

Testing in DevOps – What is new and different?

Klaudia Dussa-Zieger, JFTL, Paris, 14.06.2022

14ème édition
de la

**Journée
Française
des Tests
Logiciels**

Development + Operations = DevOps

What is typically associated with DevOps?

- Continuous Integration/Continuous Delivery
 - Continuous Deployment
 - Delivery Pipeline
 - Tools
 - Tools
- ... and even more tools!



Not the subject of this presentation 😊

CLOUD NATIVE Landscape
This landscape is intended as a map through the previously uncharted terrain of cloud native technologies. There are many routes to deploying a cloud native application, with CNCF Projects representing a particularly well-traveled path.
l.cncf.io

<https://landscape.cncf.io/?fullscreen=yes>

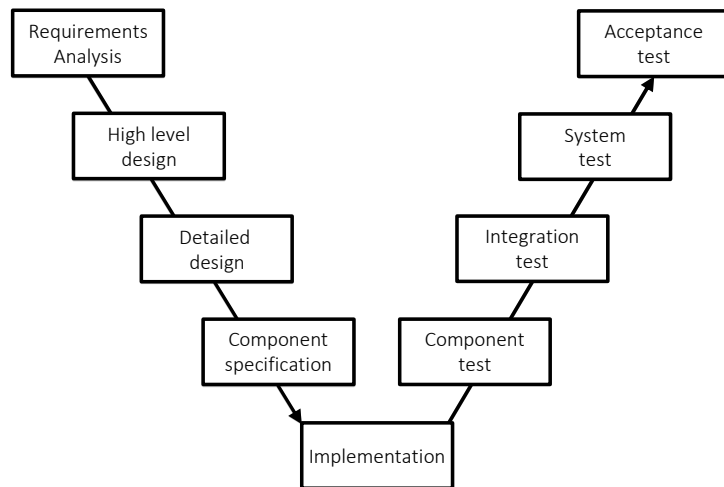
DevOps

Not only tools but so much more!

- Collaboration between development and operations
- Provision of small increments
- Better time to market
- Quality from the beginning
- Continuous learning and improvement through monitoring of production
- Testing is not a phase but an activity,
that needs to be continuously executed during development and operations!
→ Continuous Testing

Testing

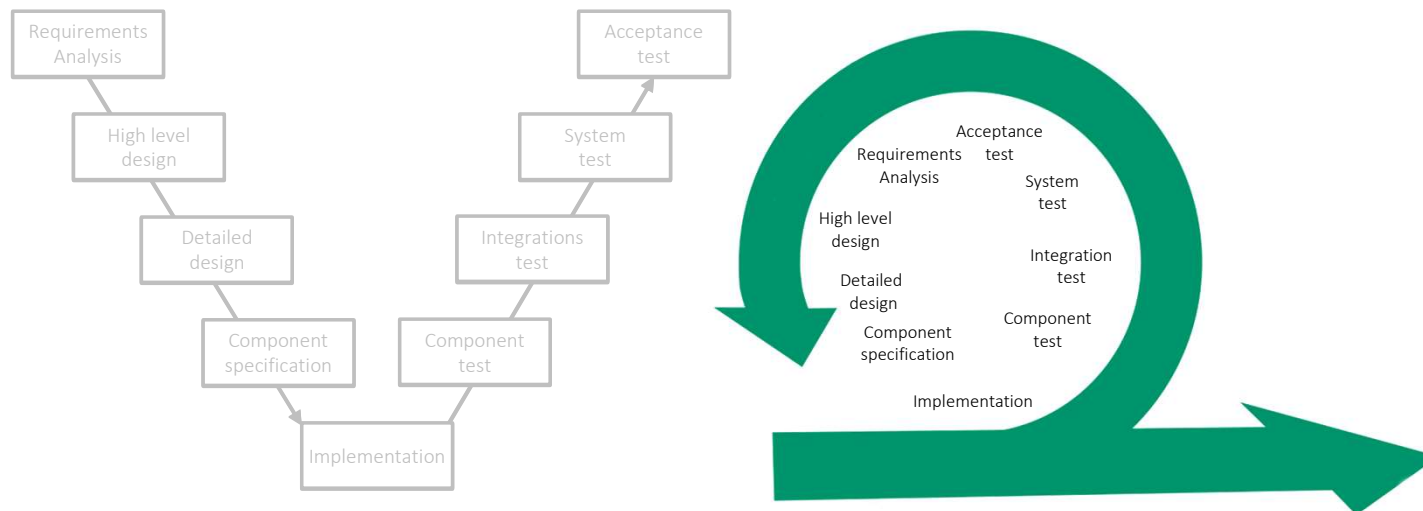
in the V-model ...



