Project Management Institute

PMI® THOUGHT LEADERSHIP Series

PMO Symposium®

Where Leaders Meet

HOUSTON, TX, USA | 5–8 NOVEMBER 2017

#PMOSym

PMO17BR101

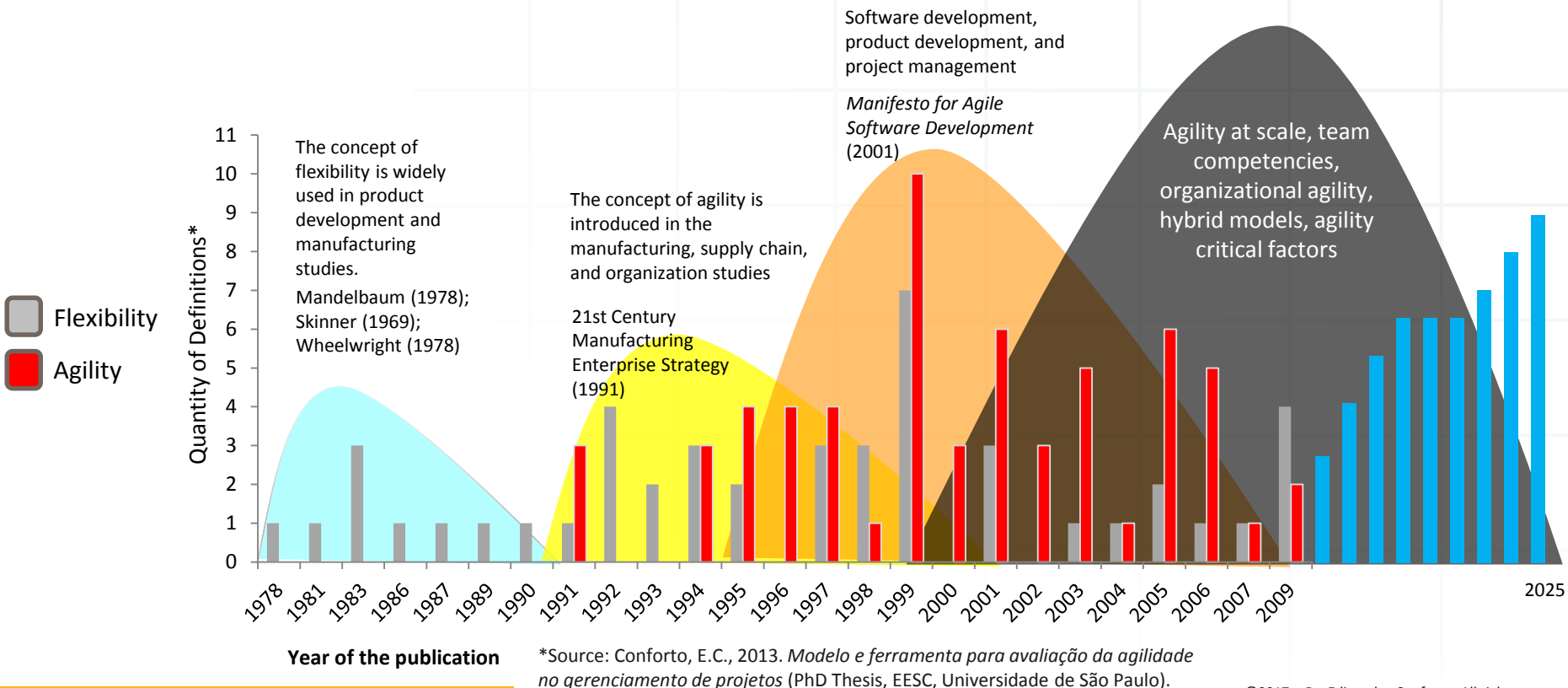
Making Sense of Agile and Hybrid Practices to Your PMO and Organization

Dr. Edivandro Conforto, Researcher & Consultant

EC Conforto

Organizations do NOT fully comprehend the implications of “being agile”

Agility Evolution – and the Next Wave



*Source: Conforto, E.C., 2013. *Modelo e ferramenta para avaliação da agilidade no gerenciamento de projetos* (PhD Thesis, EESC, Universidade de São Paulo).

Key Definitions*

Agile Manifesto

The original and official definition of agile values and principles

Agile

A term used to describe a mind-set of values and principles as set forth in the *Agile Manifesto* (2001).

"Agile approaches" and "agile methods" are umbrella terms that cover a variety of frameworks and methods

Hybrid

Consist of a combination of two or more agile and non-agile elements, practices, tools, or techniques

*Source: Project Management Institute (2017). *Agile Practice Guide*. Project Management Institute, Newtown Square, Pennsylvania, USA.

