

Agile government: drivers, challenges, and outlook

EU-LISA industry round table

“Implementing Agile in the public sector – What does research tell us?”

Dr David Baxter

11th June 2025

About me

- **Dr David Baxter, Associate Professor of Innovation, University of Southampton, UK**
- Cranfield PhD
 - Knowledge Management for Engineering Design
- Cranfield School of Management 2009-2014
 - Lecturer in Innovation
- Southampton Business School 2014 →
 - Doctoral programme director in the business school
 - Current research: Agile, Serendipity, Effects of AI adoption



Talk outline

- Agile: an introduction
- Why Agile? Drivers of agile government
- My research: effects of agile
- Outlook: What's next for Agile government?



Why Agile?

- Computers, the web, and smartphones changed the world
- Public services in a digital world could be:
 - Citizen centric
 - Adaptive, effective, efficient
- ...It wasn't like that to start with



Why not?

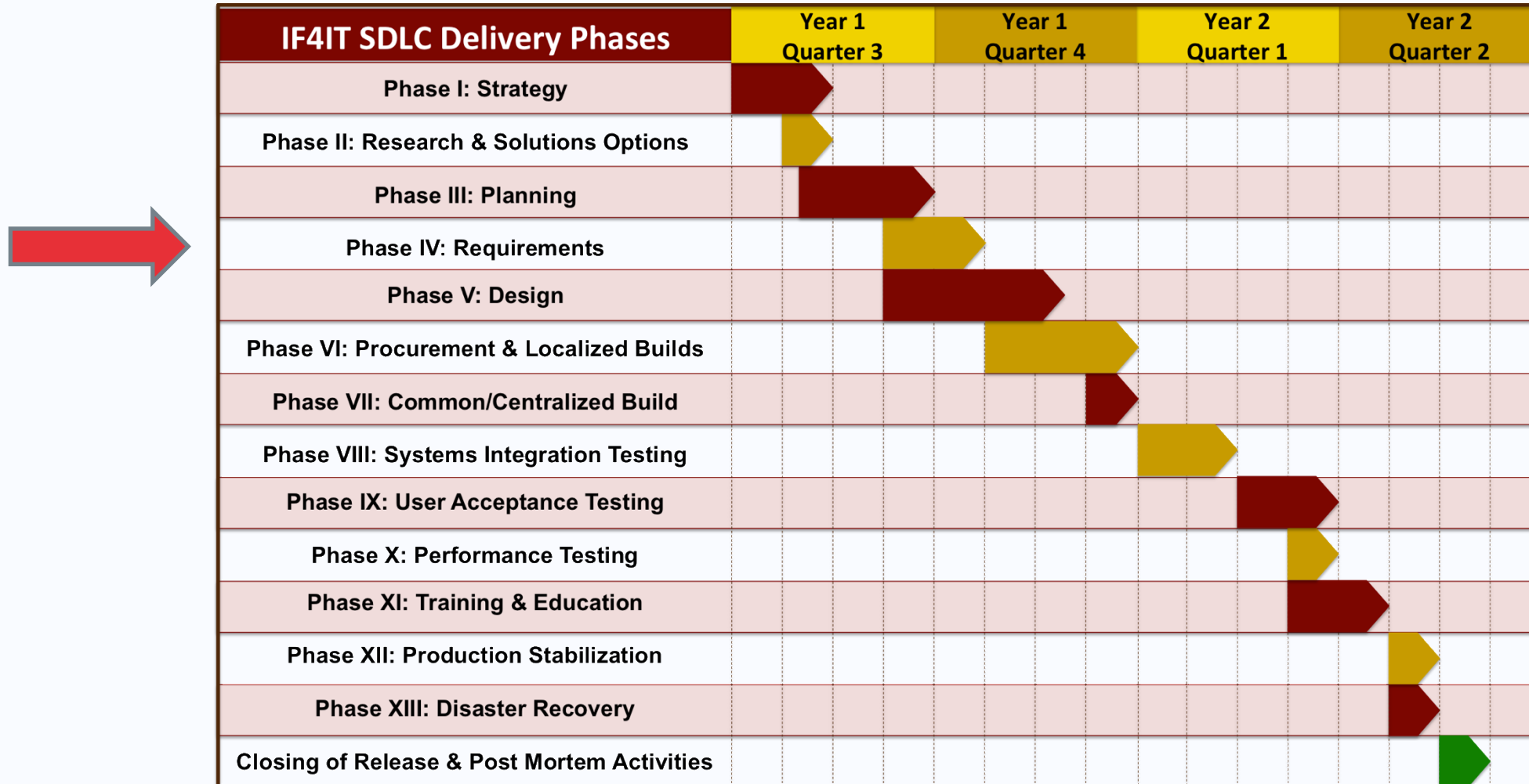


Figure: Example Layout of SDLC Phases as Key IT Project Milestones



Figure: Sample Layout of SDLC Phases as Key IT Project Milestones



“How projects really work”



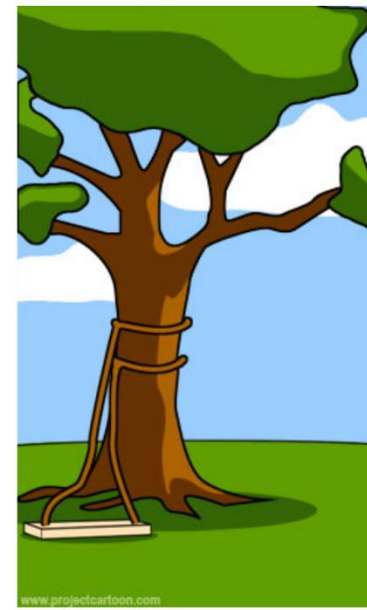
How the customer explained it



How the project leader understood it



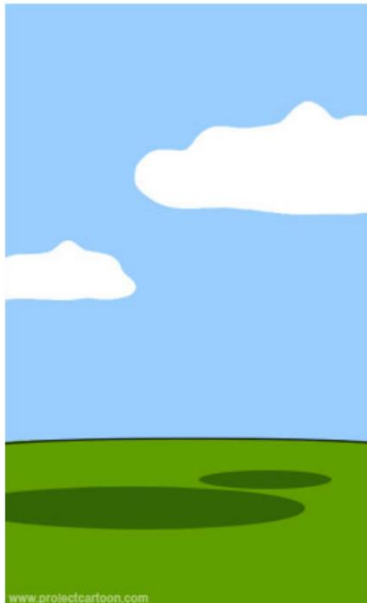
How the analyst designed it



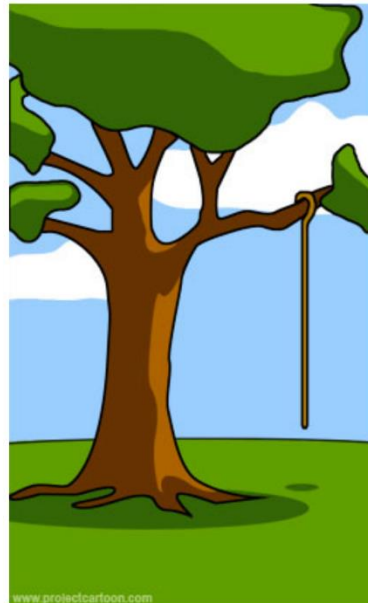
How the programmer wrote it



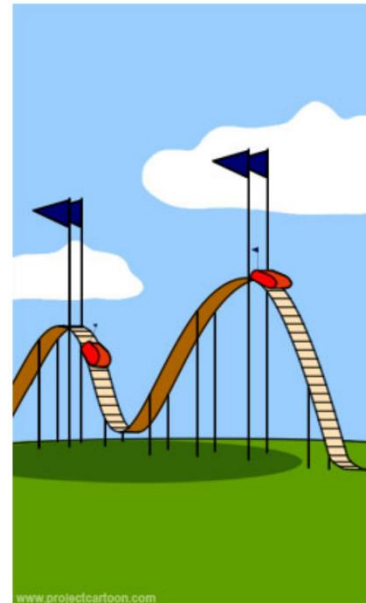
How the business consultant described it



