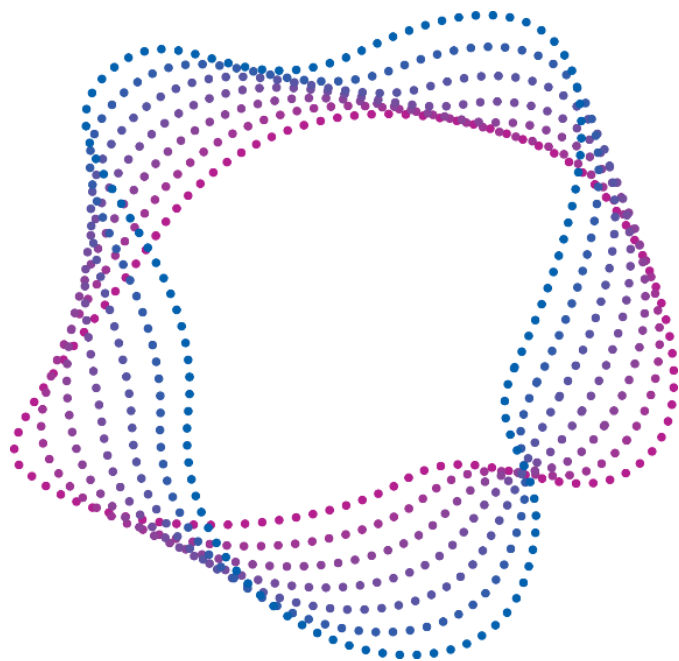


SHIP-HATS AI Coding Assistant Programme

Leon Leow
Product Manager



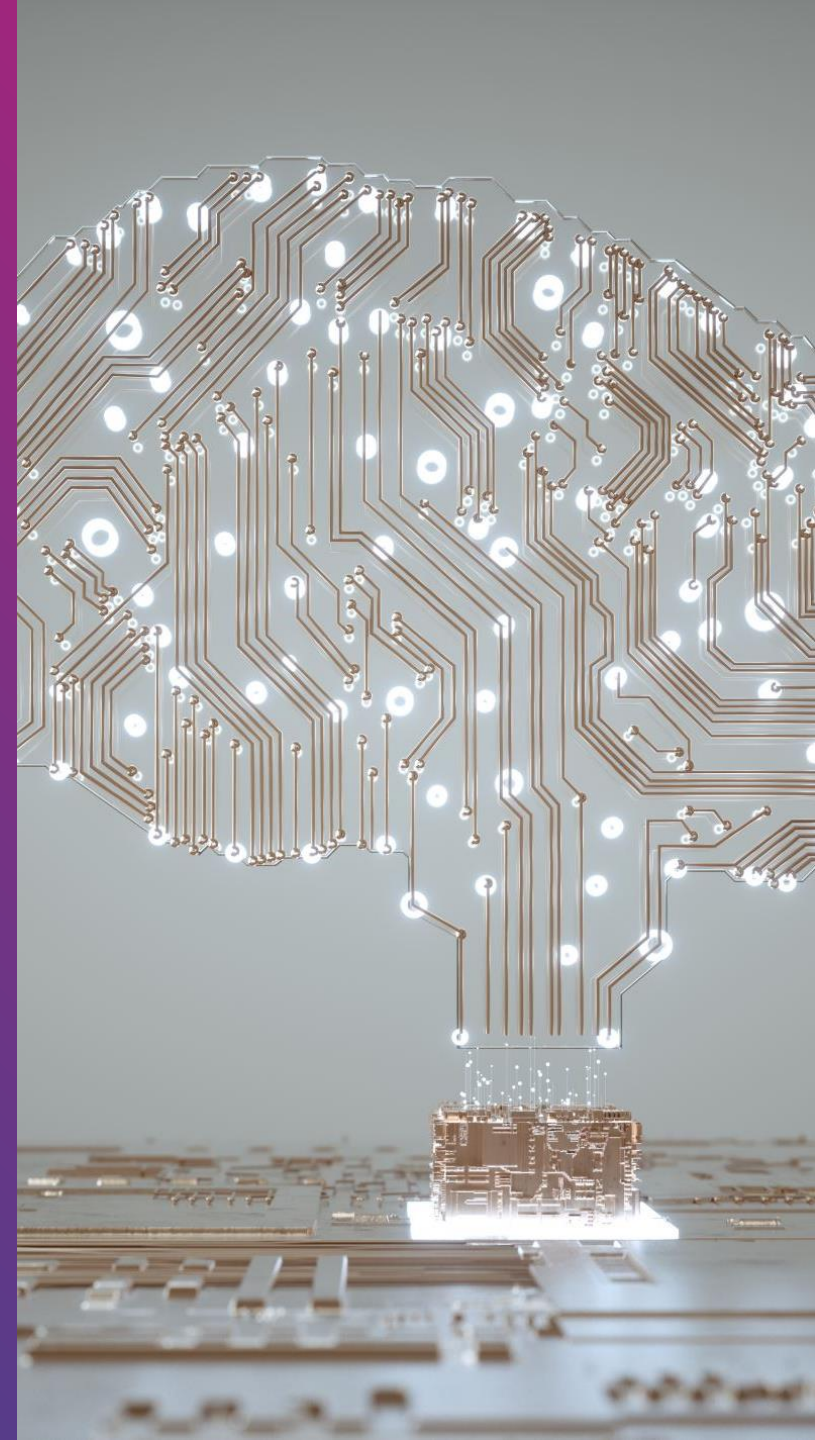
AGENDA



- Opening by GovTech (on the coding assistant programme and how it works)
- Q&A on programme
- Sharing by GitHub on
 - Key Copilot features
 - Best practices
 - What is on the horizon
- Q&A

SHIP-HATS AI coding Assistant Programme

Background

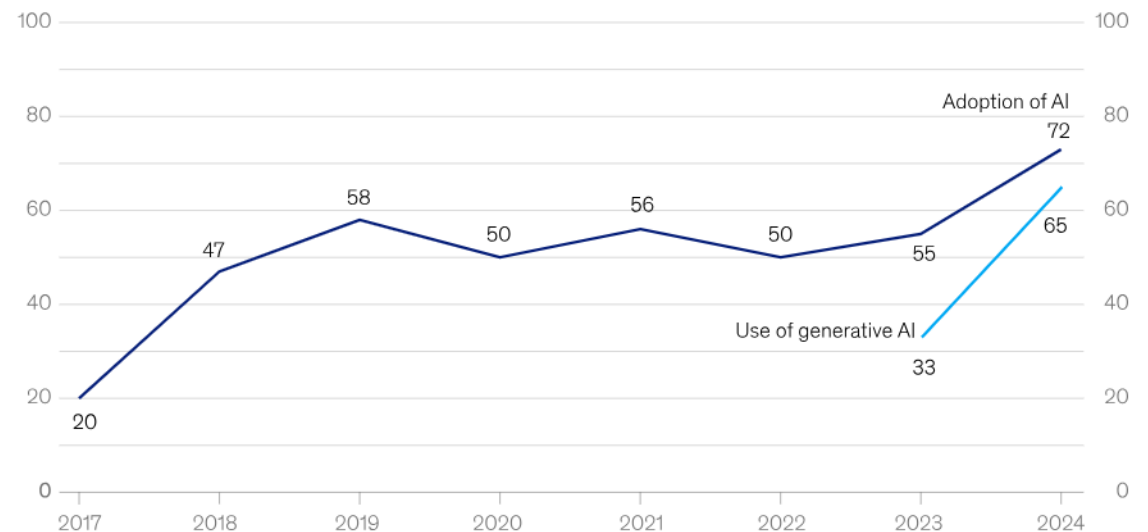


AI Adoption worldwide has increased dramatically

1. Starting 2023, fueled by Launch of ChatGPT in Dec 2022, gen-AI was brought to mainstream
2. Rapid adoption of AI in 1 or more business functions with adoption at **72%** in commercial organizations
3. In commercial space, revenue increase and cost reduction were cited as primary reasons for rapid adoption with gen AI and analytical AI

AI adoption worldwide has increased dramatically in the past year, after years of little meaningful change.

