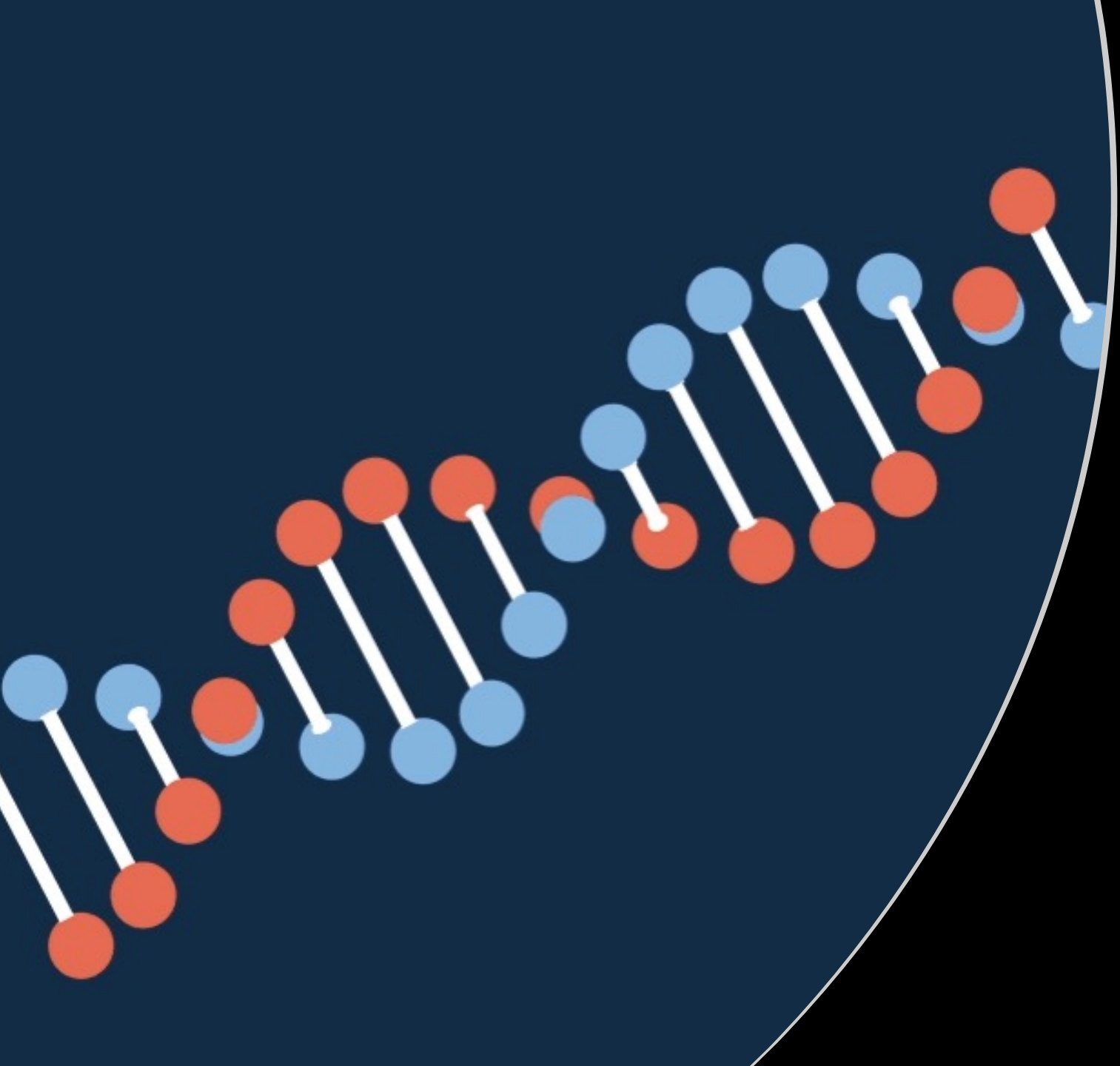

Evolving Our Testing

Assessing Quality Throughout The SDLC

Dan Ashby

@DanAshby04

www.DanAshby.co.uk

Director of Quality Services at Ada Health

1) How I view quality
(and my view on the testing's relationship with quality?)

2) Testing beyond software
(8 perspectives of quality across the SDLC)

3) Your role in testing and quality
(evolving into Quality Engineering)

I) What is Quality?

Definitions of "Quality"?

Dictionary.com | definitions | quality

quality [kwol-i-tee] SHOW IPA

SYNONYMS | EXAMPLES | WORD ORIGIN SEE MORE SYNONY

noun, plural **qual·i·ties.**

1 an essential or distinctive characteristic, property, or attribute:
the chemical qualities of alcohol.

2 character or nature, as belonging to or distinguishing a thing:
the quality of a sound.

3 character with respect to fineness, or grade of excellence:
food of poor quality; silks of fine quality.

4 high grade; superiority; excellence:
wood grain of quality.

SEE MORE

adjective

16 of or having superior quality:
quality paper.

17 producing or providing products or services of high quality or merit:
a quality publisher.

SEE MORE

Software quality

From Wikipedia, the free encyclopedia

In the context of software engineering, **software quality** refers to two related but distinct notions:

- Software functional quality reflects how well it complies with or conforms to a given design, based on functional requirements or specifications. That attribute can also be described as the fitness for purpose of a piece of software or how it compares to competitors in the marketplace as a worthwhile product.[1] It is the degree to which the correct software was produced.
- Software structural quality refers to how it meets non-functional requirements that support the delivery of the functional requirements, such as robustness or maintainability. It has a lot more to do with the degree to which the software works as needed.

ISO | Search | Search results ×

850 results for Quality Sort by:

Terms & Definitions

tandards
ollections
ublications
raphical symbols
erms & Definitions 850
ountry codes

nguage
mmittees
chnical sector

Terms & Definitions **quality**
conformance to specified requirements
ISO 13628-10:2005(en), 3.1.37
Available in: en fr ru

Terms & Definitions **quality**
conformance to specified requirements
ISO 13628-2:2006(en), 3.33
Available in: en fr ru

> "Quality is value to some person"
>
> - Gerald Weinberg
>
> ***Quality Software Management: Volume 1, Systems Thinking*, 1992**

DevelopSense

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Quality is "value to some person(s)" (Weinberg), to which James Bach and I add "who matter".

Definitions of "Quality"?

conforms to a given design,

conformance to specified requirements

fitness for purpose

fineness, or grade of excellence:

high grade; superiority; excellence:

correct software

software works

value to some person

"who matter".

Definitions of "Quality"?

Excellence, Fineness, goodness...

fineness, or grade of excellence:

high grade; superiority; excellence:

Conformance, Correctness, Works, Fitness, Purpose...

conforms to a given design,

conformance to specified requirements

fitness for purpose

correct software

software works

Value, perspective...

value to some person

who matter".

Quality consists of

Usefulness (the value/worth of something)

+

Correctness (meeting expectations re wants & needs)

+

Goodness (the emotive experience of something)

What is the Quality of...

The last conversation you had?

The last software application you used?

This conference?

The software your company creates?

I propose:
Testing is...

...ASSESSING QUALITY

I propose:
Testing is...

...ASSESSING CORRECTNESS

...ASSESSING GOODNESS

...ASSESSING USEFULNESS

@DanAshby04

Scripted Testing helps us in...

...ASSESSING CORRECTNESS

Exploratory Testing helps us in...

