

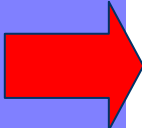


**Real life experience using
CMMI L2 processes
and
XP practices**

Orhan KALAYCI
orhan.kalayci@nitelik.net

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European SEPG
Amsterdam

Content

- 
- A red arrow pointing to the right, highlighting the first item in the list.
- Introduction
 - Big Picture
 - CMMI Process Areas Piloted
 - Requirements Management
 - Project Planning
 - Configuration Management
 - XP Practices Piloted
 - Cards (Planning the game)
 - Pair Programming
 - First Test then Coding
 - Correlations



Orhan KALAYCI

In Turkey, related to CMM/CMMI, The first ...

- 1995 – Academic Publication– Boğaziçi University
- 1996 – Paper – Bilişim'96
- 2001 – CMM L3 Experience – Alcatel İstanbul
- 2003 – Radio Program – Açık Radyo
- 2004 – CMMI L2 Experience - BİMAR
- 2004 – CMMI L2 & XP Practices - BİMAR

The Project

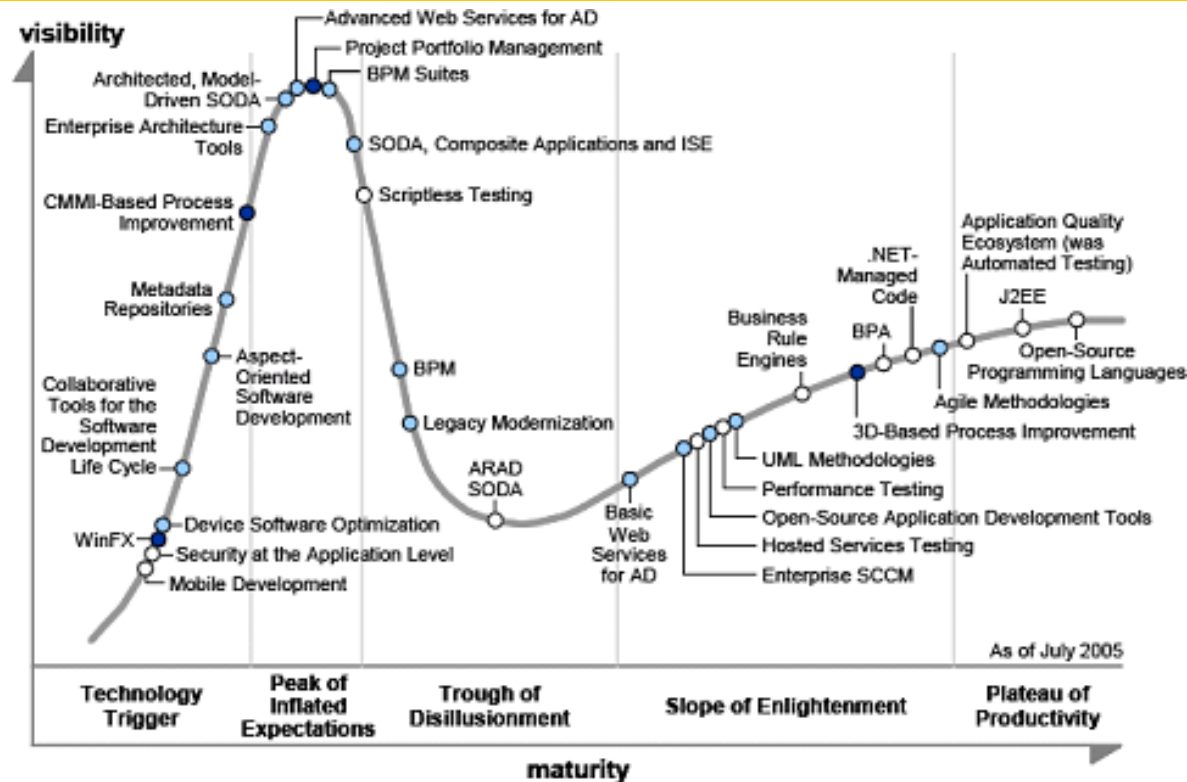
- November 2003 - BIMAR has initiated an SPI project to reach CMMI L2 in 2004 using XP practices at the same time
- December 2003 - process development with four processes started and last in seven weeks
- March 2004 – the remaining three processes started and finished in about 4 weeks
- July 2004 – CMMI L2 (No formal SCAMPI A, B, C)

