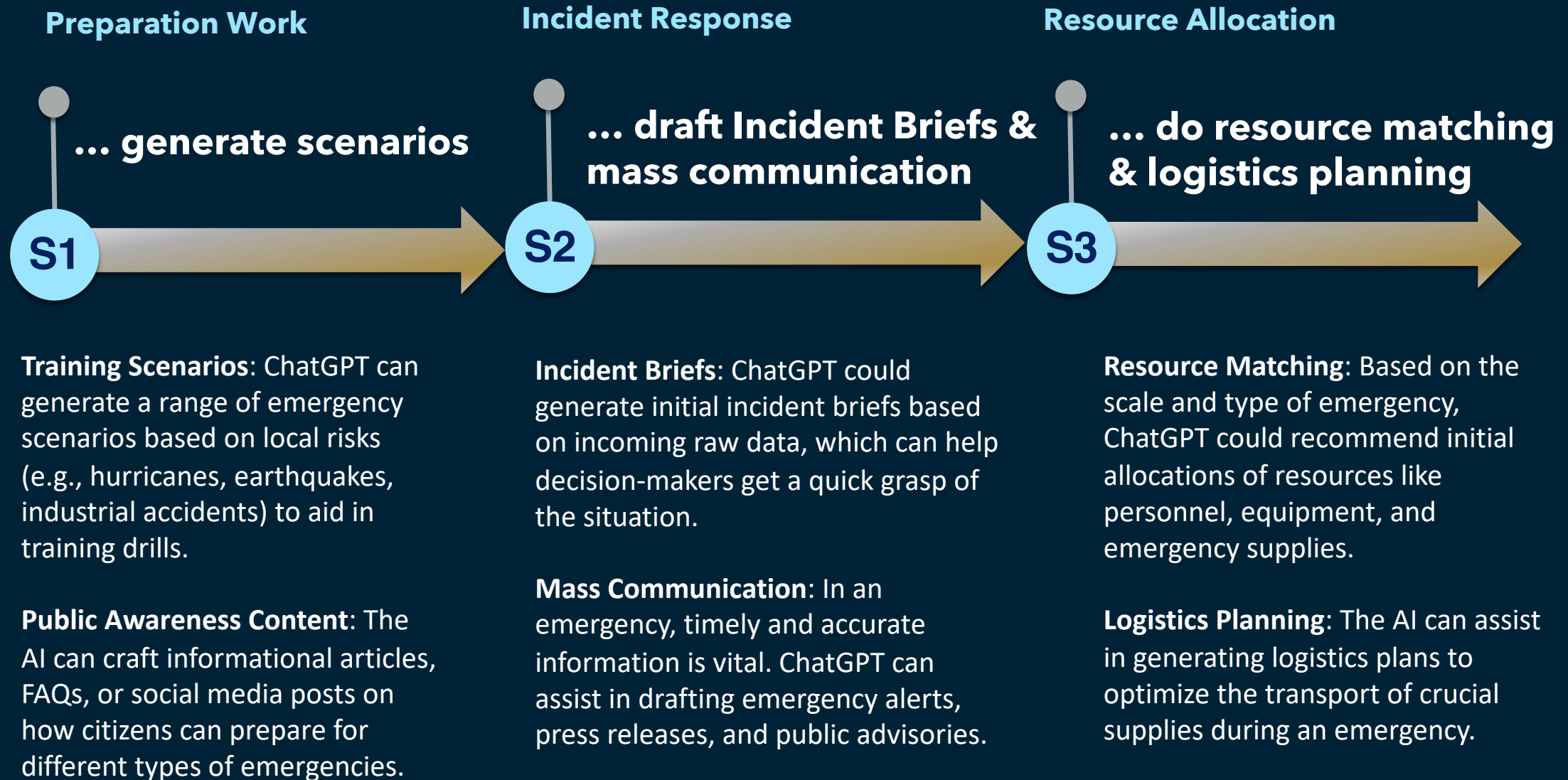
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**Emergency Management** - ChatGPT could act as a force multiplier in various capacities, supporting emergency management agencies in preparation, response, and recovery.

**RFP Generation** - The application of ChatGPT in automating RFPs serves dual purposes: it standardizes the RFP process, making it efficient and quick, while also allowing for customization based on the unique needs of each project.

