Brief Summary of Kanban Maturity Model Evolving Fit for Purpose Organizations

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- 1. The purpose of the Kanban Maturity Model (KMM) is to support the development of the following organizational capabilities
 - a. Relief from overburdening
 - b. Delivering on customer expectations
 - c. Organizational agility
 - d. Predictable economic outcomes and financial robustness
 - e. Survivability
- 2. KMM is the outcome of a need to cope with resistance to change and introduce practices needed to make an organization resilient, robust and anti-fragile.
- 3. KMM is influenced by management models such as CMMI, Lean/TPS, Real World Risk Institute Model, Mission Command and Jerry Weinberg's Maturity model.

Chapter 2

- 1. KMM features seven levels numbered 0 6. Levels 1 5 are aligned to the five levels of CMMI.
- 2. Level 0 models individuals and organizations that are oblivious to the need for a process or managerial method. These organizations do not have any process choose Kanban with very little process overhead and minimal management oversight.
- 3. Level 6 is introduced to provide double-loop learning where the organization is questioning Who are we? Is our identity still appropriate? Who do we want to be? What is our purpose to exist and is it still relevant?

4. Maturity Level 0 - Oblivious

- a. Individuals are responsible for handling their own tasks (self-generated) and more often than not the person who performs the work is the user of its outcome as well.
- b. Observable behavior
 - i. Organization is oblivious to the need to follow a process.
 - ii. No collaborative working or no recognition of collaboration.
 - iii. The quality of work is entirely associated with individuals, their skills and their capabilities hence the organization is extremely fragile to changes in personnel.
 - iv. Decision making is reactive, spontaneous and emotional and often difficult to explain.
- c. Kanban Patterns
 - i. Focus on handling personal tasks hence use of Personal Kanban Boards to visualize work.

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ii. Some of these Personal Kanban Boards may introduce WIP limits, a backlog of un started tasks, and what would be done next – in trying to relieve themselves from overburdening.

5. Maturity Level 1 - Emerging

a. At ML1 there is some consistency as to how work gets done – in terms of collaboration, and work in the form of a value stream. As maturity grows, some initial definition of process workflows, management policies and decision frameworks come into play.

b. Observable behavior

- i. No consistency of process, policy usage or decision frameworks or desired outcome huge reliance on individual heroics.
- ii. There is little / no understanding of who the customer is or why they have requested the work resulting in a lack of alignment among teams.
- iii. There is an expectation that everything requested will be done hence System is overloaded no concept of capability or capacity to the system.
- iv. Workplace is stressful because of inconsistency of work and poor quality and there are significant amounts of rework.

c. Kanban Patterns

- i. Everyone is responsible for organizing and performing their own tasks and tasks are assigned or dispatched by a supervisor.
- ii. An aggregated Personal Kanban board is used to visualize all the tasks and their status for a department or functions.
- iii. One could see collaboration happening in small teams who do their work with a shared goal or responsibility and accountability.
- iv. Team visualizes its works and meets daily to check its status though the process is not consistent.
- v. Level 1 focusses on two of the Delivery Principles work understanding Customer needs and Managing the work, let people self-organize around it.

6. Maturity Level 2 – Defined

a. There is a basic definition of processes, workflow, policies and decision frameworks and these are followed consistently – though there could be possible inconsistencies in the desired outcome.

b. Observable behavior

- i. There is an understanding of what the work is, how it should be done, what the finished product is and service delivery expectations – however there may not be a full understanding of who the customer is or why they have requested the work.
- ii. This could possibly result in a lack of alignment among teams which would impact the consistency in terms of delivery to the customer.
- iii. There is little observable capability to prioritize work it could be first in, first out.
- iv. There is a tendency to say 'Yes' to everything or too many things and there is an inability to balance demand against capability.
- v. The workplace is less stressful as the workers know what is expected of them and of their colleagues.

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- vi. The product or service is still not completely 'fit for purpose'.
- vii. There is a reliance on managerial heroics to meet customer expectations and often these heroic managers are rewarded and venerated.

b. Kanban Patterns

- i. Use of defined workflow with per-person WIP limit types of work are identified and visualized by different colors or by different lanes across the board.
- ii. The team begins to understand that their performance depends on the amount of work in progress.
- iii. Unevenness in arrival of work creates temporary periods of overburdening and makes predictable delivery challenging.
- iv. Basic policies for prioritizing, committing work and visualizing work status are established however, they are insufficient to manage unforeseen events.
- v. Workflow management responsibility is not explicitly defined no one playing the role of Service Delivery Manager.

