

THE AGILE MINDSET



A Webinar Presented by:

AHMED SIDKY, PH.D.

15 years of experience in software development, management and delivery
YEARS

Virginia Tech
Ph.D. in Agile Transformation and Agility Assessment

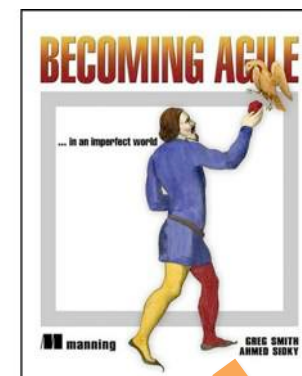
Co-founded



on the PMI-ACP Steering committee



Co-authored



Agile2009 Conference
Program Chair



Consulted, trained or coached with people and teams from ...

ExxonMobil



ConAgra Foods
Food you love

Raytheon



CATERPILLAR®

THALES



RAA
Pulse Of The Future



MITRE



verizon wireless



What is the
Biggest

Risk

Developing
Products ?



Developing the **Wrong** Product !





How the customer explained it



How the Project Leader understood it



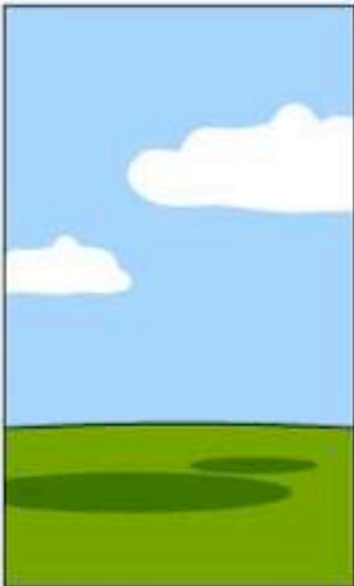
How the Analyst designed it



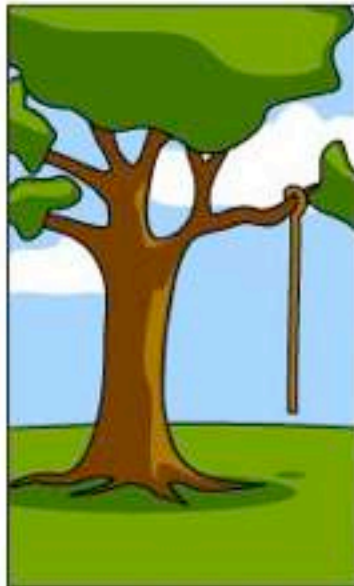
How the Programmer wrote it



How the Business Consultant described it



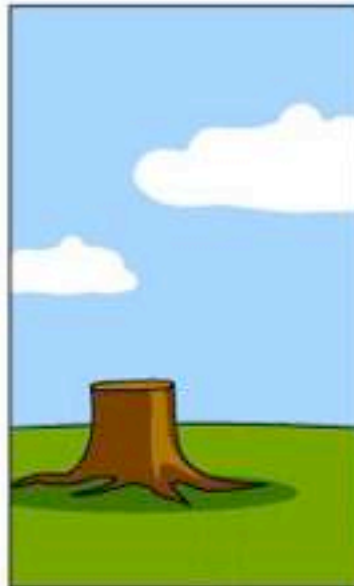
How the project was documented



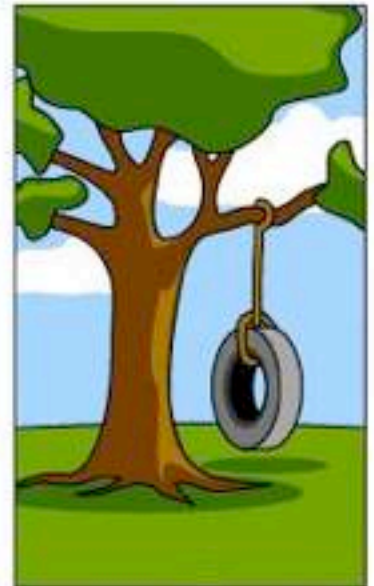
What operations installed



How the customer was billed



How it was supported



What the customer really needed

WHO'S FAULT ?!!





Discovery
changes



Understanding



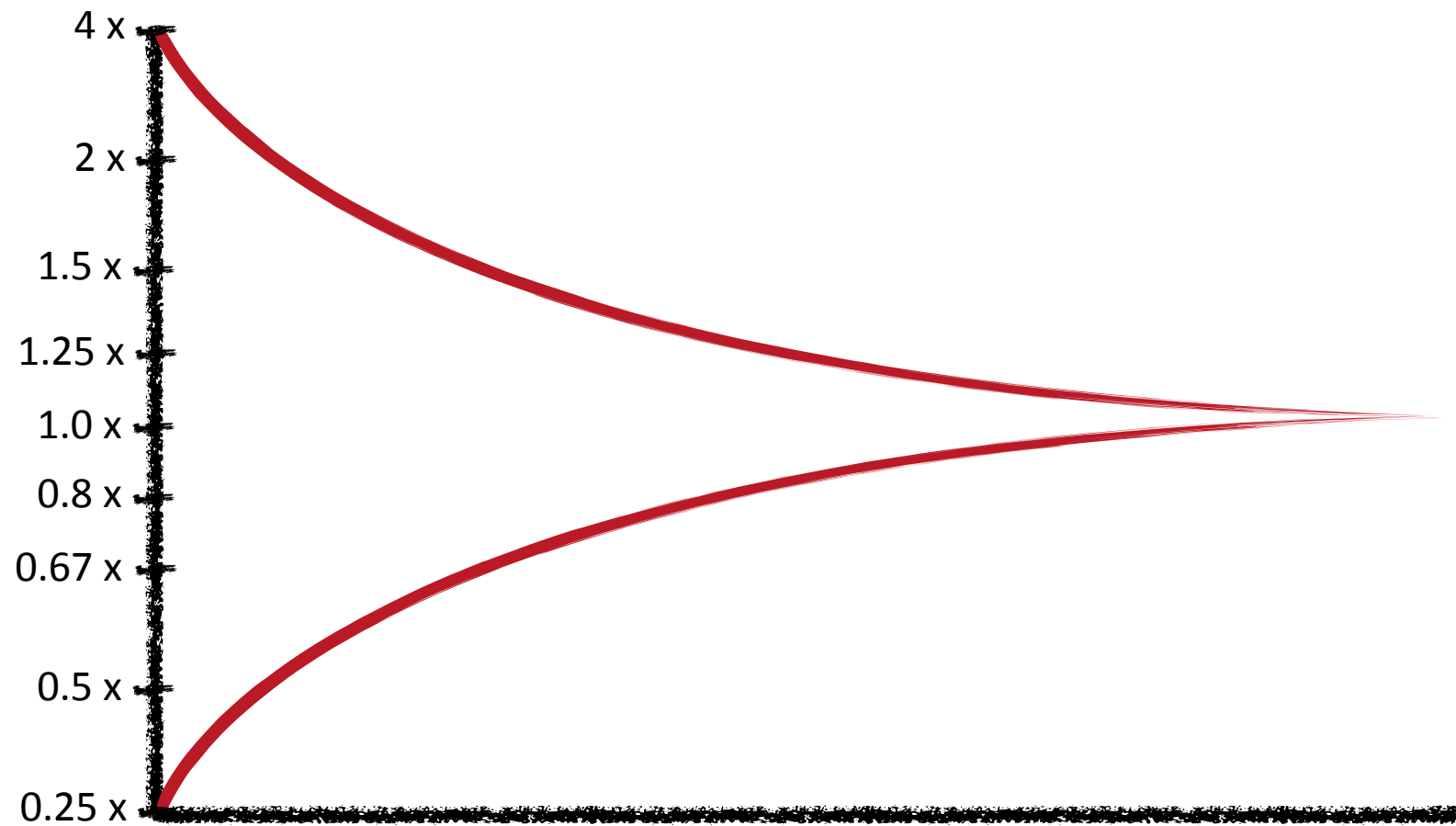


“IKIWISI”

I'll Know It When I See It



CONE OF UNCERTAINTY



What is our

Mindset

towards succeeding when there is

Uncertainty



What is our

established set of
attitudes and habits

towards succeeding when there is

Uncertainty



FIXED MINDSET VS. GROWTH MINDSET

Based on the work of Dr. Carol Dweck

I believe that my **[Intelligence, Personality, Character]** is inherent and static. Locked-down or fixed. My potential is determined at birth. It doesn't change.

Fixed
Mindset



Avoid failure
Desire to Look smart
Avoids challenges
Stick to what they know
Feedback and criticism is personal
They don't change or improve

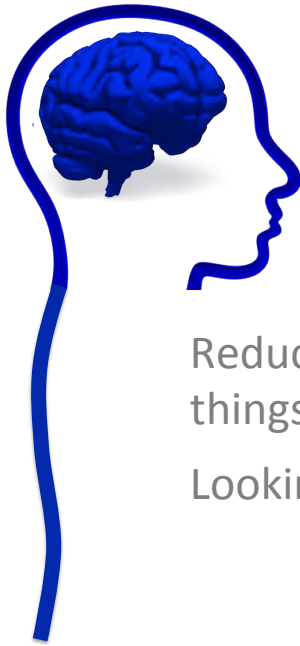
I believe that my **[Intelligence, Personality, Character]** can be continuously developed. My true potential is unknown and unknowable.

Growth
Mindset



Desire continuous learning
Confront uncertainties.
Embracing challenges
Not afraid to fail
Put lots of effort to learn
Feedback is about current capabilities

What do you do ?



Fixed Mindset
approach to
managing
uncertainty

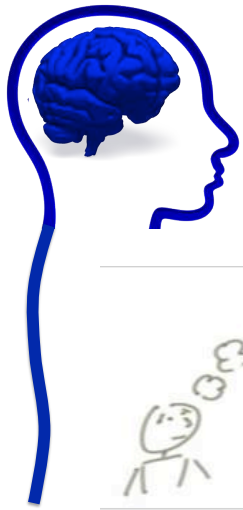
Reducing uncertainty by “nailing
things down.”
Looking to fix and confirm things.



