

CHERITech'25 **CONFERENCE**

Manchester, UK



2025

14th November

 cheri-alliance.org

Progress of the Alliance

How we promote CHERI together

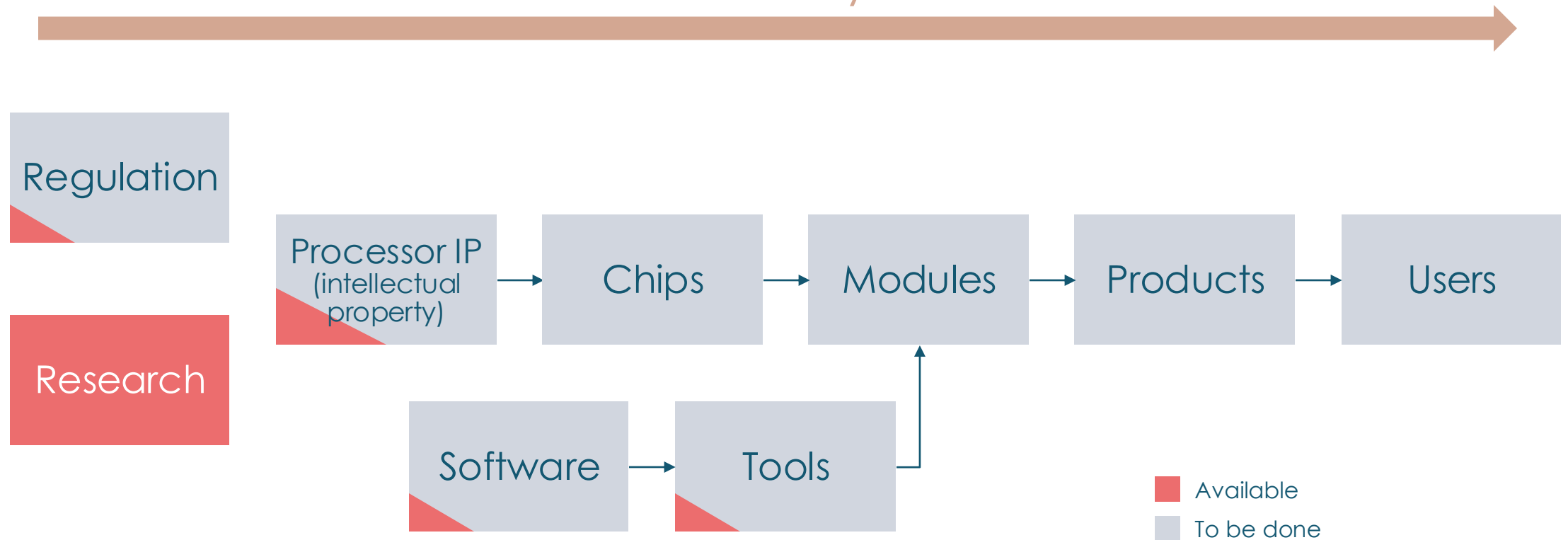
Mike EFTIMAKIS

Founding director – CHERI Alliance



○ Getting CHERI adopted

How to stimulate the industry?



○ The CHERI Alliance stimulates CHERI adoption



Technical

- Guidance, best practices
- Tech enablement (code, examples...)
- Interoperability, compliance



Promotion

- Technical & marketing info
- Media
- Policymakers, regulation



Community support

- Open-source software support
- Platform for collaboration
- Education, networking

Current members



Progress

More credibility – more visibility – more members – more activity

Feb 2024

- Creation of CHERI Alliance C.I.C.