7. Maturity Level 3 - Managed

a. There is an agreed definition of processes, workflow, policies and decision frameworks –
and more importantly they are followed consistently. The desired outcomes are
achieved consistently within customer tolerances.

b. Observable behavior

- i. There is an understanding of what the work is as well as service delivery expectations.
- ii. There is a sense of a team collaborating to deliver a piece of work and a sense of fulfilment once the work is completed.
- iii. One observes that the system is relieved of over burdening and the demand is balanced against capability.
- iv. The product or service is now completely "fit for purpose".
- v. Organizational capability and performance is now resilient.
- vi. There is a clear metrics and reporting strategy with fitness criteria, improvement drivers, and general health indicators being used appropriately.

c. Kanban Patterns

- i. Usage of a Kanban system that visualize a service-oriented, customer focused work flow.
- ii. Pull criteria, work item dependencies, defect/ rework, and blocked items are consistently visualized.
- iii. Replenishment meetings are held to move work items over the commitment point and control the workload.
- iv. Policies and processes are respected by managers and teams and are followed even in crisis.
- v. Multiple project and service management is in place and dependencies between projects and services are taken into account.
- vi. The "Cadences" are conducted regularly and are used to monitor and improve service effectiveness.

8. Maturity Level 4 - Quantitatively Managed

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a. Design, implementation and service delivery have become routinely 'fit for purpose'. Consistency of process and consistency of outcome relieves stress and the organization moves its focus to economic outcomes – quantitative risk management and economics.

b. Observable behavior

- Work is now classified by customer risks and a variety of classes of services is offered.
- ii. Demand shaping or capacity limitations by work type and class of service are present.
- iii. Scheduling is influenced by cost of delay and a quantitative understanding of service delivery risk such as probability distribution of lead time.
- iv. Organizational capability and performance is now robust and economic outcomes are within a defined range of expectations.
- v. There is a notable shift to quantitative decision making and a cultural norm is established that decisions must be underpinned with solid data, risks assessed and adequately hedged prior to action.

c. Kanban Patterns

- i. Characterized by adoption of Kanban cadences and adoption of the Fit for Purpose framework.
- Teams here visualize and manage different services and classes of service using shared resources – and capacity allocation is used flexibly as a risk hedging mechanism.
- iii. Capacity allocation is used flexibly as a risk-hedging mechanism against a fluctuating or unpredictable arrival or unplanned work.

9. Maturity level 5 - Optimizing

1. The entire business is now "fit for purpose" from a shareholder's perspective. The goal for ML5 is to be "fittest for purpose". There is a strong culture of continuous improvement and acts of leadership at all levels is noticed leading to improved capability. Workers have a sense of ownership over their own processes and a sense of pride in their capabilities and outcomes.

2. Observable behavior

- In addition to the observable behaviors in Level 3 and 4, we see a strong kaizen culture – an organizational focus on improvement, with feedback mechanisms aimed at optimizing performance.
- ii. Significant job satisfaction is derived from delivering improvements and customer satisfaction is now routine and taken for granted.
- iii. Economic performance is improving consistently process improvement is used as a competitive weapon and an enabler of new services, new classes of service, new markets and new market segments.

3. Kanban Patterns

 ML5 is characterized by use of models, quantitative analysis, use of feedback mechanisms, risk management techniques and looking for improvement opportunities through Kaizen.

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ii. One is able to visualize across a set of aggregated services, members or teams vs floating members who can be quickly assigned to assist on any service.

10. Maturity Level 6 - Congruent

1. ML6 is when we can claim that a business is truly "built to last" – here we observe double loop learning opportunities. The business is capable of questioning - if things are still competitive? Do we offer the right products or services or should we change? Are we serving the right markets? Who are we as a company? The concept of strategy being continually aligned to operational capabilities is referred to as "congruent action" – these organizations exhibit longevity, be able to absorb dramatic changes without impacting economic performance.

2. Kanban Patterns

- We should see all the observable patterns of Level 5 plus a strong strategic planning capability with a view to balancing capability and delivery.
- Market segments are oriented around customer purpose
- The entire business should be service oriented and driven by service delivery.
- There is a strong sense of identity and understanding of "who we are" as a business and ow that affects decision making
- There is a recognized willingness to evolve and move with the times.
- Defining and actively managing the culture of the firm is the main task of senior leaders.

