

# Xtreme Programming FORUM



## Tool for Tailoring Agile Methodology Practices

Presented by

**Dr. Ernest Mnkandla**

Member: IEEE, SAIEE, CSSA, PMISA

[emnkandla@uj.ac.za](mailto:emnkandla@uj.ac.za)

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# Xtreme Programming FORUM



**16:00 – 16:45**      **Profiling Agile Practices**  
*Dr. Ernest Mnkandla*

**16:45 – 17:30**      **Discussion**

**17:30 – 18:00**      **Drinks and snacks**

# What this talk will cover

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- Introduction
- Philosophy of the Tool
- The Tool
- Conclusion

# Introduction

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- We have moved from straggling to define agility
- Today one of the most formidable challenges is selecting appropriate agile processes for a given project
- A number of tools have been developed especially for aiding with coding issues
- The softer issues of software development have not been touched much

# Introduction...

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- Issues that still remain a challenge are;
  - Selection of agile practices from the agile family
  - Profiling the practices for easy tuning
  - General optimization of methodology process activities
- Many agile methodology practices can be classified as abstract principles because they fail to specify how you can tailor them to your project environment [1, 2].
- The danger of nonspecificity is that people may apply diverse tailoring approaches that could violate agile principles.

# Introduction...

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- This discussion will present a comprehensive way to tailor agile practices and still remain agile.
- The proposed tool is composed of three stages:
  - The first stage sets the background for selection of agile practices through the classification of projects
  - The classification is based on those project parameters that are of value to the agile perspective of software development
  - The second stage then selects the relevant agile practices
  - The third stage Tailors the selected practices.

# Introduction...

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- Benefits of the tool:
- Helps you to evaluate the agility of your project
- Provides detailed knowledge of agile practices
- Provides you with an opportunity fully utilize agility

# Philosophy of the tool

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- The tool views software development processes as phenomena that are made up of two groups of activities namely:
  - Social activities and
  - Technical activities.

# Philosophy of the tool...

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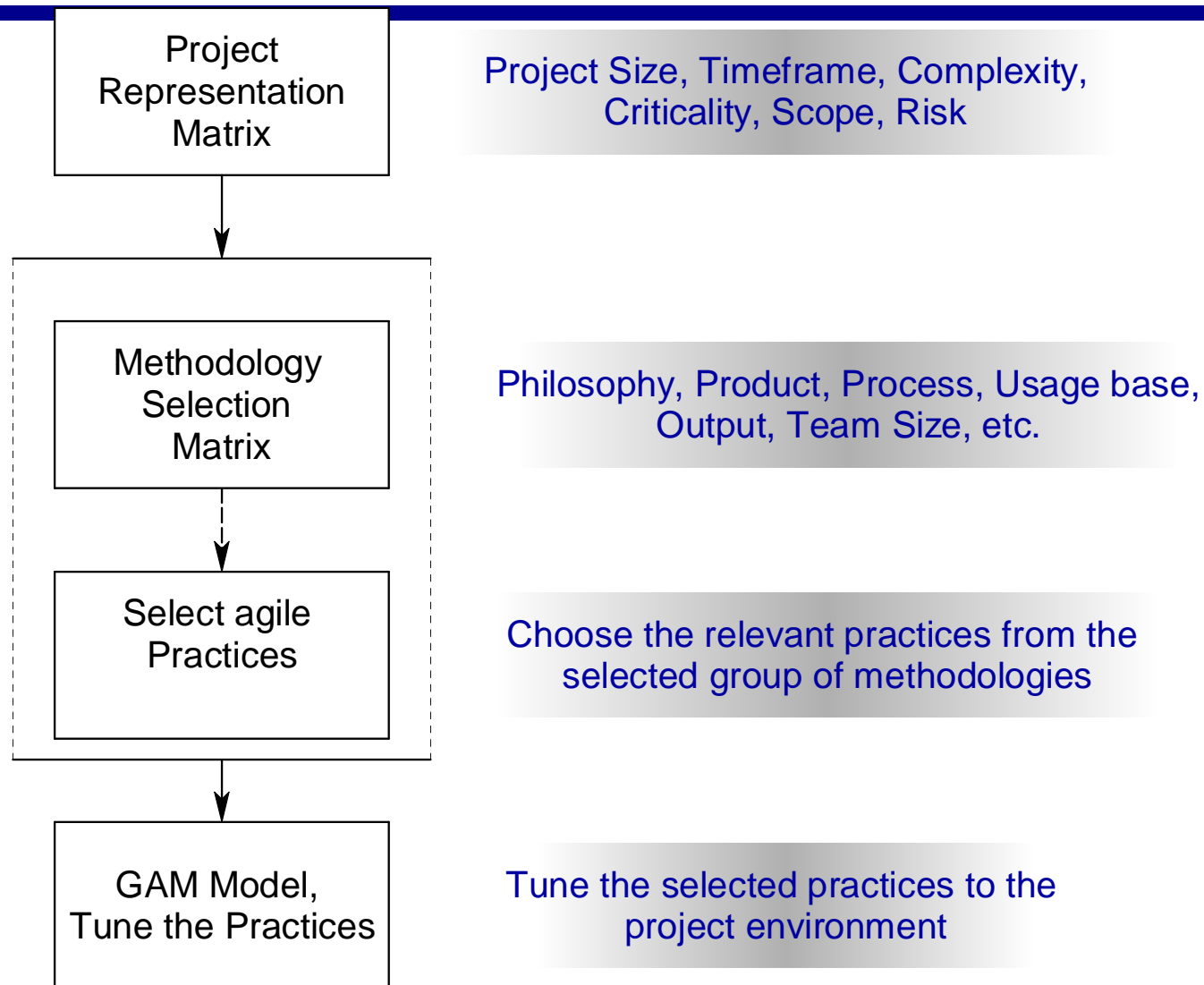
- The departure point is to consider customer values and priorities in a given project and tune the selected practices accordingly.
- This not only agrees with the heart of agility but also introduces a novel perspective to agile development:
- which is a simplified twofold view of development activities –*social* and *technical*.