Organizations that have adopted AI in at least 1 business function,¹ % of respondents



¹In 2017, the definition for AI adoption was using AI in a core part of the organization's business or at scale. In 2018 and 2019, the definition was embedding at least 1 AI capability in business processes or products. Since 2020, the definition has been that the organization has adopted AI in at least 1 function.
Source: McKinsey Global Survey on AI, 1,363 participants at all levels of the organization, Feb 22–Mar 5, 2024

McKinsey & Company

<https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-state-of-ai>

An Opportunity for the government to accelerate value delivery to citizens with gen-AI



In the Govt context, the vision of continuously delivering value to our citizens at greater speed, lower costs and higher quality may differ from profit driven aims of the industry and their customers, productivity gains from AI tools **present an opportunity to uplift and accelerate the delivery of value to citizens.**

Our earlier study affirms strong correlation between coding assistants and individual developer productivity

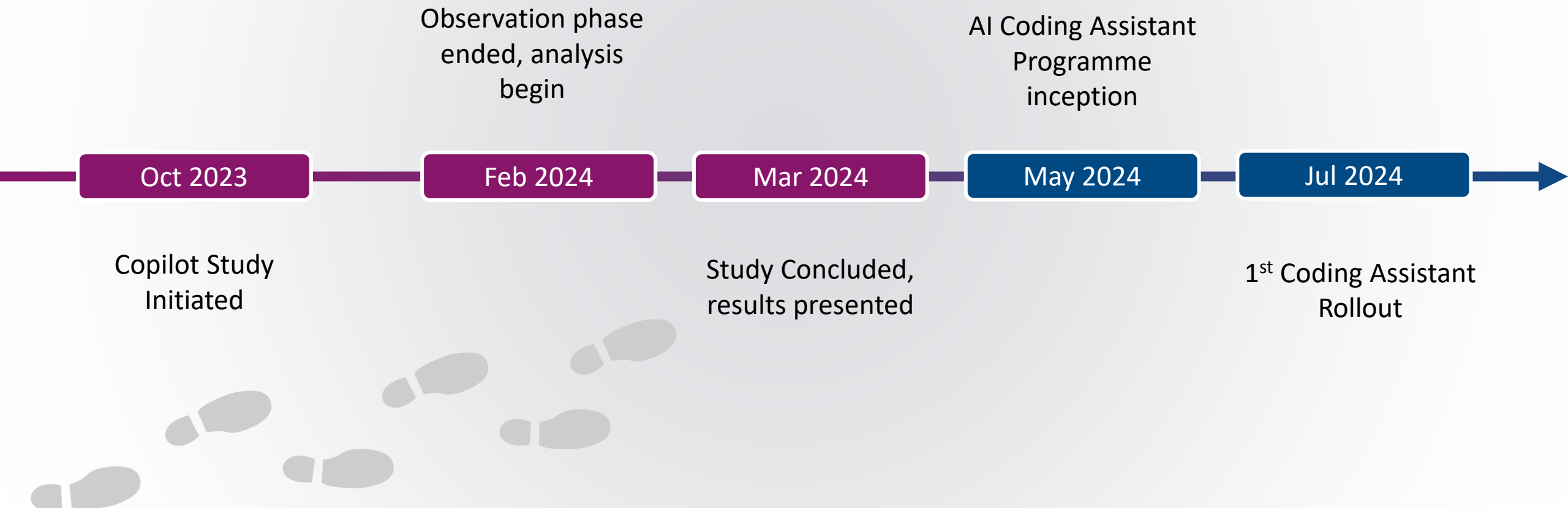
SHIP-HATS Gen-Ai Productivity Tool Study

In a study done on developer productivity with coding assistants (GitHub Copilot & GitLab Duo) between Oct 2023 to Feb 2024, we noted **21-28% increase in coding speed, greater developer satisfaction** from less repetitive work and some learning acceleration.



How might we effectively harness benefits of gen-AI coding assistants on developer productivity and measure its impact?

The journey so far ...



This initiative is part of the Engineering Productivity Programme (EPP)

Optimise government software engineering productivity and developer experience, and enable agencies to deliver and operate, reliable, compliant and cost-effective digital products efficiently.



8000 Whole-of-Government
(WOG) developers from different
Government Agencies



Vendors that are working on
Government Projects

Where does AI Coding Assistant Programme align to?

