We create the technology to connect the world

June 2022

Agenda

- Nokia Software @ Portugal

- Agile Software Development

- Scrum

- How We Work

- Wellbeing & Social Responsibility

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Nokia Software @ Portugal

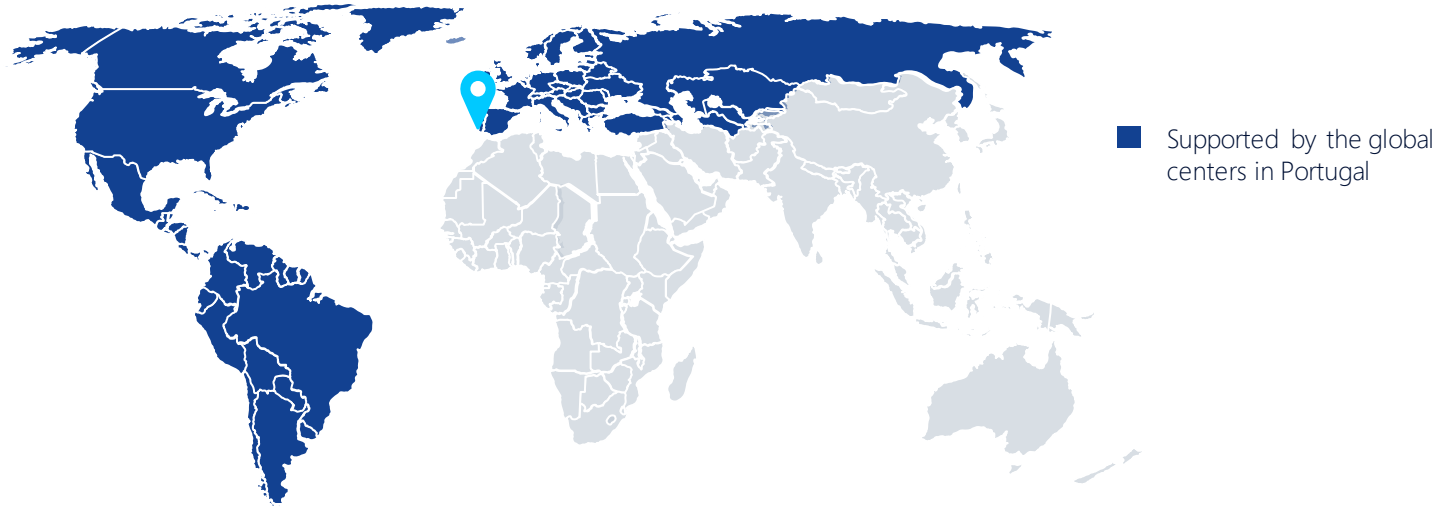|	Nokia
Highly engaged engineers	
Startup company can-do spirit	
High level of OSS domain knowledge and experience	
Proven experience in customer cooperation for High Value Applications	
R&D collaboration with local Nokia Services and Care Centers	
Active cooperation with top universities	

~2200 people

83%

17%

- 15+ years of SW
- Software Engineering
- Telecommunications
  - 5G, Network Slicing
  - Radio, Core, IP, Transport
  - NW and Service Automation
- Agile, Lean, Scrum, Kanban, SAFe
- DevOps
- Telco Cloud
- Big Data, Analytics
- Artificial Intelligence & Machine Learning
- WebApps
- CSF
- UX and Interaction Design
- Technical Writing
- OpenSource, ONAP

Public

Providing a full range of services on a global scale

■ Supported by the global centers in Portugal

Sample of supported customers
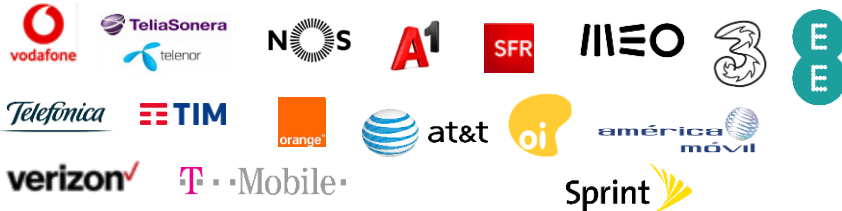
Key Operation data (Yearly)

- 80.000 sites managed remotely
- 174.000 sites operated 24/7
- 2,3 M of working orders executed
- 12.800 support tickets
- 400.000 SW upgrades

CNS @ Nokia Portugal

A team of 750 and counting...