- 1979: V-Modell of B. Boehm

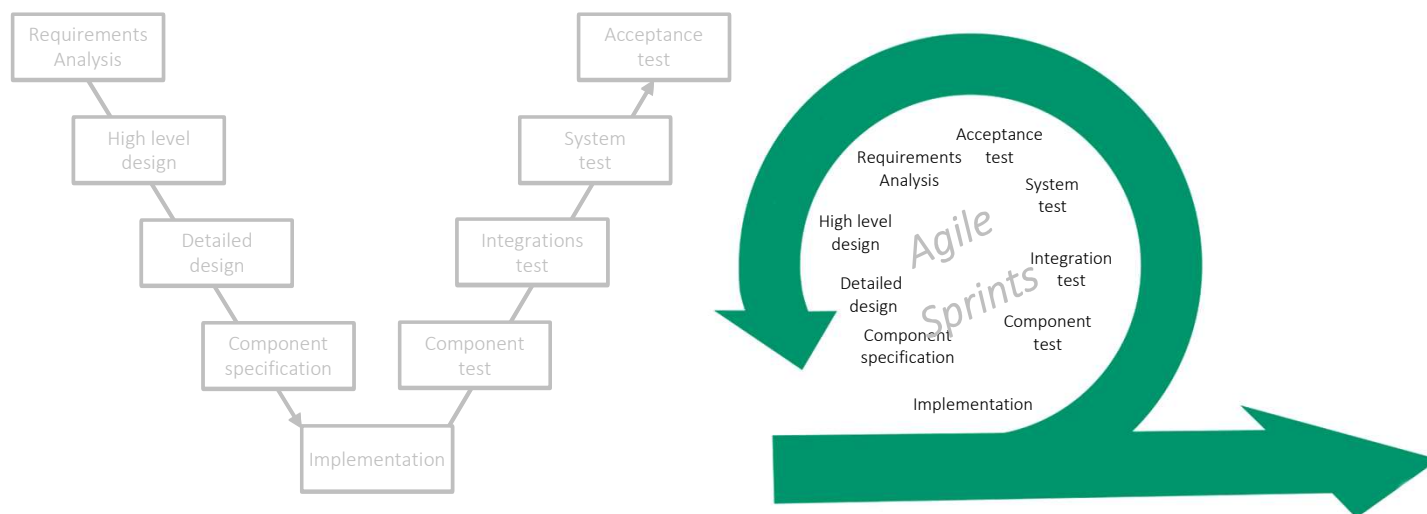
Testing

... in agile development



Testing

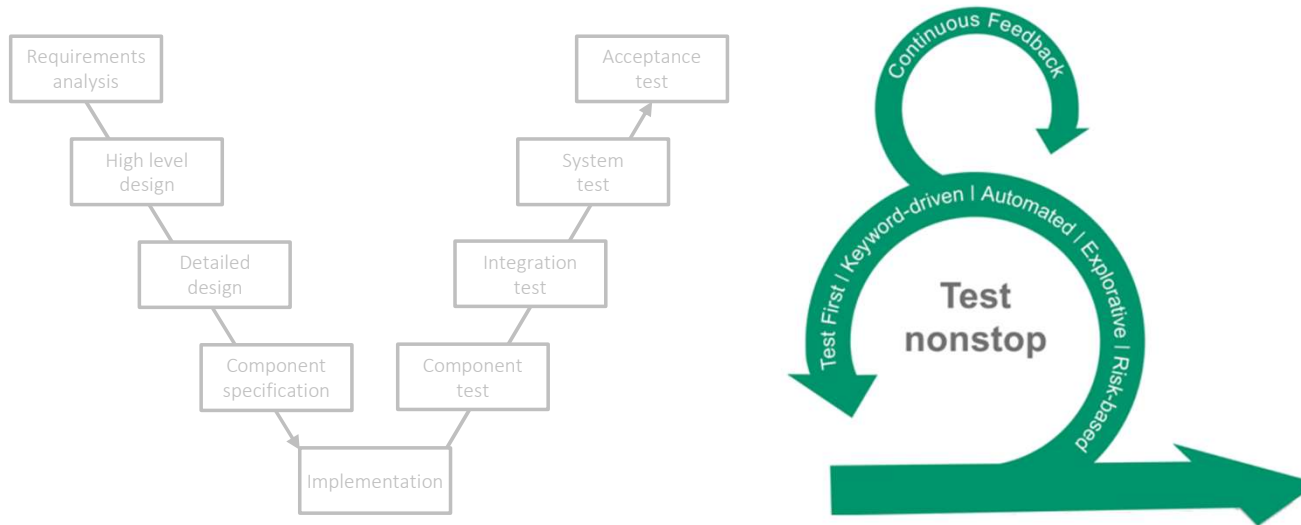
... in agile development



- 2001: Agile Manifesto

Testen

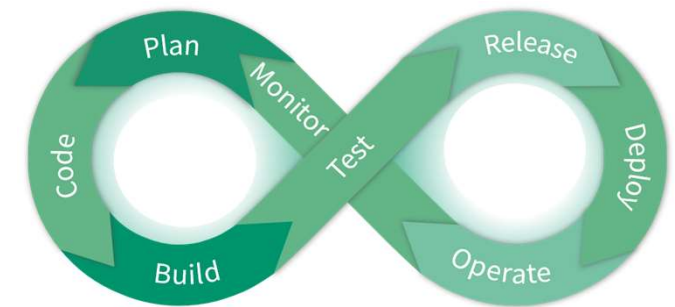
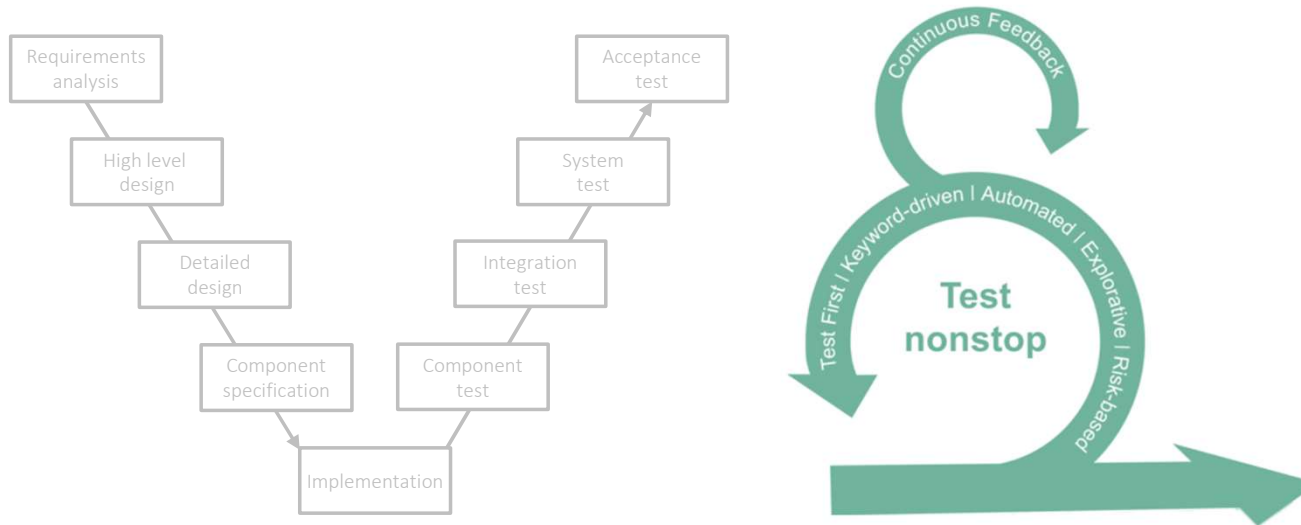
... in agile development with more speed



- Continuous test automation gains in importance

Testing

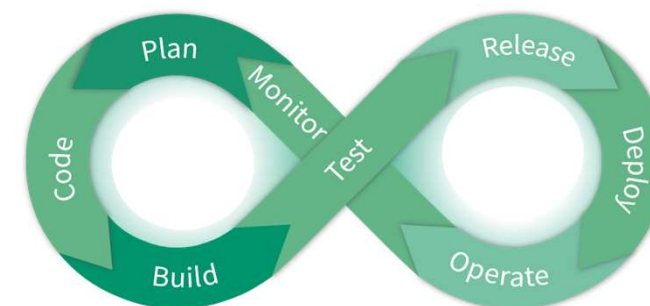
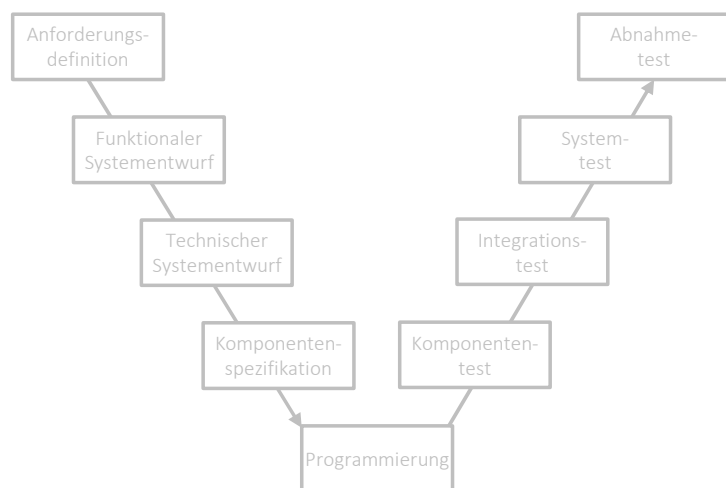
... during development and operations => DevOps