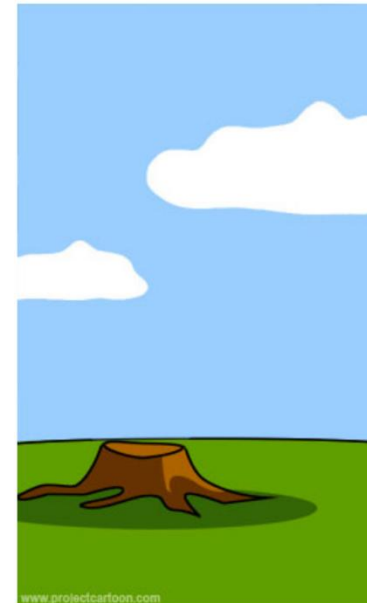
How the project was documented



What operations installed



How the customer was billed

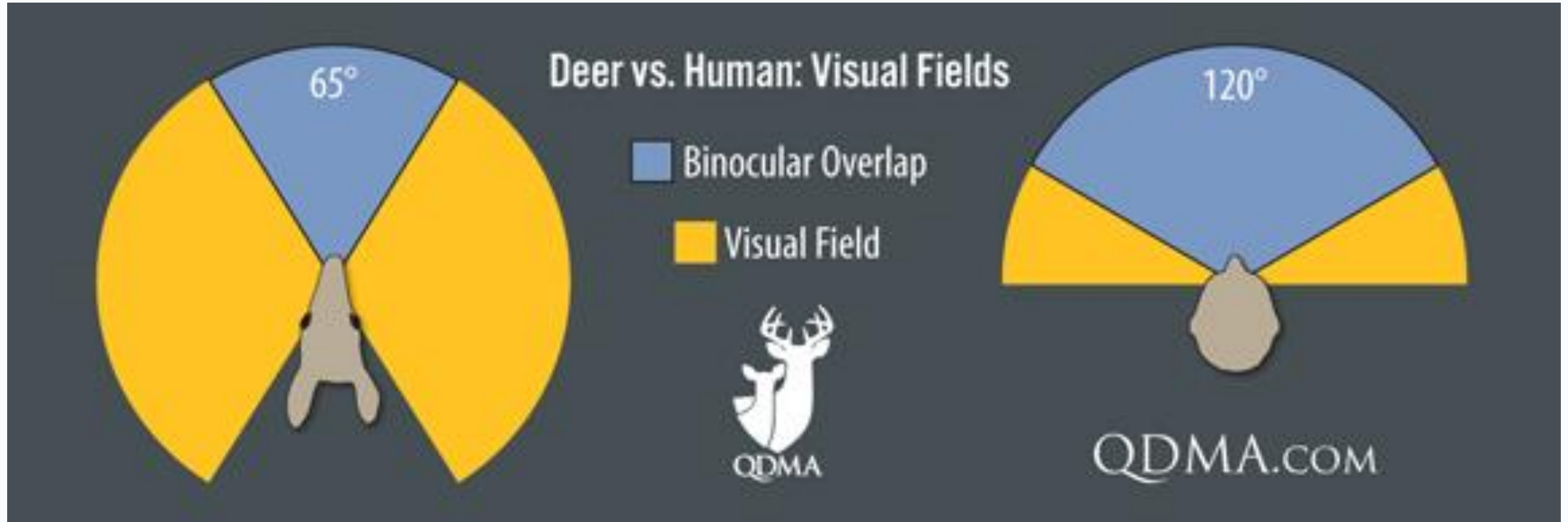


How it was supported

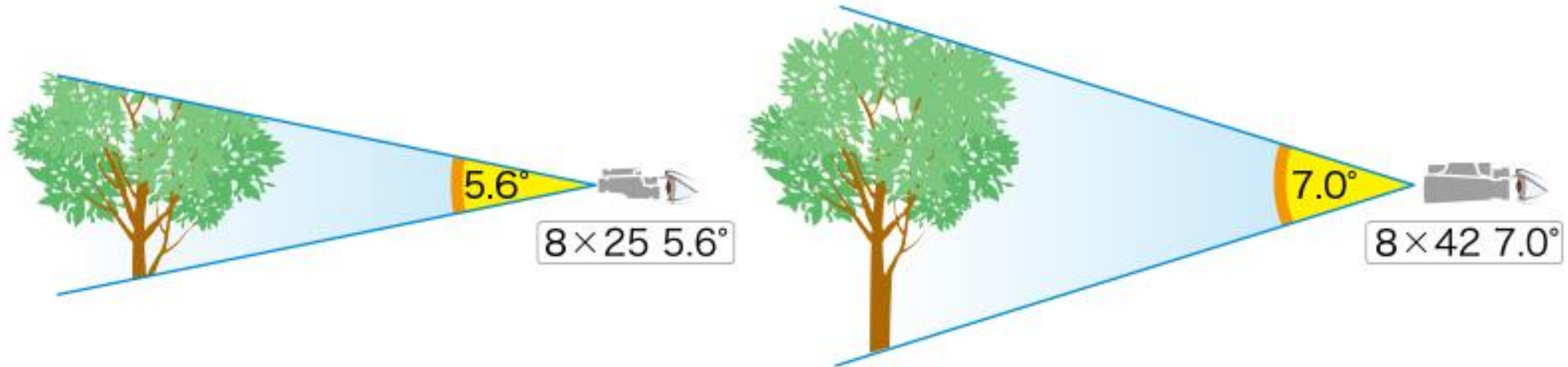


What the customer really needed

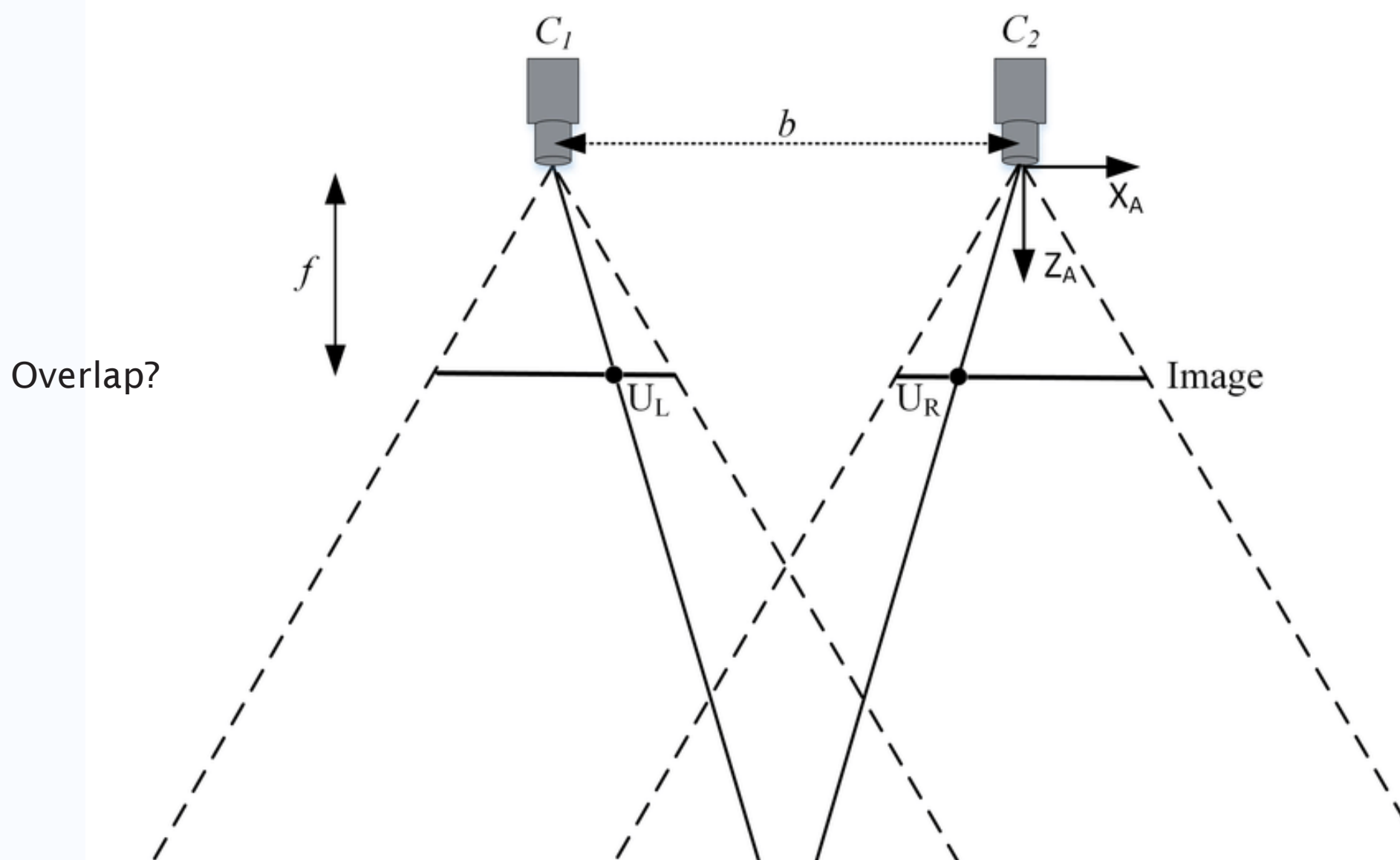
Designer vs. customer?

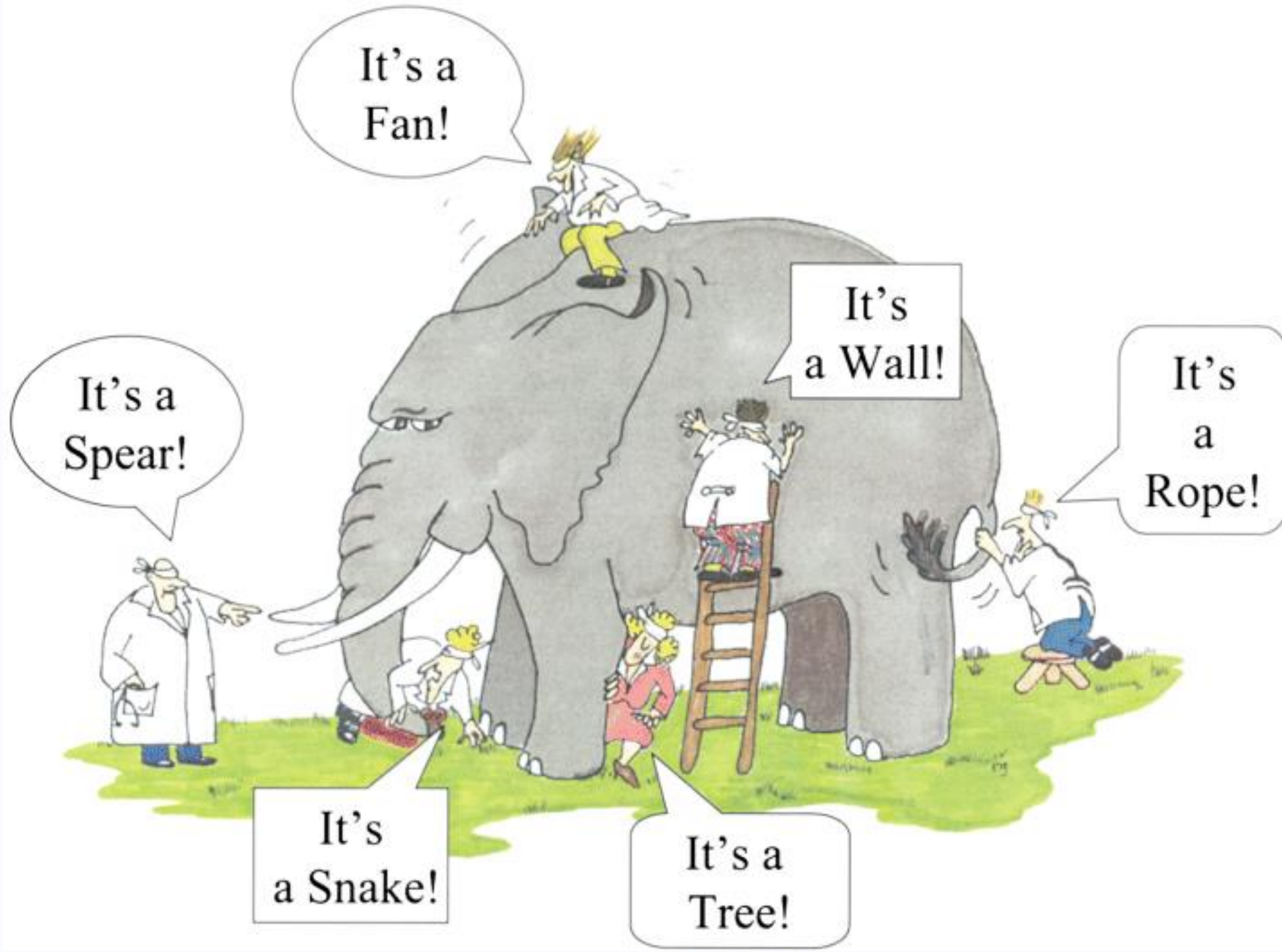


Designer vs. customer?