Core Networks

- CN Global Care (#130)
- CN Global Services (#100)

Total HC **230**

Business Applications

- BA Digital Operations (#190)
- BA Solutions & Services (#60)
- BA Analytics (#40)
- BA Security (#<25)

Total HC **320**

Enterprise Solutions

- EnSo SIS (#<50)
- SIS SI & Delivery
- SIS Solution Support
- SIS Solution Management

Total HC **<50**

Cloud & Cognitive Networks

- C&CS OD GDC EU (#80)
- C&CS SP (#12)
- C&CS BOA
- C&CS NFaaS
- C%CS MPS

Total HC **106**

Global Business Center Total HC **<50**

Nokia Software in Portugal –NAC

Agile Software Development

XP Programming and the case of an adjective that became a noun
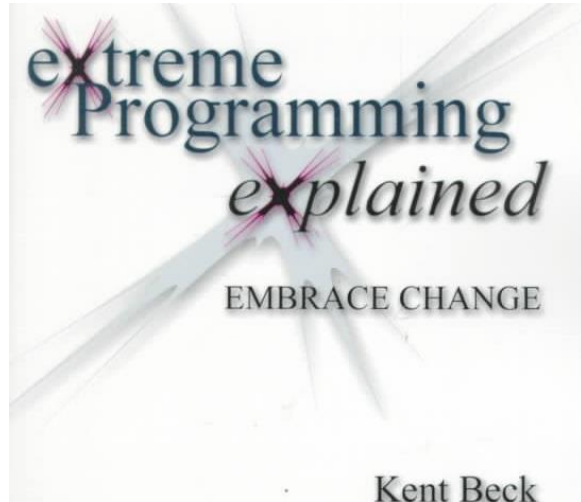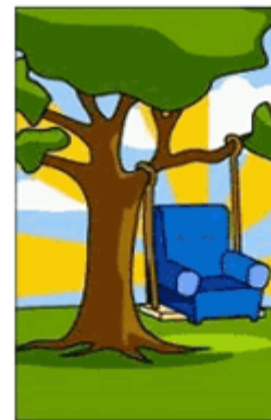
How the customer explained it · How the project leader understood it · How the engineer designed it · How the programmer wrote it · How the sales executive described it · How the project was documented · What operations installed · How the customer was billed · How the helpdesk supported it · What the customer really needed
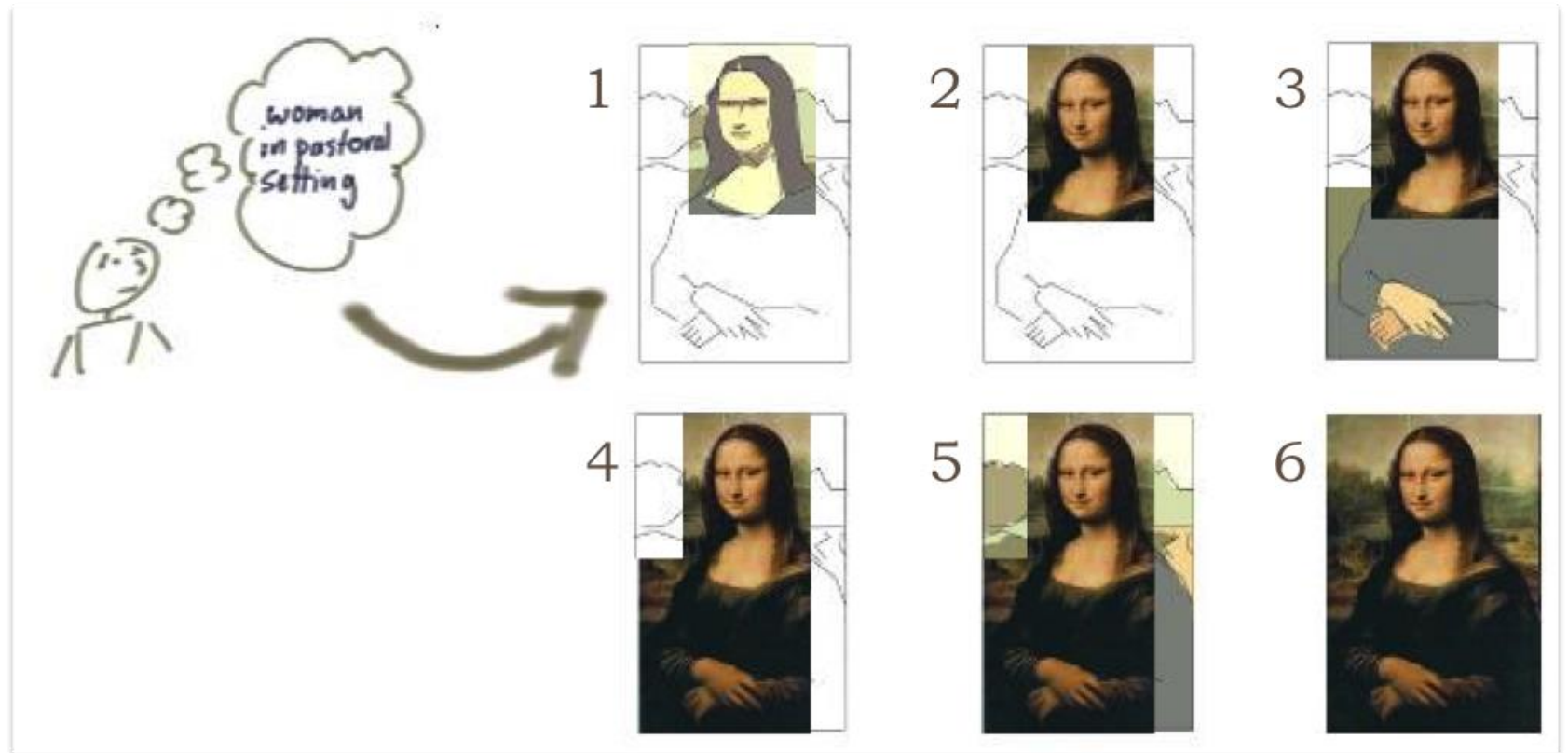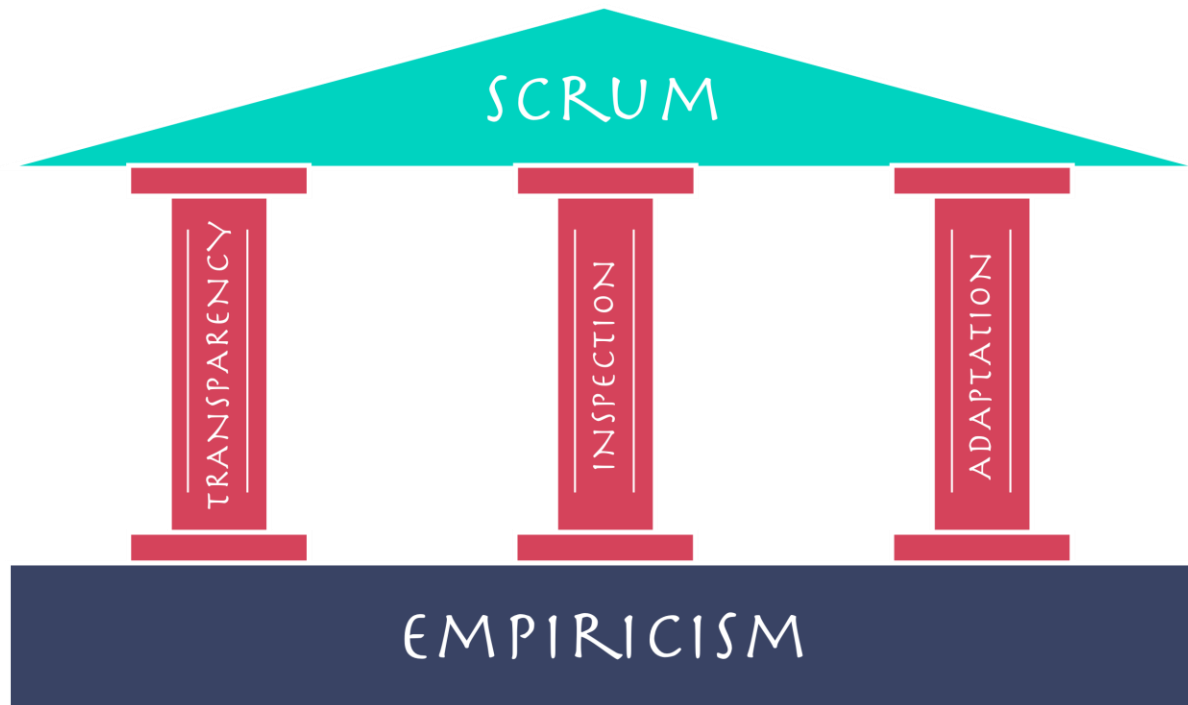
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The Incremental vs. Iterative Conundrum