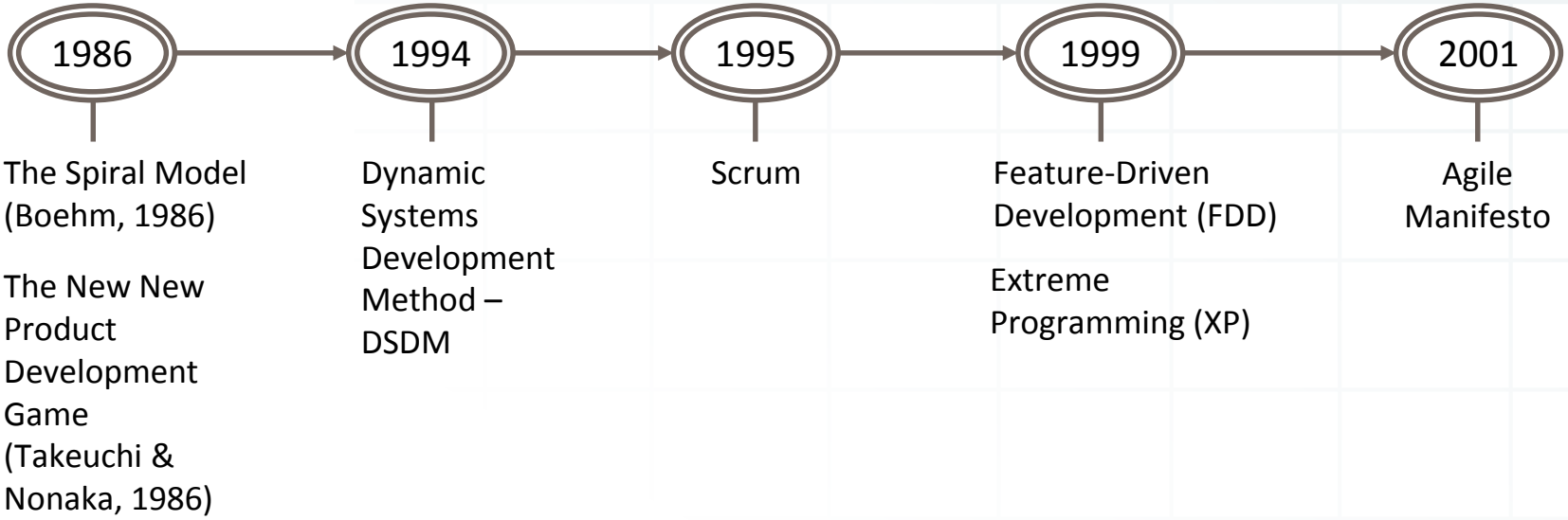
Quick Test:

Which one came first?

Agile Manifesto

Agile Methods

The Timeline of Agile Methods



*Dates based on Wikipedia descriptions

”Agile” Practices Are Not New…

These practices existed long before the WWW movement:

- IIDD – Iterative and incremental design and development (70+ years ago)
- Used by engineers at DoD working in propulsion-related research and development
- Plan-Do-Study-Act (PDSA), Edwards Deming, applied to empirical engineering development

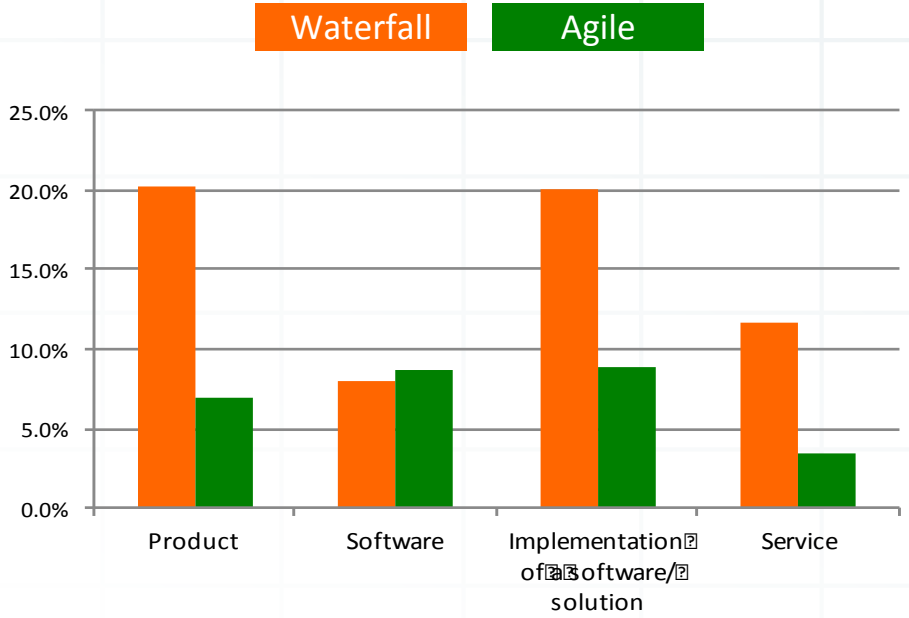
Other approaches use similar principles and practices:

