

# **Best Practices, a Value management Method**

**Door: Wim Hoogduijn, Jacobs**



**"Van Crisis naar Kans"**

## **Biografie Wim Hoogduijn**

Wim Hoogduijn is een ervaren manager van Projecten met een achtergrond in procesontwerp, werktuigbouwkunde en geluids- en trillingsbeheersing. Hij heeft bij Jacobs Nederland diverse project management functies vervuld zoals Project Manager en Manager of Projects. Momenteel adviseert hij een multinational in Moskou voor een grootschalige programma van projecten voor een aantal raffinaderijen. Hij heeft in diverse industrieën gewerkt variërend van olie & gas, (petro-) chemische tot speciale producten en de farmaceutische industrie. De uitgevoerde projecten beslaan alle fases, van haalbaarheidsstudies tot detailontwerp inclusief inkoop en afsluiten van installatie contracten, constructie management, en het testen en in bedrijfstellen.

# JACOBS

**DACE - Utrecht**  
**4 November 2009**  
**Wim Hoogduijn**

Best Practices, a Value management Method

## AGENDA

Purpose

Background

Value Management

AOB

## Purpose

Engineering companies are service providers

Value for Client' business (HSEQ, €, time)

Client satisfaction

Repeat business

## Background

### Development of methods

1. Educated engineers, technical knowledge
2. Work together using Procedures
3. Better Tools
4. Teamwork and stimulate creativity

## Background

### Value Management methods

- Excellent Execution Planning
- Teamwork
- Application of Best Practices

### Best Practices

- Developed by independent organizations (IPA, CII ...) production companies and service providers (engineering companies, contractors and vendors)

## Jacobs Methods

### JVEPs

- Jacobs Value Enhancing Practices

Summary-contents of some JVEPs



## What are JVEPs best practices?

Structured methods

Target a theme

Use group and creativity

Prepare

Session

Follow up

## Source

Developed by:

- Jacobs in house
- Construction Industry Institute (CII)
- Independent Project Analysis (IPA)