**City Planning** - While the tool can't replace the expertise of urban planners, architects, and civic leaders, it could serve as a valuable assistant in various facets of the city planning process.

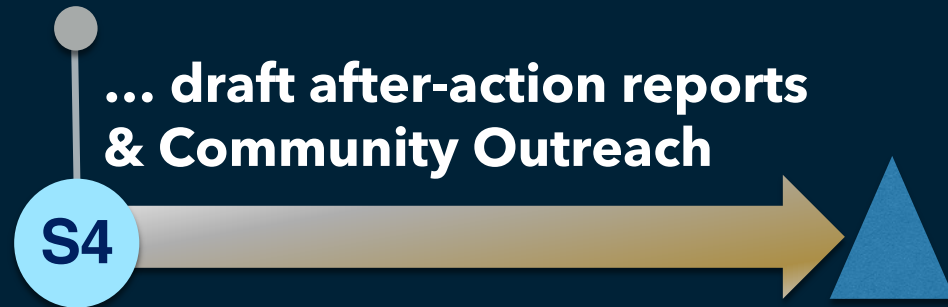
# Emergency Management Use Case – ChatGPT Can...





# Emergency Management Use Case – ChatGPT Can...

## Post Incident Analysis



**After-Action Reports:** ChatGPT could draft a baseline after-action report by pulling data from various incident logs, which human experts can then refine and finalize.

**Community Outreach:** Post-emergency, the AI can help in preparing tailored communications to communities, summarizing actions taken and lessons learned.

## Additional Context:

Combining ChatGPT with real-time data analytics could create an even more powerful decision-support tool.

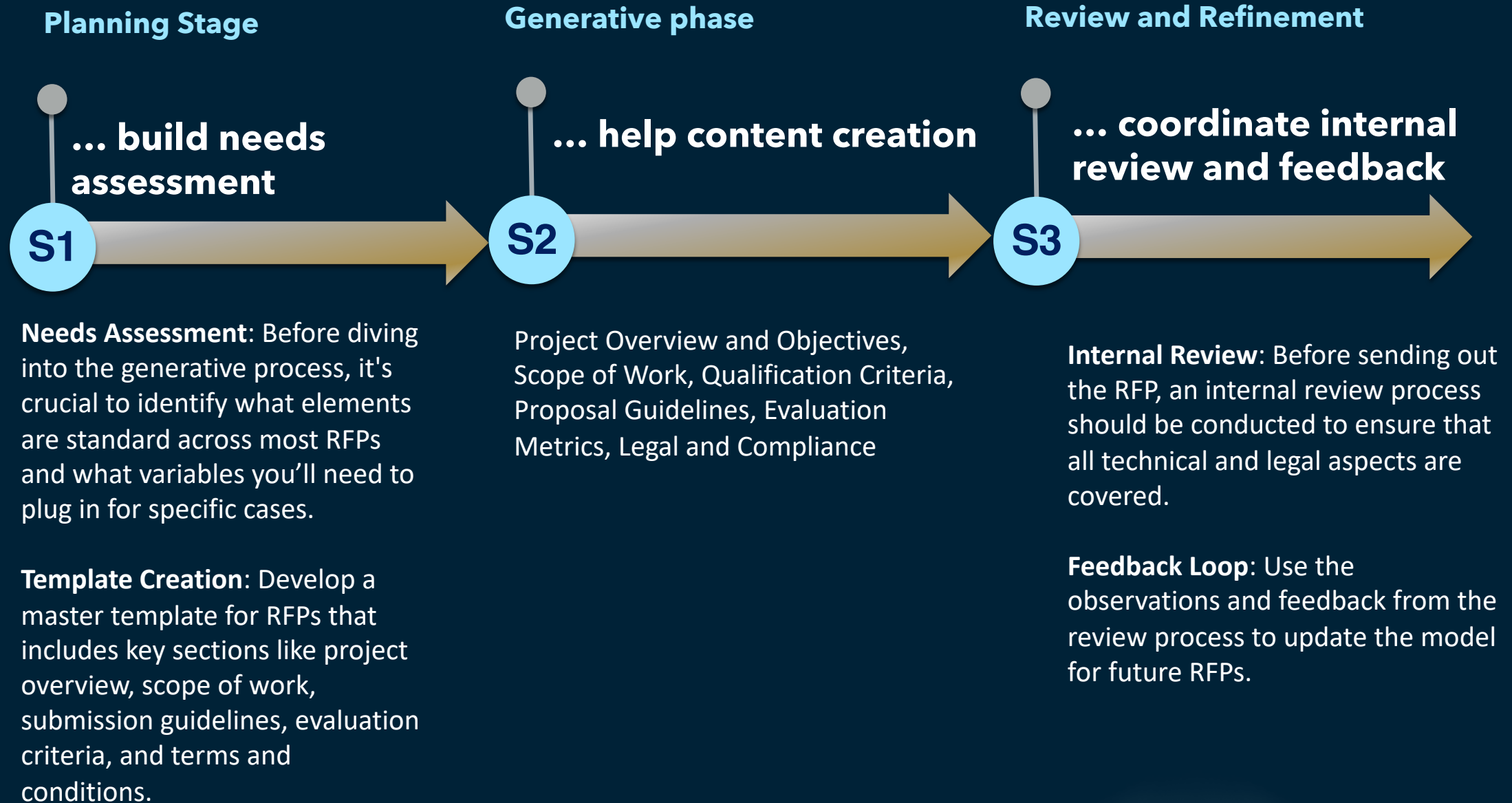
An integrated system that utilizes both generative AI and predictive analytics could be groundbreaking in foreseeing and preparing for emergencies.