# Philosophy of the tool...

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- To sum up the philosophy:
- All activities should be driven by what the customer values and prioritizes in a given project.
- All practices should be classified into social practices, and technical practices.

# The Tool

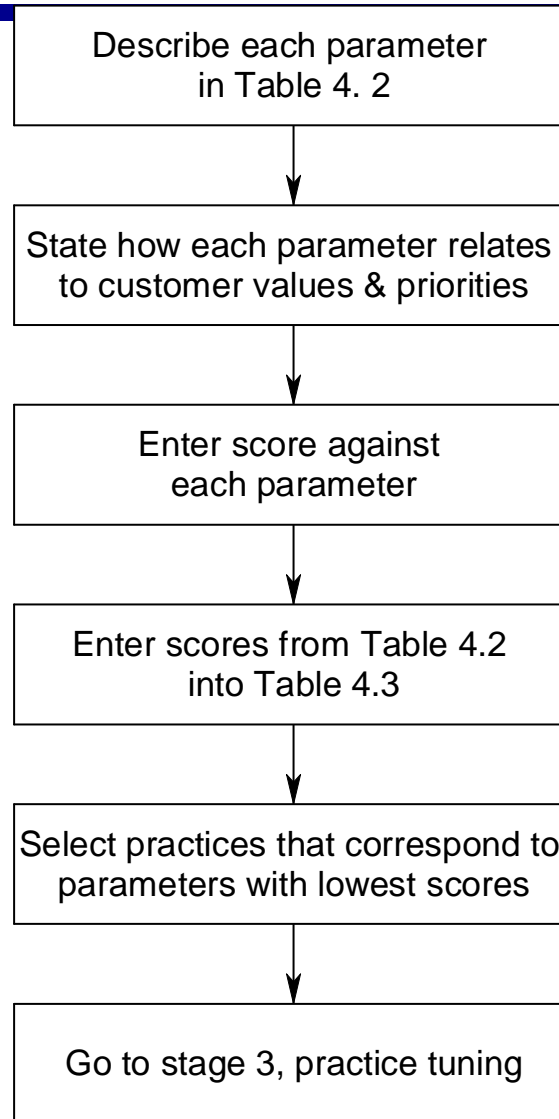


# Stage One

Table 4-1: Stage One: Determine Between the Two Major Paradigms

Project Parameters	Rating 0 to 5	Methodology Choice
Requirements Stability		
Project Size		
Development Timeframe		
Project Complexity		
Project Risk		

# Stage Two



# Stage Two...

**Table 4-2: Stage Two: Methodology Description**

<b>Parameter</b>	<b>Parameter Description</b>	<b>Relation to Customer Values and Priorities</b>	<b>Score</b>
Methodology Philosophy			
Methodology Process			
Methodology Techniques and Tools			
Methodology Scope			
Methodology Outputs			
Adoption and Experience			
Methodology Product			
Roles and Responsibilities			
Support for Distributed Teams			

# Stage Two...

**Table 4-3: Stage Two: Methodology Selection Matrix**

Parameters	AS D	Crystal	FD D	AMDD	ICONIX	Scru m	DSDM	LD	X P	0 Score
Methodology Philosophy										
Methodology Process										
Methodology Techniques and Tools										
Methodology Scope										
Methodology Outputs										
Adoption and Experience										
Methodology Product										
Roles and Responsibilities										
Support for Distributed Teams										
Score per methodology										Score per parameter