- 2009: DevOps is coined

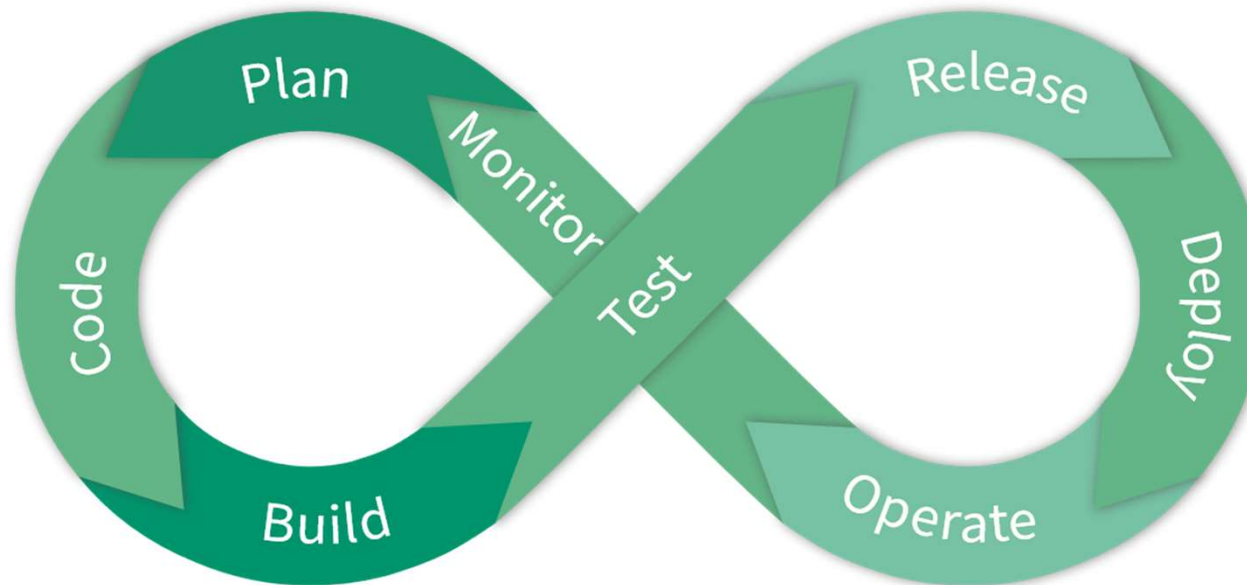
Testen

... during development and operations => DevOps



- Continuous Testing in entire life cycle

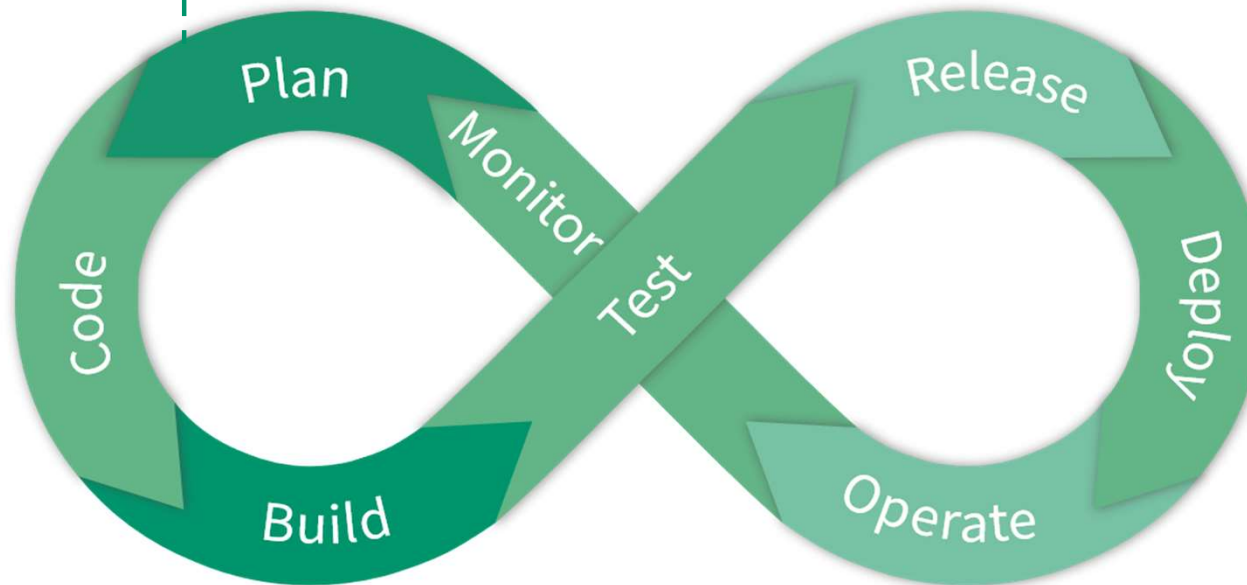