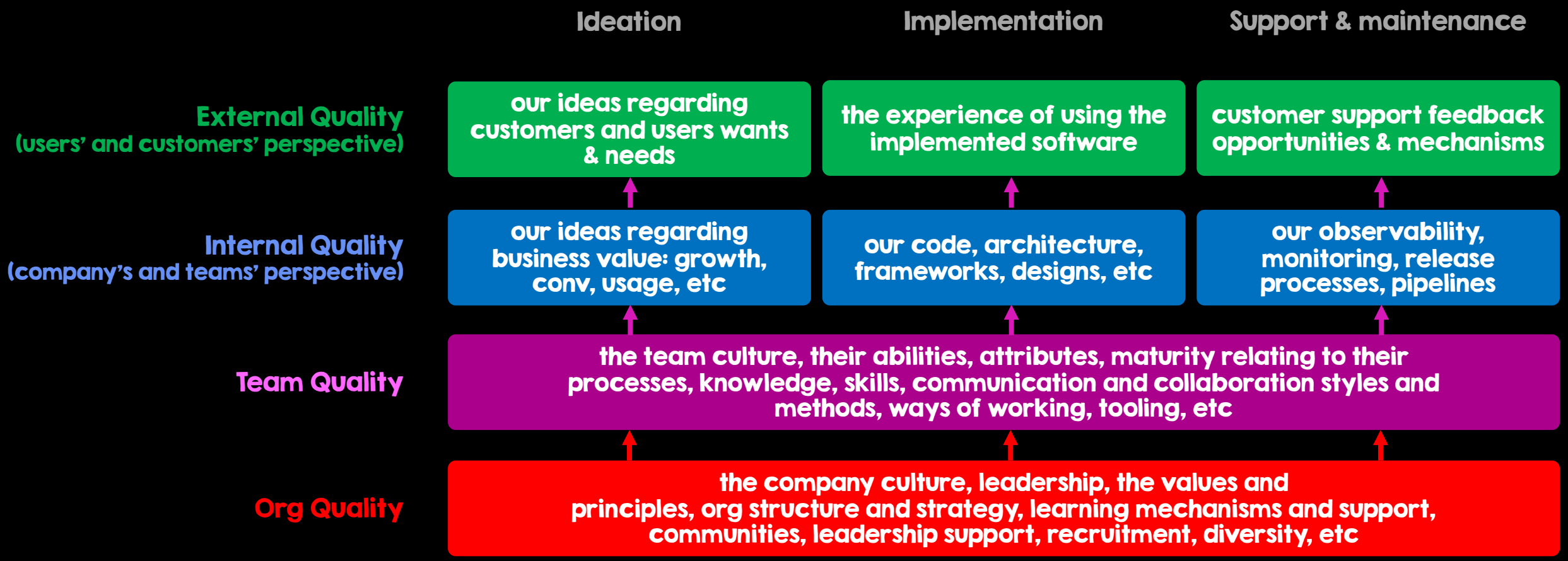
...ASSESSING GOODNESS

And...

