

Test Improvement *for* Agile

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Agenda

- Agile
- Scrum
- Test improvement roadmap
- Assessment model
- Key areas

What is Agile?

agile /'ædʒaɪl; NAmE 'ædʒɪl/ adj.

1 able to move quickly and easily SYN nimble: *a strong and agile athlete*

2 able to think quickly and in an intelligent way: *an agile mind / brain*

(source: Oxford Advanced Learner's dictionary)



Agile Manifesto

- **Individuals and interactions** over processes and tools
- **Working software** over comprehensive documentation
- **Customer collaboration** over contract negotiation
- **Responding to change** over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

(source: <http://www.agilemanifesto.org/>)

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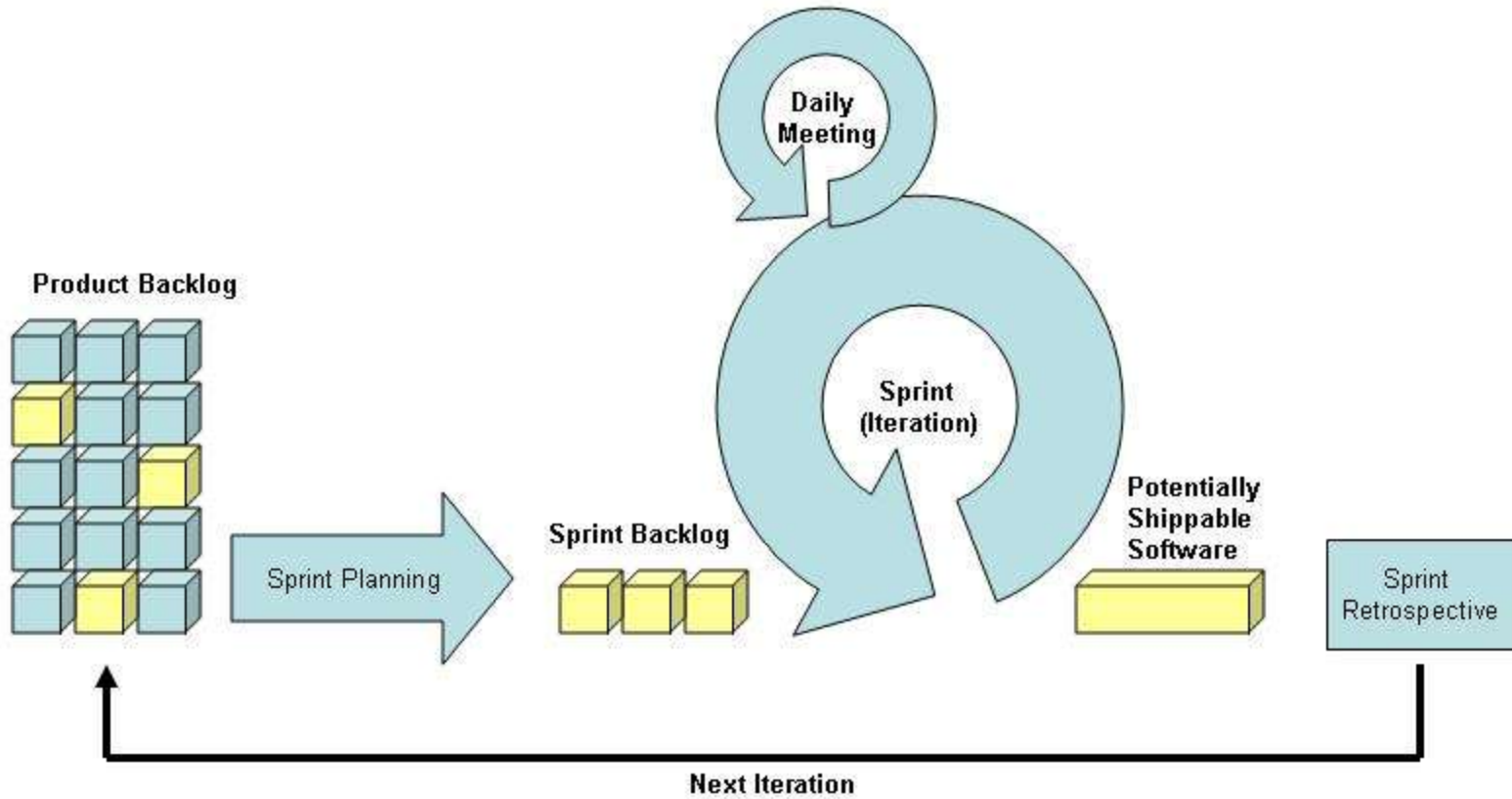
Scrum

