



Scrum.org™

*The Home of Scrum*

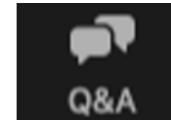
# Scaling Complex Systems by Building on Agile Frameworks.

Prof. Dave Snowden, Nigel Thurlow

April 30<sup>th</sup>, 2024

# Quick Guidelines

- Your microphones will be muted throughout
- This session is recorded. The recording and slides will be available after the webinar within 24 hours.
- Please ask questions!
  - Submit questions by selecting the Q & A icon:



# Who is Scrum.org

Mission:  
*Helping People and  
Teams Solve  
Complex Problems*



**Ken Schwaber**  
Scrum.org Founder,  
Chairman and  
Co-creator of Scrum



# Speaker Bios



Dave Snowden is the Founder and Chief Scientific Officer of The Cynefin Co. and Director of the Cynefin Centre for Applied Complexity. His international work covers government and industry, looking at complex strategic, organizational, and decision-making issues. He has pioneered a science-based approach, drawing on anthropology, the cognitive sciences, and complex adaptive systems theory.

He is a visiting Professor at the University of Hull and the creator of many methods and frameworks, including the Cynefin Framework, and is the principal designer of the SenseMaker® software suite.

He was one of the three founding members of the DSDM consortium, one of the three feeds into the Agile Manifesto, along with XP and Scrum.



Nigel Thurlow is the CEO of The Flow Consortium, having previously served as the first-ever 'Chief of Agile' at Toyota where he created the award-winning "Scrum the Toyota Way". He is also cocreated The Flow System™, a holistic FLOW-based approach to delivering customer-first value built on a foundation of The Toyota Production System.

Nigel is a Professional Scrum Trainer (PST) with Scrum Org, a recognized expert in organizational design, a Forbes Top 10 author, a renowned speaker, and he serves as a consultant to industry in business agility and is an expert in the application of cross-disciplinary methods and approaches to accelerate business transformation.

He is a founding partner in the creation of Hexi™.



**Developed with Scrum Org by Nigel Thurlow, Ralph Jocham, John Coleman  
With support from Martin Hinshelwood, Simon Reindl, and Jesse Houwing.**

**Artwork and Visual Design by Kristen White**



# What is Hexi™?



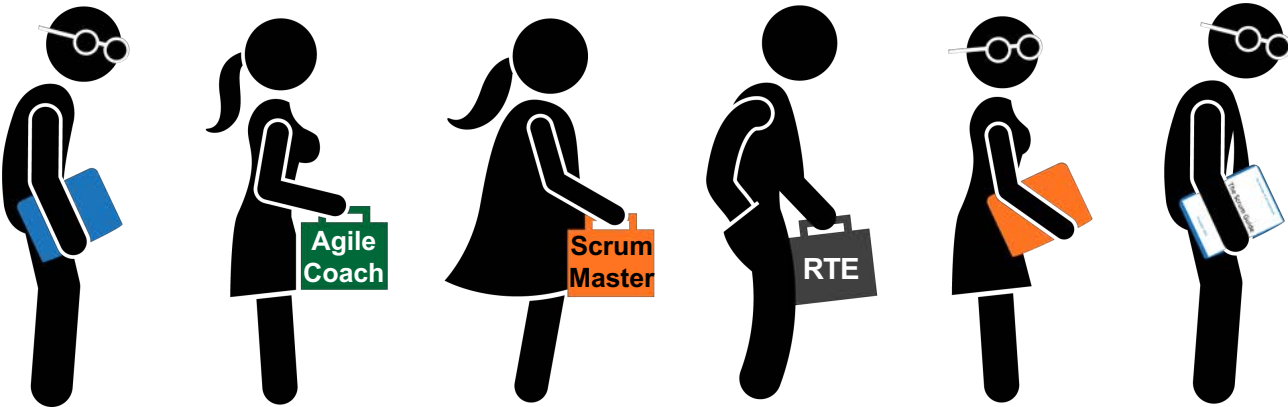
**Hexi™ is a new approach using physical artifacts designed to consolidate methods, approaches, tools and techniques that can be decomposed & recombined and applied to real-world organizational issues.**



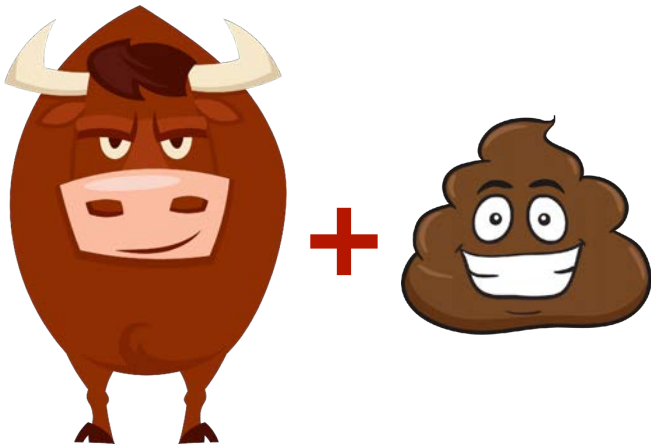
# Who is Involved?



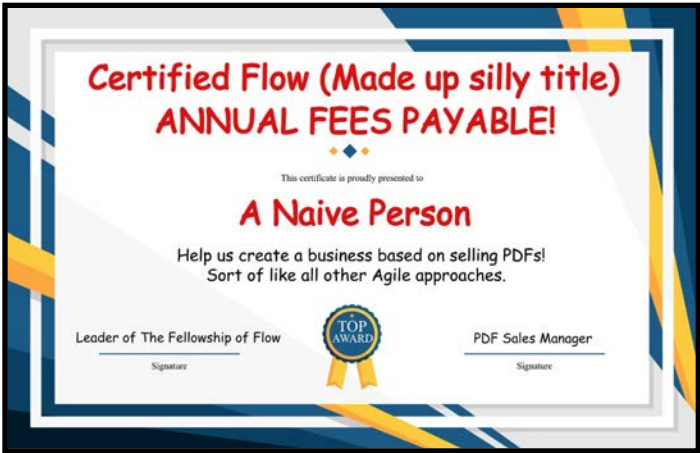
# The Current State of Agile



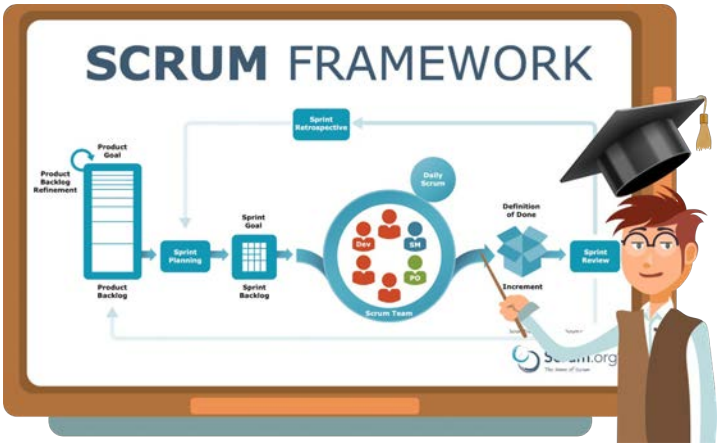
Mass layoffs decimating the Agile job market!



