

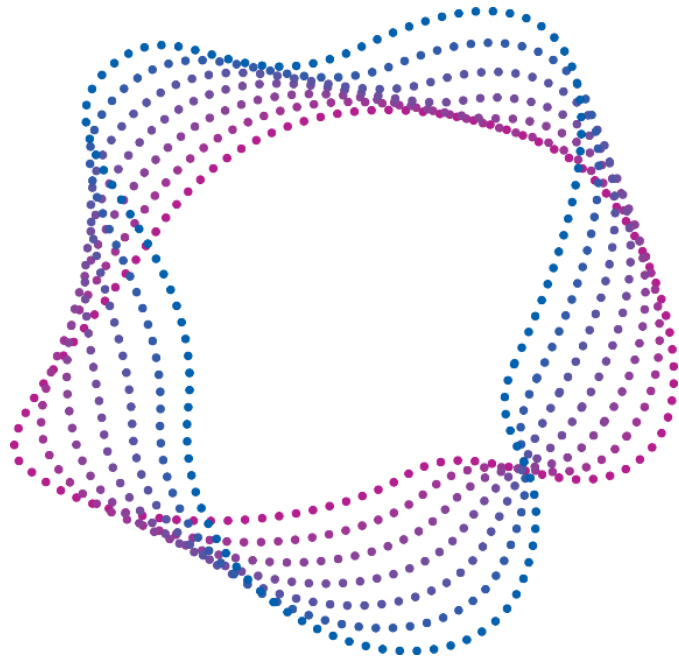
SHIP-HATS Gen-AI Coding Assistant Programme

