### SmartQA

# IST Masterclass Session #6

### Recoup phase in detail



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# TOPICS

**Recoup - What is it?** Judging adequacy Measuring quality Analysing progress **Defect escapes Check vs. Test effort IST Adoption Tips** 

- Analysis for clear actions
- A quick summary of IST



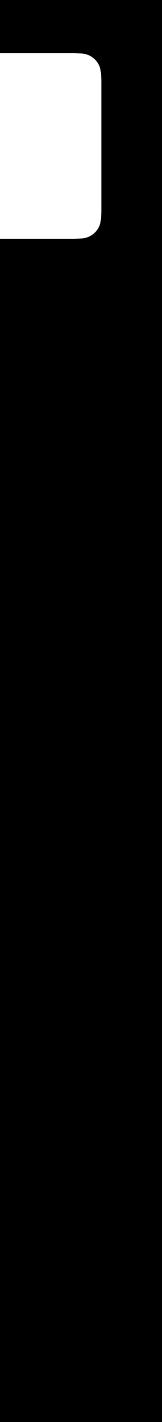
Recoup - What is it?

## RECONNAISANCE



# Analyse, Reflect & Learn

## RECOUP



## RECONNAISANCE

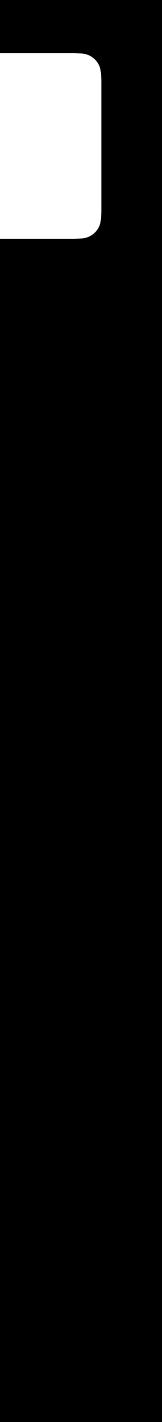


# EXPLORATION

## RECOUP

# Analyse, Reflect & Learn

- Test adequacy
- **Execution progress**
- Product quality
- Practice effectiveness (Check vs Test & Escapes)
- Analysis for improvement





## "After a hard trek, recover"



# At the end of a session Analyse actions & outcomes



# At the end of a session Analyse actions & outcomes Reflect how it went



At the end of a session Analyse actions & outcomes **Reflect** how it went Learn from experience