Iterative Incremental Approach

Scrum

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Pillars of Scrum

Transparency
Giving visibilty to the significant aspects of the process to those responsible for the outcome.

Inspection
Timely checks on the progress toward a sprint goal to detect undesirable variances.

Adaptation
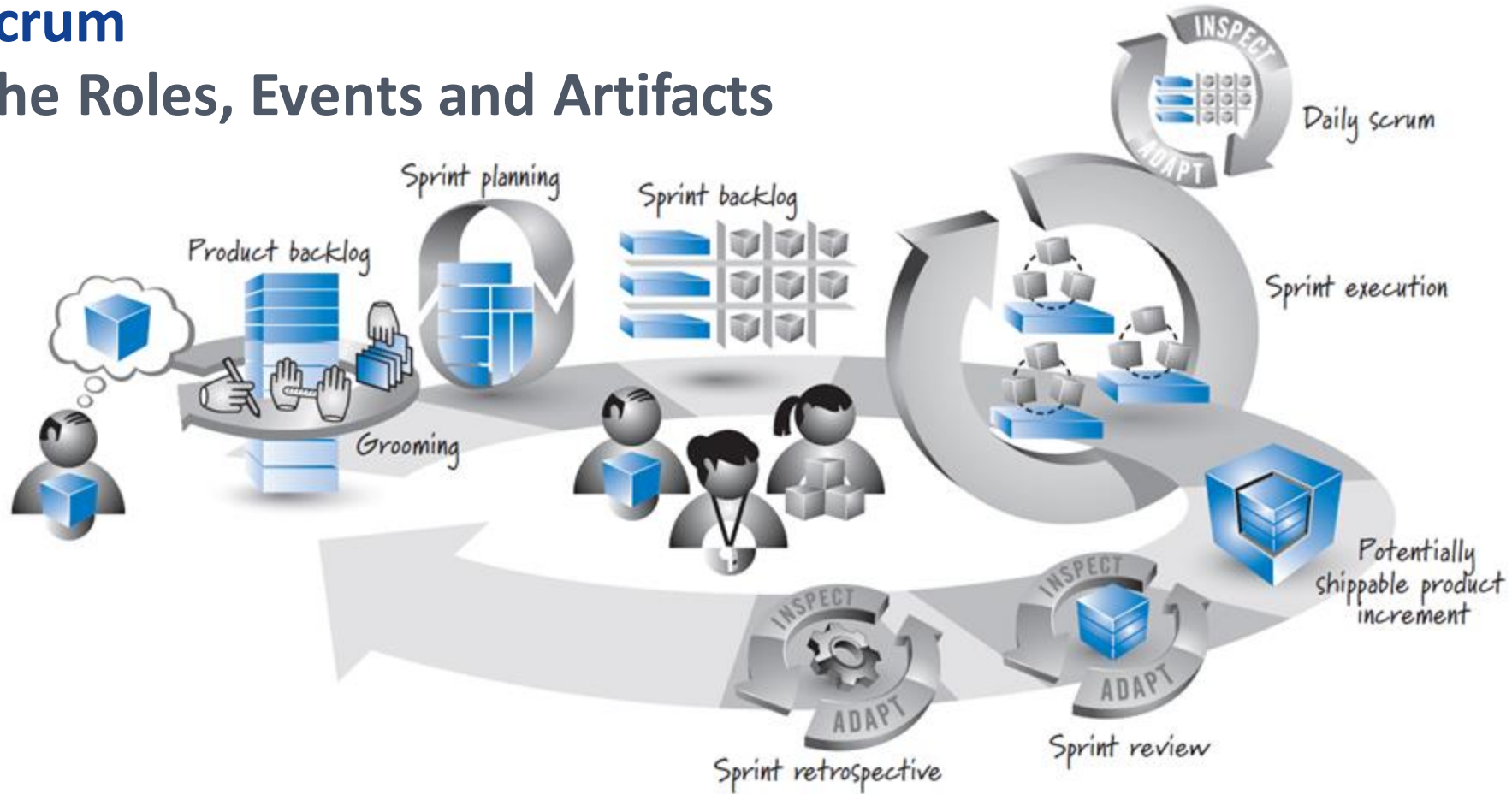Adjusting a process as soon as possible to minimize any further deviation or issues.

Scrum is founded on empiricism and lean thinking. Empiricism asserts that knowledge comes from experience and making decisions based on what is observed. If we apply Scientific method to software development, we must use empiricism and let reality speak for itself and correct any previous errors and integrate any new insights into previous knowledge.

https://medium.com/serious-scrum/empiricism-transparency-33adad8fbba2

Values of Scrum

COURAGE
Scrum Team members have courage to do the right thing and work on tough problems

FOCUS
Everyone focuses on the work of the Sprint and the goals of the Scrum Team

COMMITMENT
People personally commit to achieving the goals of the Scrum Team

RESPECT
Scrum Team members respect each other to be capable, independent people

OPENNESS
The Scrum Team and its stakeholders agree to be open about all the work and the challenges with performing the work

SCRUM VALUES

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Scrum
The Roles, Events and Artifacts

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Scaling Frameworks
Do we really need them? Business model and reality