...ASSESSING USEFULNESS

2) Assessing quality Beyond software

8 Perspectives of Quality in Software

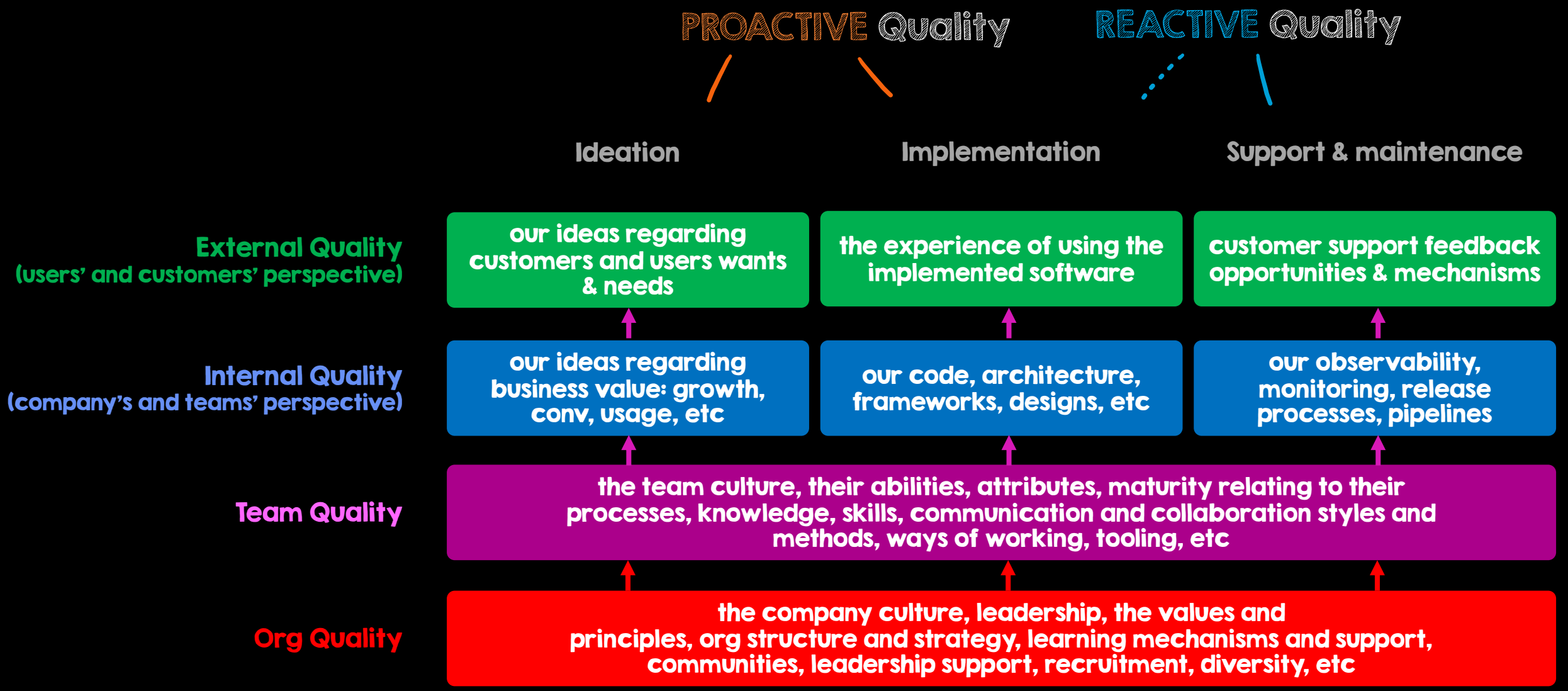


PROACTIVE Quality

and

REACTIVE Quality

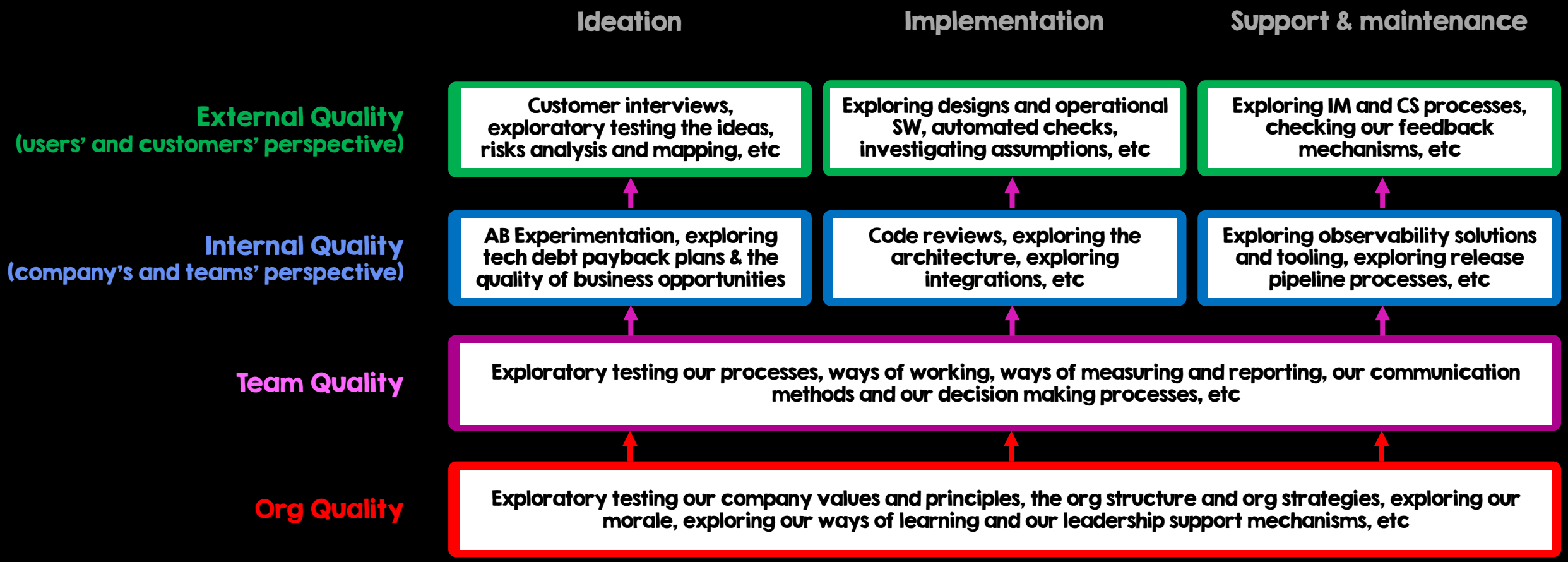
8 Perspectives of Quality in Software



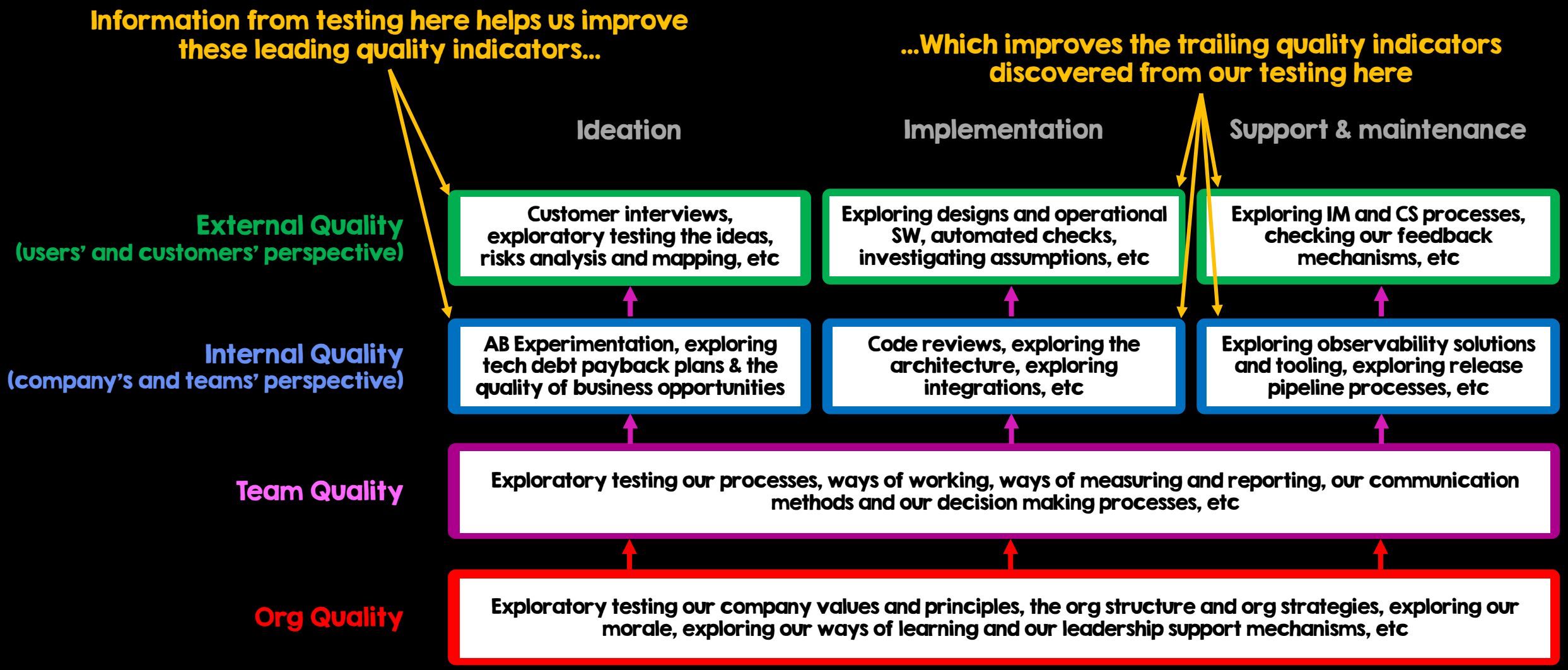
Testing is...