Embedded in J-STEPS -- Jacobs' work process

## JVEPs

V-1 Client expectations

V-2 Client surveys

V-3 Constructability # \*

V-4 Design to Capacity #

V-5 Execution Planning \*

V-6 Interactive Planning \*

V-7 Lessons Learned

V-8 Team Alignment \*

V-9 PDRI \*

V-10 Owners Objectives

V-11 Value Engineering #

V-12 Value Plus

V-13 Class of plant quality #

V-14 Customized standards #

V-15 Energy Optimization #

V-16 Predictive maintenance #

V-17 Process reliability Modeling #

V-18 Process simplification #

V-19 Technology selection #

V-20 Waste Minimization #

V-21 3D Cad

V-22 Change Management \*

# = IPA    \* = CII

## Why apply JVEPs?

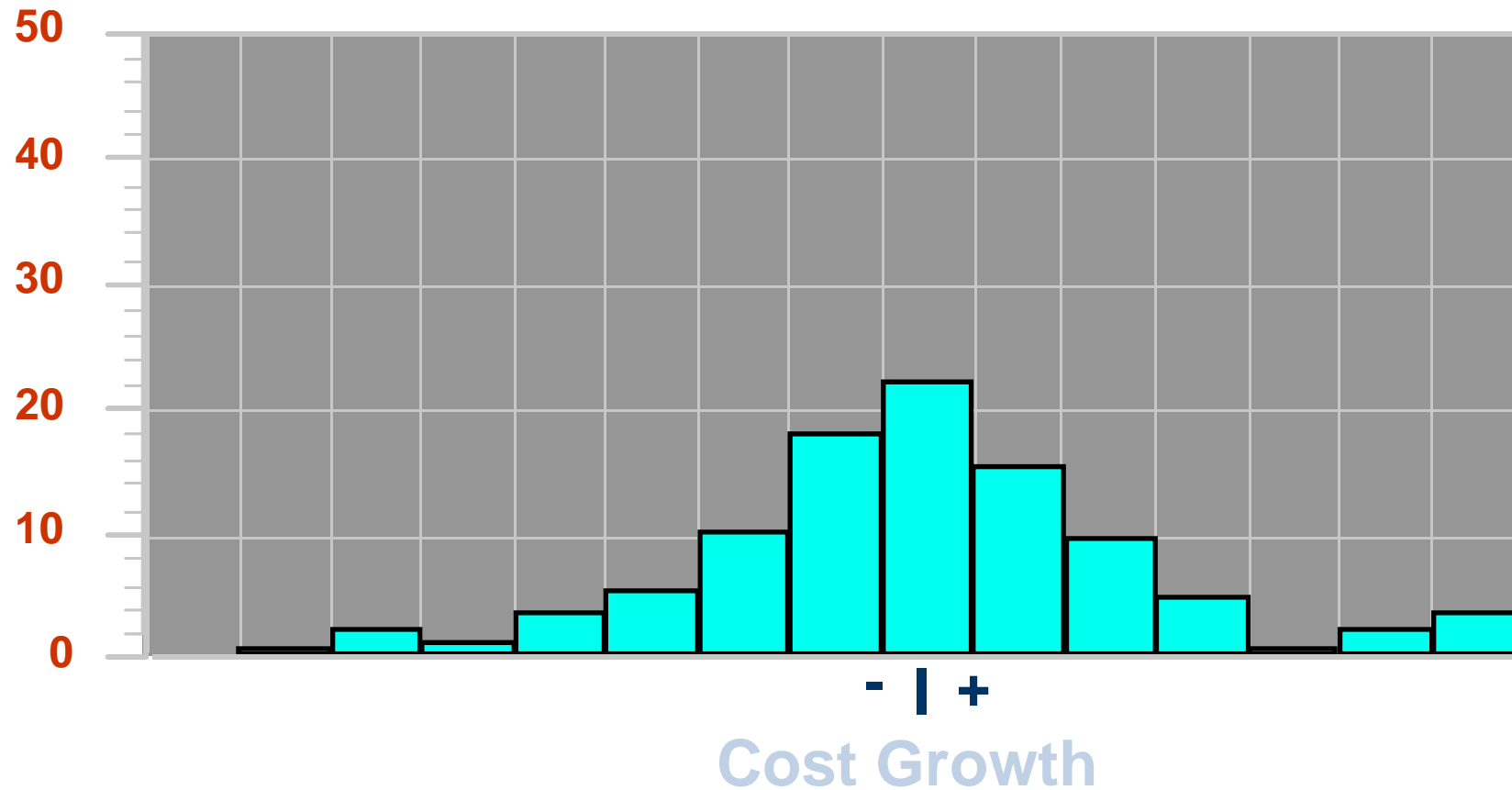
### Construction Industry Institute (CII)

- **Joint Owner and Contractor Organization**
- **Sponsors research on Project Execution Topics**
- **Developed “Best Practices”**
- **Collects data to validate its findings**

