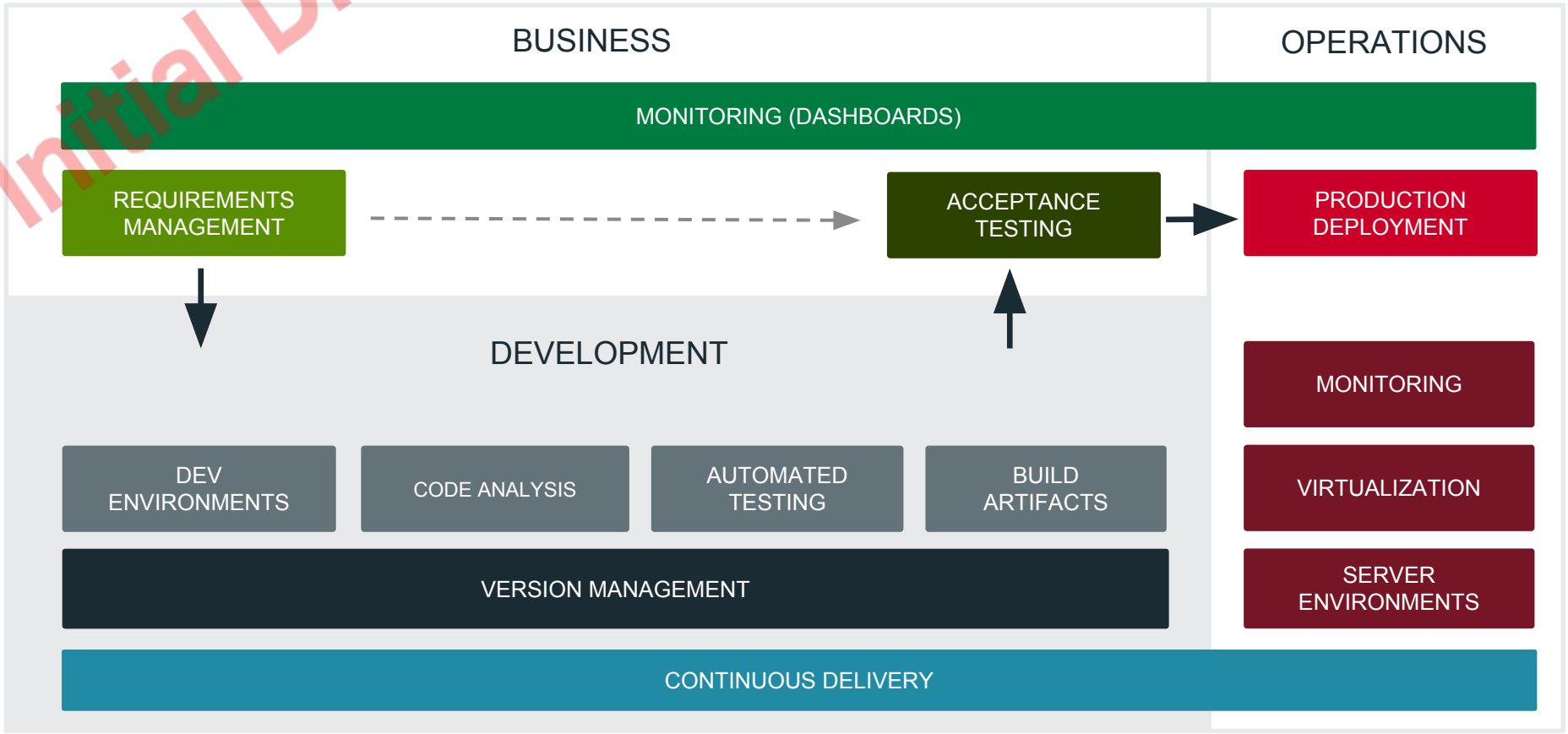
Initial Draft

SCQ

DevOps development plan – initial findings

DEVOPS DEVELOPMENT MODEL



DEVOPS TRANSFORMATION JOURNEY

Efficient and highly automated SW production line from requirement management to commercial deployments and maintenance

End to end visibility to all production phases via data driven tracking, reports and dashboards

Continuous operational improvement based on both real-time and historical performance data

Initial Draft

eficode

VOLVO IT KPIs:

Reduce Lead-time
Increase Quality

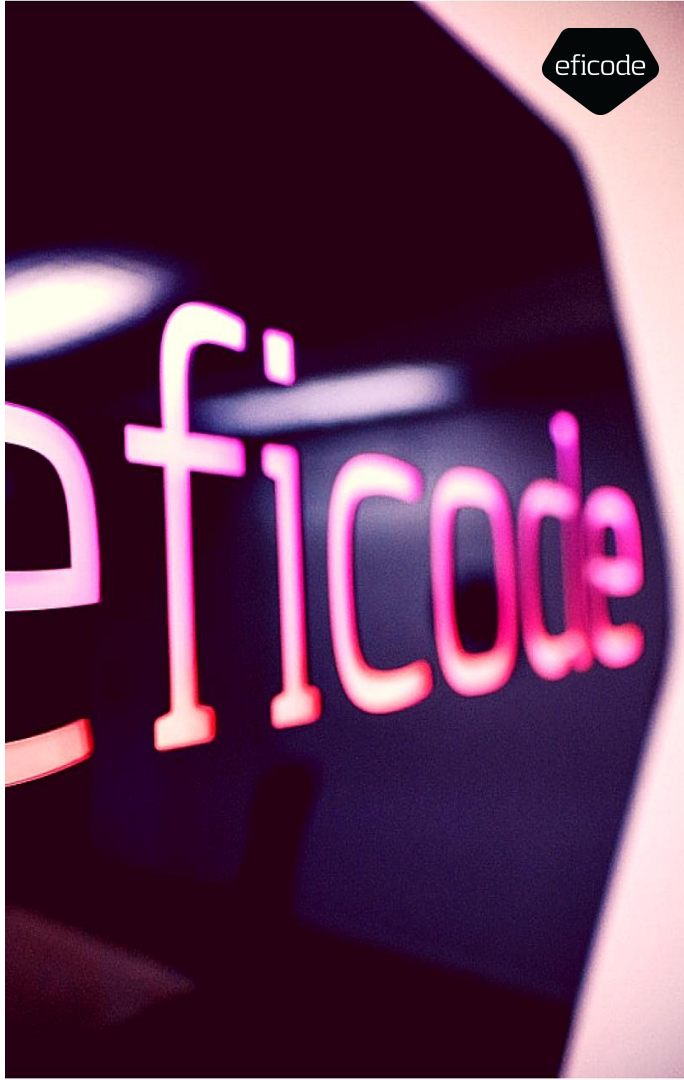
KEY FINDINGS - Personnel

- Motivated team
  - Autonomy
  - Mastery

- Good emphasis on continuous improvement, especially in tech & tool upgrades
  - Development tech stack is appropriate
  - Further improvements under work

- Communication is working pretty good
  - Same location is beneficial
  - Siloed knowledge in Dev & QA

- Appropriate roles on personnel



KEY FINDINGS - Culture & Organization

- Operational model reflects organizational model
  - Developers
  - Testers
  - Analysts

- Clear separation of responsibilities
  - Developers
  - Testers
  - Analysts

- Work prioritization
  - New features and manual testing heavily prioritized
  - Automated tests and refactoring neglected - technical debt increasing