Scrum is an iterative and incremental method for managing software projects and product or application development

Goals:

- Raise the effectiveness of the team
- Guard the progress of the team
- Solve impediments
- Guard the project progress
- Minimizing of project risks

Scrum



Agile/Scrum

Agile

- Set of basic ideas
- Little overhead
- Focussed on people

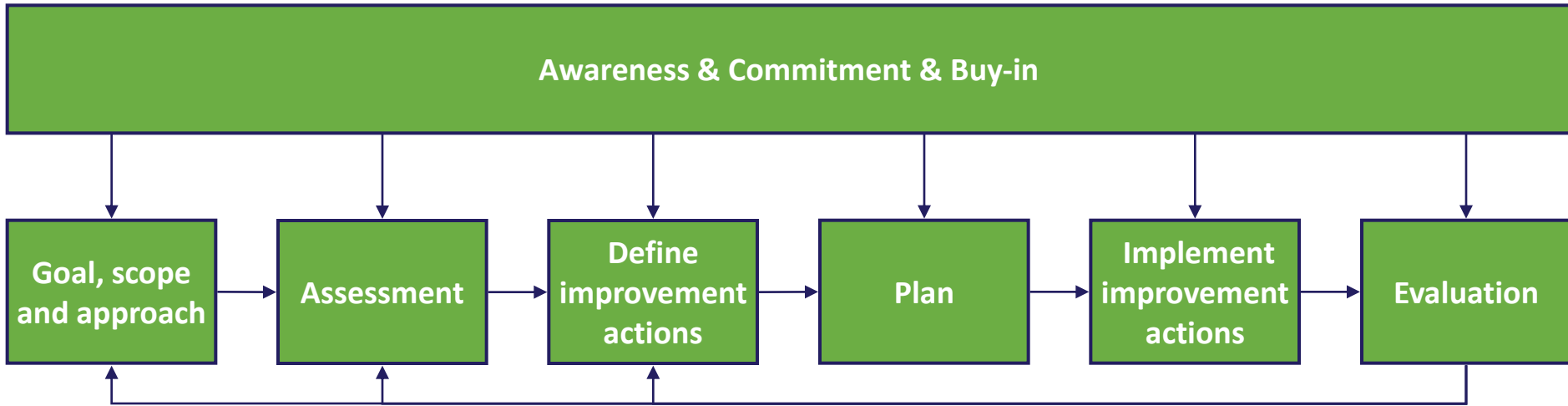
Scrum

- Process management
- Short iterations
- Multidisciplinary teams

Agenda

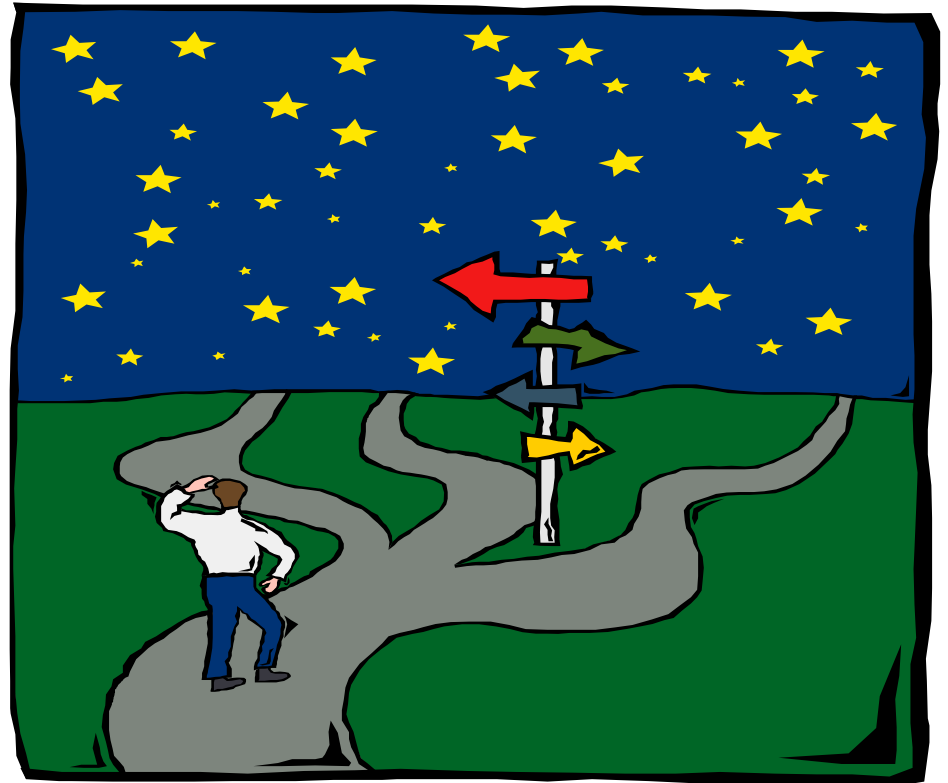
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Test Improvement Roadmap



Assessment

“If you don’t know where you are,
a map won’t help.”
(Watts Humphrey)