## The Obvious:

All AI-generated information must be verified for accuracy and appropriateness.

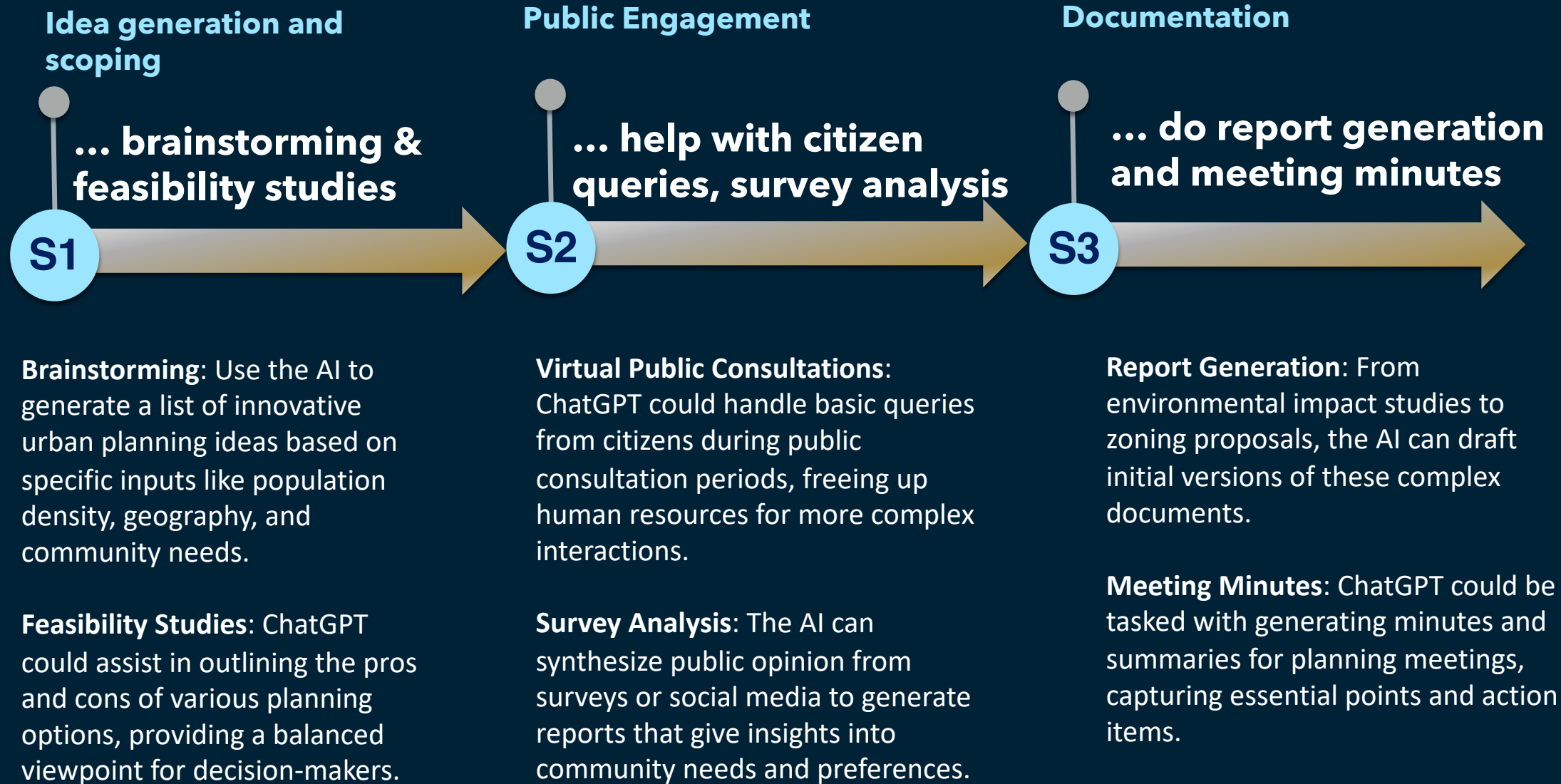
Ensure content meets the guidelines set by emergency management agencies and legal entities.

