

P.U.B.S – The defining factors for FP Implementation. The Way Ahead

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Basis of this presentation

Four years FP practice

Twenty Two customers

Senior Management
Engagement

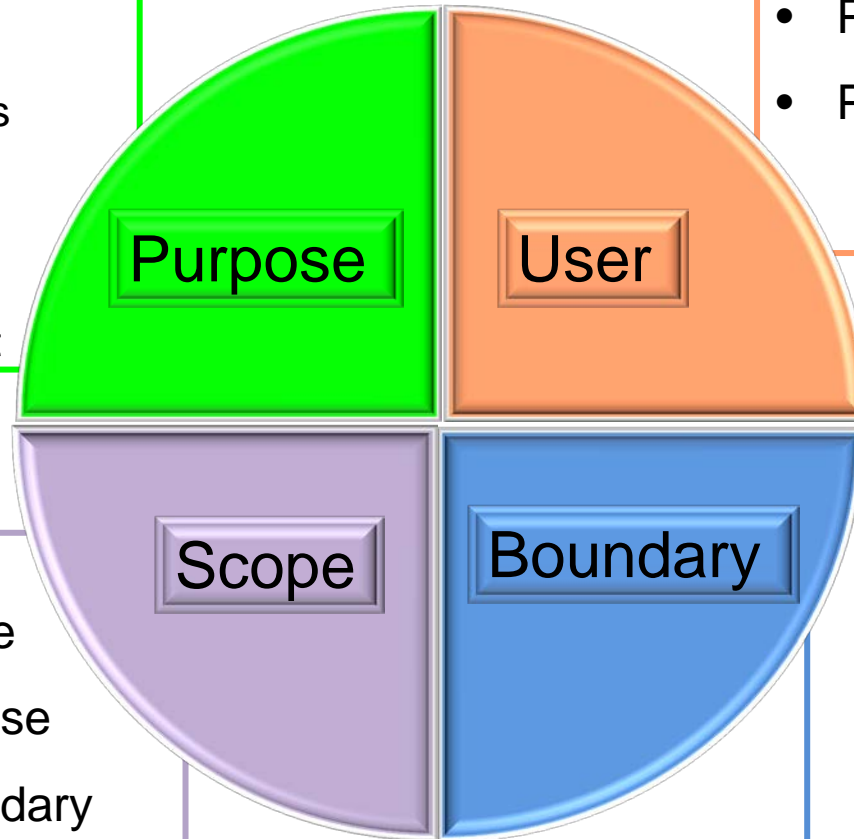
Roles & Responsibilities:

- FP Process set up
- Counting FP
- Estimations & RFPs
- Productivity Analysis
- Quality Analysis
- Improvement drivers
- **Third Party Audits**

The Four Driving Factors

- Application Sizing
- Effort Estimation
- Productivity Analysis
- Quality Assessment
- Project Contracts
- Vendor Assessment

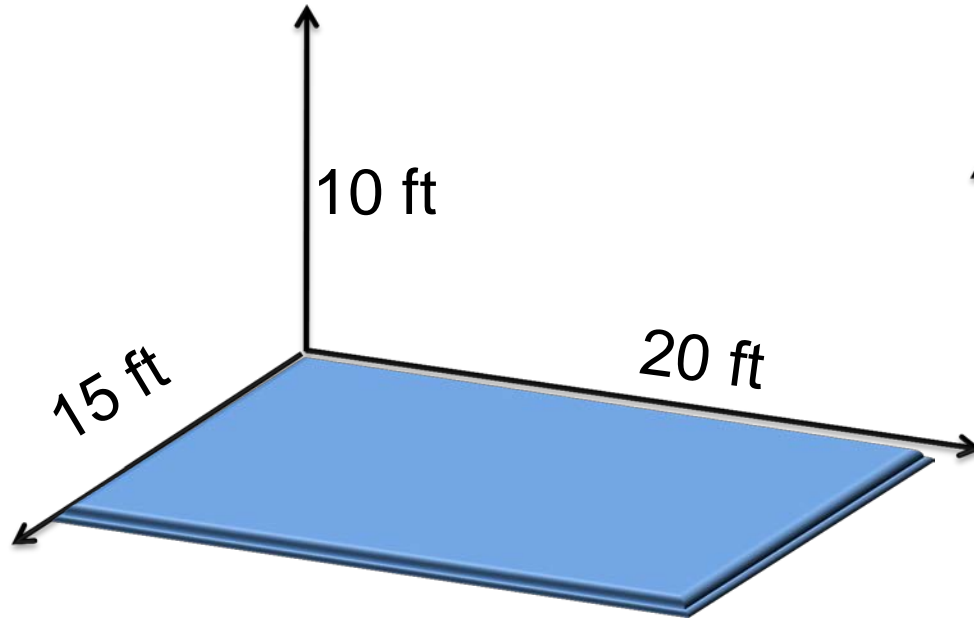
- Person or Thing
- Provides Requirements