Continuous Testing in DevOps



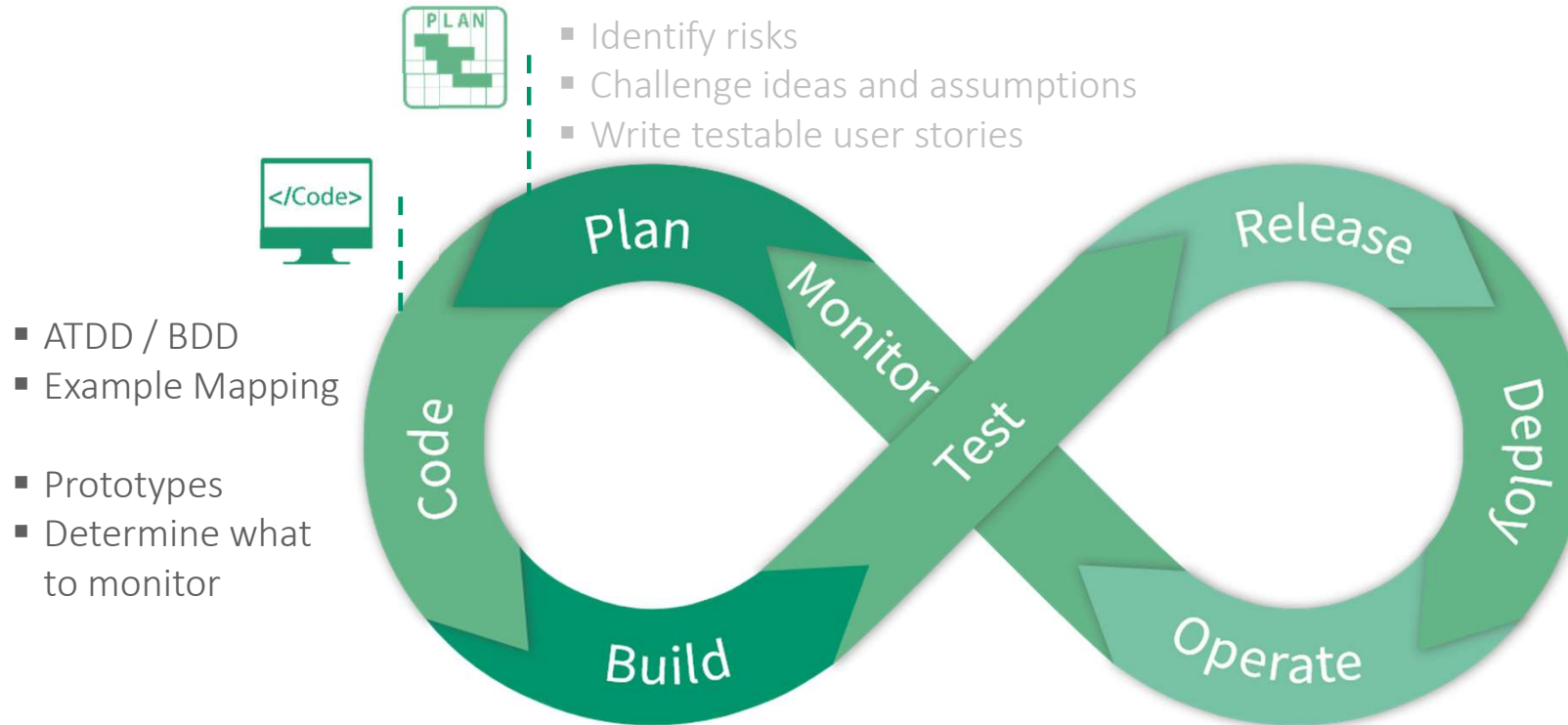
Test activities



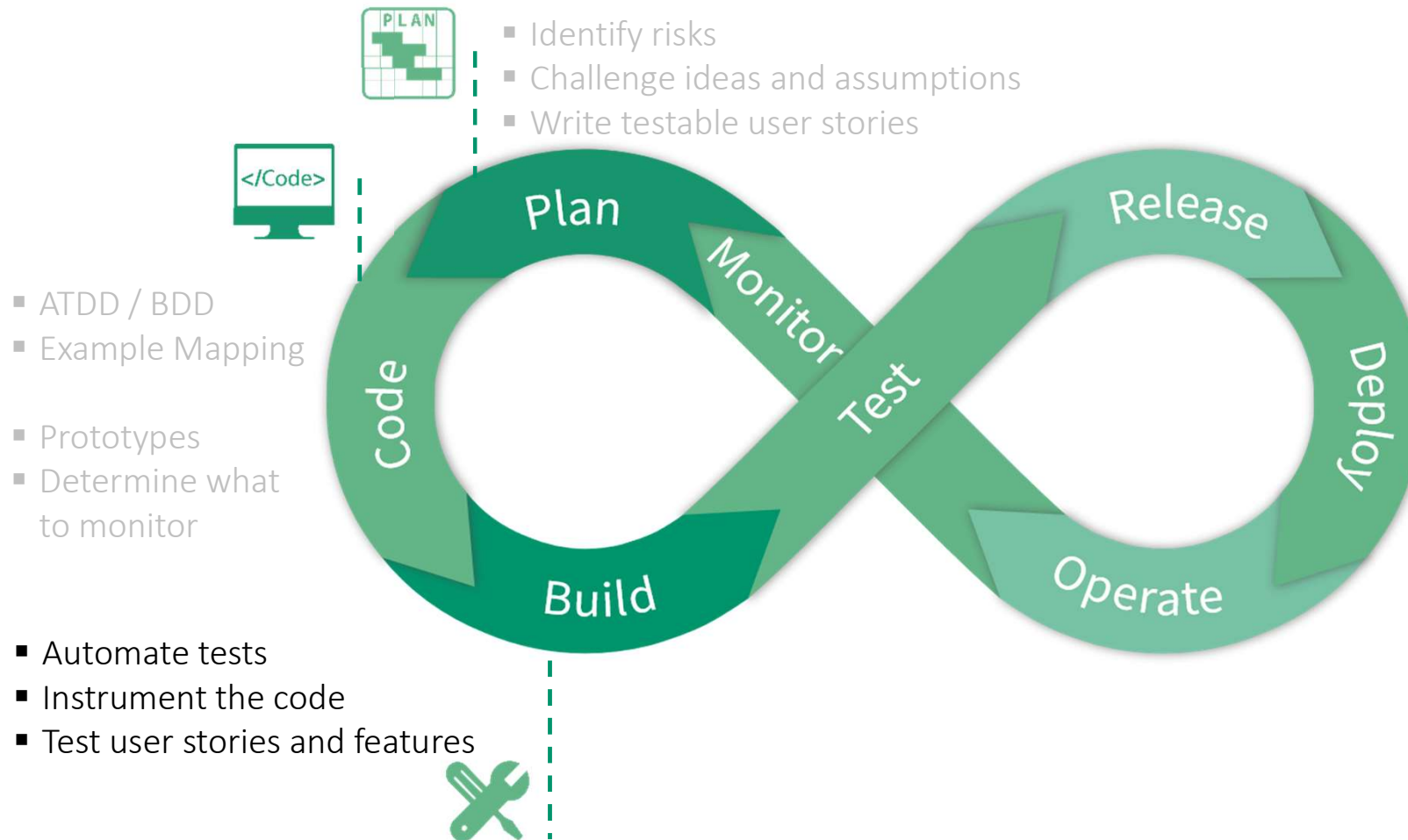
- Identify risks
- Challenge ideas and assumptions
- Write testable user stories