➤ **Let's look at some of their statistical evidence**

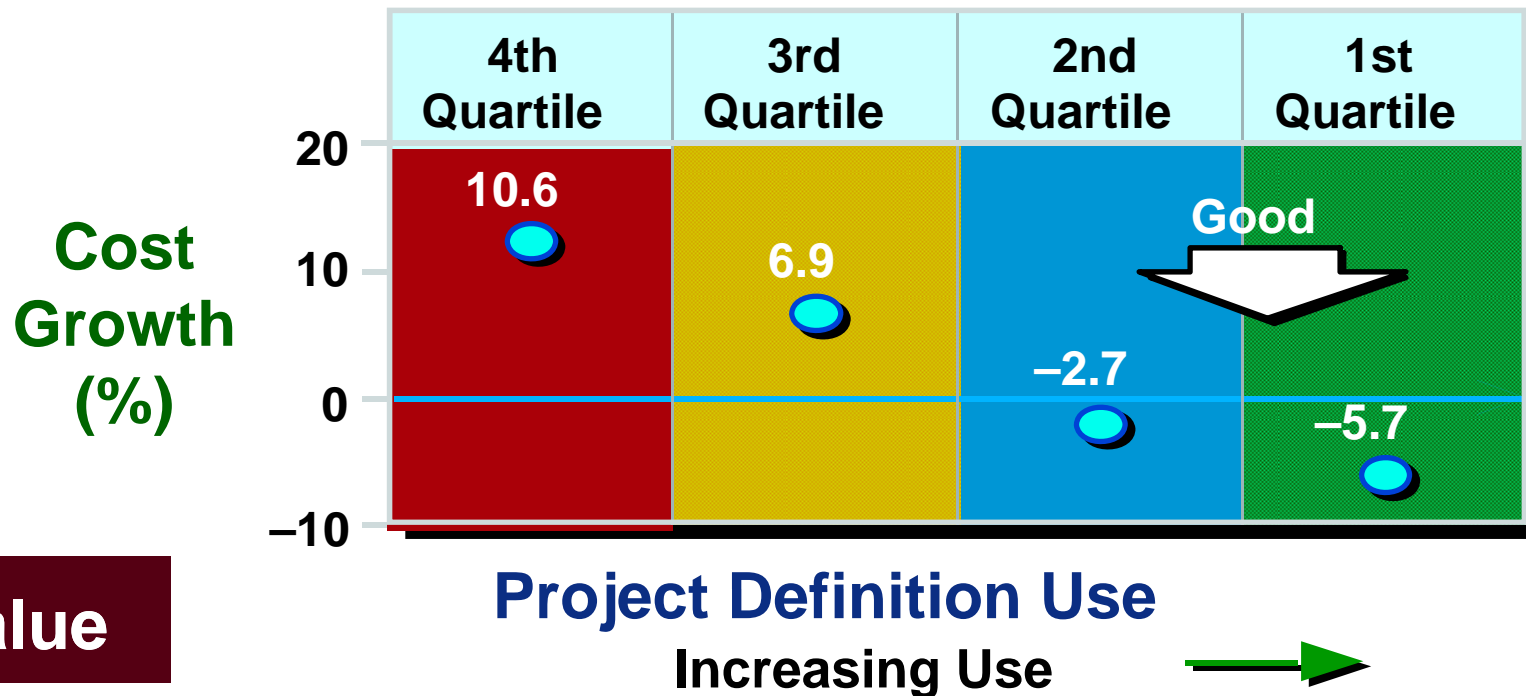
## CII BM&M Database Project Cost Performance