Codeium

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SHIP-HATS



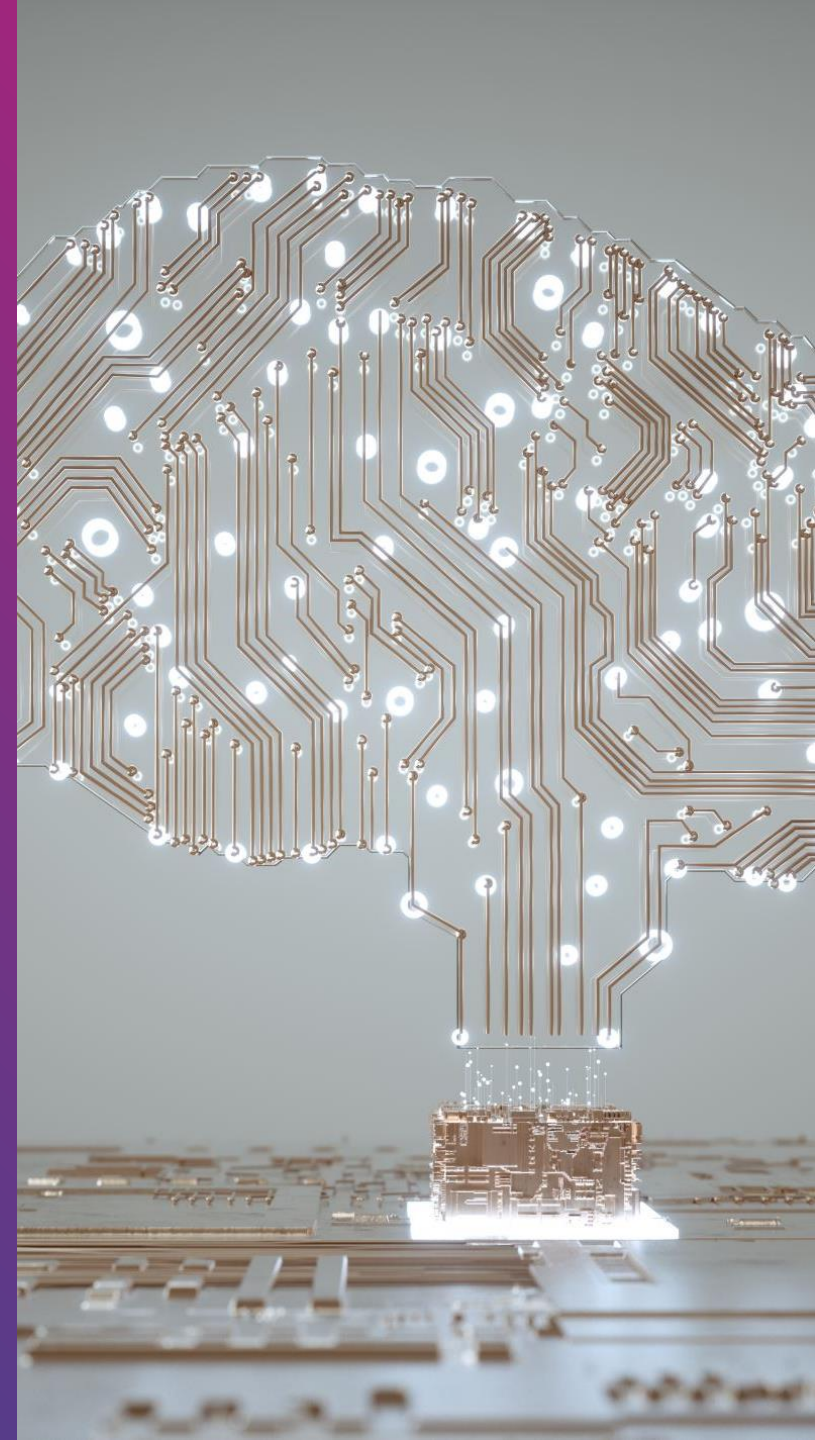
AGENDA



- Opening by GovTech (on the coding assistant programme and how it works)
- Q&A on programme
- Sharing by Codeium on
 - Key Features
 - Best Practices
 - What is on the Horizon
- Q&A

SHIP-HATS Gen-AI Coding Assistant Programme

Recap!



ENGINEERING PRODUCTIVITY PROGRAMME



System Infrastructure Modernisation

- O1: Deepen use of modern cloud capabilities
- O2: Simplify operations on cloud
- O3: Simplify application of security controls and compliance

Reduce cost



Increase Developer's Productivity

- O1: Shorten cycle from requirements to feature launch
- O2: Increase reuse of existing software code
- O3: Strengthen quality-checks as part of automated delivery process

Improve development cycle time



Strengthen System Resiliency

- O1: Maximize monitoring coverage
- O2: Shorten incident detection time
- O3: Increase consistency and replicability of incident logs

Improve system availability



Reduce cost



Reduce time-to-market



Increase software re-use



Improve quality and resiliency

[Watch the Video here!](#)

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

Recap: What is the Gen-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

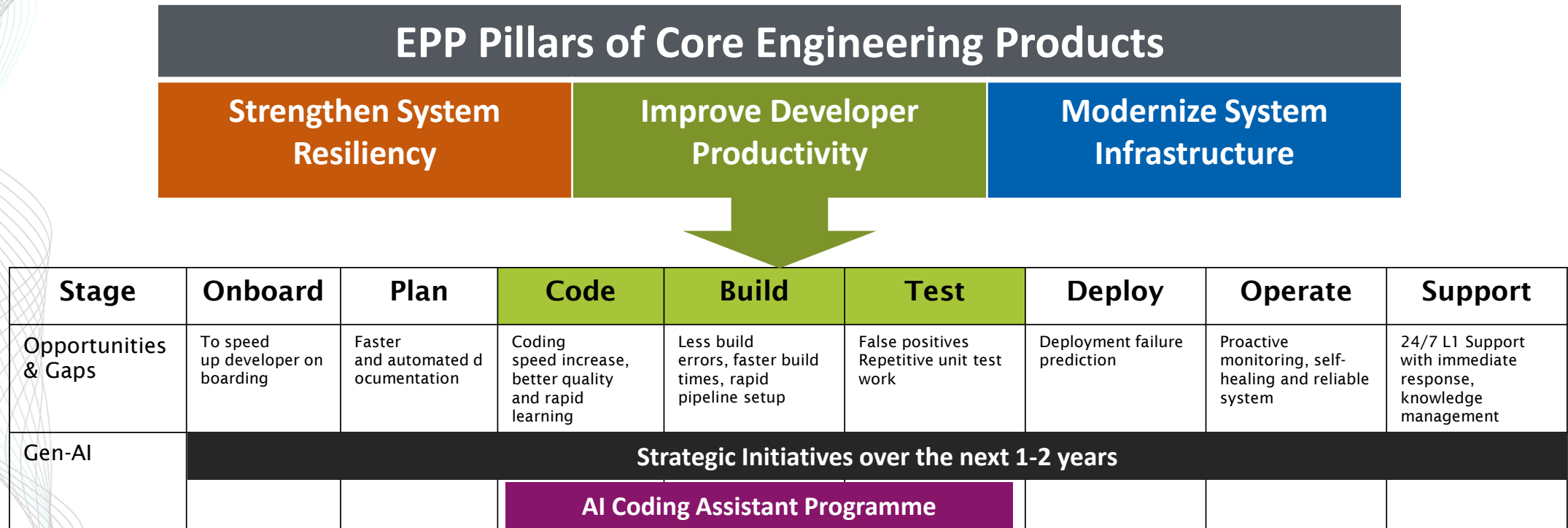
Our earlier study affirms strong correlation between coding assistants and individual developer productivity

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.