Agile Mindset
approach to
managing
uncertainty

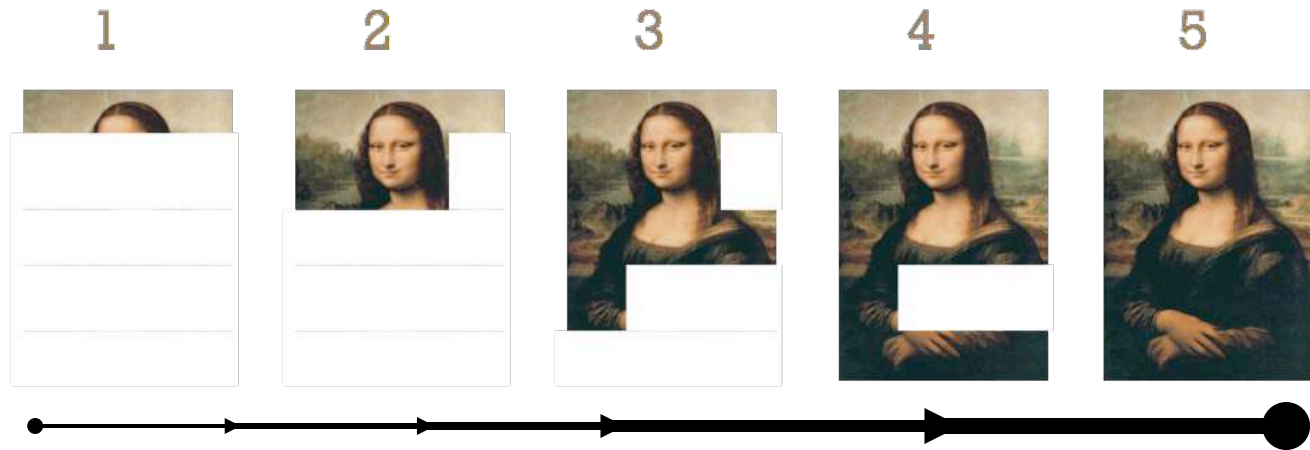
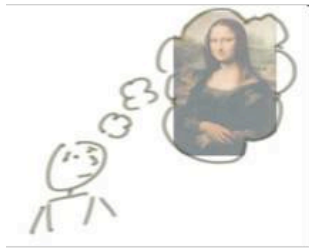
Reducing uncertainty by
discovering and learning.
Looking to learn and discover in
the most efficient way possible.





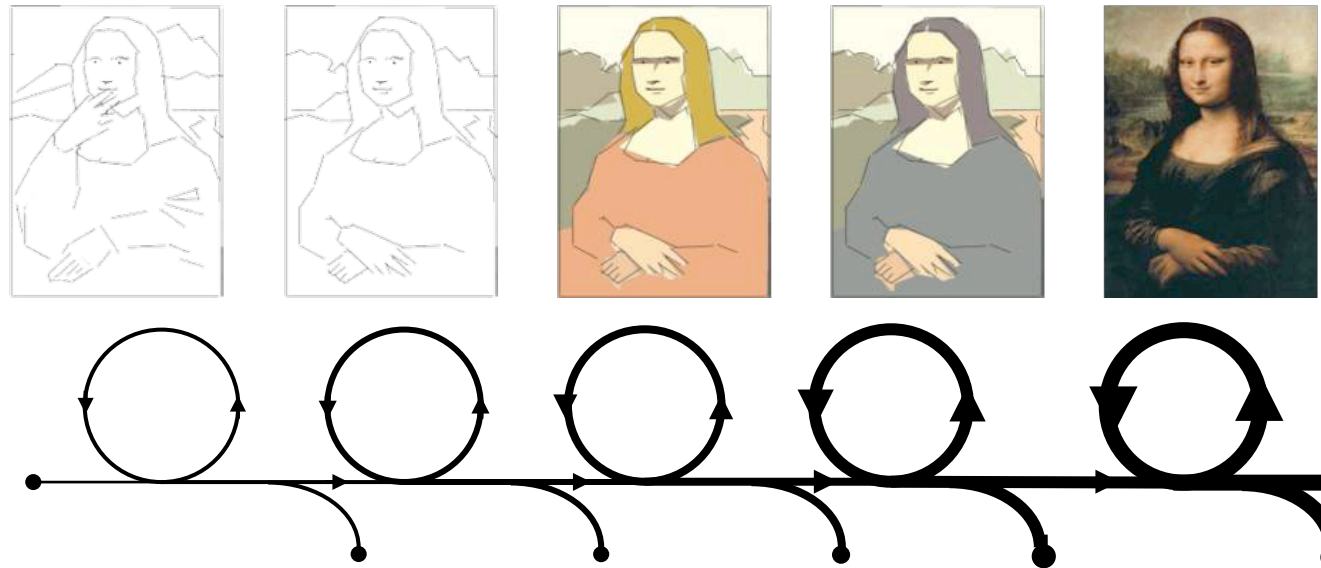
Fixed Mindset approach to delivery (Assembly Line)

Must “nail down” the output in order to start delivery (Linear Thinking)



Growth Mindset approach to delivery (Knowledge Work)

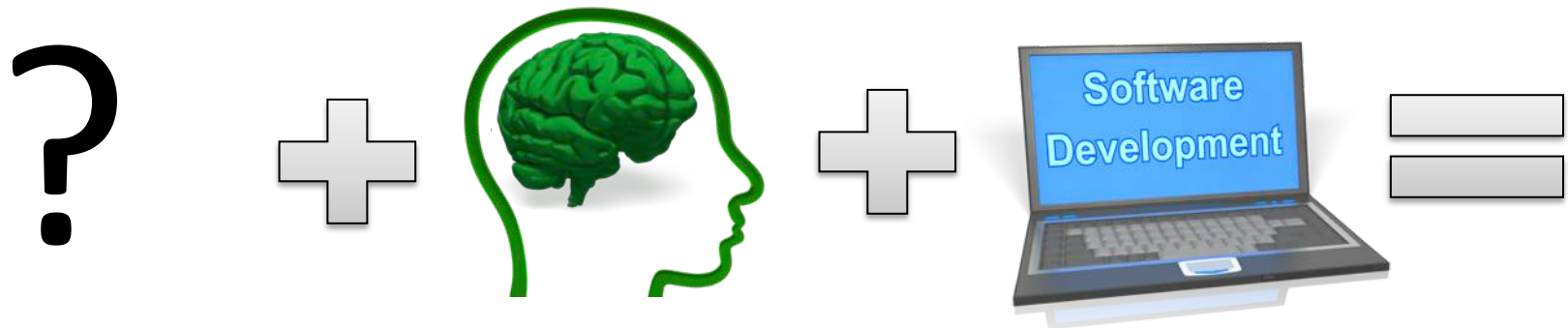
Discover and learn through valuable output and welcoming change (Circular Thinking – IKIWISI)





**WHAT IS
AGILE**

How to manage **Uncertainty** using the **Agile Mindset** in the **Software domain**



THE AGILE MANIFESTO

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 is a mindset

[that in software world is]



Established through 4 values



Grounded by 12 principles, &

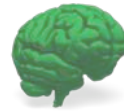


Manifested through many
many different practices

A mindset is the established set of
attitudes held by someone

- Welcome Change
- Failing Early
- Build and Feedback loops
- Continuous Delivery
- Value-Driven Development
- Small value-add slices
- Learn through Discovery
- Continuous Improvement





Agile is a mindset

[that in software world is]



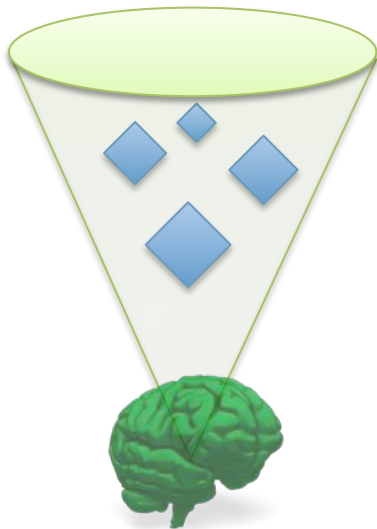
Established through 4 values



Grounded by 12 principles, &



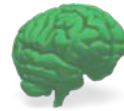
Manifested through many
many different practices



A Value is an established ideal that the members of a given society regard as desirable

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





Agile is a mindset

[that in software world is]