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Peak of Inflated Expectations



Plateau will be reached in:
 ○ less than 2 years ● 2 to 5 years ● 5 to 10 years ▲ more than 10 years ⊗ obsolete before plateau

Source: Gartner (July 2005)

Big Picture



Medical Check-up

CMMI



Life Style

XP

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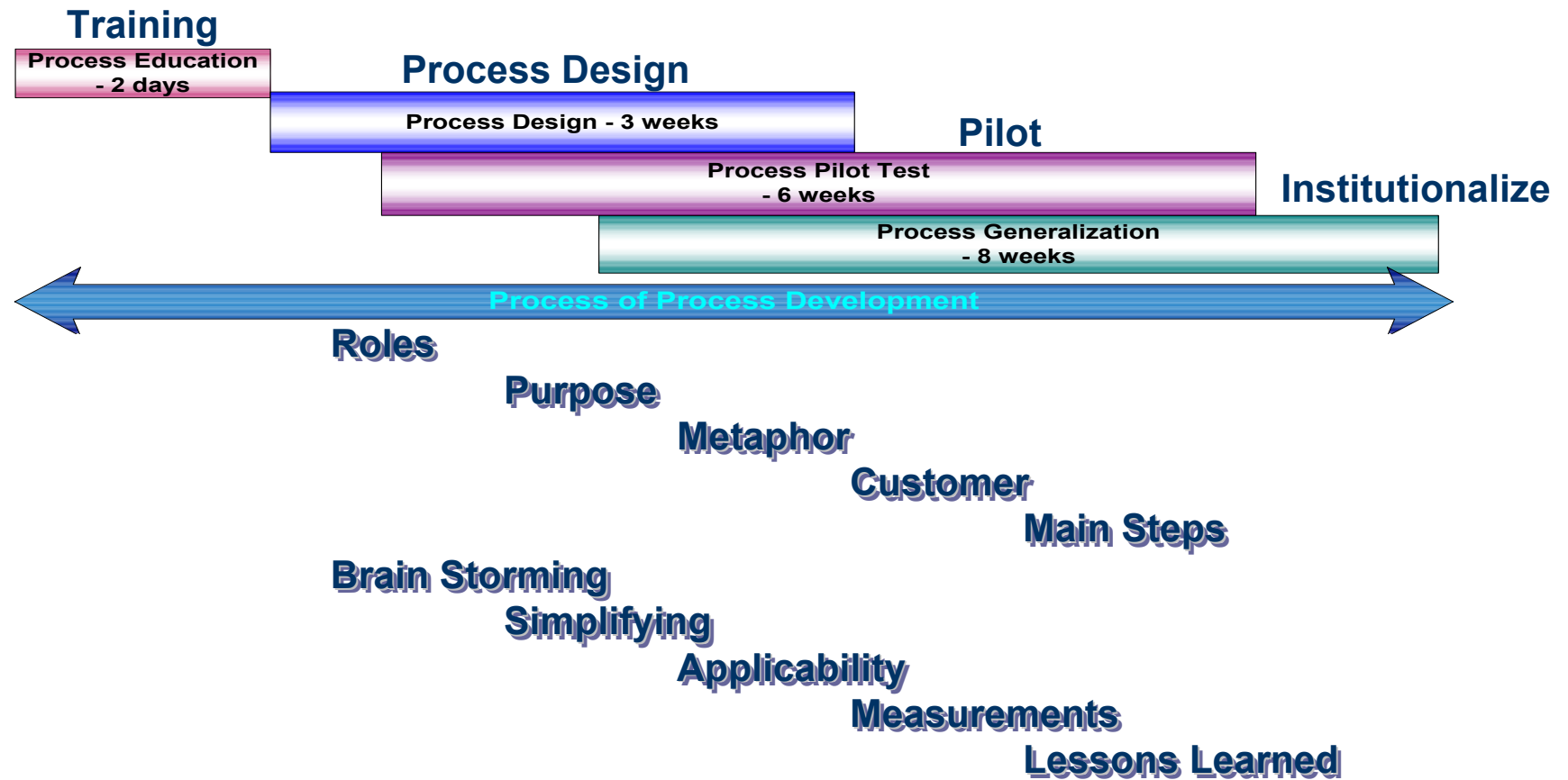
CMMI v1.1