BS Jobs – created but prevented from carrying out the role.



LinkedIn Headline Changer PDF factories.



The Theoretical Scrum Master/Agile Coach.



# Tools Have Context



# Bounded Applicability



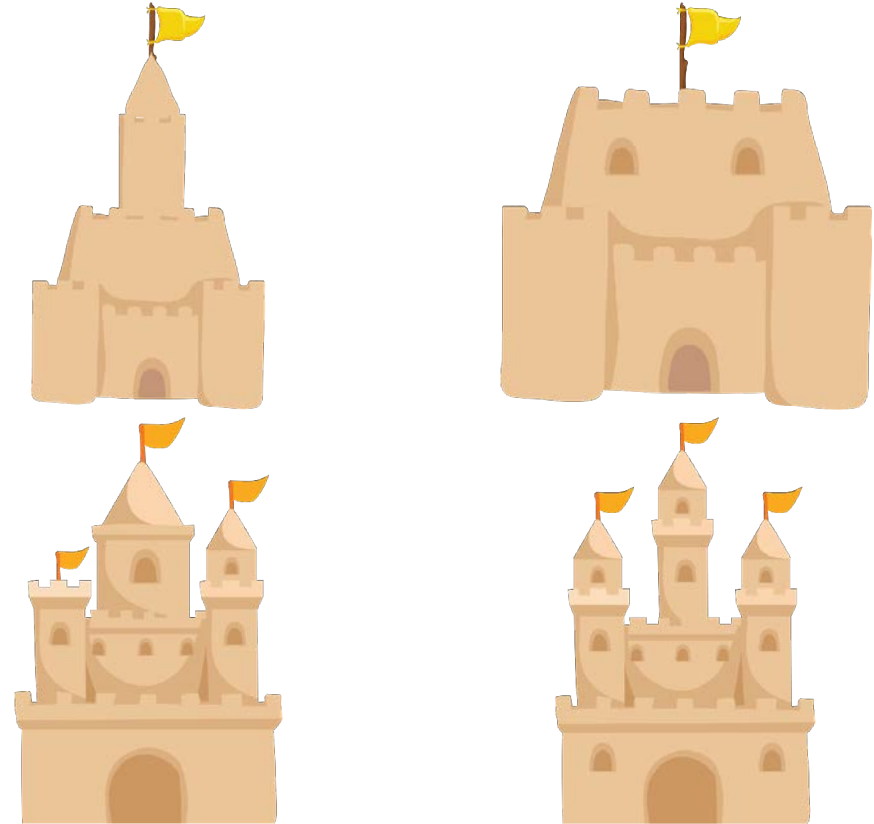
**Bounded Applicability** simply states that any method or tool has limits, and they are context specific. If using the established approach more furiously or energetically fails to tied better results, you have reached the boundary of utility.

**You may not understand the work, or you may be using the wrong tools?**

# Complex Adaptive System (CAS)



**Complex systems scale by decomposition (to the lowest level of coherent granularity) and recombination**

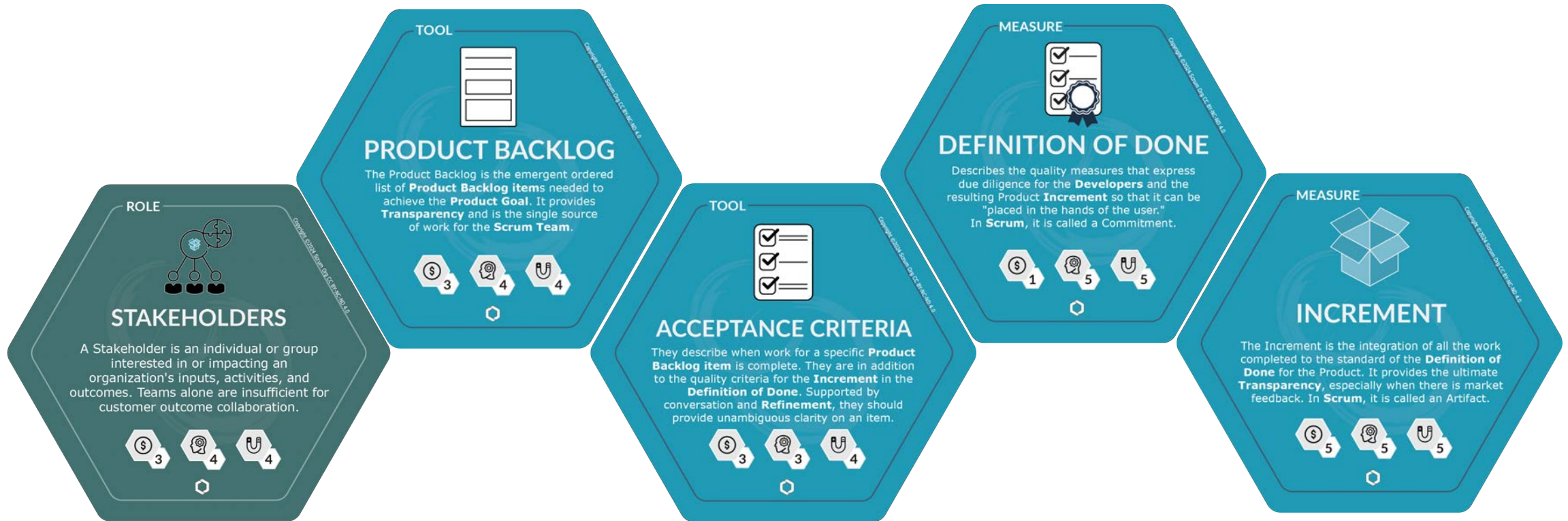


**Complex system do not scale by imitation or replication or through case-based approaches.**

**CAS are dynamic, continuously learning to adapt to external forces, and emerge to new states when necessary to meet unique environmental needs and can't be predicted by the characteristics of the parts.**



