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Please provide Feedback

Instructions

Go to

www.menti.com

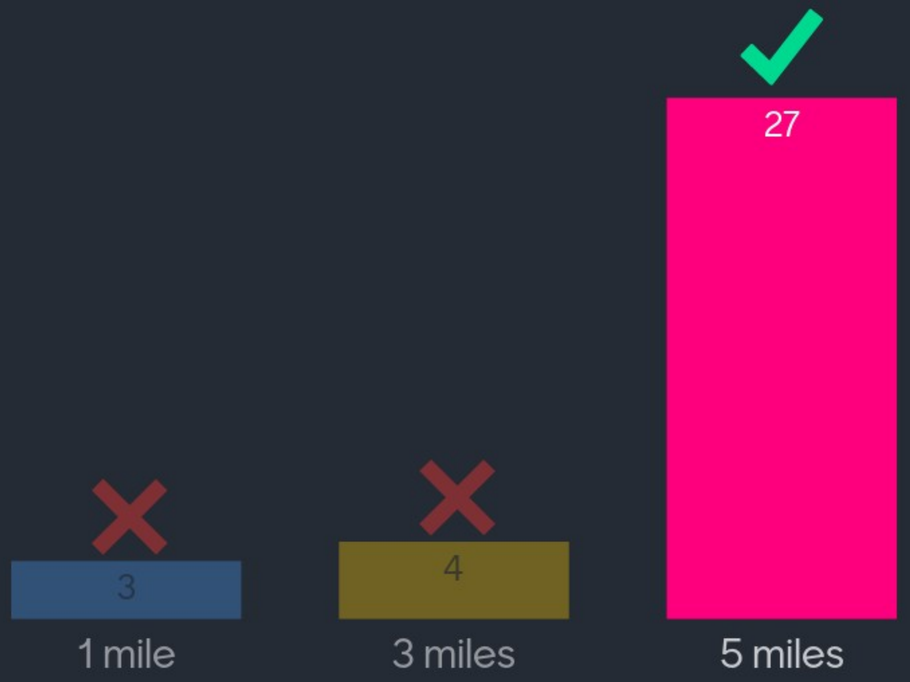
Enter the code

5460 2498

Or use QR code

10

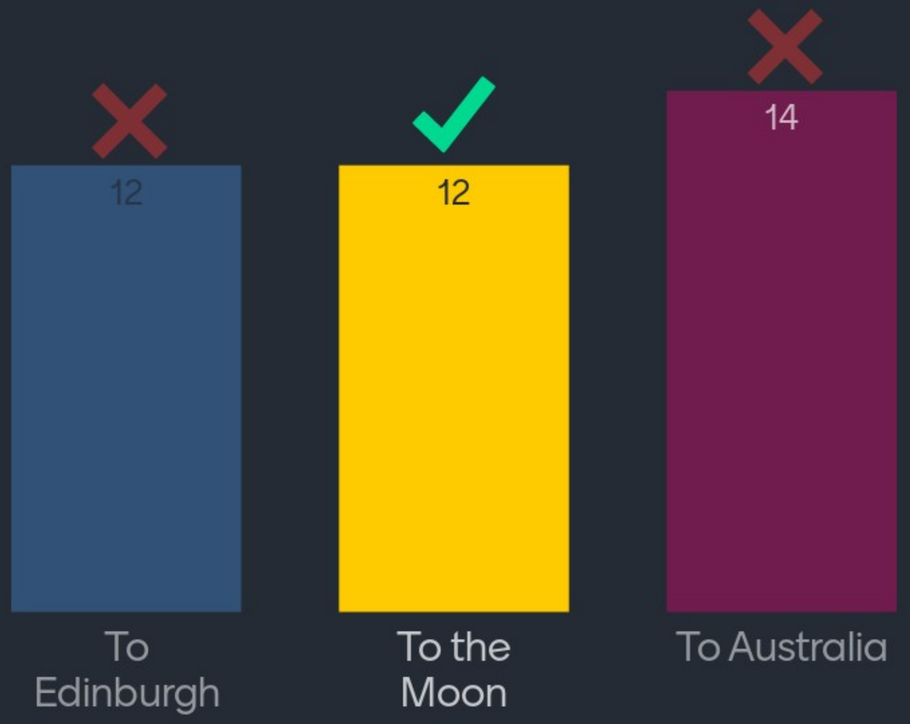
How far do you think a bee can fly from its hive to get food?