Designer vs. customer?



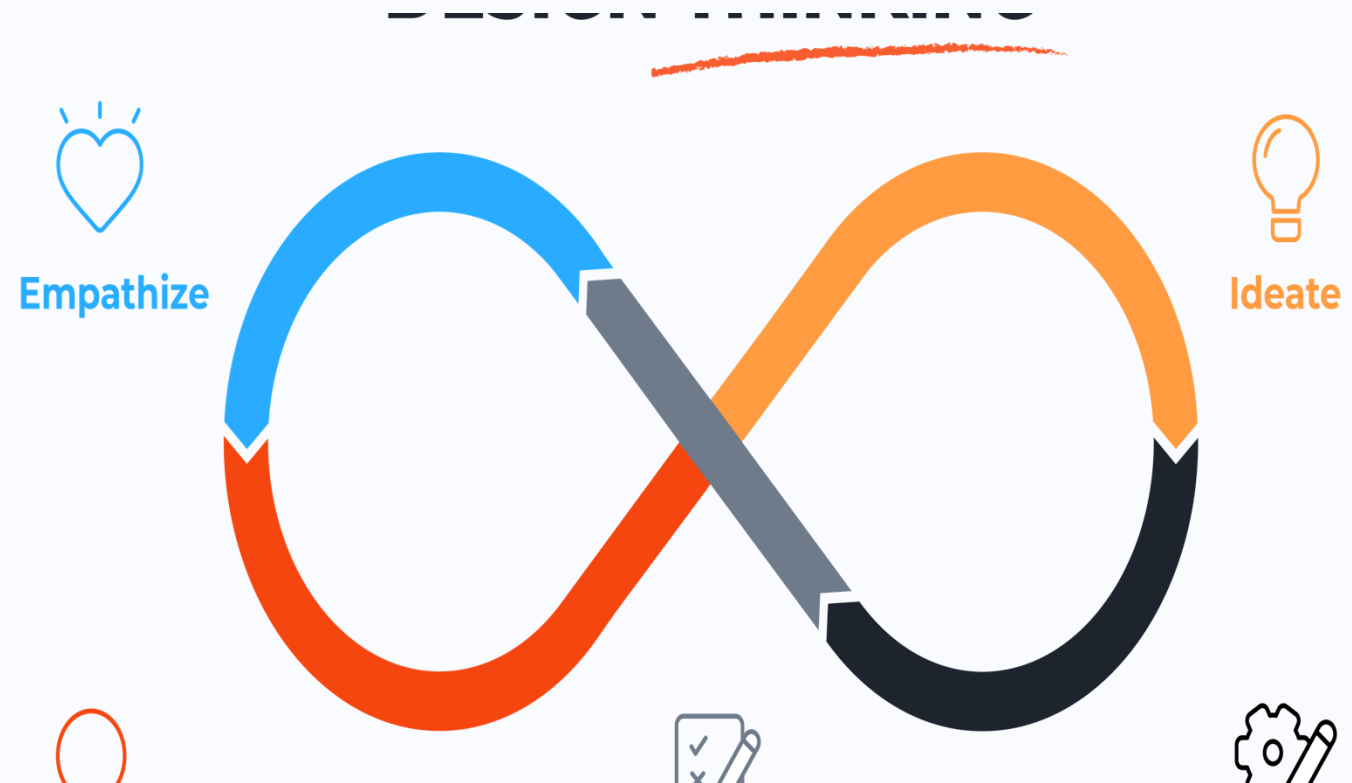




Oh... it's an
elephant

Perspectives vary

- ...and your users are probably not designers





“If I had asked them what they had wanted, they would have said a faster horse”

Changing the assumptions

Stable, existing market

We know what they want

We know if they will like it

We understand the market

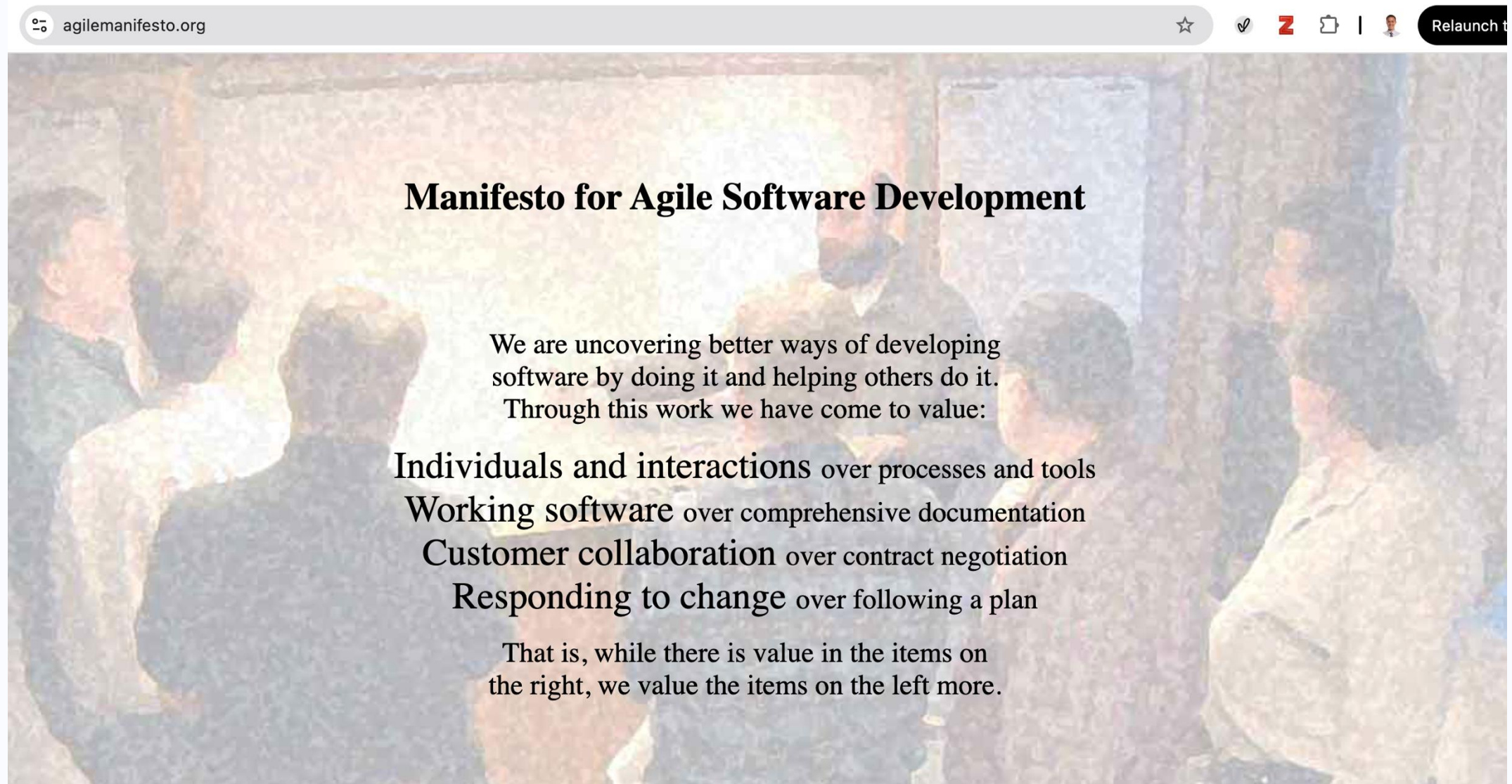
Changing the assumptions

Stable, existing market	New, uncertain, or different
We know what they want	We don't know what they want
We know if they will like it	We can't tell how they will respond
We understand the market	The market has already changed

Changing the assumptions

Stable, existing market	New, uncertain, or different
We know what they want	We don't know what they want
We know if they will like it	We can't tell how they will respond
We understand the market	The market has already changed
What are the implications?	
Plan it in detail first	Start small and experiment, or trust bold visionaries

Agile (2001)

The image is a screenshot of the agilemanifesto.org website. The browser's address bar shows 'agilemanifesto.org'. The page features a background image of a group of people in a meeting. Overlaid on this image is the title 'Manifesto for Agile Software Development' in a bold, black, serif font. Below the title is a paragraph of text: 'We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:'. This is followed by four lines of text, each starting with a bolded phrase followed by 'over': 'Individuals and interactions over processes and tools', 'Working software over comprehensive documentation', 'Customer collaboration over contract negotiation', and 'Responding to change over following a plan'. At the bottom, a concluding sentence reads: 'That is, while there is value in the items on the right, we value the items on the left more.' The browser's toolbar includes a star icon, a checkmark, a red 'Z' icon, a document icon, and a 'Relaunch' button.