Nov 2024

- Official launch

Mar 2025

- Embedded World
- CHERI Blossoms conference

Apr 2025

- First Governing Board

May 2025

- Official partner of UK govt

Oct 2025

- Handover of Morello boards

Nov 2025

- CHERITech'25

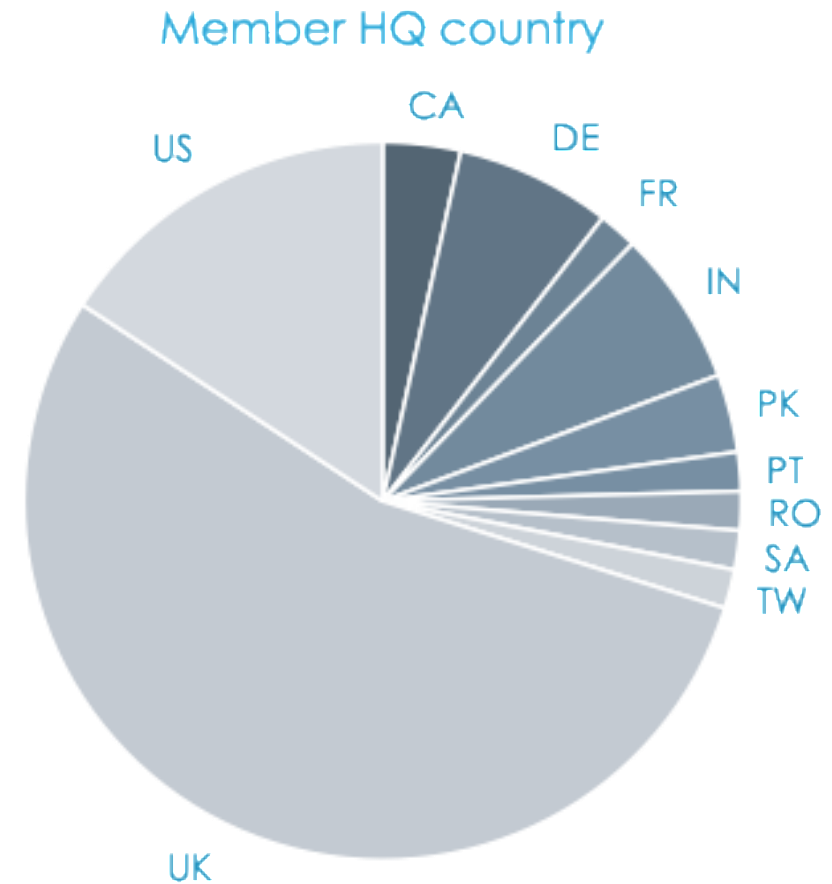
○ Building a global community

◆ Multiple types of members

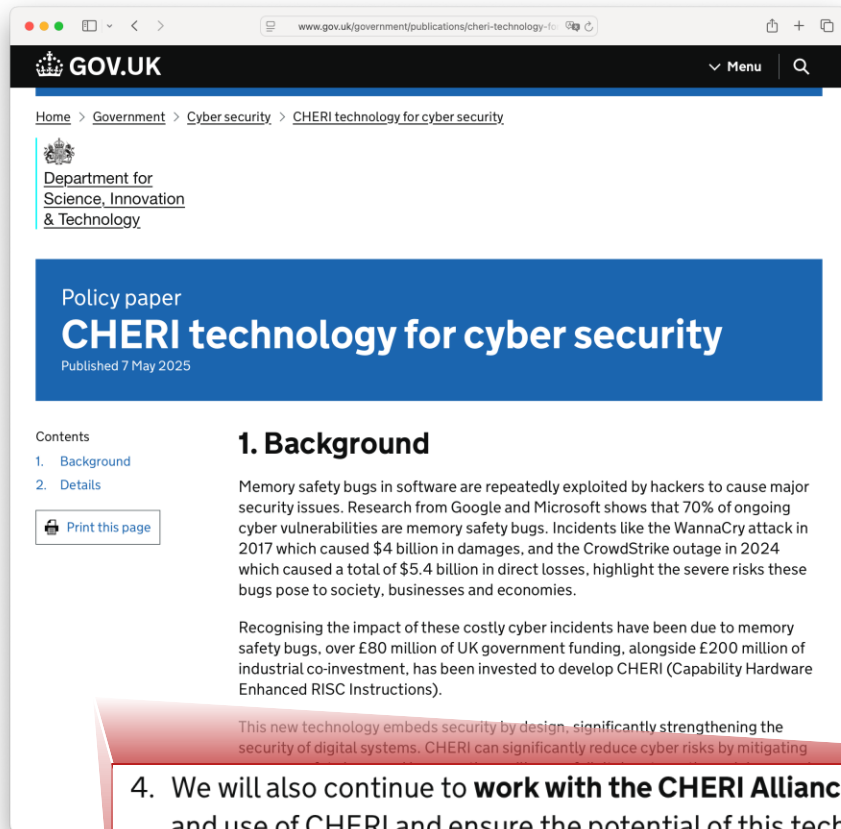
- ◆ Companies
- ◆ Universities / Research labs
- ◆ Community organizations
- ◆ Govt organizations
- ◆ Individuals