# Lowest Level of Coherent What Now?



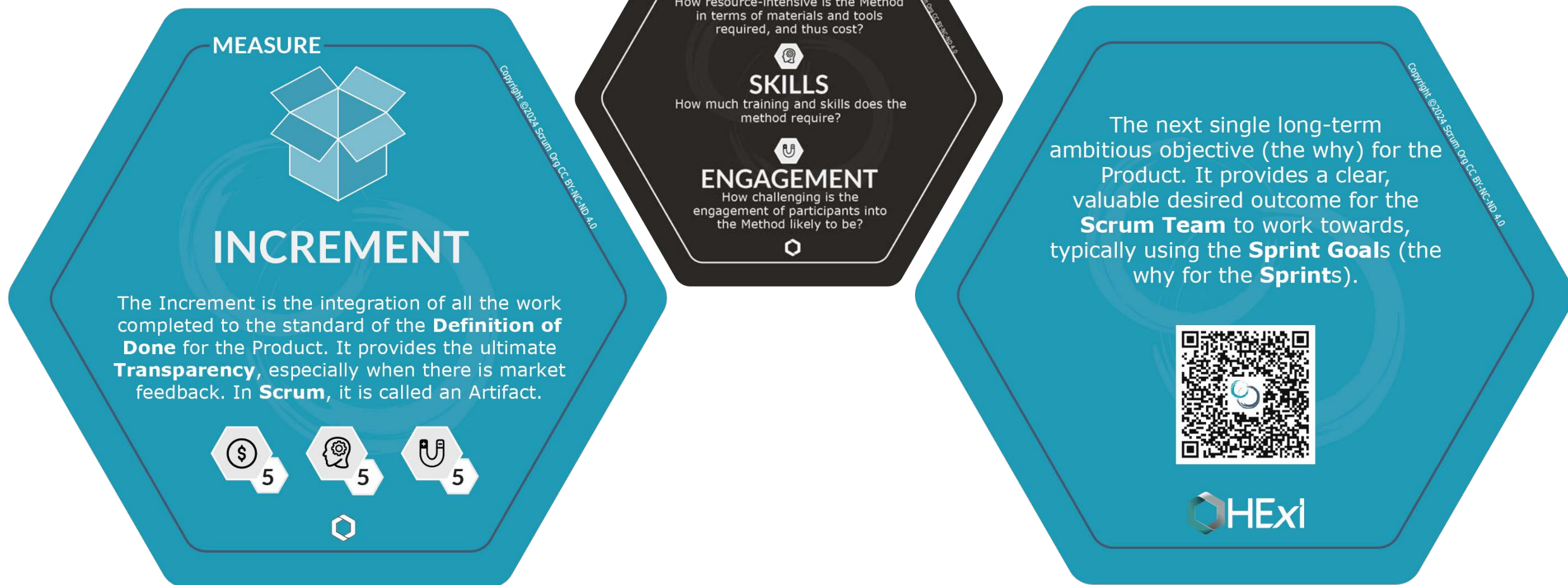
Granularity at which people can make sense of things without specific technical knowledge.

# Chefs not Recipes



**Complex Adaptive Systems require Chefs, not recipe book users, adapting to local context and combining core ingredients in different ways to feed people. This is a core principle of Hexi™.**

# Hexi™ Format



**Open source, multi-vendor, multi-method with high credibility on each component.  
Getting things right - not trivial over simplified cards, QR codes link to originators and creators.**



# Types of Hexi™

## 10 TYPES/CATEGORIES

Assembly (various combinations of other types)

Facilitation Aids

Frameworks

Methods (ways of doing)

Metrics/Measures (derived/absolute)

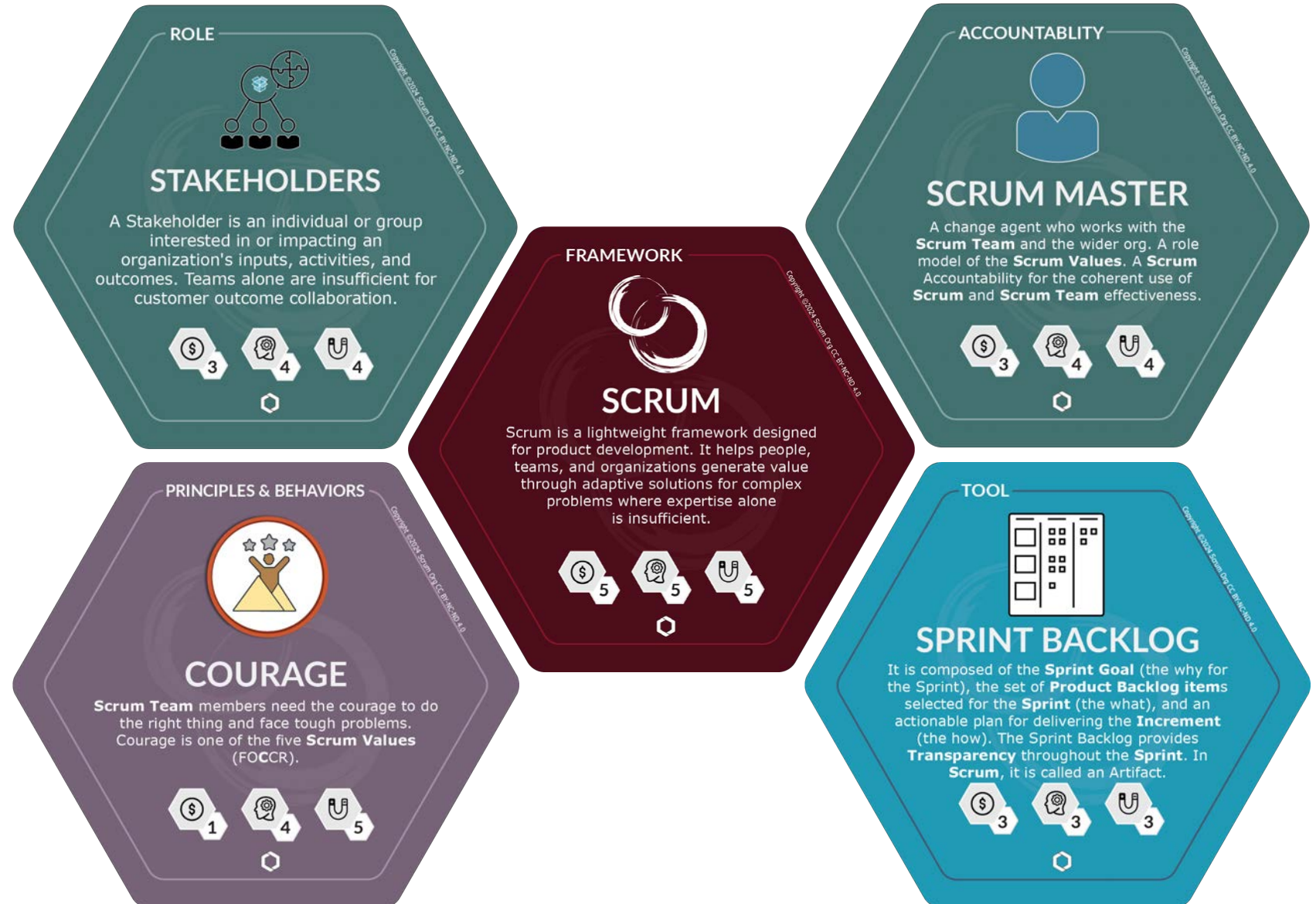
Principles/Behaviors (observable)