#### L9 Business value

L8 Deployment correctness

**L7** Attribute correctness

**L6** Environment correctness

L5 Flow correctness

L4 Behaviour correctness

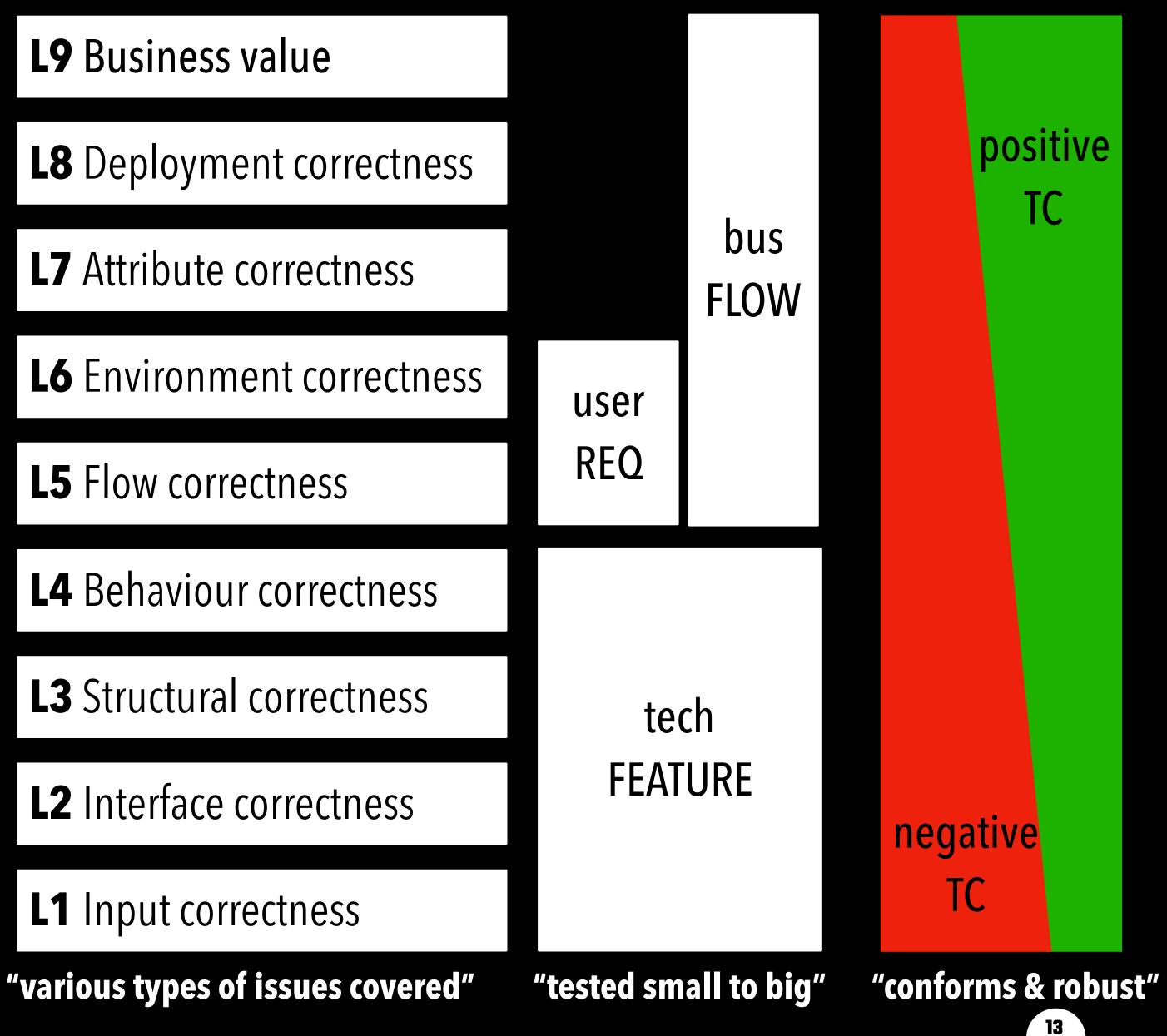