...ASSESSING QUALITY

Testing Activities Relating to the 8 Perspectives

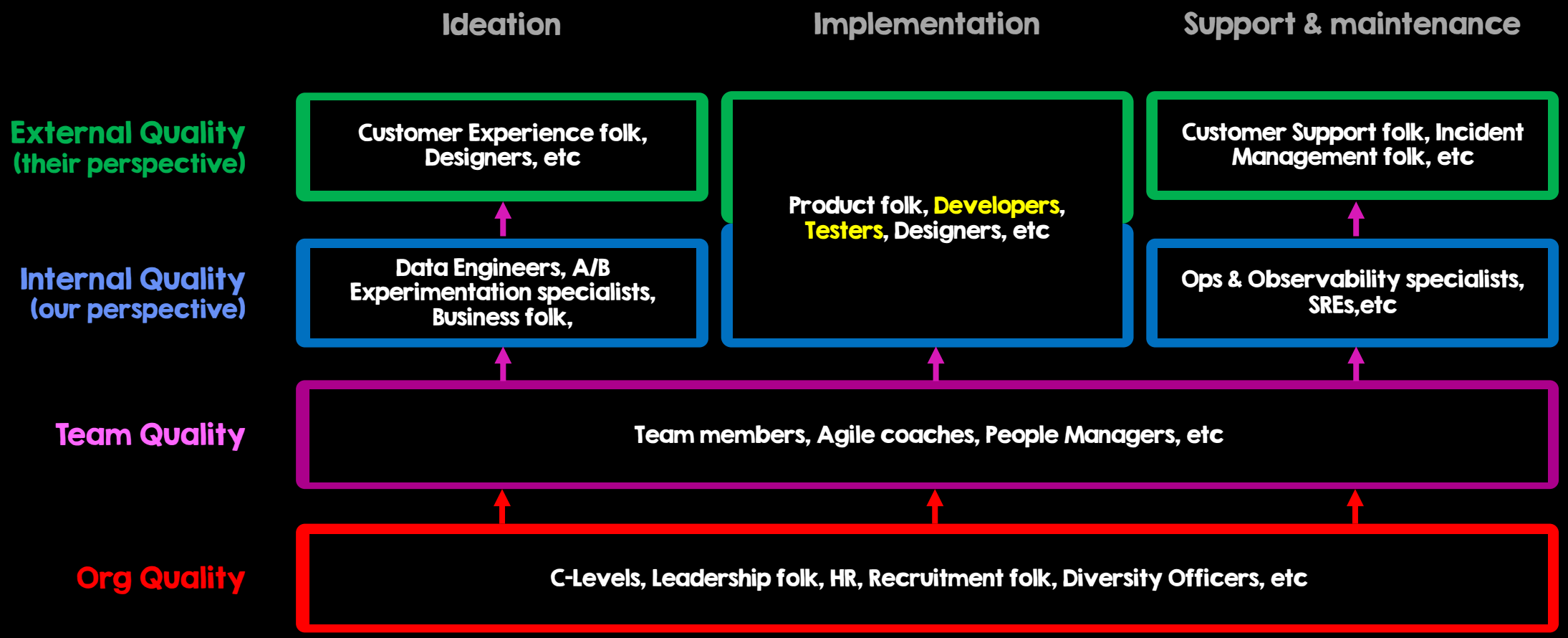


Testing Activities Relating to the 8 Perspectives

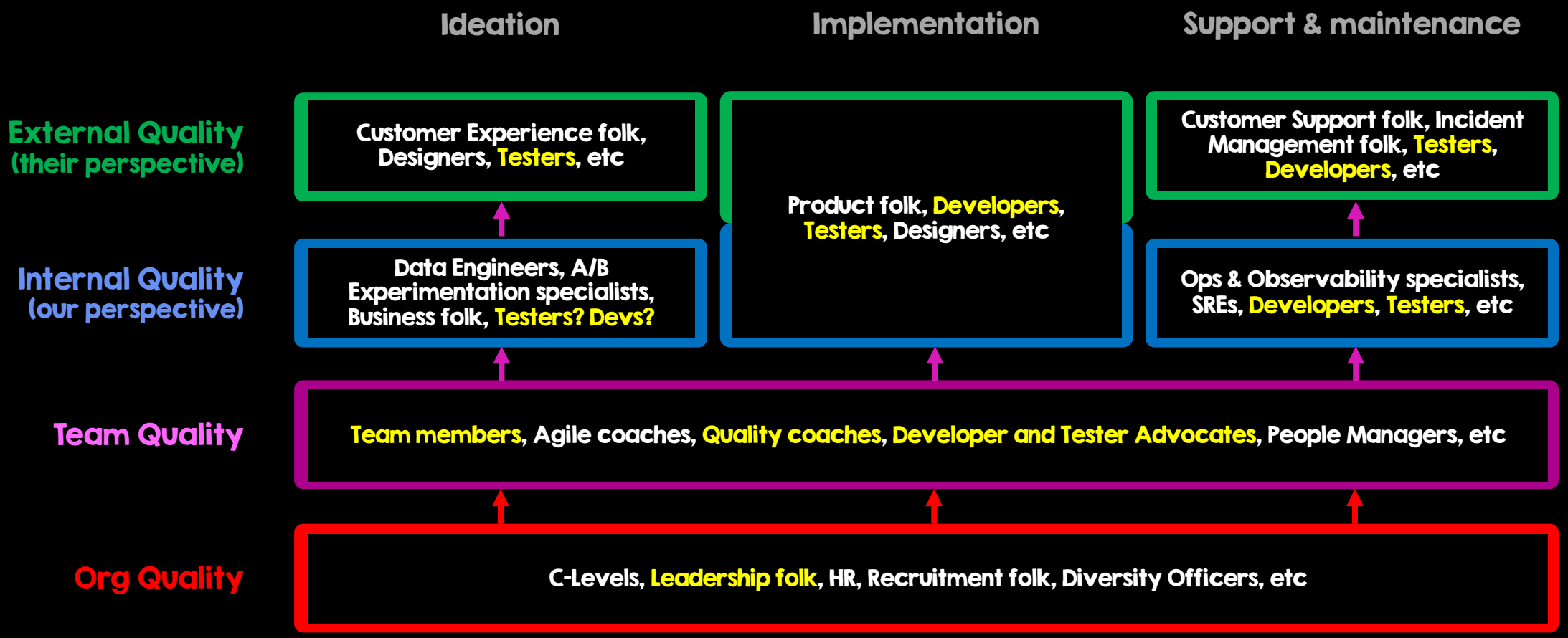


3) What's YOUR role in testing and quality?

Roles & Responsibilities Relating to the 8 Perspectives



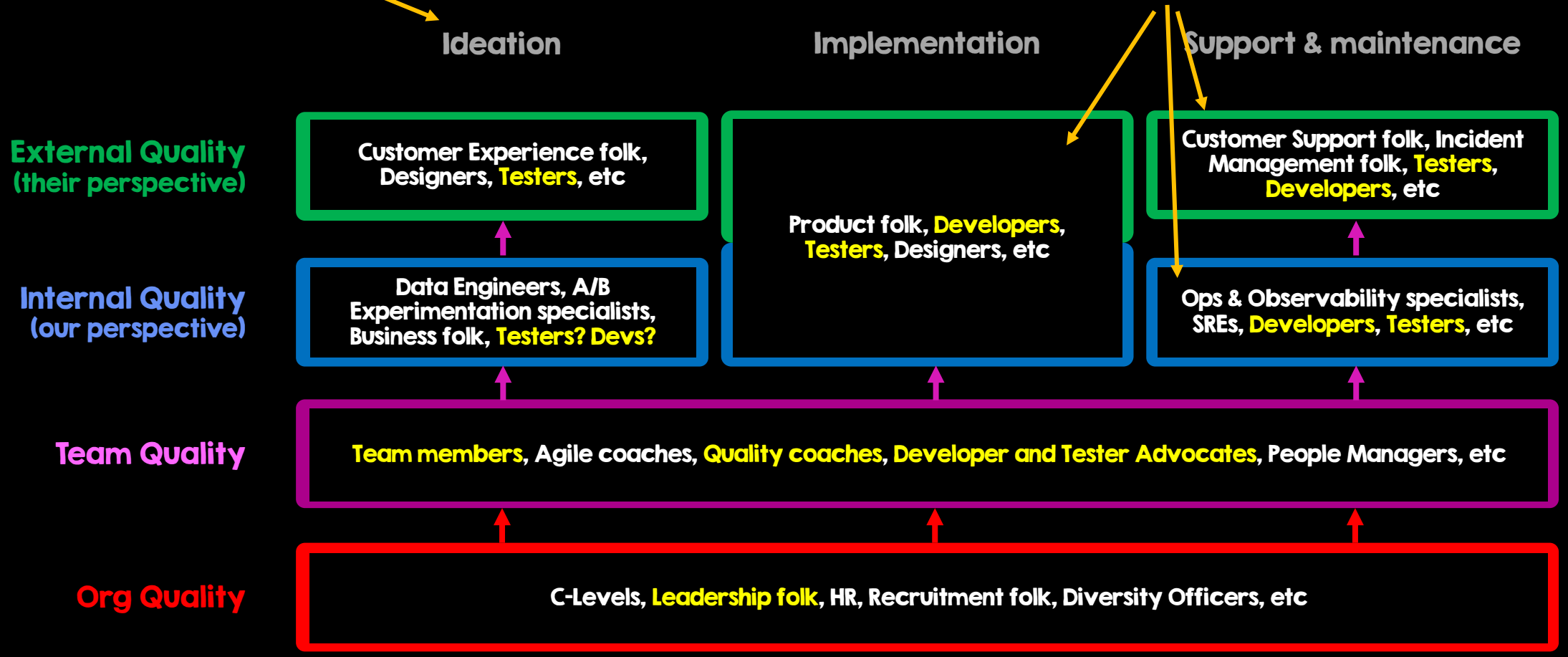
Are you evolving your testing into the other boxes?



Roles & Responsibilities Relating to the 8 Perspectives

Bringing your testing skills earlier in the process...