- ***Lean thinking***
- ***Agile manufacturing***
- ***Rapid application development***
- ***Concurrent engineering***
- ***Rapid product development***
- ***Flexible product development***

*Source: Glazer et al. (2008, p. 3). CMMI or agile: why not embrace both!

Agile Became Industry and Project Agnostic

A survey* with 19 companies from different sectors showed that **most of them were adopting some “agile” practices without even know it.**



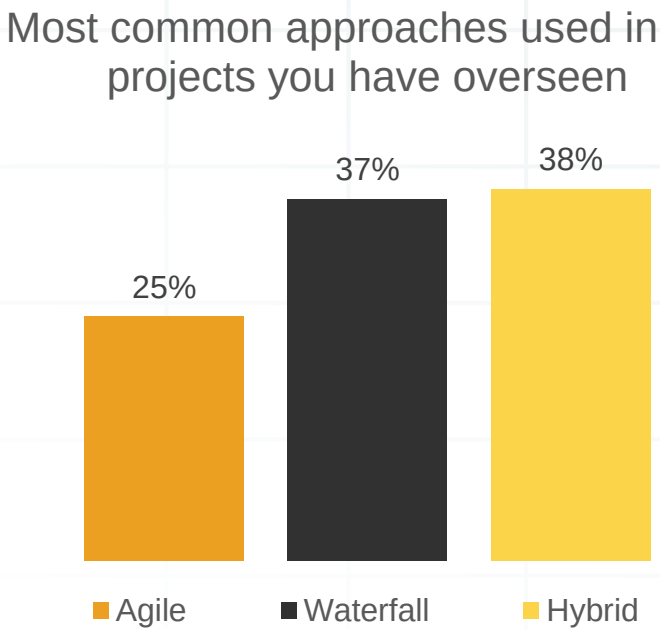
*Conforto, E.C. et al. 2014. Can agile project management be adopted by industries other than software development?. *Project Management Journal, 45*(3), pp.21-34.

Source: Conforto, E.C.; Rebentisch, E.; Amaral, D.C. 2014. *Project Management Agility Global Survey*. Massachusetts Institute of Technology, CEPE, Cambridge, Massachusetts, U.S.A. (n= 856)

Use of Hybrid Models Is Exponentially Increasing

There is an increased use of hybrid approaches

- 7% – *PM Agility Global Survey* (Conforto et al., 2014)
- 10% – State of Agile Survey (VersionOne, 2016)
- 38% – PMI *Pulse of the Profession®* Survey, 2017

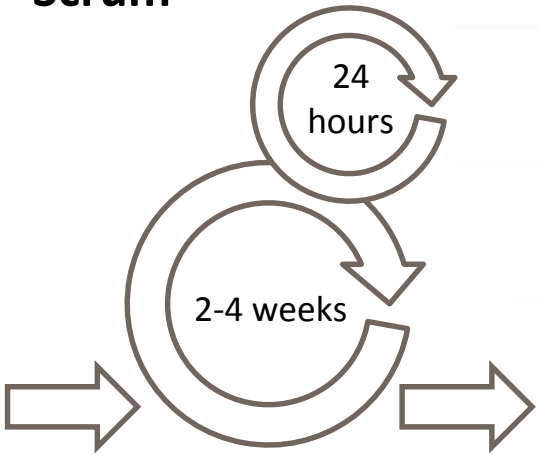


Base: 1,469 Global respondents | Source: PMI *Pulse of the Profession®*, Q2 2017

Overview of Agile Methods

There Are Different Types of Methods*

Scrum

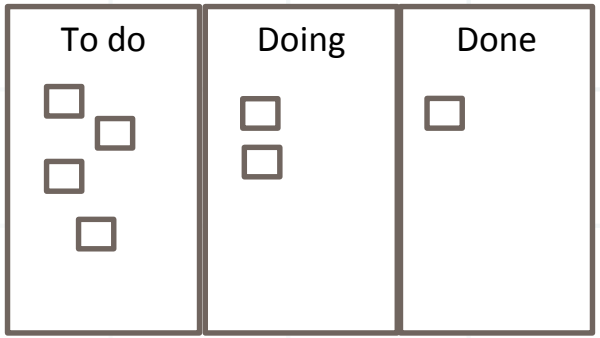


- Sprint planning
- Daily Scrum
- Sprint review
- Sprint retrospective

Extreme Programming (XP)