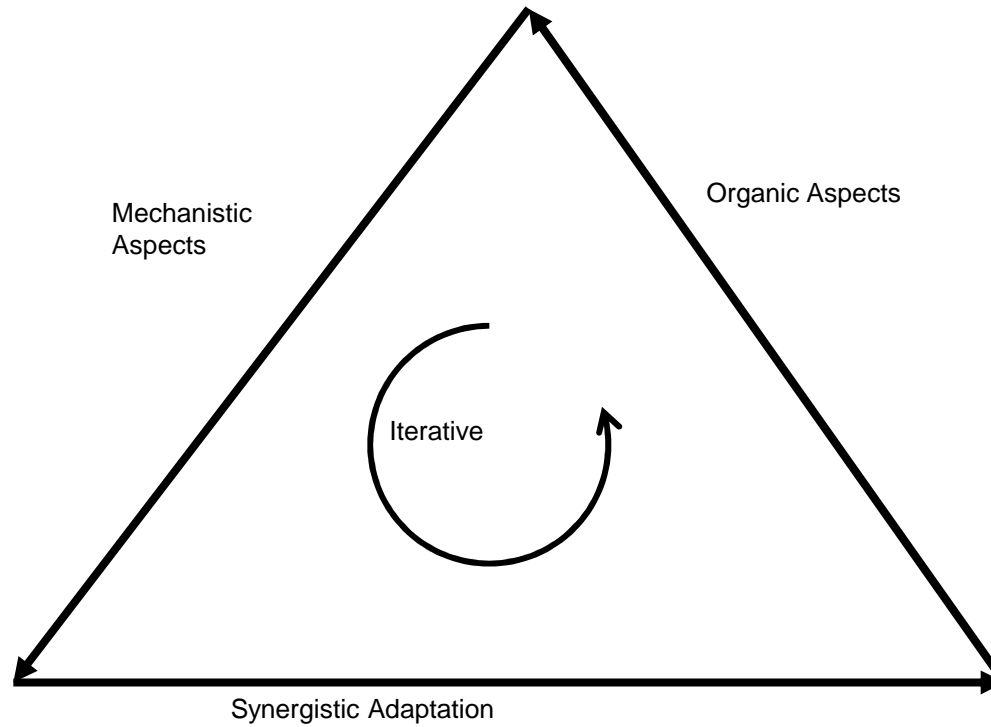
# Stage Two...

**Table 3: Methodology Practices**

<b>Methodology</b>	<b>List of Practices</b>
XP	
Scrum	
LD	
DSDM	
FDD	
AMDD	
ICONIX	
Crystal	
ASD	

# Stage Three

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## Stage Three...

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- *Organic Aspects*: deals with how the methodology caters for social issues or people issues and the way these social issues affect the software architecture and drive project outcomes.
- *Mechanistic Aspects*: defines how the methodology values the technical aspects of software development.
- E.g. development platform/technology, and form of the deliverables (is it a document or code etc?).

# Stage Three...

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- *Synergistic Adaptation*: represents the tailoring of the selected practices in the two preceding phases of the GAM model. specific practical guidance on how to tailor the selected agile practices provided.

# Conclusion

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- The presented tool should be taken as prescriptive
- Bring your own ideas and experiences.
- Agile development may not be applicable to every project, because there is no *silver bullet*
- Therefore determine the agility of your project before deciding to use agile (stage 1)
- With appropriate tuning, scaling and modeling agile development can be used in most projects.
- But there are arguments as to whether it will still be agile or something else.

# References

1. Abrahamsson, P., Salo, O., Ronkainen, J. and Warsta, J, Agile Software Development Methods: Review and Analysis, *VVT Publications*, No. 478, 2002, pp. 7–94.
2. Abrahamsson, P., Warsta, J., Siponen, M.T., and Ronkainen, J. New Directions on Agile Methods: A Comparative Analysis, *Proceedings of the 25th International Conference on Software Engineering (ICSE'03)*, 2003.
3. Glass, R.L. and Vessey, I., *Contemporary Application Domain Taxonomies*, *IEEE Software*, 1995, pp. 63–76
4. Mnkandla, .E.; Dwolatzky, B. Agile Methodologies Selection Toolbox, *International Conference on Software Engineering Advances, 2007. ICSEA 2007*, Published on IEEEXplore Digital library.
5. Mnkandla, E., *A Selection Framework For Agile Methodology Practices: A Family of Methodologies Approach*, PhD Thesis, University of the Witwatersrand, Johannesburg, South Africa, 2006.
6. Song, X. and Osterweil, L.J., *Comparing Design Methodologies Through Process Modeling*, *IEEE Software*, 1992, pp. 29–44.

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## Discussion and questions

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