agilemanifesto.org

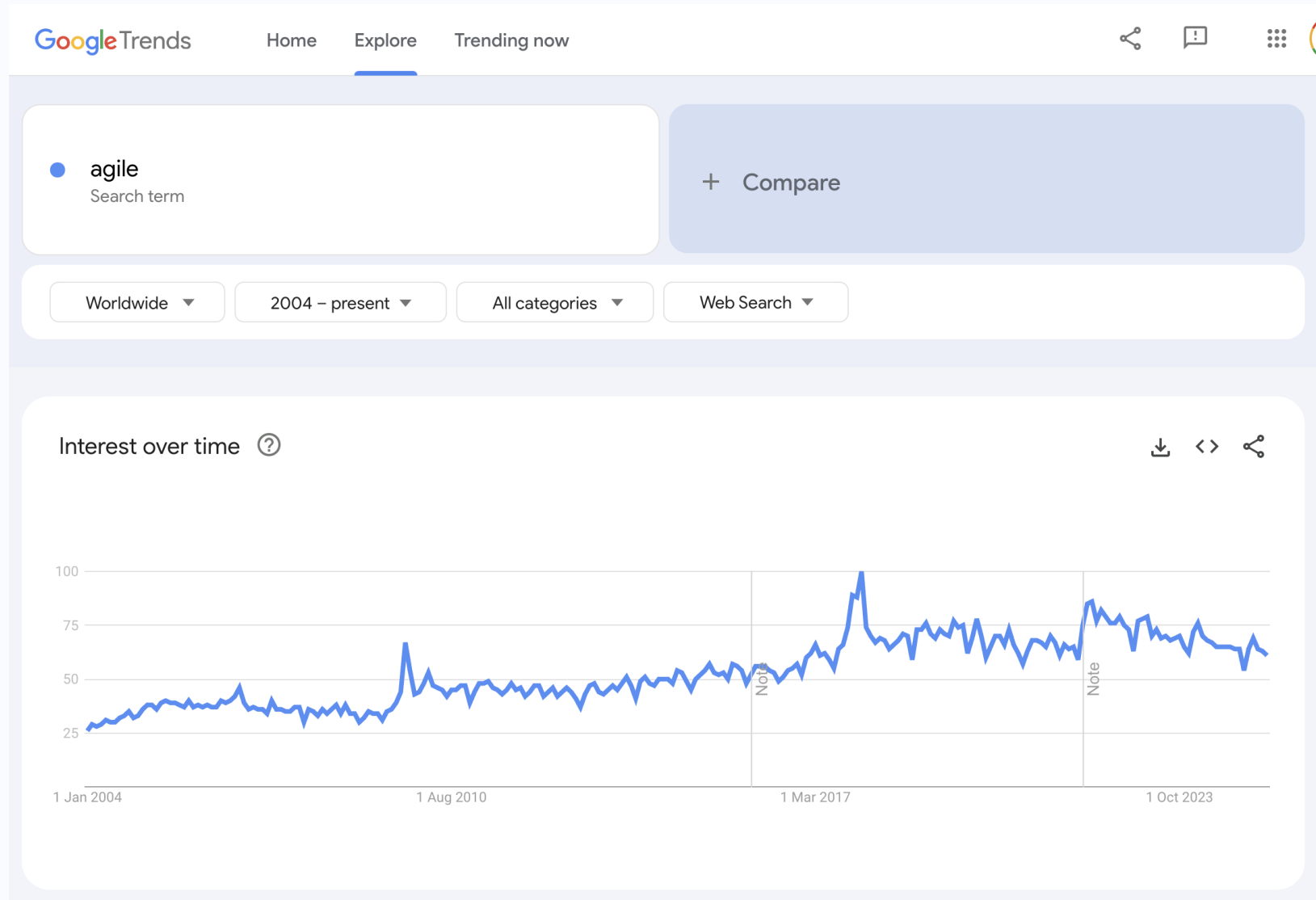
Manifesto for Agile Software Development

We are uncovering better ways of developing software by doing it and helping others do it.
Through this work we have come to value:

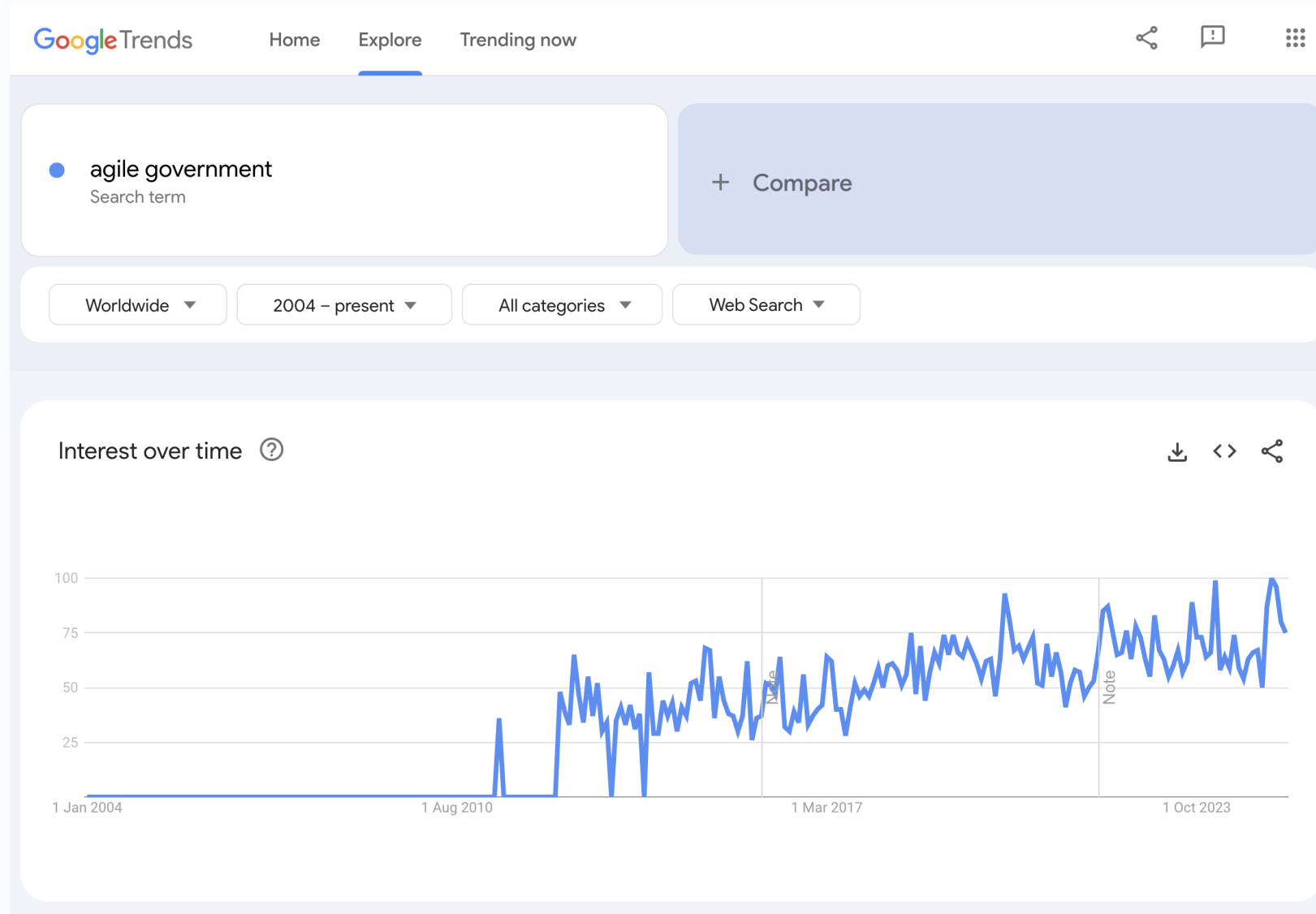
- Individuals and interactions** over processes and tools
- Working software** over comprehensive documentation
- Customer collaboration** over contract negotiation
- Responding to change** over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

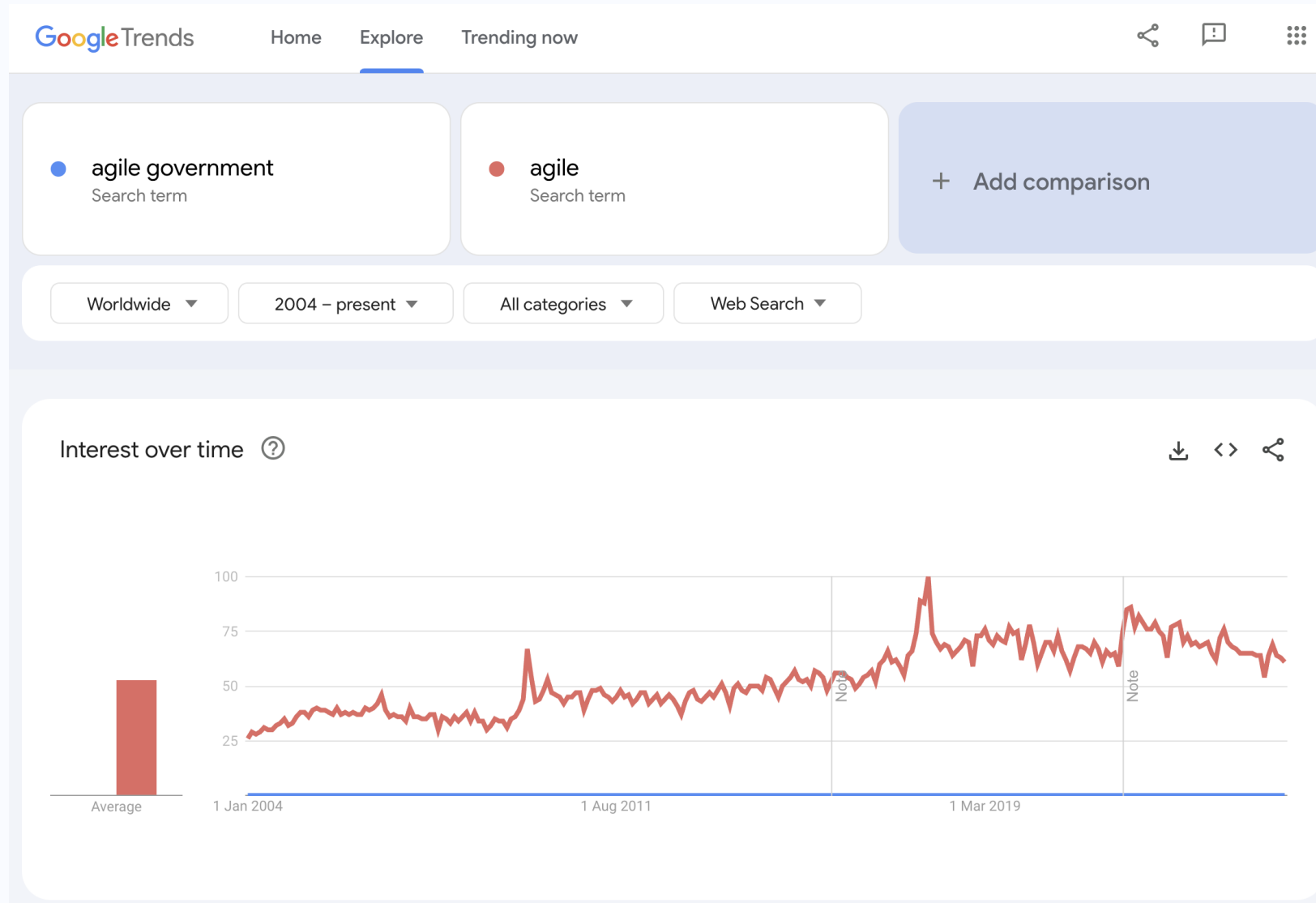
Agile (2004-2025)