- Release plan (months)
- Iteration plan (weeks)
- Acceptance tests (days)
- Stand-up meeting
- Pair programming

Kanban



- Pull production
- Continuous flow
- Limit work in progress (WIP)
- Work visibility

*Most used methods according to the 11th Annual State of Agile Report. VersionOne, 2016.

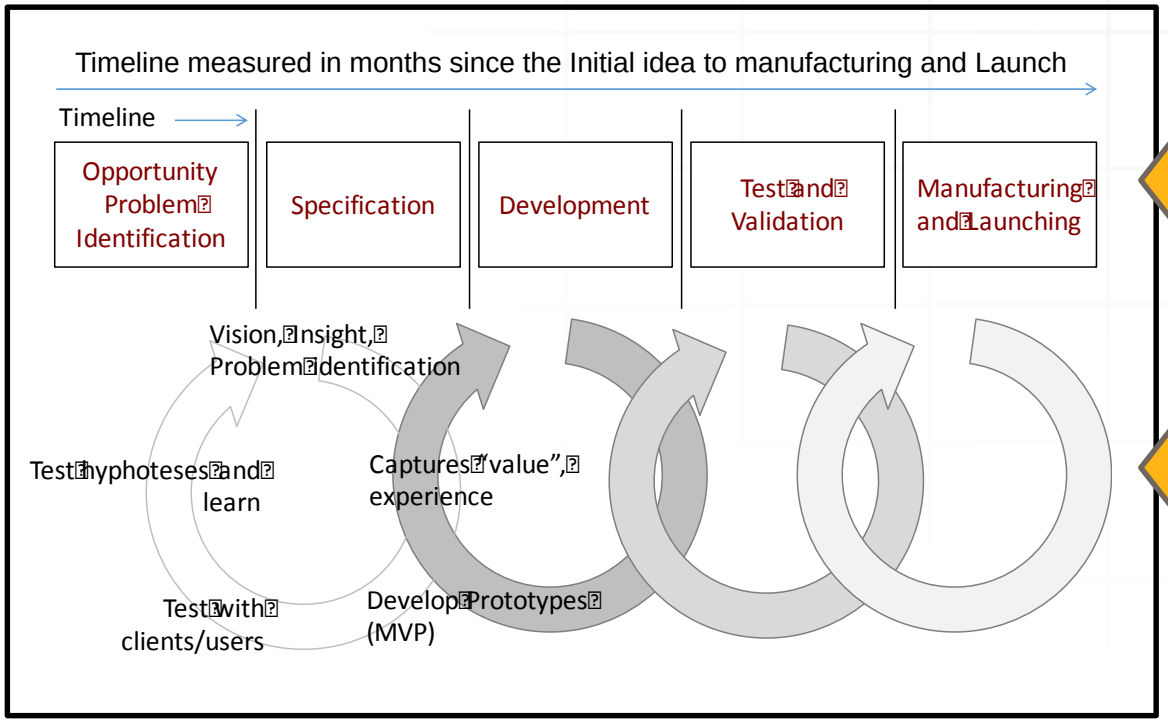
Common Characteristics of Agile Methods

- Use of short development cycles (time-boxed iterations or sprints)
- Breakdown complex deliverables into small, independent tasks
- Focus on continuous delivery of value (partial deliverables or increments)
- Continuous tests and integration
- Continuous feedback

Overview of Hybrid Methods

Phase-Gate with Iterative Development*

An agile, phase-gate hybrid approach (example)



Phase-gate approach

- Macro deliverables
- Key milestones
- Phase oriented

Iterative approach

- Tasks
- Prioritized features
- Iteration oriented

Source: Conforto, E.C.; Rebentisch, E. Desenvolvendo Competências em Agile e Lean para Programas e Projetos Inovadores. MundoPM, Fev./Mar. 2014.

