Testing in DevOps – What is new and different?

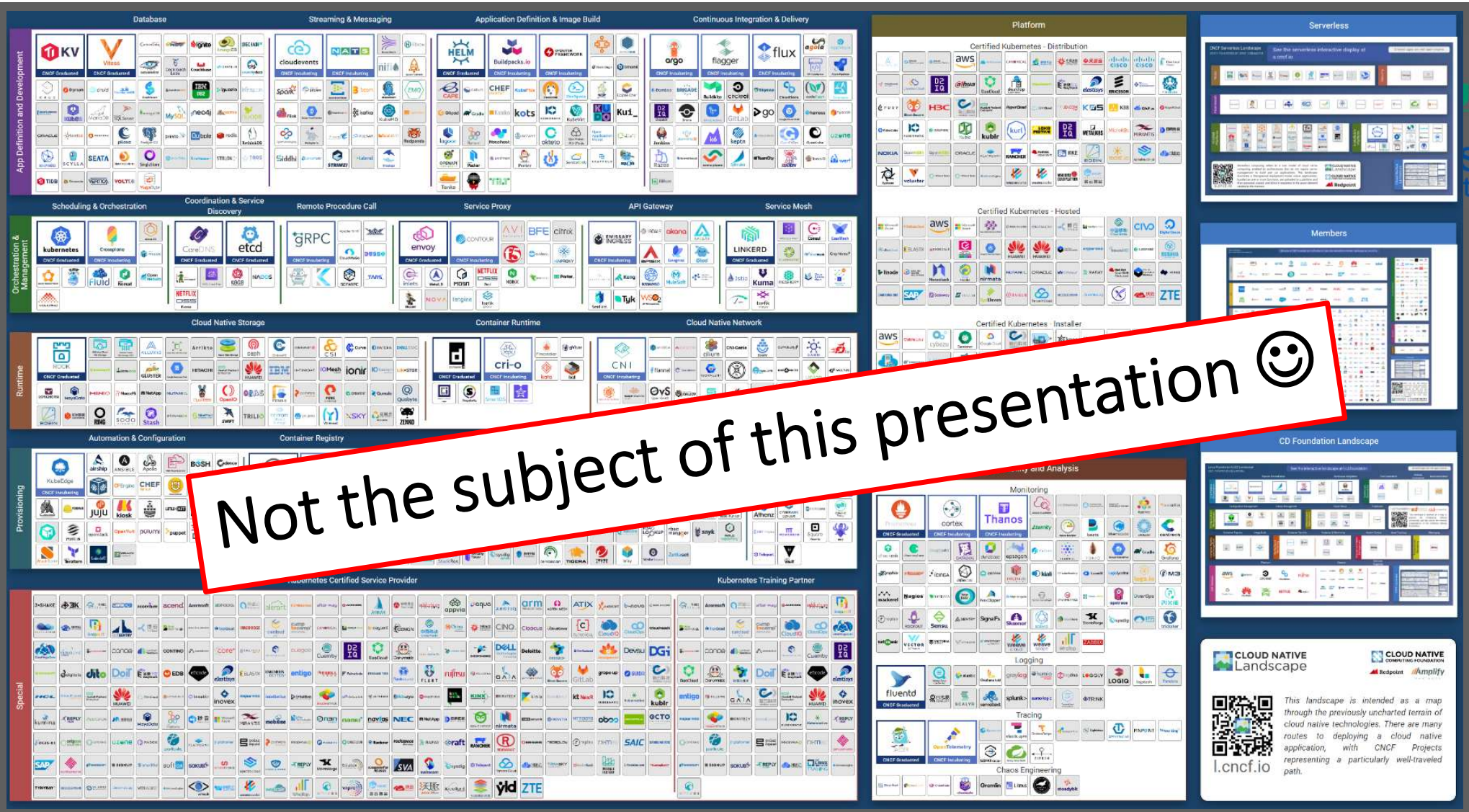
Klaudia Dussa-Zieger, JFTL, Paris, 14.06.2022

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 ☺

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DevOps

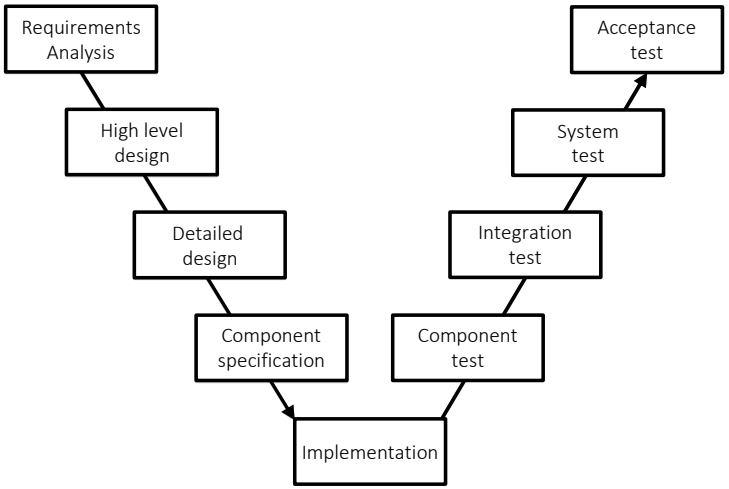
Not only tools but so much more!