# RFP Generation Use Case – ChatGPT Can...



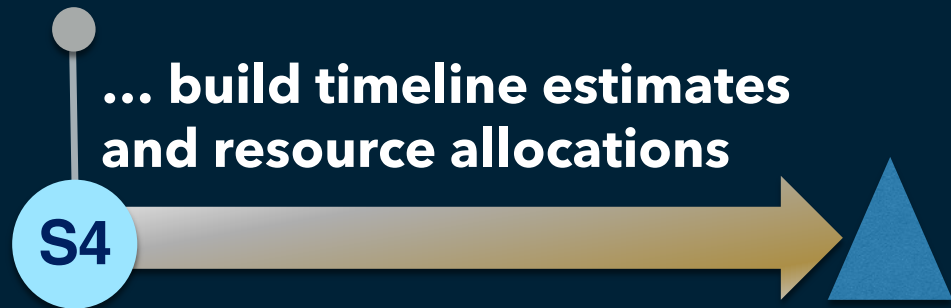


# City Planning Use Case – ChatGPT Can...



# City Planning Use Case – ChatGPT Can...

## Project Management



**Timeline Estimation:** Using historical data and project scopes, the AI can generate estimated timelines for various phases of an urban planning project.

**Resource Allocation:** It can suggest an initial allocation of resources based on the scope and scale of the project.

### To Consider:

Ethical and legal compliance is paramount in city planning. Always subject any AI-generated plans or documents to rigorous human review.

Transparency in how the AI's suggestions are generated and used is crucial to maintain public trust.

### Opportunity:

Given the complexity and impact of city planning, integrating machine learning models for simulation and predictive analysis alongside ChatGPT could provide a more comprehensive toolset.

Partnering with GIS (Geographic Information System) platforms to create a multi-faceted AI-driven planning tool might be an avenue worth exploring.





# Big Picture Risk Aspects of AI

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**AI's can be biased or discriminatory when improperly trained and this can cause regulatory or legal risk**

**Over-reliance on an AI's advice might carry big consequences. AI's might provide a wrong answer that residents depend upon for advice thereby causing possible legal problems**

**AI tools are a new cost area and will add to your funding and budget model. This might mean dropping other investments to invest in AI**

**Exposure to downstream AI risks from vendors who build AI engines into their tools (e.g. HR tools) - liability for their mistakes**

**Cyber criminals are also using AI to launch more sophisticated attacks on government entities. Some of these will use deep-faking audio and video to get access to sensitive data**