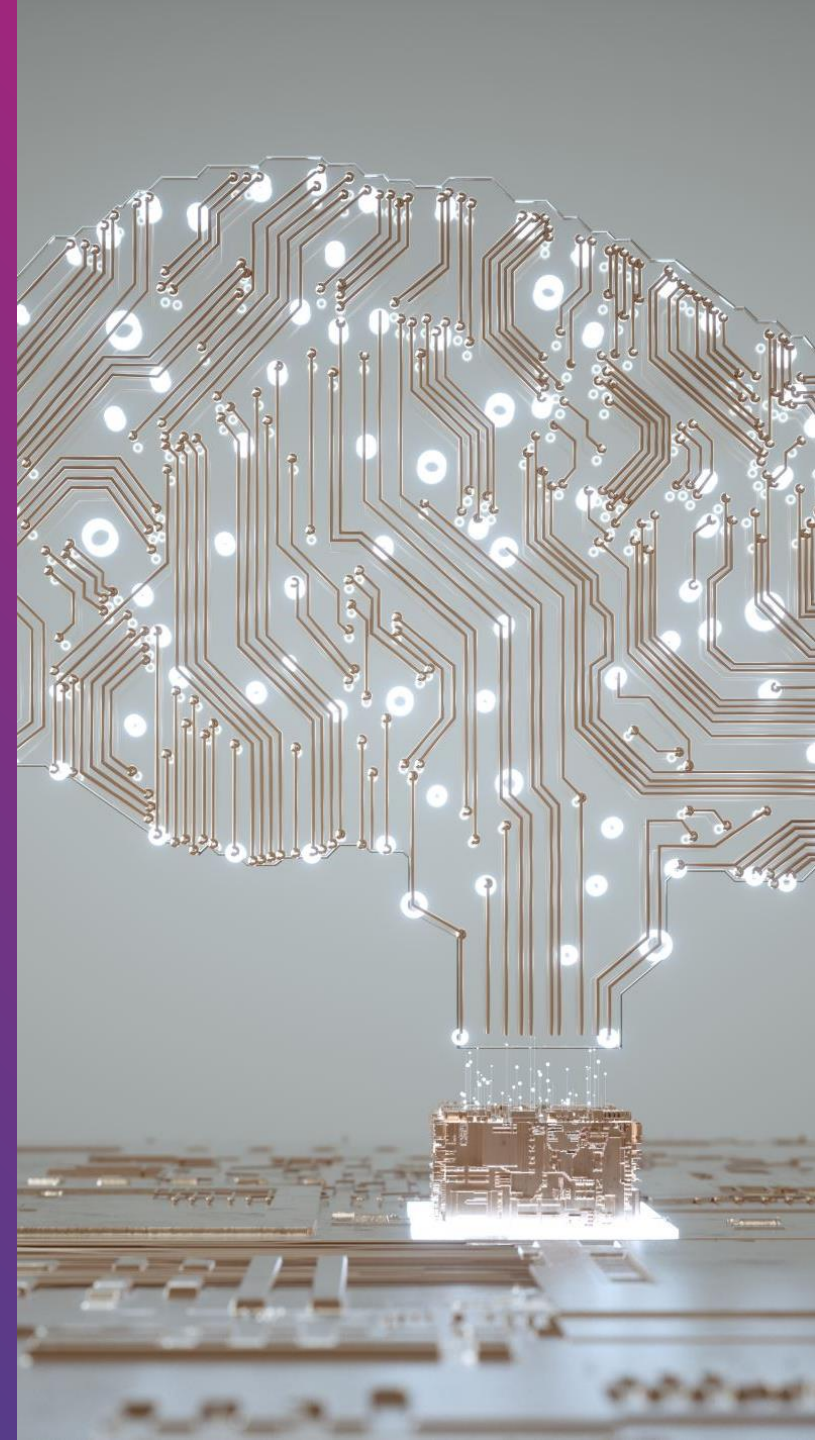
EPP Pillars of Core Engineering Products		
Strengthen System Resiliency	Improve Developer Productivity	Modernize System Infrastructure
Deepen use of modern cloud capabilities, simplify operations, compliance and security applications leading to increased cost savings	Shorten time to market, increase reuse of software and strengthen quality checks leading to increased development speed	Maximize monitoring coverage, shorten incident detection time and increase consistency and replicability of logs leading to improved system stability



Initiative: AI Coding Assistant Programme

SHIP-HATS AI coding assistant program

Overview



What is the AI Coding Assistant Programme?

An initiative for the next 1 year to accomplish the following:



1. Establish the de-facto coding assistant(s) of choice to be roll-out to WOG SHIP-HATS users to harness productivity benefits.

2. Measure impact both at project, team and individual level on incorporating coding assistants (via surveys, telemetry, and experiments).