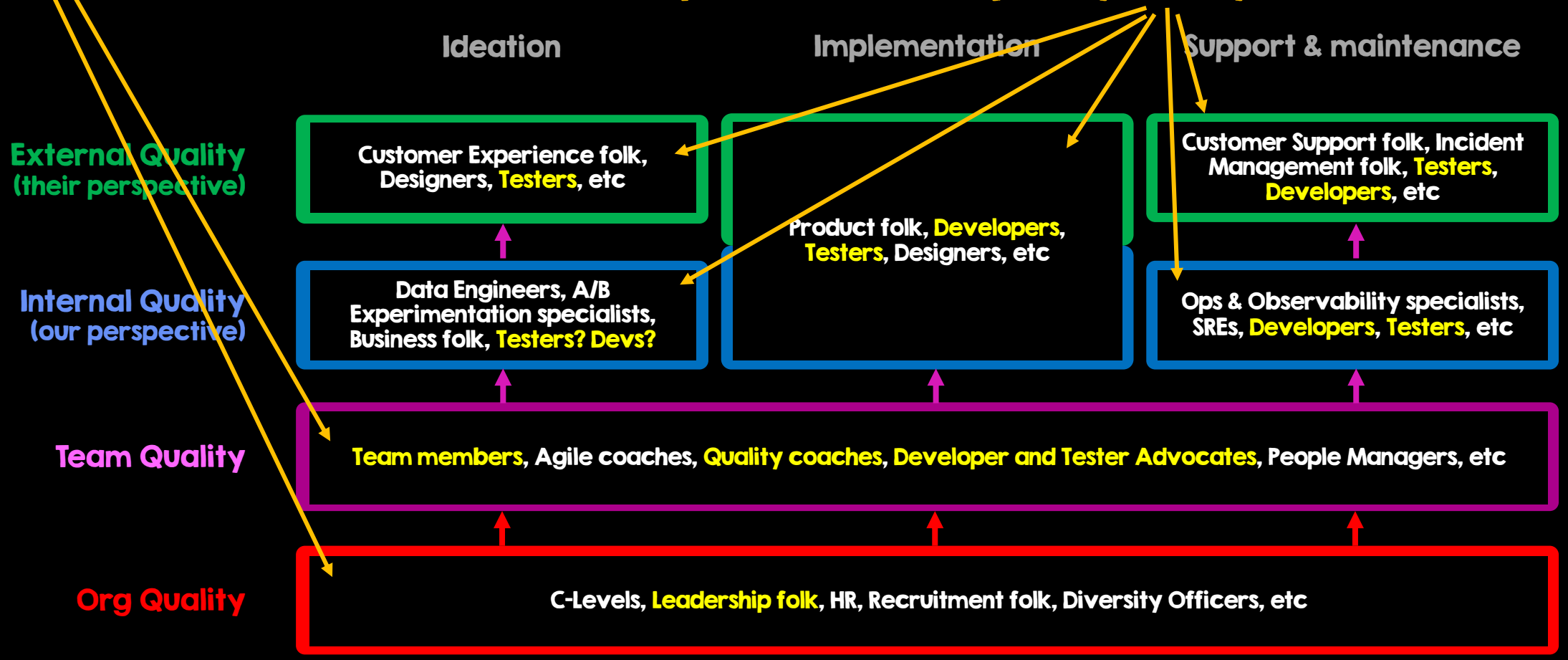
...Helps to prevent problems in the product



Roles & Responsibilities Relating to the 8 Perspectives

Expanding your testing to include team and org processes and attributes...

...Enables the improvement of quality everywhere else!



Quality Engineering

Engineer (definition)

Noun: An engineer; a person who constructs or creates something technical
Example: A Software Engineer, A Civil Engineer, etc

Verb: To Engineer; to arrange, manage, or carry through by skillful or artful contrivance
Example: She engineered the success of the project so well, he engineered the election campaign

To Engineer Quality (verb) is to: skillfully contrive, organize and influence quality into a product proactively, through involvement throughout the whole product lifecycle

Testers make great Quality Engineers, because of our existing skills in assessing quality

Go forth and
engineer
quality
by evolving
your testing

Thank you!

Dan Ashby I @DanAshby04 I DanAshby.co.uk
MoT Essentials I Ada Health

BONUS CONTENT!!

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A quality dashboard of leading & trailing quality indicators

Process Adoption (Leading Indicators)

Processes	Perception
Risk Mapping	
Test Driven Development	
Behaviour Driven Development	
Domain Driven Design	
Deep Work Sessions	
Session Based Test Mgmt	
Rolling Wave Planning	
Tech Debt Payback Plan	
Quality Debt Payback Plan	
CI/CD Pipe Improvements	
Roadmap Maintenance	
Story Mapping	
Example Mapping	

Prod Bugs Quality Indicators (Trailing Indicators)

Open Prod Bugs: 9 ↑

OOSLA: 2

Prod Bugs last week: 1 ↓

Severities:

Sev1	Sev2	Sev3
1	3	5

Business Metrics (Trailing Indicators)

P&L Churn: 35%

Conversion: +5% ↑

User Growth: +3% ↑

User Traffic: 150K

Engineering / Release Quality Indicators (Trailing Indicators)

Number of releases last week: 15 ↓

Release success: 68%

DoD Adherence: 100%

Rollbacks: 5

Customer Verbatims (Trailing Indicators)

"I like the new desktop browser view"

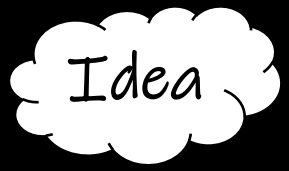
"You shouldn't have gotten rid of this feature..."

"Here's an idea - I would really like this"

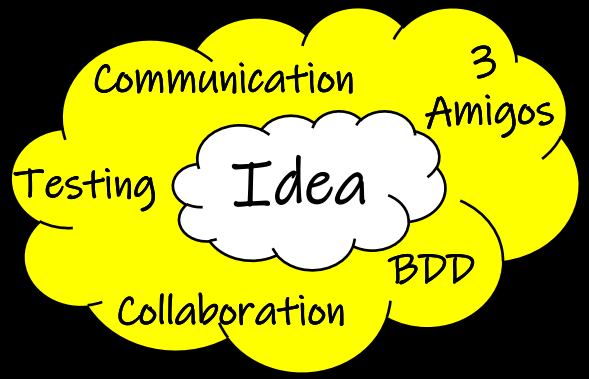
"This is so unusable. It's causing me so much despair! ☹ "

ALL SOFTWARE STARTS WITH AN IDEA...

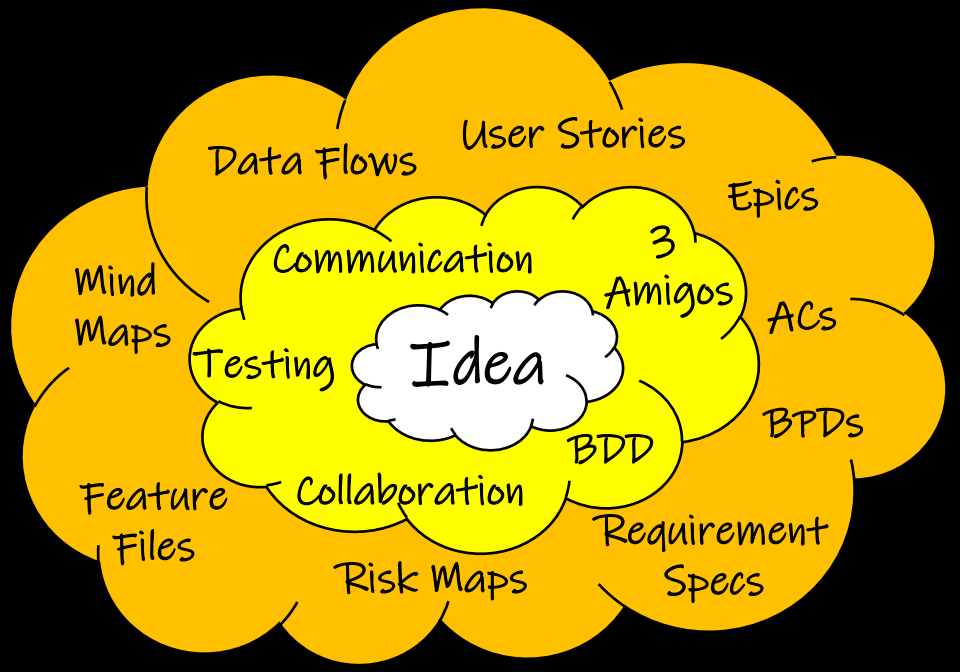
All software starts with a small piece of info...