KEY FINDINGS - Processes

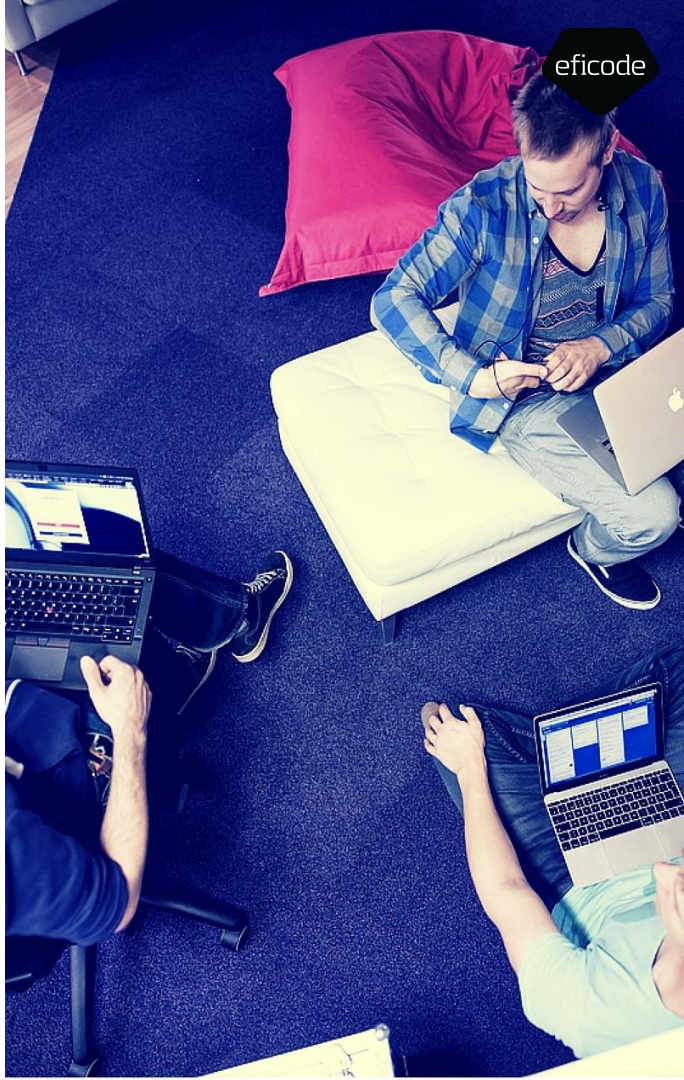
- Segregated flow
  - First development
  - Then testing

- Well implemented Scrum
  - Appropriate events
  - Difficulties in estimations

- Requirements are not clear enough
  - Business, 2 analysts and SL/CPM + TL

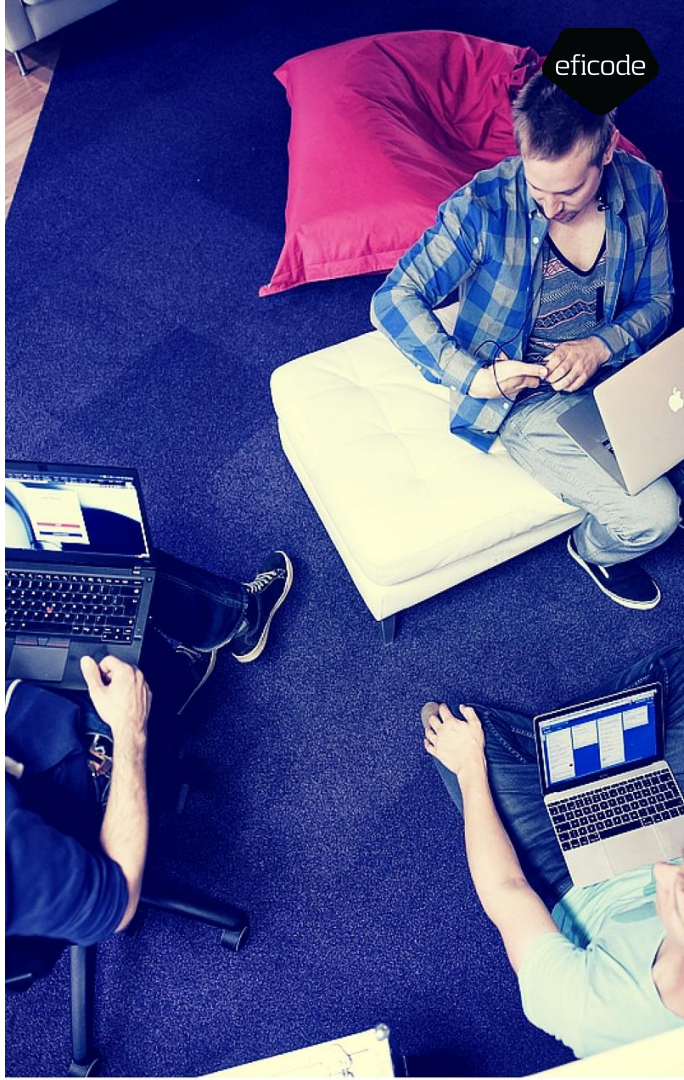
KEY FINDINGS - Version Control

- Version control
  - Appropriate tool in use
  - Pull requests are not used
  - Tests and code separated
  - Basic usage of branching and tags in place