Agile Government (2004-2025)

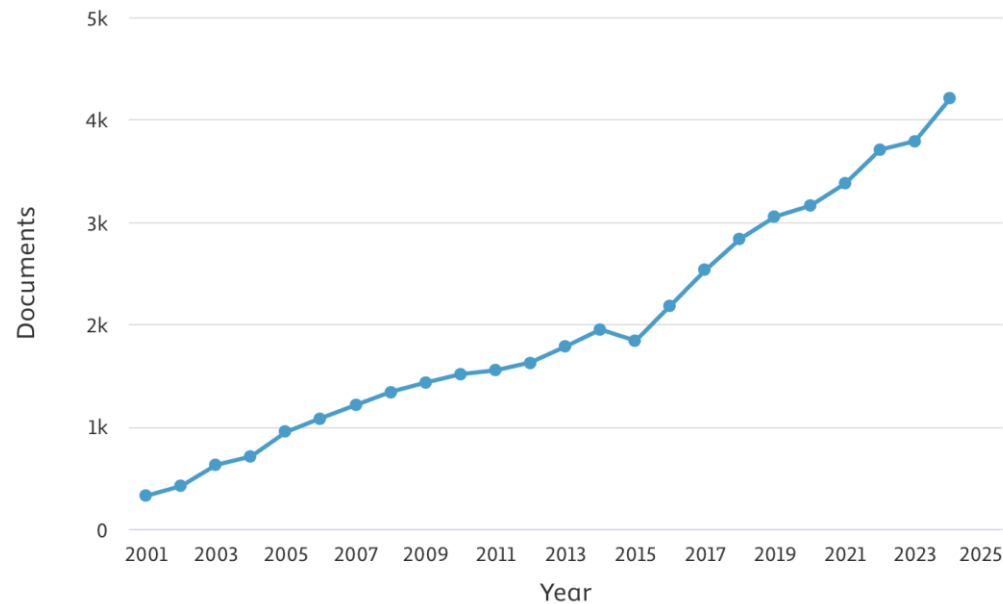


Agile Government vs Agile (2004-2025)



Agile (2001–2024): Scopus academic search

Documents by year



47,189 document results

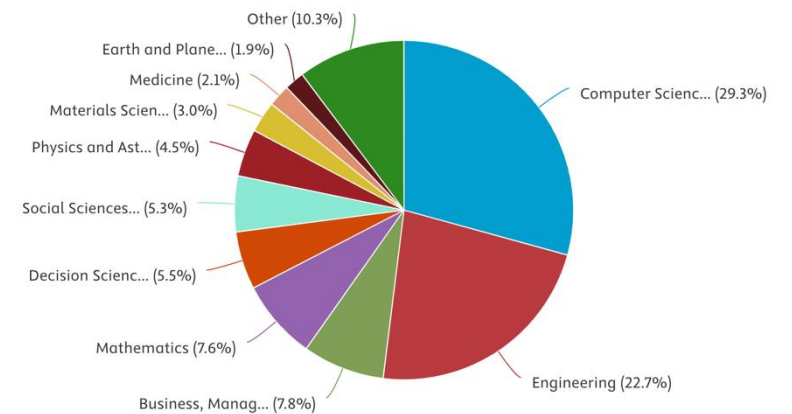
Select year range to analyze: 2001 to 2024 [Analyze](#)

Subject area ↓

Documents ↓

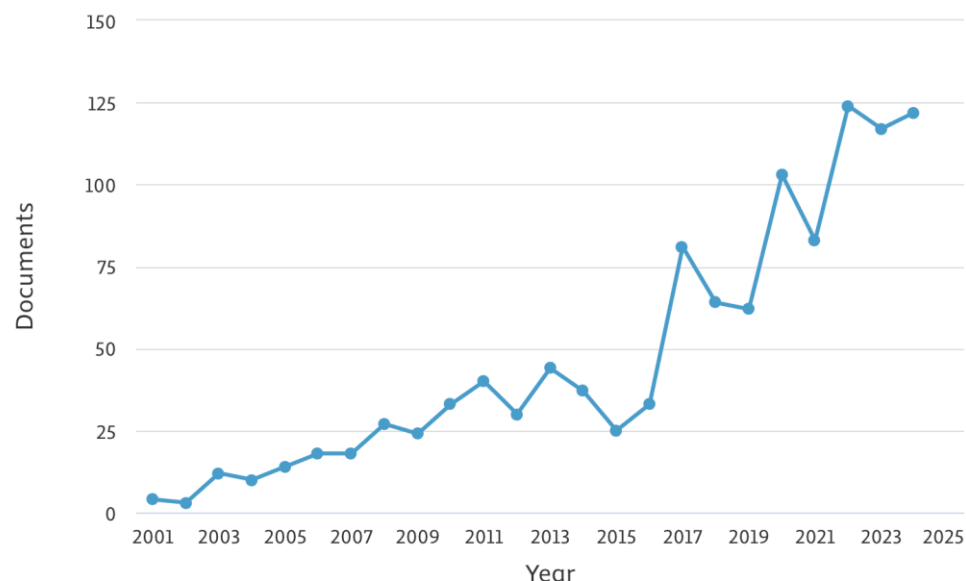
Documents by subject area

Computer Science	26312
Engineering	20386
Business, Management and Accounting	7027
Mathematics	6850
Decision Sciences	4964
Social Sciences	4769
Physics and Astronomy	4059
Materials Science	2680
Medicine	1882



Agile Government (2001–2024): Scopus academic search

Documents by year



1,128 document results

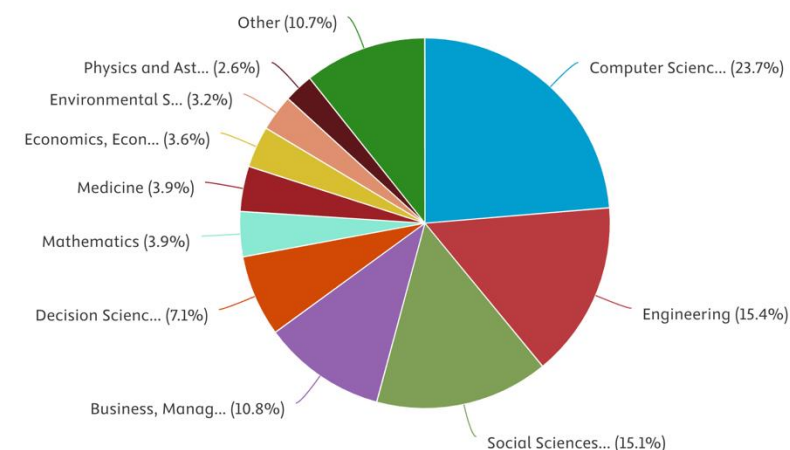
Select year range to analyze: 2001 to 2024 [Analyze](#)

Subject area ↓

Documents ↓

Computer Science	499
Engineering	324
Social Sciences	319
Business, Management and Accounting	227
Decision Sciences	150
Mathematics	83
Medicine	83
Economics, Econometrics and Finance	76

Documents by subject area



Even in 2020 academics are saying “there is little knowledge about the use of Agile in the public sector”

Academic trends in Digital Government

- E-government
- Open government
- Digital government
- Adaptive governance
- Collaborative governance
- Agile government
- ...COVID-19



Government Agile: academic research

- The academic foundation is improving

PAR

PUBLIC
ADMINISTRATION
REVIEW

Ines Mergel

University of Konstanz

Sukumar Ganapati

Florida International University

Andrew B. Whitford

University of Georgia

Agile: A New Way of Governing

Abstract: *The evolving concept of “agile” has fundamentally changed core aspects of software design, project management, and business operations. The agile approach could also reshape government, public management, and governance in general. In this Viewpoint essay, the authors introduce the modern agile movement, reflect on how it can benefit public administrators, and describe several challenges that managers will face when they are expected to make their organizations more flexible and responsive.*

Government Information Quarterly 35 (2018) 291–298



ELSEVIER

Contents lists available at ScienceDirect

Government Information Quarterly

journal homepage: www.elsevier.com/locate/govinf

Editorial

Agile government: Systematic literature review and future research


Ines Mergel^a, Yiwei Gong^b, John Bertot^c

^a University of Konstanz, Germany

^b Wuhan University, China

^c University of Maryland, USA

Government Information Quarterly 33 (2016) 516–523



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Agile innovation management in government: A research agenda

Ines Mergel Dr.