Common Characteristics of Hybrid Methods

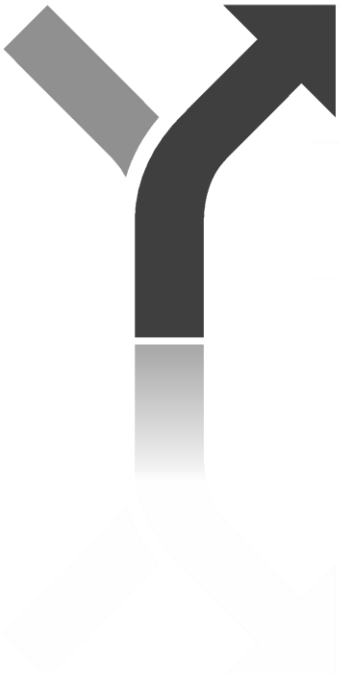
- Customized to meet specific individual project needs
- Combine different approaches, principles, and practices
- Adapted to fit into the organizational governance, operations, and processes
- Balance anticipation and reaction, predictability and adaptability
- Balance process discipline (rules) with team's self-organization
- Combine different roles and responsibilities according to the project context

Source: Conforto, E.C. et al. (2015). Hybrid Models – Unifying complexity, agility and innovation. *Project Design Management Magazine*, 64(11), 10-17.

The Focus Should Be on Organizational Agility

Look beyond agile and focus on agility

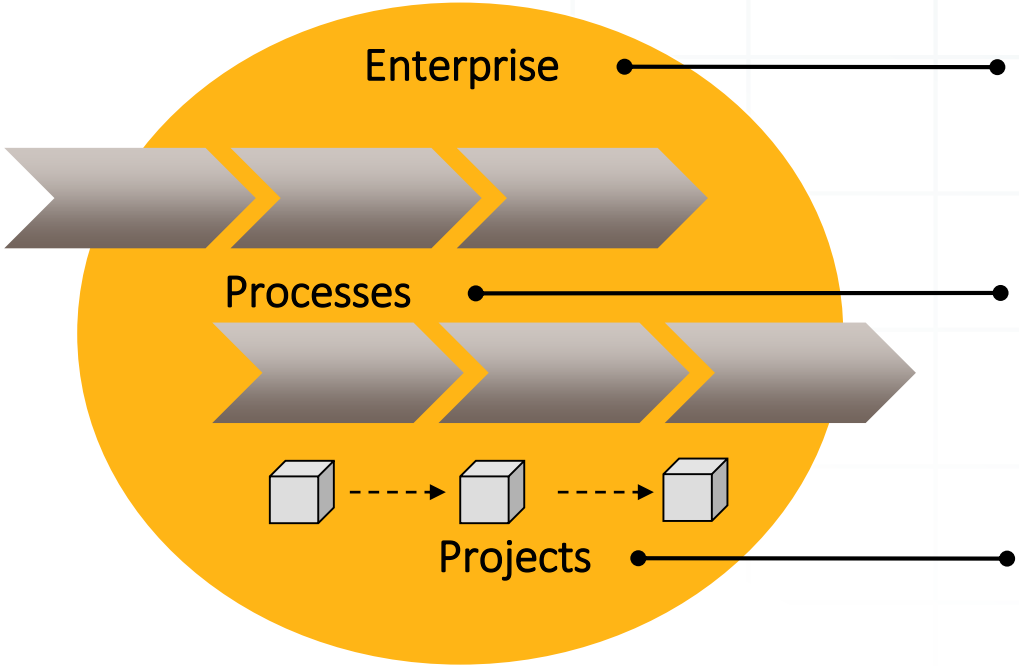
What Is Agility?



”Agility is defined as the capability to quickly sense and adapt to external and internal changes to deliver relevant results in a productive and cost-effective manner.”

Source: Definition provided by PMI – Project Management Institute, 2017

Agility Is a Multi-Faceted Concept…



"ability to change (e.g., products, platforms, services) quickly and continually as a response to stakeholders or business' needs, technology, competitors, new market demands, or opportunities"*