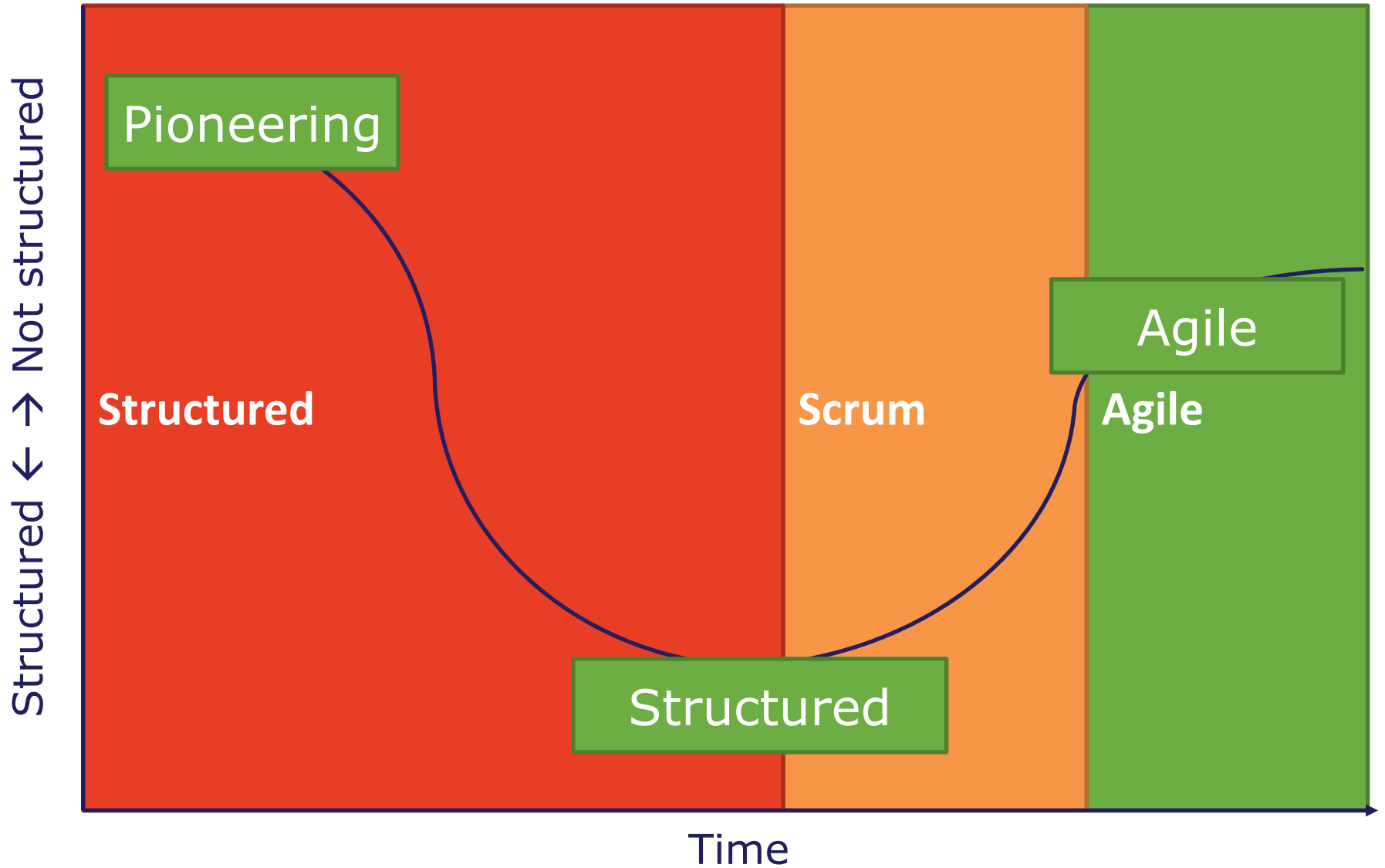


Improvement suggestions

- Improvement suggestions describe “How to improve”
 - From testing perspective
 - From Agile perspective
 - For each key area
- Provide related information
- Based on practice and current setting



Evolution of testing



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Assessment model

Key Area	Structured				Scrum				Agile			
Stakeholder commitment												
Planning & Estimation												
People												
Interaction												
Teamwork												
Test process												
Test management												
Test profession												
Test automation												
Regression & E2E testing												
Defect management												
Test environment												