University of Konstanz, Germany

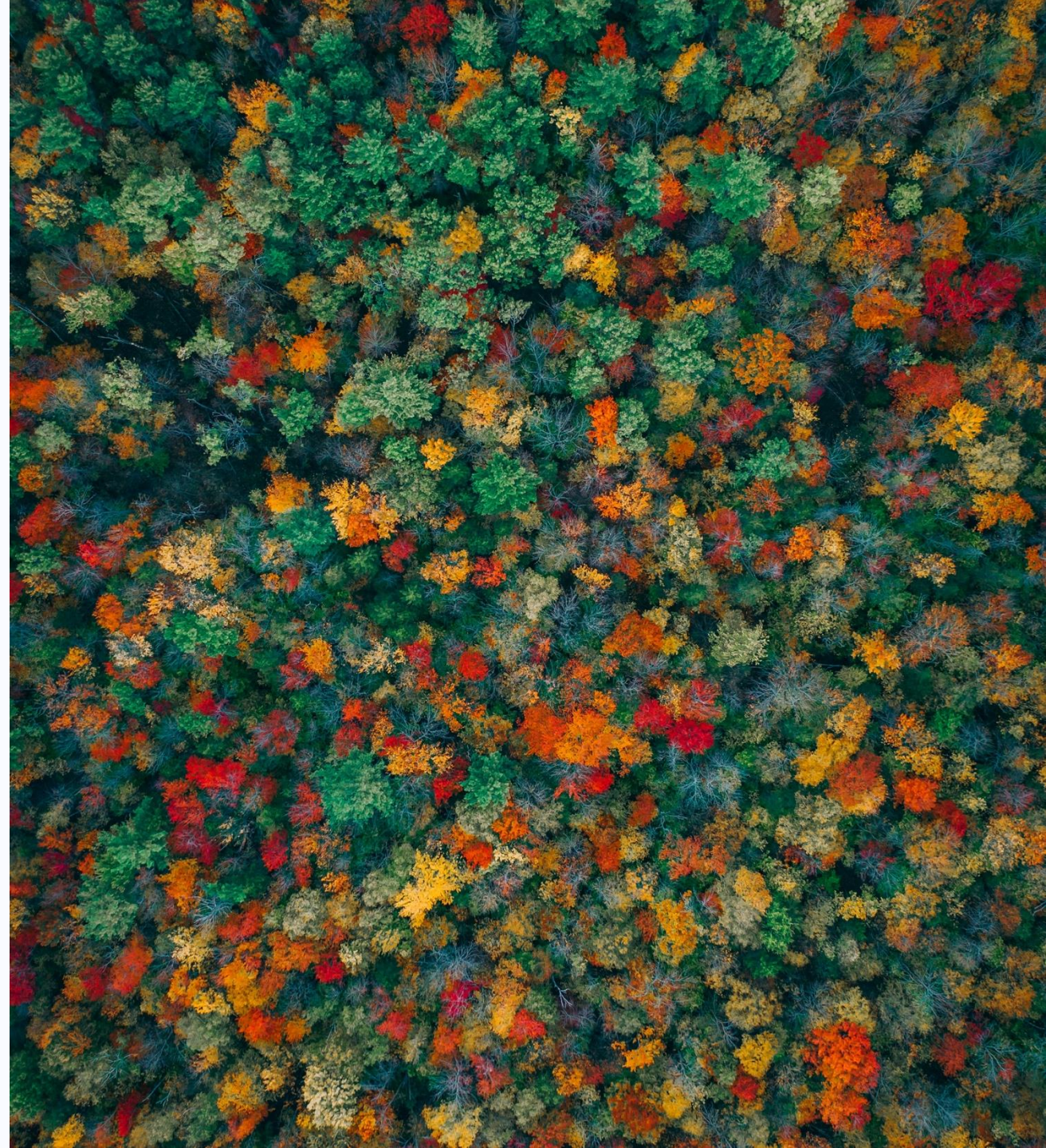


CrossMark

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Government Agile: academic research

- Agile can help innovate digital service delivery in government (Mergel 2016)
- How to do agile as a key topic (Mergel et al. 2018)
- Agile has the potential to reshape government (Mergel et al. 2020)



What is Agile?

- “better ways of developing software” – expressed as values and principles in the Agile Manifesto



What is Agile?

- “better ways of developing software” – expressed as values and principles in the Agile Manifesto
- A team-level idea



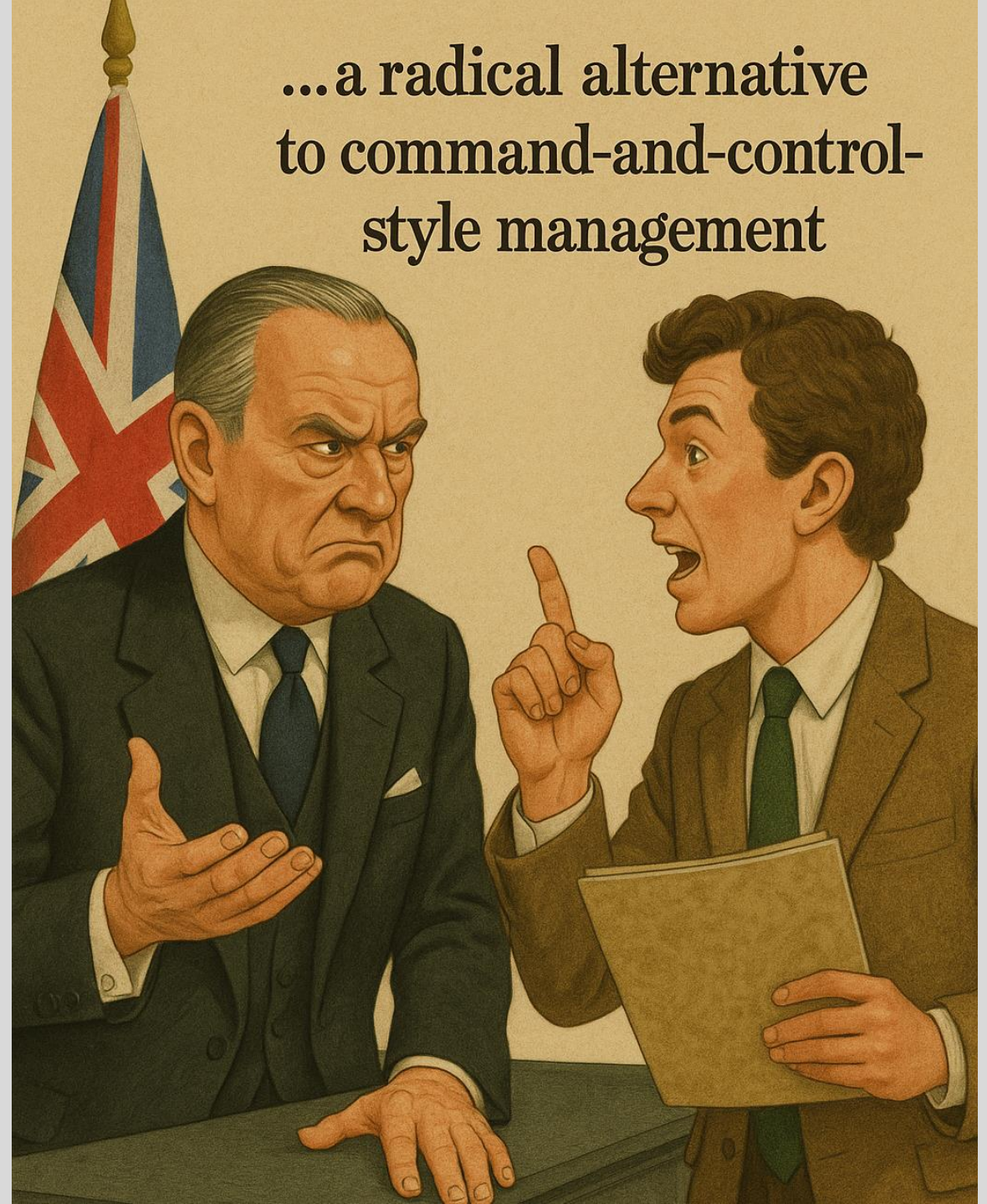
What is Agile?

- “a radical alternative to command-and-control-style management” (Rigby et al. 2016)



What is Agile?

- “a radical alternative to command-and-control-style management” (Rigby et al. 2016)



My Research: effects of agile

- Agile Reduces Complexity Through:
 - Better coordination (structural)
 - Shared understanding of goals and problems (cognitive)
 - Faster problem-solving and fewer misunderstandings (relational)
- “Scrum and social capital are mutually reinforcing”

PRODUCTION PLANNING & CONTROL
2023, VOL. 34, NO. 13, 1248–1260
<https://doi.org/10.1080/09537287.2021.1997291>



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Why Scrum works in new product development: the role of social capital in managing complexity

David Baxter^a and Neil Turner^b

^aSouthampton Business School, University of Southampton, Southampton, UK; ^bCranfield School of Management, Cranfield University, Cranfield, UK



My Research: Agile Project Management

- Agile Project Management (APM) is a distinct project management paradigm
- “Agile Project Management is a flexible approach that includes discovering the aim and delivering the project. It embodies the organizational capability to adapt to changes as they arise.”




Project Management Journal
Volume 55, Issue 6, December 2024, Pages 668-688
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<https://doi.org/10.1177/87569728241254095>

Sage Journals

Article



What is Agile Project Management? Developing a New Definition Following a Systematic Literature Review

Hao Dong ¹, Nicholas Dacre¹, David Baxter¹, and Serkan Ceylan²

My Research: effects of agile

- Agile changes the institutional environment
 - From Commodity Supplier to Mission Collaborator
 - One Team Culture





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Government Information Quarterly

journal homepage: www.elsevier.com/locate/govinf



Institutional challenges in agile adoption: Evidence from a public sector IT project

David Baxter^{a,*}, Nicholas Dacre^a, Hao Dong^a, Serkan Ceylan^b

^a Southampton Business School, University of Southampton, University Road, Southampton SO17 1BJ, UK
^b School of Project Management, Arden University, Arden House, Middlemarch Park, Coventry CV3 4FJ, UK