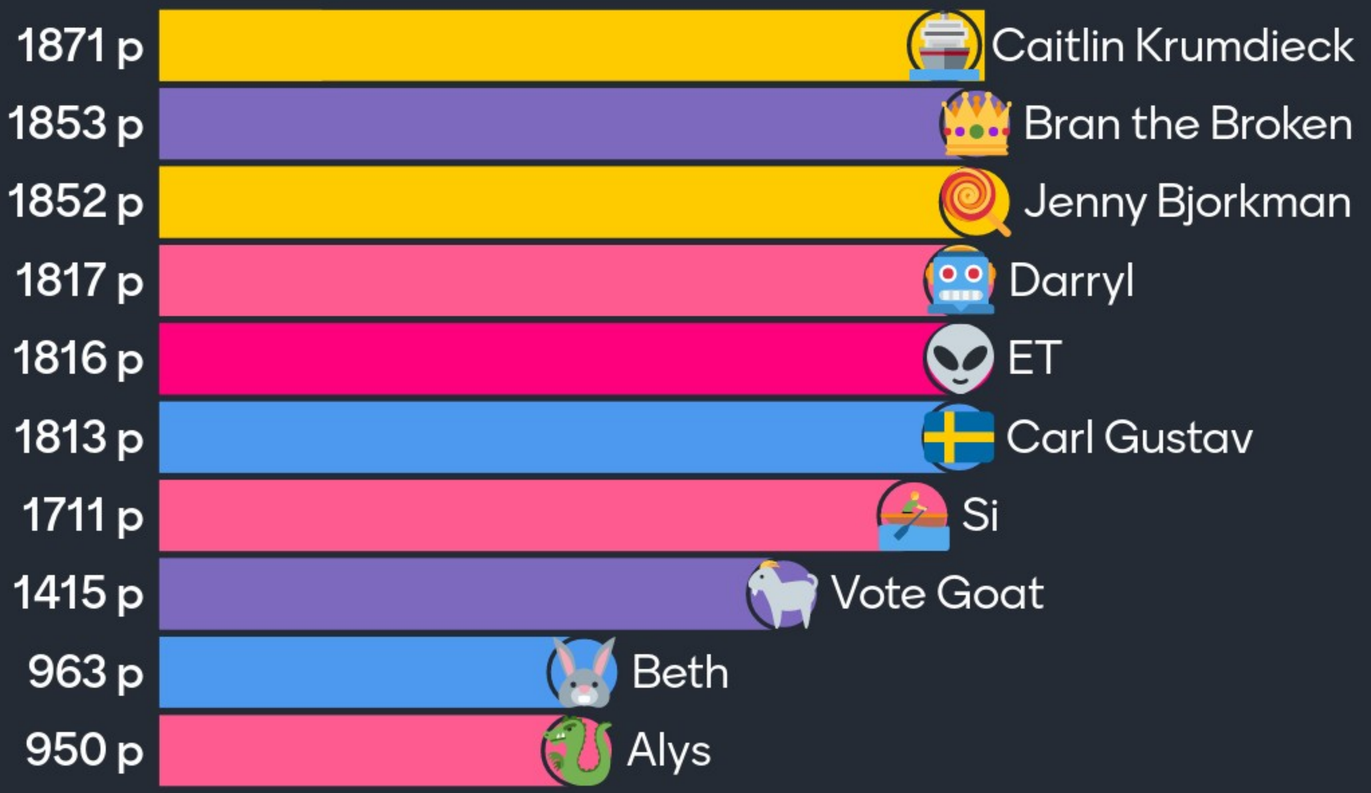
6

Quiz leaderboard

How far does a colony of bees fly over the course of a day

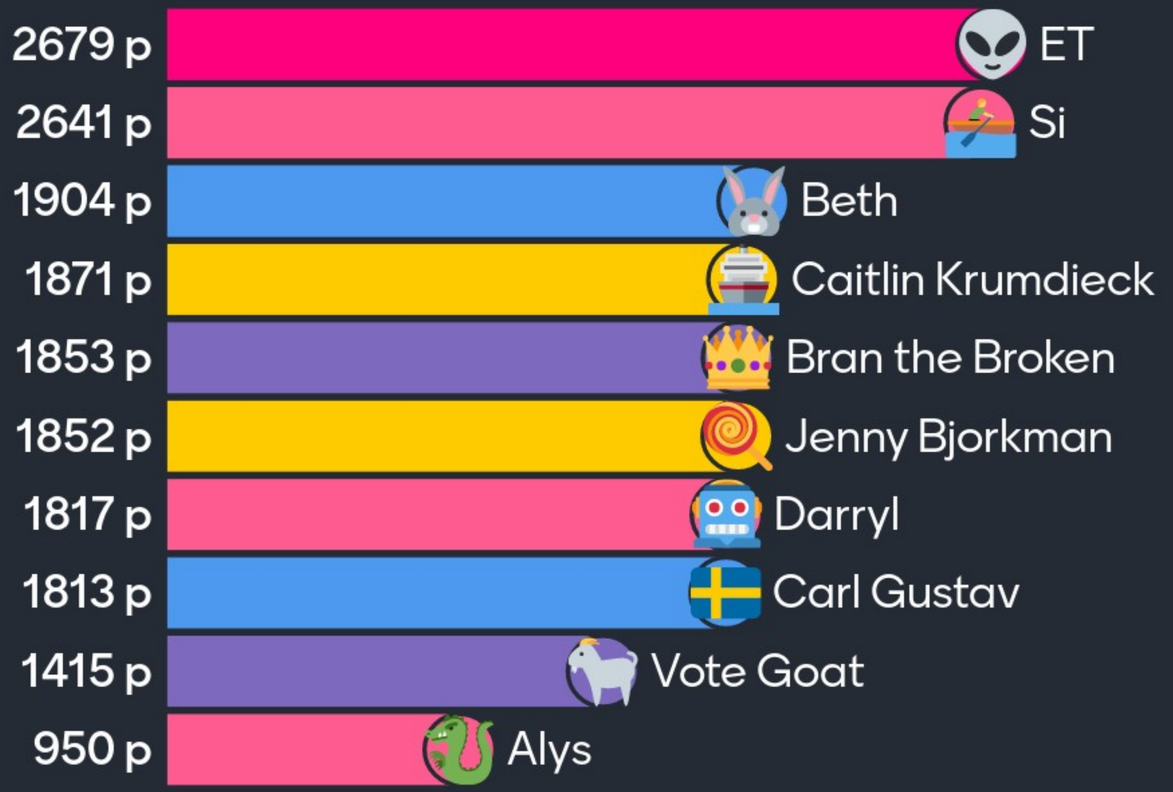


Quiz leaderboard



How much honey does a honey bee make in its lifetime?

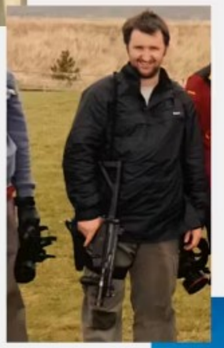
Quiz leaderboard

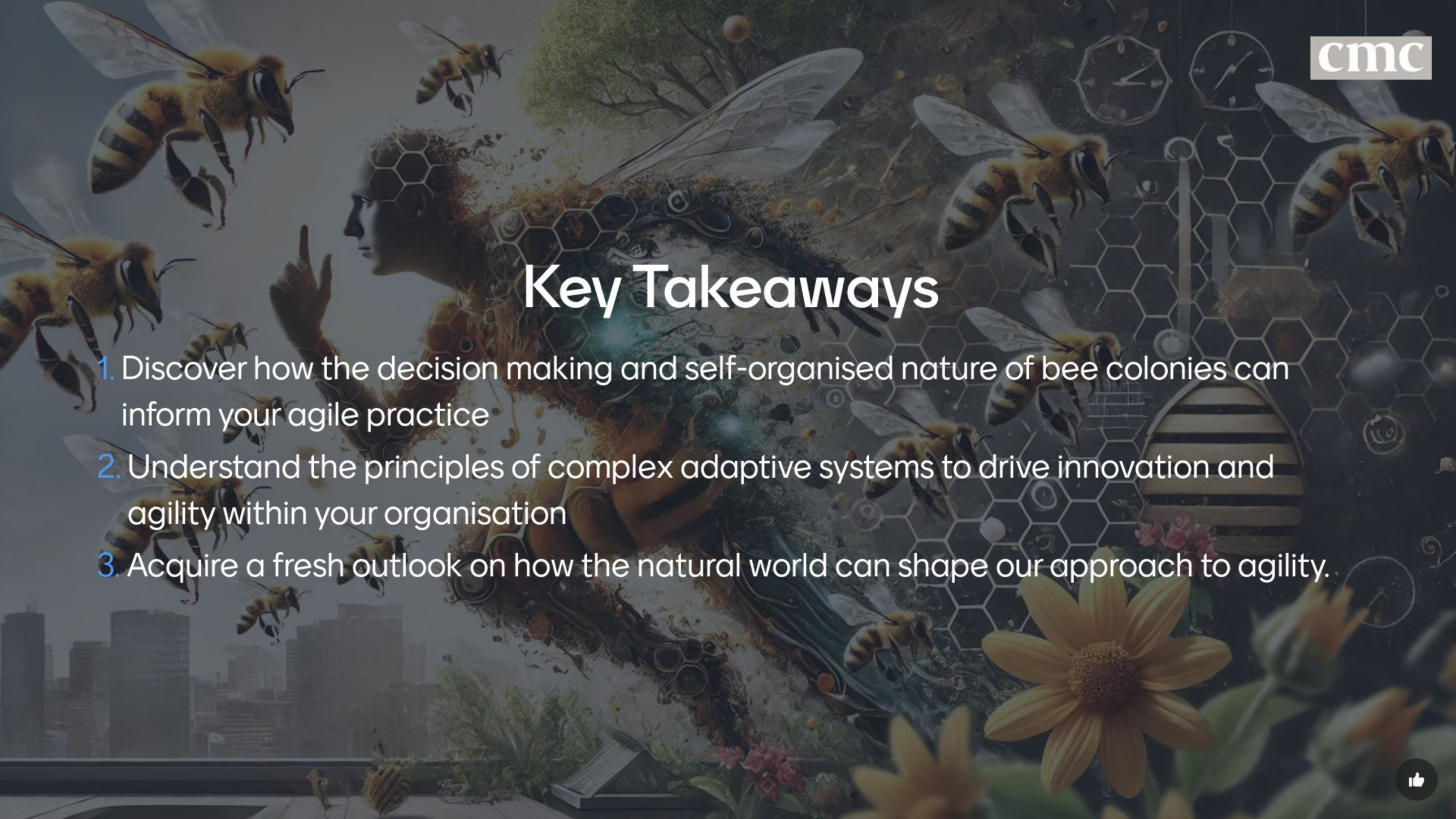


A little bit about me…

Mick Brian

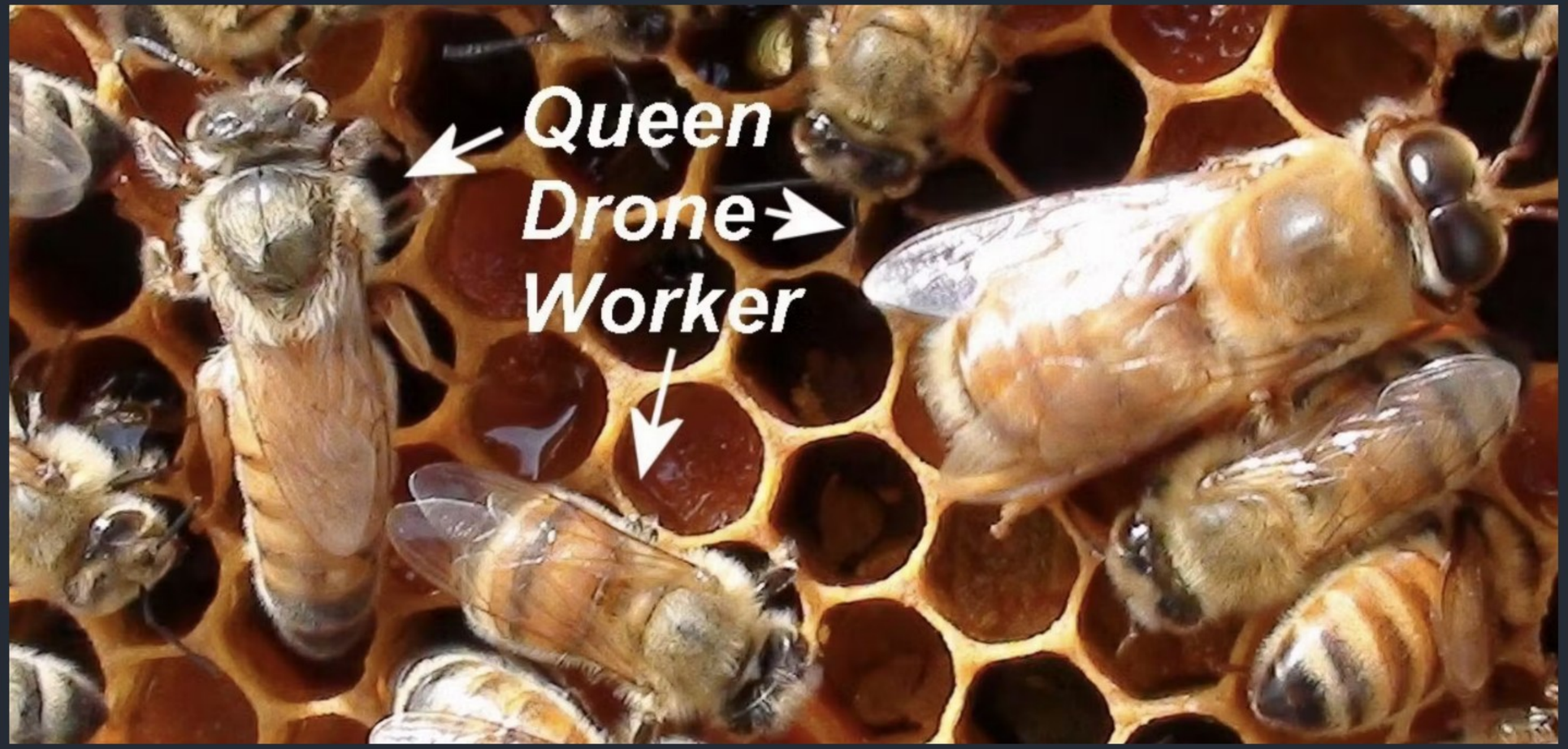
Head of Change &
Transformation at CMC and
an avid Beekeeper





Key Takeaways

1. Discover how the decision making and self-organised nature of bee colonies can inform your agile practice
2. Understand the principles of complex adaptive systems to drive innovation and agility within your organisation
3. Acquire a fresh outlook on how the natural world can shape our approach to agility.