- 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

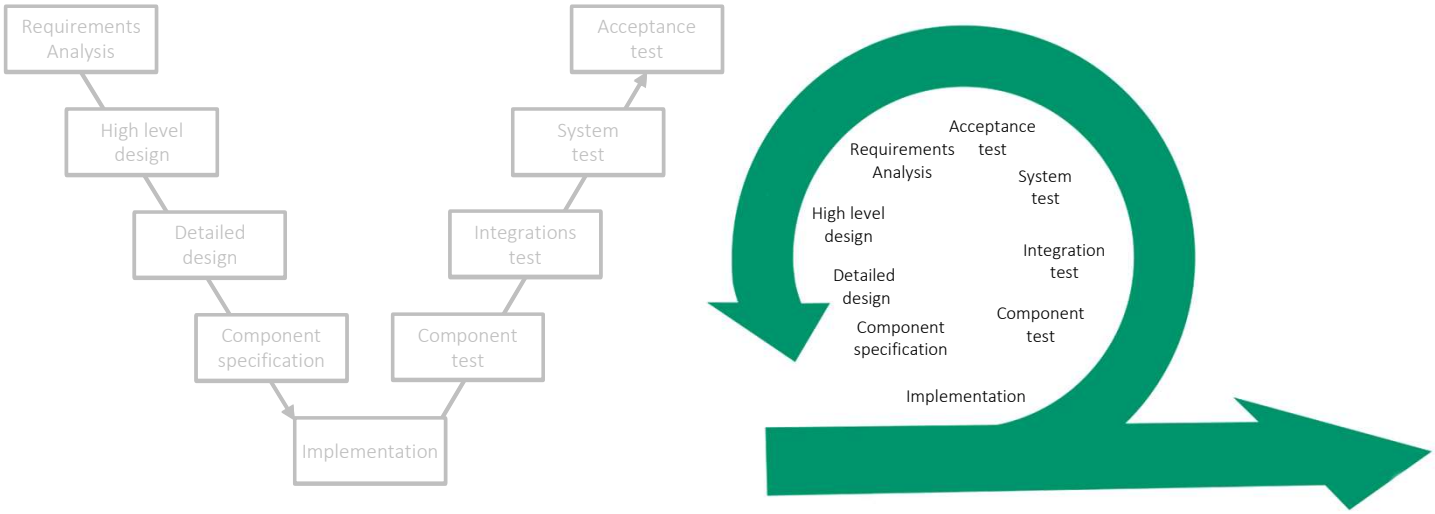
in the V-model …



- 1979: V-Modell of B. Boehm

Testing

… in agile development



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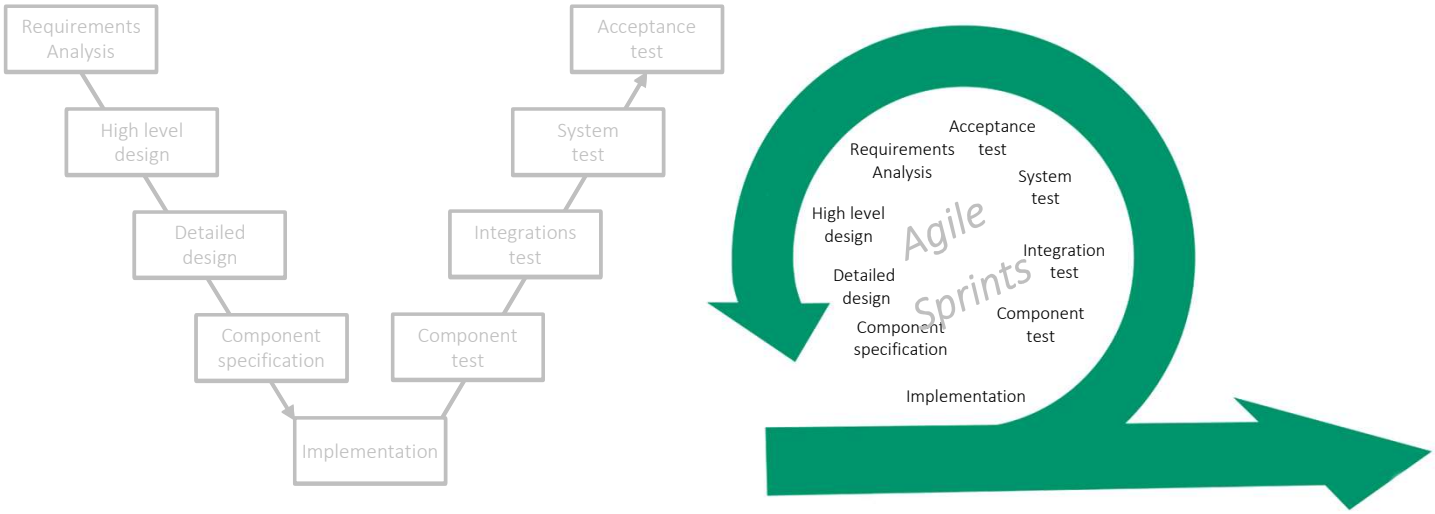
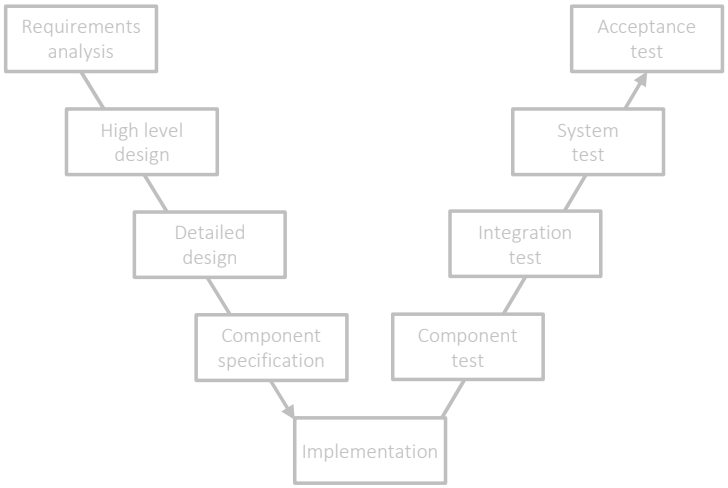
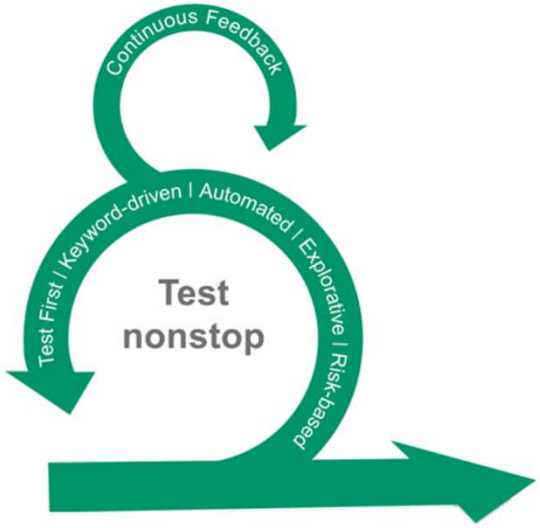


- 2001: Agile Manifesto

Testen

… in agile development with more speed

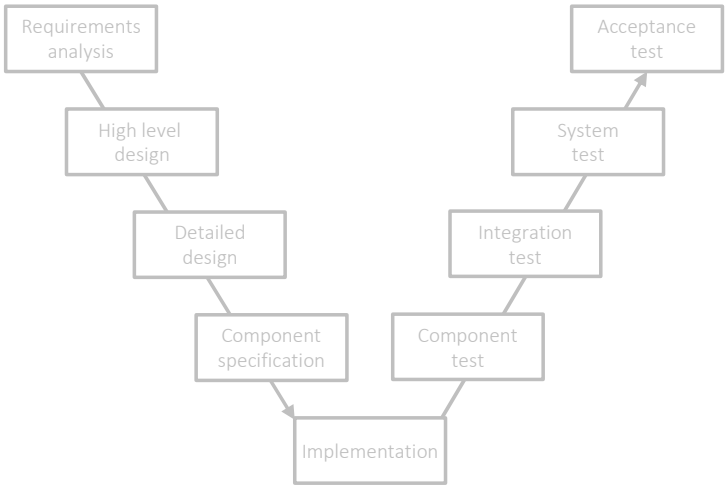


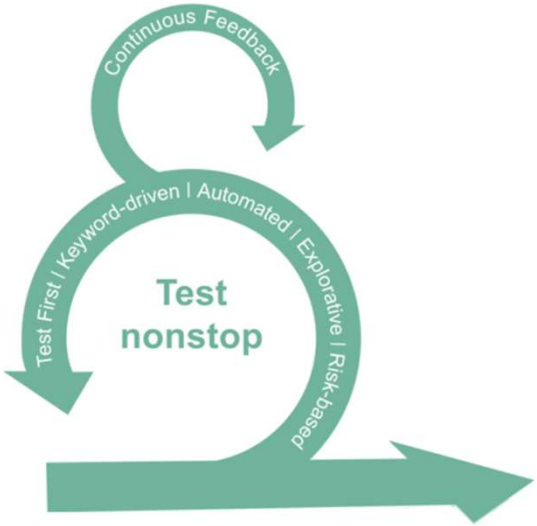


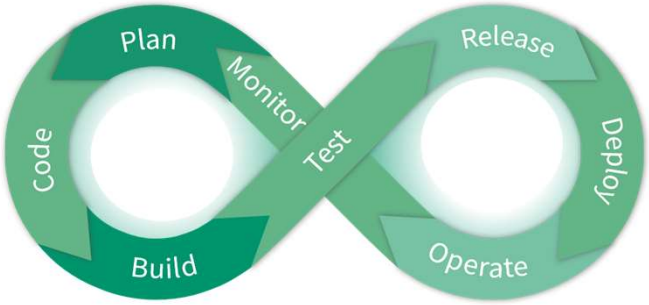
- Continuous test automation gains in importance