Chapter 3 – Benefits

- 1. Relief from over-burdening Implementing Kanban at Maturity levels 0 through 2 provides different levels of relief from overburdening
 - a. At level 0, the focus is on the individual, Use of Personal Kanban board, little of no concept of service delivery
 - b. At Level 1, scale grows to a team level, take pride in collaborative work with a focus on finishing tasks, service delivery however is still not fit for purpose.
 - c. At Level 2, an understanding of a service delivery workflow emerges, teams are happier, however there is a lot of variability with respect to lead time
 - d. At Level 3, the end to end workflow, value stream is relieved from overburdening. Queues are reduced in size and the customers experience faster service with greater predictability
 - e. At Level 4, the organization has a good grasp of systems thinking, and views itself as a network of interdependent services. Work with complex dependencies are delivered efficiently and service delivery is fit for purpose. Also the economic performance of the business improves
 - f. At Level 5, there is a continuous improvement culture and use of quantitative analysis of system capability metrics
 - g. Level 6 sees the emergence of two forms of double loop learning manifesting itself in two questions:
 1. Is our strategy correct? Are we offering the right products to the right markets?
 2. Do we, as a business. Have the right identity for the current business, political, economic environments in which we compete? Level 6 organizations are

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- capable of doing both questioning its own identity and reinventing itself a new image with a new identity.
- 2. Establishing shared purpose The culture of an organization has a direct relationship to the ability to achieve a given level of maturity and maintain it consistently.
 - a. Lower maturity organizations at Levels 0 through 2 tend to have an individualistic focus on their identity or culture Who am I? What's in it for me? could possibly be their guiding questions.
 - b. These organizations ae also highly socially cohesive and conformance to social norms and established tribal behaviors tends to drive decision making and outcomes.
 - i. At Level 3, an organization has a strong sense of "who we are" and is very comfortable with its identity and has a strong sense of purpose, defined and communicated by its leaders. These organizations have Einheit unity and alignment behind sense of purpose.
 - ii. At Level 4, the organization understands very well "why we exist" and "who we are" the focus now shifts to "what we do" in order that we deliver "why we exist". These organizations delivery on their goals and have strong sense of pride in who they are.
 - iii. At Level 5, in addition what organizations do in Level 4, the focus shifts to "how we do it" with a goal of being the best in what they do through superior processes and capabilities.
 - iv. At Level 6, an organization is capable of questioning and changing all of the above they question how, what, why and who. They have cohesion, unity, agreement and pride in their collective mastery and have a strong culture of challenging established norms and finding better ways of working.

Chapter 4 - KMM Architecture

Maturity Levels and General Practices

- 1. The Kanban Maturity Model architecture has two dimensions
 - a. Vertical the seven maturity levels
 - b. Horizontal the six general practices of the Kanban method
- 2. We characterize the maturity level as having depth, while the implementation of the general practices of the Kanban method as to bring breadth to the implementation.
- 3. Specific practices at maturity levels 1 through 6 are organized in two broad groupings Transition Practices and Core Practices.
- 4. When an organization aspires to achieve the outcomes that characterize the next level of maturity, it can add transition practices to facilitate the transition.
- 5. Core practices are practices that are necessary in order to achieve the outcomes that define a maturity level however an organization at the lower level will tend to resist or repel them unless some preparatory work is done first.

Chapter 5 - Visualize

1. Goals

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- a. To provide individuals, teams and managers visibility on the work, the workflows and the risks associated with it
- b. To engage sensory perception and move people emotionally
- c. To encourage greater empathy and create greater transparency
- d. To facilitate decision making

2. Benefits

- a. Makes that which is invisible, visible
- b. Ensures clear and correct communication of information about work items
- c. Reduces overburdening by visualizing and limiting work in progress to the capacity of the individuals that make up the Kanban system
- d. Captures significant business risks associated with work items