L3 Structural correctness

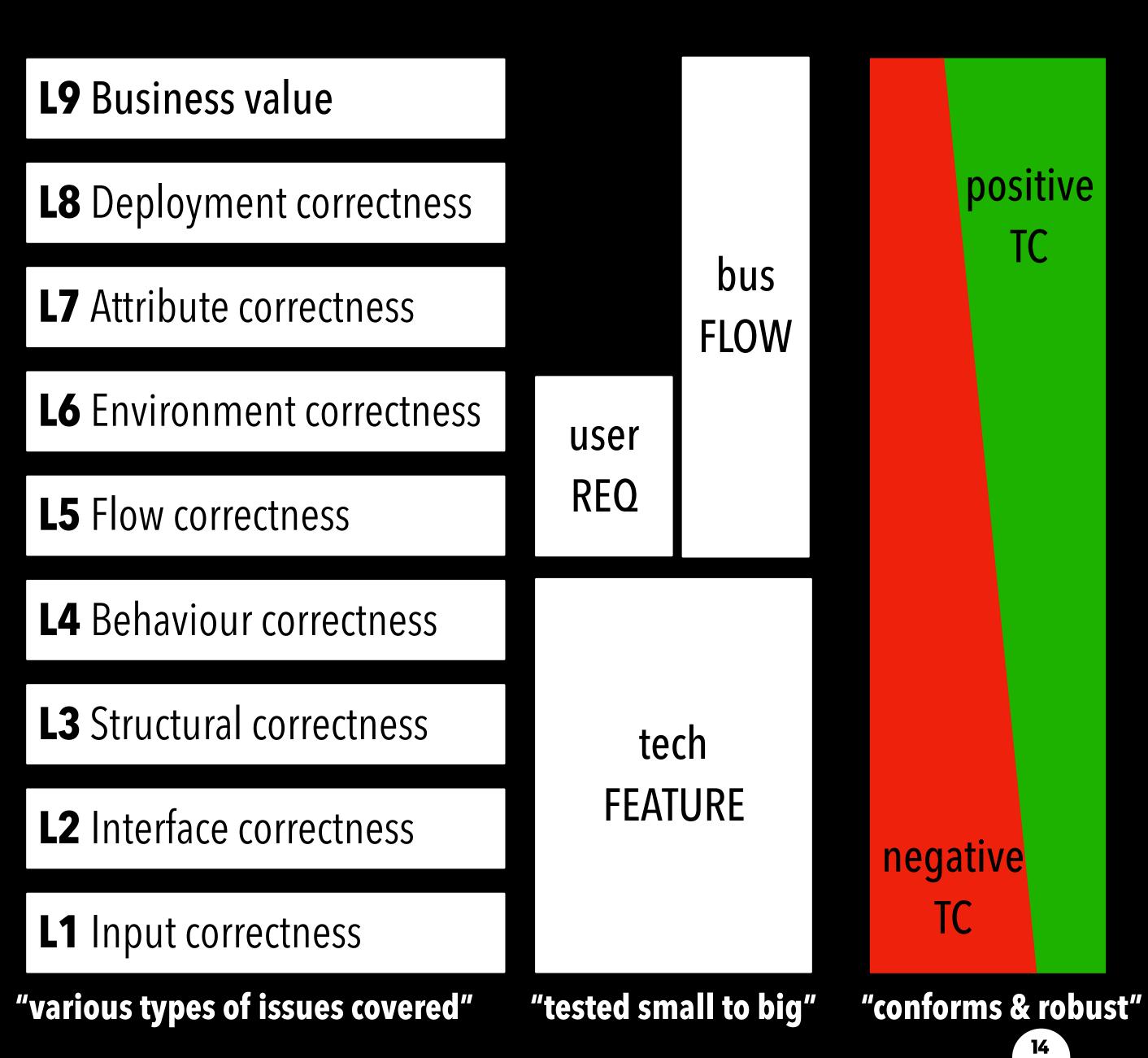
**L2** Interface correctness

L1 Input correctness

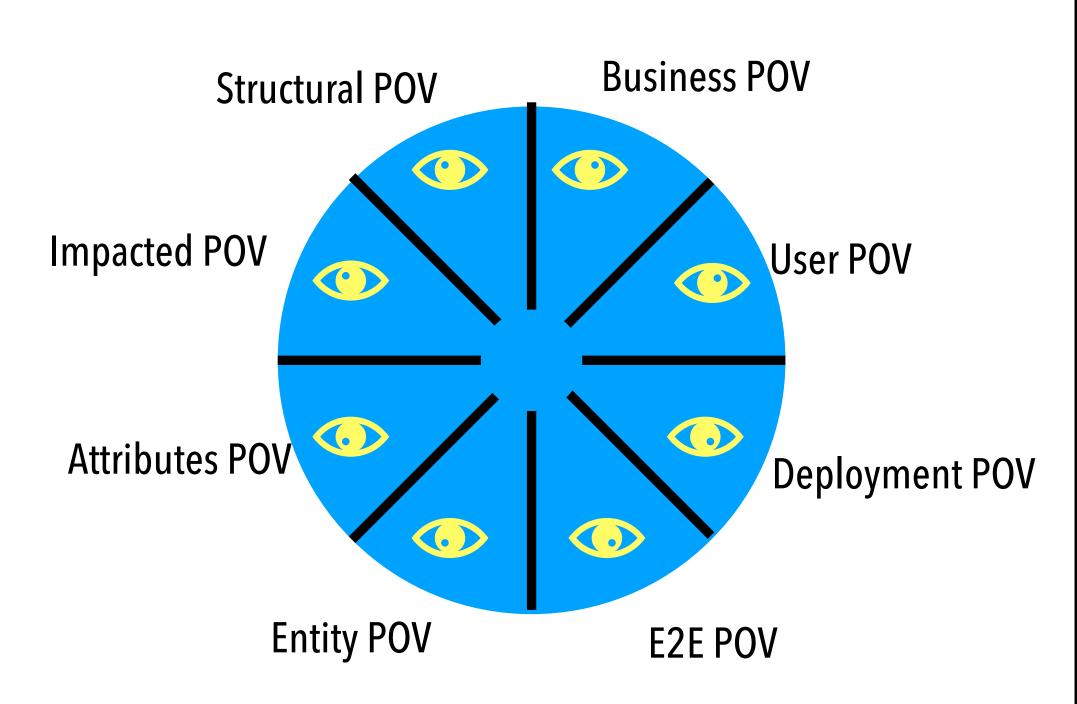
"various types of issues covered"