Testing

… during development and operations => DevOps







- 2009: DevOps is coined

Testen

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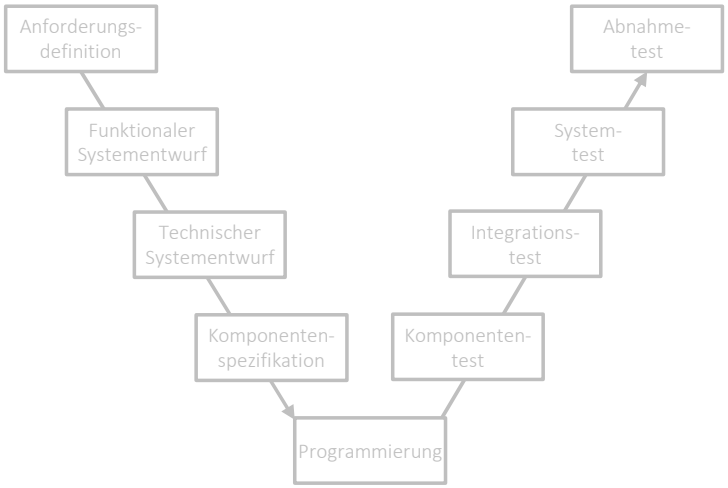
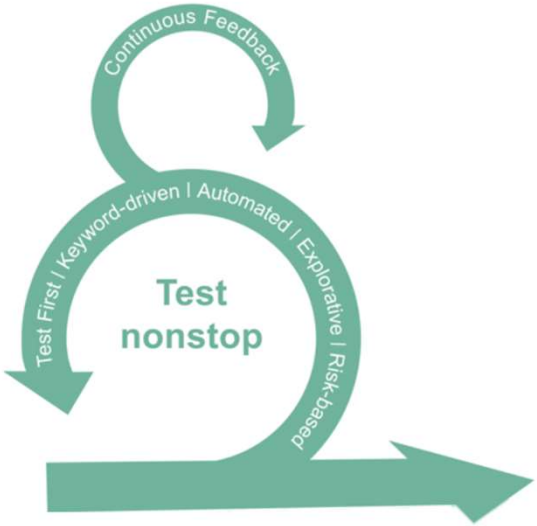
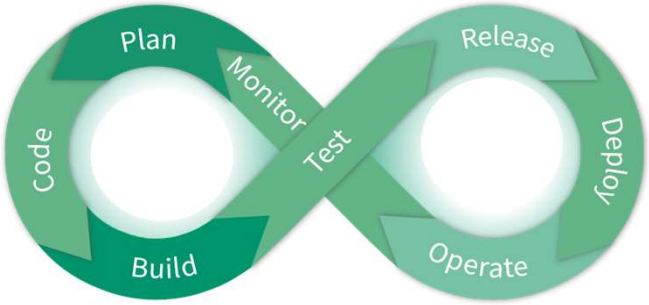
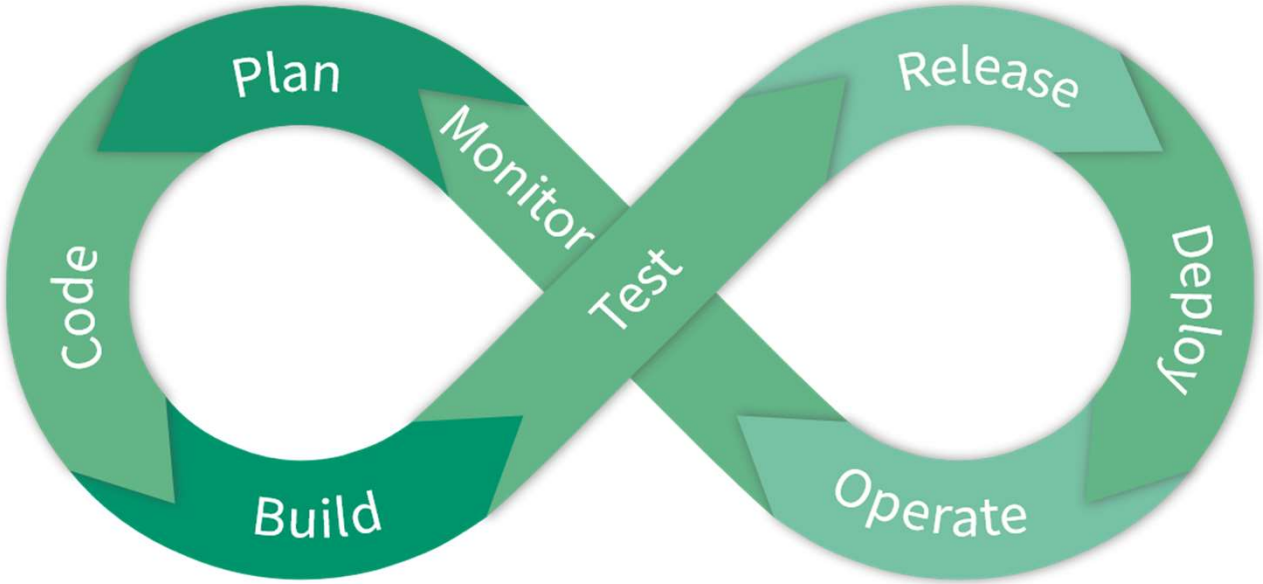