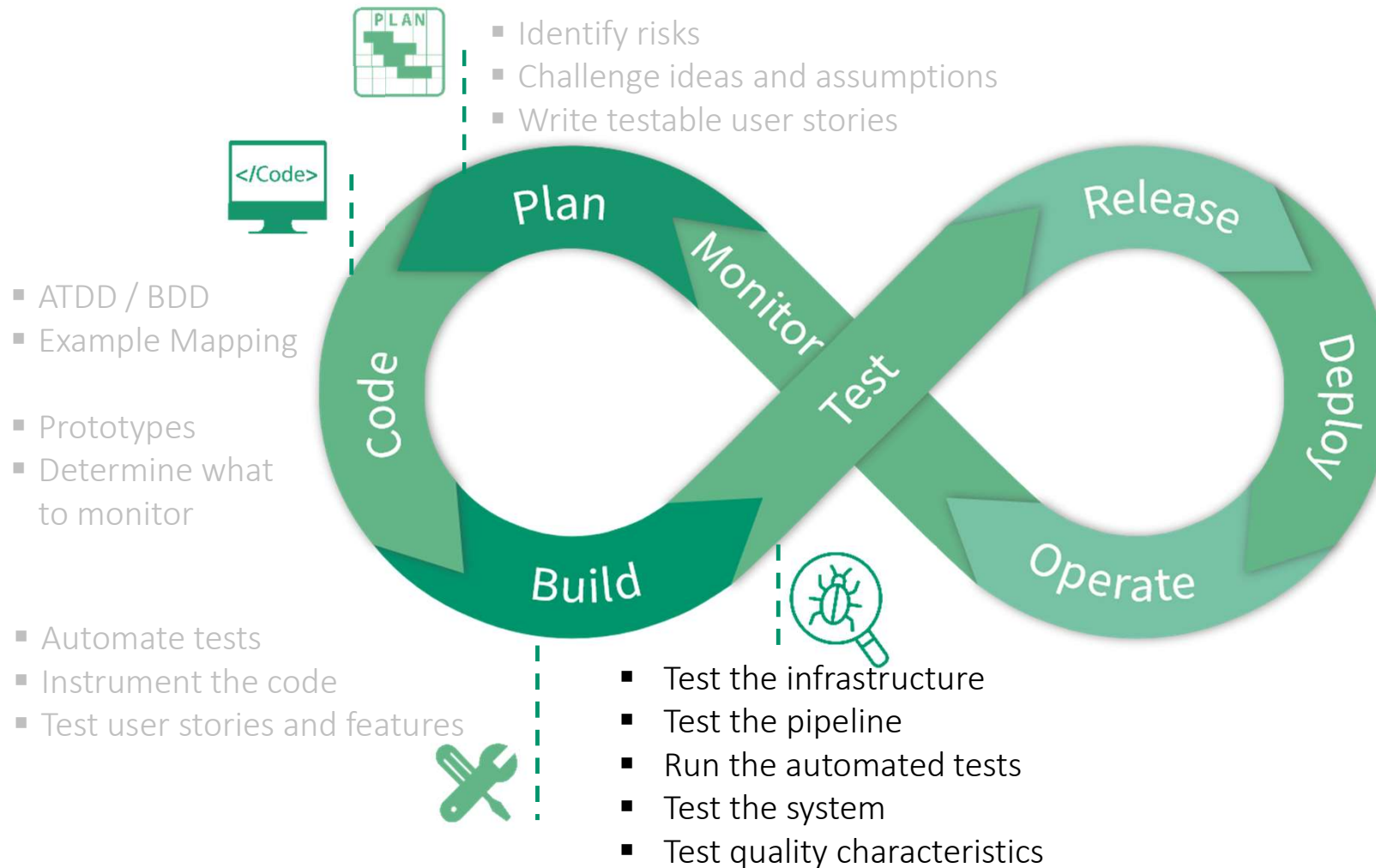
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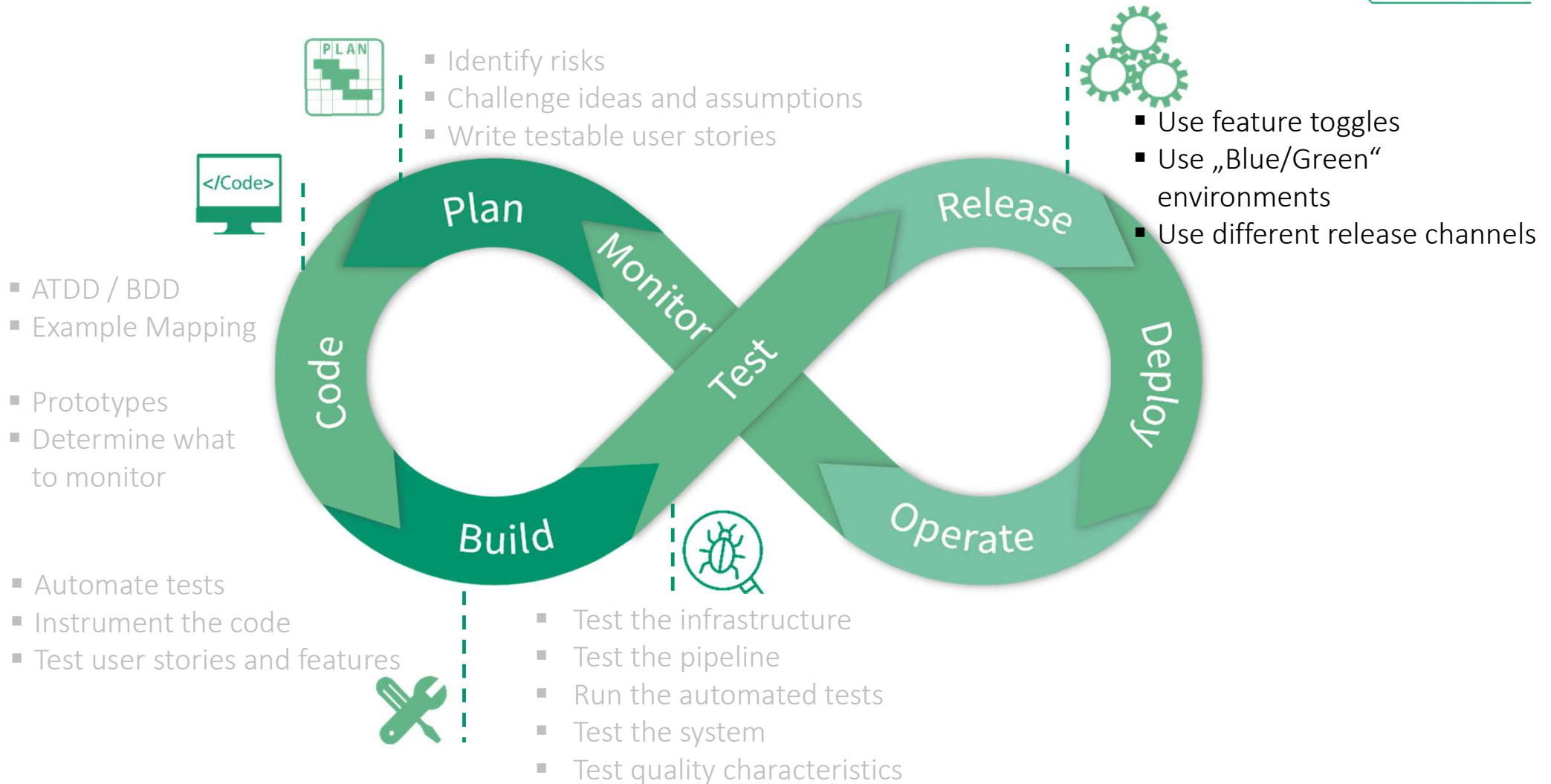
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