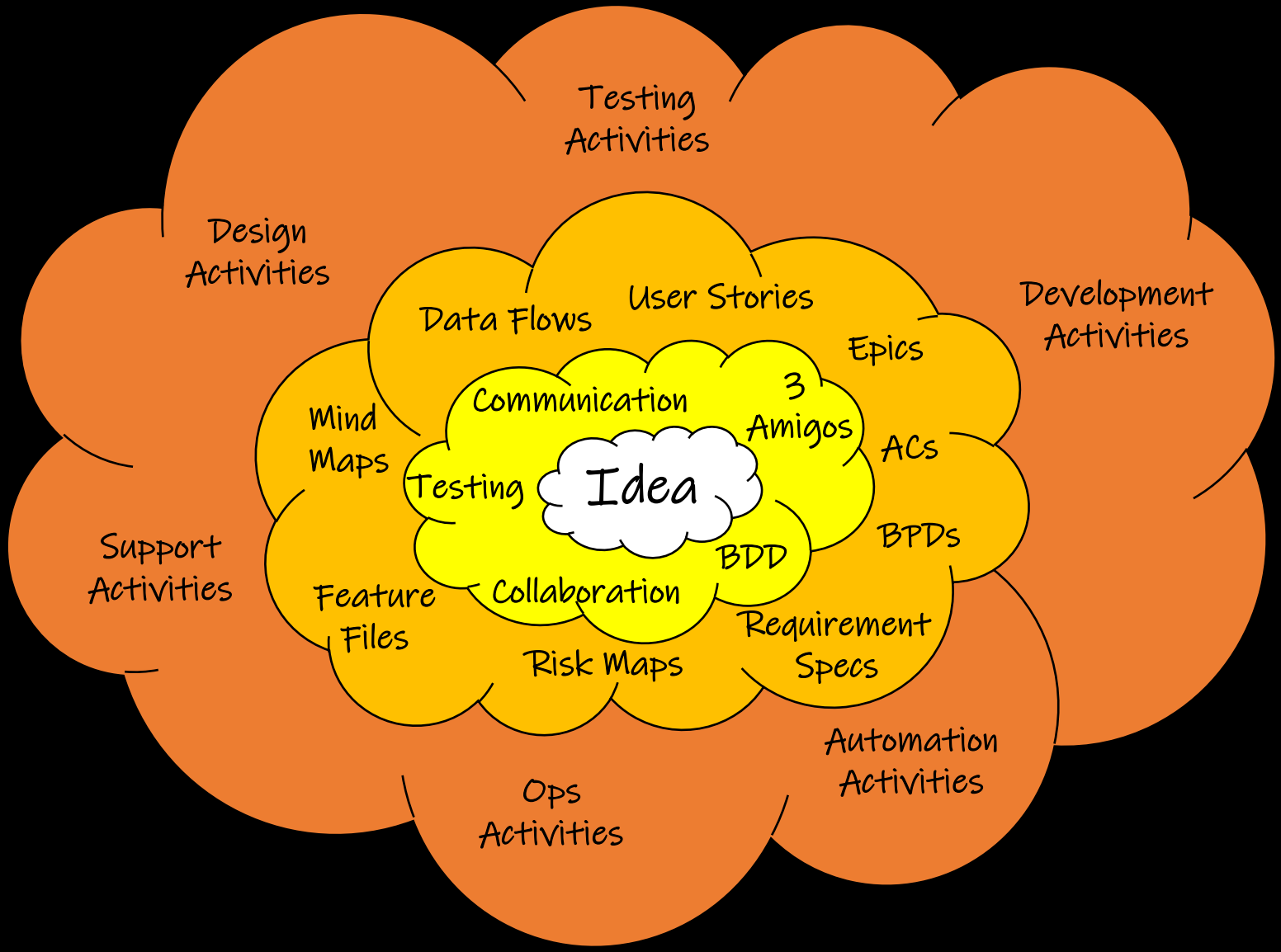
We put processes and activities in place to investigate and evaluate that info...