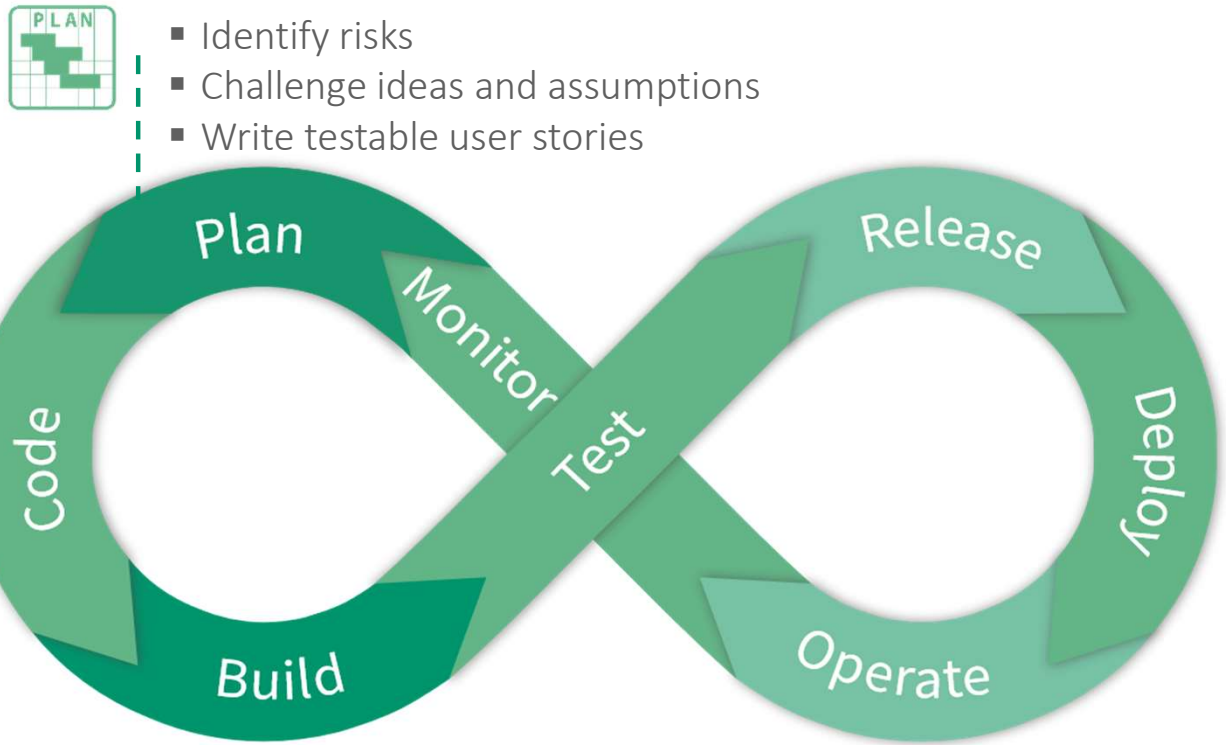


- Continuous Testing in entire life cycle

Continuous Testing in DevOps



Test activities



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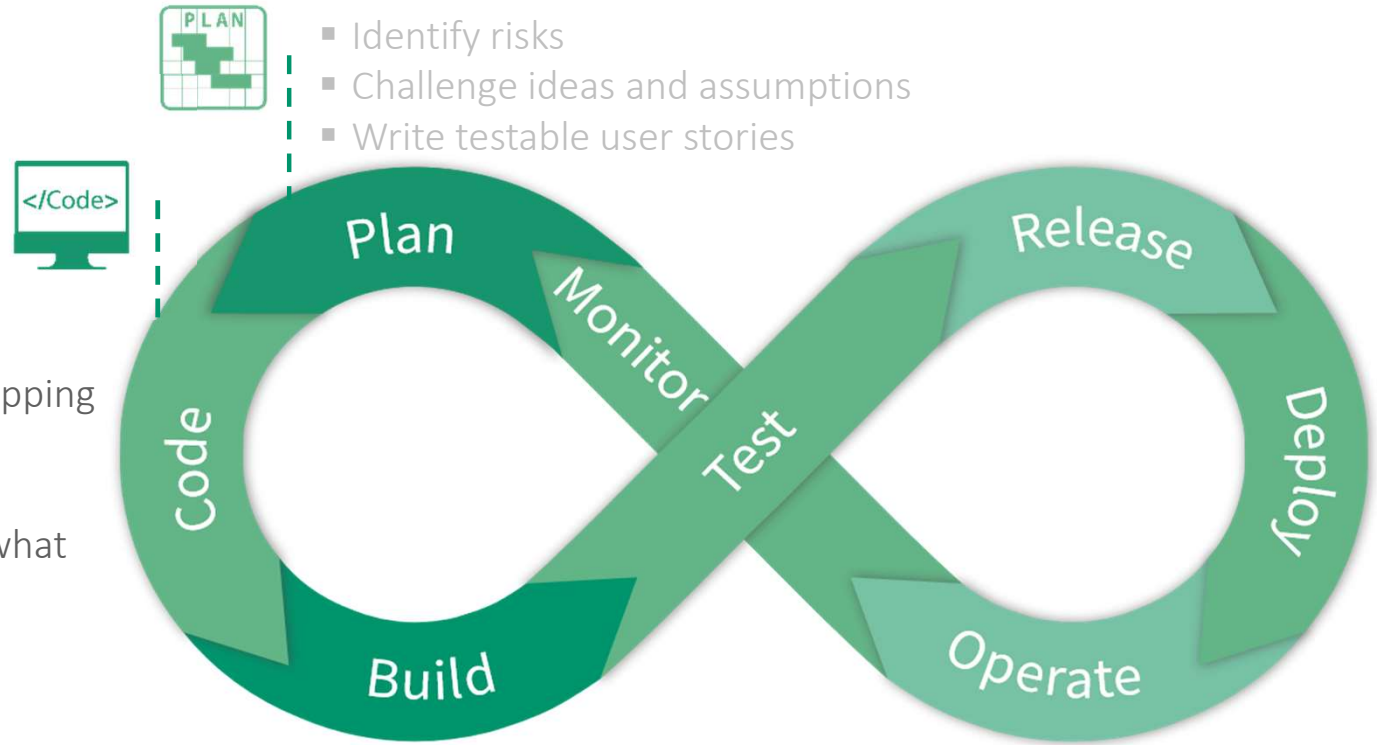

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- Challenge ideas and assumptions
- Write testable user stories