Queen
Drone
Worker

cmc

Scaling Without a Religious Methodology

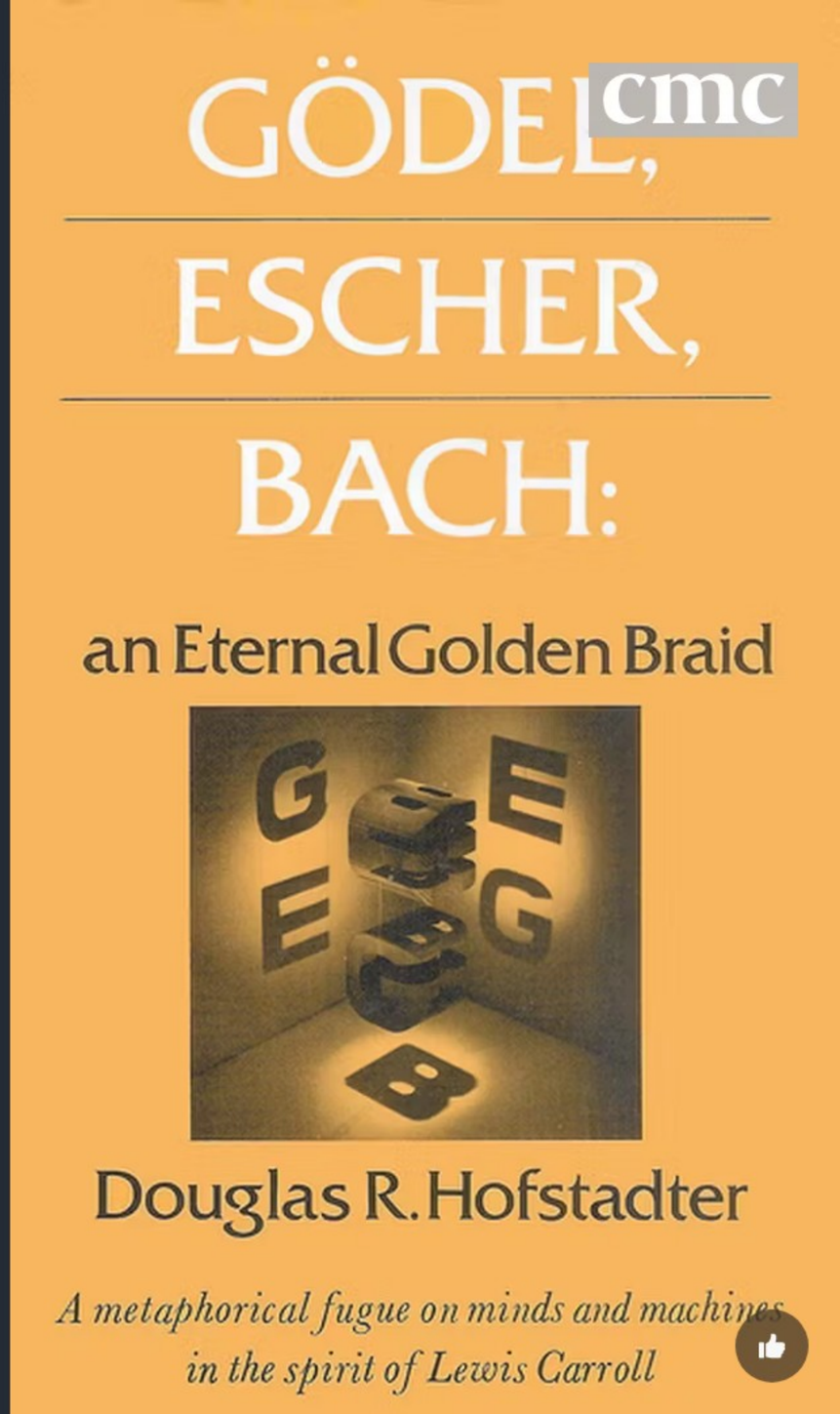
Dan North
@tastapod

Katherine Kirk
@kkirk

cmc

Gödel, Escher, Bach: an Eternal Golden Braid, also known as GEB, is a 1979 book by Douglas Hofstadter.

One point in the book presents an analogy about how individual neurons in the brain coordinate to create a unified sense of a coherent mind and compares that to the social organisation displayed in a colony of ants/bees.