### Percent of Projects



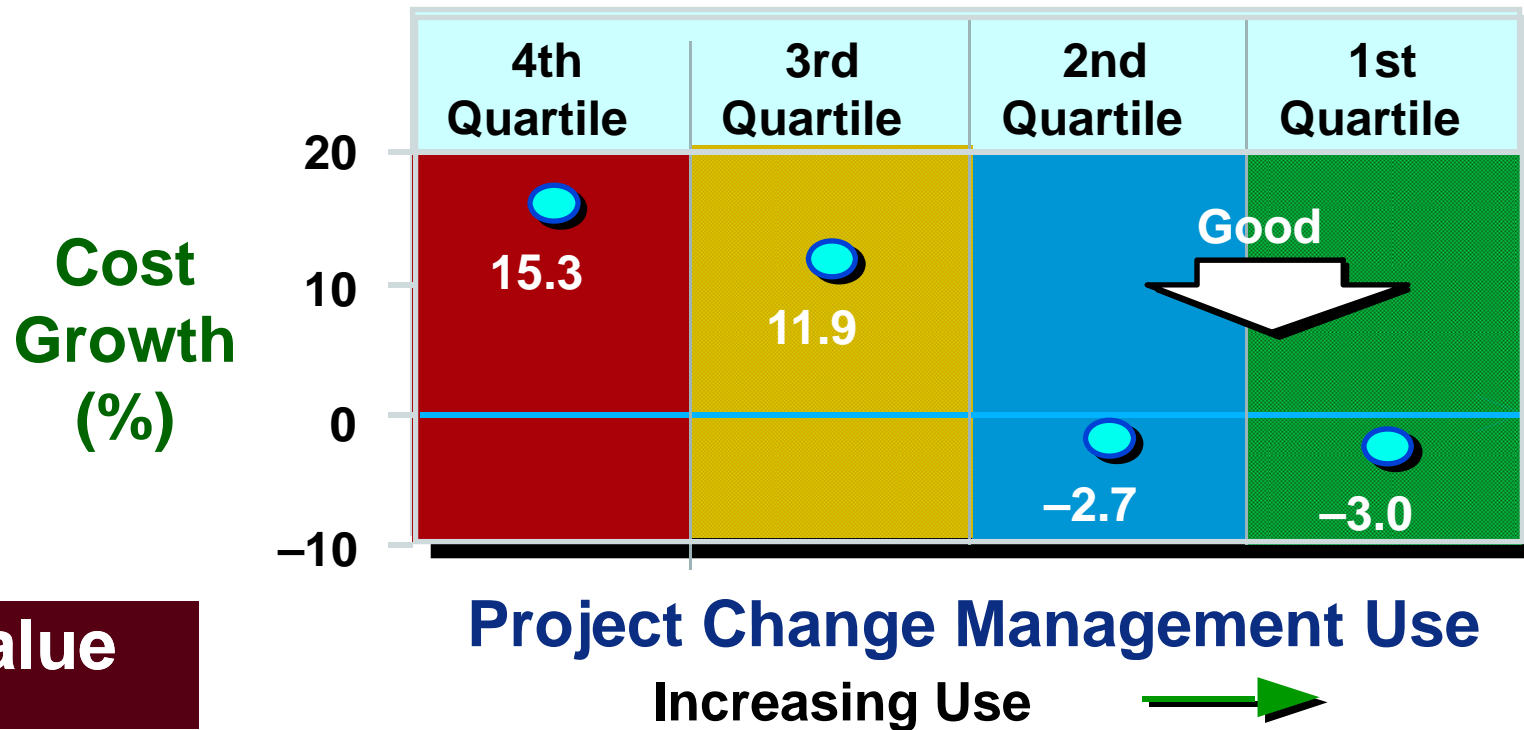
## Project Definition Lowers Cost Growth