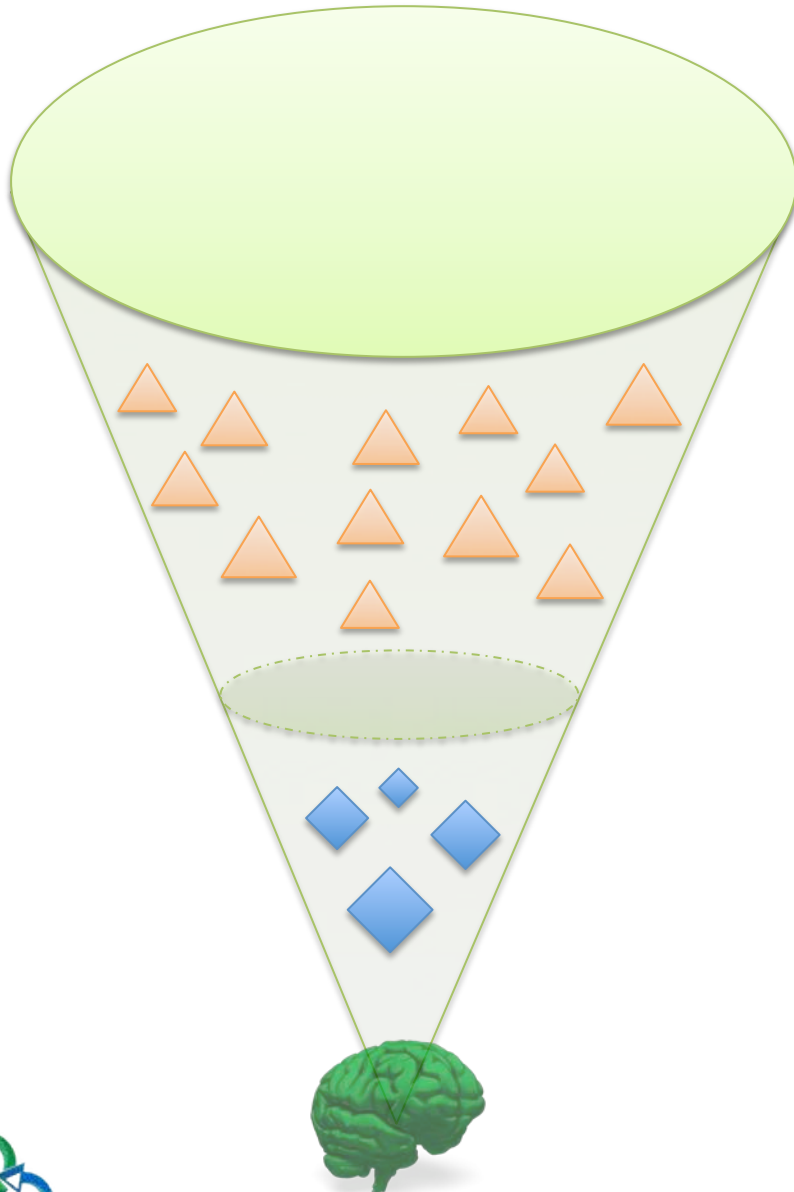
Established through 4 values



Grounded by 12 principles, &

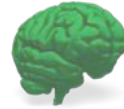
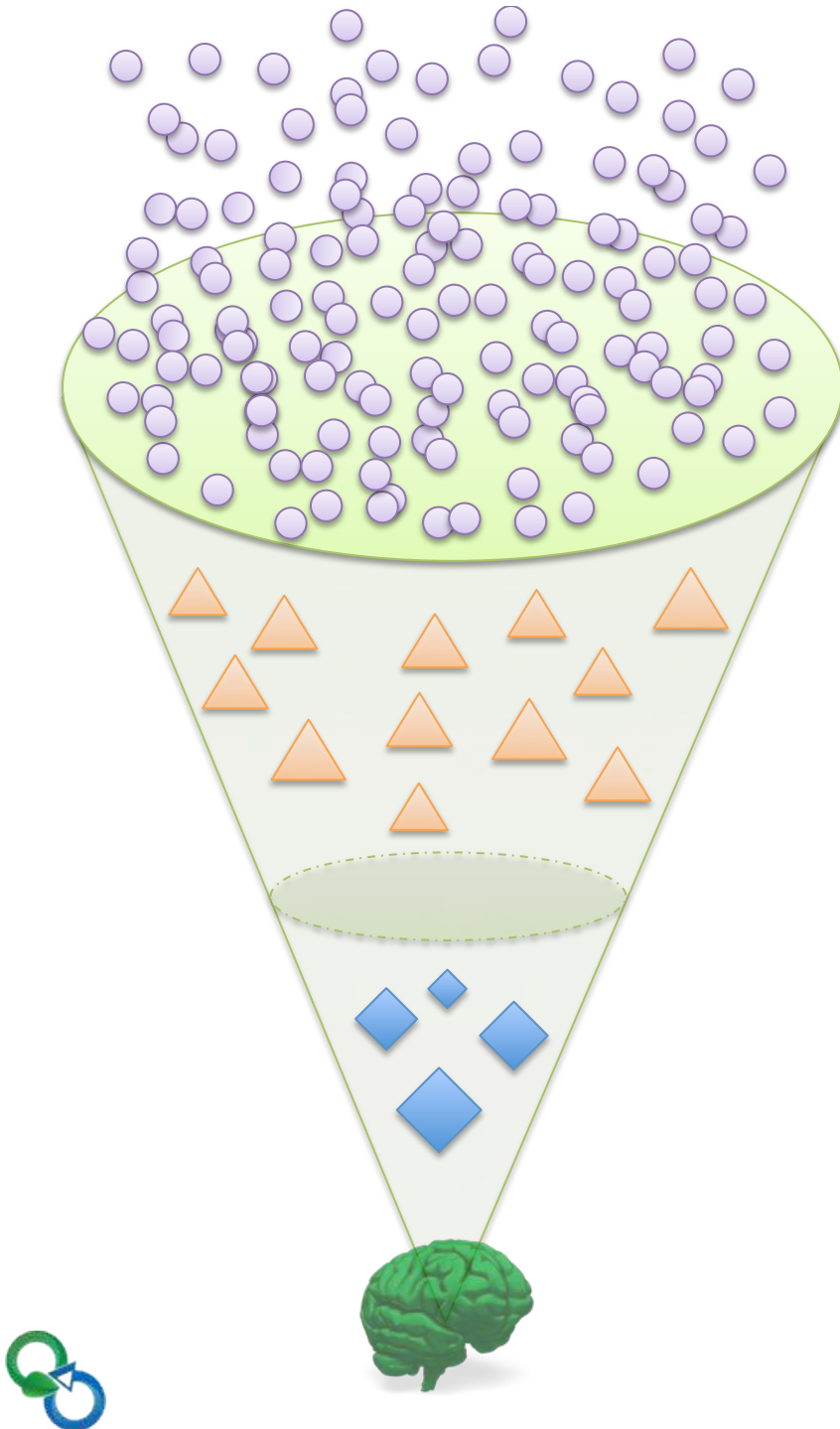


Manifested through many
many different practices



1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
4. Business people and developers must work together daily throughout the project.
5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
7. Working software is the primary measure of progress.
8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
9. Continuous attention to technical excellence and good design enhances agility.
10. Simplicity--the art of maximizing the amount of work not done--is essential.
11. The best architectures, requirements, and designs emerge from self-organizing teams.
12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.





Agile is a mindset

[that in software world is]



Established through 4 values



Grounded by 12 principles, &

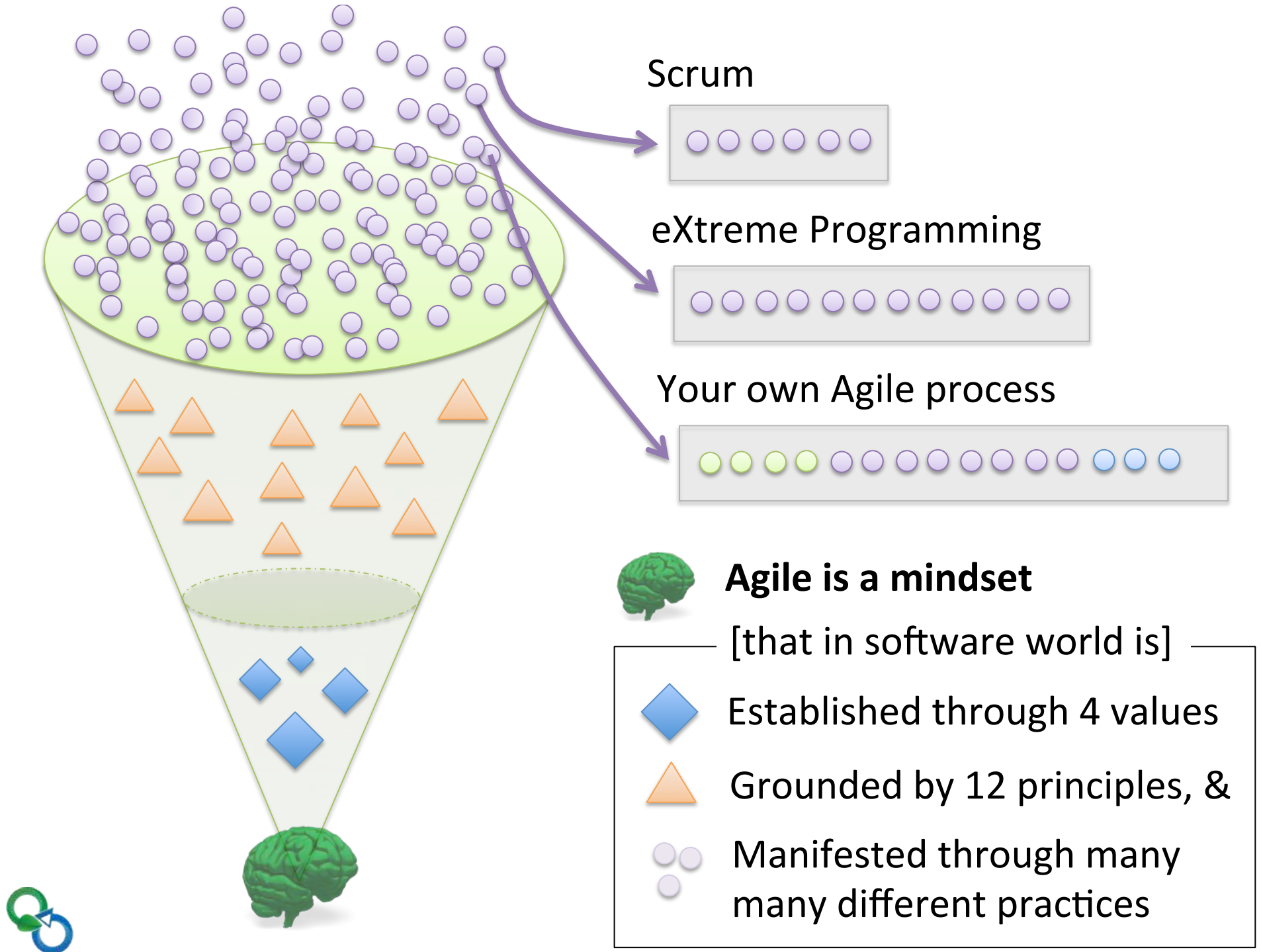


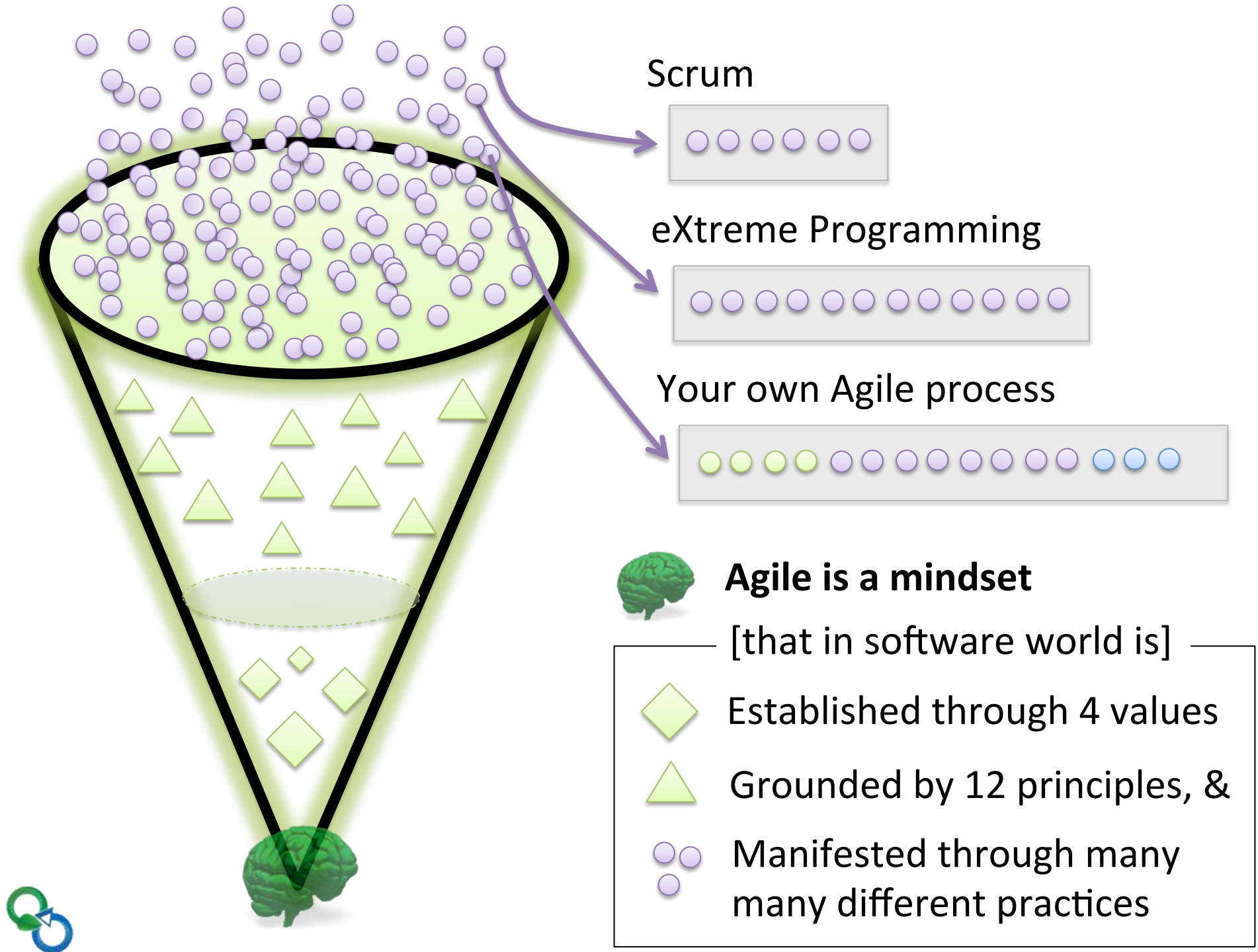
Manifested through many many different practices