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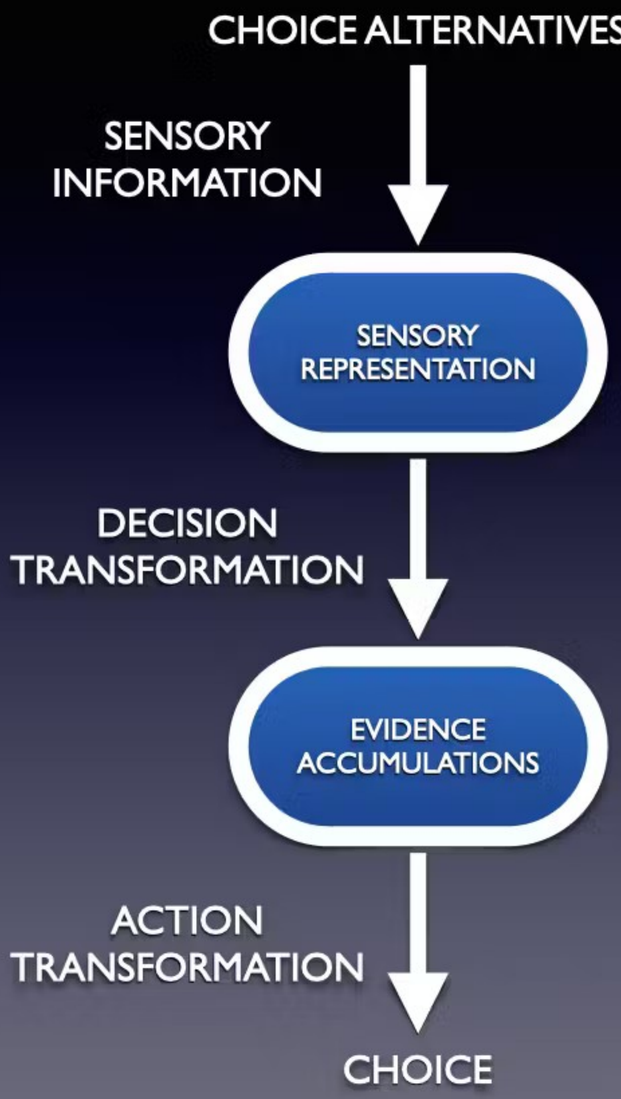
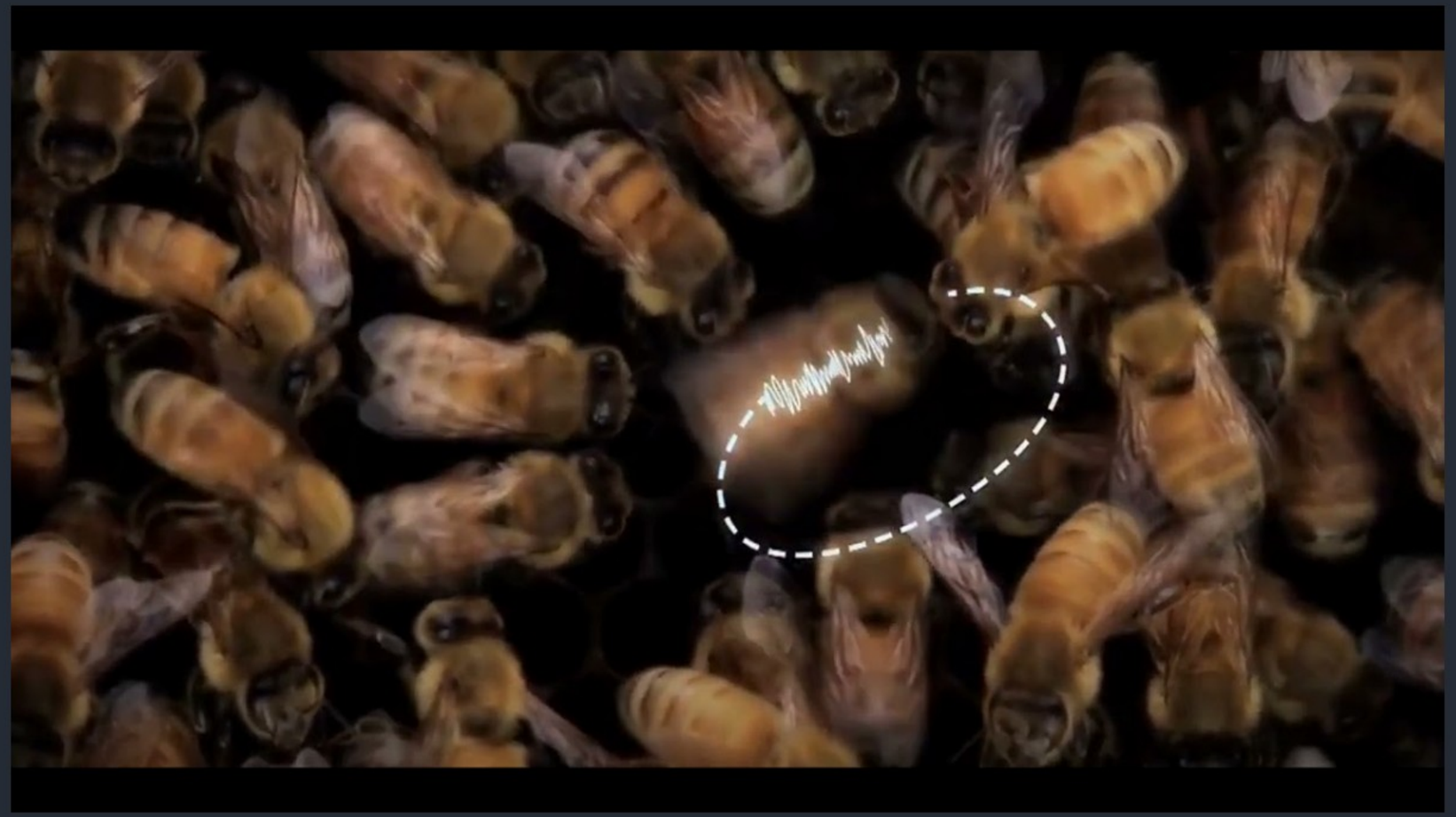
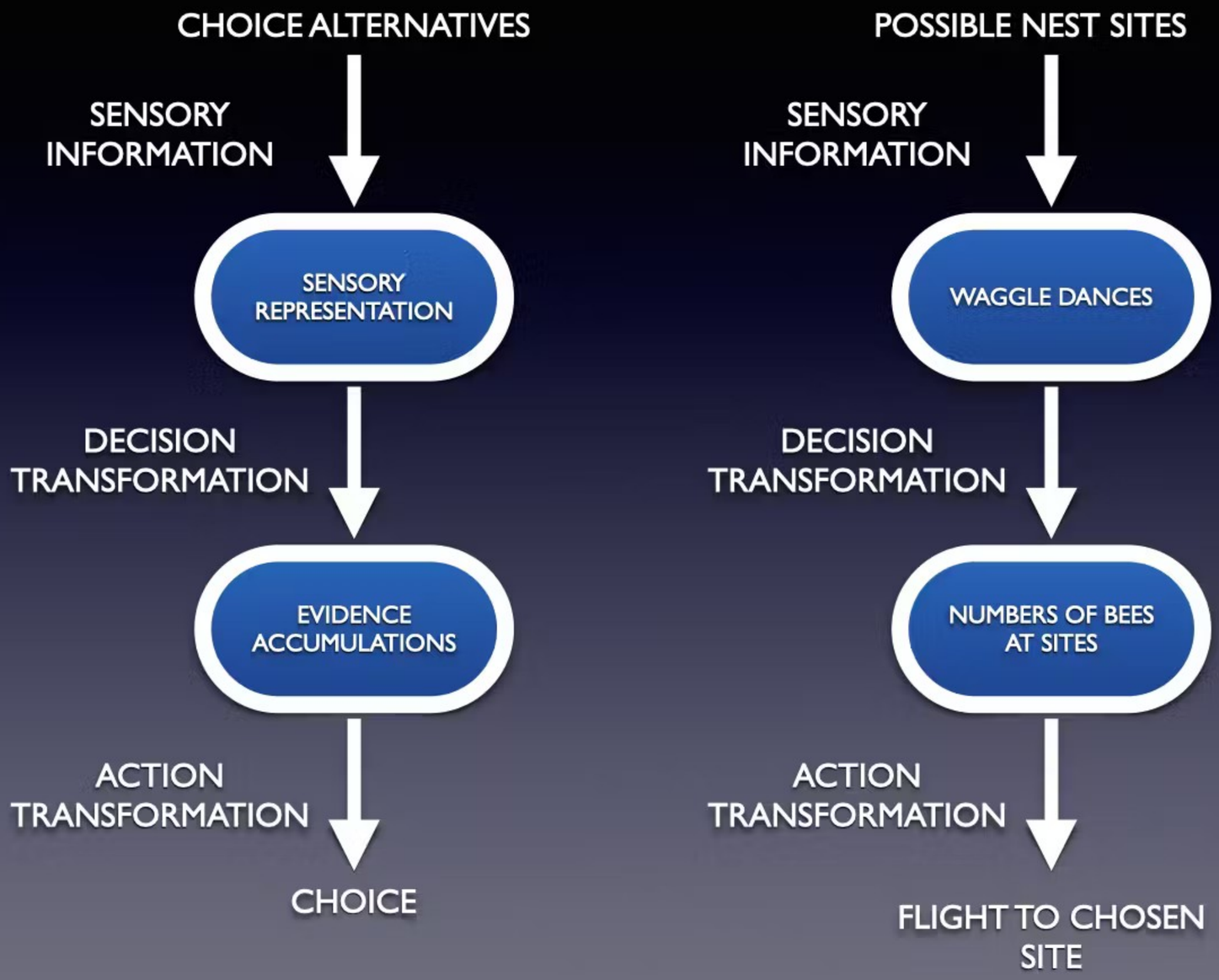
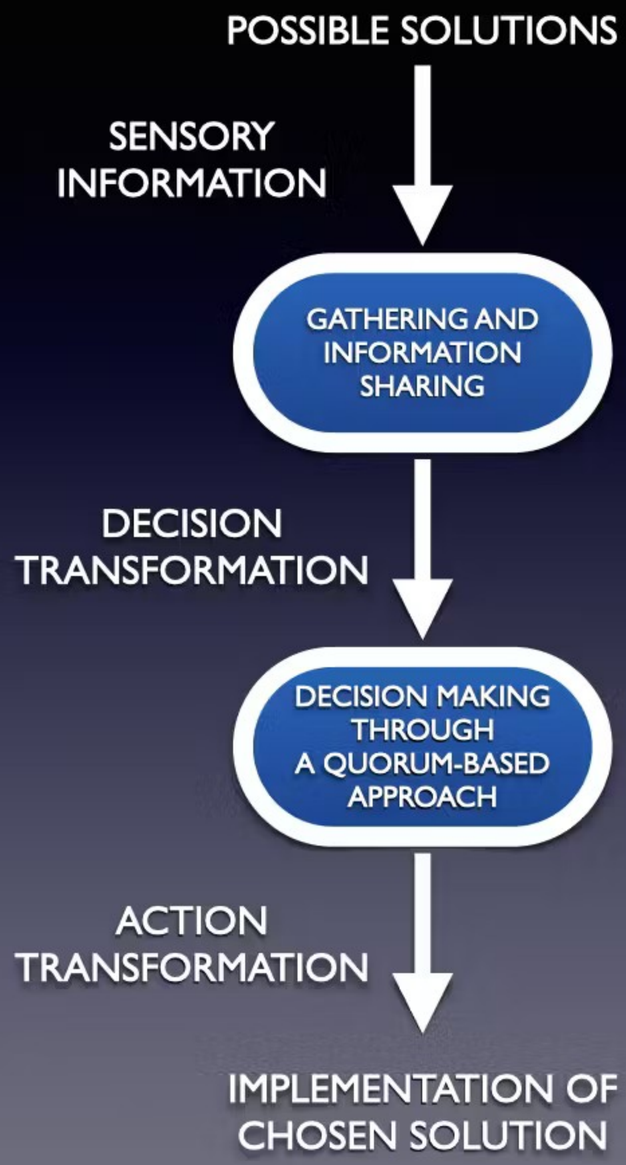


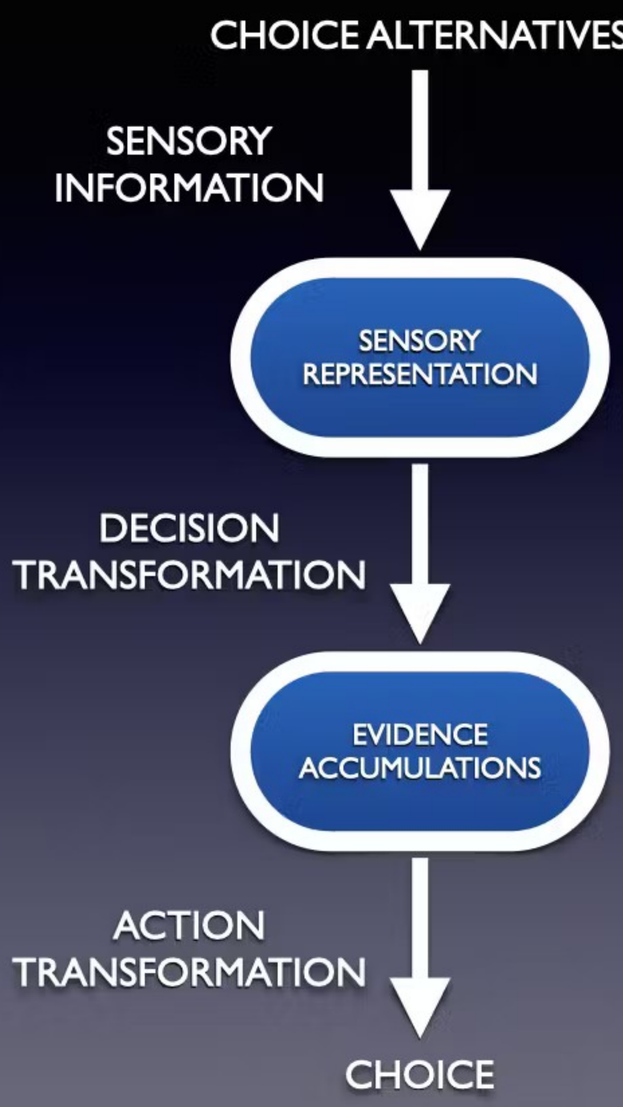
Sugrue, L., Corrado, G. & Newsome, W. Choosing the greater of two goods: neural currencies for valuation and decision making. *Nat Rev Neurosci* **6**, 363–375 (2005)





Seeley TD, Visscher PK. Sensory coding of nest-site value in honeybee swarms. J Exp Biol. 2008 Dec;211(Pt 23):3691-7. doi: 10.1242/jeb.021071. PMID: 19011208.