L9 Business value		
L8 Deployment correctness		
L7 Attribute correctness		bus FLOW
L6 Environment correctness	user	
L5 Flow correctness	REQ	
L4 Behaviour correctness		
L3 Structural correctness	te	ch
L2 Interface correctness	FEAT	URE
L1 Input correctness		
'various types of issues covered"	"tested sm	all to big'





## POV



"examined from various points of view"

# Dashboard #1 : Test quality

	#TC	<b>#Positive</b>	#Negative
L9			
L8			
L7			
<b>L6</b>			
L5			
L4			
L3			
L2			
L1			

# Dashboard #1 : Test quality

	#TC	<b>#Positive</b>	#Negative
L9			
L8			
L7			
<b>L6</b>			
L5			
L4			
L3			
L2			
L1			

	#Entities	
FLOWS		
REQS		
FEATURES		



# Measuring quality

# Can we quantify quality ? Hmmm, seems very amorphous.

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## Guess we can come with indicator as a measure.

# Can we quantify quality? Hmmm, seems very amorphous.

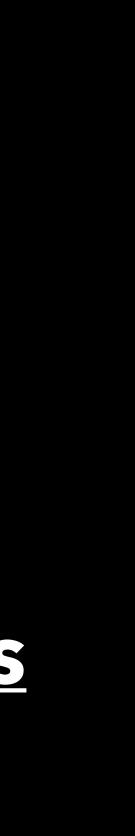
Guess we can come with indicator as a measure.

- If we have a reasonable reference
  - of what may be adequate
- then we can setup a simple indicator.

# Dashboard #2- System quality

	#TC	%Pass
L9		
<b>L8</b>		
L7		
<b>L6</b>		
L5		
L4		
L3		
L2		
L1		

The reasonable reference of what may be adequate is TC The simple indicator of quality is <u>%Pass</u>





# Analysing progress

	EUT	TEST	ENV
1	E	<b>T1</b>	<b>V1</b>

	EUT	TEST	ENV
1	E1	<b>T1</b>	V1
2	<b>E2</b>	<b>T1</b>	V1

	EUT	TEST	ENV
1	E1	<b>T1</b>	V1
2	E2	<b>T1</b>	V1
3	<b>E2</b>	T2	V2
••			
Ν			

	EUT	TEST	ENV
1	E1	<b>T1</b>	V1
2	<b>E2</b>	<b>T1</b>	V1
3	<b>E2</b>	T2	V2
••			
Ν			

#### Progress

is how much we have done wrt plan

	EUT	TEST	ENV
1	E1	<b>T1</b>	V1
2	<b>E2</b>	<b>T1</b>	V1
3	<b>E2</b>	T2	V2
••			
Ν			