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Is Scrum the Silver Bullet of Software Development?
Causes of failure – State of Agile Report **2015**
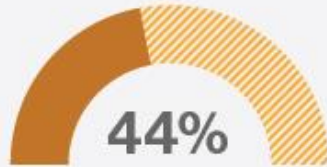
44%
Lack of experience
with Agile methods
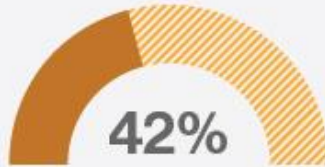
42%
Company philosophy
or culture at odds with
core Agile values
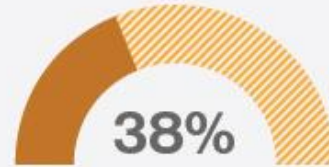
38%
Lack of management
support
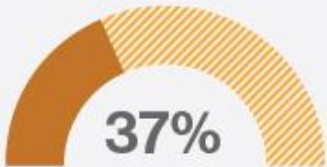
37%
External pressure
to follow traditional
waterfall processes

36%
Lack of support
for cultural transition

33%
A broader organizational
or communications
problem

Is Scrum the Silver Bullet of Software Development?

Top Agile adoption barriers – State of Agile Report **2022**

- Inconsistencies in processes and practices **46%**
- Cultural clashes **43%**
- General organizational resistance to change **42%**

- Lack of skills and experience **42%**
- Absence of leadership participation **41%**
- Inadequate management support and sponsorship **40%**

The key challenges organizations face when adopting Agile have remained largely unchanged for the past several years.

Challenges with **organizational culture, resistance to change, and lack of support and skills** continue to be problems.

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How we work...

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Scrum Artifacts – Product & Sprint Backlogs
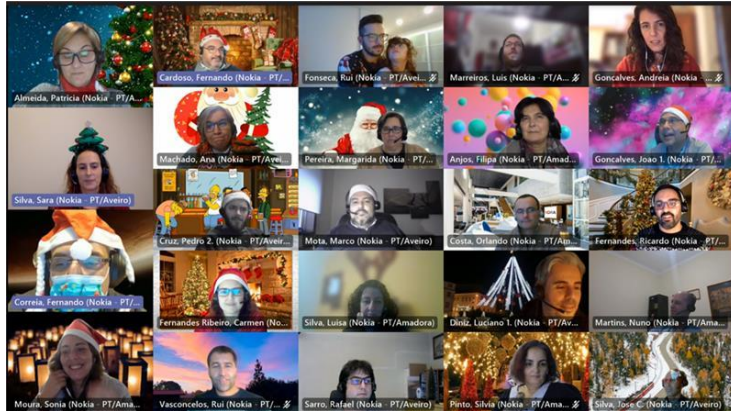
How we work during and after the Pandemic (part 1of2)

Being Nokia is adapted to remote work
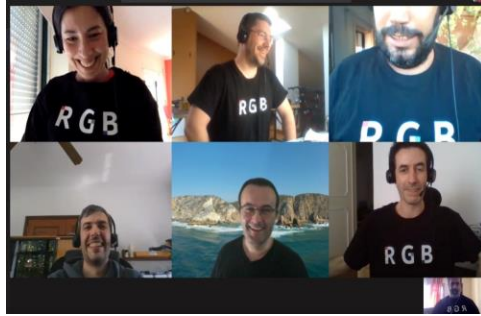
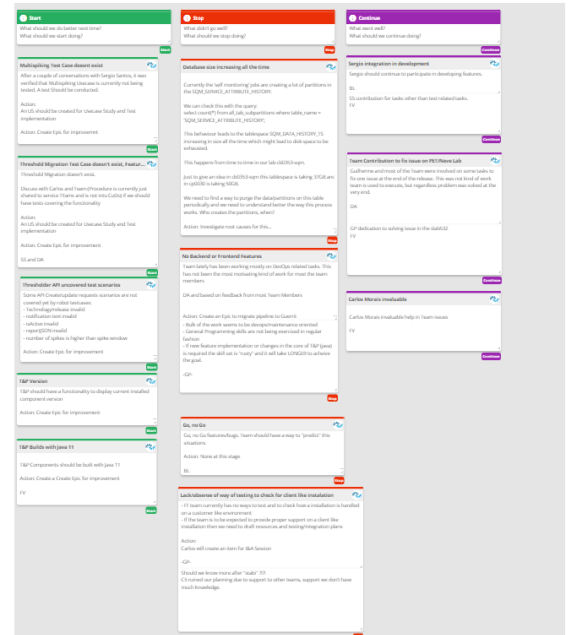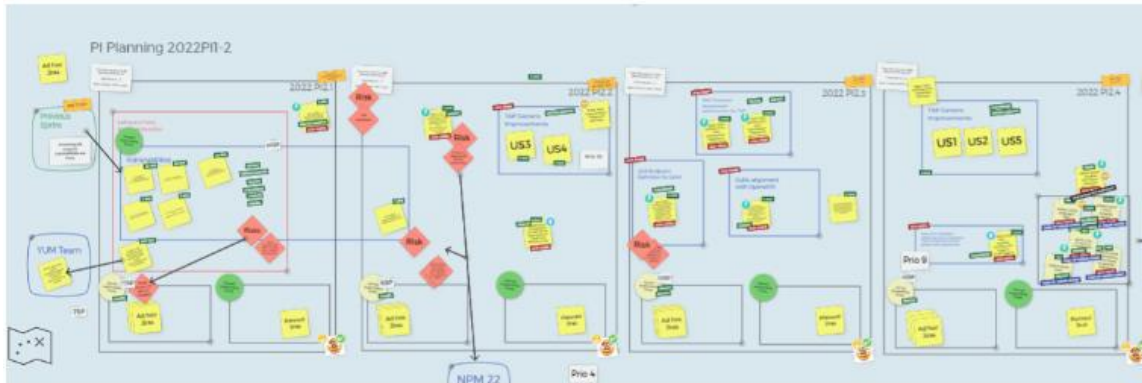