Engineering Productivity Programme (EPP) aims to leverage AI at every stage of SDLC



Recap: 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

Tools under Evaluation



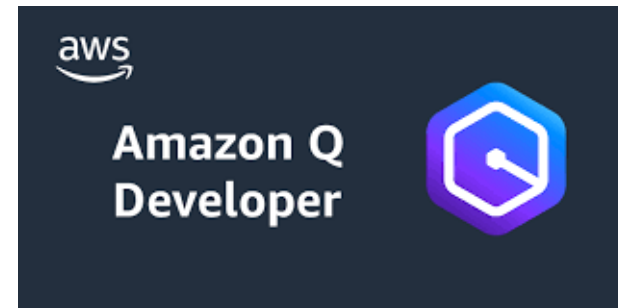
GitHub
Copilot



codeium



 **Augment**
code



And more ...

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

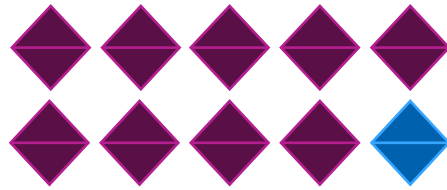
Why GitHub Copilot initially?

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.

Coding Assistant Programme so far ...

452

Sign-ups



90% SHIP-HATS users

75% Public Officers (PO)

25% non-PO

65-70%

code daily

50%

Spend about half their
time coding in IDE

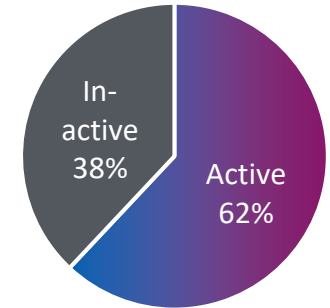


GitHub
Copilot

- ✓ SSO integration
- ✓ Automated onboarding
- ✓ Telemetry tracking
- ✓ Resolution of Cloudflare issue

273

Copilot
Users (PO)



29-31%

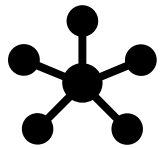
average code acceptance rate
(in-line with observation in earlier study)

17,799

accepted prompts to date

Why Codeium?

On top of typical coding assistant capabilities such as auto-complete, chat, refactoring, explanation and documentation, some key advantages:



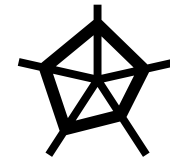
Advance code
context awareness



SaaS and Self-
hosted version

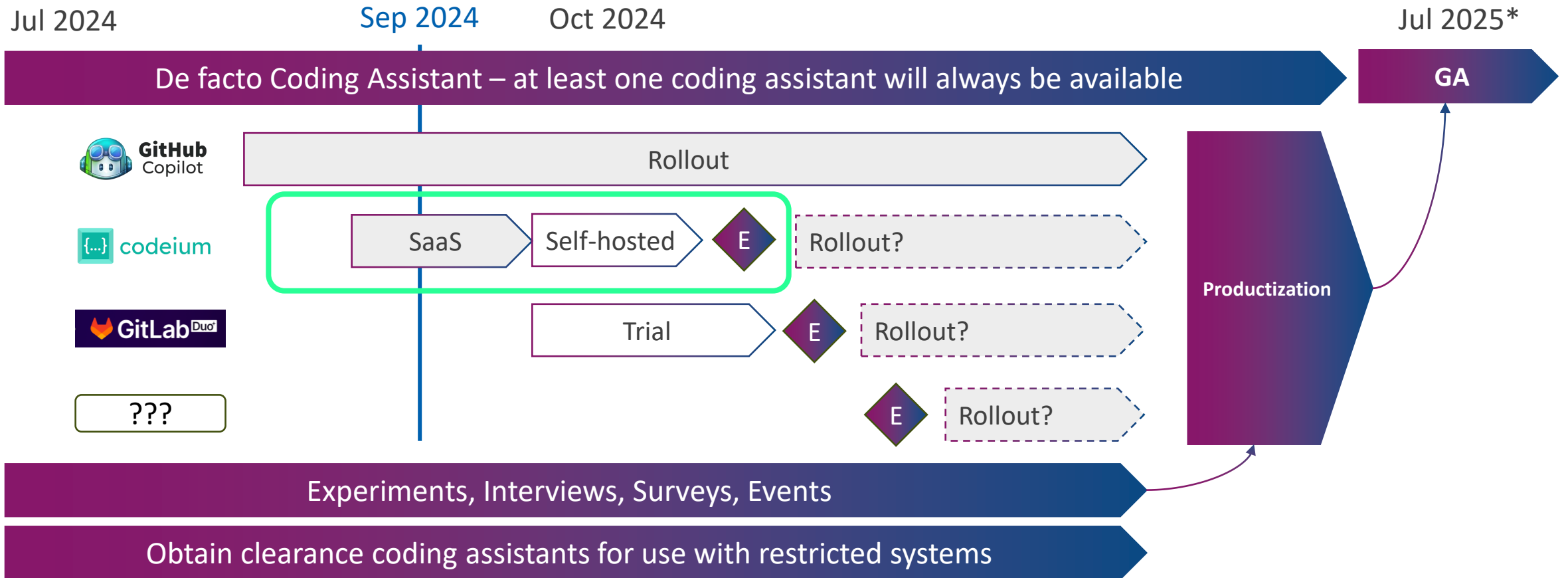


Platform agnostic,
compatibility with
many IDEs



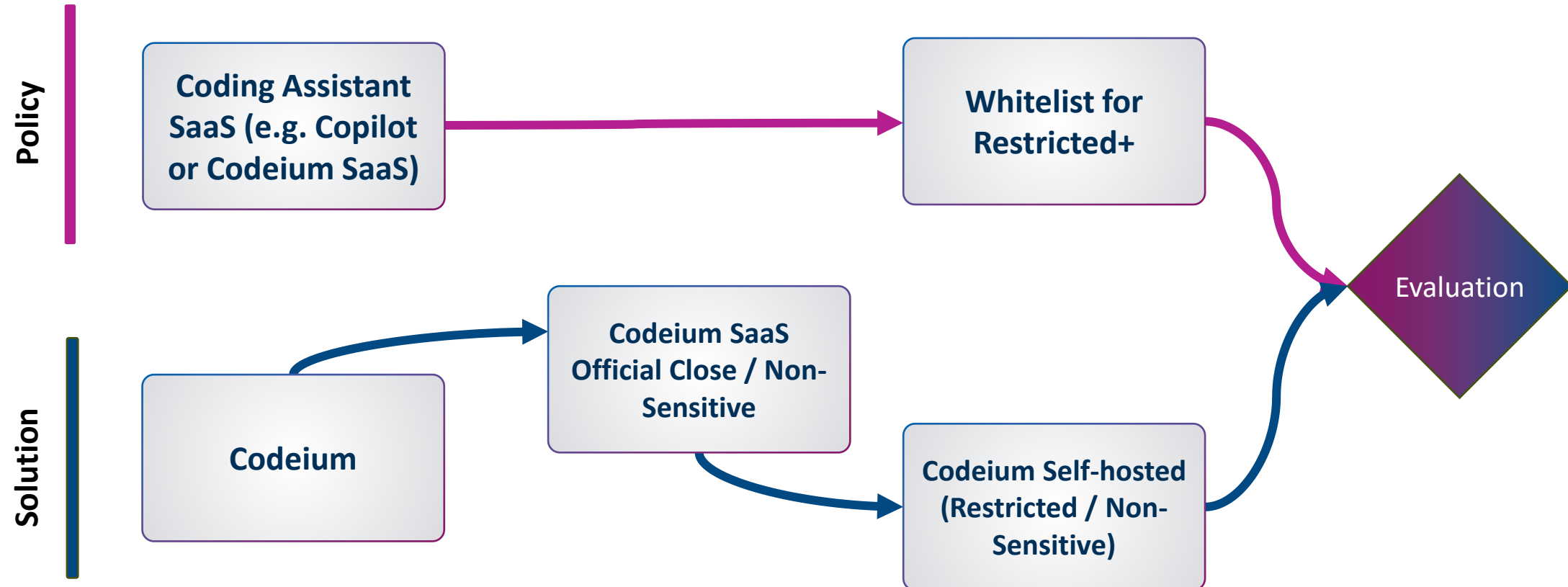
In-built Metrics

Updates on timeline ...