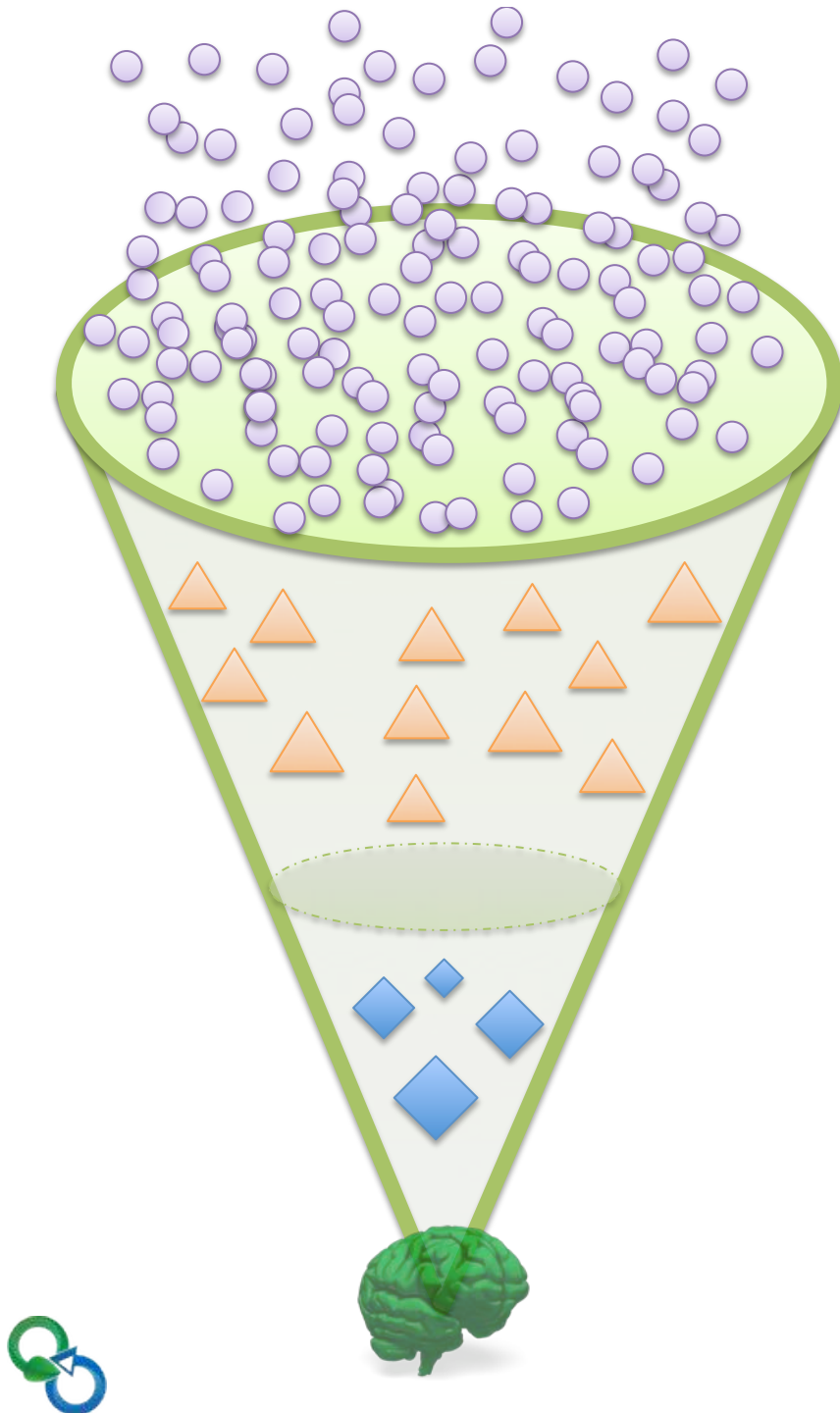
Product visioning
 Project chartering
 Affinity (relative) estimation
 Size-based (point) estimation
 Planning poker
 Group estimation
 Value-based documentation
 Prioritized product backlog
 User stories
 Progressive elaboration
 Personas
 Story maps / MMF
 Story slicing
 Acceptance tests as requirements
 Short iterations
 WIP Limits
 Early and frequent releases
 Roadmapping
 Velocity-based planning and commitment
 Iteration planning / Iteration backlog
 Release planning / Release backlog
 Time boxed iterations
 Adaptive (multi-level) planning
 Risk backlog
 Team structure of VT / DT
 Pull-based systems
 Slack
 Sustainable pace

Frequent face-to-face
 Team chartering
 Cross-silo collaborative teams
 Self-organizing teams
 Cross-functional teams
 Servant leadership
 Task volunteering
 Generalizing specialist
 Tracking progress via velocity
 Burn-up/burn-down charts
 Refactoring
 Automated unit tests
 Coding standards
 Incremental/evolutionary design
 Automated builds
 Ten-minute build
 Monitoring technical debt
 Version control
 Configuration management
 Test driven development
 Pair programming
 Spike solutions
 Continuous integration
 Incremental deployment
 Simple design
 End-of-iteration hands-on UAT
 Automated functional tests
 Automated developer tests (unit tests)
 Exploratory testing
 Software metrics









Agile as a Process and Practices

Doing Agile

Learning the practices and applying them without know the mindset and principles to know when to tailor and how to select the appropriate practices

Being Agile

Internalizing the Mindset, values, and principles then applying the right practices and tailoring them to different situations as they arise

Agile as a Mindset and Culture

EDUCATION VERSES TRAINING

A VIEW OF THE DOING OF AGILE VS THE BEING OF AGILE



	9-10	10-11	11-12	12-1	1-2	2-3	3-4	4-5
Day 1	Iteration Planning							
Day 2	Stand-up							
Day 3	Stand-up							
Day 4	Stand-up							
Day 5	Stand-up							
Day 6	Stand-up							
Day 7	Stand-up							
Day 8	Stand-up							
Day 9	Stand-up							
Day 10	Stand-up				Demo	Retrospective		
Other	Release Planning							

- Iteration Planning
- Stand-up
- Demo
- Retrospective
- Release Planning



EDUCATION VERSES TRAINING

A VIEW OF THE DOING OF AGILE VS THE BEING OF AGILE

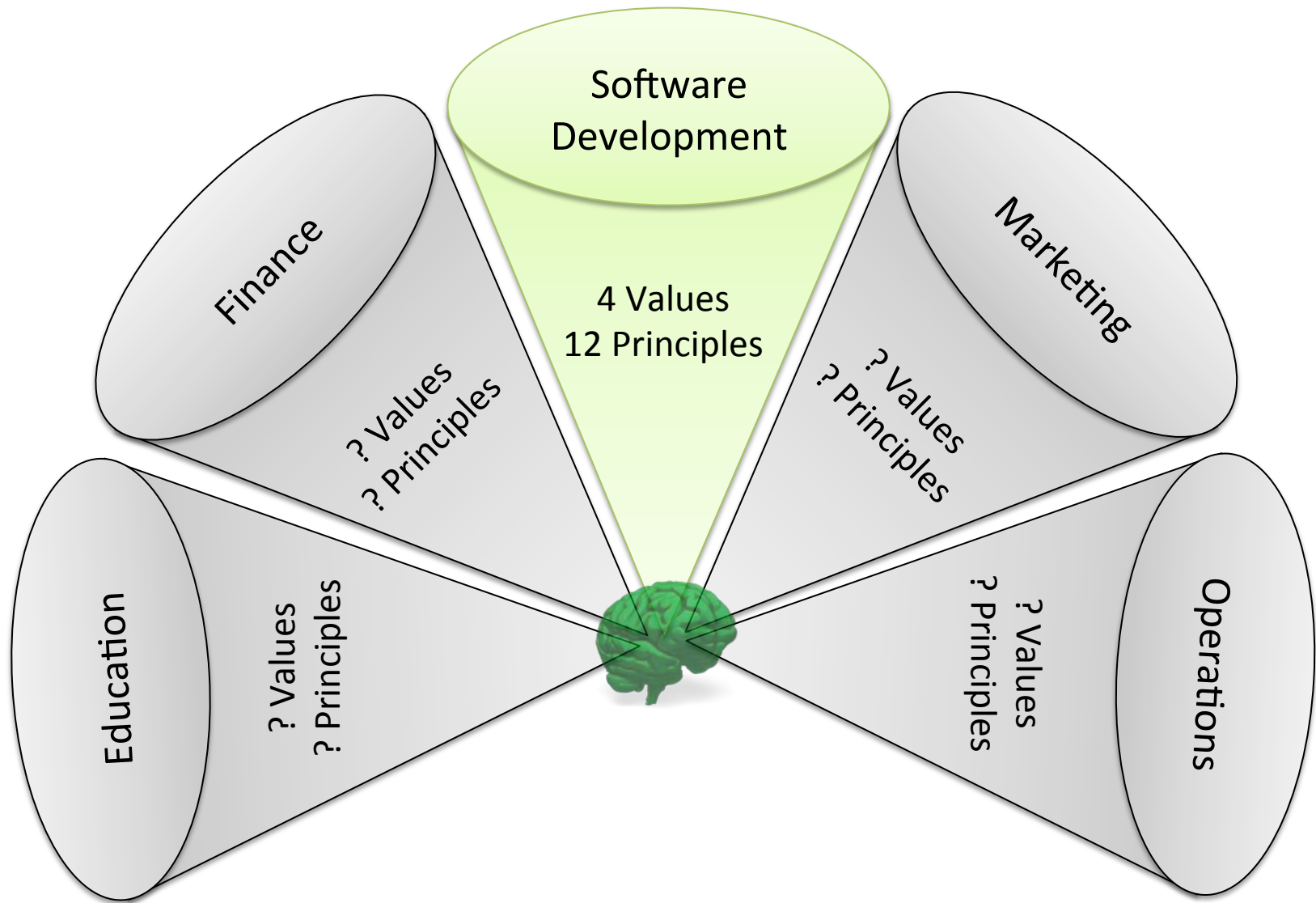


	9-10	10-11	11-12	12-1	1-2	2-3	3-4	4-5
Day 1								
Day 2								
Day 3								
Day 4								
Day 5								
Day 6								
Day 7								
Day 8								
Day 9								
Day 10								
Other								