POSSIBLE SOLUTIONS
SENSORY INFORMATION
GATHERING AND INFORMATION SHARING
DECISION TRANSFORMATION
DECISION MAKING THROUGH A QUORUM-BASED APPROACH
ACTION TRANSFORMATION
IMPLEMENTATION OF CHOSEN SOLUTION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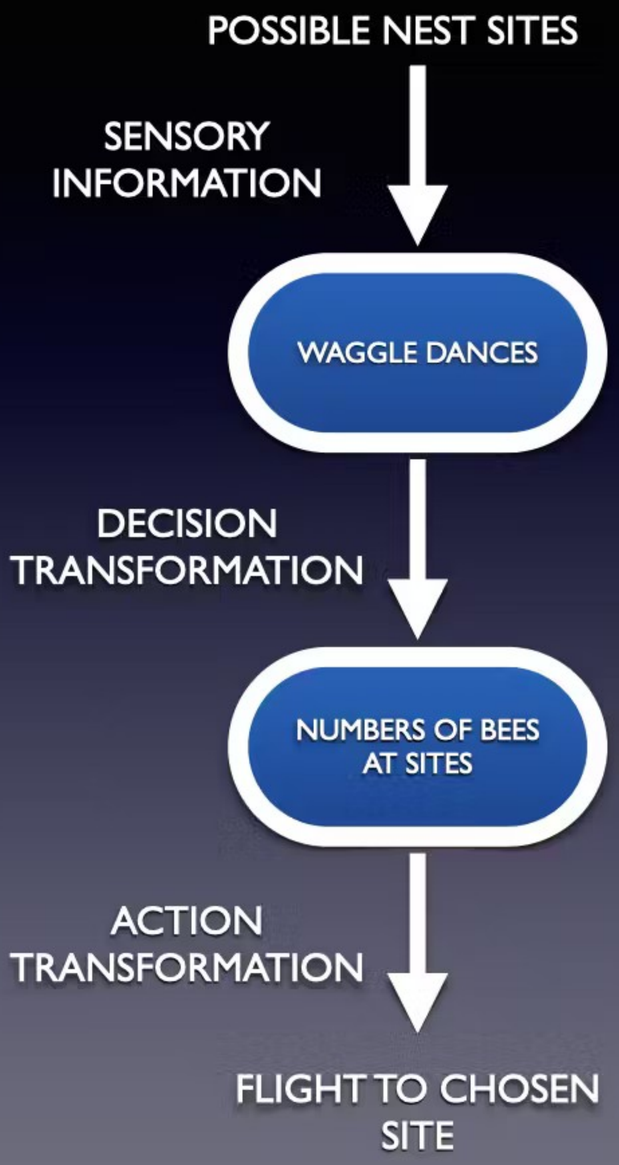
EVIDENCE ACCUMULATIONS
ACTION TRANSFORMATION
CHOICE


POSSIBLE NEST SITES
SENSORY INFORMATION
WAGGLE DANCES
DECISION TRANSFORMATION
NUMBERS OF BEES AT SITES
ACTION TRANSFORMATION
FLIGHT TO CHOSEN SITE

Revised Decision Framework for Agile Teams

(Quorum-Based Decision Making)

1. Choice Alternatives (Sensory Transformation)

- Stage: Brainstorming and Initial Planning.
- Description: During sprint planning or initial project planning, the team identifies various possible solutions or features to work on.
- Activities: Brainstorming sessions, user story creation, backlog refinement.

2. Sensory Representation (Decision Transformation)

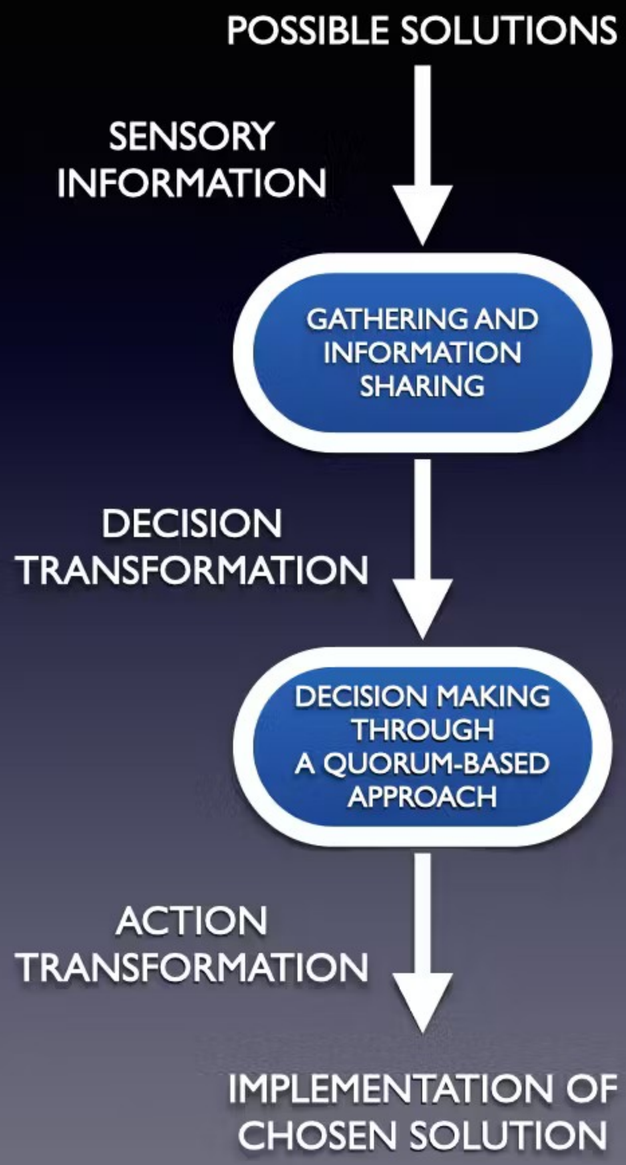
- Stage: Information Gathering.
- Description: The team gathers information on each potential solution or feature. This can include market research, customer feedback, feasibility studies, and technical assessments.
- Activities: Daily stand-ups, sprint reviews, backlog refinement, user feedback sessions.

3. Decision Transformation (Evidence Accumulation)

- Stage: Quorum-Based Decision Making.
- Description: The team uses the gathered information to assess and prioritise options. Instead of seeking full consensus, they establish a quorum threshold. Once a sufficient number of team members support a particular option, the decision is made. (e.g., 60% of the team supports it).
- Activities: Prioritisation meetings, voting sessions, estimation exercises, risk assessments.