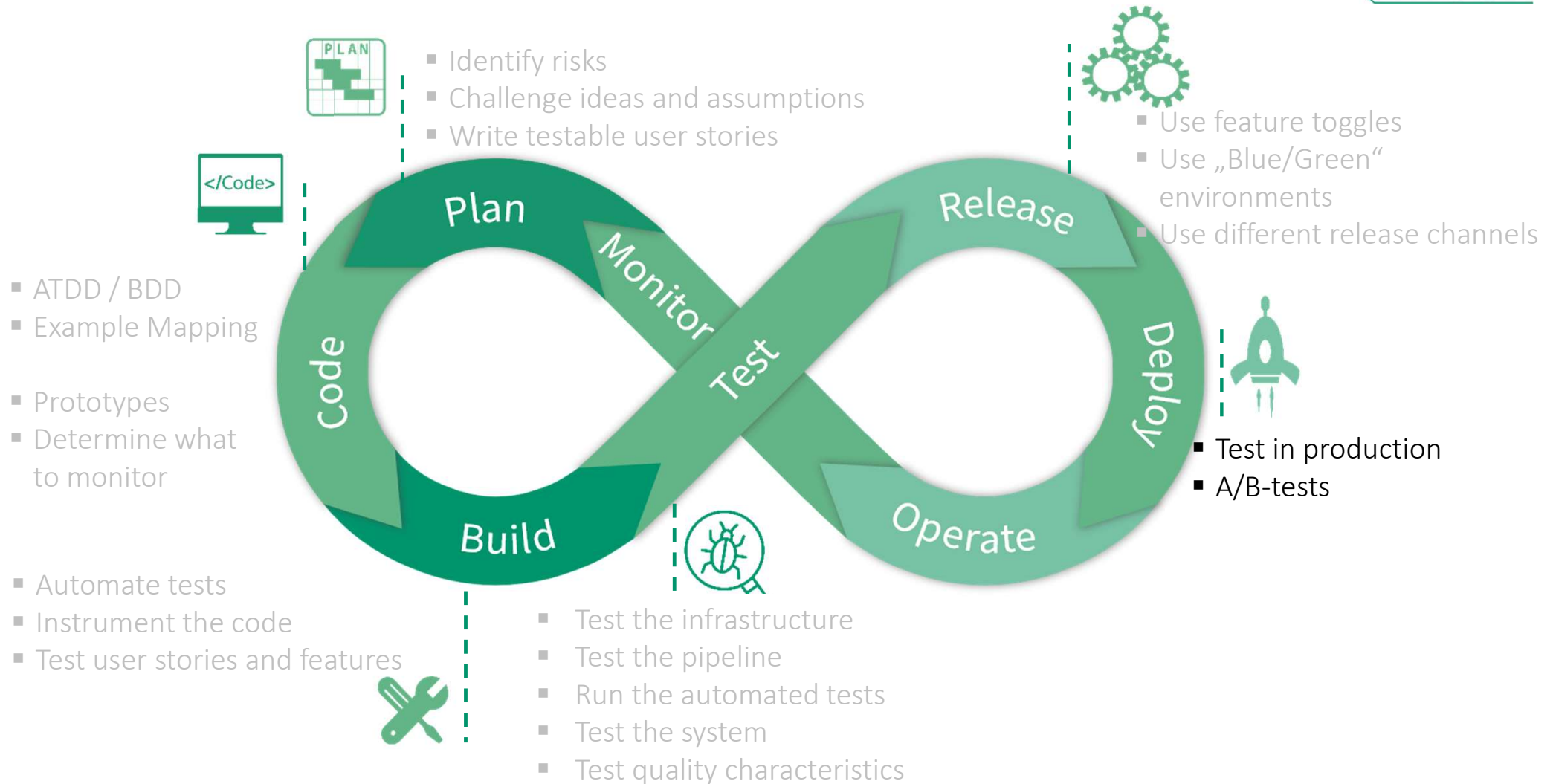
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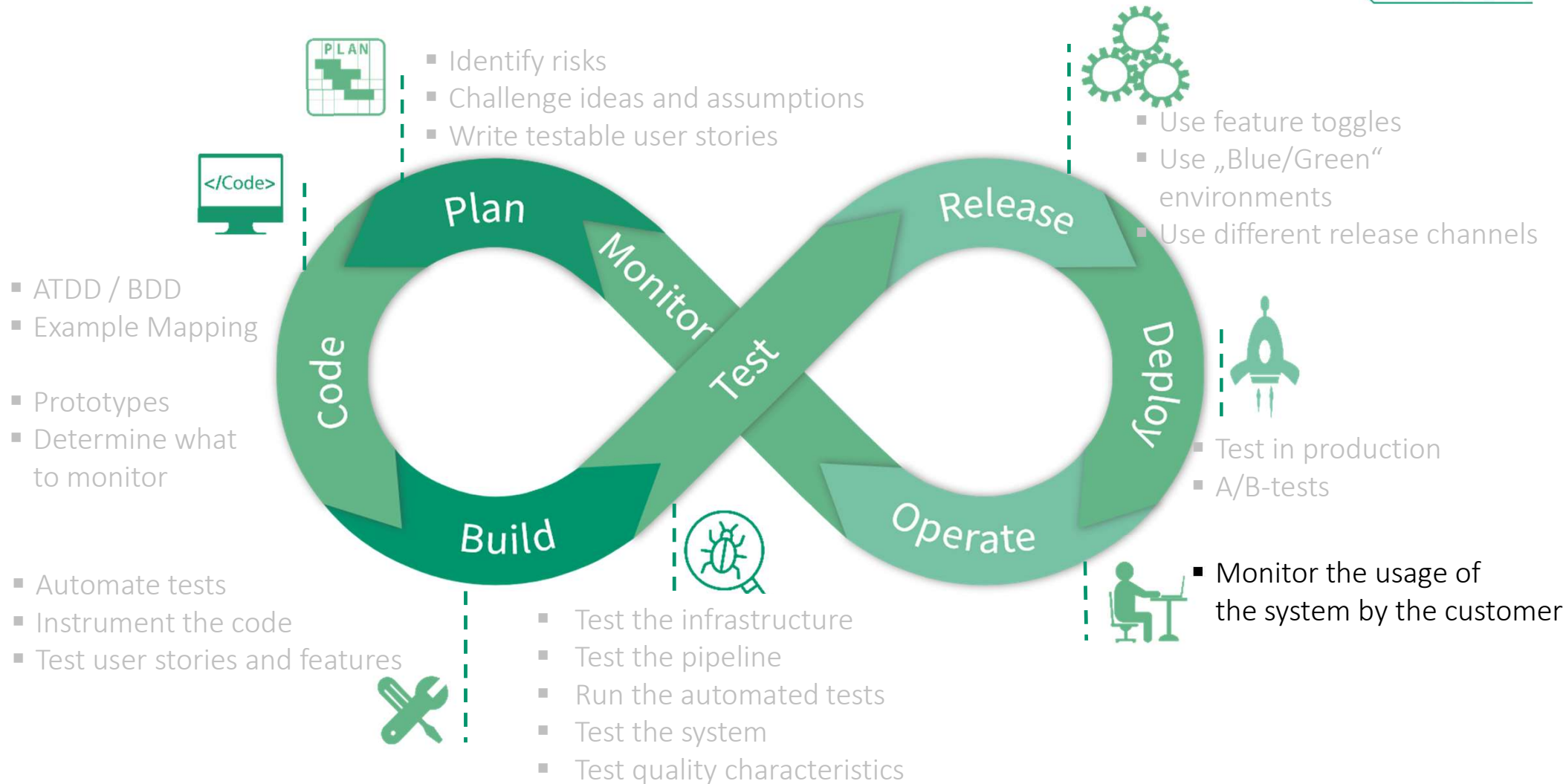
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