3. Work out teething issues of supporting coding assistants as part of SHIP-HATS toolchain.

4. Support policy changes to better enable use of coding assistants

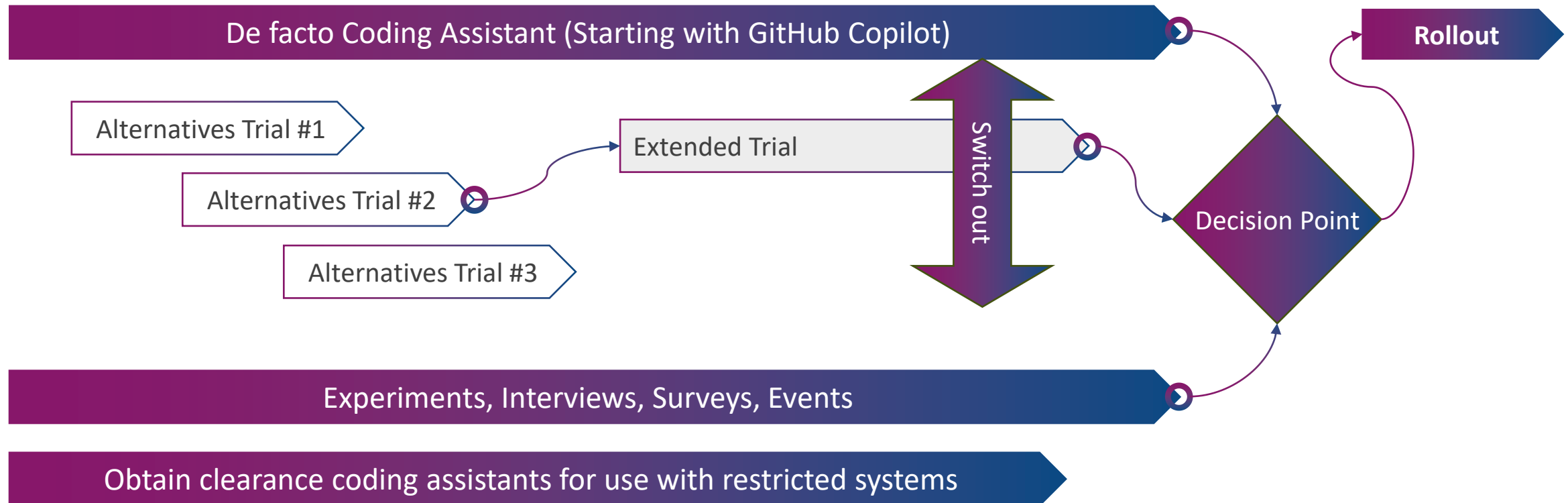
Our Approach

1. **Enable** developers to start using coding assistants to realize immediate benefits by providing the tool and workarounds
2. **Baseline** impact with an initial Coding Assistant (GitHub Copilot)
3. **Evaluate** other potential coding assistants (e.g. Codeium)
4. **Study** the impact of coding assistants through data and experiments
5. **Obtain clearance on** coding assistants for Restricted / Non-Sensitive use-cases at agency level

Our plans for the next 1 year

Jul 2024

Jul 2025*



*Dates and information above are estimates and subjected to change due to rapidly changing landscape of AI tools

Tools under Evaluation



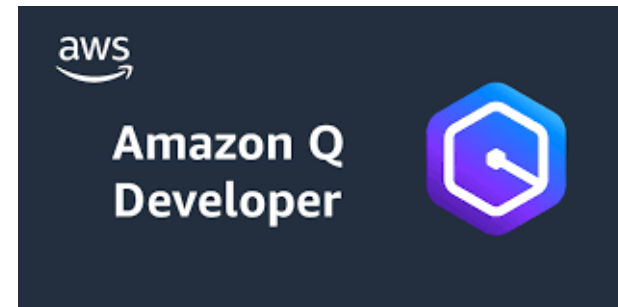
GitHub
Copilot



codeium



 **Augment**
code



And more ...

We want to position each coding assistant in the best light and let the developer community weigh in.

Why GitHub Copilot initially?

Due to the positive feedback in our initial study with >90% of participants reporting higher satisfaction, GitHub Copilot has been chosen to be the first tool to be provisioned.

How can I contribute?

1. **Participate** in our surveys, experiments, interviews and community events
2. Use coding assistants assigned to you in your **daily work** where applicable (note data classification)
3. Use coding assistants **as a team** and note the differences
4. **Share** feedback and your discoveries using coding assistants with the community
5. **Join** our telegram group for latest info!