Owner and Contractor — Heavy Industrial



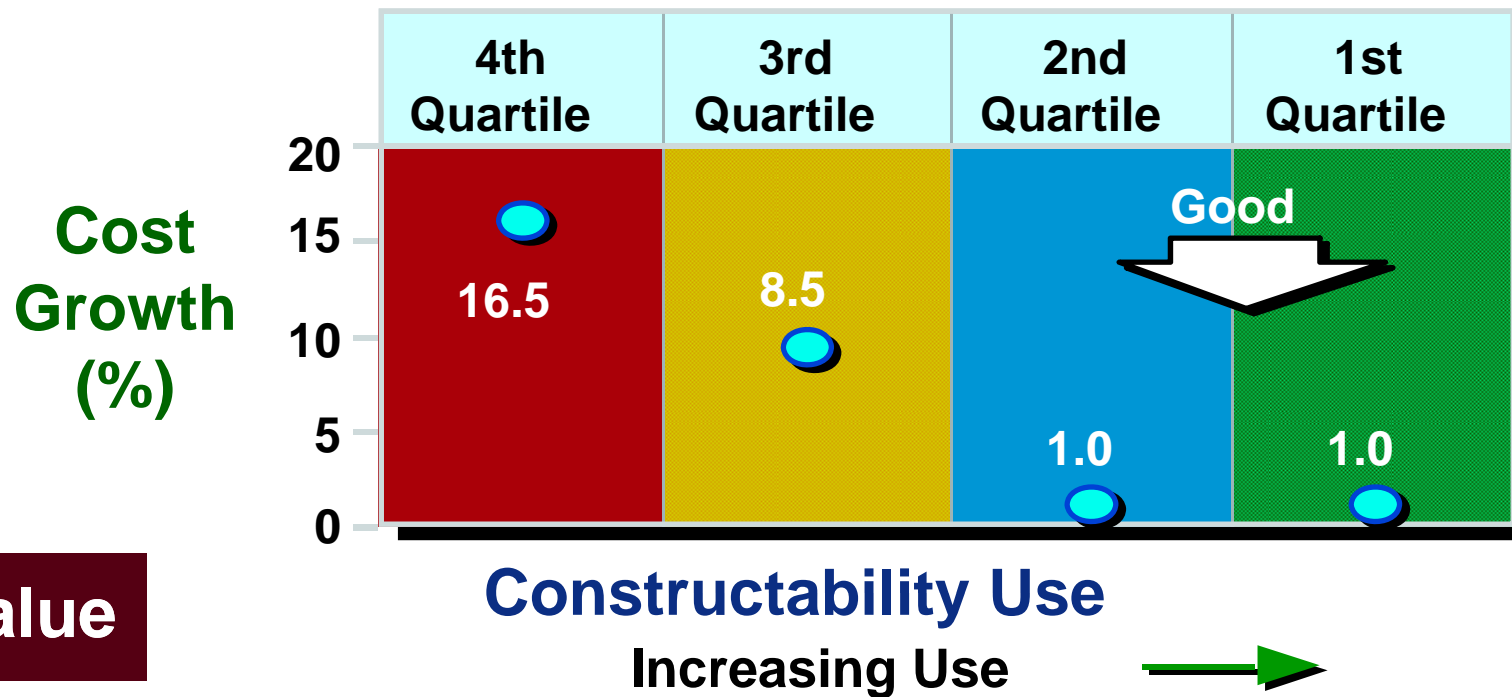
## Change Management Lowers Cost Growth

Owner and Contractor — All Projects



## Constructability Lowers Cost Growth

Owner and Contractor — Heavy Industrial





## When to decide / select JVEPs for use?

Not all JVEPs for every project

At project start, review and identify applicable JVEPs

Plan should be developed to implement (PQP)

## Select JVEPs and Plan

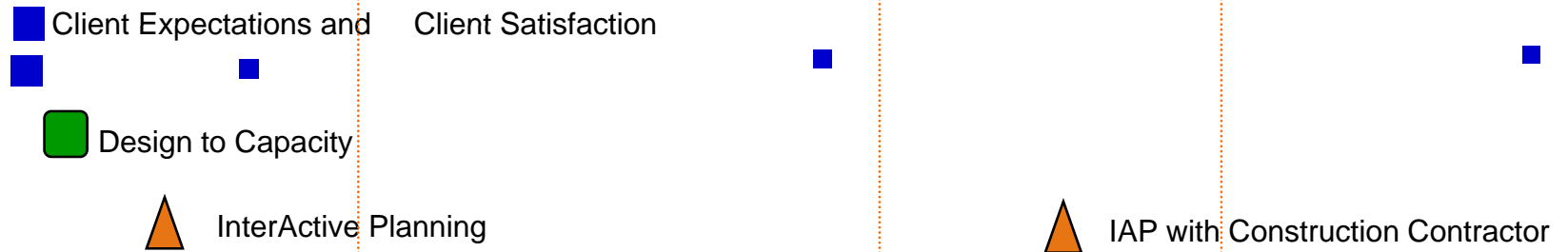
### MILESTONES



### ACTIVITIES

DETAILED ENGINEERING

### JVEPs



## JVEPs

**V-1 Client expectations**

**V-2 Client surveys**

**V-3 Constructability # \***

**V-4 Design to Capacity #**

**V-5 Execution Planning \***

**V-6 Interactive Planning \***

**V-7 Lessons Learned**

**V-8 Team Alignment \***

**V-9 PDRI \***

**V-10 Owners Objectives**

**V-11 Value Engineering #**

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**V-13 Class of plant quality #**

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**V-21 3D Cad**

**V-22 Change Management \***

**# = IPA    \* = CII**

## V-1 Client Expectations

Done in first 30 days after notice to proceed

Discussion with several of the following:

Client PM, Our PM, Quality Manager, and Sales

A guideline to discuss hard and soft issues

Develop an action plan and implement

## V-2 Client Surveys

Guideline to discuss performance against expectations

Listen, listen and listen ...