Level	Focus	Process Areas
5 Optimizing	<i>Continuous Process Improvement</i>	Organizational Innovation and Deployment Causal Analysis and Resolution
4 Quantitatively Managed	<i>Quantitative Management</i>	Organizational Process Performance Quantitative Project Management
3 Defined	<i>Process Standardization</i>	Requirements Development Technical Solution Product Integration Verification Validation Organizational Process Focus Organizational Process Definition Organizational Training Integrated Project Mgmt (with IPPD extras) Risk Management Decision Analysis and Resolution Integrated Teaming (IPPD only) Org. Environment for Integration (IPPD only) Integrated Supplier Management (SS only)
2 Managed	<i>Basic Project Management</i>	Requirements Management Project Planning Project Monitoring and Control Supplier Agreement Management Measurement and Analysis Process and Product Quality Assurance Configuration Management
1 Initial		

Quality
Productivity

Risk
Rework

Process Development



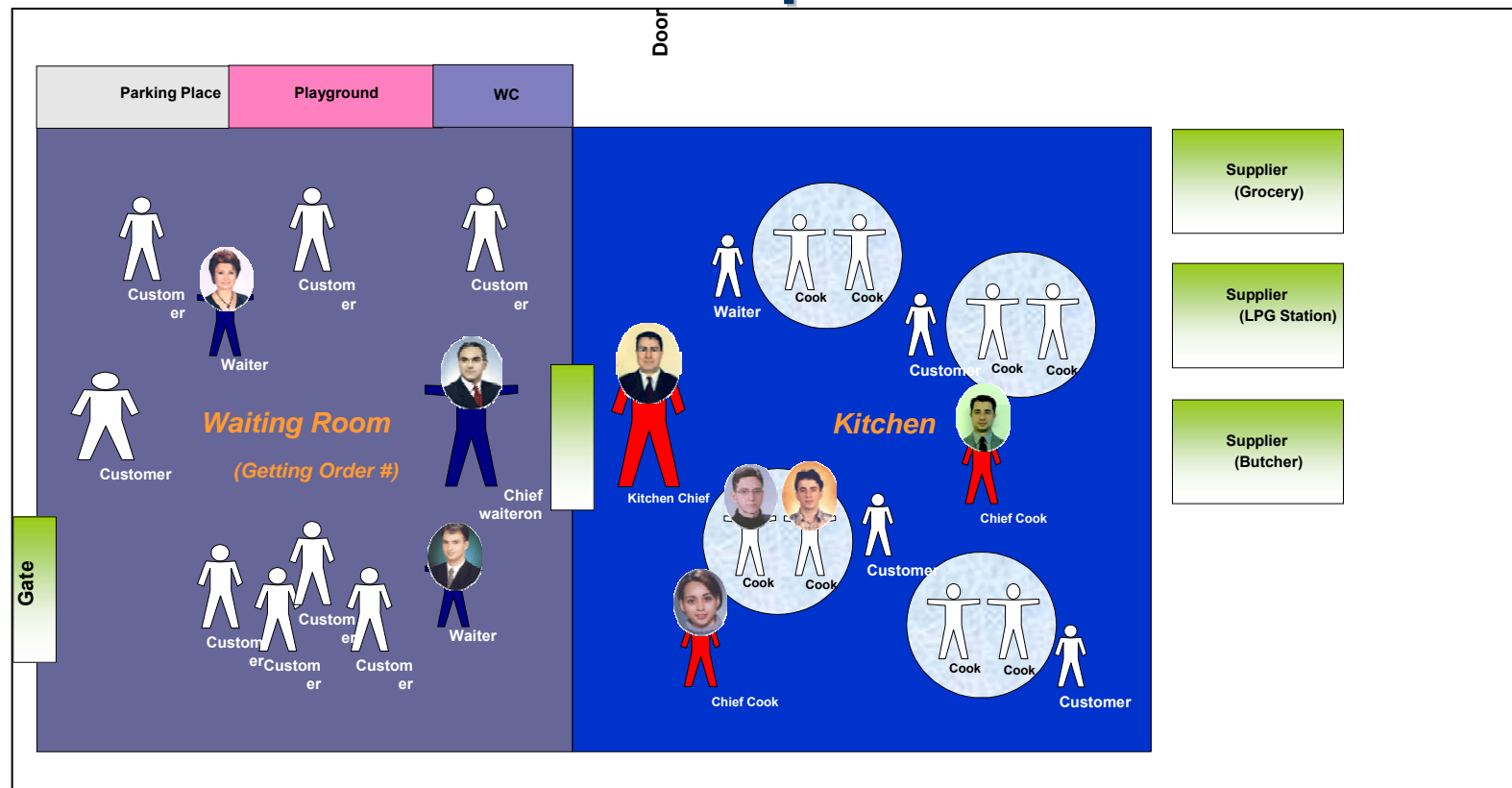
Requirements Management

Purpose

- To make the customers' needs to be taken correctly, accurately and exactly
- To take managerial commitments from both organization and the customer
- To keep track of these commitments and therefore to provide service to the customer on time with minimum errors

Requirements Management

Metaphor



Requirements Management

Main Activities

- Take the Order
- Keep Track Of Accepted Order
- Close The Order

Project Management

Purpose

- Do the most valuable (the most important, urgent etc...) thing first
- Coordinate the related parties
- If any change occur, go to the first step

Project Management

Main Activities

- Iteration based planning
- Filling technical cards
- Effective programming
- Arranging the work environment
- Frequent communication

Configuration Management

Purpose

The purpose in establishment of the Configuration Management System is to identify the work products to be kept in this system, to follow up the modifications on work products and to provide and maintain their consistency and integrity by making control on them.

Configuration Management

Metaphor Account Activity

POS

Settings

Personel Information
Password
Limit

Update Information

Deposit Box



Accounts

Retail Banking
Commercial Banking
Business Banking

Payments

Manuel Payments
Standing Orders

Money Transfers

Statement of Activity

THE BANK

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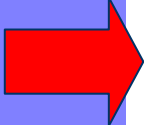
Configuration Management