4. Action Transformation (Choice and Execution)

- Stage: Implementation.
- Description: Once the quorum is reached for a decision, the team moves forward with the implementation. They allocate tasks, set timelines, and begin the work according to Agile practices.
- Activities: Sprint execution, task assignments, continuous integration and delivery, retrospectives to assess progress and adapt as needed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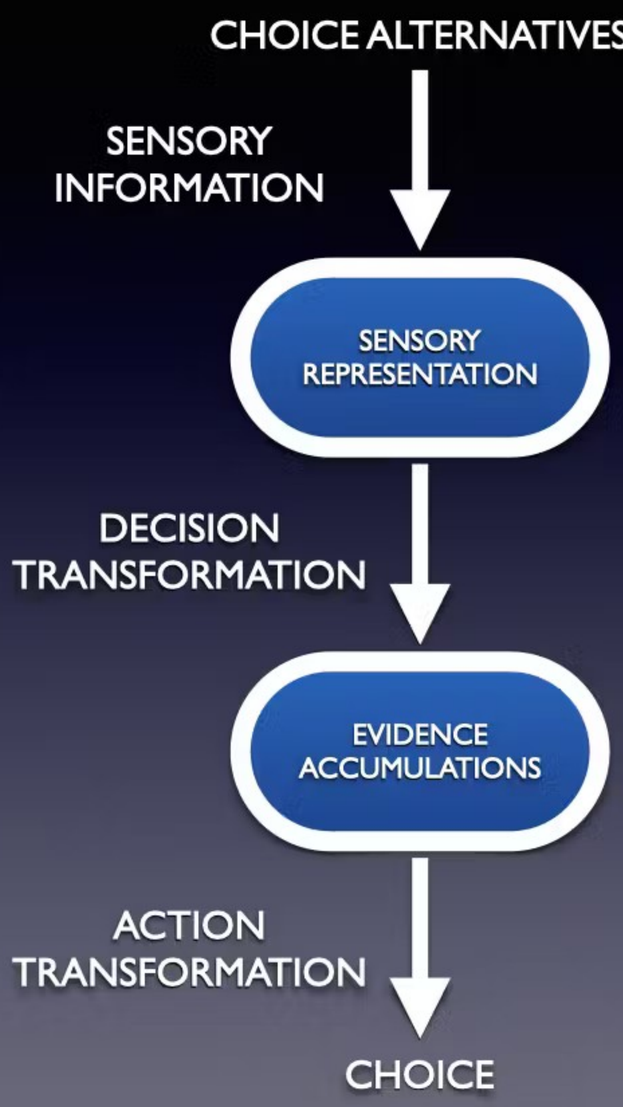
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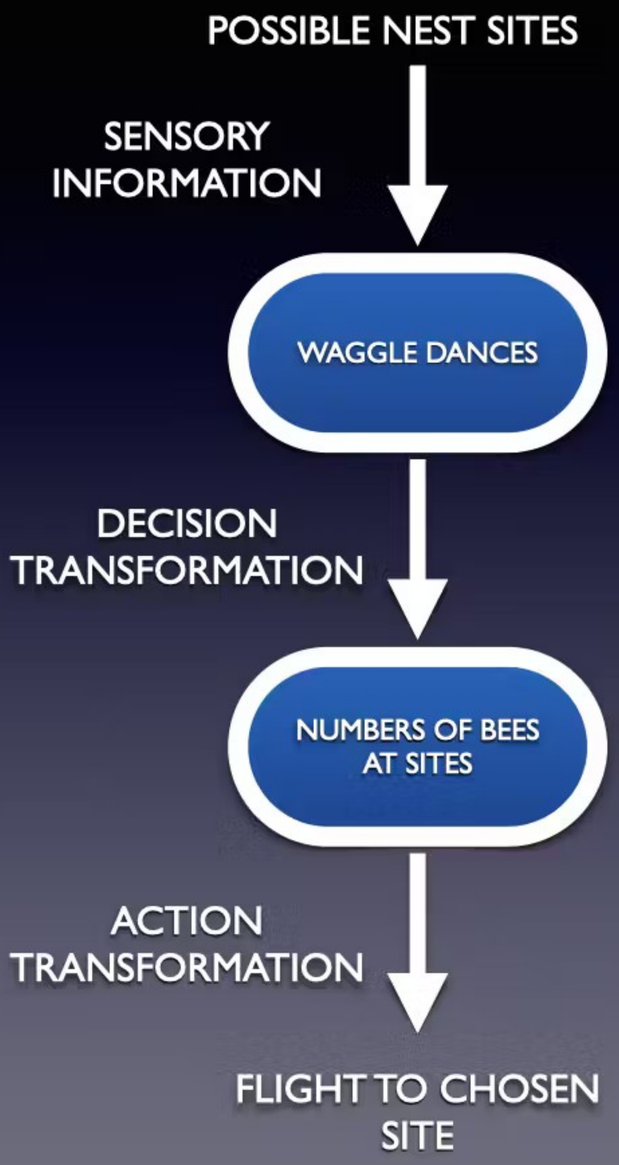
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WHY A QUORUM BASED SYSTEM?

1. Definition: Minimum number of members needed to make a decision.
2. Decision Making: Valid if quorum is met and majority agree.
3. Efficiency: Allows decisions without full participation, quicker.

CONSENSUS

1. Definition: Seeks agreement from all participants.
2. Decision Making: Made when all members support the decision.
3. Unity: Fosters inclusivity and strong commitment, slower.

Key Differences:

- Level of Agreement: Quorum = Majority of quorum, Consensus = General agreement.
- Inclusivity: Quorum = Not all input needed, Consensus = All input included.
- Efficiency vs. Unity: Quorum = More efficient, Consensus = More unity.

PRODUCT OWNER
PRODUCT BACKLOG
AGILITY IS COMPLEX
A Product Owner orders the work for a COMPLEX problem into a Product Backlog.

Dave Snowden - Cynefin Framework

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COMPLEX ADAPTIVE SYSTEM -
is a system
in which individual components interact
in non-linear ways,
leading to emergent behaviours and
the system's ability to adapt
and evolve over time.

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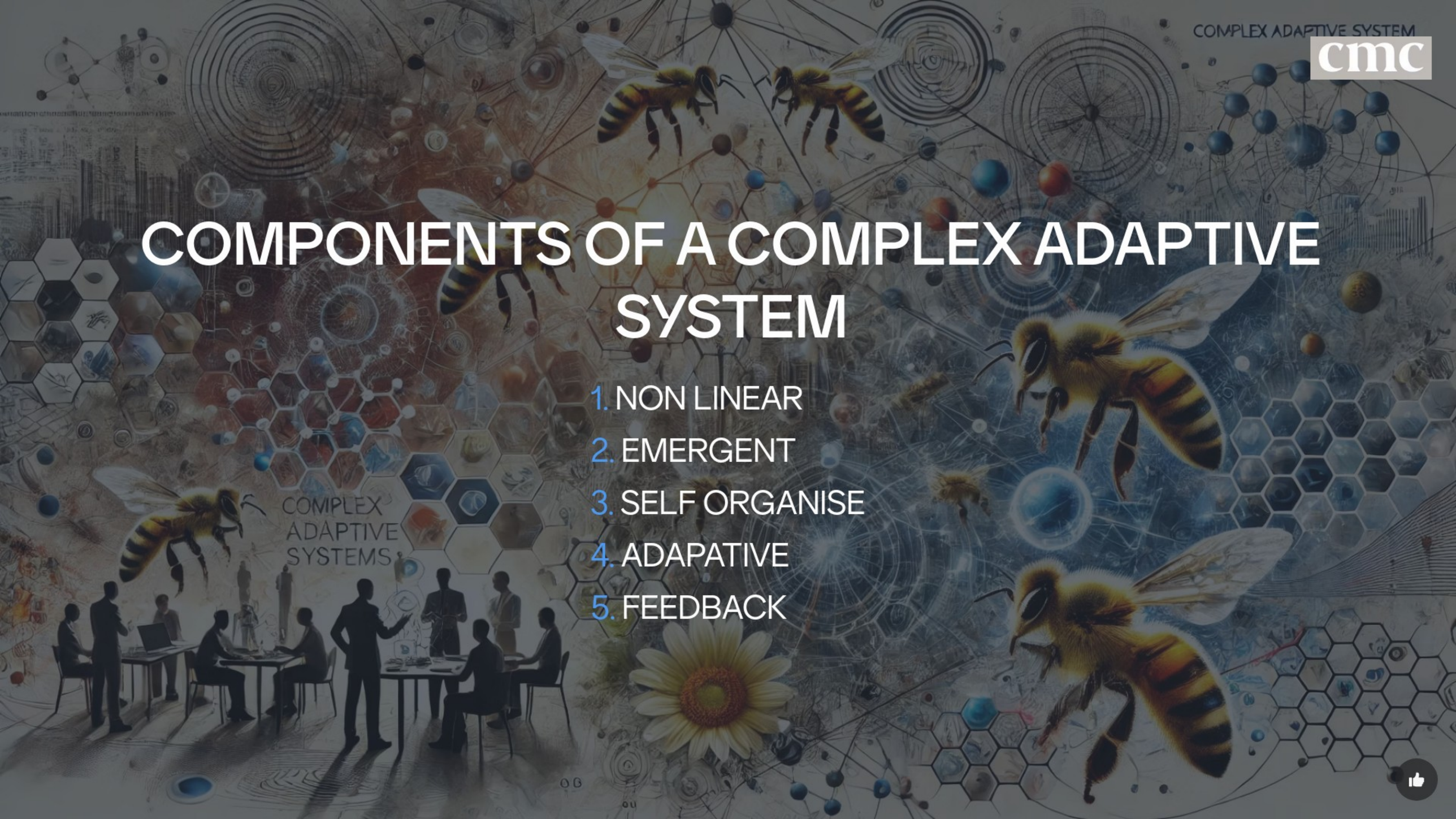
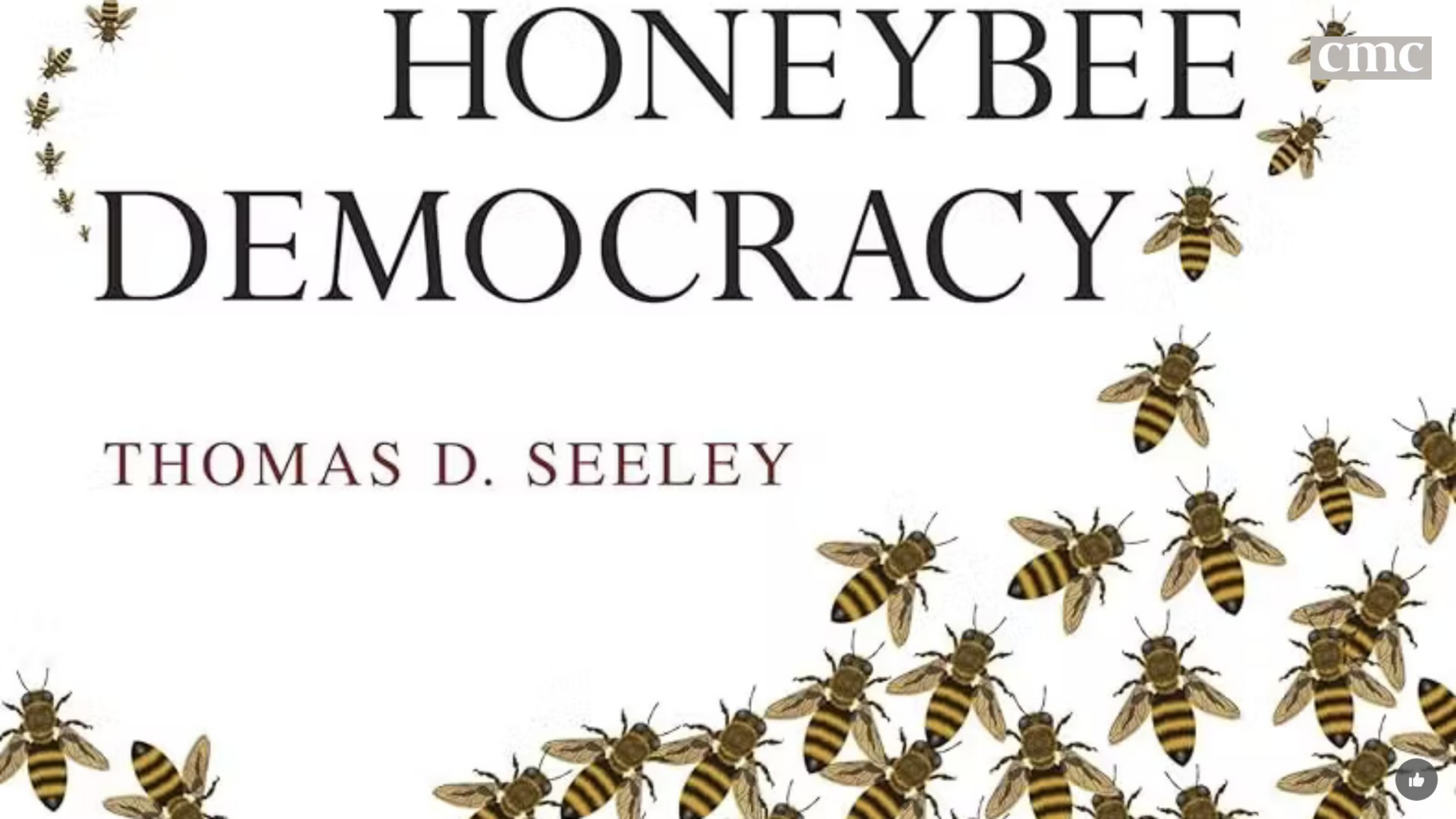
COMPONENTS OF A COMPLEX ADAPTIVE SYSTEM