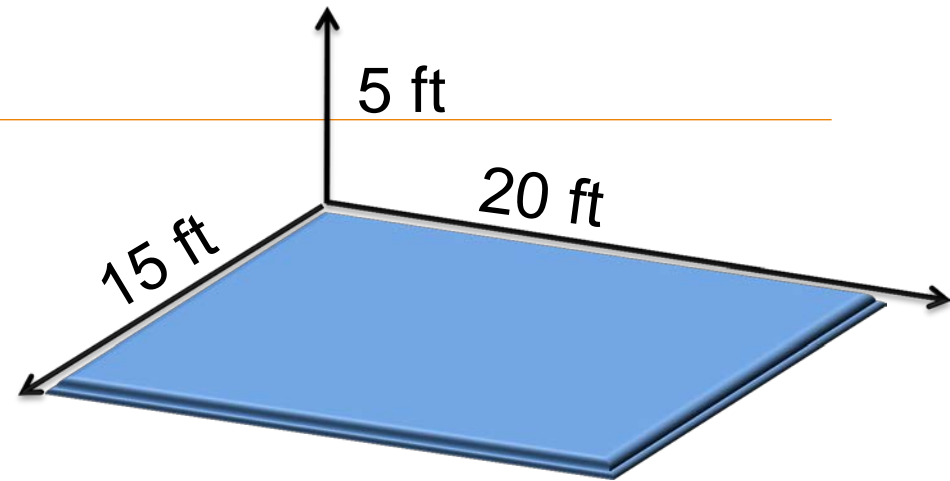
- Subset of software
- Decided by Purpose
- Impacted by boundary
- Driven by the count type

- Logical View
- User's view
- Application
Independency
- Sale-ability
- Multi Geography
Development
- Multiple Vendor's
contract

An Analogy



Size of the room = 300 sq ft !



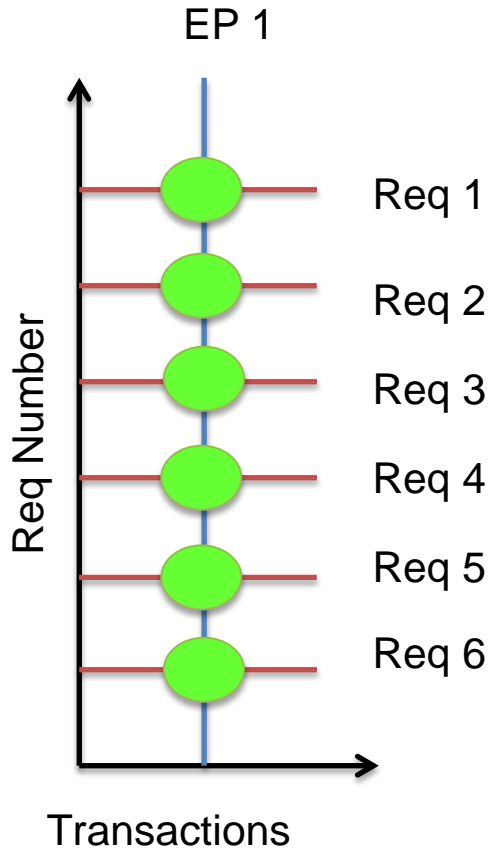
Size of the room = 300 sq ft

Is a third dimension also missing in Function Point sizing ?