3. Summary of Specific Practices

Maturity	Core /	Srl #	Practices
Level	Transition		
MLO	Core	VZ0.1	Visualize an individual's work by means of a Personal Kanban Board
		VZ0.2	Visualize basic work item related information on a ticket
ML1	Transition	VZ1.1	Visualize work for several individuals by means of an aggregated Kanban board
	Core	VZ1.2	Visualize the work carried out by a team by means of a team Kanban Board
		VZ1.3	Use avatars to visualize the individual's workload
		VZ1.4	Visualize initial policies
		VZ1.5	Visualize team work by means of an emergent workflow Kanban board
ML2	Transition	VZ2.1	Visualize work items by means of a delivery Kanban board with per-person WIP limits
		VZ2.2	Visualize work types by means of card colors or board rows
		VZ2.3	Visualize blocked work items
		VZ2.4	Visualize development of options by means of a discovery Kanban Board
		VZ2.5	Visualize individual workload on a discovery Kanban board by means of a per-person WIP limits, potentially using avatars
		VZ2.6	Visualize basic policies
	Core	VZ2.7	Ticket Design: Visualize concurrent or unordered activities with checkboxes
		VZ2.8	Ticket Design: Visualize concurrent activities performed by specialist teams using partial rows
		VZ2.9	Board Design: Visualize sequential activities where no dependency or preferred sequence exists using rows or vertical spaces

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		VZ2.10	Visualize defects and other rework types
		VZ2.10 VZ2.11	Use CONWIP with an emergent workflow delivery
		VZZ.11	Kanban board to provide workflow level relief from
			overburdening and basic mechanics of a pull system
			with separate replenishment and delivery cadences
		VZ2.12	Visualize workflow by means of an enhanced
		VZZ.1Z	discovery/delivery boards
		VZ2.13	
ML3	Transition	VZ2.13 VZ3.1	Visualize project progress on a portfolio Kanban board Visualize "ready to commit" status also known as "ready
IVILS	Transition	VZ3.1	to pull"
		VZ3.2	Visualize "ready to pull" criteria also known as
			"definition of ready" or "entry criteria"
		VZ3.3	Visualize workflow and team work items by means of an
			aggregated team Kanban board
		VZ3.4	Visualize project work items on a two-tiered project
			Kanban board
		VZ3.5	Visualize parent-child and peer-peer dependencies
		VZ3.6	Use a parking lot to visualize dependent work requests
			of another service or system currently waiting or
			blocked
	Core	VZ3.7	Visualize upstream options by means of an
			upstream/discovery Kanban
		VZ3.8	Visualize discarded options using a bin on an
			upstream/discovery Kanban
		VZ3.9	Visualize replenishment signals
		VZ3.10	Visualize pull signals
		VZ3.11	Visualize pull criteria (also known as "pull policies",
			"definition of ready" or "exit criteria")
		VZ3.12	Visualize available capacity
		VZ3.13	Visualize work item aging
		VZ3.14	Visualize target date or SLA
		VZ3.15	Visualize failure demand vs value demand
		VZ3.16	Visualize aborted work
		VZ3.17	Visualize class of service using ticket colors, board rows
			or ticket decorators
		VZ3.18	Use Earned value portfolio Kanban board to visualize
			project progress and schedule or budget risk
ML4	Transition	VZ4.1	Visualize local cycle time
		VZ4.2	Use ticket decorators to indicate risks
		VZ4.3	Visualize risk classes with different swim lanes
<u> </u>		VZ4.4	Visualize split and merge workflows
	Core	VZ4.5	Visualize WIP limits on dependencies parking lot
		VZ4.6	Visualize waiting time in dependencies parking lot
		VZ4.7	Visualize SLA exceeded in dependencies parking lot
ML5	Core	VZ5.1	Visualize fixed teams and floating workers (shared
1			resources) across aggregated services

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Chapter 7 – Limit Work in Progress

1. Goals:

- a. To relieve individuals, functions, service delivery systems of overburdening
- b. To discourage excessive or damaging multitasking
- c. To encourage deferred commitment
- d. To establish a pull system on part or all of the workflow

2. Benefits:

- a. Allows individuals and teams to focus on work valued by the customer
- b. Makes work flow through the Kanban system
- c. Mitigates the effects of unevenness in arrival rate and flow of work
- d. Makes bottlenecks visible
- e. Amplifies the issue of blocking of issues and encourages their quick resolution
- f. Improves predictability
- g. Stimulates conversations about problems in the process
- h. Helps with reduction or elimination of three core types of waste muri (overburdening), mura(unevenness) and muda (non-value adding activities)