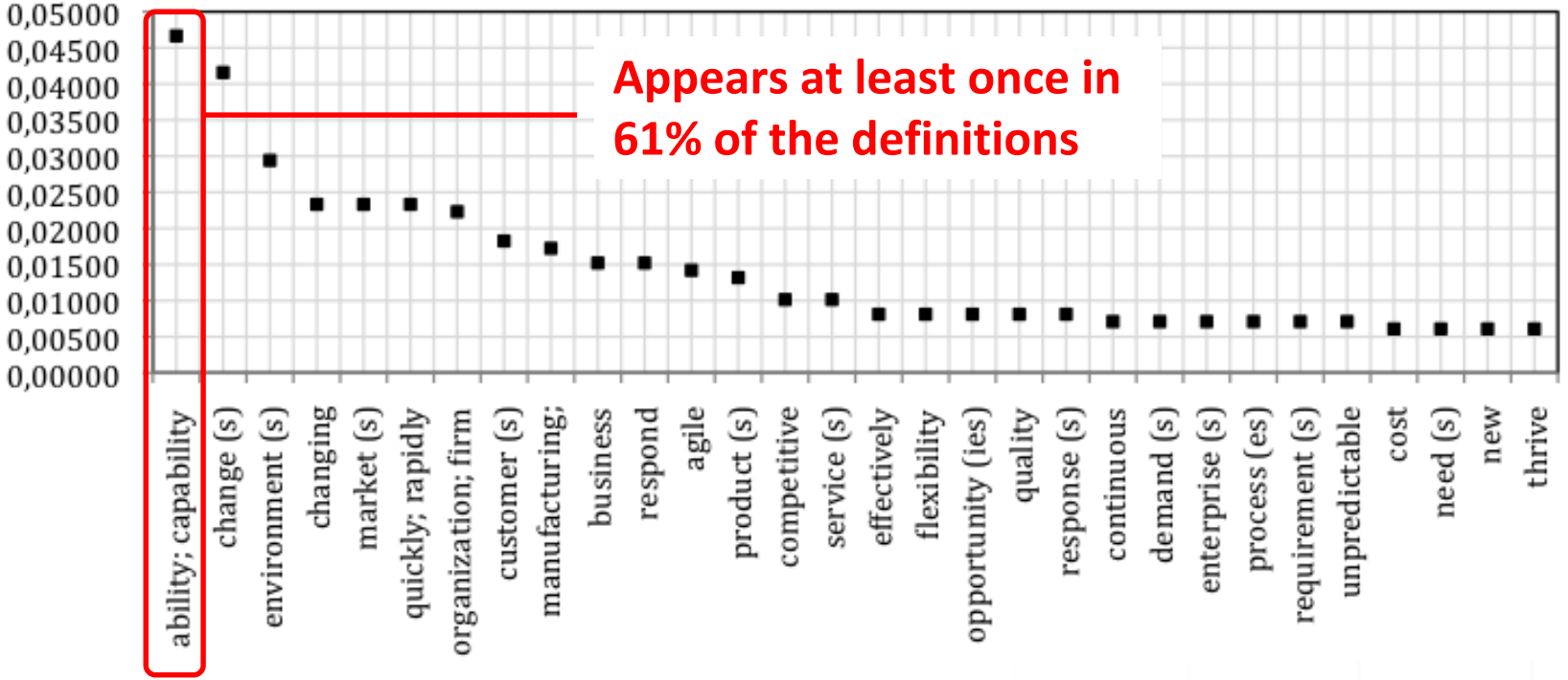
"ability to change the production, operations to deliver the products, platforms, services quickly and continually…"*

"ability to change the project plan quickly and continually…"*

*Source: Conforto, E.C., et al. "The agility construct on project management theory." *International Journal of Project Management* 34.4 (2016): 660-674.

What Is Inside “Agility”?

Thirty (30) most relevant words of the corpus agility based on 59 definitions



*Source: Conforto, E.C., et al. "The agility construct on project management theory." *International Journal of Project Management* 34.4 (2016): 660-674.

Agility…

is an ability, more than a method

depends on a combination of factors

has different levels of intensity

Source: Conforto, E.C., et al. "The agility construct on project management theory." *International Journal of Project Management* 34.4 (2016): 660-674.

Case: Cisco – How Can the PMO Leverage Agility?

- **Process design:** Help teams to adopt practices that will deliver more agility
- **Organization design:** Support development of the right team structures
- **Engagement**: Communication and interaction with multiple stakeholders
- **Scaling: S**upport scaling agile practices and developing the agility of the organization
- **Research:** Stay current with the latest thinking about management practices
- **Spread awareness:** Be the focal point for introducing new practices or processes
- **Nurture communities:** Support communities, events across the organization
- **Coaching:** Coach teams and individuals
- **Engage with broader community:** Learn from others, benchmarking, conferences, etc.

*Power, K., 2011, August. The Agile Office: Experience Report from Cisco's Unified Communications Business Unit. In *Agile Conference (AGILE), 2011* (pp. 201-208). IEEE.

How to Choose Practices?