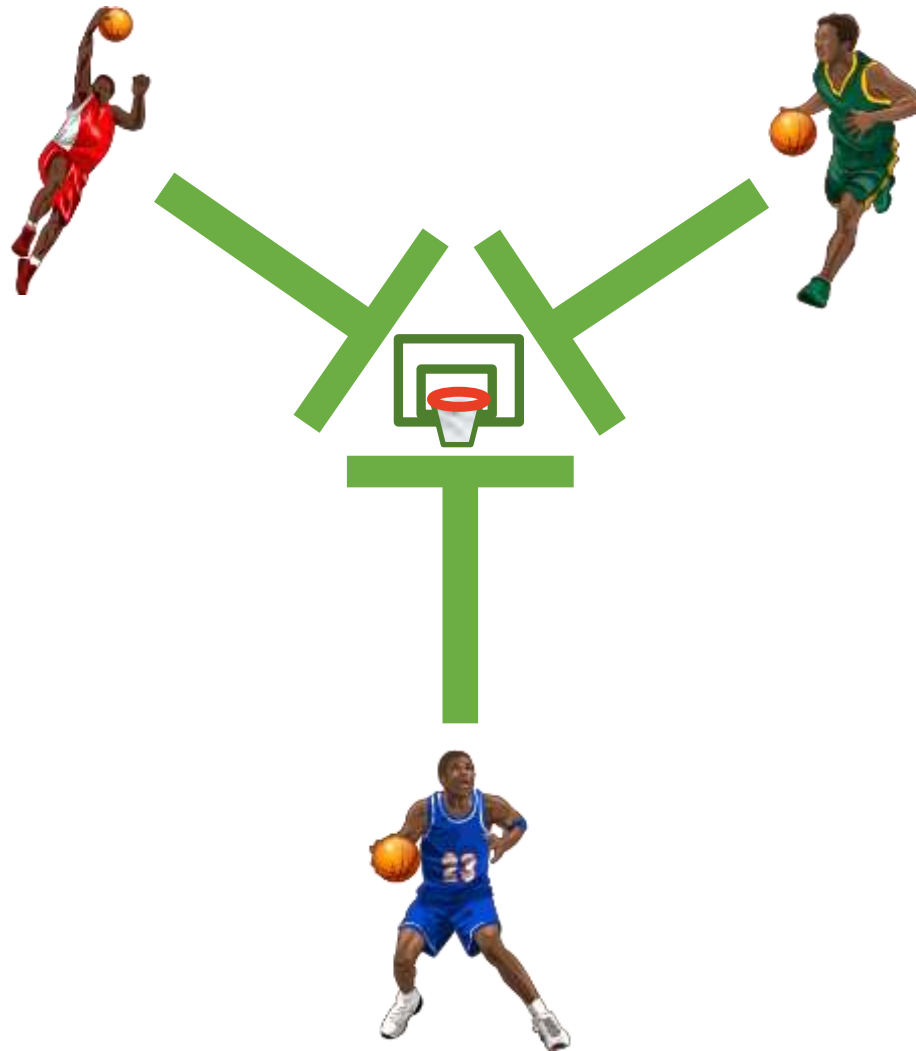
Assessment model

- First level is not just initial like in other models
- Each key area has a number of checkpoints
- Checkpoints are continuous