Being Agile

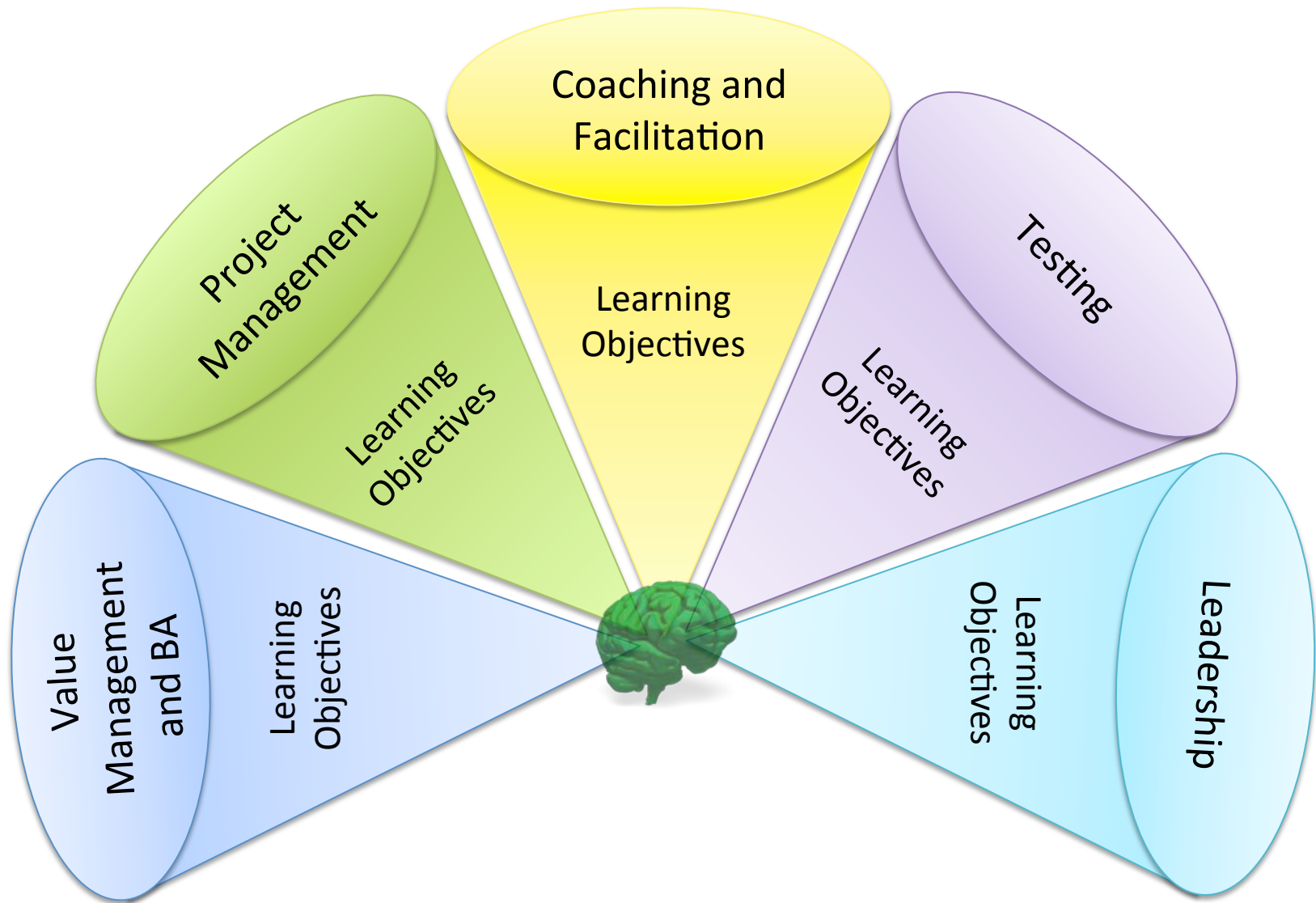
Doing Agile





THE AGILE MINDSET AND OTHER DOMAINS





THE AGILE MINDSET TO DISCIPLINES INSIDE SOFTWARE DEVELOPMENT



HOW DO WE LEARN TO BE AGILE?



The journey towards learning Agility

1. Shu – 2. Ha – 3. Ri

Ri
Be the Rule



Ha
Break the Rule



Shu
Follow the Rule



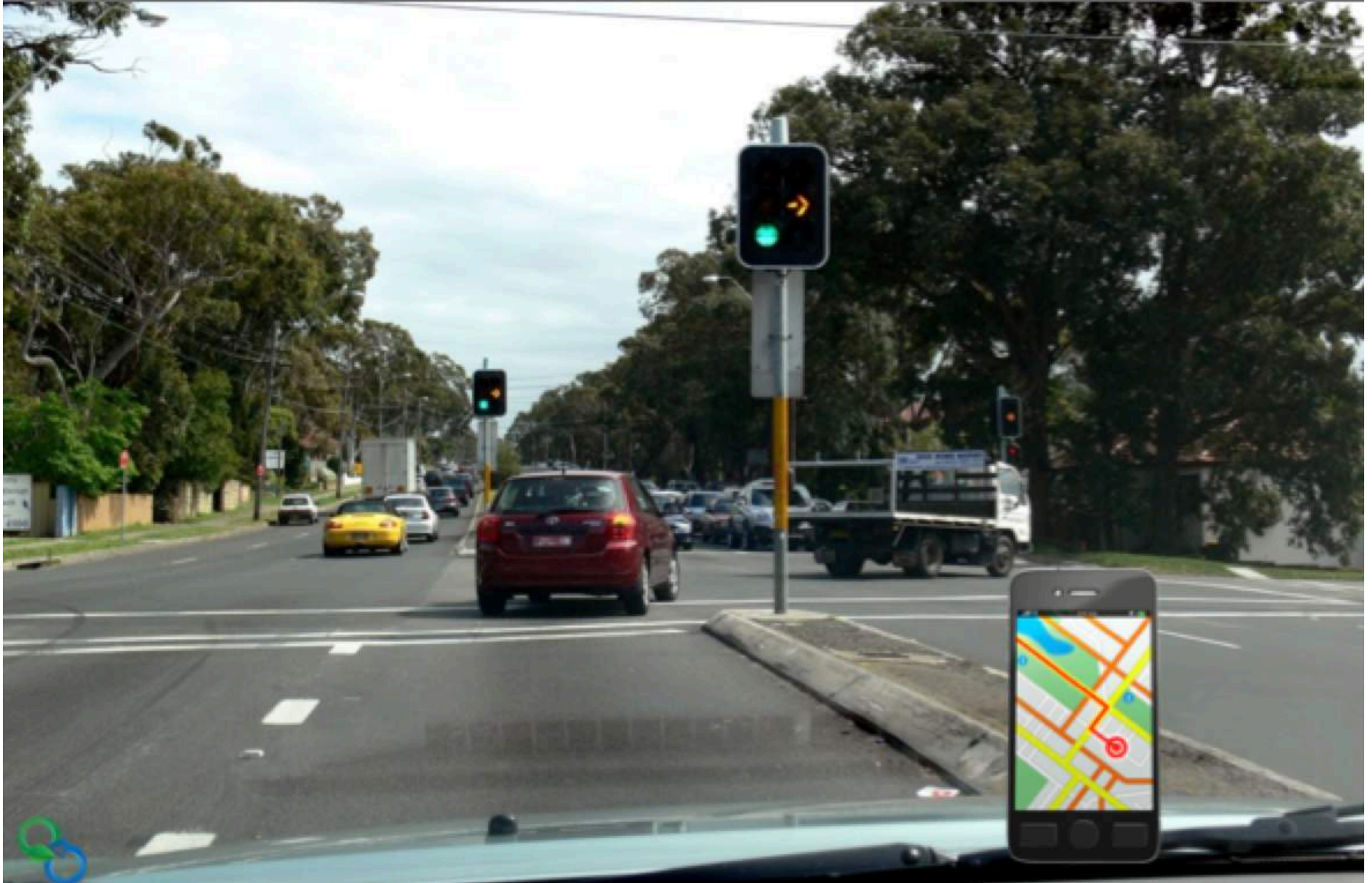
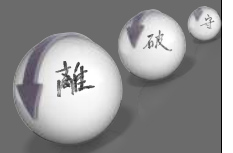
The journey towards learning Agility

1. Shu (Following Precisely without Modification) – 2. Ha – 3. Ri



The journey towards learning Agility

1. Shu – 2. Ha (Shifting Between Techniques) – 3. Ri



The journey towards learning Agility

1. Shu – 2. Ha – 3. Ri (New techniques, even unconsciously)



The journey towards learning Agility

1. Shu – 2. Ha – 3. Ri

Ri
Be the Rule



Ha
Break the Rule



Shu
Follow the Rule





MEET JACK

Company: **Future Corp**

Size: **10,000 people**

Profession: **CIO**

Size of IT: **3000 People**

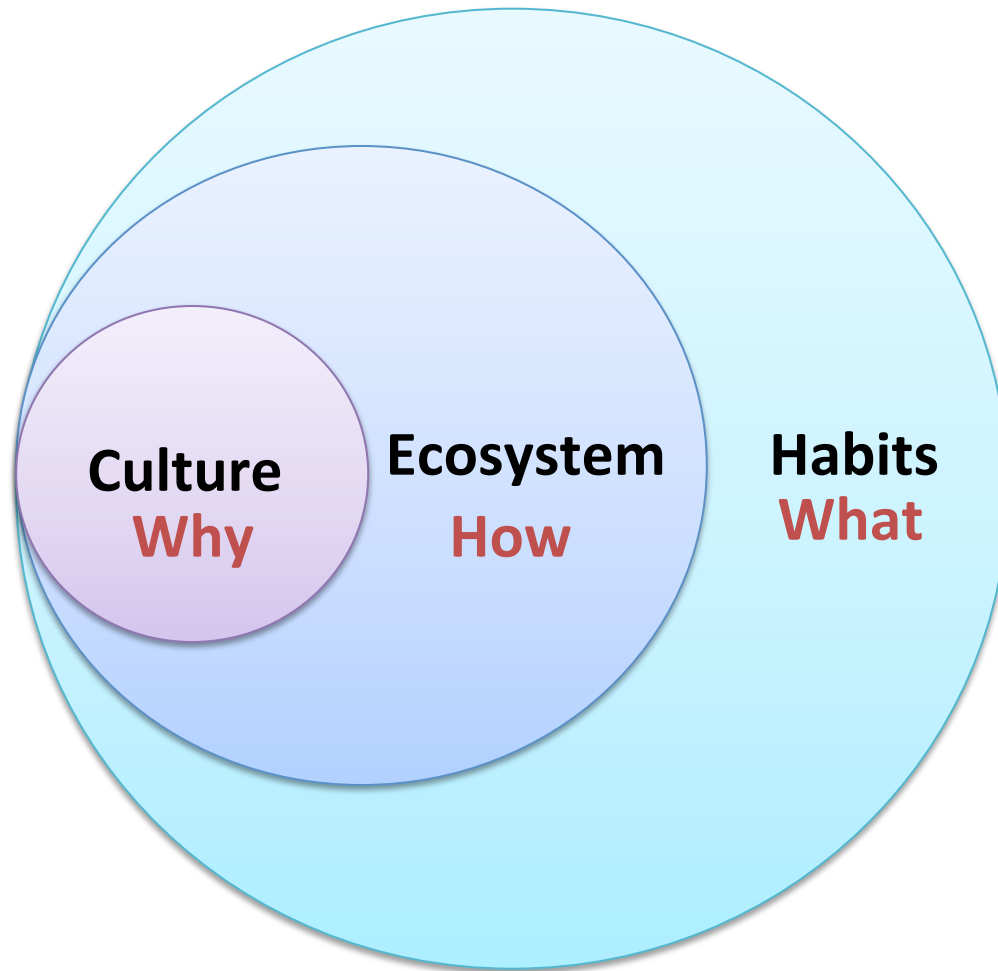
Goal: **Transform organization to Agile - ASAP**

Plan: ***Something like this***

1. Start training across IT – probably on Scrum
2. Picked a star, Stacy, in the IT organization and put her in charge of the transformation – in addition to her day job.
3. Two pilot projects were launched successfully (doing Scrum) !
4. Memo from the CIO that says we're moving to an agile/scrum process for all IT projects by the end of the year.
5. The plan is to launch five pilots/teams every quarter.
6. The CIO is meeting monthly with Stacy to track the number of projects who are adopting the agile process.
7. Stacy is procuring an agile tool to help teams be consistent in their agile process.

