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New Violin

DevOps development plan – initial findings

DEVOPS DEVELOPMENT MODEL

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BUSINESS

OPERATIONS

MONITORING (DASHBOARDS)

REQUIREMENTS MANAGEMENT

ACCEPTANCE TESTING

PRODUCTION DEPLOYMENT

DEVELOPMENT

MONITORING

DEV ENVIRONMENTS

CODE ANALYSIS

AUTOMATED TESTING

BUILD ARTIFACTS

VIRTUALIZATION

VERSION MANAGEMENT

SERVER ENVIRONMENTS

CONTINUOUS DELIVERY
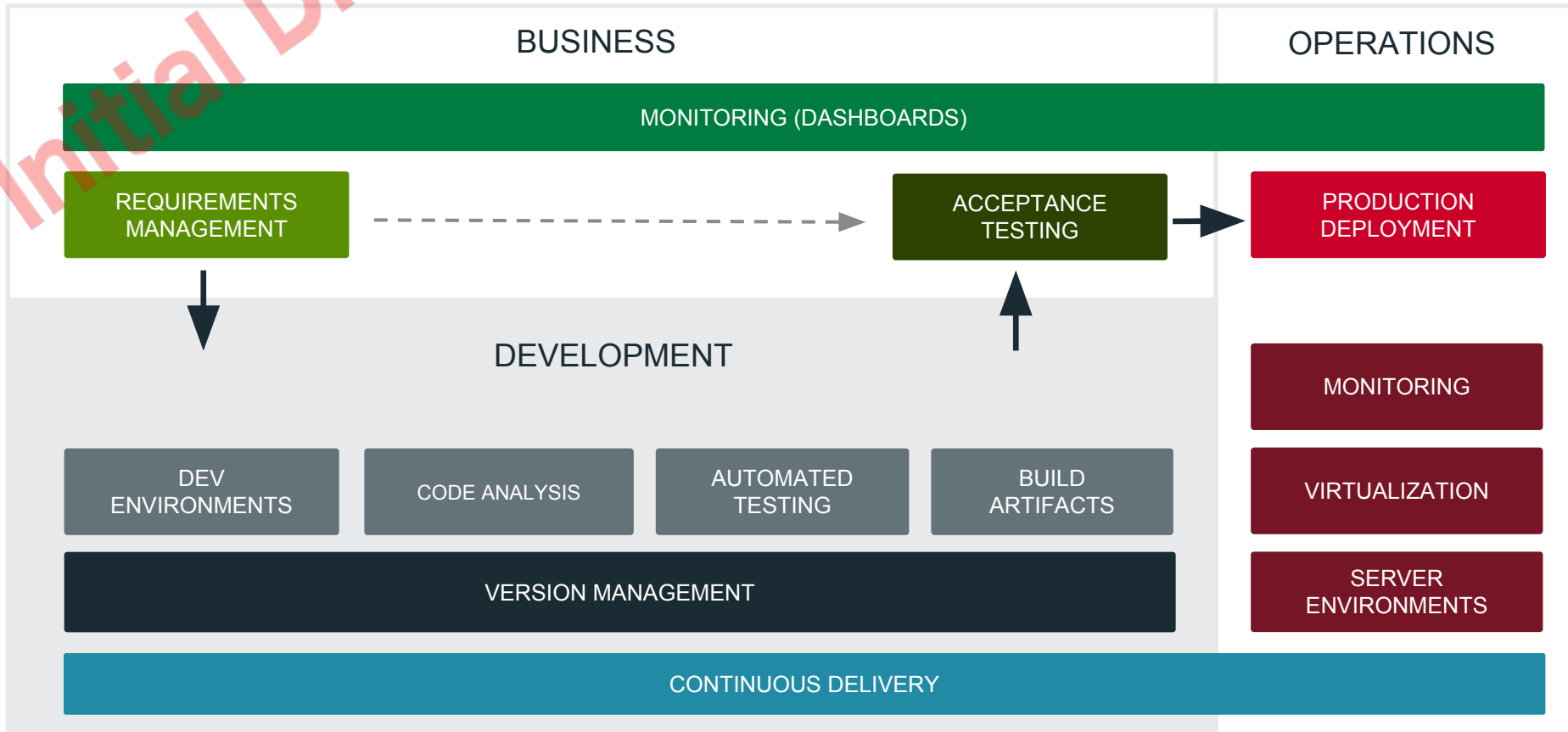
DEVOPS TRANSFORMATION JOURNEY

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DELIVER