#### Progress

- is how much we have done wrt plan
- is %age of 'TC' executed in a test



# Defect escapes



#### **Dev Test**

# Escapes

### **QA** Test

#### Customer usage



#### **Dev Test**

L4 Behaviour correctness

L3 Structural correctness

L2 Interface correctness

L1 Input correctness

## Escapes

### **QA** Test

#### Customer usage



### **Dev Test**

L4 Behaviour correctness

L3 Structural correctness

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L1 Input correctness

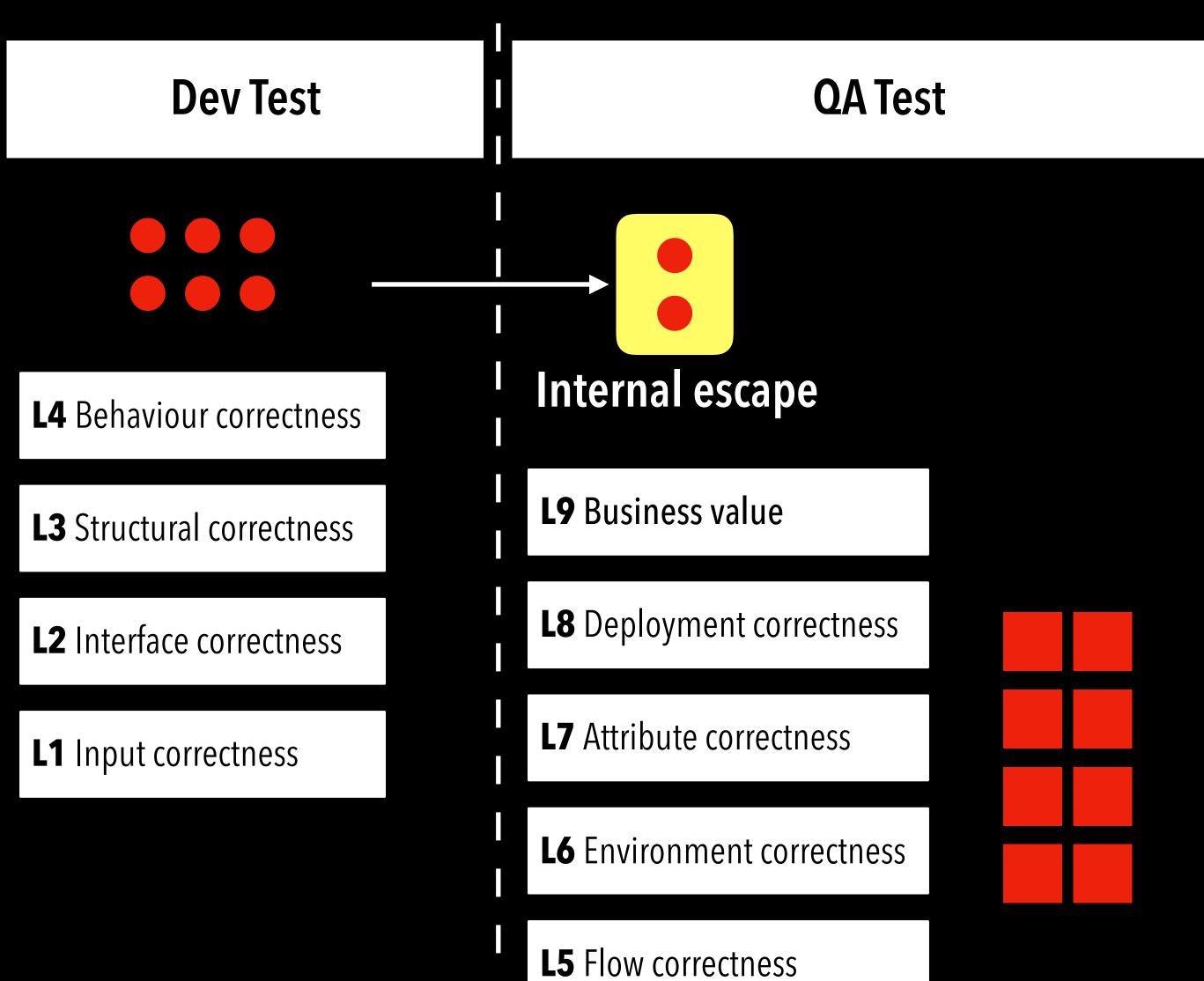
Internal escape