Quotes/Advice

Skills (can be taught & measured)

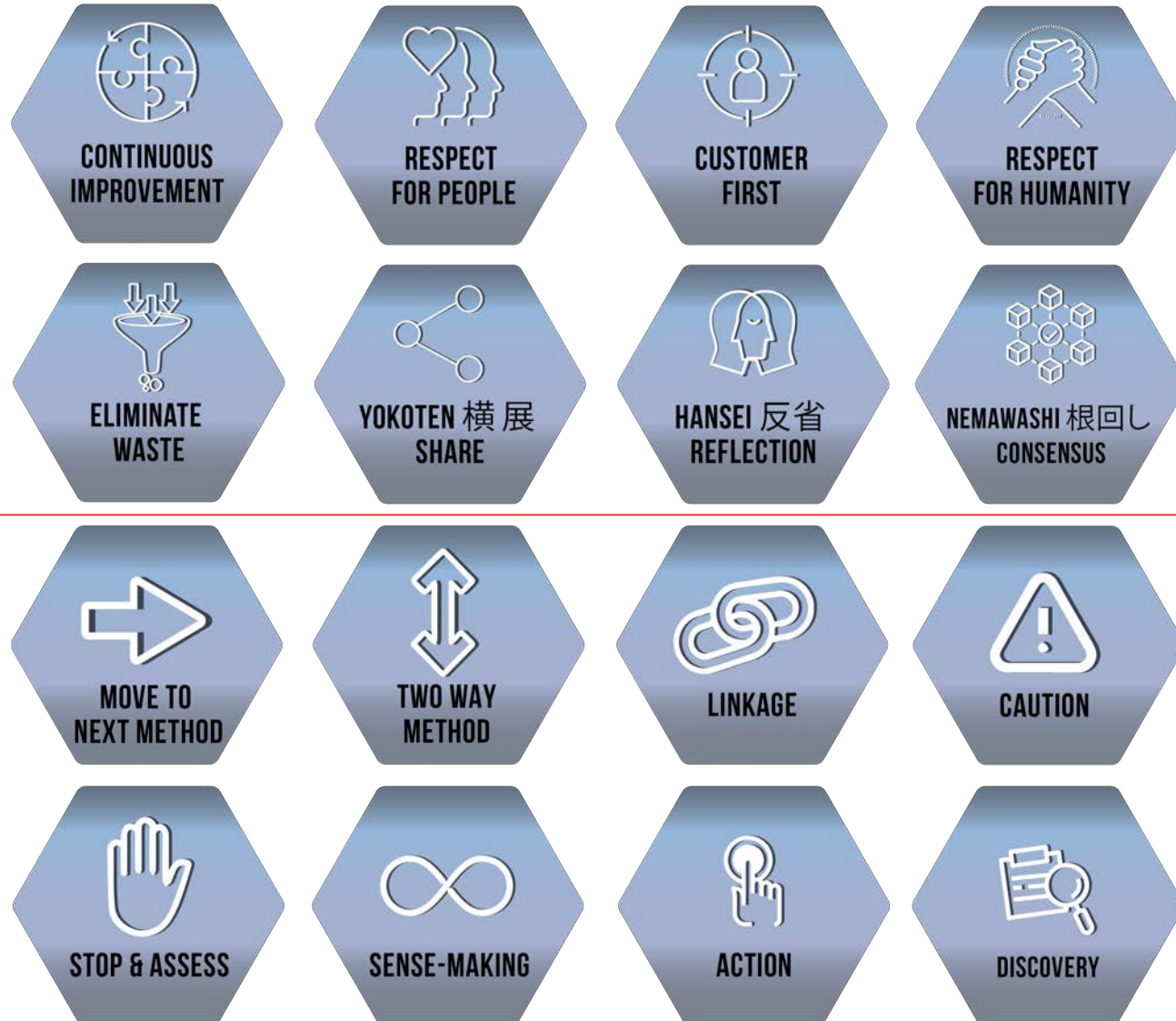
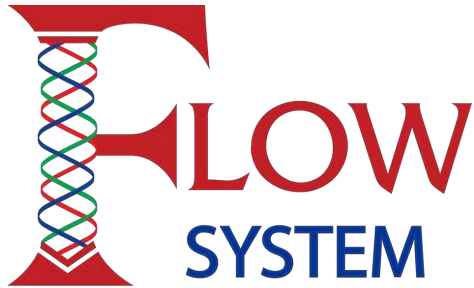
Tools (including software used to complete tasks)

Roles/Accountabilities



<https://cynefin.io/wiki/Hexi-types>

# Transparent Acrylic Hexis™



**Note: These are representations and not the final acrylic Hexis™.**



# The Physical Acrylic Hexis™



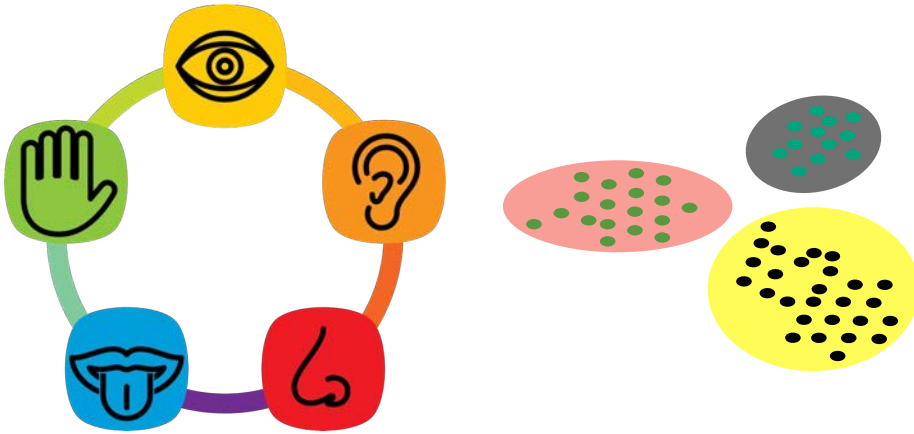


# Universality

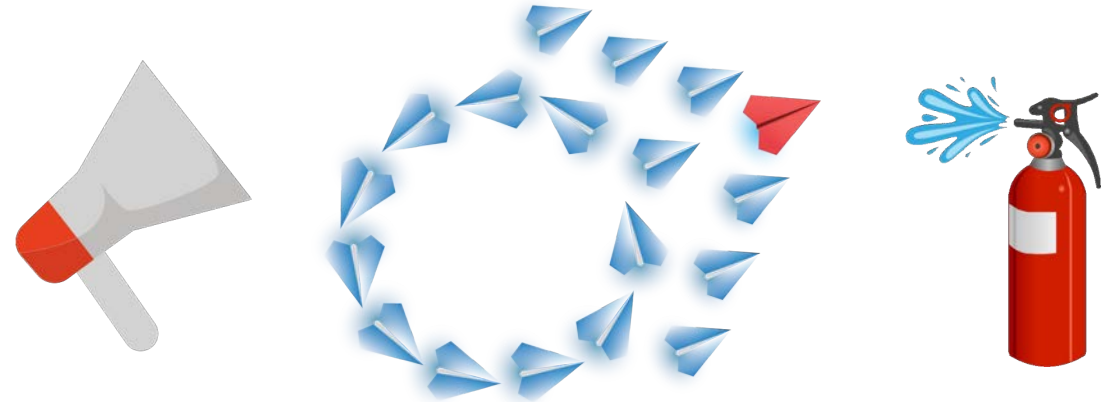


**Many Agile frameworks operate on a concept of universality. Techniques that were initially designed to address a specific context, namely software development, are not intended to be applied universally.**