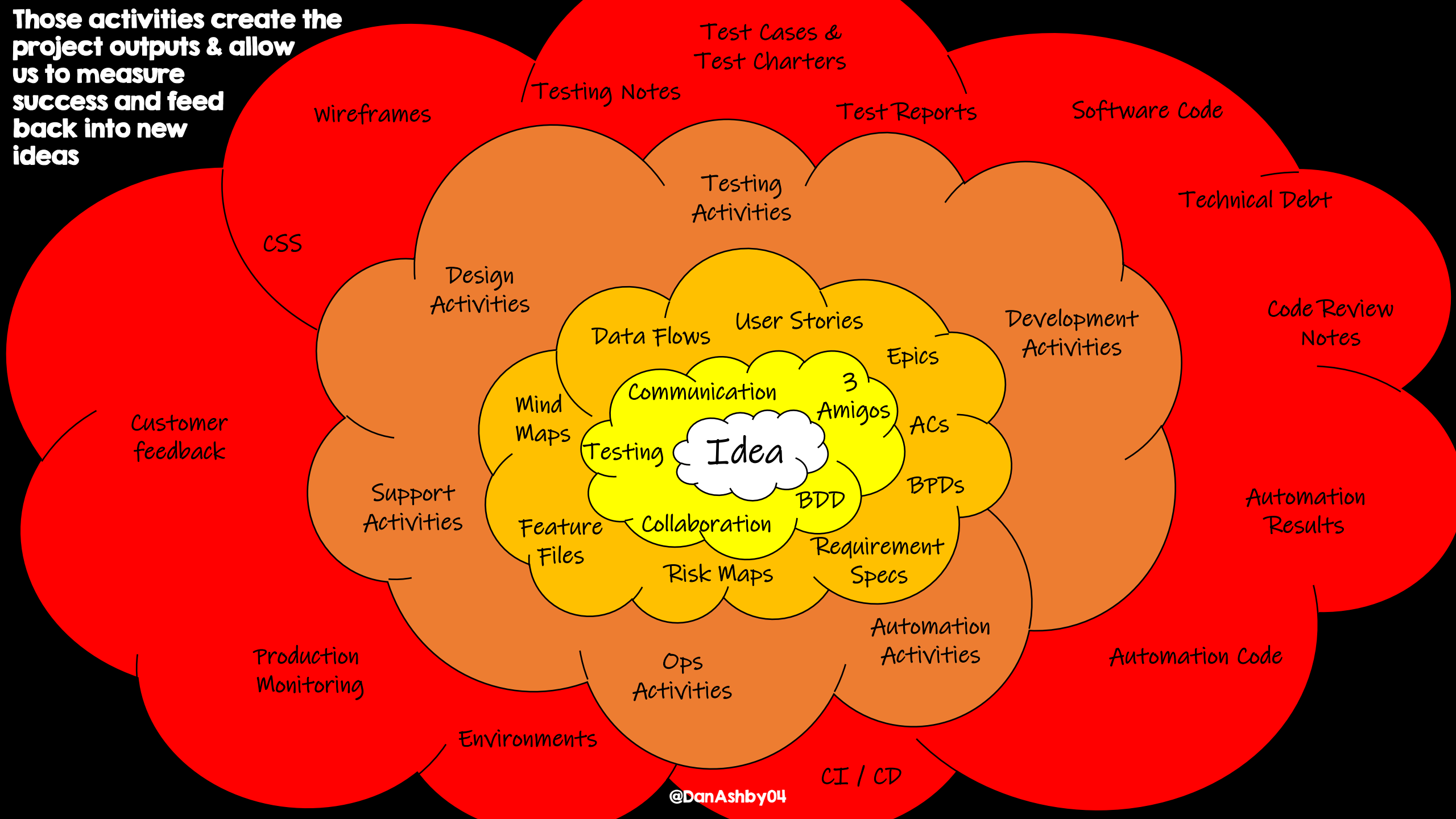


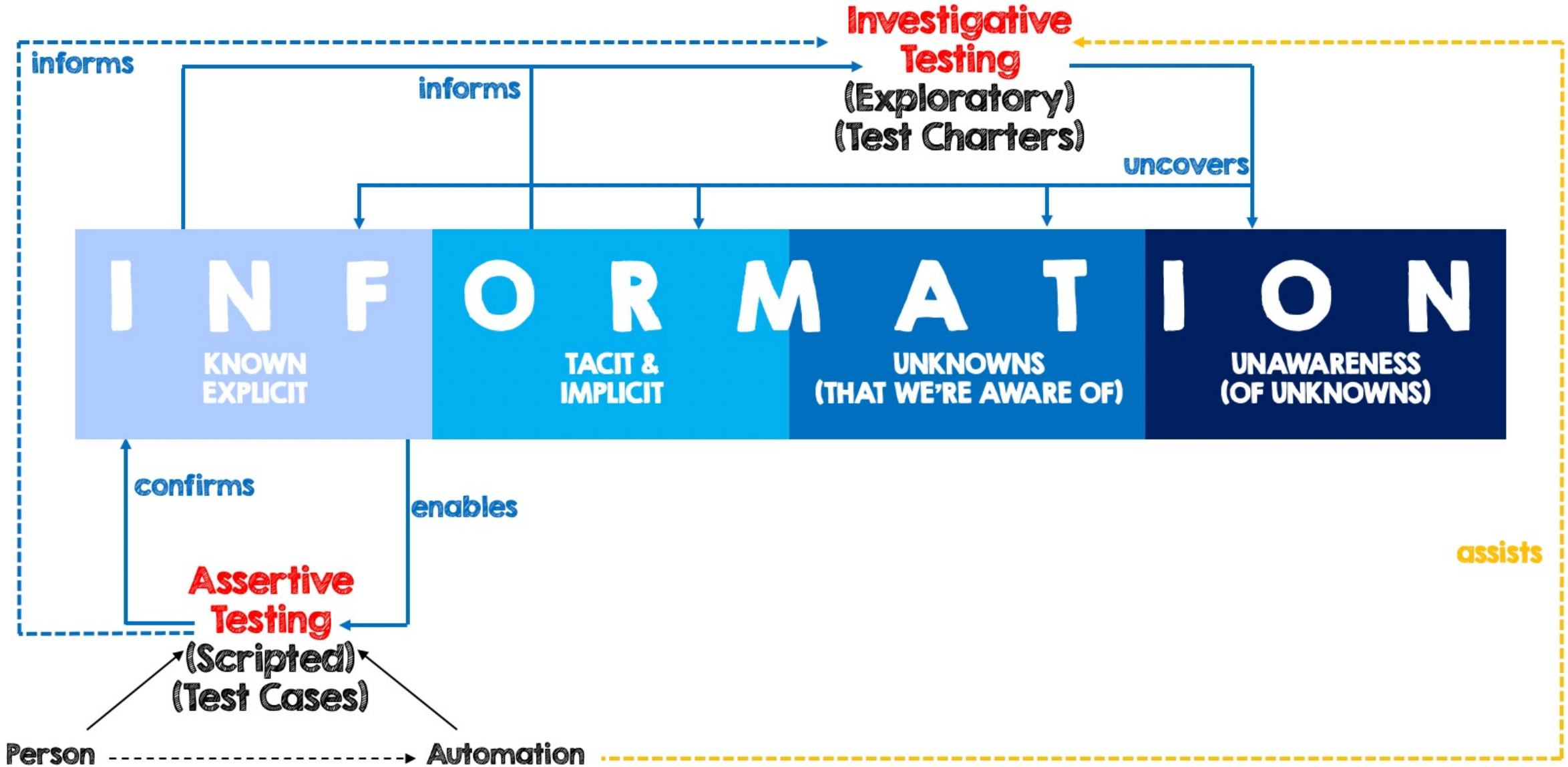
That investigation allows us to form more artefacts with more info...

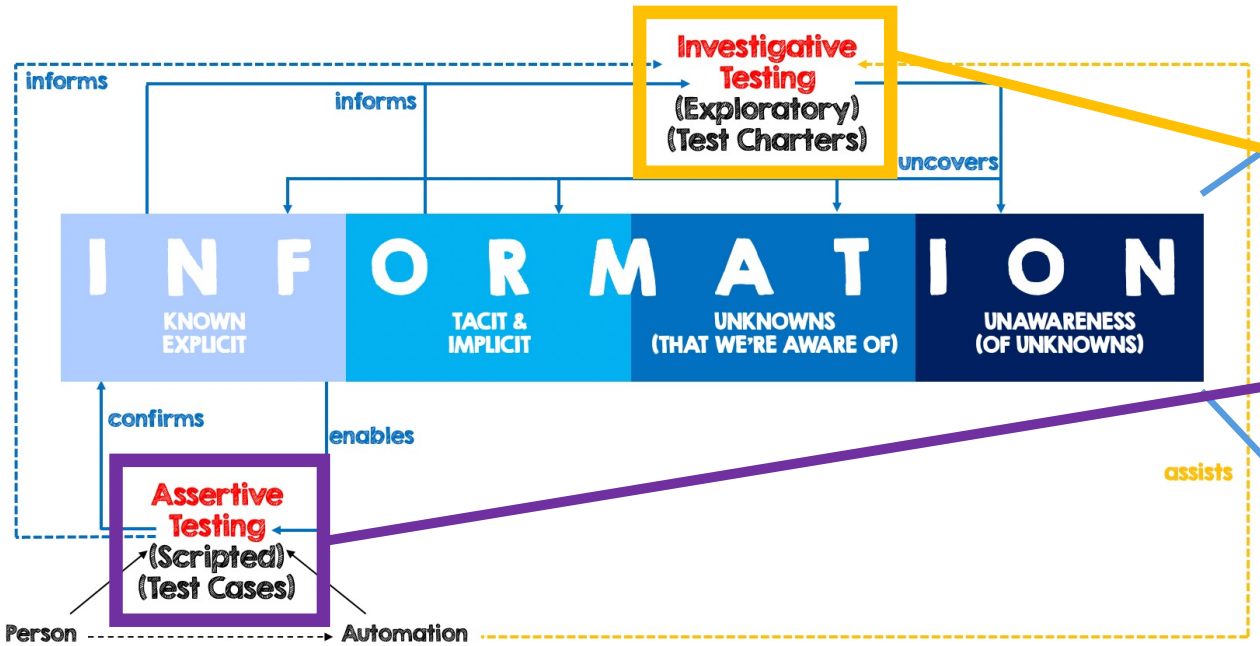


Those artefacts containing more info can then be used to stem other activities...




Those activities create the project outputs & allow us to measure success and feed back into new ideas
Test Cases & Test Charters
Testing Notes
Wireframes
Test Reports
Software Code
Technical Debt
Testing Activities
CSS
Design Activities
Code Review Notes
Development Activities
Data Flows
User Stories
Epics
Communication
3 Amigos
Mind Maps
ACs
Customer feedback
Testing
Idea
BPDs
BDD
Support Activities
Automation Results
Feature Files
Collaboration
Requirement Specs
Risk Maps
Automation Activities
Production Monitoring
Ops Activities
Automation Code
Environments
CI / CD
@DanAshby04