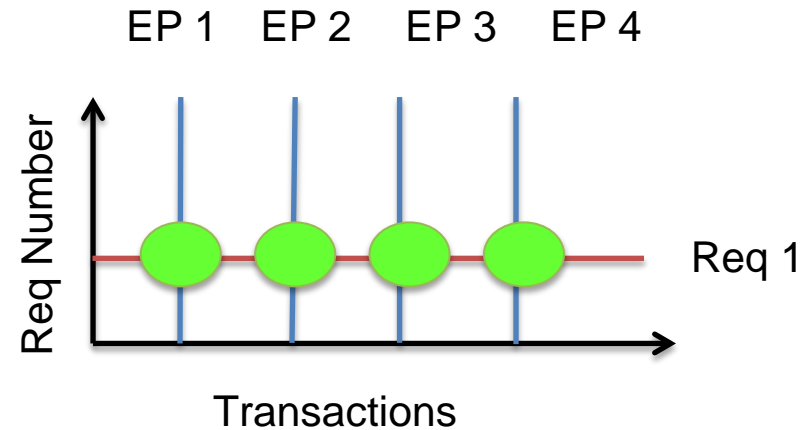
Case 1: Effort Estimation

The Vertical Extreme

Req 1	5 PD
Req 2	7 PD
Req 3	3 PD
Req 4	4 PD
Req 5	10 PD
Req 6	8 PD
Total Effort	37 PD
Total FP	7 FP



The Horizontal Extreme



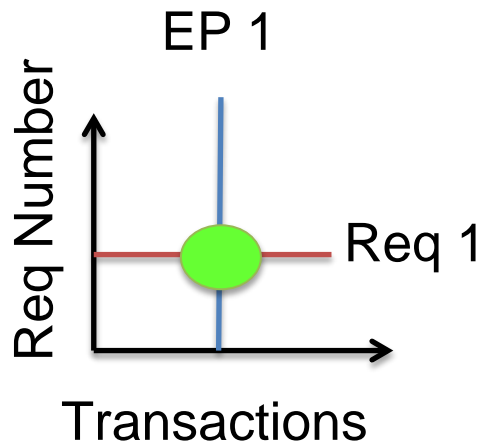
Req 1	5 PD
Total FP	28 FP

All requirements deployed in production together

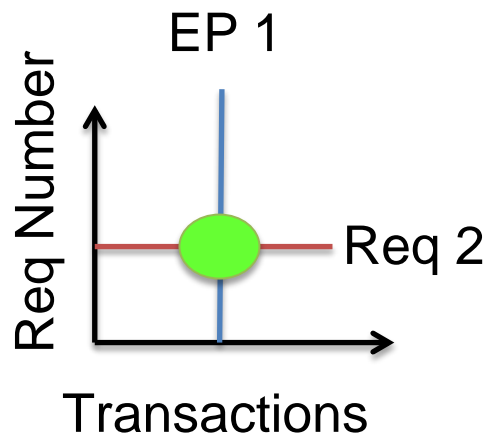
Req -> Requirement Number
 EP -> Elementary Process
 PD -> Person Days

Case 1: Effort Estimation

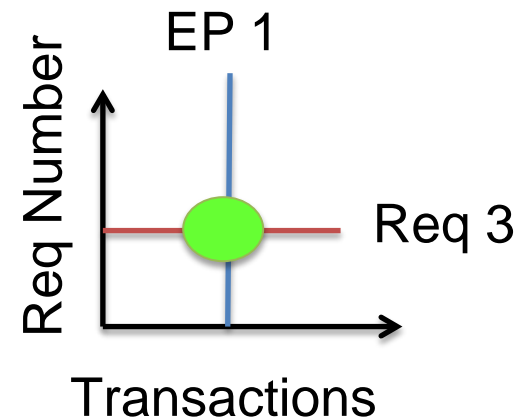
Each requirement deployed in live separately