Main Activities

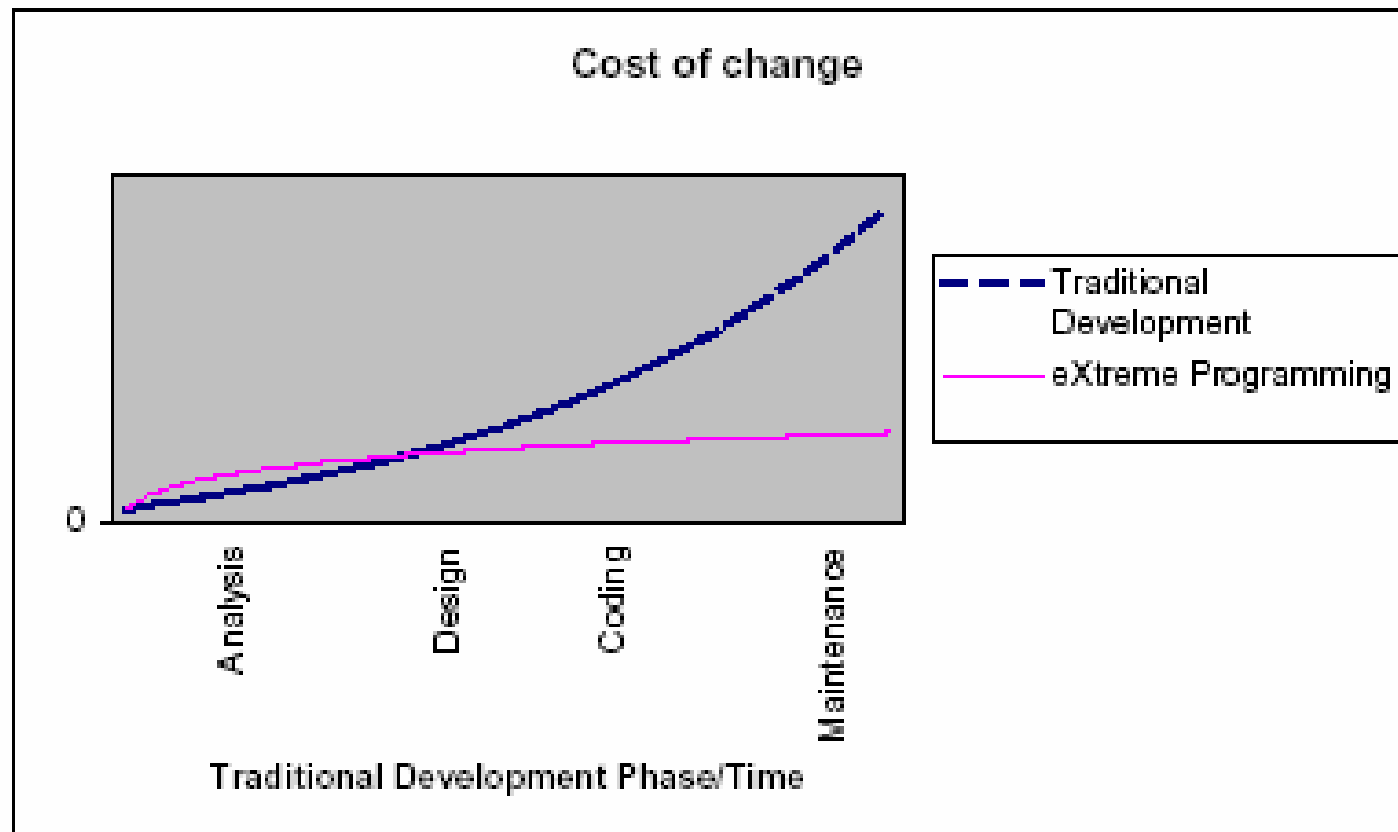
1. Start the Project
2. Operation of the Project
 - check in the work product
 - check out work product
 - delete the work product
 - create a baseline
 - withdraw the baseline
 - update the data on work product
3. End the Project