 - Next maturity level builds on previous level

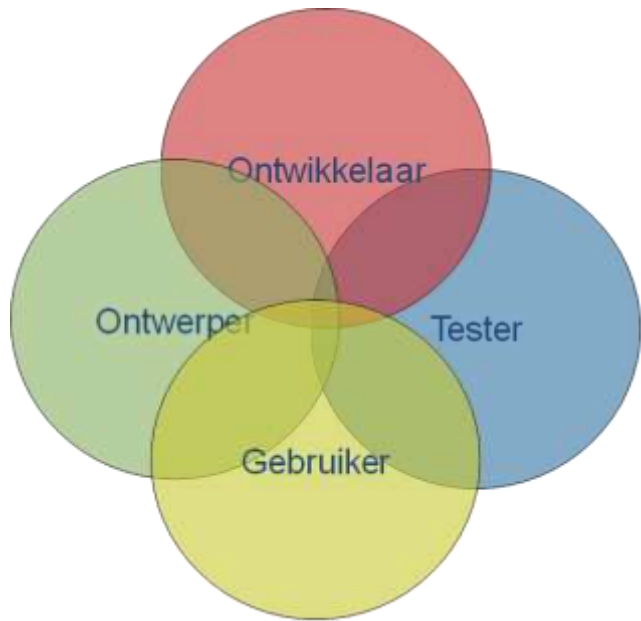
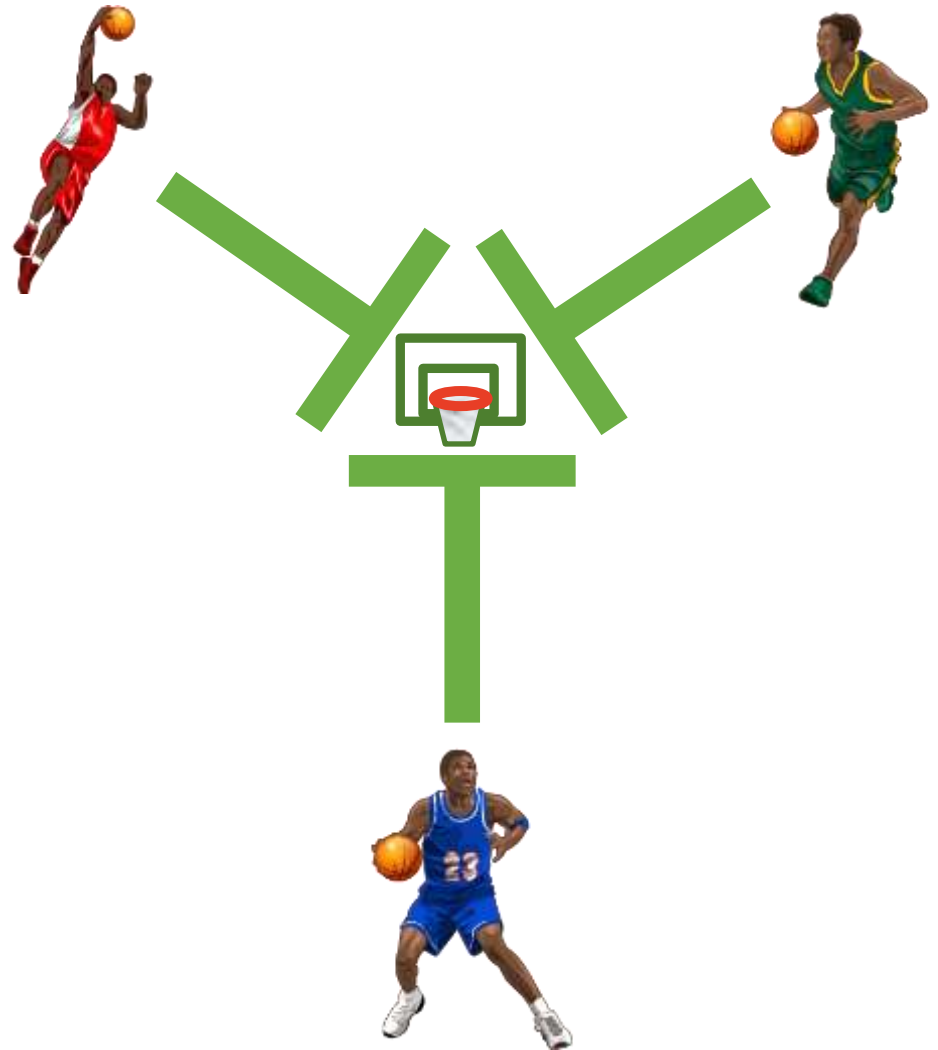
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Teamwork