Req 1	5 PD
Total FP	7 FP



Req 2	7 PD
Total FP	7 FP



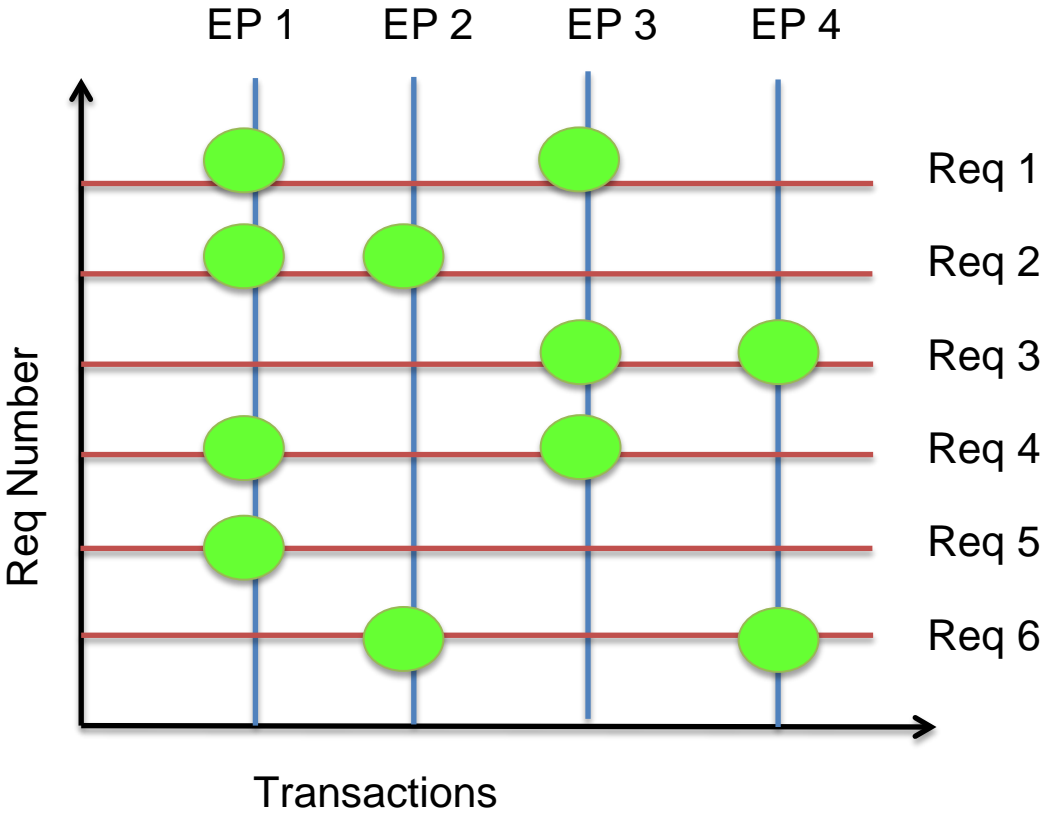
Req 3	3 PD
Total FP	7 FP

Effort and FP calculated separately in each release

Case 1: Effort Estimation

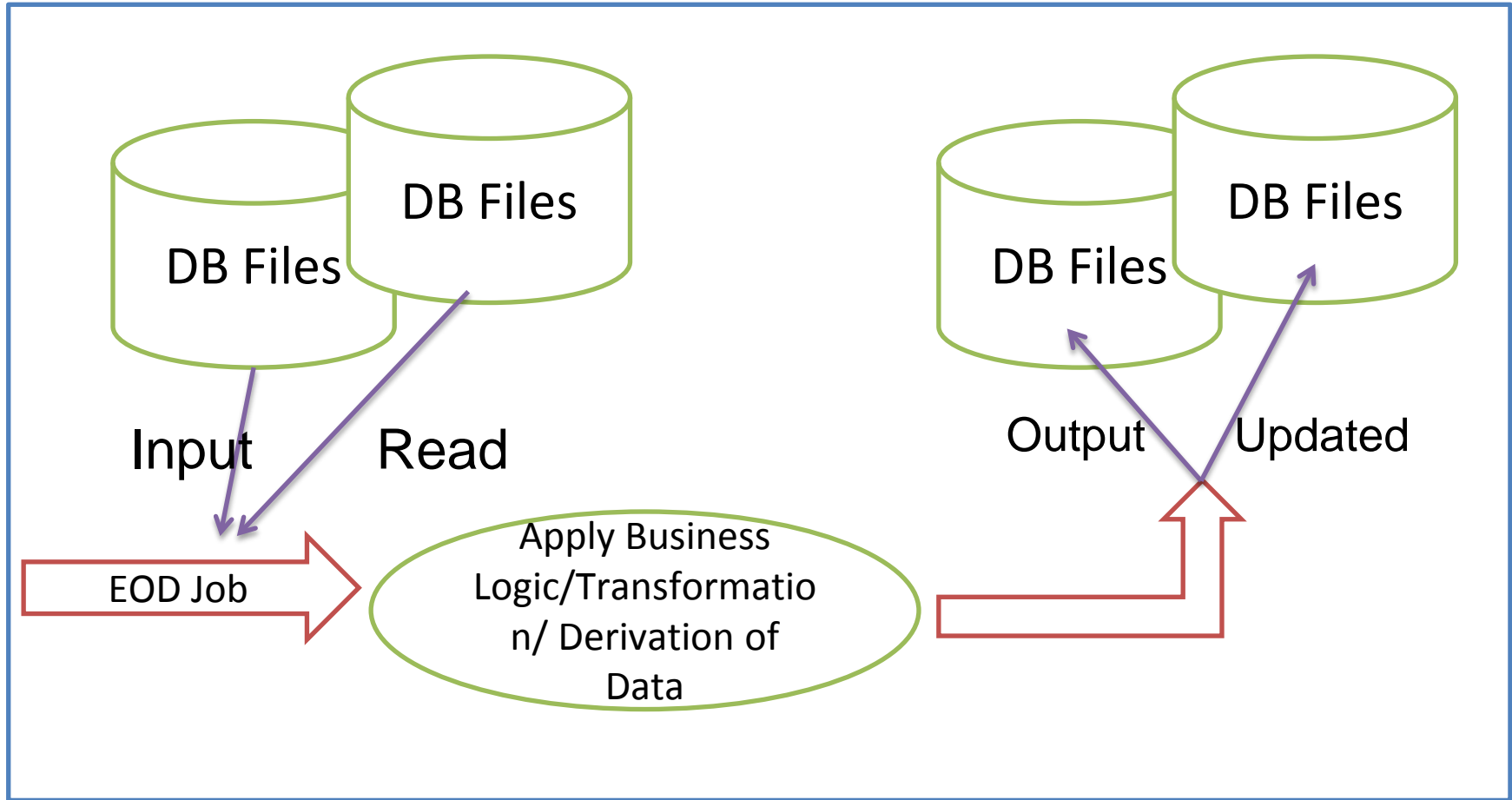
How Customers Want It

Req #	EP #	FP	Effort
Req 1	EP 1	7	5
Req 2	EP 2	7	7
Req 3	EP 3	7	3
Req 4	EP 1	7	4
Req 5	EP 1	7	10
Req 6	EP 2	7	8
Req 1	EP 3	7	5
Req 2	EP 1	7	7
Req 4	EP 3	7	4
Req 3	EP 4	7	3
Req 6	EP 4	7	8
Total		77 FP	64 PD



Case 2: Nothing Crosses Boundary

FP for this scenario



00:01 hrs

Case 2: Nothing Crosses Boundary

So what's the Matter

- ✓ Meaningful to the user
- ✓ Constitutes a complete transaction
- ✓ Self-contained
- ✓ Leaves the business of the application in consistent state