Content

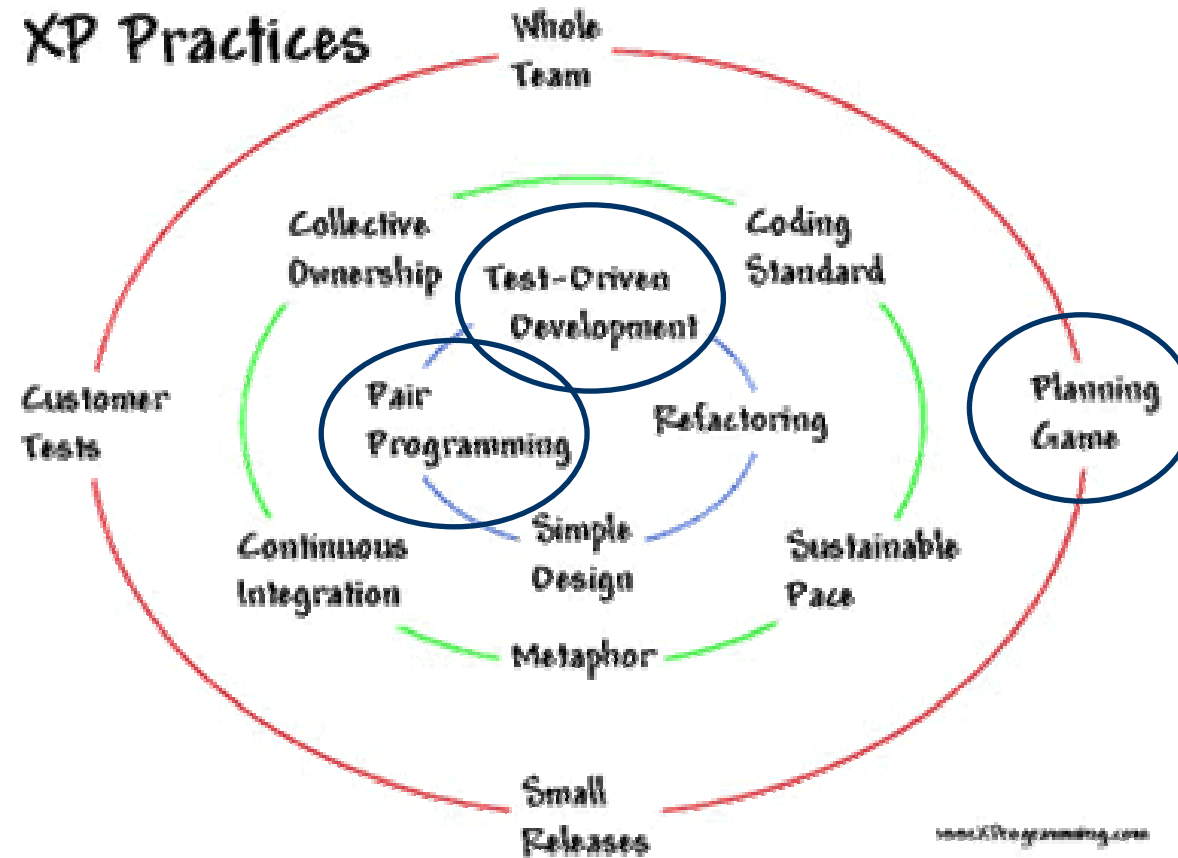
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Why XP?



eXtreme Programming



Planning the Game - Cards

BİMAR		TEKNİK KART		Tarih:	
Kart No:		Kart Adı:		Müşteri Kart No:	
Proje No / Adı:				Müşteri Kart Adı:	
Teknik Uzman:				Tahmini Süre:	
İşin Açıklaması:				Gerçekleşen Süre:	
Notlar:					
İş Takibi:					
Tarih	Durum	Yapılacak İş	Açıklama		

Açıklama bölümü için arka sayfayı da kullanabilirsiniz.

Pair Programming

How does Pair Programmer work ?

- Sit on the same table and look at the same screen
- Write code in turn
- As one of them writes the code, the other traces the code at the same time.

Pair Programming

With the pair programming

- Bugs are realized and solved early
- Shorter problem solution times because of another different perspective
- High quality code
- Advantage for the company by sharing knowledge

First Test Then Coding

When is it most useful ?