Send copy to client

Develop an action plan and implement



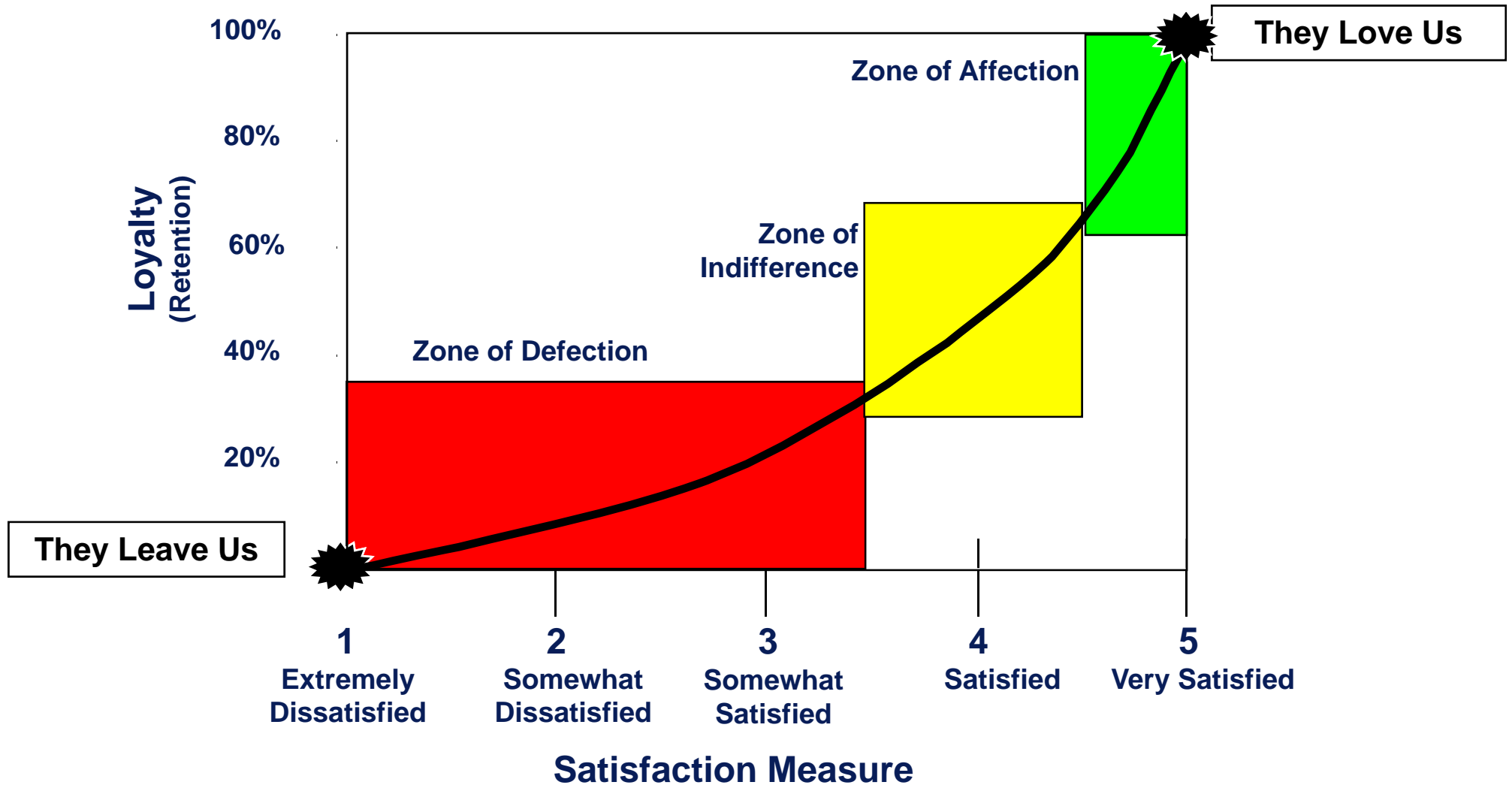
### Perception

*Customers perceive service in their own unique, idiosyncratic, emotional, irrational, end-of-the-day and totally human terms.*

*Perception is all there is.*

*Tom Peters*

## Customer Loyalty



## V-3 Constructability

SOP-802 and CII Constructability Taskforce Report  
Jacobs Constructability Database or Questions

The optimum use of construction knowledge and experience in the planning, design/engineering, procurement, and field operations to make the project cost effective.