1. NON LINEAR
2. EMERGENT
3. SELF ORGANISE
4. ADAPATIVE
5. FEEDBACK



HONEYBEE DEMOCRACY

THOMAS D. SEELEY



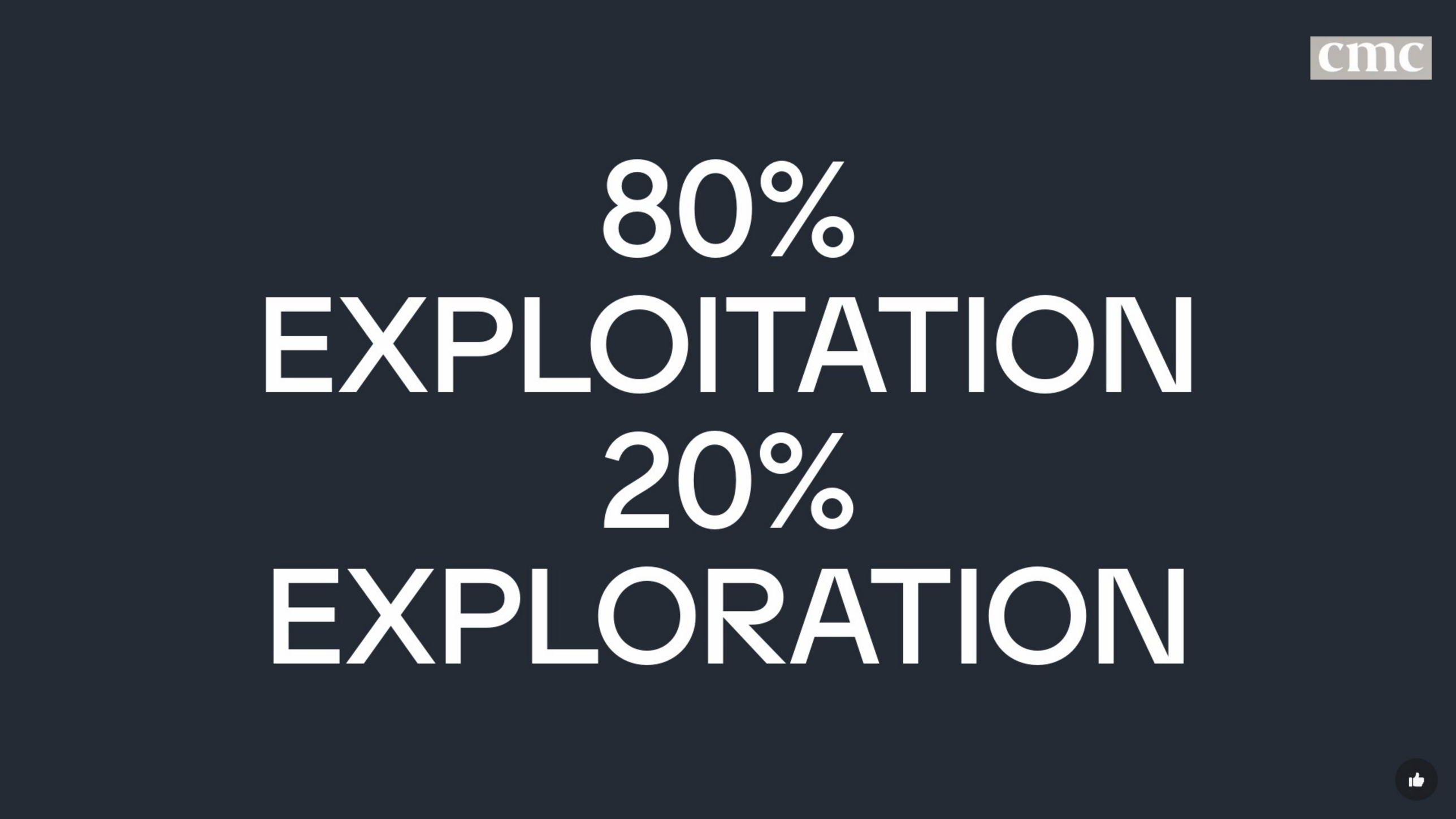
COMPOSE THE DECISION MAKING GROUP OF INDIVIDUALS WITH SHARED INTEREST AND MUTUAL RESPECT

MINIMISE THE LEADERS INFLUENCE ON THE GROUPS THINKING

SEEK DIVERSE SOLUTIONS TO THE PROBLEM

AGGREGATE THE GROUPS KNOWLEDGE THROUGH DEBATE

USE QUORUM FOR COHESION, ACCURACY AND SPEED



80%
EXPLOITATION
20%
EXPLORATION

Nigel Thurlow, John Turner, Brian Rivera - Flow system

Complexity Thinking

Understanding uncertainty and complex adaptive systems.

- Complex Adaptive Systems Sensemaking
- The Cynefin Framework
- Weak Signal Detection
- Network Analysis
- Storytelling & Narratives
- Empirical Process Control
- Constraint Management
- Prototypes
- OODA Loop
- Scrum The Toyota Way

Distributed Leadership

The behavior patterns of those who lead people and teams.

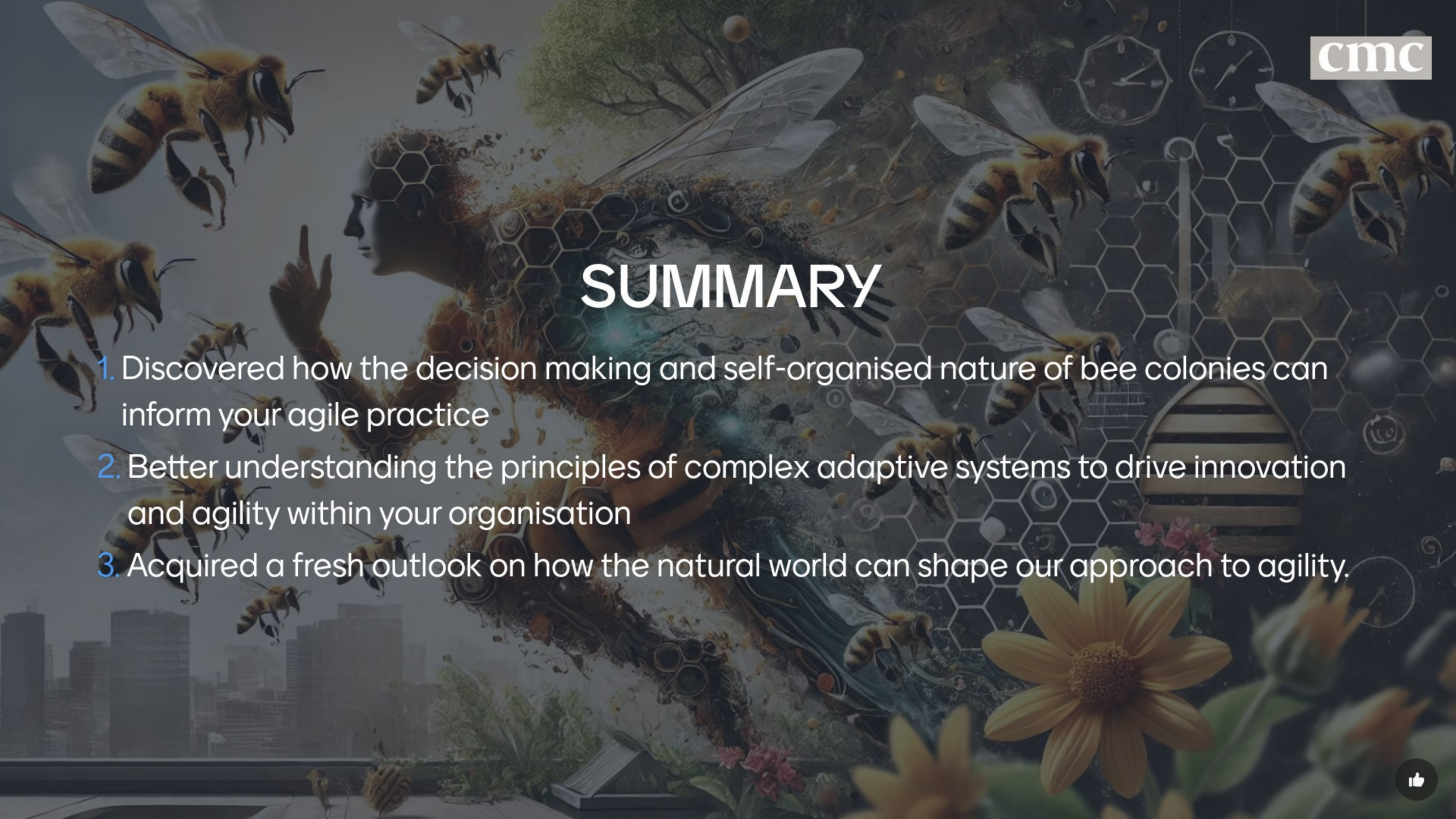
- Psychological Safety
- Active Listening
- Leader's Intent
- Shared Mental Models
- Wardley Maps
- Desicion Making
- Bias Towards Action
- Collaboration
- Coaching/Mentoring
- Complex Facilitation
- Organizational Design