ORGANIZATIONAL AGILITY

(ENTERPRISE AGILE OR AGILE AT SCALE)

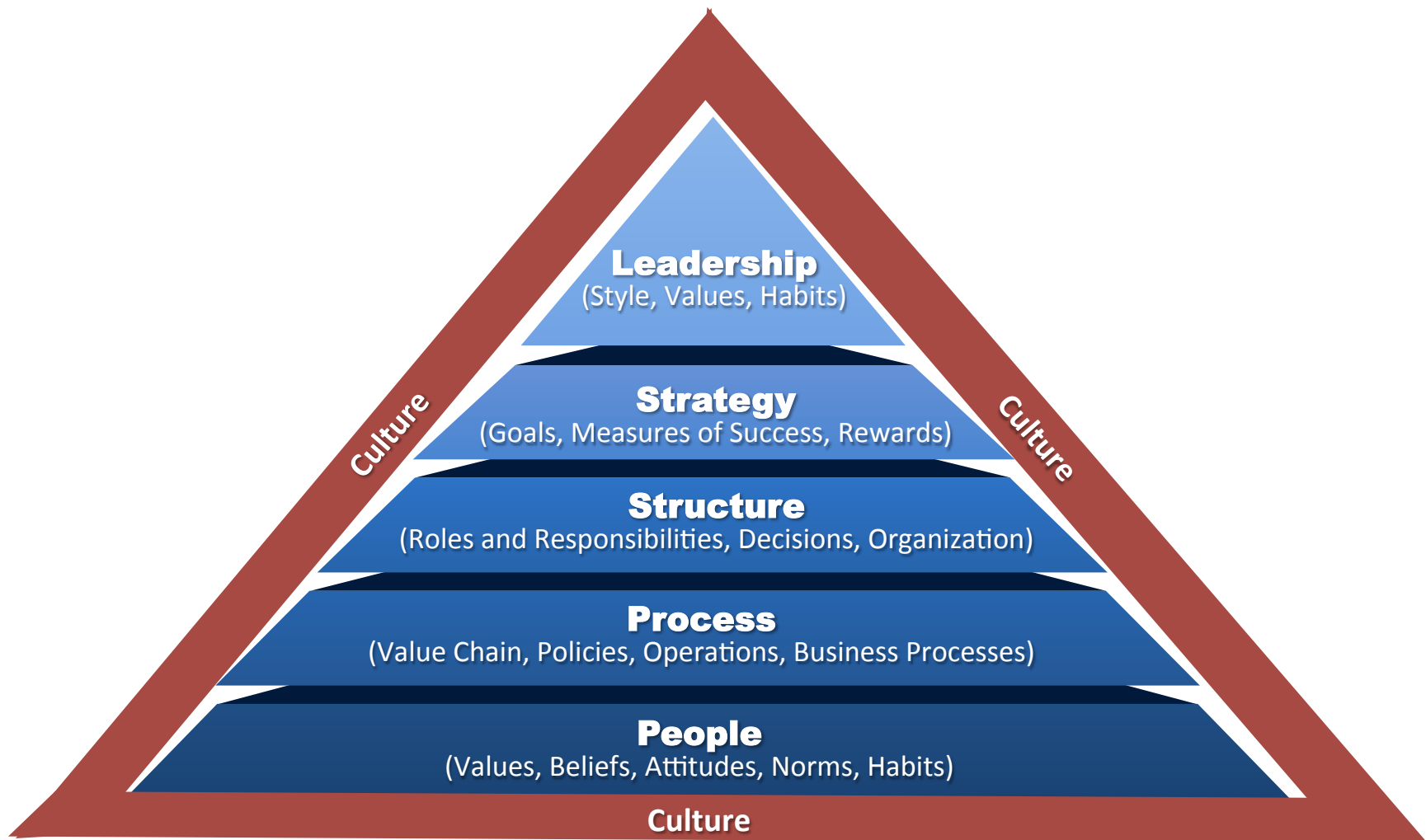


Organizational Agility is a **culture** based on the **values and principles** of Agile, supported by the **organizational ecosystem** and manifested through **personal and organizational habits** (how work really gets done around here).

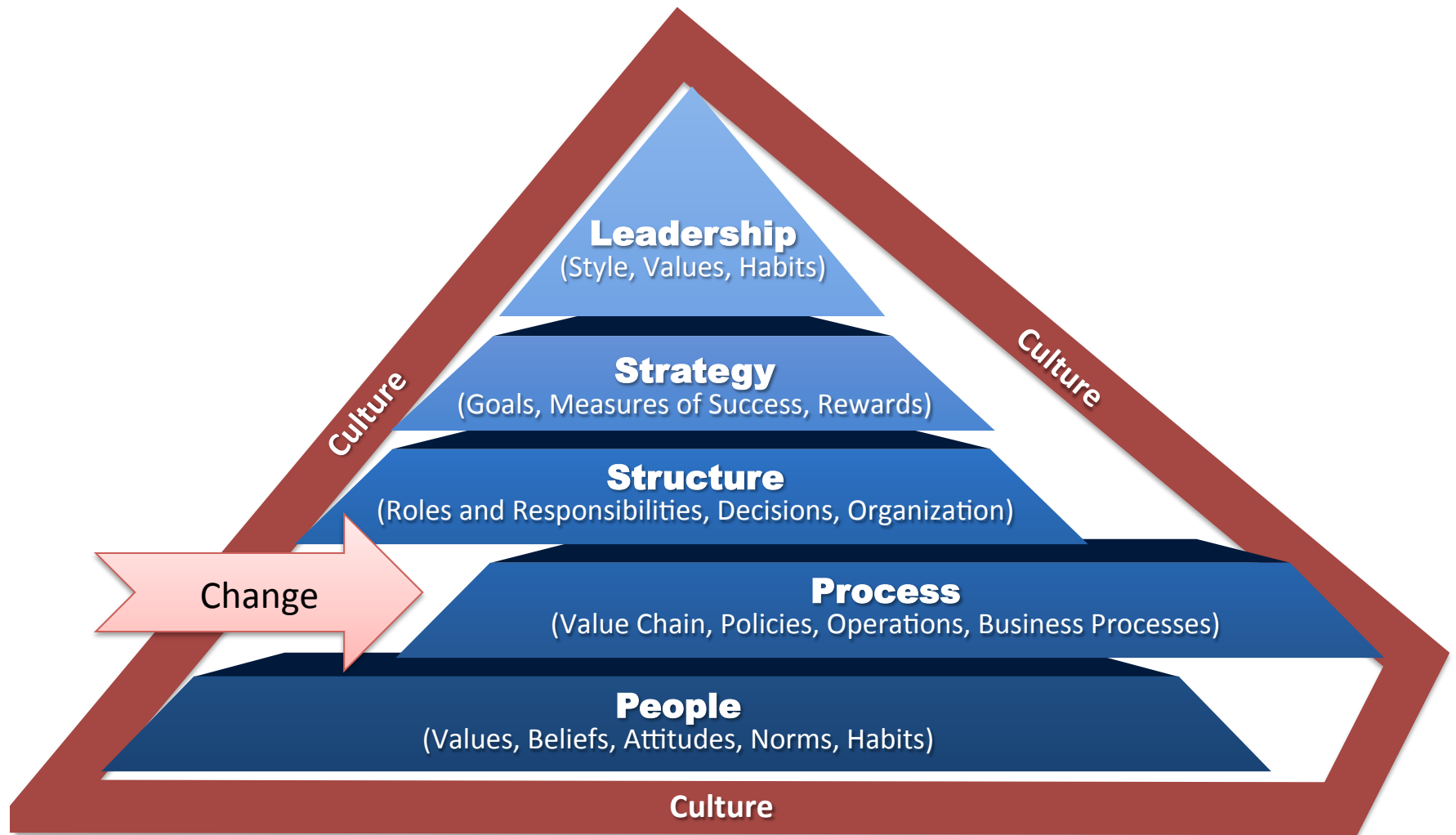


An Organizational Ecosystem consists of its:
Leadership, Strategy, Structure, Processes and People