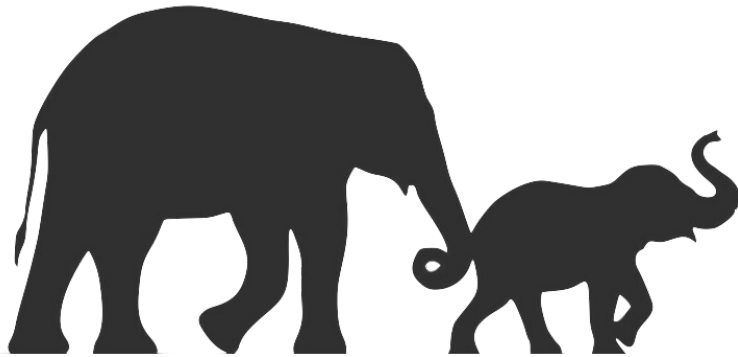
# Context is Key



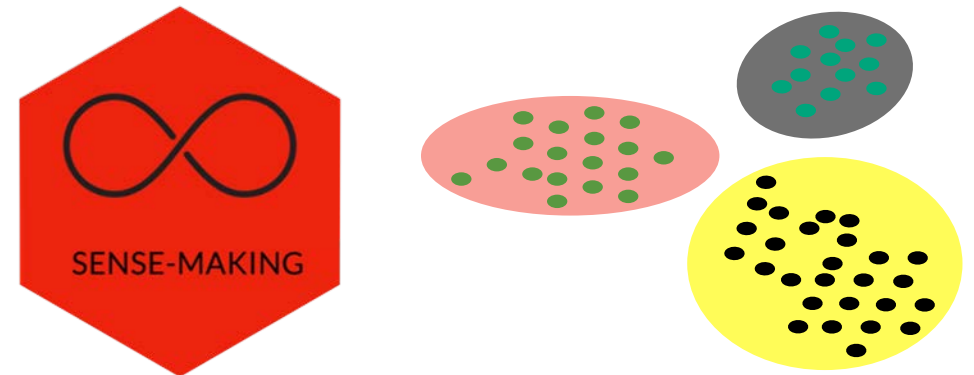
**1. Start from where you are. Map the current dispositional state of the culture and look for patterns.**



**2. Set a vector (direction to move in). What do we amplify or dampen? Look for adjacent possibles, the first stepping stone.**



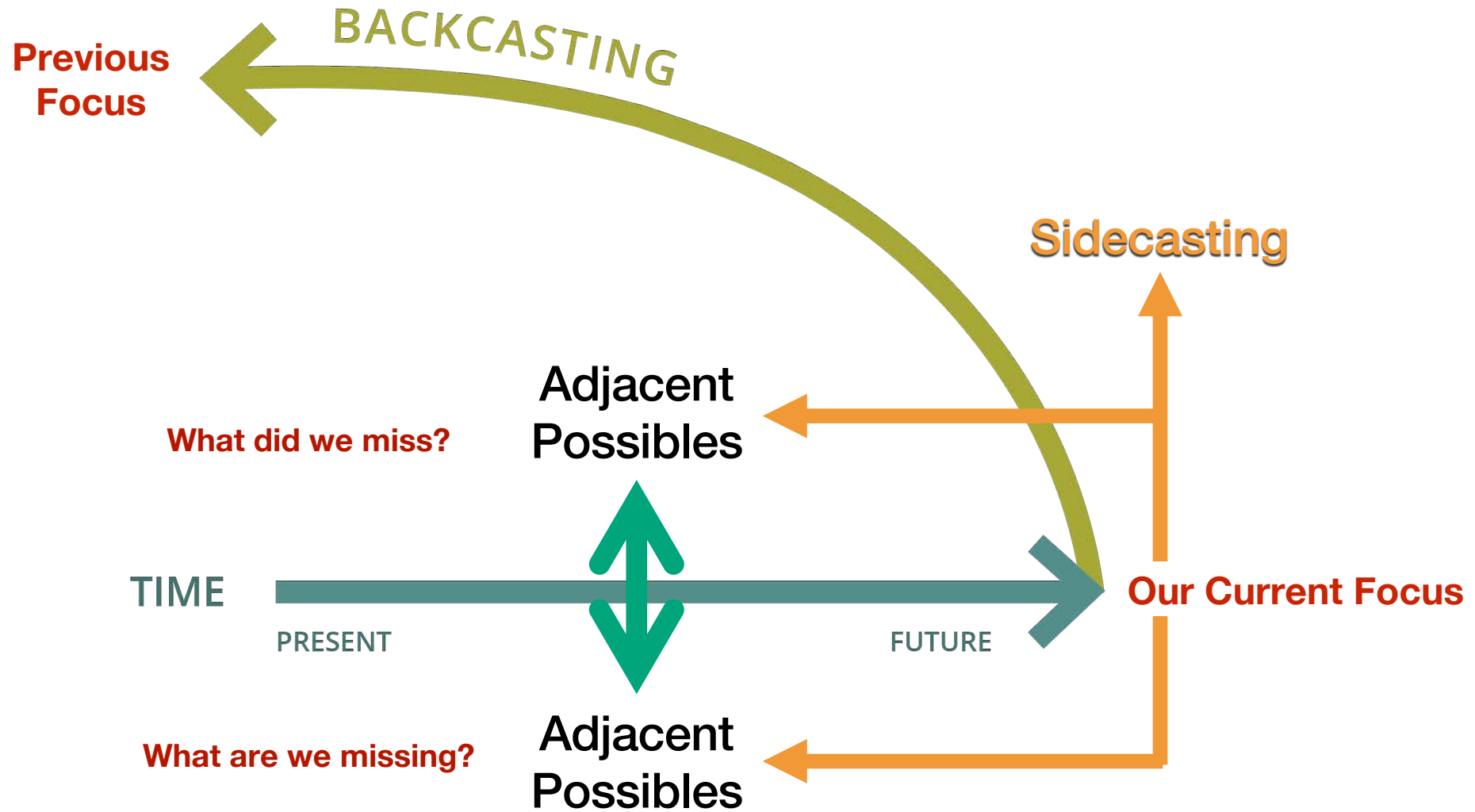
**3. Design interventions (nudges) in order to encourage behavioral change. Run multiple parallel safe-to-fail experiments.**