Teamwork



Traditional teams



Analysis and design

- Business analyst 1
- Business analyst 2
- Business analyst 3
- Business analyst 4



Development

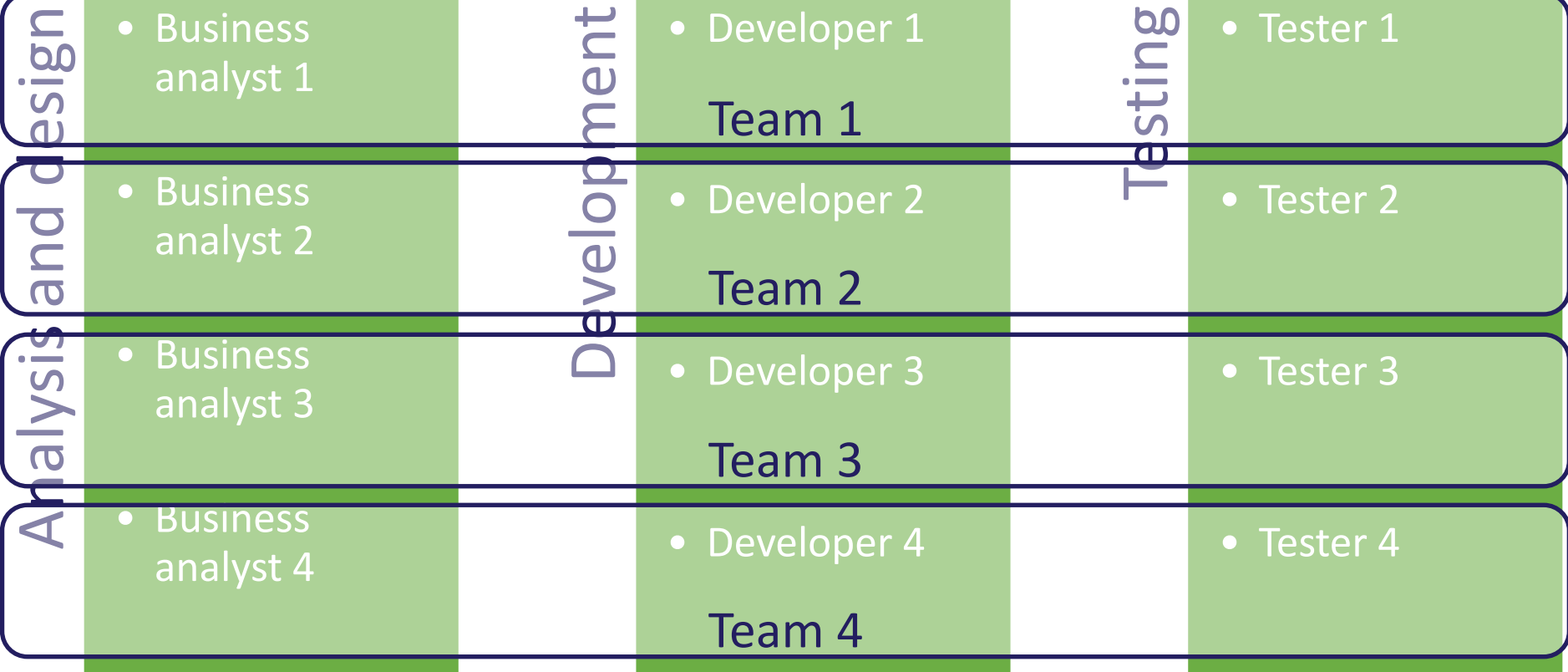
- Developer 1
- Developer 2
- Developer 3
- Developer 4