THE ORGANIZATIONAL ECOSYSTEM



WHEN AGILE IS JUST A PROCESS

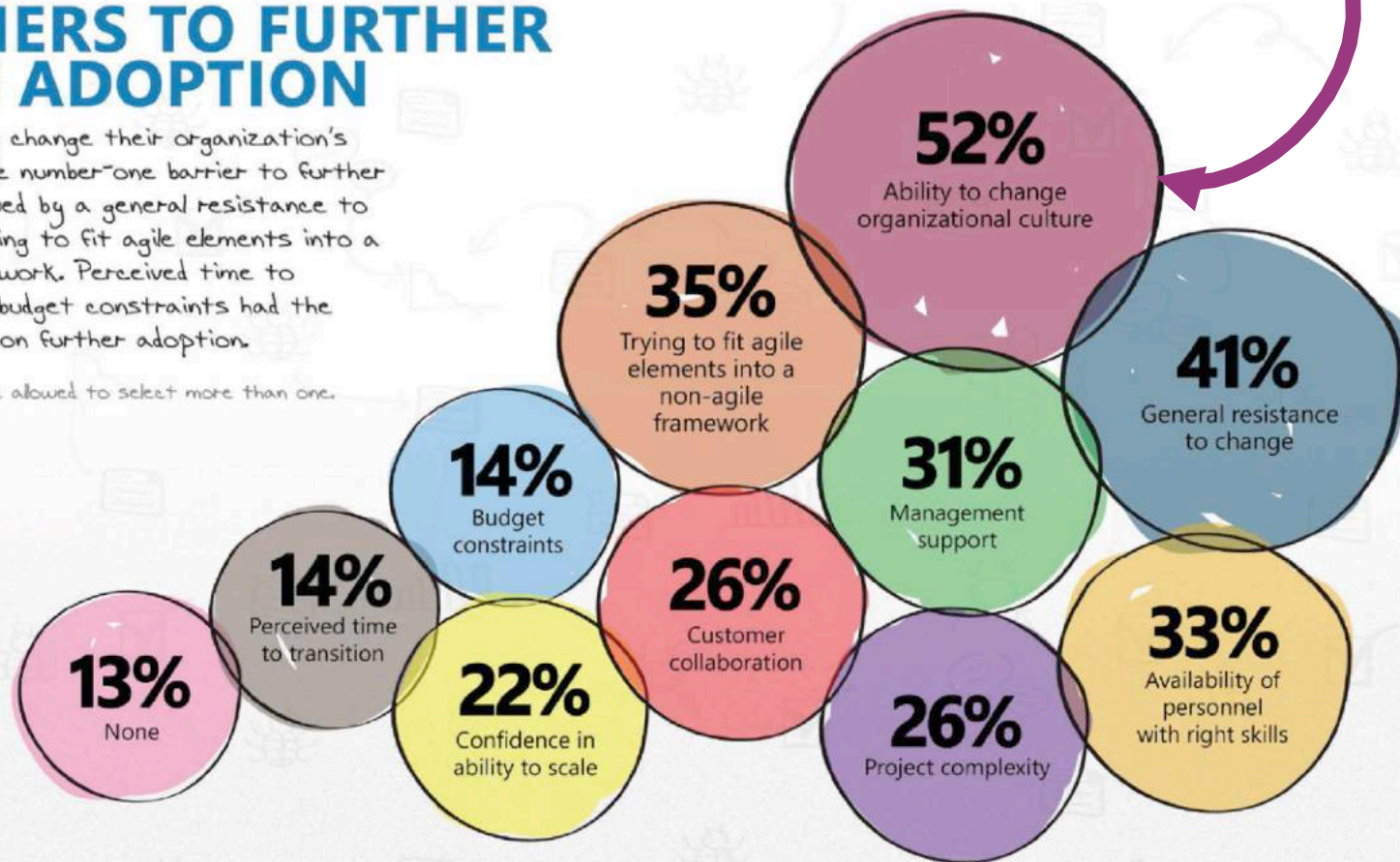


2012 SURVEY - BARRIERS TO AGILE ADOPTION

BARRIERS TO FURTHER AGILE ADOPTION

The inability to change their organization's culture was the number-one barrier to further adoption, followed by a general resistance to change and trying to fit agile elements into a non-agile framework. Perceived time to transition and budget constraints had the lowest impact on further adoption.

*Respondents were allowed to select more than one.



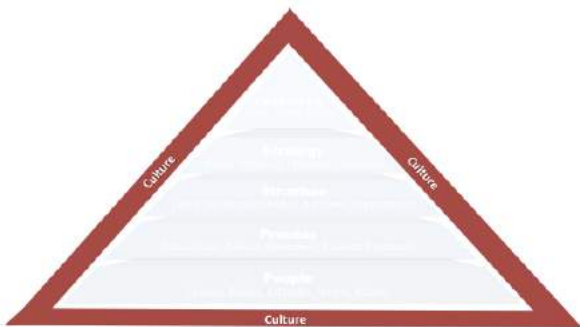
BASIC ELEMENTS OF THE SUSTAINABLE AGILITY



HUMAN ELEMENTS



NON-HUMAN ELEMENTS



MEASUREMENTS



BASIC ELEMENTS OF THE SUSTAINABLE AGILITY



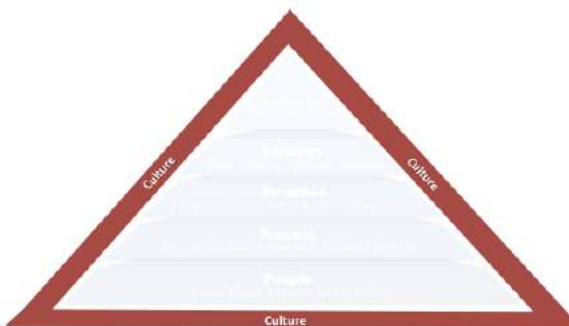
THE HUMAN ELEMENTS:

- A common education journey (not training) to change how people work and illustrate how to live the Agile Mindset in their job
- Leadership Coaching (how to inspire performance not mandate it)
- Mentoring and Coaching on an individual and team level.



NON-HUMAN ELEMENTS:

- Designing and Implementing a multi-stage roadmap to agility that changes all three of these elements in synergy and harmony
- A combination of consulting, mentoring, organizational coaching, business process re-engineering and organizational change management to roll-out the changes across the organization



MEASUREMENTS:

- Establishing a measurement system that is consistently monitoring the alignment of the culture
- Primary measure of progress is the mindset shift and the transformation of personal and organizational work habits
- Reporting progress, as a function of culture change not process change, nor structure change.





1. **Advancing the State of Agile Learning** by engaging agile experts to create learning objectives for agile disciplines
2. **Accrediting Agile Programs** for training providers, corporations, academic institutes and governments.
3. **Awarding Meaningful Certifications to** recognize people's the educational journey and motivate them to deepen their knowledge and competency **through 3 levels of certifications** (Professional, Expert, Master)

Learning objectives defined by Agile Gurus



Marsha Acker
Lyssa Adkins
Kris Ashton
Pete Behrens
Erin Beierwaltes
Mike Burrows
Ben Butler
Alistair Cockburn
Rod Collins
Larry Cooper
Brian Corrales
Sally Elatta
Bob Galen

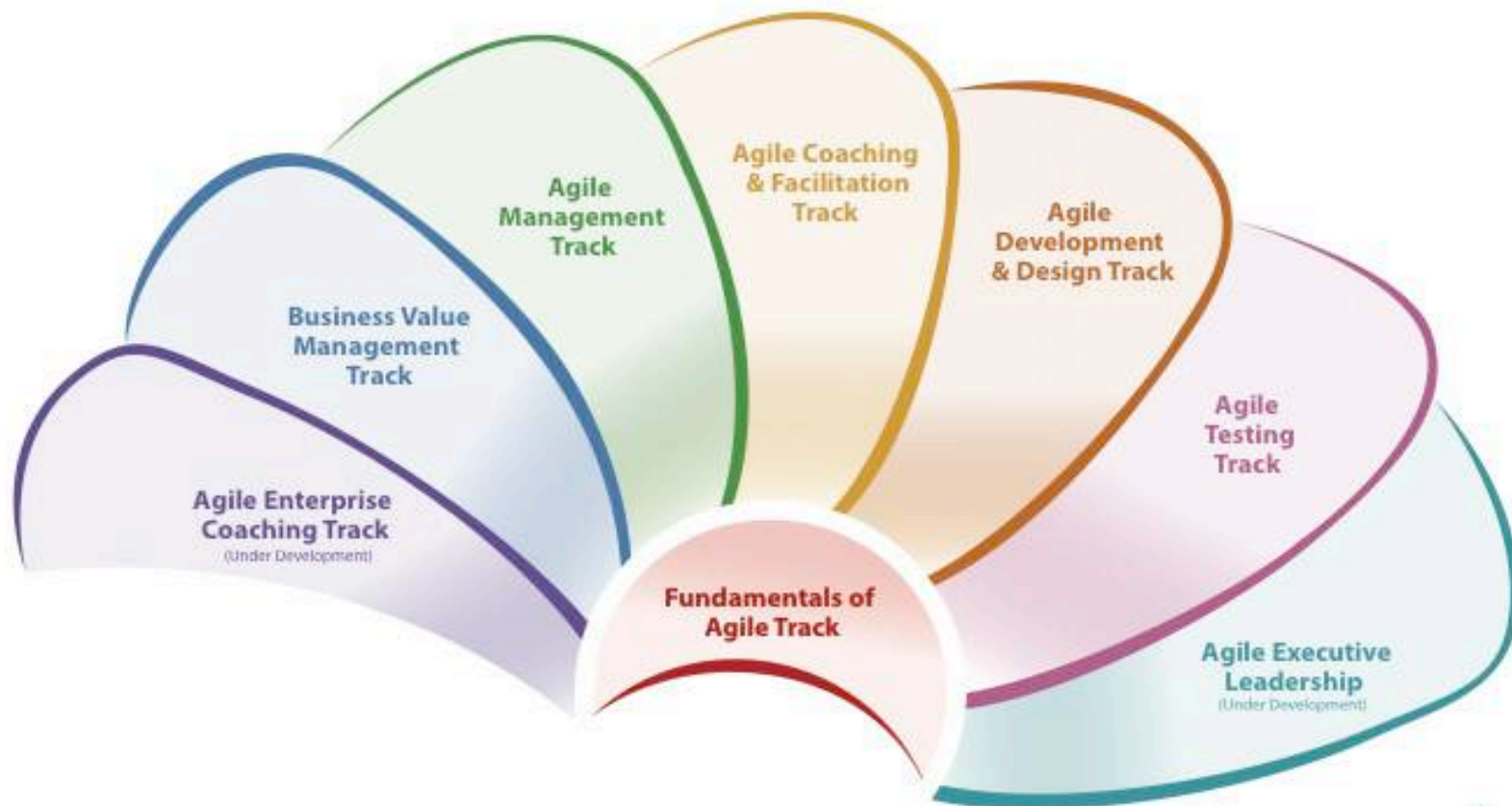
Colin Garlick
Janet Gregory
Mike Griffiths
Christian Hargraves
Shane Hastie
Elisabeth Hendrickson
Curt Hibbs
Derek Huether
Eric Jacobson
Alex Kell
Olav Maassen
Paul Mahoney
Gerard Meszaros

Dan Mezick
Jeff Morgan
Claire Moss
Niel Nickolaisen
Jeff Nielsen
Michael Norton
Jeffery Payne
Pat Reed
Laurie Reuben
Randy Rice
Sharon Robson
Ronica Roth
Charlie Rudd