- ATDD / BDD
- Example Mapping

- Prototypes
- Determine what to monitor

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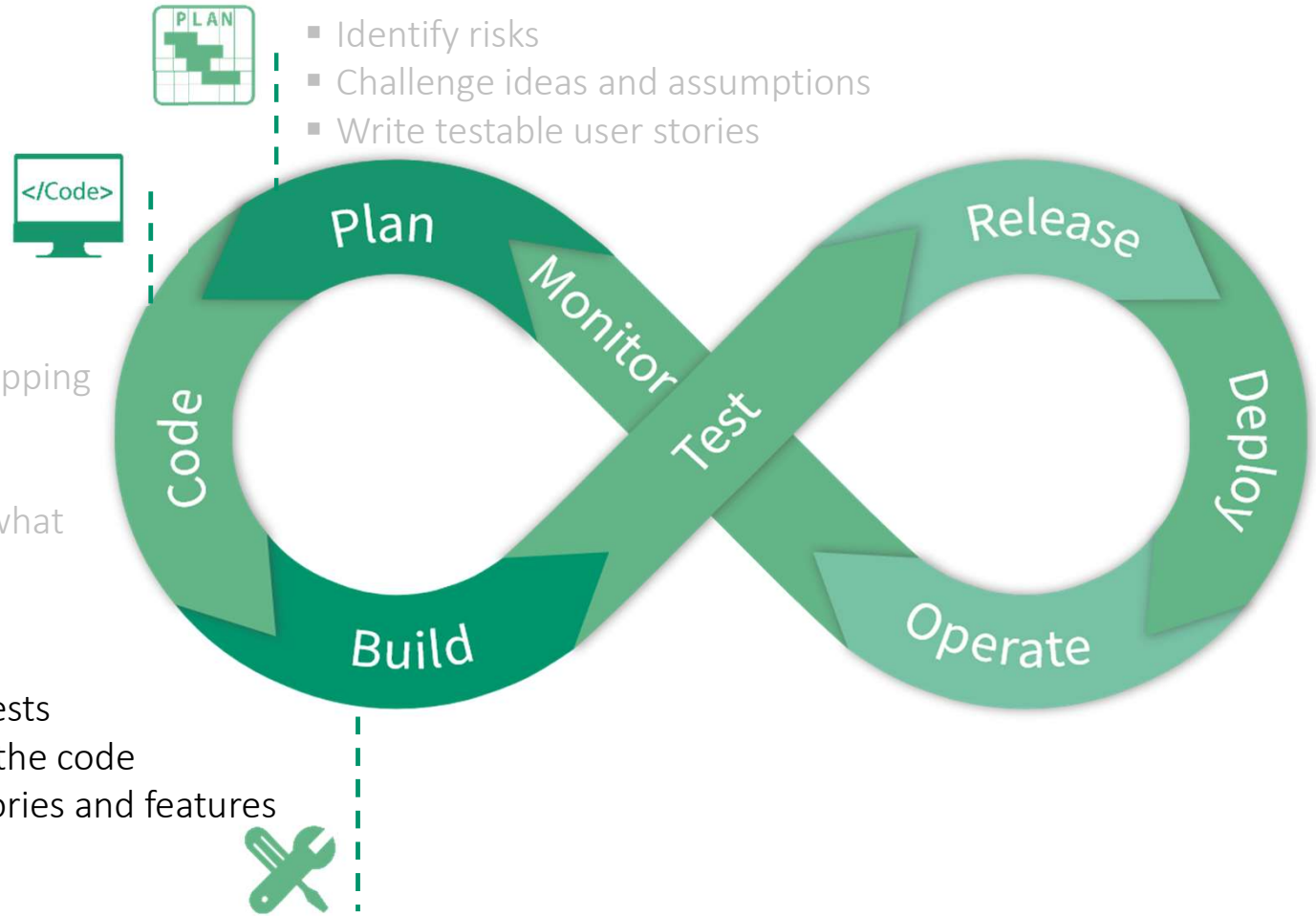

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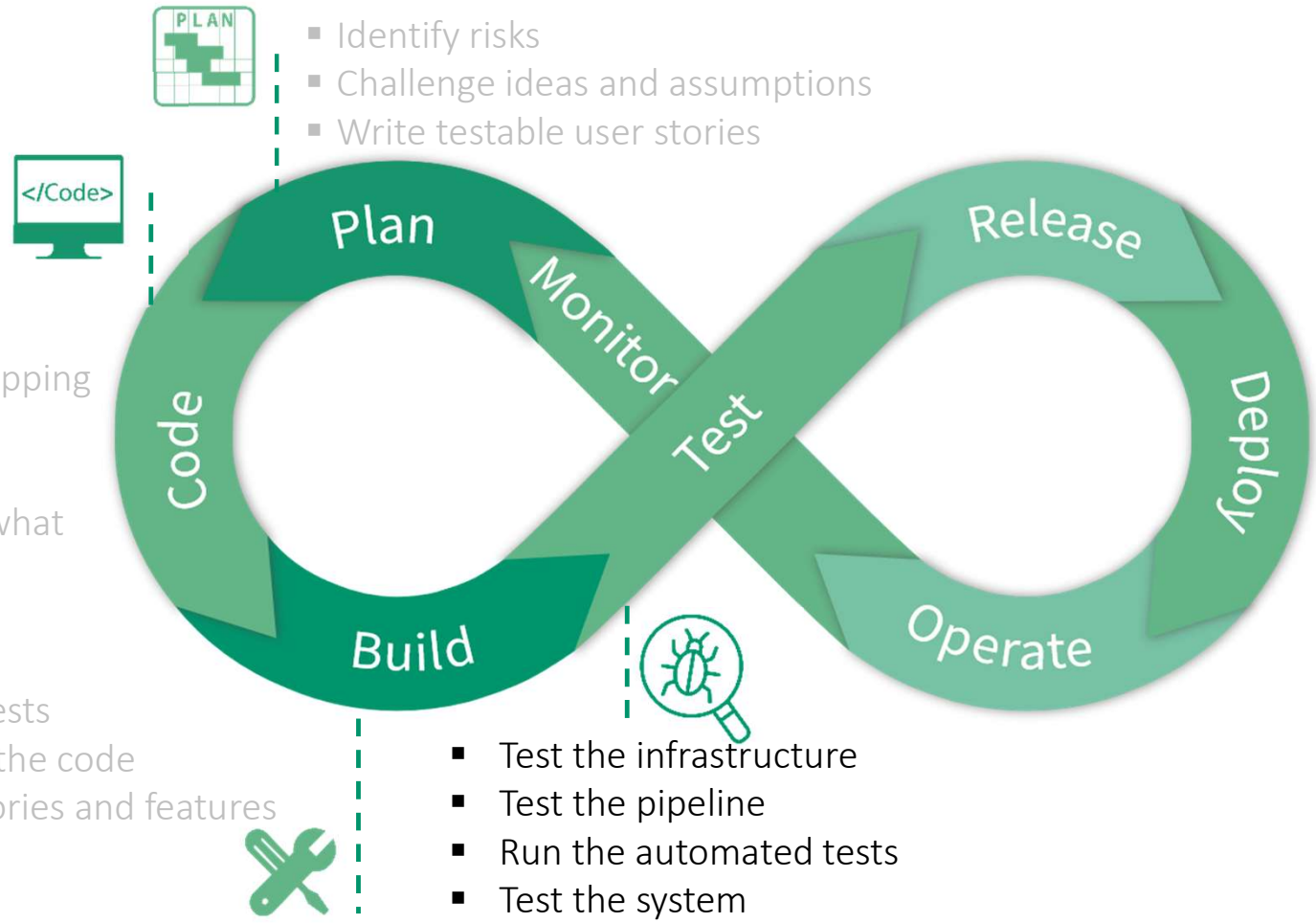