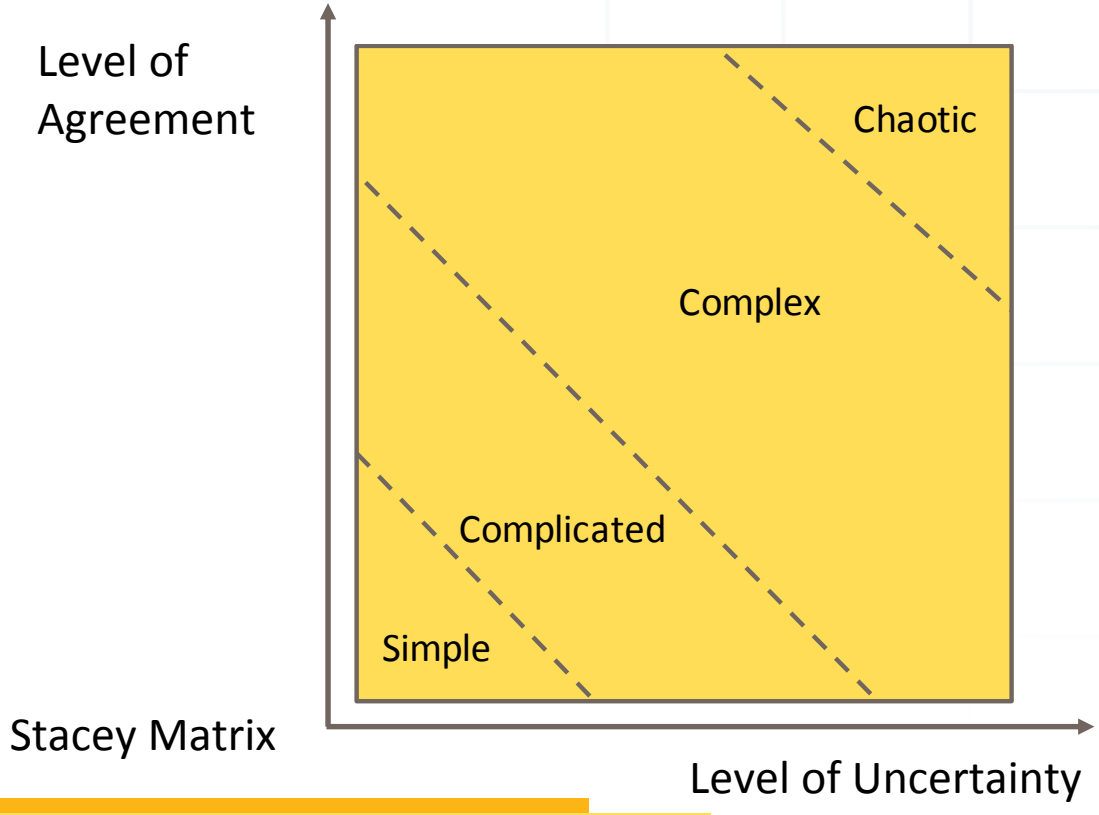
The US$1 million Question Is:

How much agility do we need in this particular project?

Rather

Is this project the right for agile methods?

How to Choose the Right Practice?



Stacey Matrix

Ask key questions:

1. Are requirements and specifications clearly defined?
2. Are product parts and systems highly interdependent?
3. Does the team have experience with the product?

Three-Step Framework to Combine the Right Practices

CALL TO ACTION

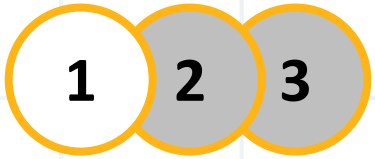
Three-Step Approach to Select the Right Practice

Define agility for the organization and teams

Identify key metrics for agility as defined

Explore different combinations of tools and techniques; use the framework ***ATT***

Define Agility

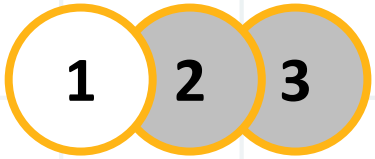


A Frame Semantic Method*

Entity	Event	Degree	Trigger(s)	Purpose	Circumstance
is an entity (or agent) of an action that does or does not meet a set of characteristics or an evaluated, observed pre-condition	is the action performed, answered by a particular entity or agent (entity)	is the moderator element of the entity or event that interferes in the characteristics of the agent (entity) or action (event), meeting the pre-conditions of an action (event)	is the element that "causes," motivates the action (event) in which the entity or agent can be involved	is the objective, the purpose to be achieved as a result of the implementation of the action (event) by its executor, the agent or entity (entity)	is the context or environment in which an entity or agent (entity) is inserted, wherever the action occurs, and it can or cannot meet the evaluated, observed pre-conditions

*See the complete explanation of the framework in Conforto, E.C., et al. (2016). The agility construct on project management theory." *International Journal of Project Management*, *34*(4), 660-674.