Telegram Group
Chat

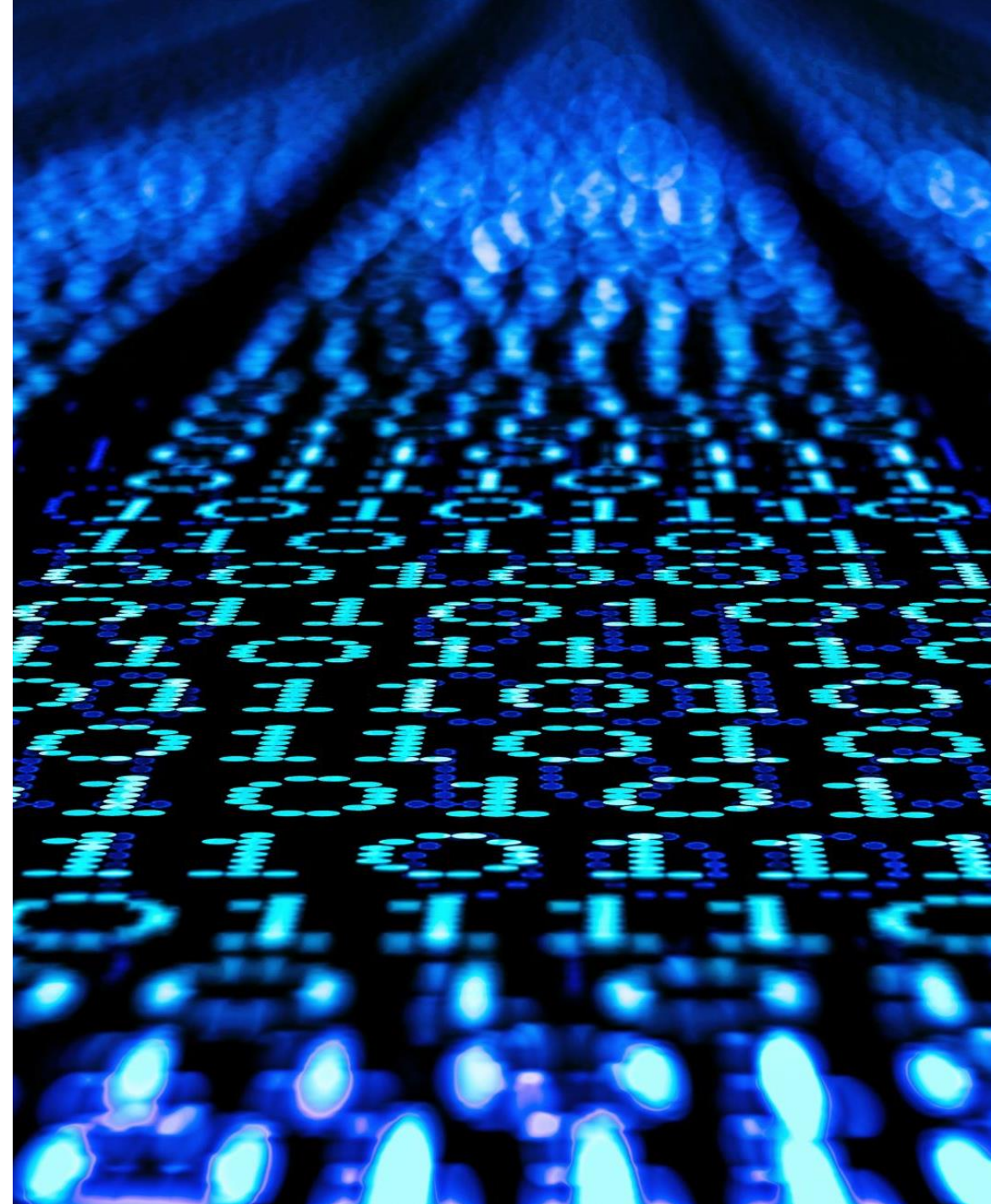
Please join via this QR
/ Link

<https://go.gov.sg/ai-coding-assistants-tele>



Getting Started

- Once you have received our onboarding email, follow our guide: [AI coding assistants \(tech.gov.sg\)](https://tech.gov.sg/al-coding-assistants)
- Check your source code data classification
 - We support **Official (Closed)** / **Non-Sensitive and below**
 - If restricted and above, follow the steps in [Right-Classification Playbook](#)* (beta version)
- Currently the programme is **limited to public officers**, we are working on extending this to vendors working with agencies on gov projects.



Thank you