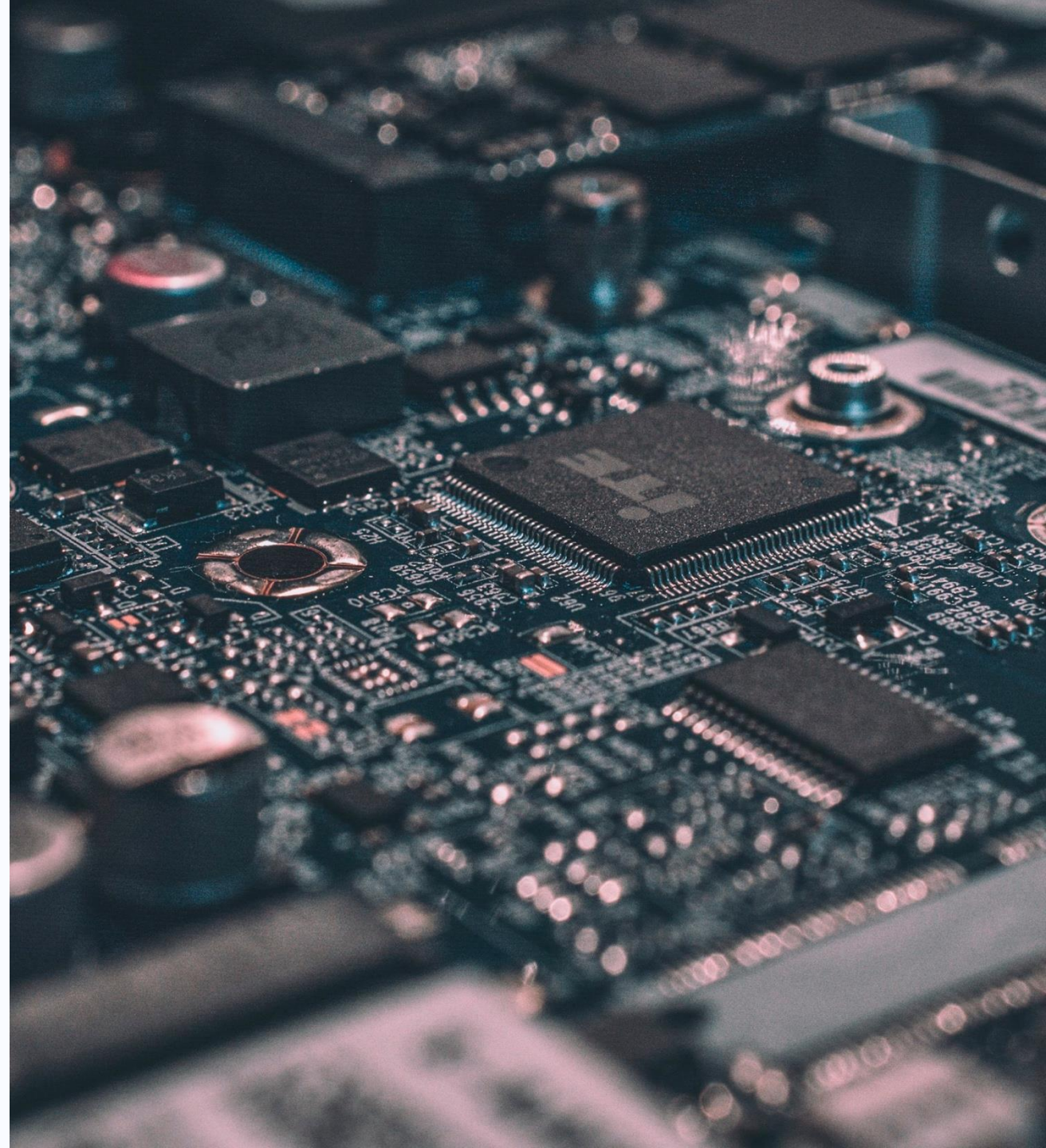
My Research: effects of agile

- Agile is also critical to digital transformation
- "Agility and digitisation aim for similar outcomes. Both seek to make organisations more responsive, adaptable, and efficient"
- 63% of professionals said agile is important for digital transformation.



Digital transformation and the AI imperative in public and private sector projects: Methods and skills for project management

Nicholas Dacre, David Baxter, Hao Dong, MKS Al-Mhdawi, Ranga Abeysooriya, and Yixue Shen



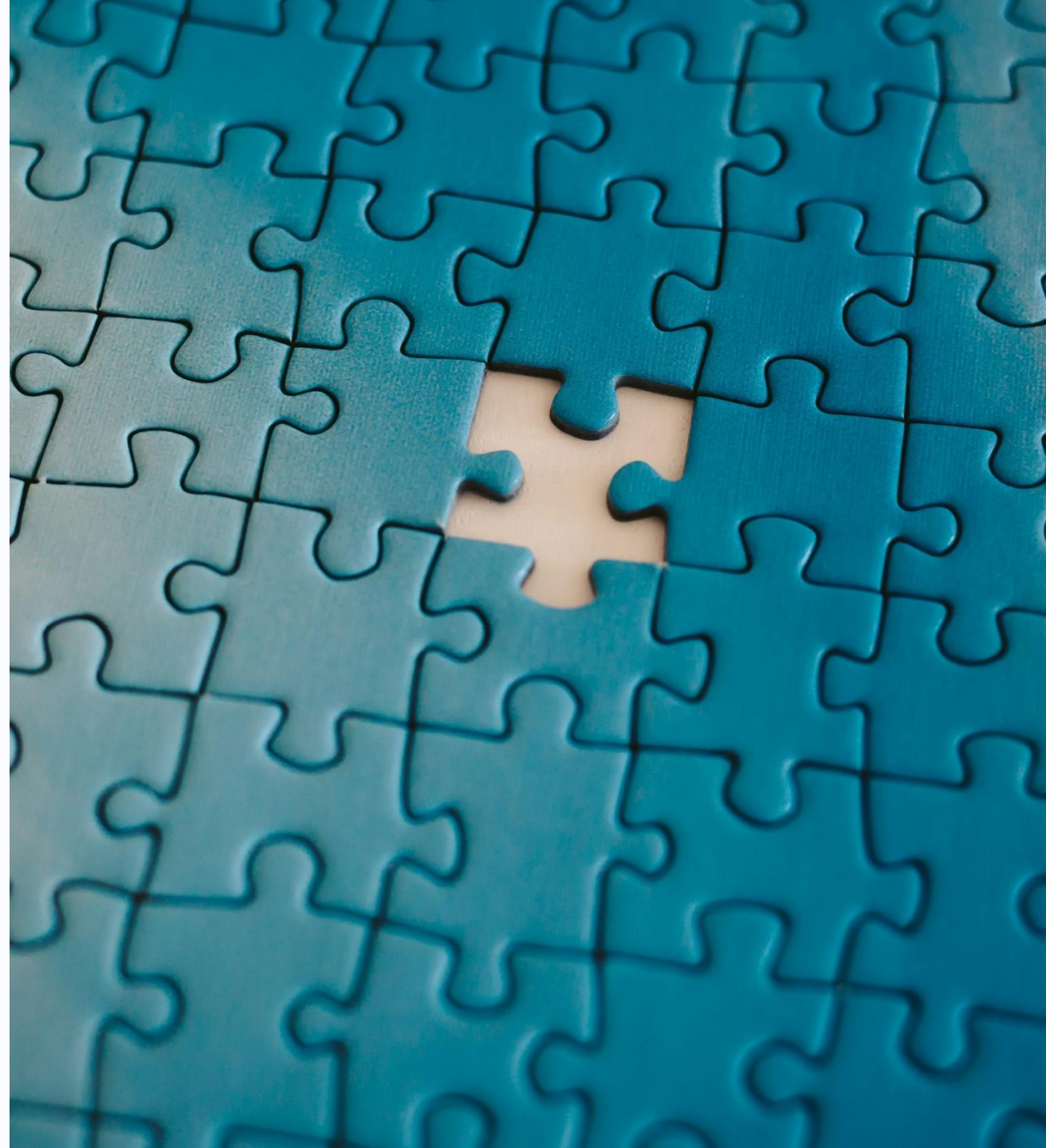
Research lessons learned

- Things we observed
 - Agile changes teams
 - Agile changes projects
 - Agile changes organisations



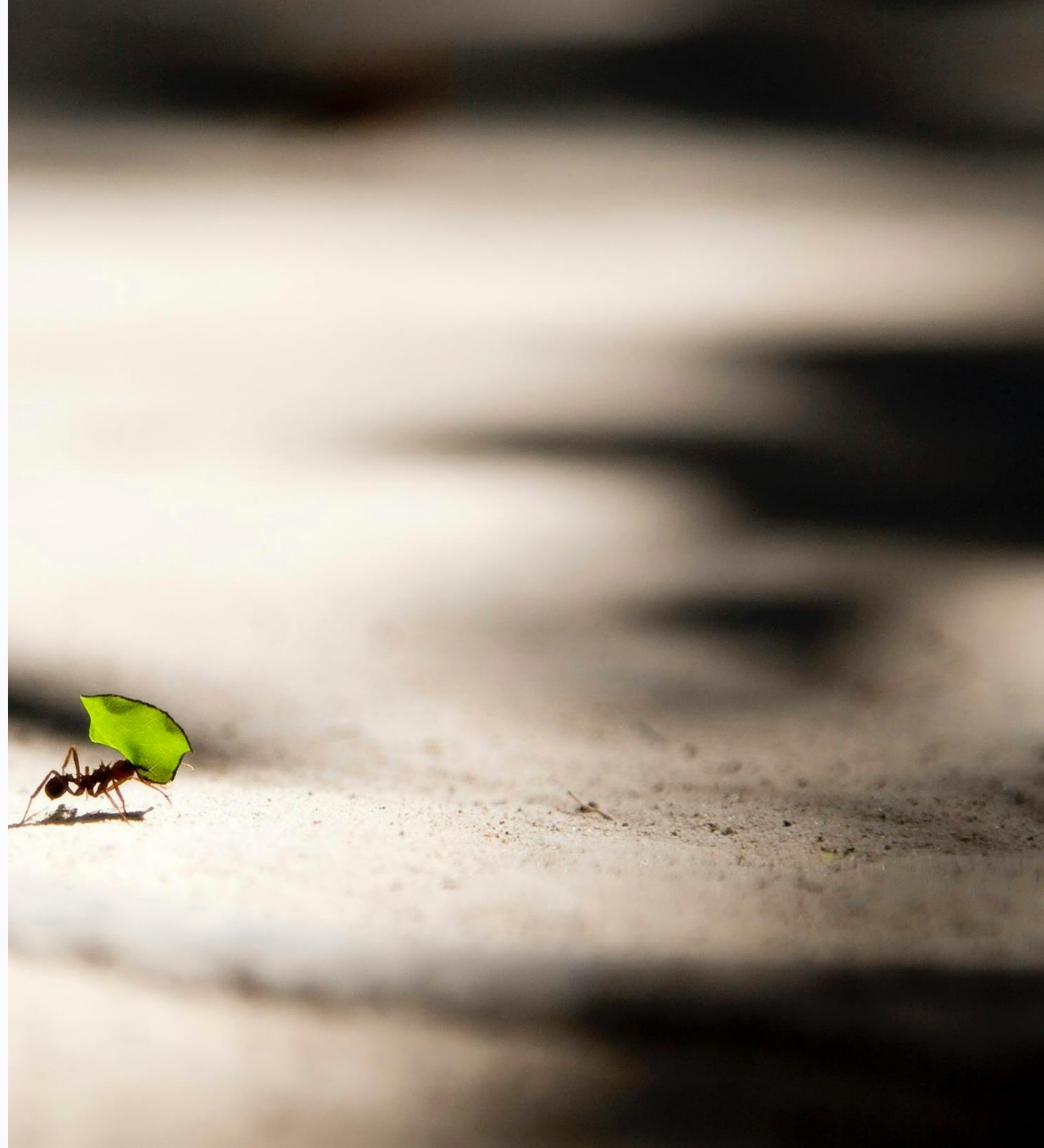
Research lessons learned

- What's missing?
 - Agile at scale (beyond a 2-pizza team)
 - Agile maturity models
 - Agile skills
 - Agile project management at government scale: project definition, contracts, DevOps
 - Agile governance



Why is Agile Government hard?