- While writing the test code, it is possible to look at the program from different perspectives and the defective points of the program can be noticed very early,
- Programs can be tested every time when desired with pressing only one key,
- The test is made by the program and this provides the objectivity in testing,
- It can be observed that, how the last changes in the program effects the old program,

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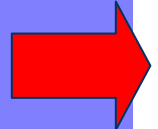
Quality Attributes for Definition of Work



Definition of Work



Work



CMMI – XP

Mark C. Paulk, "Extreme Programming from a CMM Perspective,"
IEEE Software, November 2001

XP satisfaction of key process areas, given the appropriate environment

Level	Key process area	Satisfaction
2	Requirements management	++
2	Software project planning	++
2	Software project tracking and oversight	++
2	Software subcontract management	—
2	Software quality assurance	+
2	Software configuration management	+

CMM – XP

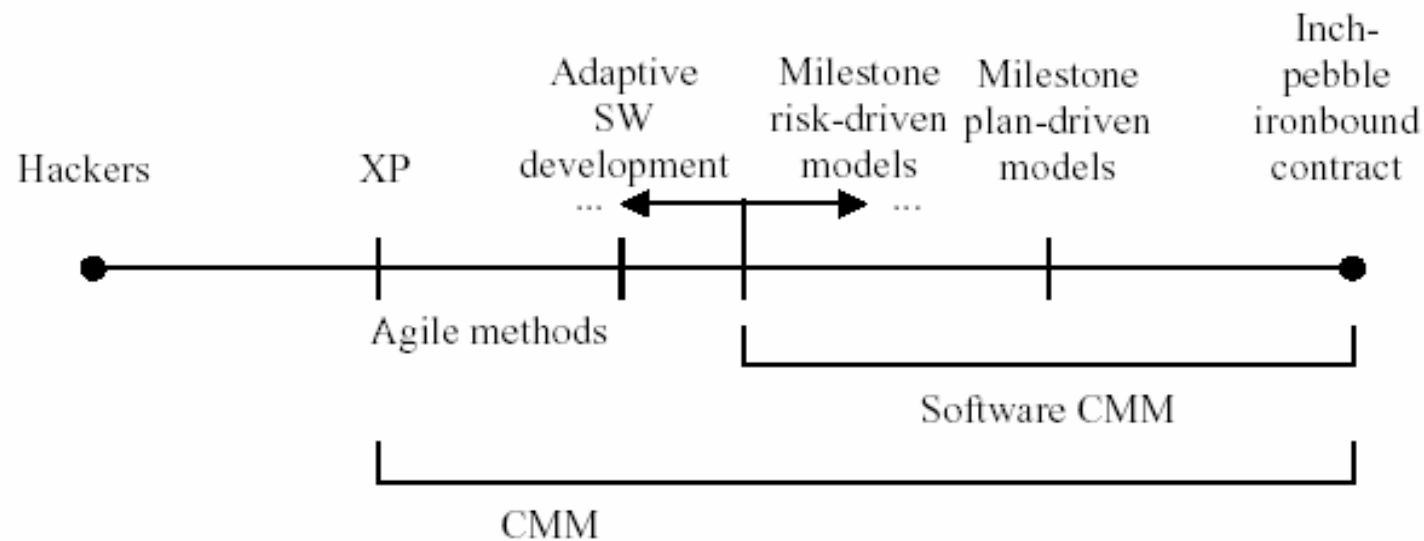


Figure 1. The planning spectrum (Boehm 2002, p. 65).

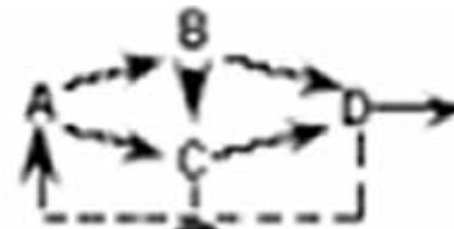
Boehm, B. (2002). Get Ready For The Agile Methods, With Care. Computer 35(1): 64–69.

Conclusion

	Planning the Game Cards	Pair Programming	First Test then Coding
Requirements Management	++	N/A	+++
Project Management	+++	++	++
Configuration Management	--	N/A	N/A

New Definition of Process

Procedures and methods defining the relationship of tasks



People with skills, training, and motivation



Tools and Equipment