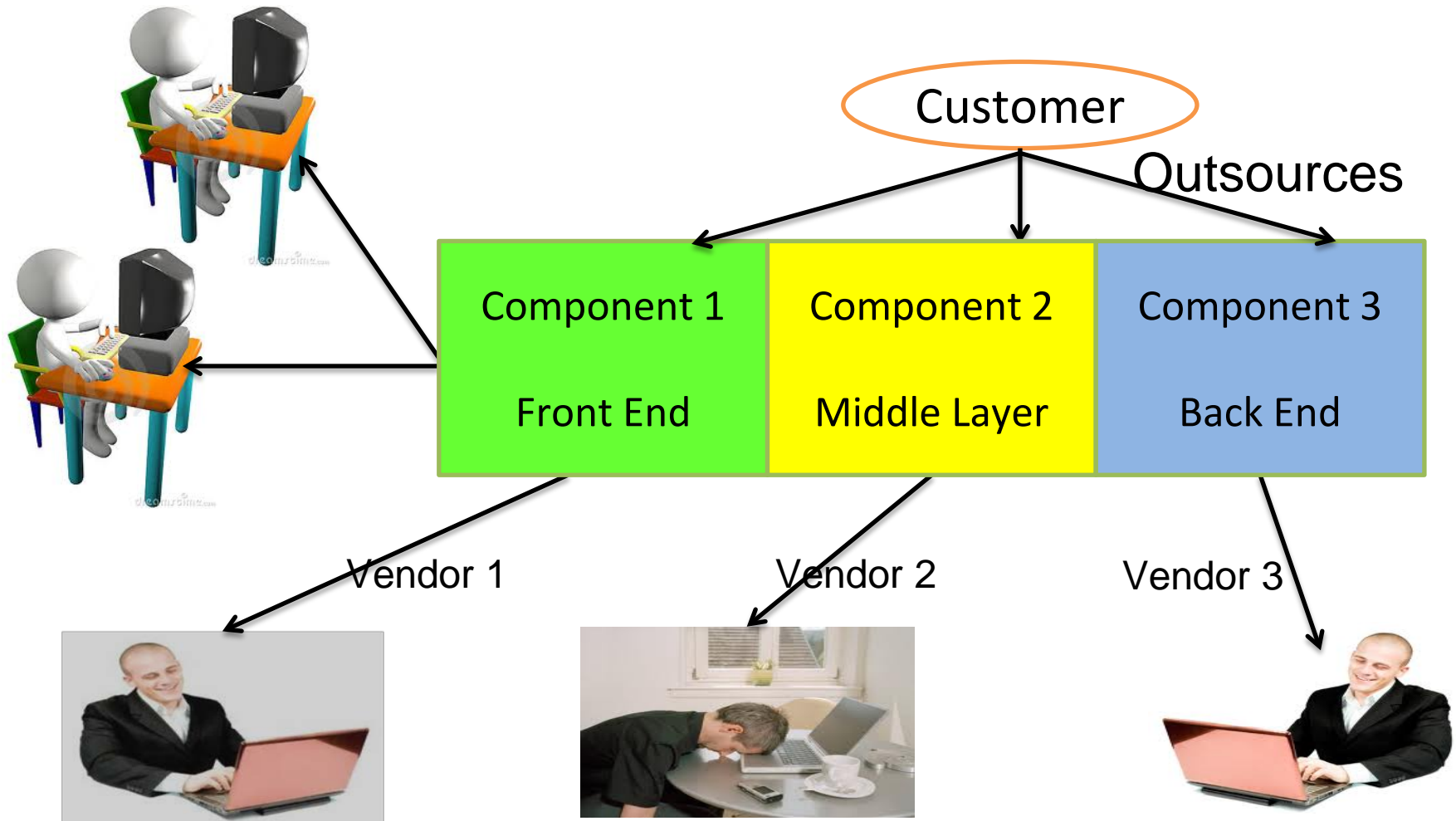
- ✗ No External Input → Not EI
- ✗ No External Output → Neither EO nor EQ

- All user identifiable functional transactions need not always cross boundary

- All business DETs (external, internal) should be considered

Case 3: Multi Vendor Outsourcing

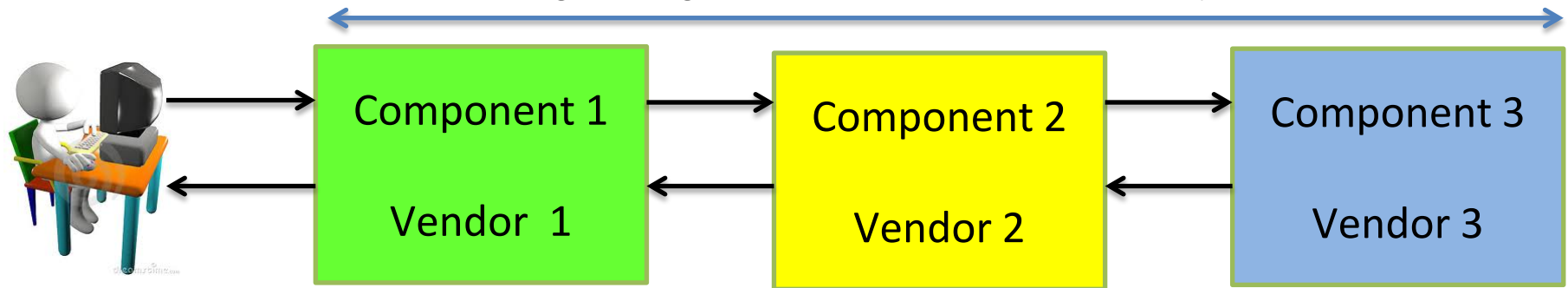
FP used for vendor productivity assessment