TRACK

DRIVE

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

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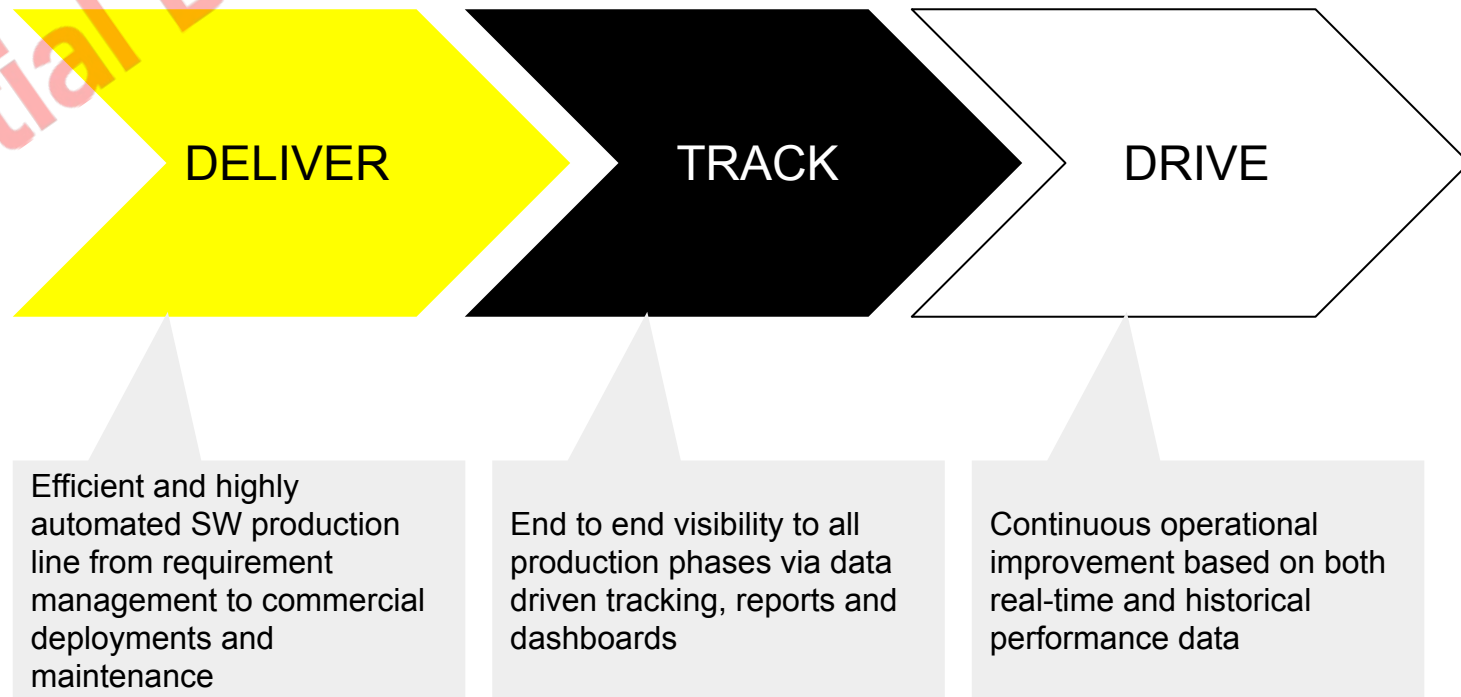
**VOLVO IT KPIs:**

Reduce Lead-time
Increase Quality

KEY FINDINGS - Personnel

- Competent technical team

- Good team spirit, will and possibility to improve

- Communication is working pretty good
  - Same location is beneficial
  - Slightly siloed knowledge in Dev and QA

- Appropriate roles on personnel

- Sharing people between projects
  - Good to acquire and share knowledge
  - May cause task switching and peaks