Investigative Testing
(Exploratory)
(Test Charters)
informs
informs
uncovers
INFORMATION
KNOWN EXPLICIT
TACIT & IMPLICIT
UNKNOWNS (THAT WE'RE AWARE OF)
UNAWARENESS (OF UNKNOWNS)
confirms
enables
assists
Assertive Testing
(Scripted)
(Test Cases)
Person
Automation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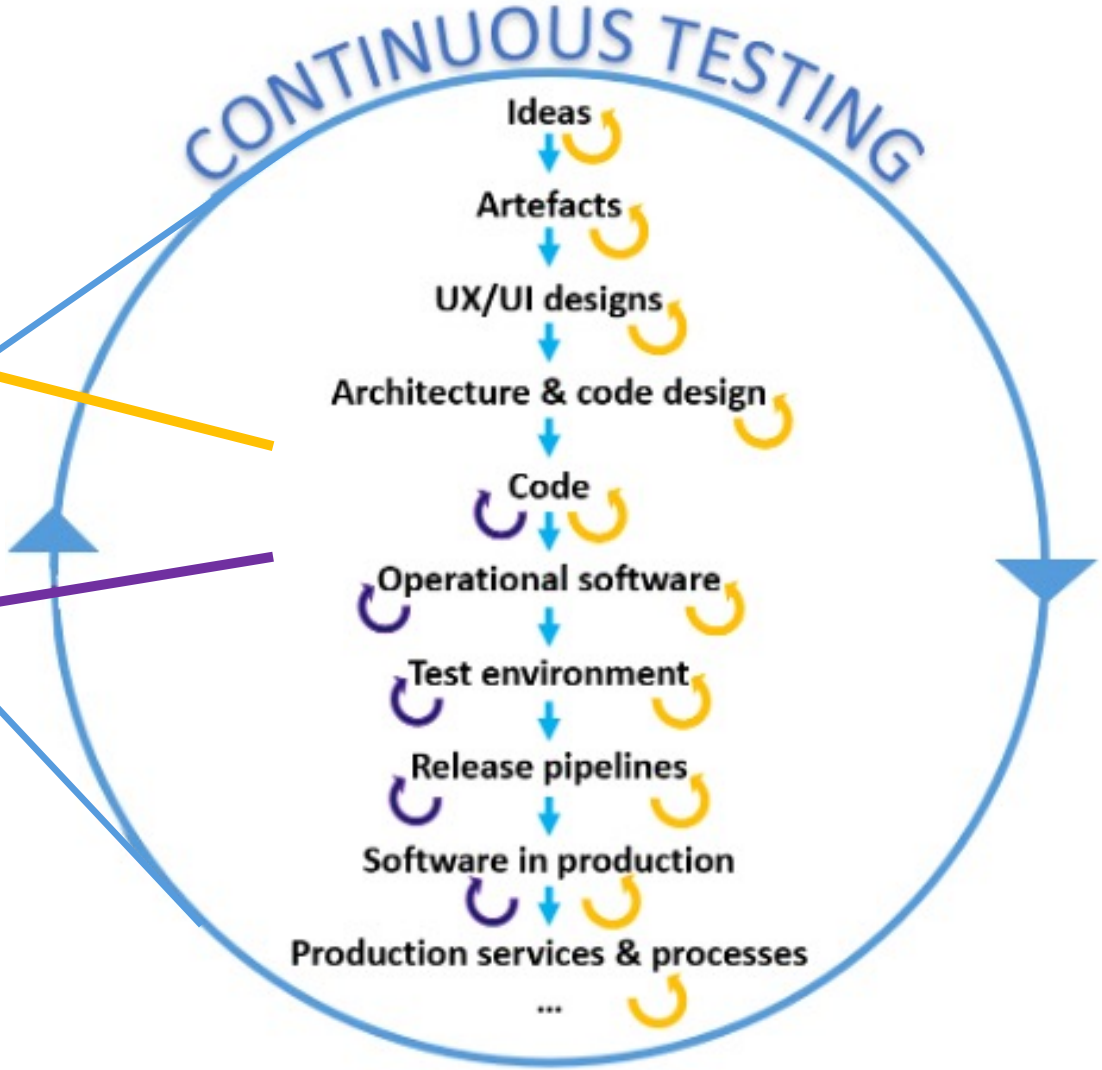
CONTINUOUS TESTING
Ideas
Artefacts
UX/UI designs
Architecture & code design
Code
Operational software
Test environment
Release pipelines
Software in production
Production services & processes
...

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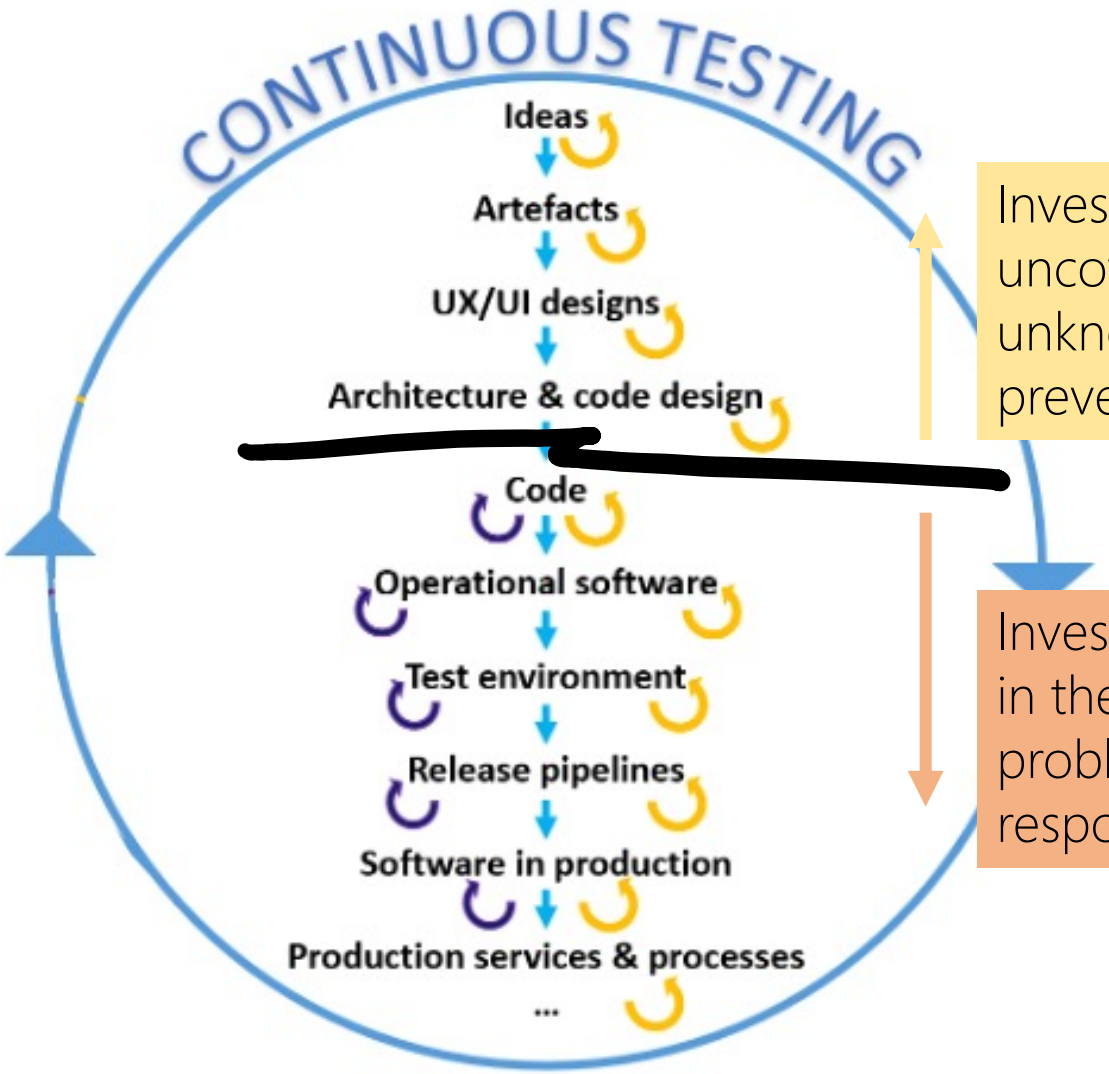

Investigating ideas and designs to uncover risks, variables and unknowns to feed design and prevent problems proactively

Investigating risks and unknowns in the software to uncover problems and info to be able to respond and fix reactively