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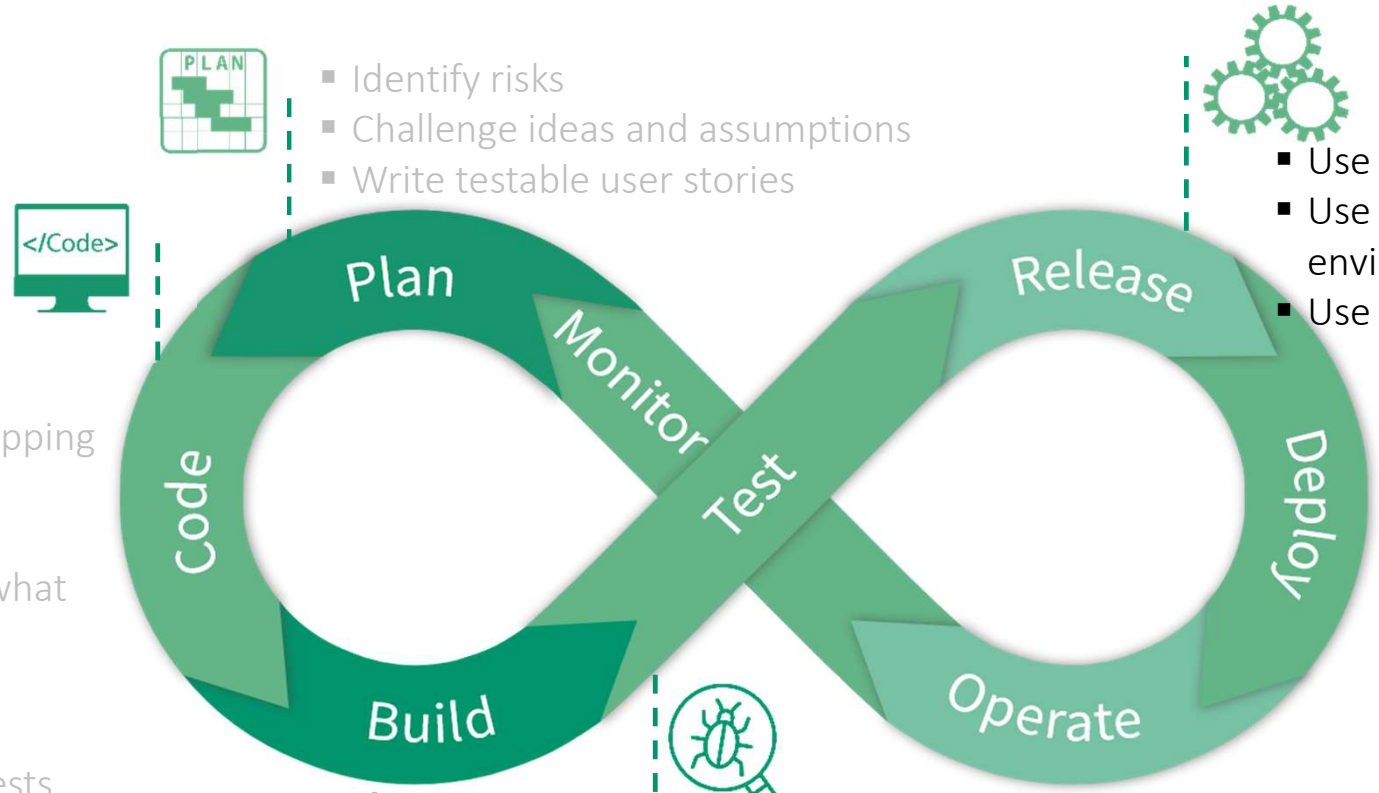

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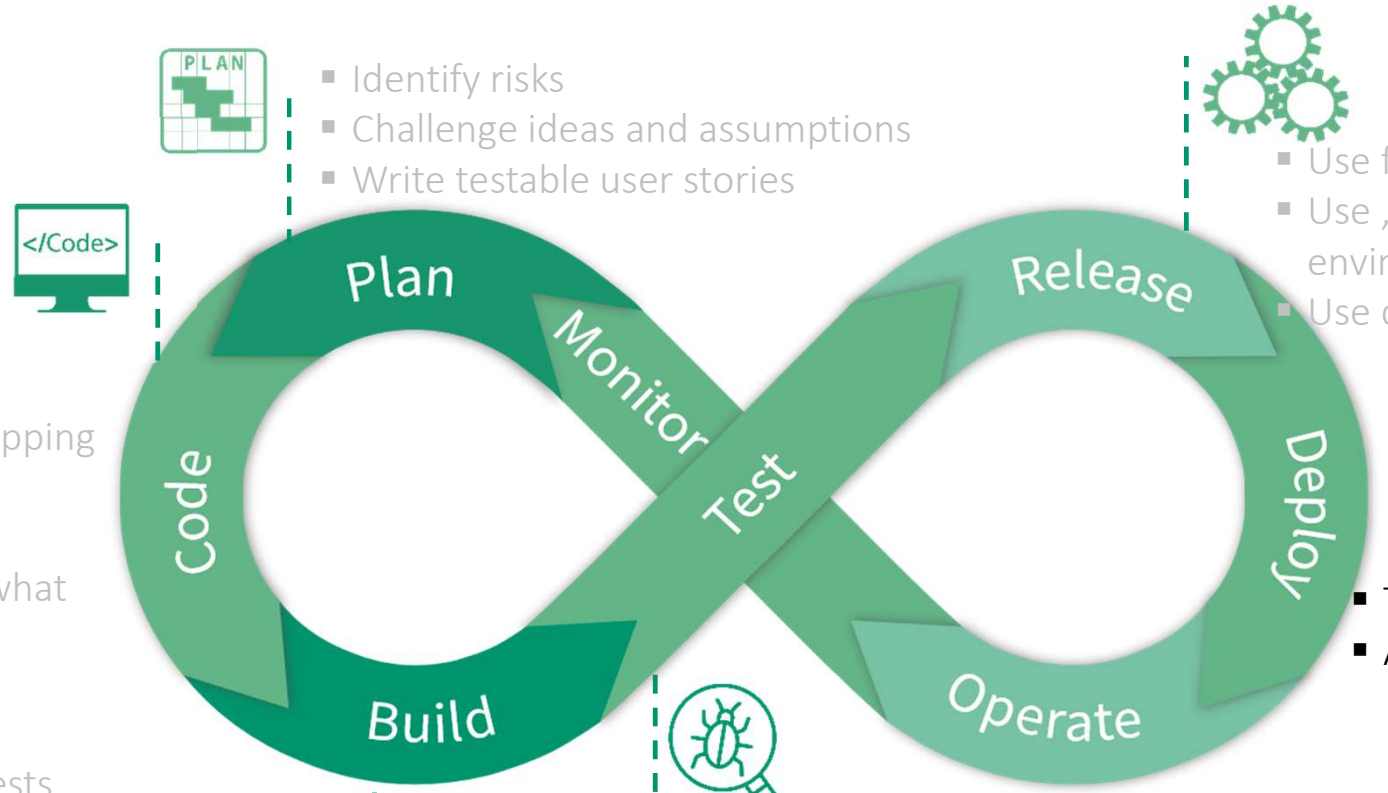