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

Enabling Coding Assistants for higher data classification use:

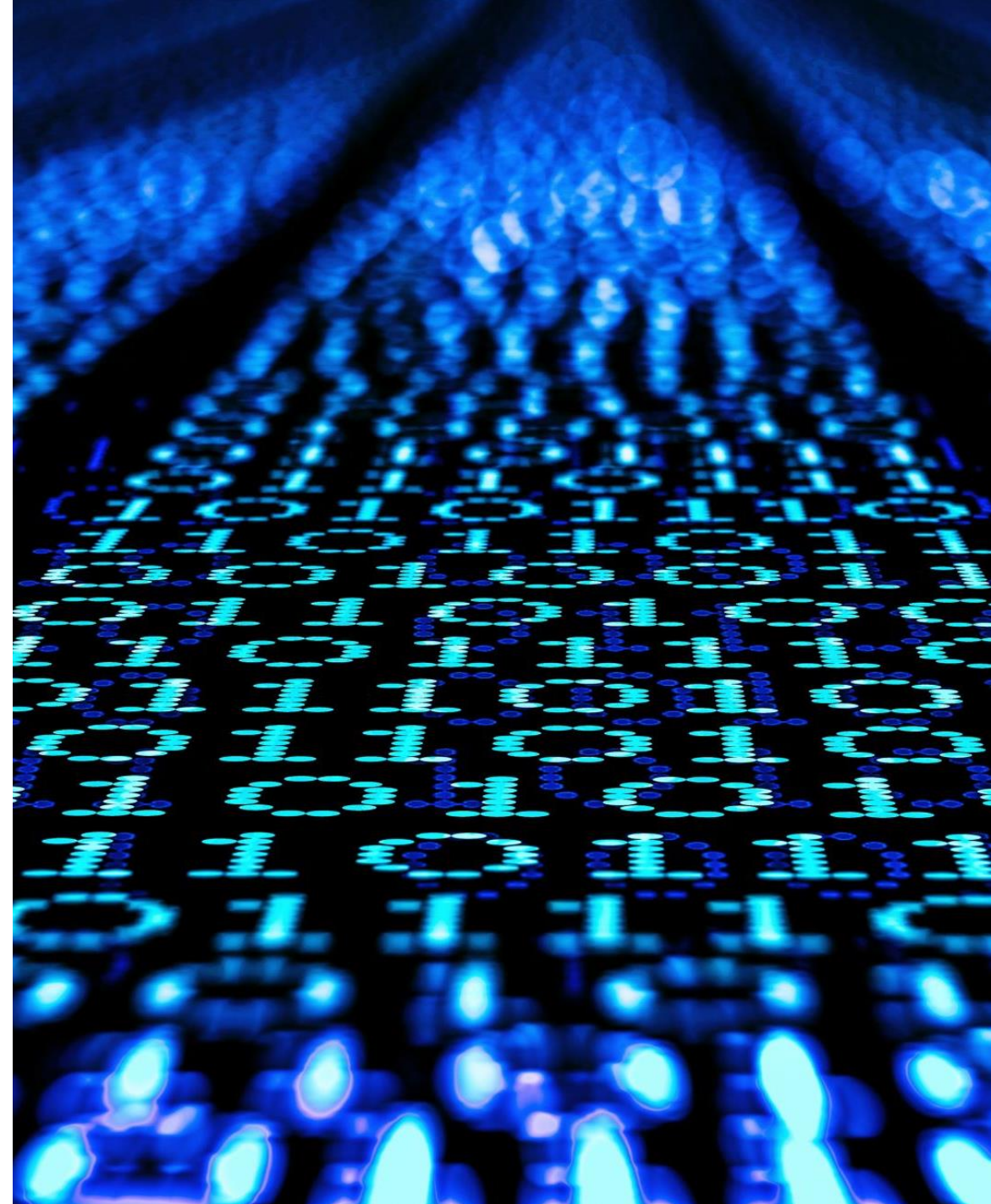


How can I contribute?

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!

Getting Started

- Once you have received our onboarding email, follow our guide: [AI 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.



Codeium Specific Instructions

1. **Selected Participants should have received an invite to use Codeium**
2. Use and note the differences between Codeium and Copilot, your feedback matters!
3. Please activate and use Codeium within a week or you will be offboarded to give others an opportunity
4. Instructions for Codeium: [AI coding assistants \(tech.gov.sg\)](https://tech.gov.sg)
5. Those who missed the opportunity can write in to us
6. **Join** our telegram group!

Non-Public Officer participation

1. In the initial phases, we have enabled only Public Officer participation.
2. We would like to open this up progressively to augmented resources via nomination by public officer.
3. If you have a good use-case where your team has augmented personnel that would like to participate, please write in to us after the augmented personnel has signed-up.
enquiries_CEP@tech.gov.sg
4. Access will be granted on case-by-case basis.

Thank you