KEY FINDINGS - Culture

- Clear separation of responsibilities
  - Developers
  - Testers
  - AO-team

- Long and frequent meetings
  - Have meetings only when needed
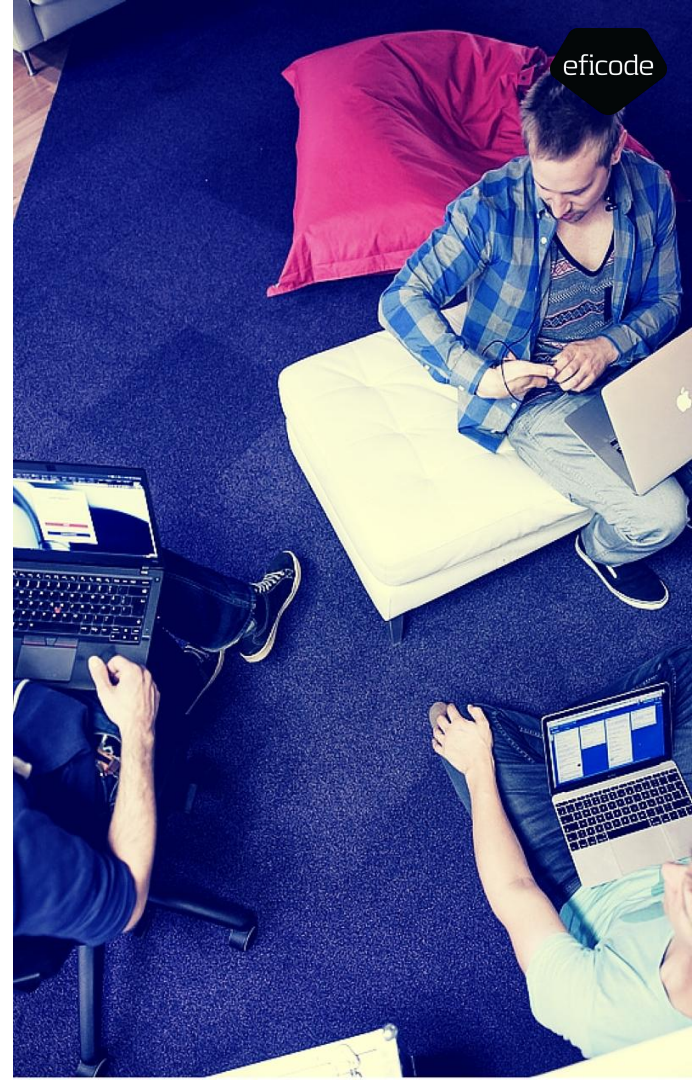 - Make meetings short

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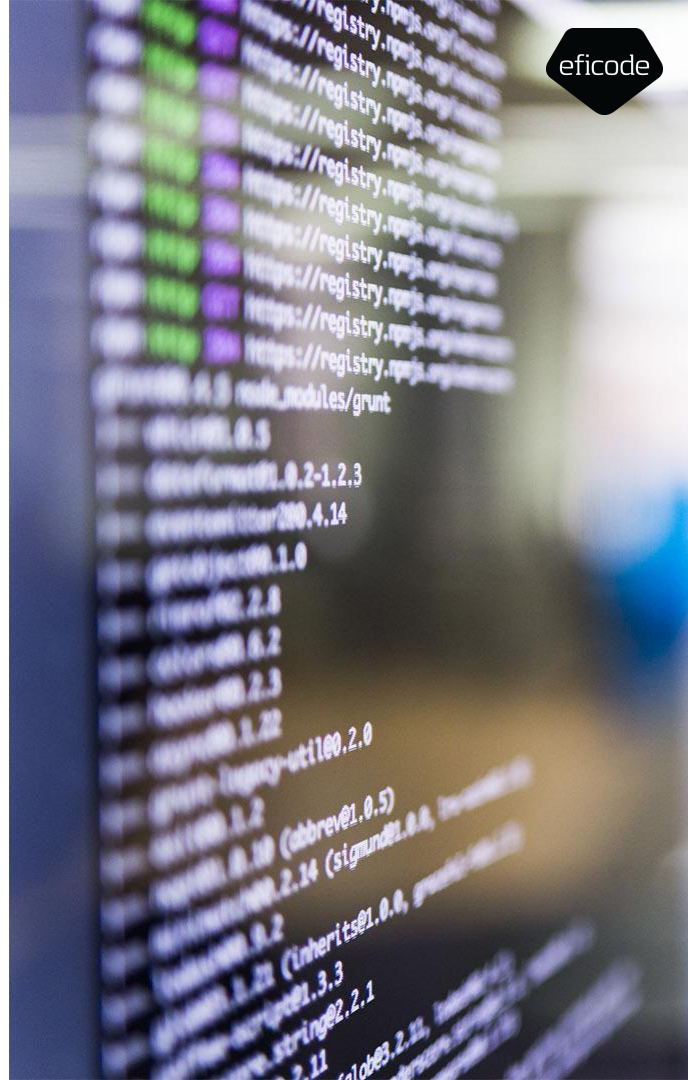
KEY FINDINGS - Processes