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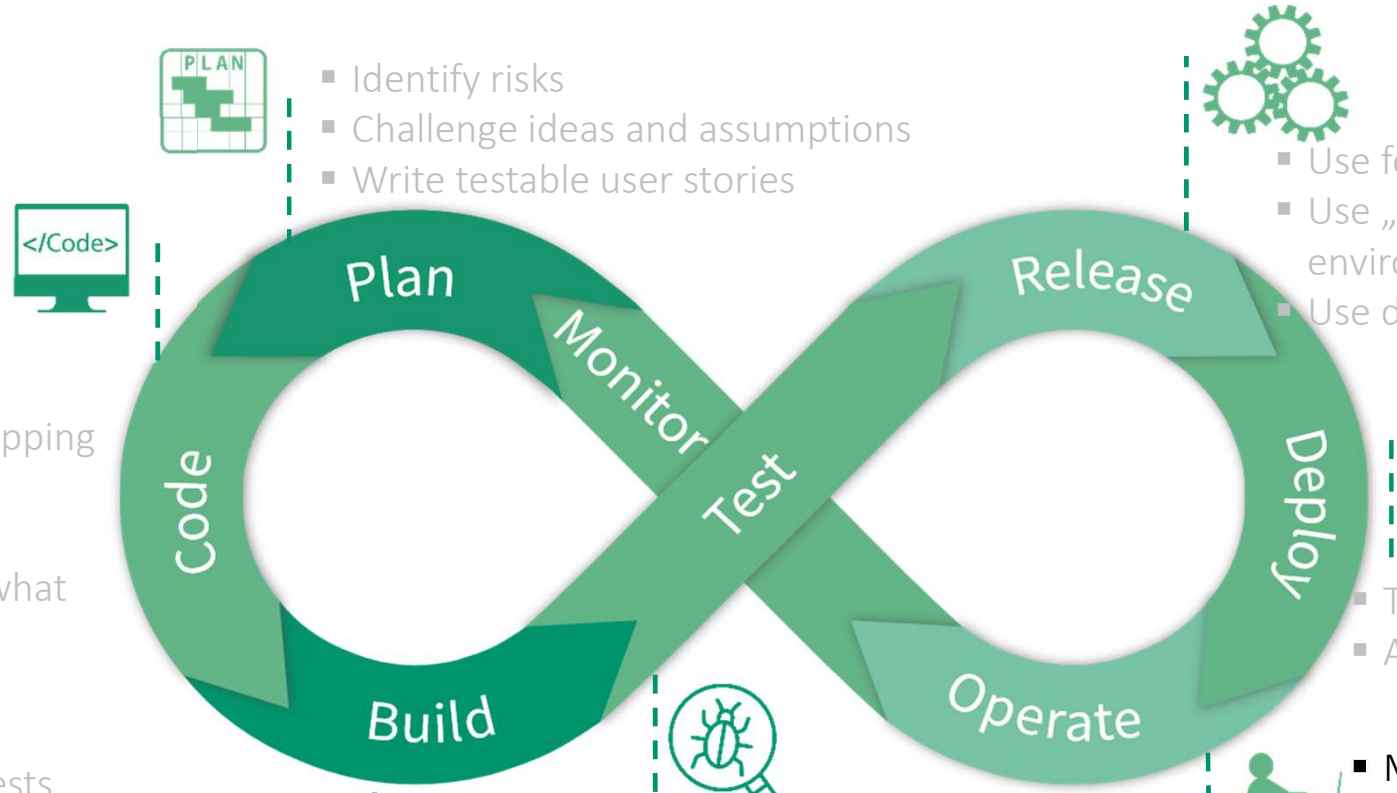

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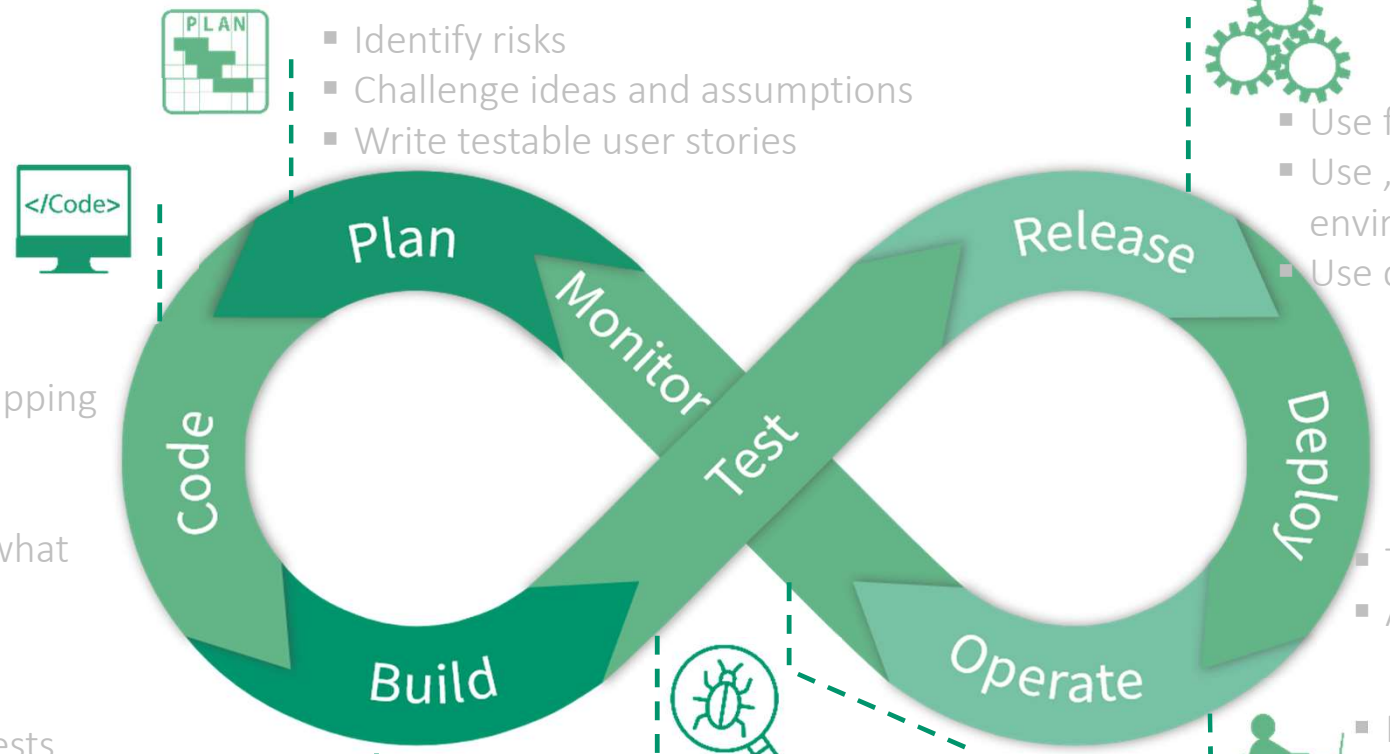