**3rd AI  
Category**

**Generative AI Capabilities**  
(External: chatbots, automated marketing)

**2nd AI  
Category**

**Automation/Decision/Creation AI  
Tools**  
(Internal: Intelligent Automation, Bots)

**1st AI  
Category**

**AI  
Delivery Model**  
**Embedded AI**  
(e.g. MS Office), built into applications)

**Foundation**

**AI Infrastructure**  
(e.g. library, documentation, training)

**Foundation**

**AI Governance Model**  
(e.g. risk oversight, audits, categorizing)



**Build a great AI River of Information,  
blogs, podcasts, websites, newsletters**

**Test out new AI engines as fast as you can.  
Learn to use them with your own hands**

**Identify people around you who are  
advancing their AI skills & share information**

**Think about what AI can be used for that has  
never been done before**





# AI SUPERPOWERS







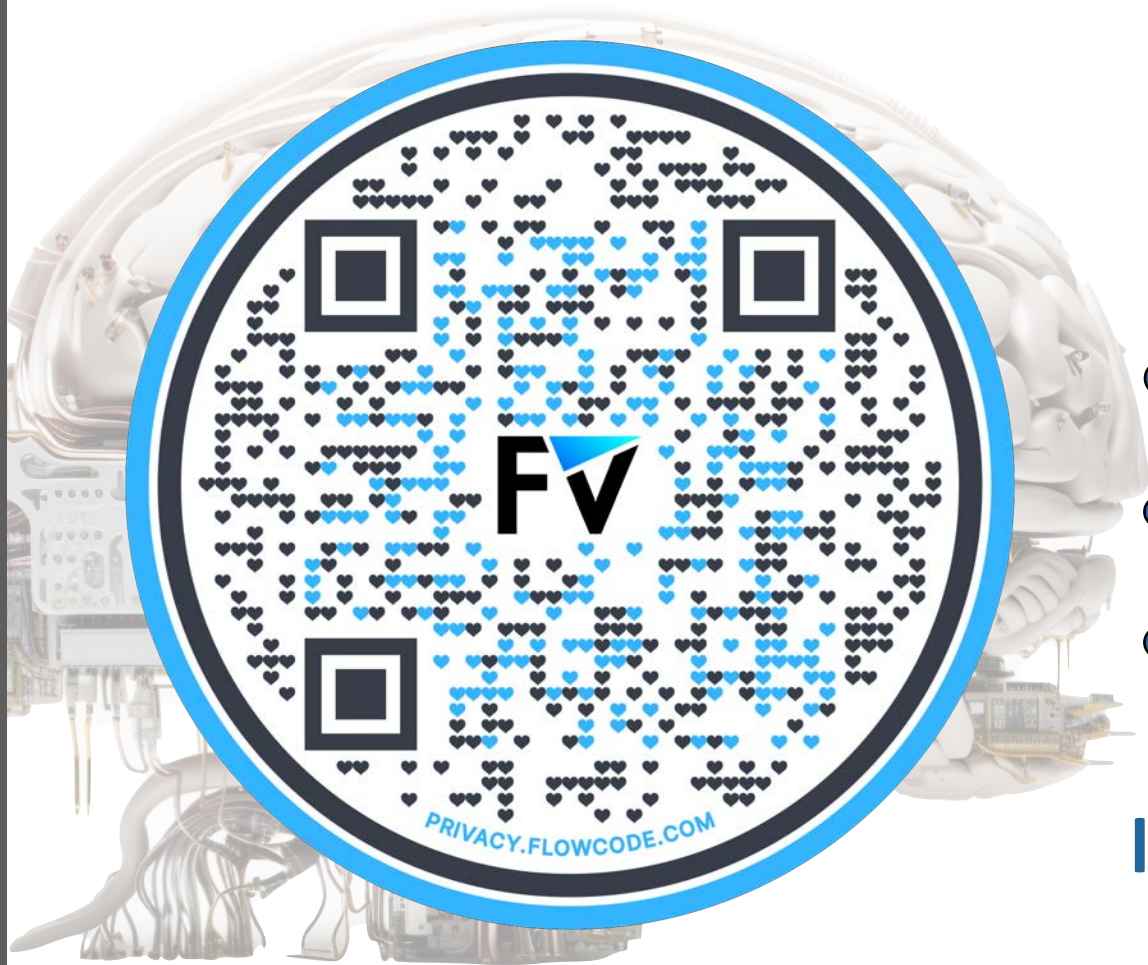
TELEKINESIS  
(ACTIVATING OBJECTS WITHOUT DIRECT CONTACT)





**X-RAY VISION**  
(SEE THROUGH/INSIDE PHYSICAL OBJECTS)





# RESOURCES

- Copy of presentation
- Trends Report
- Top 10 AI Strategy Questions

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