Team Science

The science of teams, their interdependencies and interactions.

- Teamwork Training
- Human Centered Design
- Team Design
- Goal Identification
- Situational Awareness
- Developing Cognitions
- Influencing Conditions
- Team Learning
- Team Effectiveness
- Red Teaming
- Multiteam Systems

The JIM RUTT Show
The Jim Rutt Show
NO WAY OUT
Hosted by Mark McGrath & Brian 'Ponch' Rivera
Confidence in Complexity
AGLX



SUMMARY

1. Discovered how the decision making and self-organised nature of bee colonies can inform your agile practice
2. Better understanding the principles of complex adaptive systems to drive innovation and agility within your organisation
3. Acquired a fresh outlook on how the natural world can shape our approach to agility.

TAKE RISKS
EPIPEN
EPIPEN

One third of honey in international trade is adulterated or 100% fake

How is this possible and what are the consequences?

In new findings in the UK, once again not one was compliant

Samples (13) —>		Unit	Values Typical for Honey	(1) The Coop clear Honey	(2) ASDA Set pure Honey	(3) Rowse Honey	(4) ALDI Grandessa Honey Squeezy Clear	(5) Morrisons Pure clear	(6) Tesco Set Honey	(7) Tesco clear honey	(8) LIDL Highgate Fayre clear Honey	(9) Essential Waitrose pure clear Honey	(10) Sainsburys clear honey	(11) Poundland Clear Blossom Honey	(12) M&S Food Pure Honey	(13) M&S Food Pure set Honey
Broad Spectrum	Analysis															
Biological Properties:	HMF	mg/kg	max 40	37,9	21,4	25,6	32,0	26,6	15,1	37,2	24,6	20,8	25,6	13,8	16,0	15,9
	Diastase	DZ	min 8	3	3.6	3.2	1.4	5	6	6	3.1	10	4.4	1.5	5.7	5.3
Composition of Honey and Physical Characteristics	Moisture	%	max 20.0%	18.4	18,2	18.7	18.7	18.5	18	18.6	18.5	18.5	18.6	18,7	17.7	17.8
Bee Activity Markers:	Proline	mg/kg	min 180	n.d.	221	n.d.	434	177	346	n.d.	n.d.	195	190	n.d.	416	n.d.
Generic Fraud Markers:	AOAC 998.12 C4 Sugars (SCIRA & ISCIRA)	Pos/Neg	negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative
		% C4 sugar	<7%	0	0	0	0	0	0	0	0	0	0	0	0	0
	Psicose	%	0%	0.35%	0.14%	0.05%	0,21%	0.00%	0.29%	0,06%	0,30%	0.00%	0,05%	0,30%	0,44%	0,44%
	HRMS Screening	Positive/Negative	negative	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Negative	Positive	Positive	Positive	Positive
Nuclear Magnetic Resonance	foreign sugars NMR	Positive/Negative	negative	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive
	multivariate verification	Out of model/In Model	In model	out of model	Out of model	In model	Out of model	Out of model	out of model	Out of model	Out of model	In model	In model	Out of model	Out of model	In model
	univariate verification	Out of model/In Model	In model	in model	In model	in model	In model	In model	in model	In model	In model	In model	In model	In Model	In model	In model
Targeted Fraud Markers:	E150	Positive/Negative	n.d.	Negative	Positive	Negative	Negative	Positive	Positive	Positive	Negative	Negative	Positive	Negative	Negative	Negative
	Honey Foreign α-amylase	Positive/Negative	n.d.	Negative	Positive	Positive	Negative	Positive	Positive	Positive	Positive	positive	Positive	Negative	Positive	Positive
	β-fructofuranosidase	Positive/Negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative
	gamma-Amylase	Positive/Negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative
	Honey Foreign Oligosaccharides	Positive/Negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative
	beta-Amylase	Positive/Negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative
	thermostable amylases	DZ	no detected (n.d.)	n.d	n.d	n.d	n.d.	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d
	Glycerol	mg/kg	max 300	826	438	322	348	317	440	524	725	235	379	452	726	253

Second sampling in the UK[7]

Our first sampling[8] –where no sample was compliant either– was carried out in 2018. This time we bought thirteen honey jars: one in Coop, Aldi, Morrisons, Lidl, Waitrose, Poundland, Sainsbury's and two in M&S, Asda and Tesco. The purchase criteria was low prices.

Purchases were made in early March 2020 in Bristol, Surrey and Brighton & Hove, and dispatched to FoodQS –a full accredited laboratory in Langenzenn, Germany. Analysis results were delivered 13th of July with following conclusion: all samples are product of this huge and harmful honey fraud.

All samples were fake honey

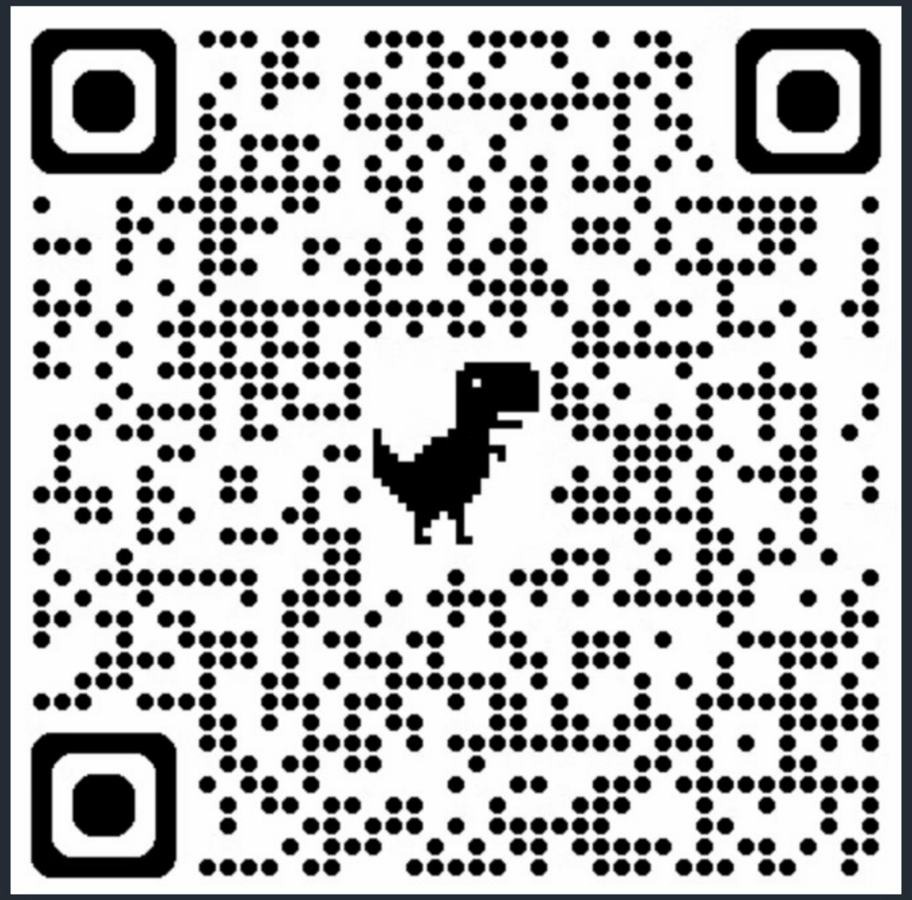
IT'S NOT HONEY

DANGEROUS
Almost all honey tested was found to be adulterated with sugar syrup

DELIBERATE
Chinese companies have designed sugar syrup that can bypass standard tests

DEVASTATING
Our health and livelihood of beekeepers are at risk

cmc



Please provide Feedback

Mick Brian
Passionate about how change really happens, complexity a...

@THESIXBEES_