Define Agility



A Frame Semantic Method*

Entity	Event	Degree	Trigger(s)	Purpose	Circumstance
Project	Change	Effectively	Unclear requirements	Avoid cost deviation	Innovation project
Team	Adapt	Timely	Market changes	Deliver project on time	Technology is not mature
Team members	Anticipate	Quickly	Technology changes		Constant changes from customer
		Cheaply			

*See the complete explanation of the framework in Conforto, E.C., et al. (2016). The agility construct on project management theory." *International Journal of Project Management*, *34*(4), 660-674.

Identify Key Metrics

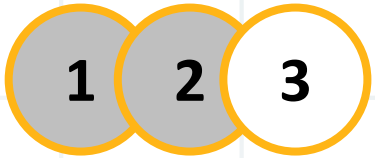
Quickly and effectively communicate changes to stakeholders

Quickly make changes in the project plan

Being able to quickly run experiments to find solutions for complex problems

*Adapted from Conforto, E.C., et al. (2016). The agility construct on project management theory." *International Journal of Project Management, 34*(4), 660-674.

Explore, Combine Practices



Framework – ATT

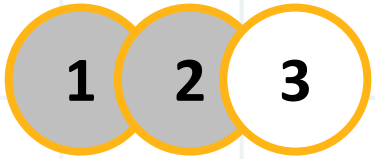
Practice

Combination of Action + Technique + Tool

Action	+	Technique	+	Tool
Related to the main action and management processes: identify, plan, control, etc.		One or more techniques, individually applied or combined		One or more tools, individually applied or combined

Source: Eder, S., Conforto, E. C., Amaral, D. C., & Silva, S. L. (2015). Diferenciando as abordagens tradicional e ágil de gerenciamento de projetos. *Production*, *25*(3), 482-497.

Explore, Combine Practices



Example:

Practice	Action	Technique	Tool
Plan project scope	Identify deliverables and tasks	Backlog (list of deliverables and tasks	Whiteboard + sticky notes
			Electronic spreadsheet
		Work breakdown structure	A software

Recap

Three-step approach to select the right practice

Define agility for the organization and teams

Identify key metrics for agility as defined

Explore different combinations of tools and techniques; use the framework ***ATT***

Key Takeaways

- Understand the differences between approaches and practices
- Clearly define agility and other key terms for your organization
- Combine different practices according to the project
- Leverage PMO capabilities to support agile and hybrid practices

Call to Action – What's Next?

- **Next week:** Gather people on your team and think about agility. What does it mean for your PMO, area, or projects?
- **Next 90 days:** Collectively, define agility and identify key metrics
- **Next 12 months:** Track agility for some months within a couple of pilot projects and identify practices, tools and techniques, as well as organizational factors that contribute to agility capabilities in your organization. Within this period, every month, stop and review the process and your progress, adjust if necessary

Elevator Pitch: *"We will only be able to develop strategic agility capabilities when we truly understand and define what agility means for our organization"* – Dr. Edivandro Conforto

Questions?

Thank YOU

Contact Information

Dr. Edivandro Conforto

Dr. Eddi Conforto is a global research award winner and consultant, specially focused on organizational agility, hybrid approaches, and agile management transformations. He was recognized by institutions such as the PMIEF, IPMA®, and POMS for his research in agile management. From 2013 to 2015, he lived in Boston, USA, and worked as a research associate (post-doctoral) at the Massachusetts Institute of Technology (MIT-CEPE) on global programs around agility, program management, and system engineering topics. Dr. Conforto also serves as the Strategy Research Advisor at Brightline™ Initiative, a not-for-profit global coalition dedicated to help organizations bridge the gap between strategy design and implementation. Dr. Conforto has advised executives and teams from different industry sectors on how to successfully navigate the agile transformation in different perspectives, including project, program, portfolio, project management offices and strategy implementation. He coauthored three books, the most recent called *Integrating Program Management and Systems Engineering* (Wiley, 2017), and published more than 30 articles, some of them in leading journals such as the *Project Management Journal®* (PMJ), *MIT Sloan Management Review* (SMR*), International Journal of Project Management* (IJPM), and *Journal of Engineering and Technology Management* (JET-M). He teaches agile management at the MBA program at PECE-POLI, USP, Brazil. He holds a PhD and a master`s degree in agile innovation from the University of São Paulo, São Carlos School of Engineering (EESC-EI2).

Email: econforto@gmail.com Twitter: @ecconforto

LinkedIn: https://www.linkedin.com/in/edivandro-conforto-ph-d-8a09b49/