3. Specific Practices Summary

Maturity	Core /	Srl #	Practices
Level	Transition		
ML0	Core	LW0.1	Establish personal WIP limits
	Transition	LW1.1	Establish per-person WIP limits
ML1	Core	LW1.2	Establish team WIP limits
	Transition	LW2.1	Establish activity based WIP limits
ML2	Core	LW2.2	Establish CONWIP limits on emergent workflow
ML3	Core	LW3.1	Use an order point (min limit) for upstream
			replenishment
		LW3.2	Use a max limit to define capacity
		LW3.3	Bracket WIP limits for different states
ML4	Core	LW4.1	Limit WIP on dependency parking lot

Chapter 7 – Manage Flow

1. *Goal:* to achieve fast, smooth and predictable creation and delivery of customer value minimizing risk and cost of delay

2. Benefits

- a. Affords a deep understanding of the types of demand and how they are processed to deliver customer value
- b. Identifies impediments in the work flow and determines how to eliminate them
- c. Improves delivery predictability and forecasting

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- d. Improves workflow efficiency
- e. Establishes classes of service
- f. Improves risk management

3. Specific Practices summary

Maturity	Core /	Srl #	Practices
Level	Transition		
ML0	Core	MF0.1	Define work types based on nature of tasks
	Transition		
ML1	Core		
ML2	Transition	MF2.1	Define work types based on customer requests
	Core	MF2.2	Map upstream and downstream flow
		MF2.3	Manage blocking issues
		MF2.4	Manage defects and other rework types
ML3	Transition	MF3.1	Organize around the knowledge of the discovery process
		MF3.2	Defer commitment (decide at the "last responsible moment")
		MF3.3	Use Cumulative Flow Diagrams to monitor queues
		MF3.4	Use Little's Law
		MF3.5	Gradually eliminate infinite buffers
		MF3.6	Report rudimentary flow efficiency to understand the
			value of reducing buffers and the leverage of eliminating
			sources of delay
		MF3.7	Actively close upstream requests that meet the
			abandonment criteria
	Core	MF3.8	Develop triage discipline
		MF3.9	Manage dependencies
		MF3.10	Analyze and report aborted work items
		MF3.11	Use classes of service to affect selection
		MF3.12	Forecast delivery
		MF3.13	Apply quantitative Real Options Thinking
ML4	Transition	MF4.1	Collect and report detailed flow efficiency analysis
		MF4.2	Use Explicit buffers to smooth flow
		MF4.3	Use two phase commit for delivery commitment
		MF4.4	Analyze to anticipate dependencies
		MF4.5	Establish refutable vs irrefutable demand
	Core	MF4.6	Determine reference class data set
		MF4.7	Forecast using reference classes, Monte Carlo
			simulations and other models
		MF4.8	Allocate capacity across swim lanes
		MF4.9	Allocate capacity by color of work item
		MF4.10	Make appropriate use of forecasting
		MF4.11	Assess forecasting models for robustness
		MF4.12	Use statistical models for decision making

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ML5	Transition	MF5.1	Utilize hybrid fixed service teams together with flexible
			labor pool

Chapter 8 – Make Policies explicit

1. Goal

a. Establish clear rules for managing work for developing a better understanding of the entire process and improving it

2. Benefits

- a. Establish explicit criteria for making decision related to work items and process
- b. Establish criteria and guidelines for managing risks
- c. Manage dependencies
- d. Align strategy and capabilities

3. Specific Practices Summary

Maturity	Core /	Srl #	Practices
Level	Transition		
MLO	Core	XP0.1	Define Personal Kanban policies
	Transition		
ML1	Core	XP1.1	Define initial policies
	Transition	XP2.1	Define initial services
		XP2.2	Elaborate further policies
ML2	Core	XP2.3	Define blocking issue escalation policies
		XP2.4	Define policies for managing defects and other rework
			types
ML3	Transition	XP3.1	Establish explicit purpose of metrics
		XP3.2	Establish initial request acceptance policies
		XP3.3	Define work request abandonment policies
		XP3.4	Establish replenishment commitment point
	Core	XP3.5	Establish pull criteria
		XP3.6	Establish a delivery commitment point
		XP3.7	Establish customer acceptance criteria for each work
			item or a class of work items
		XP3.8	Define classes of service
ML4	Transition	XP4.1	Explicitly define fitness for purpose and manage based
			on metrics
	Core	XP4.2	Establish demand shaping policies
		XP4.3	Establish SLA on dependent services
ML5	Transition		
	Core	XP5.1	Align strategy and capability