- The government need for **accountability** (and the usual methods of providing that) clash with Agile
- Project flow is not Agile
- Regulations don't allow it
- Contracts don't include it
- Experience is lacking

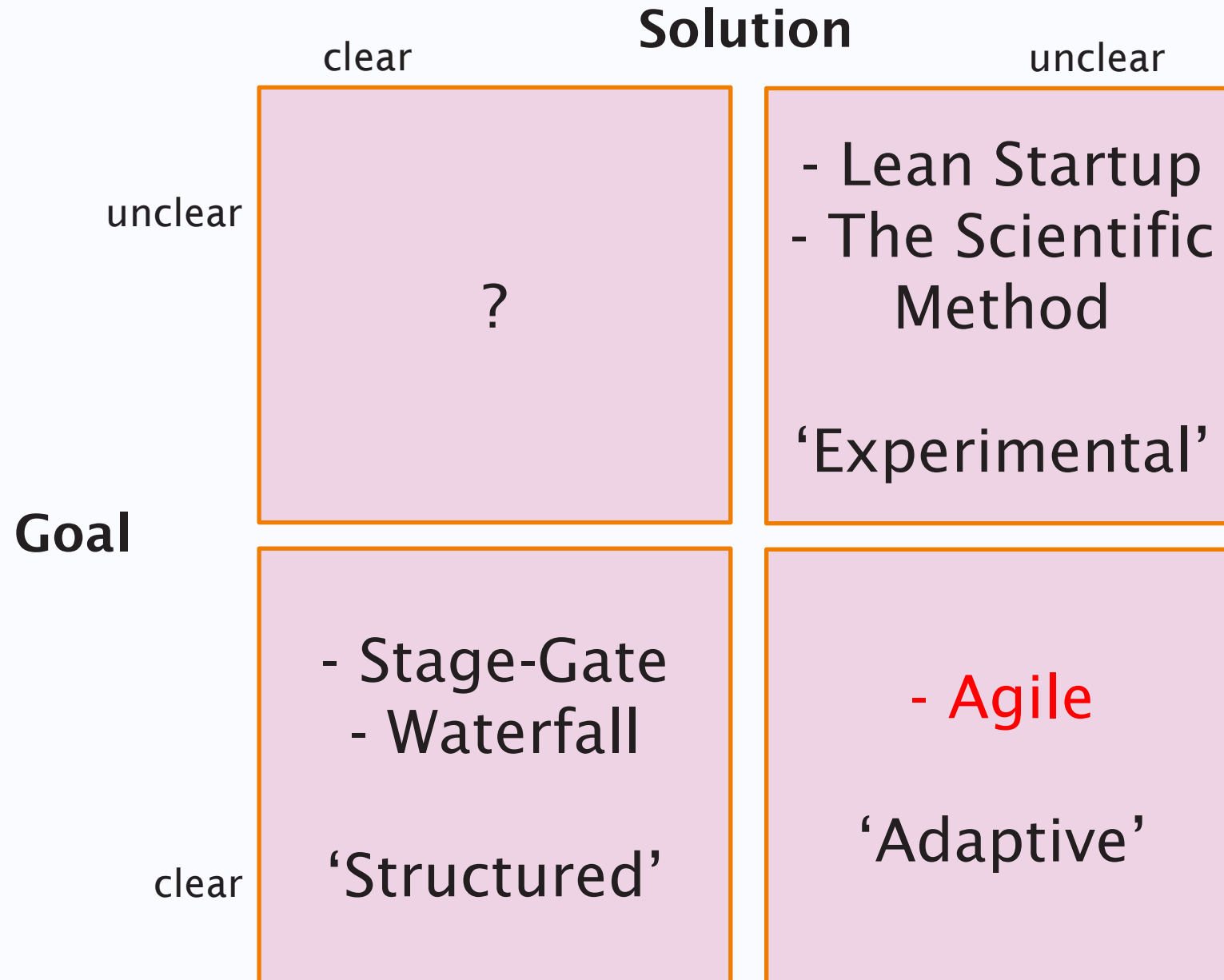


When is Agile the right approach?

- Contingency

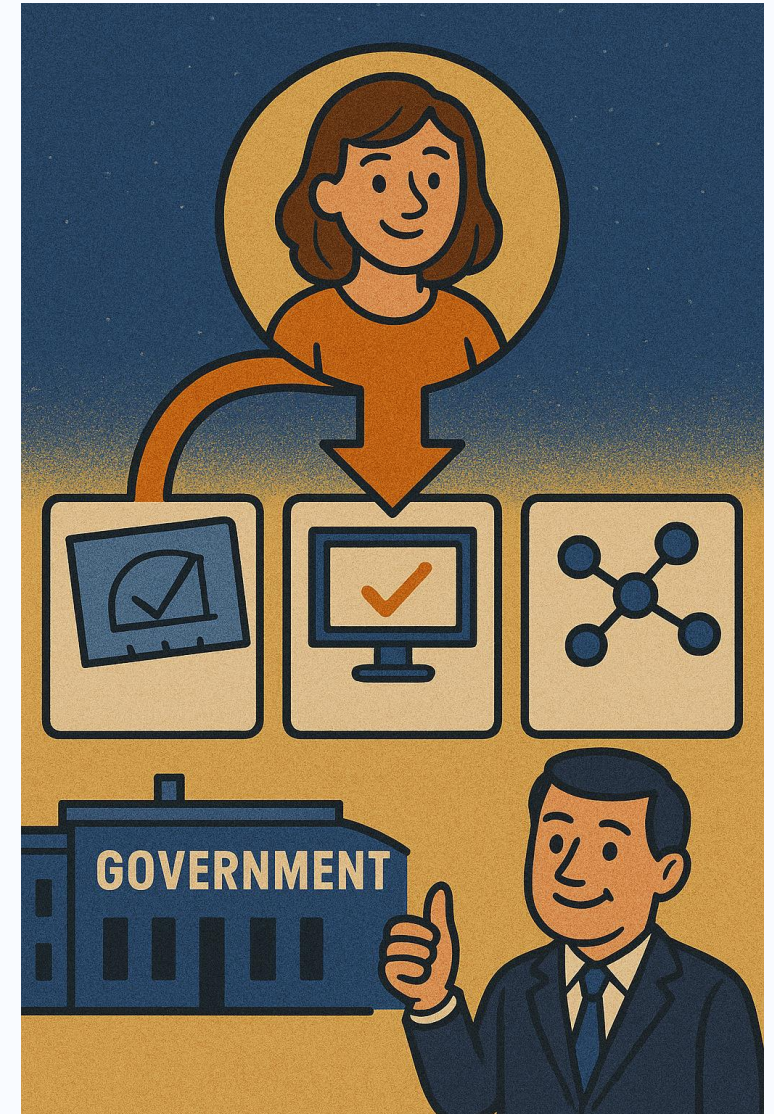


Management methods



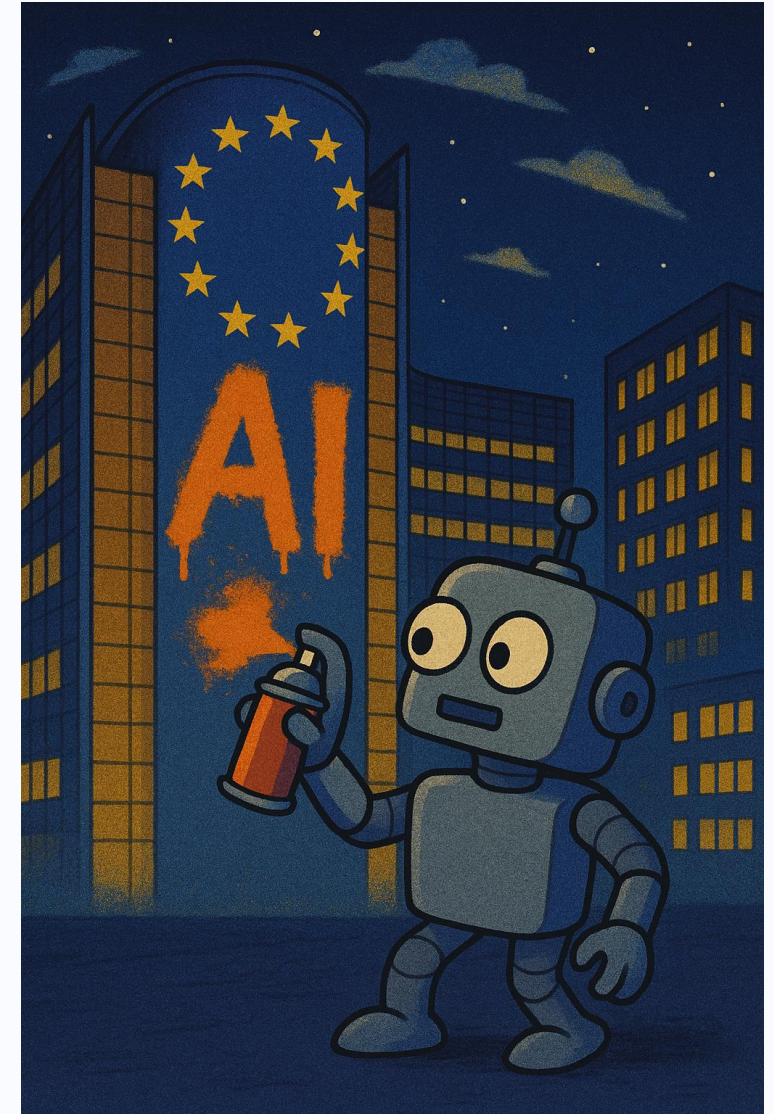
Outlook

- Agile government going forward
 - Agile as a citizen-centric, embedded capability
 - Government departments as system architects, as the design authority, and as the orchestrator of digital services
 - Agile *policy* as an embedded element of government service delivery
 - Agile maturity frameworks are needed



Outlook

- Agile government going forward
 - Agile as a citizen-centric, embedded capability
 - Government departments as system architects, as the design authority, and as the orchestrator of digital services
 - Agile *policy* as an embedded element of government service delivery
 - Agile maturity frameworks are needed
- ...AI in everything



YOUR QUESTIONS

d.baxter@soton.ac.uk