Meetings

Christmas time

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How we work during and after the Pandemic (part 2of2)

Remote Team Plannings and Retrospectives

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Focus on Quality (1/3)
Definition of Ready

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Focus on Quality (2/3)
Definition of Done

ID	Definition of Done Criteria	Status ?	Comment / Description
USDoD-01	Acceptance criteria is fulfilled	✅	Requirements are fulfilled, demonstrated and approved by the Product Owner
USDoD-02	Static Code analysis is done and technical debt targets are met	N/A	New technical debt cannot be introduced. **Unit test coverage is measured and targets need to be met for new code implementation.**
USDoD-03	Code is reviewed, approved, and checked in to the version control system and main software branch	✅	Code review is successfully done and documented. Coding standards have been followed
USDoD-04	Tests in all levels are documented, automated and passed according to the test plan	✅	All requirements according to the acceptance criteria must be tested and tests automated
USDoD-05	There are no open faults	✅	Virtual zero targets must be adhered according to the virtual zero guidance
USDoD-06	The User Story is demonstrated in Iteration Review	✅	Demo at iteration review (10/3/2022)

USDoD-10	Privacy Data Scrambling implementation is completed and Privacy Data Definitions (PDD) document is updated	N/A	If the privacy data definitions (PDD) for one or more components have been changed, component teams complete implementation of PDD changes and trigger needed updates to decoder and scrambler tools. Final updates are done in the PDD and checked into version control by the Product Security Lead. Privacy Champion concurs these activities with the Product Security Lead (if they are different individuals in the organization).
USDoD-11	Privacy Engineering and Assurance Process (PEAP) activities are completed	✅	PEAP activities include Scope, User Stories, Data Flows, PDI and PTA from the template. The Risk Assessment (PIA) is completed at the release level. The activities need to be approved by the Privacy Champion.
USDoD-12	SVM and TALKO tools information is updated for the 3rd party components introduced or updated in the User Story	✅	3rd party components (OEM/OSSW/Firmware) introduced or updated as a part of the user story must be updated in the SVM tool (VAMS) as well as TALKO tool (for licensing checks). This ensures that all 3rd party components are monitored for vulnerabilities as well as licensing breaches. https://talko.int.net.nokia.com/certificates/details.php?certificate_id=10771

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Focus on Quality (3/3)
Acceptance Criteria (Conditions of Satisfaction)