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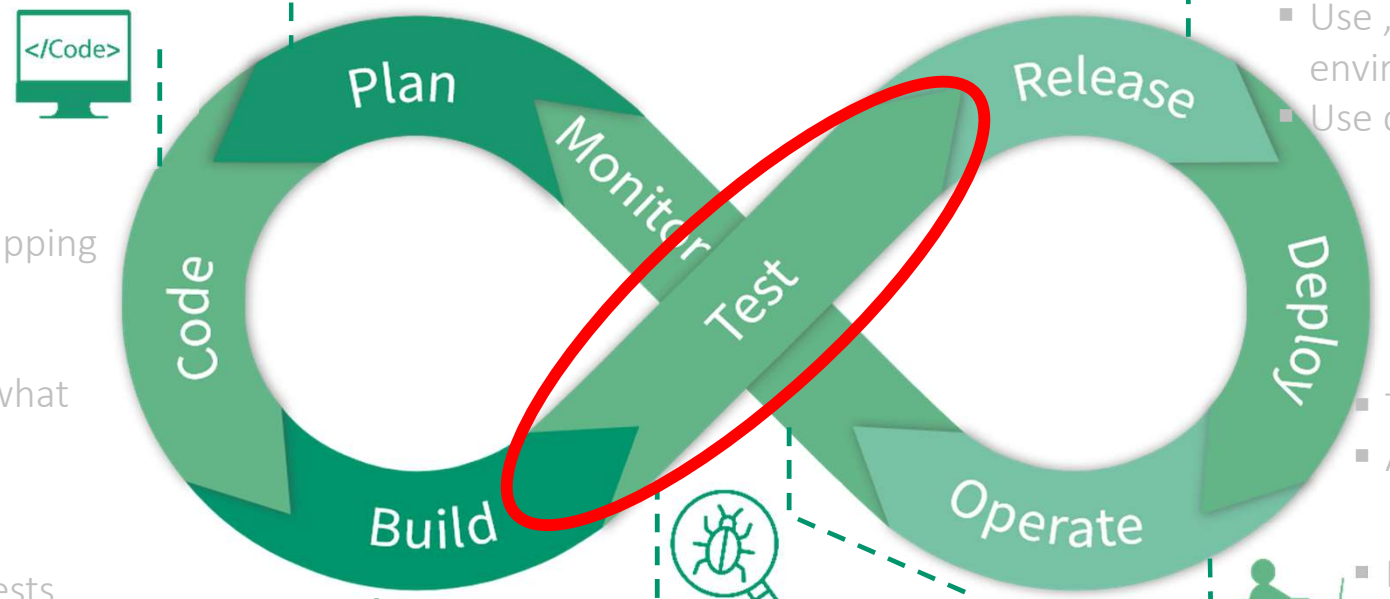
- Scan the system for errors and warnings
- Improve the system

„Traditional“ testing forms the core



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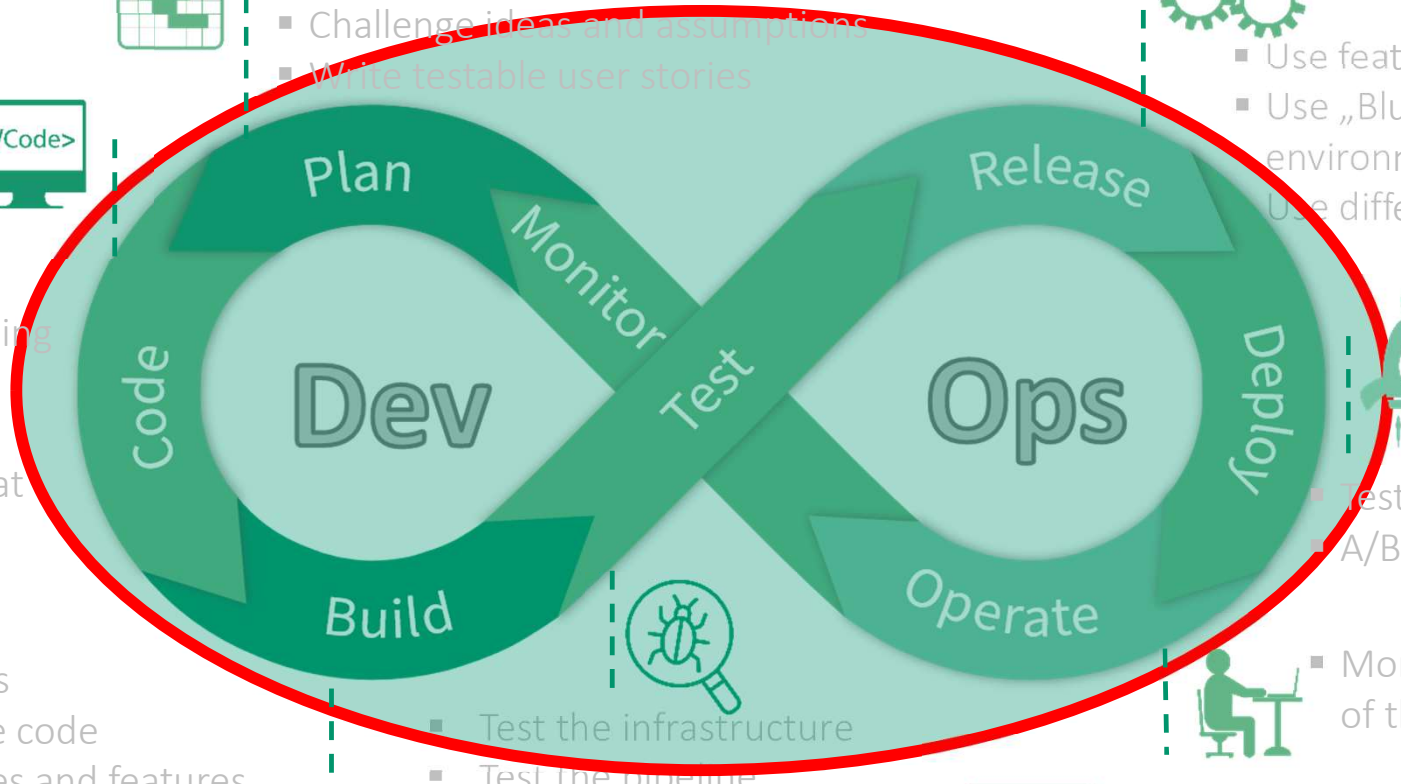
Continuous Testing as „silver bullet“



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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

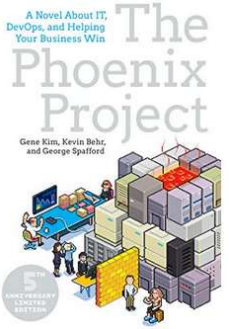
- more tool knowhow
- and more team work!

Discussion

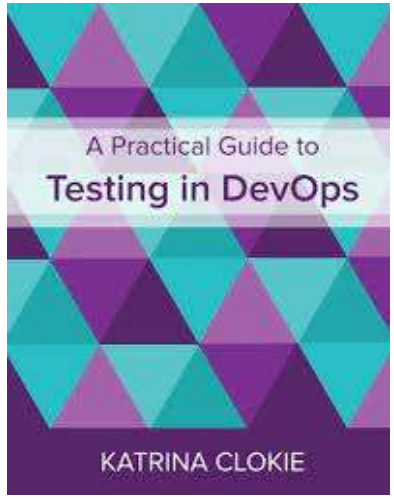
Questions? Comments? Remarks?

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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CONTACT

imbus AG

Kleinseebacher Str. 9
91096 Möhrendorf
Germany
Tel. +49 9131 7518-0
info@imbus.de

klaudia.dussa-zieger@imbus.de

imbus worldwide:
www.imbus.de
www.qs-tag.de