**4. Continuous monitoring to determine any shift in direction and landscape changes and develops, plus weak signals.**

**Complex environments are dynamic in nature: cause and effect relationships can only be deduced in retrospect.**

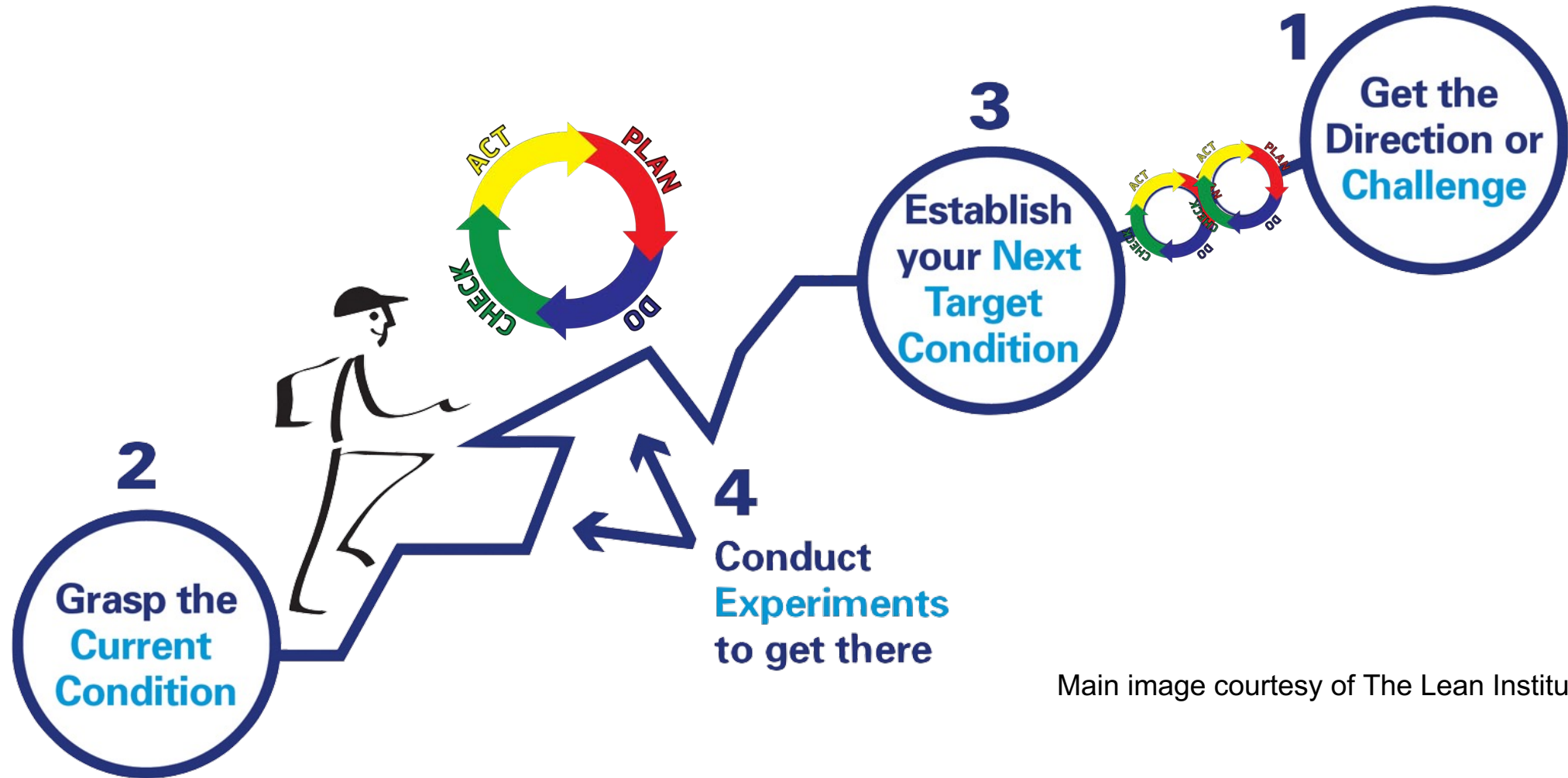
# A Sense of Direction



Adjacent possibles are everything that's achievable given the system's current state (Kauffman, 1996).

Could you shift to the former ground in the short term even if it's not the long-term goal?

# Lean Teaching



Main image courtesy of The Lean Institute ©

**Context recognizes that no two situations are identical in a complex adaptive system.  
You cannot apply a case-based approach.**



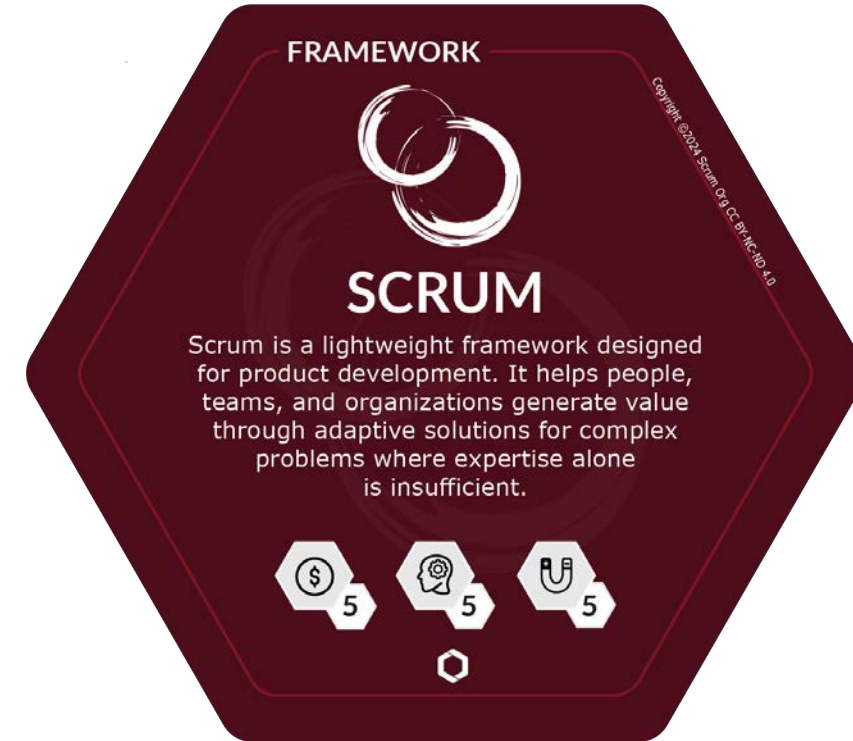
# Tessellation – Hexagons are the Bestagons

- Hexagon shaped artifacts or figures (Hexis™) are capable of being composed into complicated configurations and decomposed back to their initial form.
- Hexi™ takes advantage of the concept "Tesselation"; an arrangement of shapes closely fitted together, especially of polygons in a repeated pattern without gaps or overlapping.
- Hexagons best fill a flat surface with no wasted space and have the highest stability in terms of surface tension.