Testing

- Tester 1
- Tester 2
- Tester 3
- Tester 4

Agile teams



Teamwork

Structured

Divided by
specialisation

Scrum

Multi-
disciplinairy

Agile

Working
together

Teamwork

Structured

QA = Test

Scrum

QA = Team

Agile

QA = Whole
team effort

Teamwork

- Respect and trust each other
- Commitment as a team
 - Work towards a team goal
- Help each other where possible
- Evaluate and improve often



Test management

What to manage?



Test management

Structured

Rigid
management
by the test
manager

Scrum

Some level
of direction

Test
manager?

Agile

Self-
managing
teams &
Agile test
manager

Test management

Structured

Project view

Scrum

Sprint view

Agile

Multilevel
view

Test management

- People management
 - Provide people for the teams
 - Coach and train the people
 - Agile and the used method (mostly Scrum)
 - Testing
 - Facilitate knowledge sharing



Test management

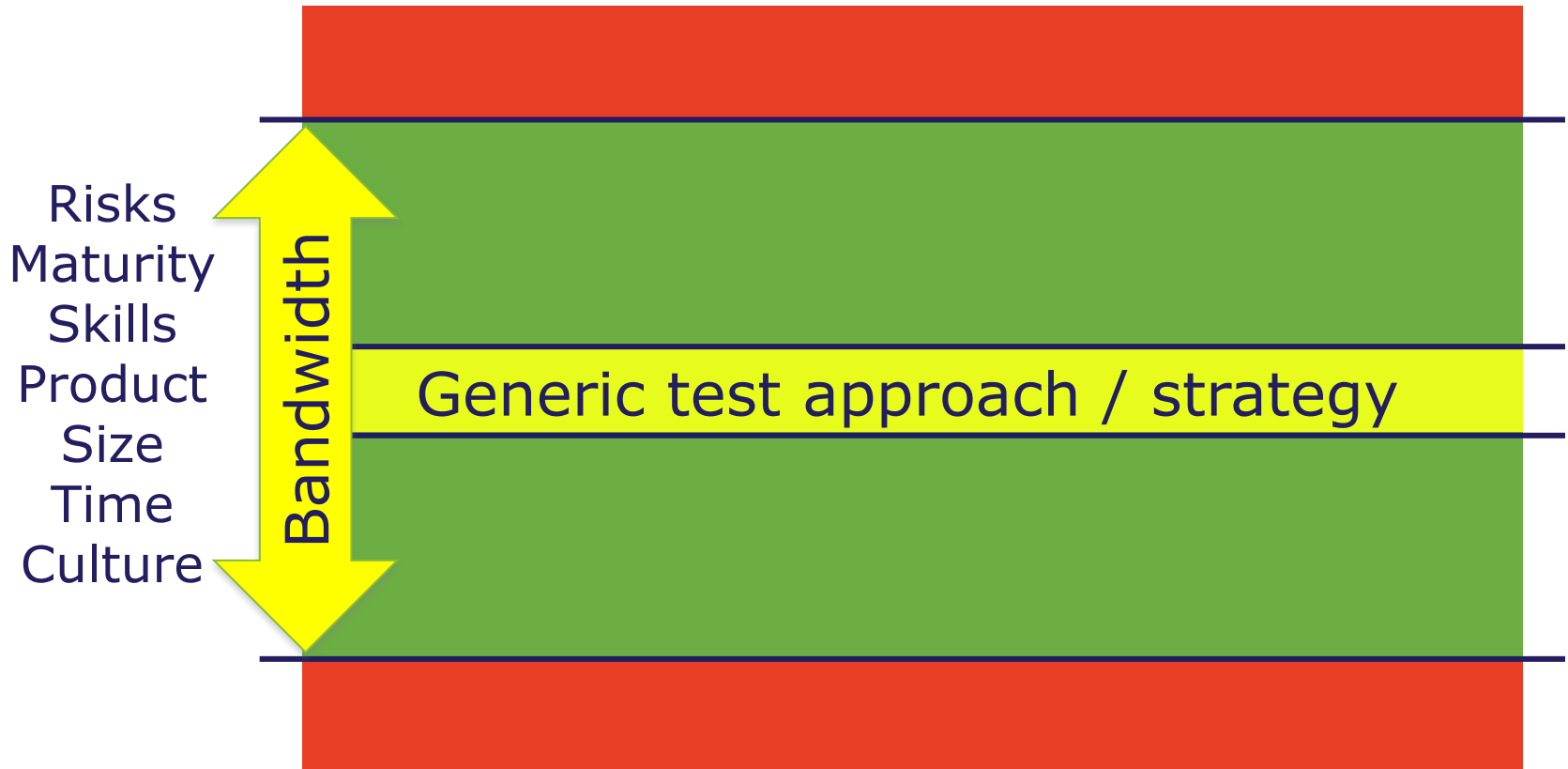
- People management
 - Provide people for the teams
 - Coach and train the people
 - Agile and the used method (mostly Scrum)
 - Testing
 - Facilitate knowledge sharing
- Generic test approach / strategy
- Release planning
- Keep the big picture (helicopter view)