Case 3: Multi Vendor Outsourcing

FP used for vendor productivity assessment

Single Logical Application Boundary



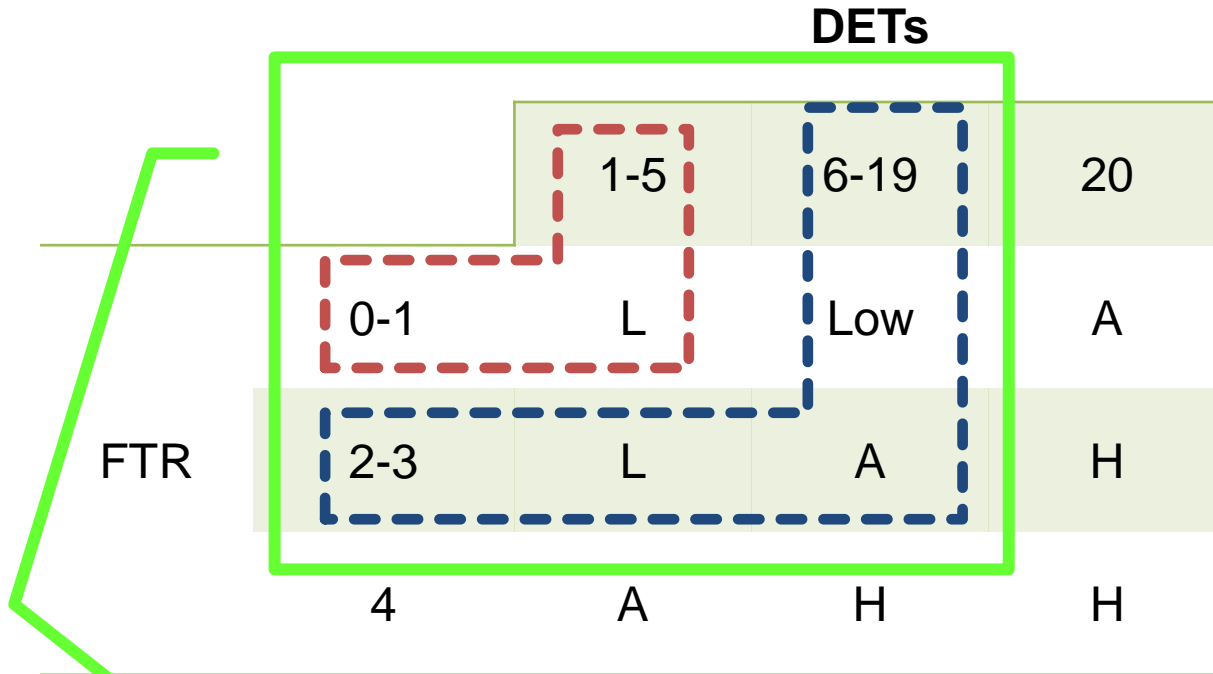
❖ Classical definition of Application Boundary, User, Elementary Processes do not help the objective of FP implementation in this case

❖ Vendor 2 suffers from the complexity loss. As a middle layer with no database, all transactions are low/avg complex FP

		DETs		
		1-5	6-19	>19
FTR	0-1	L	L	A
	2-3	L	A	H
	>3	A	H	H

Case 4: Higher Effort Not Higher FP

The Limitation of the numbers



45 % of the Matrix

Case 4: Higher Effort Not Higher FP

What is required – Option 1

		DETs						
		1-5	6-19	20-35	35-50	51-70	71-100	>100
FTR	0-1	4	4	5	7	10	15	20
	2-3	4	5	7	10	15	20	25
	3-6	5	7	10	15	20	25	30
	7-9	7	10	15	20	25	30	35
	10-13	10	15	20	25	30	35	40
	14-17	15	20	25	30	35	40	45
	18-20	20	25	30	35	40	45	50

EXAMPLE

Case 4: Higher Effort Not Higher FP

Option 2 – The SNAP way 😊

✓ Dynamic equations for Function Point

	# of FTRs			
	0-3	4-9	10-15	16-20
Complexity Level	Low	Avg	High	Very High

	Equations based on FTR Complexity Level			
	Low	Avg	High	Very High
FP Equation	1* #DETs	3* #DETs	5* #DETs	9 * #DETs

OR $FP = (X * \# \text{ FTRs}) + (Y * \# \text{ DETs})$

X,Y are constants to be decided

Why Change?



The Way Ahead

Proactive engagement with “*Customers of Function Point*”

Adapt to real world software needs & practices

Approved white papers merged to CPM as guidelines

Emphasis on practical and pragmatic view for CFPS