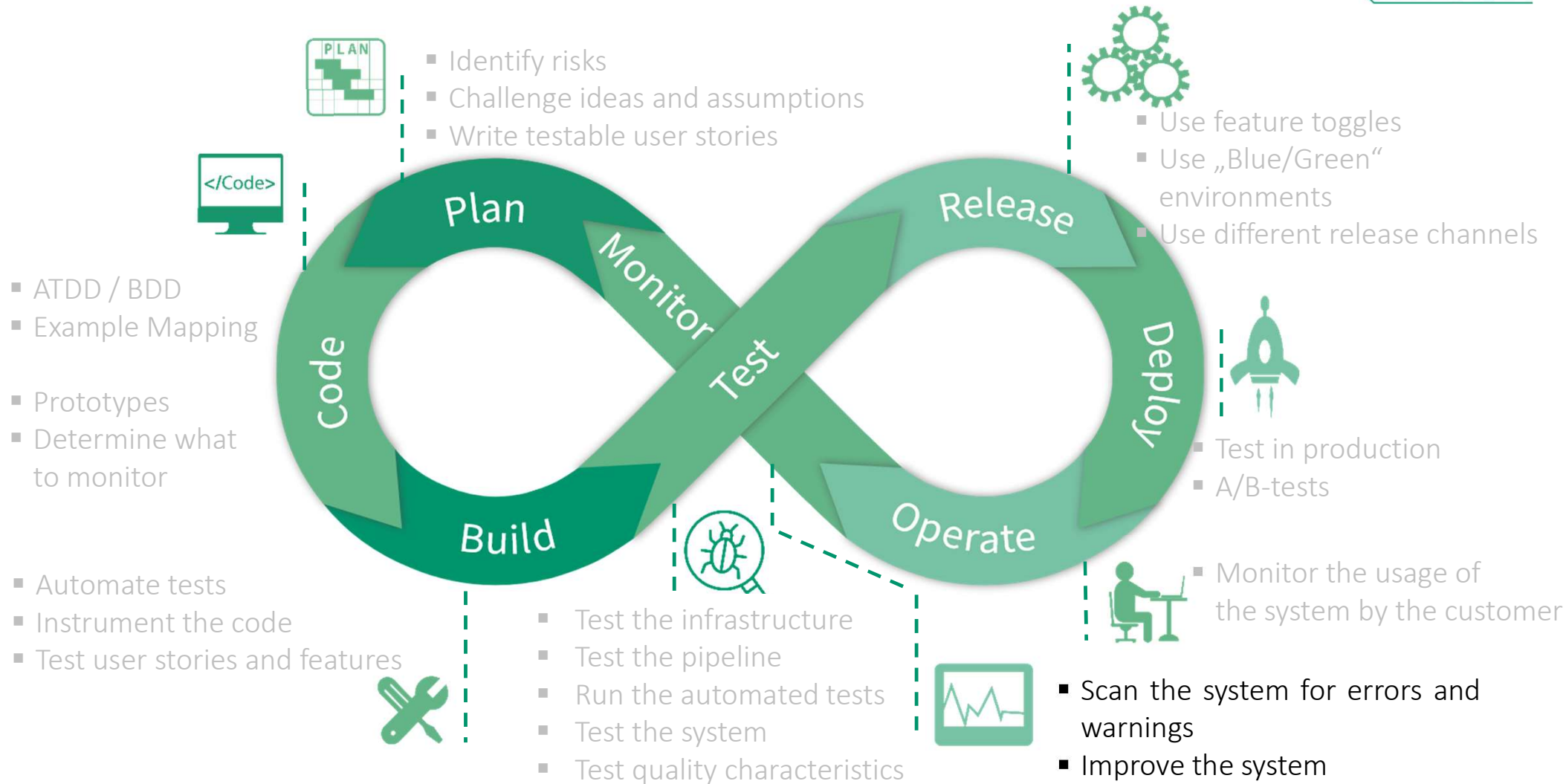
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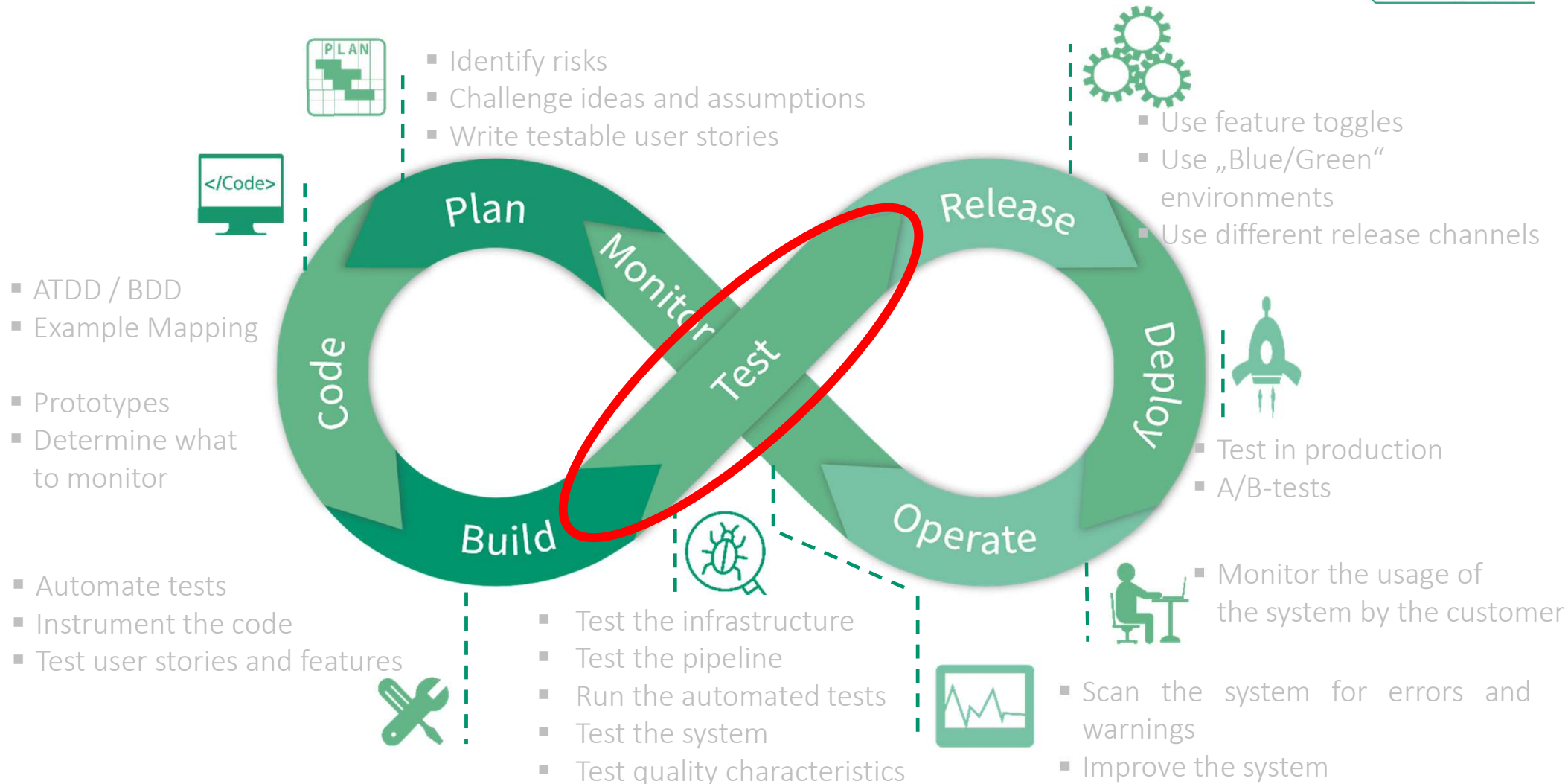
Test activities