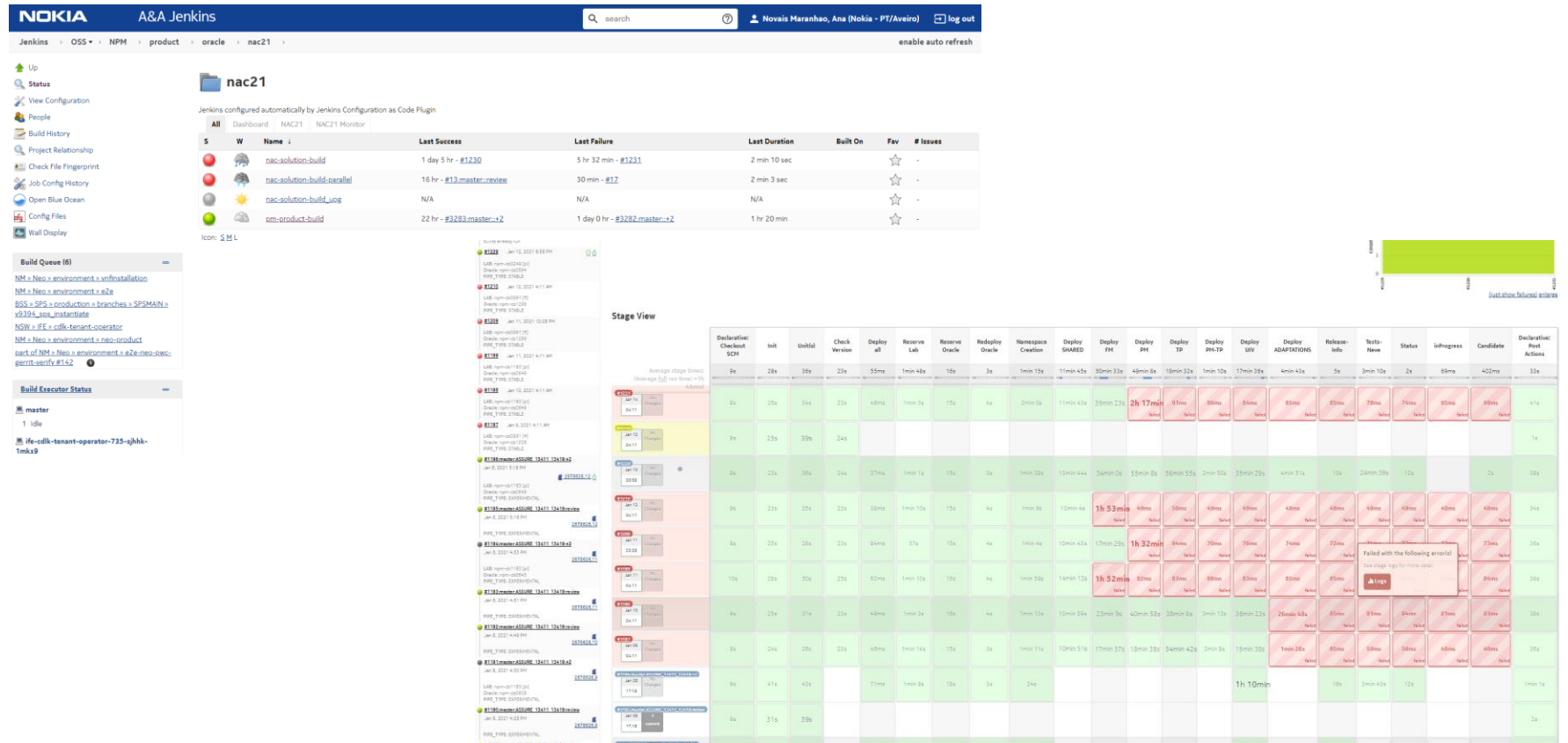© 2022 Nokia   Public

Continuous Improvement

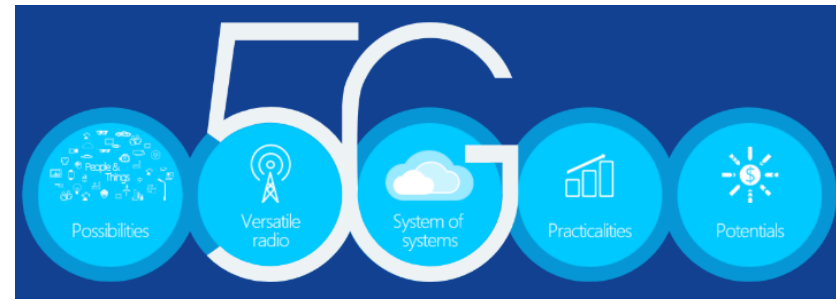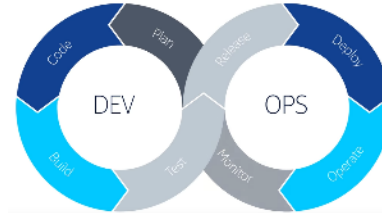# CI Overview
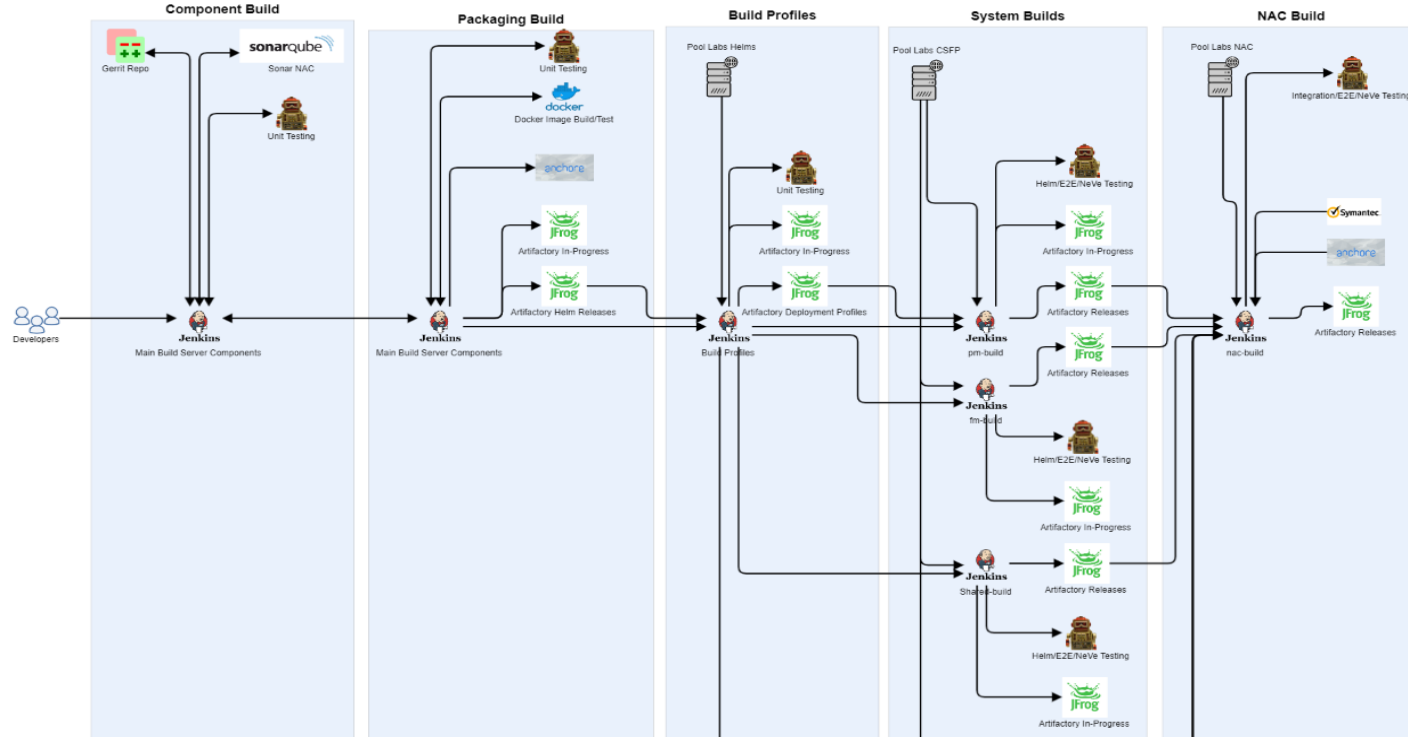
Continuous Integration

Best Practices

- Pair Programming
- Code Review
- Component/CodeGuardians
- Pre-Studies
- TDD/ATDD
- Continuous Integration
- Testing
- Refactoring
- Static Code Analysis
- Version Control System (Git and Gitlab)

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Continuous Innovation

EXPLORATION DAY

CoPs
Communities of
Practice

BROWN BAG Series
Lunchtime discussion

Wellbeing & Social Responsibility