KEY FINDINGS - CI

- Dependency and artifact management in use
  - Nexus
- Separate CI server exists
- No real continuous integration
  - Automatic build exists but triggered manually
  - Automatic deployments exists but triggered manually
  - Some automatic tests exist but triggered manually
  - No automatic quality gates



KEY FINDINGS - Testing

- Test automation on a low level
  - Automation level low (~15%)
  - Coverage low (~15%)
- Automated tests are increasing on a slow pace
  - Improved test automation is a precondition for future enhancements
- Developers don’t execute automated tests
- Unit tests are not on an acceptable level
  - Could cause challenges in the future

KEY FINDINGS - Testing

- Test reporting is missing
  - Getting an overall view takes some effort
  - Automatic tests do not generate report
- Feedback cycle is long
  - Automated regression test set missing
- Test automation framework should be evaluated
  - Basically the only DRS-supported framework
  - Selenium is market leading open source tool and it is supported by other frameworks as well

KEY FINDINGS – Application

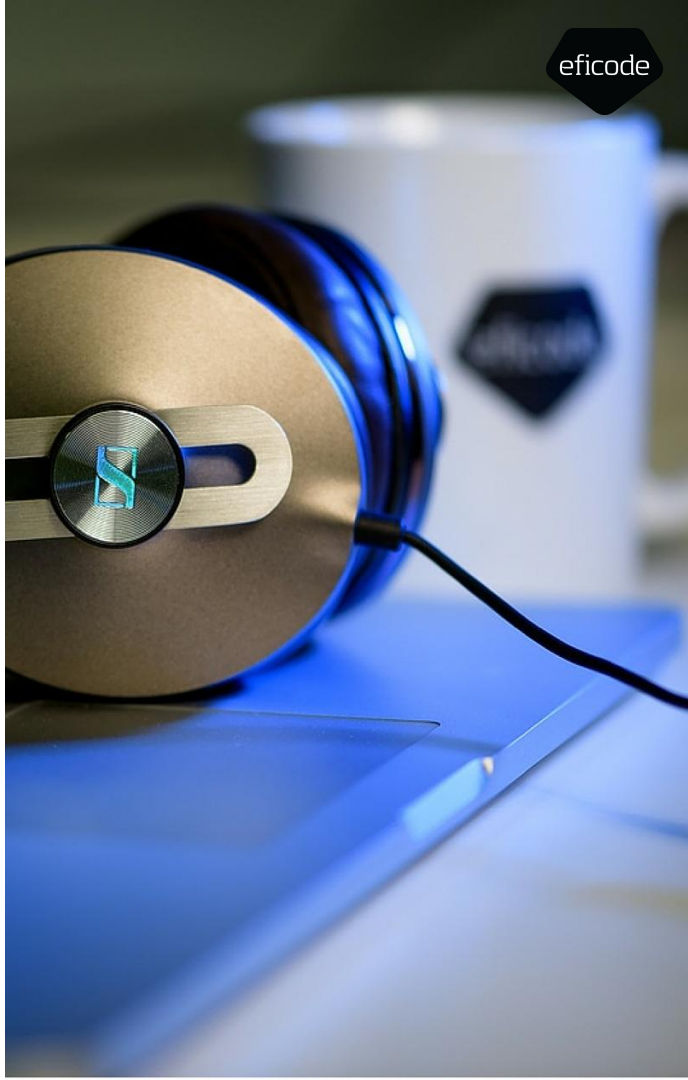
- Application architecture
  - Monolithic

- Plan to go microservices
  - Decomposition required in order to transform
  - Refactoring is tricky with low trust on test automation

KEY FINDINGS - Releases

- Big and slow releases
  - Release cycle about 3 months
  - Deadline driven (with some flexibility)

- Inflexible and slow process
  - No ability to release without special arrangement
  - HCL requires a maintenance window
  - 2 weeks UAT before production



KEY FINDINGS – HCL

- Mutable servers
  - Not ideal
  - Ideal would be to have new servers for each release

- Current server management is ok for now
  - RedHat Satellite applies patches
  - Controlled process

- OpenShift should be Production ready later this year
  - OpenShift allows you to deploy immutable containers
  - Brings scalability, reliability and simplicity

OTHER KEY FINDINGS

- Mission is unclear
  - No clear mission for SCQ
- Communication is mostly based on talking
  - Ok for a small team
- Good attitude towards new ways of working
  - Avoid complacency
  - Be stubborn

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THANK YOU