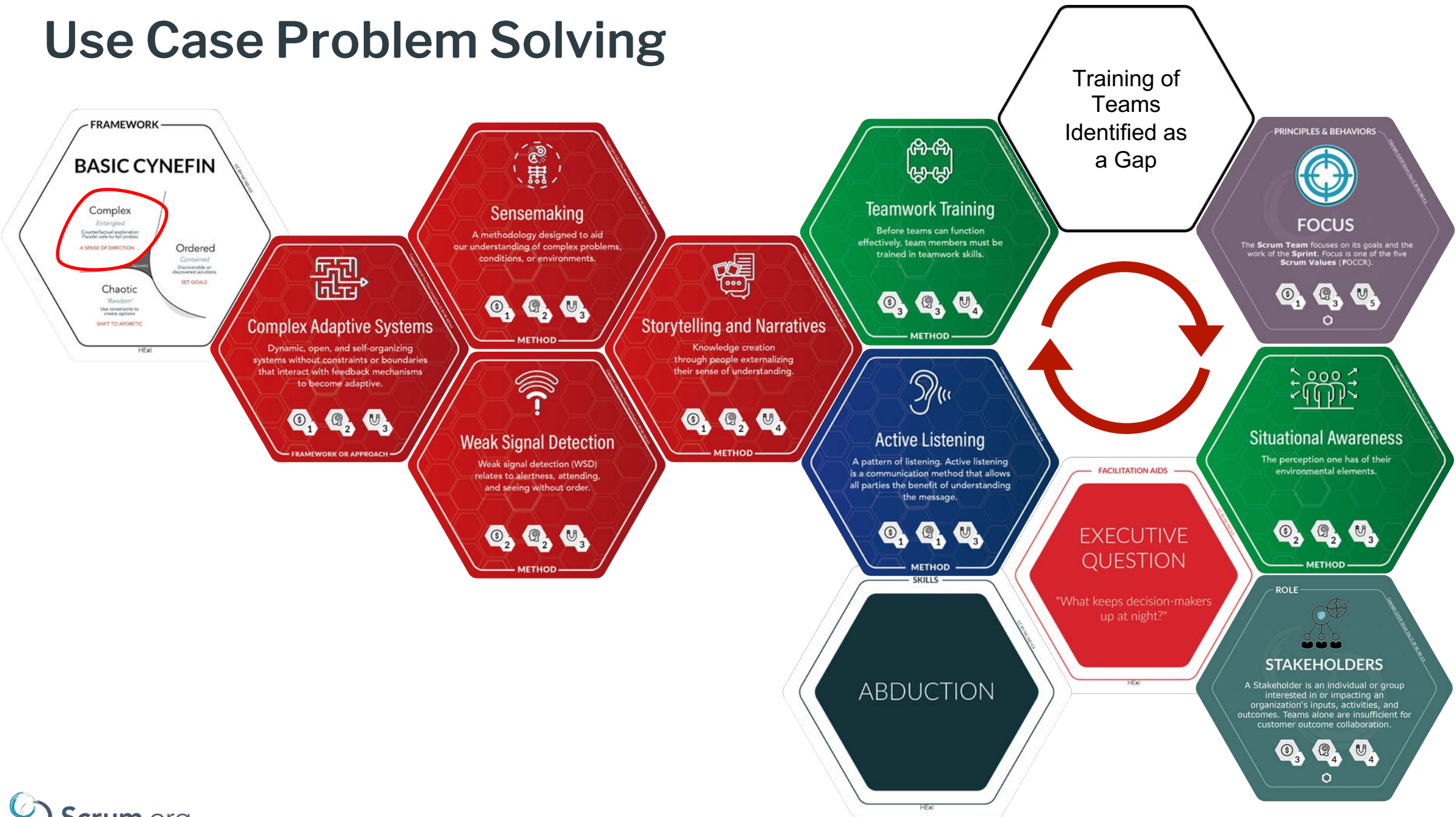


# Etymology

- Hexi™ pn. ©2023 Plural Hexis or Hexies.
- Hexiology, n. 1894
- That branch of science which treats of the development and behavior of a living creature as affected by its environment.
- Polyhex, n. 1967
- A planar shape formed by joining a number of identical regular hexagons by their edges.
- Heagonize, v. 1885
- To change into a hexagon; make hexagonal.