◆ 11 countries

10 universities /
research lab



UK gov't's partner for CHERI adoption



GOV.UK


Home > Government > Cyber security > CHERI technology for cyber security

Department for Science, Innovation & Technology

Policy paper
CHERI technology for cyber security
Published 7 May 2025

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2. Details

 Print this page

1. Background

Memory safety bugs in software are repeatedly exploited by hackers to cause major security issues. Research from Google and Microsoft shows that 70% of ongoing cyber vulnerabilities are memory safety bugs. Incidents like the WannaCry attack in 2017 which caused \$4 billion in damages, and the CrowdStrike outage in 2024 which caused a total of \$5.4 billion in direct losses, highlight the severe risks these bugs pose to society, businesses and economies.

Recognising the impact of these costly cyber incidents have been due to memory safety bugs, over £80 million of UK government funding, alongside £200 million of industrial co-investment, has been invested to develop CHERI (Capability Hardware Enhanced RISC Instructions).

This new technology embeds security by design, significantly strengthening the security of digital systems. CHERI can significantly reduce cyber risks by mitigating

4. We will also continue to **work with the CHERI Alliance**, to encourage the take up and use of CHERI and ensure the potential of this technology is realised. Finally, we will work with international partners to persuade governments and industry to prioritise secure by design and memory safety.

<https://www.gov.uk/government/publications/cheri-technology-for-cyber-security/cheri-technology-for-cyber-security>



GOV.UK

Home > Government > Cyber security

Policy paper
CHERI technology for cyber security

CHERI is a semiconductor technology which improves cyber security. This page details government action to increase its adoption.

From: [Department for Science, Innovation and Technology](#) and [Feryal Clark MP](#)
Published 7 May 2025

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Details

Memory safety bugs in software cause major security issues. Research from Google and Microsoft shows that 70% of ongoing cyber vulnerabilities are memory safety bugs. Incidents like the WannaCry attack in 2017 which caused \$4 billion in damages, and the CrowdStrike outage in 2024 which caused a total of \$5.4 billion in direct losses, highlight the severe risks these bugs pose to society, businesses and economies.

Our next step is to transition this technology to commercial products, ready for adoption across the UK, delivering a significant advancement in innovative cyber security. Leveraging industry co-investment, we will partner with the CHERI Alliance, InnovateUK, the University of Cambridge and other stakeholders to drive this effort.

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<https://www.gov.uk/government/publications/cheri-technology-for-cyber-security/cheri-technology-for-cyber-security>

○ Morello boards

- ◆ Funded by DSbD program
- ◆ Some boards left
- ◆ Now under responsibility of the Alliance



○ Getting the community to collaborate effectively

◆ Many working groups focused on bringing useful content



Certification Program

- Mike Eftimakis
- CHERI Alliance



CHERI in SoC

- Ben Fletcher
- Codasip



CHERI C/C++

- David Chisnall
- SCI Semiconductors



CHERI FreeRTOS

- Yaman Cakmakci
- Codasip



CHERI Linux

- Allison Randal
- Capabilities Ltd



CHERI QEMU

- Alfredo Mazinghi
- Capabilities Ltd



CHERI seL4

- Hesham Almatary
- Capabilities Ltd



CHERI Virtual Machines

- Jeremy Singer
- Glasgow University



CHERI Zephyr

- Jennifer Jackson
- Birmingham University



Marketing

- Adam Finney



OS Support & Portability

- Brooks Davis
- SRI



Promotion & Ambassador program

- Mike Eftimakis
- CHERI Alliance



Repository Management

- Marno van der Maas
- lowRISC



Rust+CHERI

- Murali Vijayaraghavan
- Google

CHERITech'25

18 talks

7 exhibitors

5 posters

○ Next events...

◆ CHERITech'25 Reloaded

- ◆ 4th December 2025
- ◆ Online event

◆ CHERI Blossoms 2026

- ◆ 26-27th March 2026
- ◆ Cambridge

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Manchester, UK



2025

14th November

cheri-alliance.org

Thank you!

Contact contact@cheri-alliance.org

Web www.cheri-alliance.org



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25 November 2025