Scheduled reviews of engineering designs and construction using questions to prompt ideas

## V-4 Design to Capacity

Discussion with the client about design philosophy

Client should decide if extra capacity should be designed into the project

- Example: Selection of a pump that costs 10% more, 25% capacity increase. Is that a good idea?

A structured method of collecting data on each piece of equipment, system, etc. and aligning their capacities

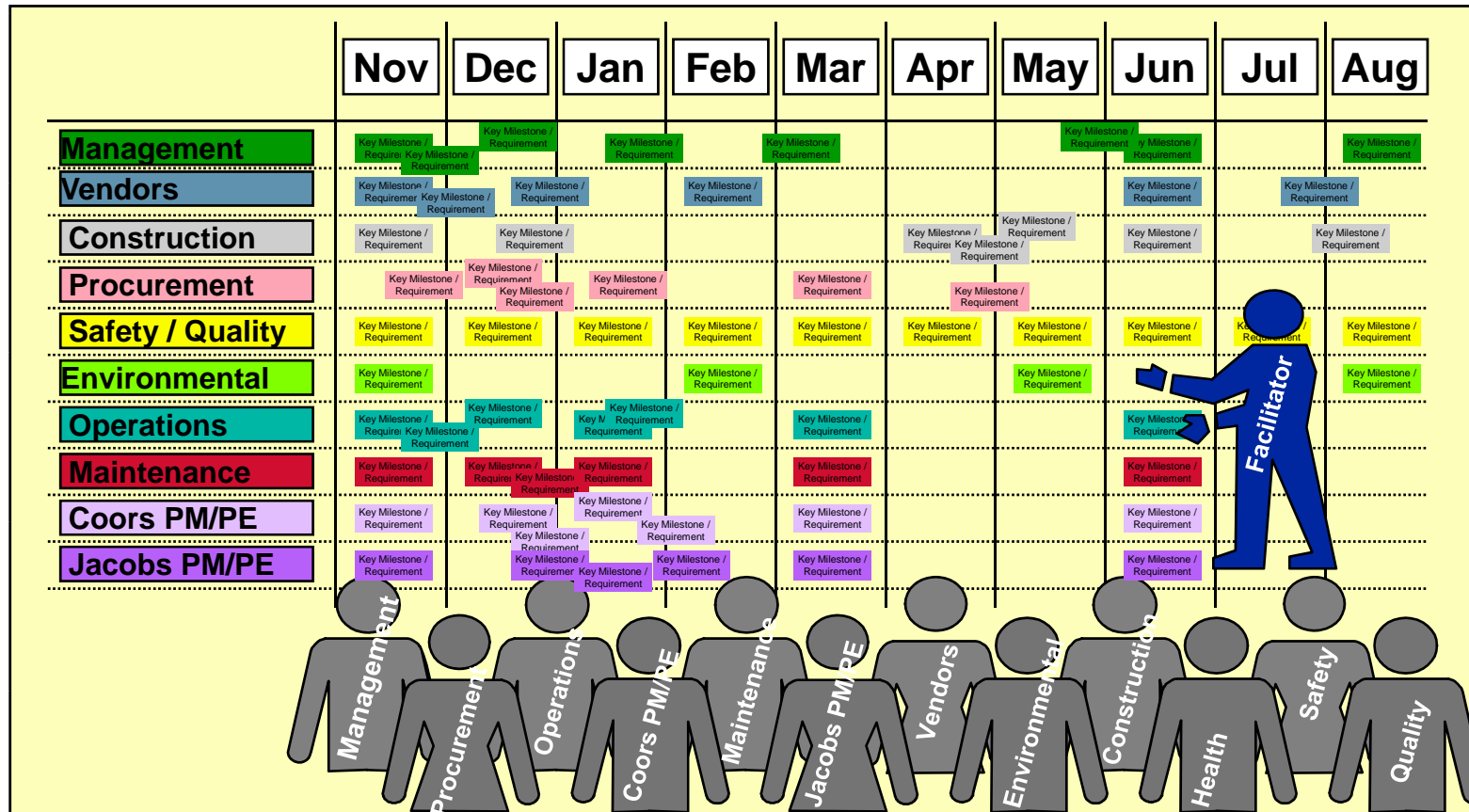


## V-6 Interactive Planning (IAP)

**A method of building teamwork and consensus in the task of planning, sequencing, and executing the critical activities to complete a project**