## Escapes

### **QA** Test

#### Customer usage

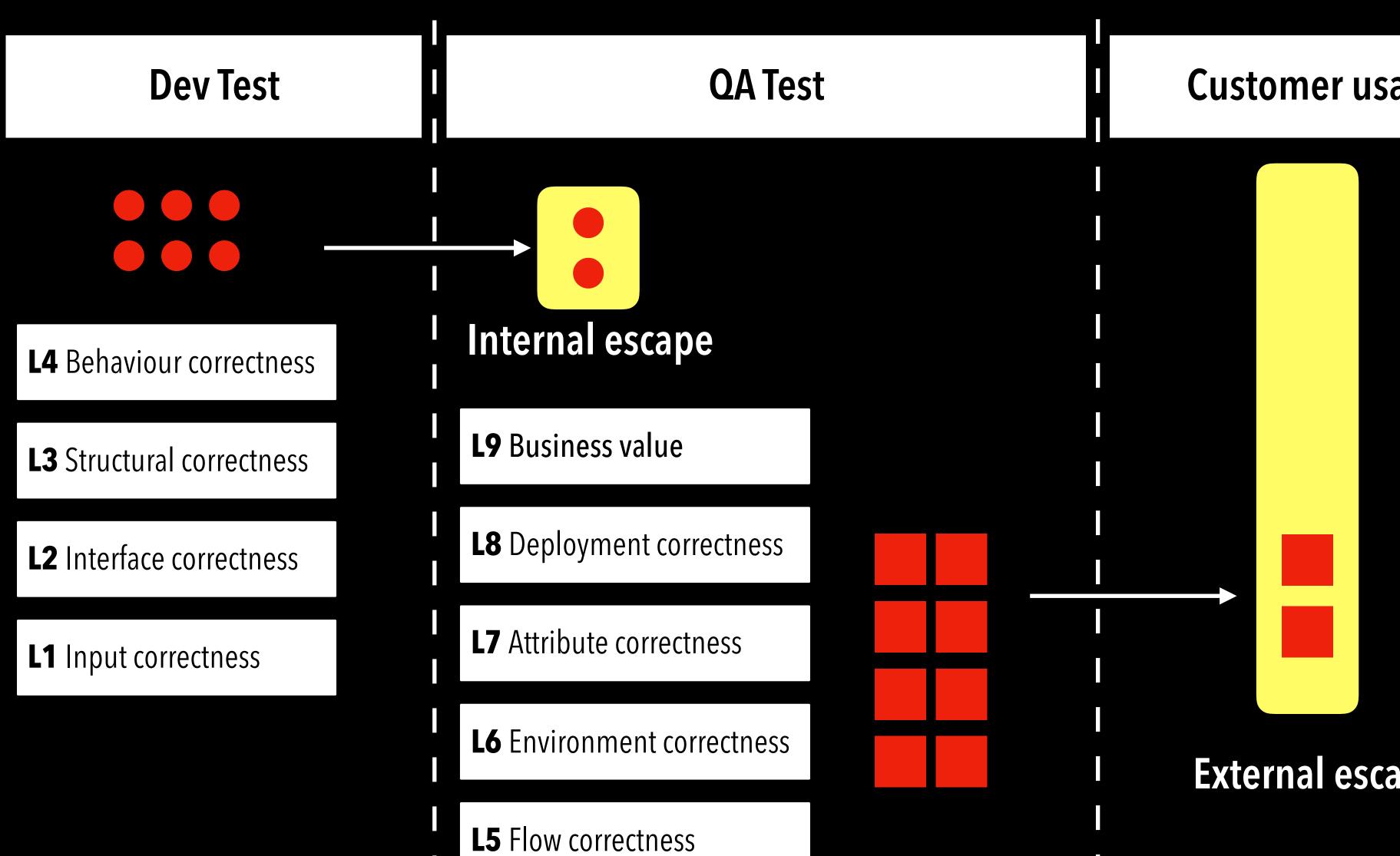




## Escapes

#### Customer usage



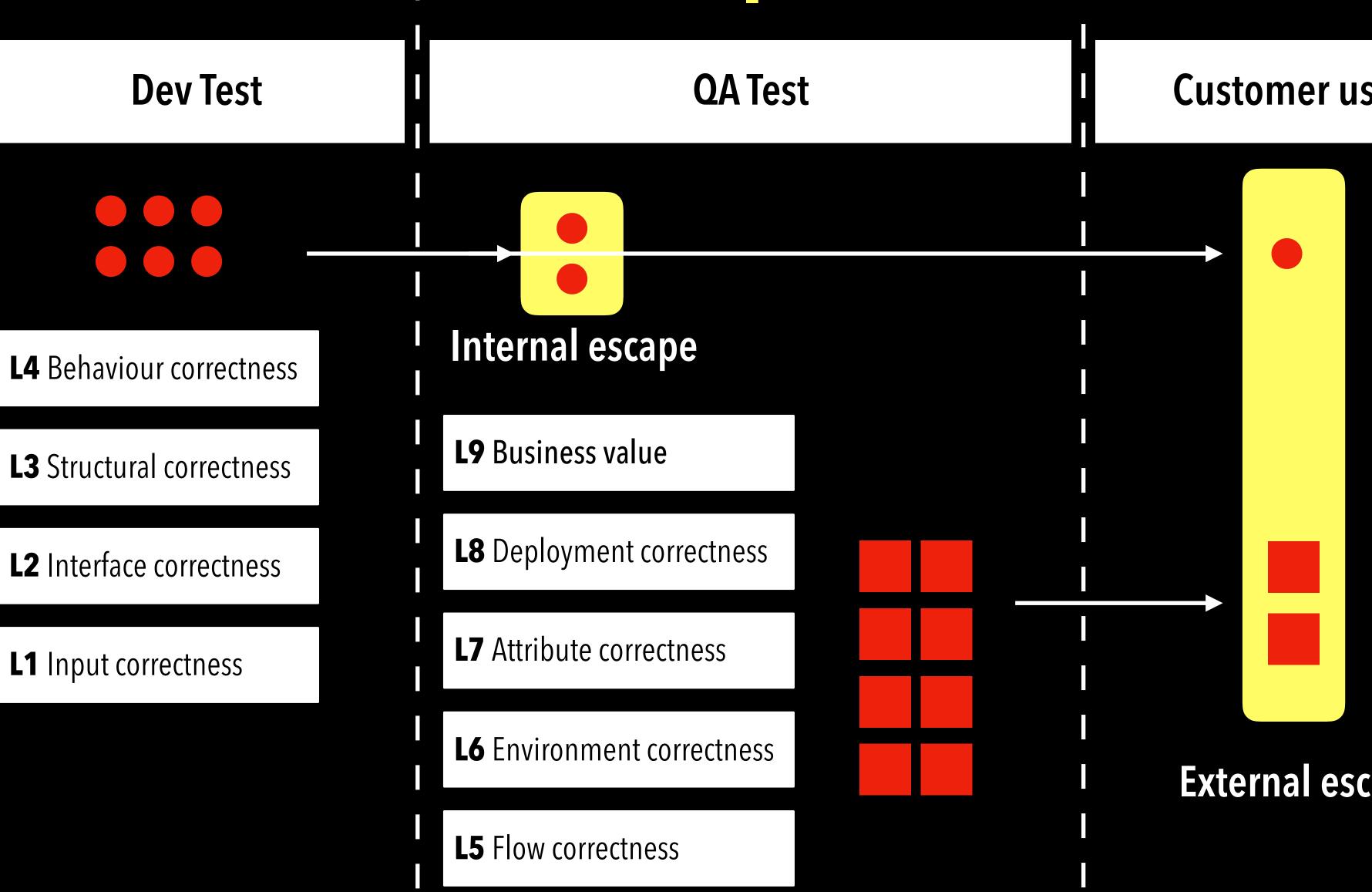


## Escapes

#### Customer usage

#### **External escape**





## Escapes

#### Customer usage

#### **External escape**

### Sprint X

	#Issues DevTest	#Issues QATest	Internal Escape (%)
L9			
<b>L8</b>			
L7			
<b>L6</b>			
L5			
L4	а	b	b/(a+b)
L3			
L2			
L1			

### Sprint X

	#Issues DevTest	#Issues QATest	Internal Escape (%)
L9			
<b>L8</b>			
L7			
<b>L6</b>			
L5			
L4	a	b	b/(a+b)
L3			
L2			
L1			
	C	umulative IE	Sx-IE

#### Sprint X

	#Issues DevTest	#Issues QATest	Internal Escape (%)
L9			
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L5			
L4	a	b	b/(a+b)
L3			
L2			
L1			
Cumulative IE			Sx-IE

#### Trend

Sprint #	Internal Escape (%)	
<b>S1</b>	S1-IE	
<b>S2</b>	S2-IE	
<b>S</b> 3	S3-IE	
••		
Sn	Sn-IE	

## Check vs. Test effort

# How much checking? How much testing? Given that in a session we would be doing both how do they look like?

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- How much regression effort? How much of scripted test effort? How much unscripted test effort?