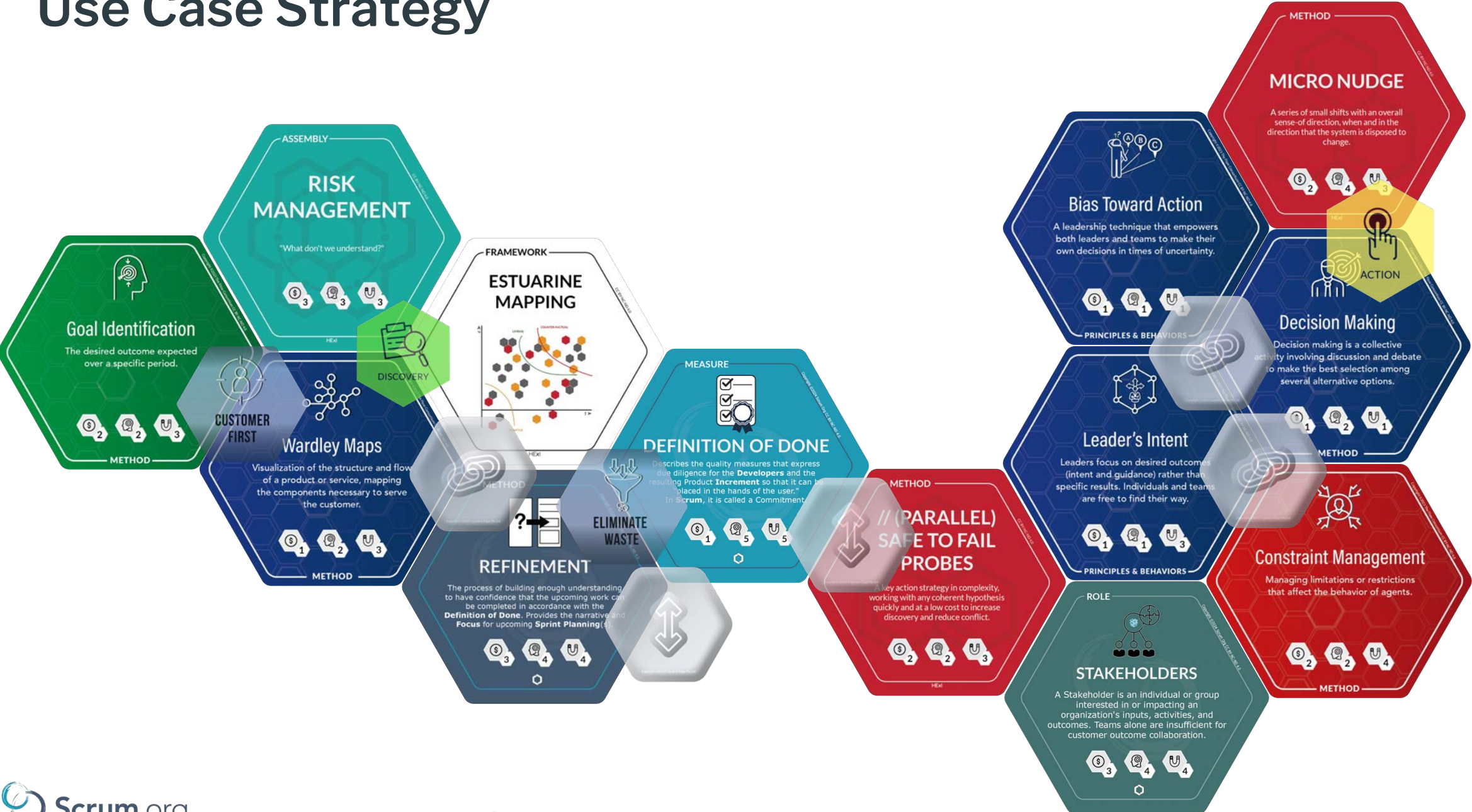


# Use Case Problem Solving



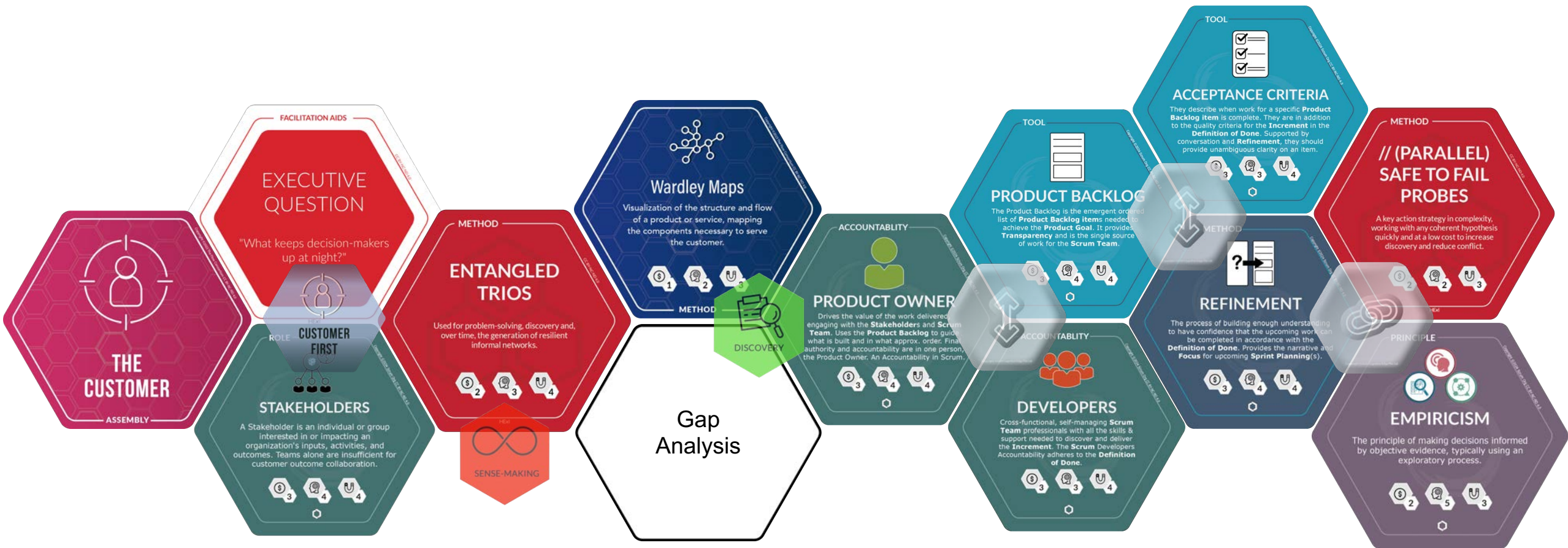


# Use Case Strategy





# Use Case Backlog Creation



# Use Case Culture Mapping



# Endless Uses for Hexi™



**And to help rescue big framework initiatives that have stagnated.  
We know you will find endless ways to use Hexi™ that we haven't even yet thought about.**



# The Initial SDO Scrum Pack – 1





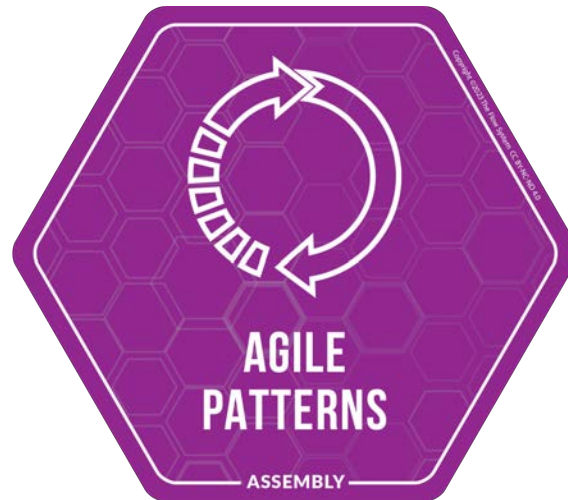
# The Initial SDO Scrum Pack – 2



# Coming Soon...



**From The Flow  
System**



**From The Patterns  
Community**



**From The Home  
of Scrum**



**From The  
Originators**

# Immutable

- *adjective* not changing, or unable to be changed.
- Scrum as a framework remains immutable.
- *Framework. noun*, a basic structure underlying a system, concept, or text.
- Hexi™ brings optionality and evolution and enhances Scrum, also allowing Scrum to support other methods and approaches etc.
- Context determines methods and approaches. When decomposed Scrum is no longer a framework.



# How can I get me some Hexis?

- There will be a presale for the initial run of 1000 sets.
- Register to be kept informed or to reserve in the presale.



- Are you the creator or original source of a methodology or set of practices and want to contribute your own set?



**[bit.ly/hexi-agile](https://bit.ly/hexi-agile)**



# Thank you!