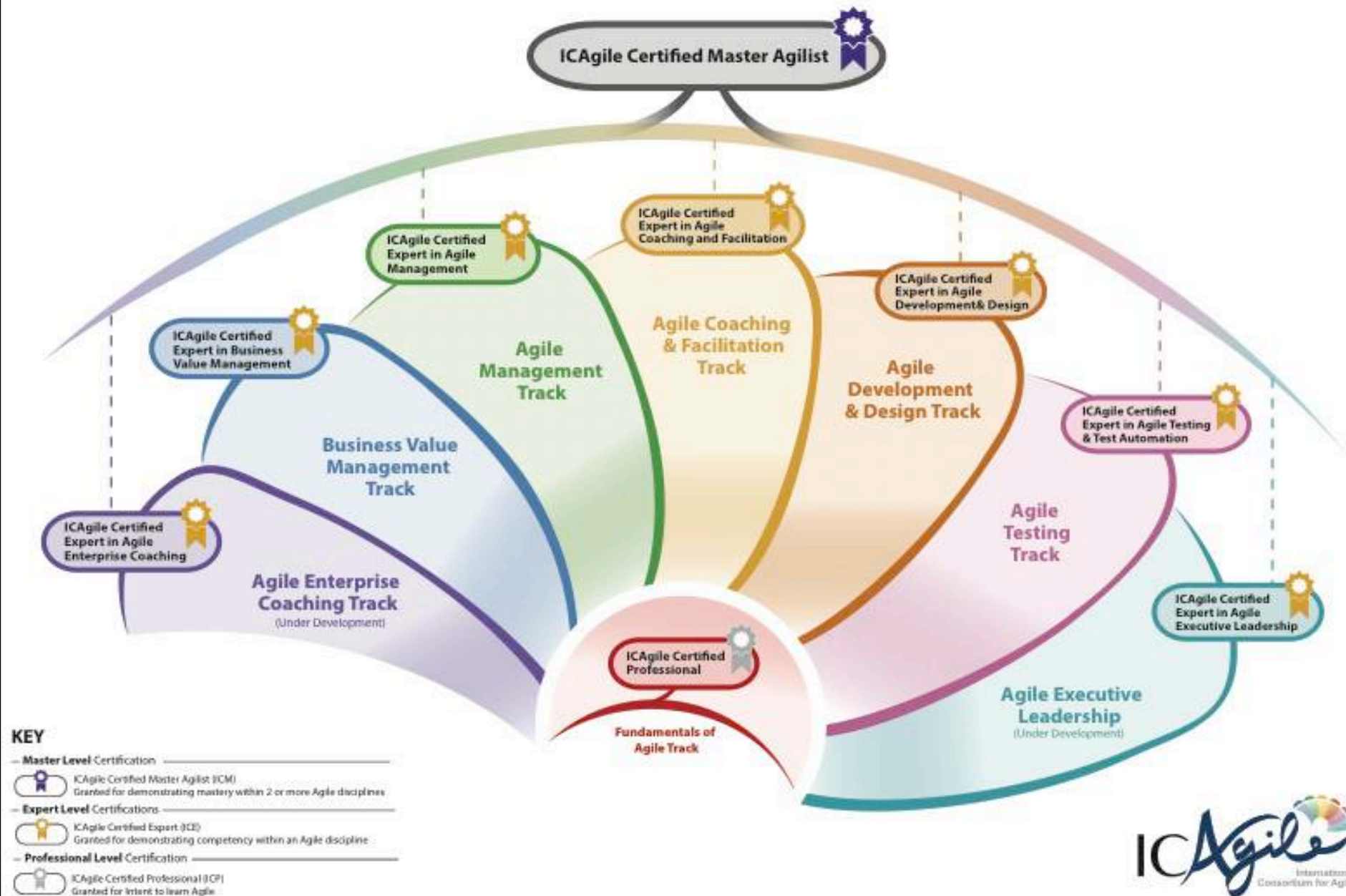
Cindy Shelton
Ahmed Sidky
Michael Spayd
Jon Stahl
Kevin Steffensen
Dennis Stevens
Jennifer Stone
Venkat Subramanian
Chris Turner
Richard Turner
Michi Tyson
And Many More ...

ICAgile's Learning Roadmap

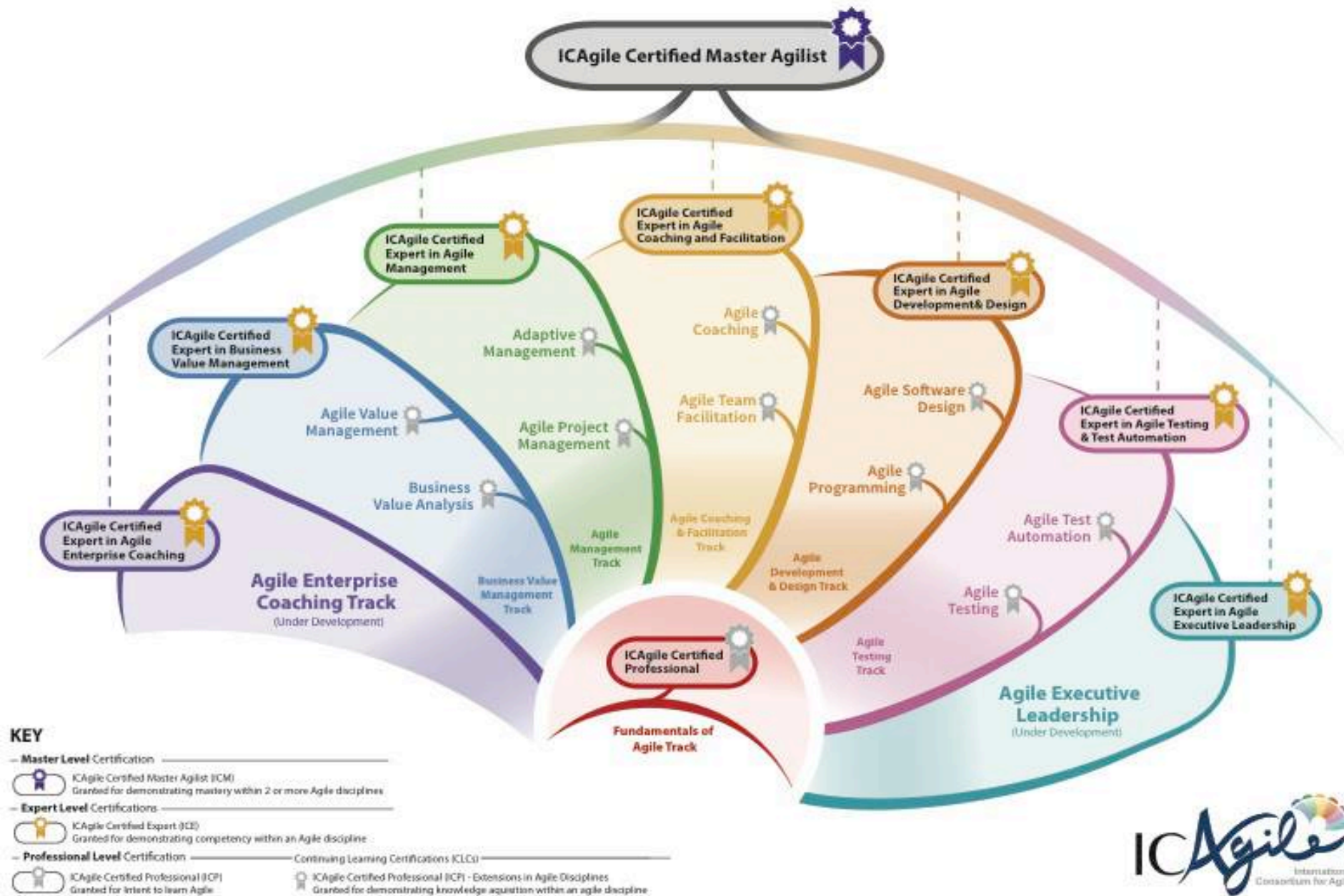
**CREATE A COMMON EDUCATIONAL JOURNEY
BASED ON AGILE AND AGILITY
(NOT SCRUM AND PROCESS)**



ICAgile's Learning Roadmap & Certification Paths



ICAgile's Learning Roadmap & Detailed Certification Paths



Agile Education Transcript

Timothy Meyers

ICAgile Certified Professional
Completed July 2012

- March 2011, Fundamentals of Agile by Santeon Group
ICAgile Certified Professional
- July 2012, Fundamentals of Agile: PMI-ACP Prep by Santeon Group
ICAgile Certified Professional
- ICAgile Certified Expert in Team Coaching
Gate Pending Approval
- November 2012, Facilitating Agile Teams by Santeon Group, Team Catapult
ICAgile Certified Professionals - Team Facilitation
- February 2013, Coaching Agile Teams (ICAgile Coach Certification Edition) by Agile Coaching Institute
ICAgile Certified Professional - Team Coaching

**STATUS TOWARDS
EXPERT LEVEL**

**CERTIFICATIONS
COMPLETED**

Transcript

Agile Fundamentals 100% Complete

History Culture & Mindset Creating Shared Understanding Shifts in Roles Incremental Development Work-in-progress (WIP)

Including Customers and Users Product Adaptation Planning and Adapting Process & Project Adaptation

Team Facilitation & Coaching 100% Complete

The Agile Team Facilitator Mindset Development Path for Agile Coaching The Agile Coaching Mindset Responsibilities and Skills of the Coach

Setting Boundaries for Coaching Facilitating the Facilitator Stance Facilitating Meetings Facilitating Collaboration Facilitating a Meeting

Setting the Facilitation Context Facilitating Chartering Activities Facilitating Collaborative Meetings Designing Meetings for Team Interaction

Facilitating an Agile Practice The Coaching Stance The Coaching Conversation - Coaching for Action Professional Coaching Skills

Conducting the Coaching Conversation Mentoring Agile Roles & Transitions Mentoring vs. Coaching Teaching the Agile Basics & Mindset Shift

Understanding Team Development Setting up the Team Environment Creating a Team Kickoff/Startup Agenda Characteristics of an Agile Team

Coaching the Journey toward High Performance Handling Conflict and Dysfunction within the Team Handling Organizational Impediments

Planning to Facilitate a conflict in a team

Value Management & Business Analysis 0% In Progress

Value Management as an Agile Specialization Role Scope and Diversity Attributes of the Role Thinking Skills Beliefs Defining Value

Determining Value Communicating Value Understanding Stakeholders Performing Analysis Exploring the Solution

Incorporating Feedback Managing Artifacts Managing Delivery Antipatterns & Pitfalls

Testing 43% In Progress

History of Agile Testing Testing Mindset & Culture Testing Non-Functional Requirements Integration and System Testing

Story and Feature Testing Subsystem Testing (aka Testing to Support Development) Categories of Testing Working on Distributed Teams

Test Environments and Infrastructure Testing During Releases Roles and Responsibilities Test Strategy and Planning Testing During Iterations

Automating Non-Functional Testing Automation Support for Integration and System Testing Automating Story and Feature Testing

Automating Unit/Component Testing Continuous Integration Test Automation Strategy Integrating with other Products or External Technologies

Addressing Governance and Policy Requirements Organizational Structures Cultural Challenges

Software Design & Development 0% In Progress

Test Driven Development Legacy Code Refactoring Technical Debt Good Design Programming the tests Acceptance Testing

Team activities Collective accountability Collaboration Planning Funct-on-Based Development Leveraging tools

**SELECTED
LEARNING
TRACKS**

**PROGRESS
WITHIN
TRACKS**

**LEARNING
OBJECTIVE
COMPLETED**

**LEARNING
OBJECTIVE NOT
YET COMPLETED**



THANK YOU QUESTIONS?



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