***The Team's schedule,  
not the scheduler's schedule.***

## Interactive Planning



## V-9 Process Definition Rating Index (PDRI)

- Developed by CII Study Group
- Complete Basic Package Assures Smooth Detailed Design
- Effective Front-End Loading Improves projects
- Purpose of PDRI: a 70 Question weighted Rating of project FEL (2 - 4 hrs. required)
- Based on results of actual project performance
- Identifies areas requiring further definition

## Project Definition Rating Index

**Project Title:** \_\_\_\_\_ **Completed By:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Note: The definitions for each question are "stored" as notes within each cell. To access, enter the cell and then use the "Insert" / "Notes" menu items.

**Ratings:** 0 = Not Applicable    1 = Complete Definition    2 = Minor Deficiencies  
 3 = Some Deficiencies    4 = Major Deficiencies    5 = Incomplete or Poor Definition

### Section 1 - Basis of Project Design

A. Manufacturing Objectives Criteria	0	1	2	3	4	5	Score	Percentage	
A1. Reliability Philosophy	0	1	5	9	14	20			
A2. Maintenance Philosophy	0	1	3	5	7	9			
A3. Operating Philosophy	0	1	4	7	12	16			
( Maximum Score = 45 )	<b>Category Total =</b>						<b>0</b>	<b>100.0%</b>	
B. Business Objectives	0	1	2	3	4	5	Score	Percentage	
B1. Products	0	1	11	22	33	56			
B2. Market Strategy	0	2	5	10	16	26			
B3. Project Strategy	0	1	5	9	14	23			
B4. Affordability / Feasibility	0	1	3	6	9	16			
B5. Capacities	0	2	11	21	33	55			
B6. Future Expansion Considerations	0	2	3	6	10	17			
B7. Expected Project Life Cycle	0	1	2	3	5	8			
B8. Social Issues	0	1	2	5	7	12			
( Maximum Score =213 )	<b>Category Total =</b>						<b>0</b>	<b>100.0%</b>	
C. Basic Data Research & Development	0	1	2	3	4	5	Score	Percentage	
C1. Technology	0	2	10	21	39	54			
C2. Processes	0	2	8	17	28	40			
( Maximum Score =94 )	<b>Category Total =</b>						<b>0</b>	<b>100.0%</b>	
D. Project Scope	0	1	2	3	4	5	Score	Percentage	
D1. Project Objectives Statement	0	2				25			
D2. Project Design Criteria	0	3	6	11	16	22			
D3. Site Characteristics Existing / Required	0	2				29			
D4. Dismantling and Demolition Requirement	0	2	5	8	12	15			
D5. Lead / Discipline Scope of Work	0	1	4	7	10	13			
D6. Project Schedule	0	2				16			
( Maximum Score =120 )	<b>Category Total =</b>						<b>0</b>	<b>100.0%</b>	
E. Value Engineering	0	1	2	3	4	5	Score	Percentage	
E1. Process Simplification	0	0				8			
E2. Design And Mat'l Alternatives Considered / Rejected	0	0				7			
E3. Design for Constructability Analysis	0	0	3	5	8	12			
( Maximum Score =27 )	<b>Category Total =</b>						<b>0</b>	<b>100.0%</b>	
( Maximum Score =499 )							<b>Section 1 Total =</b>	<b>0</b>	<b>100.0%</b>

## JVEPs

CII, IPA and Jacobs Best Practices

When used collectively and consistently they significantly increase our value to our clients

Use must be selected and planned

Identified on the J-Steps work process maps

## AOB ?