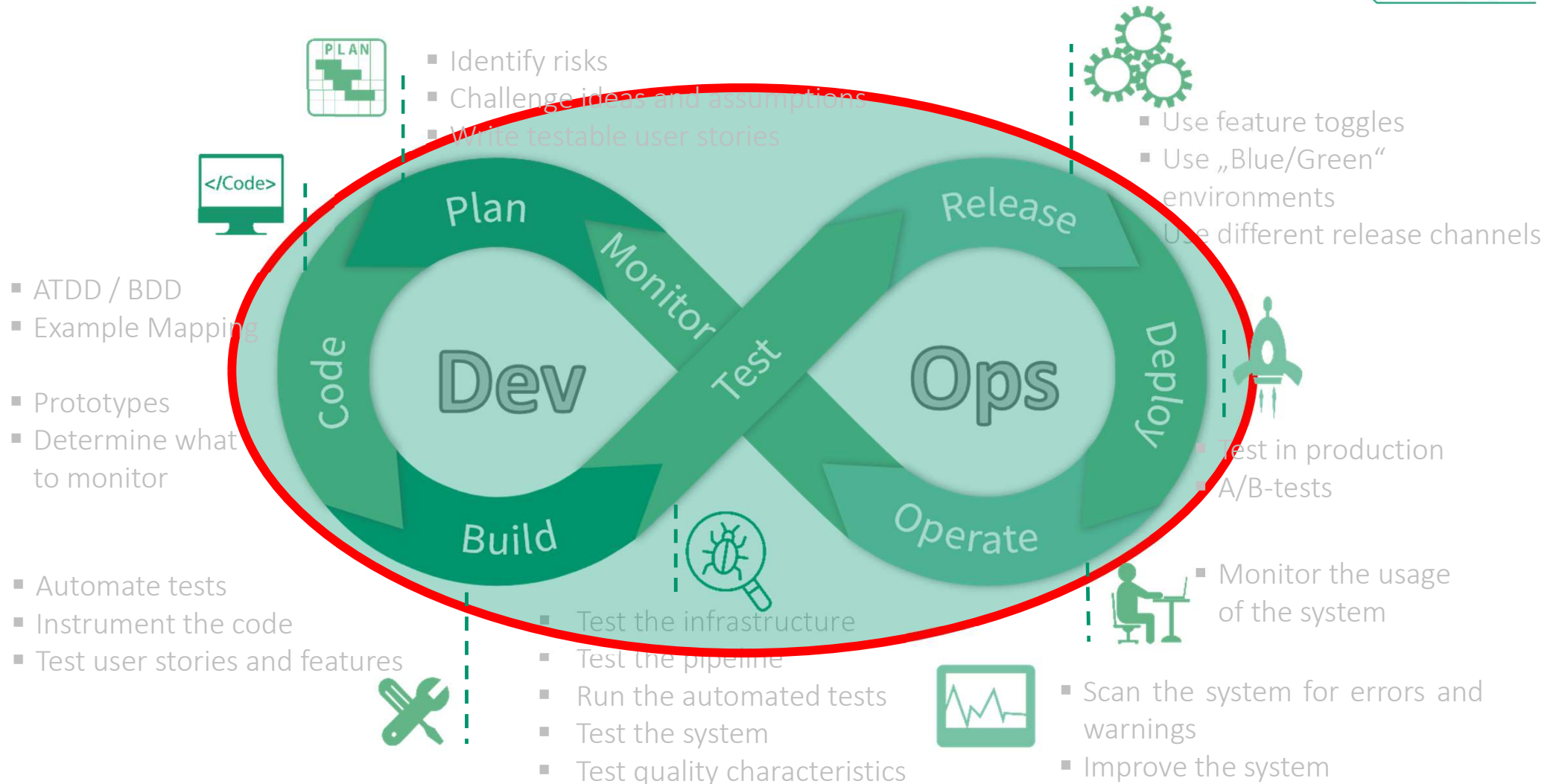
Test activities



„Traditional“ testing forms the core



Continuous Testing as „silver bullet“



Summary

Good basis

- a lot of approaches/techniques known from testing in the V-model still apply
- the same holds for agile testing

... and testing evolves

- new approaches/techniques are developed
- the scope of testing expands to operations
- continuous learning and improvement through observation of product usage

Summary

Mindset and Skills of a tester need to expand

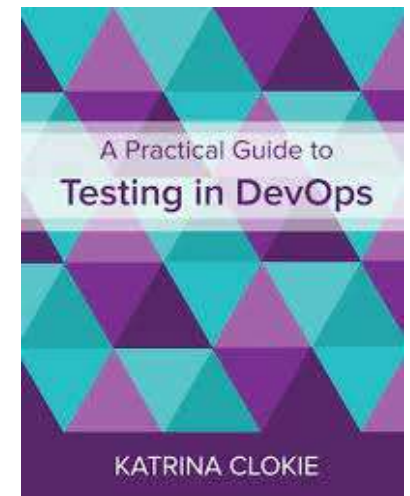
- Analysis of business ideas and risk analysis
- Modelling of requirements (ATDD, BDD)
- Knowhow in continuous integration / continuous delivery
- Monitoring in production
- Monitoring of the usage of the product and its continuous improvement
- more tool knowhow
- and more team work!



Questions? Comments? Remarks?

Literature

- The Phoenix Project Phoenix – A novel about IT, DevOps, and Helping Your Business Win
Gene Kim, Kevin Behr, Georg Spafford, 2015
- The Kitty Hawk Venture: A Novel about Continuous Testing in DevOps to Support Continuous Delivery and Business Success
Jeffrey Scheaffer, Aruna Ravichandran, Alex Martin, 2018
- A Practical Guide to Testing in DevOps
Katrina Clokie, 2017
- Janet Gregory, Holistic Testing
<https://janetgregory.ca/testing-from-a-holistic-point-of-view/>



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