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Being Nokia!

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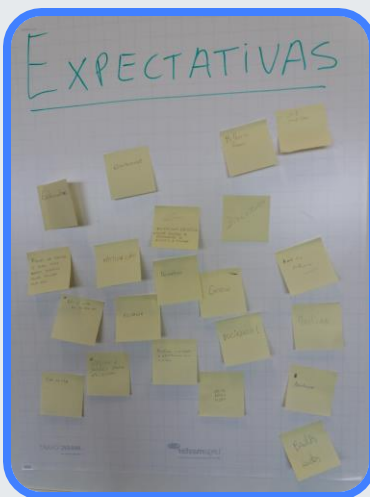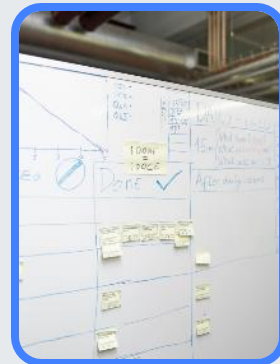
References

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- Zombie Scrum Survival Guide, 2020 (Christiaan Verwijs, Johannes Schartau, Barry Overeem)
- Scrum: The Art of Doing Twice the Work in Half the Time, 2014 (Jeff Sutherland)
- Clean Agile: Back to Basics, 2019 (Robert C. Martin – aka Uncle Bob)
- Uncle Bob: Clean Agile, Back to Basics, 2020, Youtube talk
- Uncle Bob Clean Code Lessons, 2019, Youtube talk
- Scrum Master Toolbox podcast

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