Chapter 9 – Implement Feedback Loops

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1. Goal – Enable comparing expected and actual outcome and use the obtained feedback to evolve further the process and the policies

2. Benefits:

- a. Establishes coherent management of the entire process
- b. Develops unity, alignment and shared purpose
- c. Develops short term shareholder focus
- d. Develop long term shareholder focus

3. Specific Practices Summary

Maturity	Core /	Srl #	Practices
Level	Transition		
ML0	Core	FL0.1	Engage in personal reflection
ML1	Transition		
	Core	FL1.1	Conduct Kanban meeting
ML2	Transition		
	Core	FL2.1	Conduct internal team Replenishment meeting
		FL2.2	Hold a Team Retrospective
ML3	Transition	FL3.1	Conduct Replenishment meeting
		FL3.2	Conduct Suggestion Box Review
		FL3.3	Conduct System Capability Review
	Core	FL3.4	Conduct Delivery Planning meeting
		FL3.5	Conduct Service Delivery Review
		FL3.6	Conduct Options Review (upstream)
ML4	Transition	FL4.1	Conduct Risk Review
		FL4.2	Conduct Portfolio Review
	Core	FL4.3	Conduct Operations Review
ML5	Transition		
	Core	FL5.1	Conduct Strategy Review

Chapter 10 - Improve collaboratively, Evolve Experimentally

 Goal – Build a shared comprehension of the purpose, process and associated problems, suggest improvement actions based on scientific models and reach agreement by consensus in order to evolve continually

2. Benefits

- a. Learn in the process of defining an improvement experiment predict the outcome compare actual and expected results
- b. Understand the impact of taken decisions
- c. Improve risk management at all organizational levels
- d. Continually develop the fit for purpose capabilities

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3. Specific Practices Summary

Maturity	Core /	Srl #	Practices
Level	Transition		
ML2	Transition	IE2.1	Identify sources of dissatisfaction
		IE2.2	Identifying problematic policies
	Core		
ML3	Transition	IE3.1	Suggest improvements using a suggestion box
		IE3.2	Identify sources of delay
	Core	IE3.3	Analyze blocker likelihood and impact
		IE3.4	Analyze lead time tail risk
		IE3.5	After meetings; discuss a problem simultaneously and
			bring it to the Service Delivery Review
ML4	Transition	IE4.1	Develop quantitative understanding of common vs
			special cause for process performance variation
	Core	IE4.2	Identify the impact of shared resources
		IE4.3	Identify bottleneck and resolve it
		IE4.4	Identify transaction and coordination costs
		IE4.5	Develop quantitative understanding of common vs
			chance cause for process performance variation
ML5	Transition		
	Core	IE5.1	After meetings: Discuss – Suggest – Take Actions – Seek
			Forgiveness
ML6	Transition		
	Core	IE6.1	After meetings: Take congruent actions with confidence

Chapter 11 – How to use the KMM and why

- 1. The KMM is designed to map practice adoption against observable business outcomes, risk management and leadership behaviours.
- 2. It provides a means to assess where we are now, how we can consolidate our position and which path we might follow next.
- 3. Resistance to practice adoption
 - Identify being changed or attacked Adoption of a new practice significantly changes the roles/responsibilities of people working within the workflow / system / process.
 - ii. Fear of incompetence an individual may be competent in performing a practice at the next maturity level requires them to learn new skills or gain new knowledge and understanding. The individual fears being seen as incompetent, even temporarily, at this new level and resists adoption.
 - iii. Failure to understand the causation between a practice and an outcome e.g. abandoning the speculative estimation techniques for a probabilistic forecasting methods

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- iv. Failure to appreciate scale Practices that work well on teams or three or four people may hinder larger teas creating too many lines of communication and too much overhead. People may resist adoption where they find practices which were working well at a team level are not working well at an enterprise level.
- 4. Impediments to achieving the next level of organizational maturity are often due to insufficiency or a lack of sociological or psychological element and the absence of values such as
 - i. Lack of leadership
 - ii. Lack of understanding
 - iii. Lack of systems thinking
 - iv. Lack of agreement
 - v. Lack of trust or insufficient empathy
 - vi. Lack of respect
 - vii. Lack of customer focus or service orientation
 - viii. Failure to value flow

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