Generic test approach / strategy

- Training and coaching
- Defect management
- Risk analysis
- Non-functionals
- E2E testing
- Tooling and automation
- Environment management
- Metrics and reporting
- ...

Generic test approach / strategy



Defect management

“Defect tracking is a form of waste ... ”



Defect management

Structured

Log to
communicate

Scrum

Less logging,
more
face-to-face
communi-
cation

Agile

Log when
needed

Defect management

- Factors that influence whether a defect is recorded and if so, the amount of information that needs to be recorded:
 - Co-location
 - Maturity of team
 - Number of defects
 - Organisational influence
 - Drive for metrics
 - Size of development
 - Complexity of development



Example assessment result

Key Area	Structured				Scrum				Agile			
Stakeholder commitment	Blue	Blue	Blue	Red	Orange	Blue	Orange	Orange	Green	Green	Green	Green
Planning & Estimation	Blue	Red	Red	Red	Orange	Orange	Orange	Orange	Green	Green	Green	Green
People	Blue	Blue	Blue	Red	Orange	Orange	Orange	Orange	Green	Green	Green	Green
Interaction	Blue	Blue	Red	Red	Orange	Orange	Orange	Orange	Green	Green	Green	Green
Teamwork	Blue	Red	Red	Red	Orange	Orange	Orange	Orange	Green	Green	Green	Green
Test process	Blue	Blue	Red	Red	Orange	Orange	Orange	Orange	Green	Green	Green	Green
Test management	Blue	Red	Red	Red	Orange	Orange	Orange	Orange	Green	Green	Green	Green
Test profession	Blue	Blue	Blue	Red	Orange	Orange	Blue	Orange	Green	Green	Green	Green
Test automation	Blue	Blue	Red	Red	Blue	Blue	Orange	Orange	Green	Green	Green	Green
Regression & E2E testing	Blue	Blue	Red	Red	Orange	Orange	Orange	Orange	Green	Green	Green	Green
Defect management	Blue	Blue	Blue	Blue	Blue	Blue	Orange	Orange	Green	Green	Green	Green
Test environment	Blue	Blue	Red	Red	Orange	Orange	Orange	Orange	Green	Green	Green	Green

Questions

Key Area	Structured	Scrum	Agile
Stakeholder commitment			
Planning & Estimation			
People			
Interaction			
Teamwork			
Test process			
Test management			
Test profession			
Test automation			
Regression & E2E testing			
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