How does this help? Keeps us aware, so that we don't get into doing 'rote'.

# Analysis for clear actions

#### First understand issues before figuring out how to address them.

Understand what issue types and what EUT. Then go onto why and what-to-do.

Do not jump into RCA immediately.

#### Understand WHAT of escapes, then WHY & then WHAT-TO-DO



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#### Analyse issues missed for 'what'

- 1 which level these belong to
- 2 which test do these fall into
- 3 what EUT do these belong to (TF | UR | BF)



#### Understand WHAT of escapes, then <u>WHY</u> & then WHAT-TO-DO

#### Analyse issues missed for 'what'

- 1 which level these belong to
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- 3 what EUT do these belong to (TF | UR | BF)

#### Then analyse for 'why'

- 1 did not have TS/TC
- 2 did not do (time issue?)
- 3 did not do correctly (incorrect understanding?)
- 4 did not regress well





#### Understand WHAT of escapes, then WHY & then <u>WHAT-TO-DO</u>

#### Analyse issues missed for 'what'

- 1 which level these belong to
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- 3 what EUT do these belong to (TF | UR | BF)

#### Then analyse for 'why'

- 1 did not have TS/TC
- 2 did not do (time issue?)
- 3 did not do correctly (incorrect understanding?)
- 4 did not regress well

#### Now figure out 'what-to-do'

- 1 tighten quality gates
- 2 improve test quality
- 3 enhance efficiency









# A quick summary of IST

### RECONNAISANCE



# Get a big picture of system and create maps to explore

who are the end users (persona) what are the needs i.e.system elements (entities) what are the expectations (attributes) where will it be used (environment)

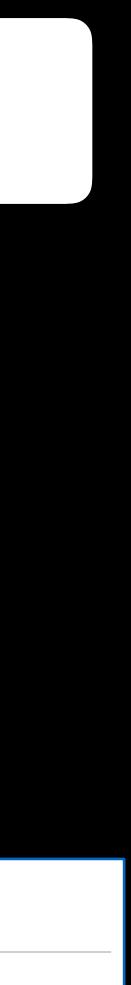
#### Landscaping

## **EXPLORATION**

### RECOUP

who uses what Persona Map what is expected of Scope Map what affects what **Interaction Map** where is it used **Environment Map** 

#### Mapping





### RECONNAISANCE



## Dive deep to understand entities and then evaluate them

understand what entity does/should do what are conditions governing behaviour? what are the acceptance criteria? what may be potential issues probable?

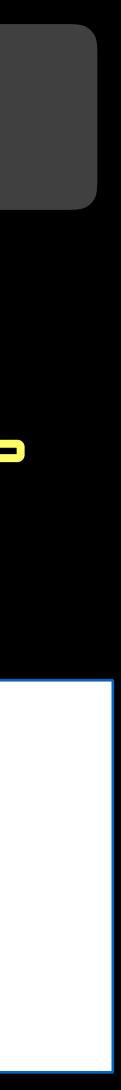
#### 

## **EXPLORATION**

#### RECOUP

come up with scenarios to try out come up with smart checklist to check/test create suites, review, revise note down issues, suggestions, observations

#### **Design & validate**



### RECONNAISANCE



Test adequacy **Execution progress** Product quality Practice effectiveness (Check vs Test & Escapes) Analysis for improvement

# **EXPLORATION**

#### RECOUP

## Analyse, Reflect & Learn





#### Be sensitive to Check vs Test

# IST Adoption Tips



Be sensitive to Check vs Test View testing as questioning

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- Be sensitive to Check vs Test
- View testing as questioning
- Be lightweight in writing, be non-linear
  - Think of issues level-wise
- Behaviour based design, augment with experience
  - Scripted & Unscripted in tandem
    - See different POV



#### Discussion

Your views, questions, comments ...

# Thank you.



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