- Segregated process
  - First development
  - Then testing
  - Then deployment
  - Then operation

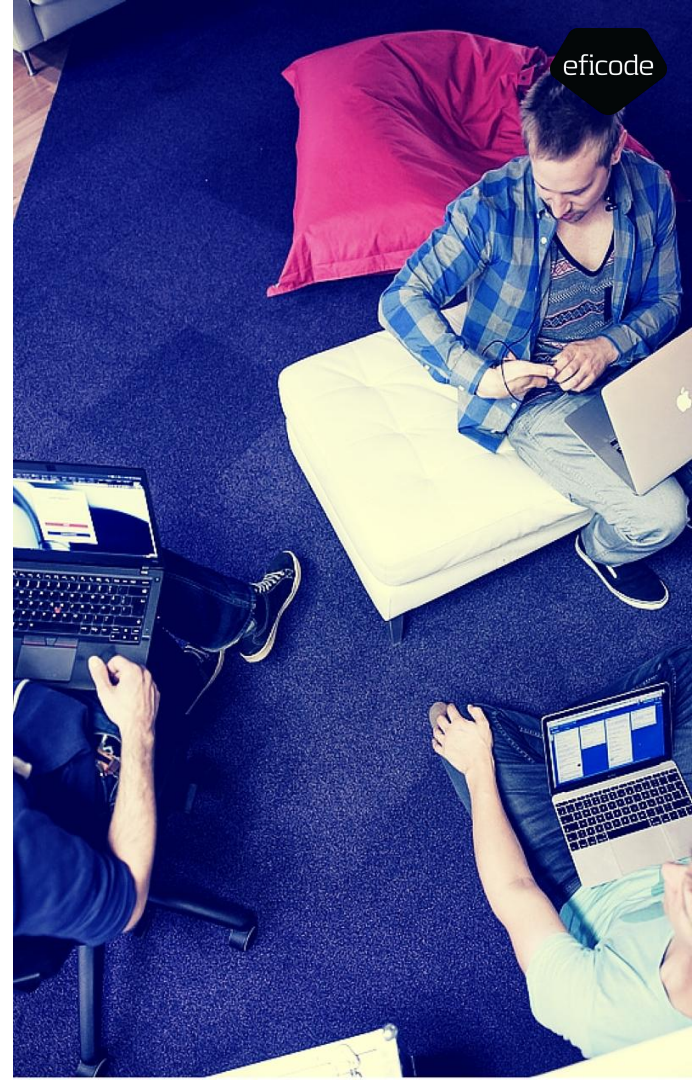- By definition not Scrum, not Waterfall, not Kanban

KEY FINDINGS - CI

- No real continuous integration
  - Manually triggered automatic component builds
  - Manual deployments of artifacts
  - No automatic test execution
  - Nightly build exist but not operational (yet)

- Version control
  - All in trunk
  - Tests and code separated
  - No feature branches
  - Release branches exist

KEY FINDINGS - CI

- No dependency management

- Dedicated CI machine missing

- Microsoft Team Services might be an alternative

KEY FINDINGS - Testing

- Test automation on a good level
  - Automation level high (~80%)
  - Coverage high (~80%)

- Direction towards 100 % test automation level

- Unit tests do not exist
  - SharePoint mocking makes heavy to do

- Test reporting is complicated
  - Some automated, some manual
  - Getting an overall view takes some effort

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KEY FINDINGS - Testing

- Developers can't execute tests
  - Don't know how
  - Visual Studio ultimate required
  - Selenium is market leading open source tool

- Feedback cycle is long
  - Developers wait for QA to report test results
  - Automated regression test set missing

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KEY FINDINGS - Releases

- Big and slow releases
    - Release cycle about 2 months
    - Many changes in a release
    - Either push feature to release or wait a long time
    - Emergency releases
    - Limited release date options
    - Releases cause downtime

- Inflexible and slow process
    - Manual process
    - Instructions documented in a Word doc
    - Minimum theoretical release cycle time 3 weeks
    - 10 day freeze before production

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KEY FINDINGS – Cloud Strategy

- Azure & AWS offer SharePoint server on a click
  - Customizable servers
  - Feasible even now
  - Operations in Poland team

- Microsoft offers SharePoint online
  - No operations work
  - Microsoft dictates features and patches

- Pros
  - Cost reduction
  - Deploy automatically any time you want

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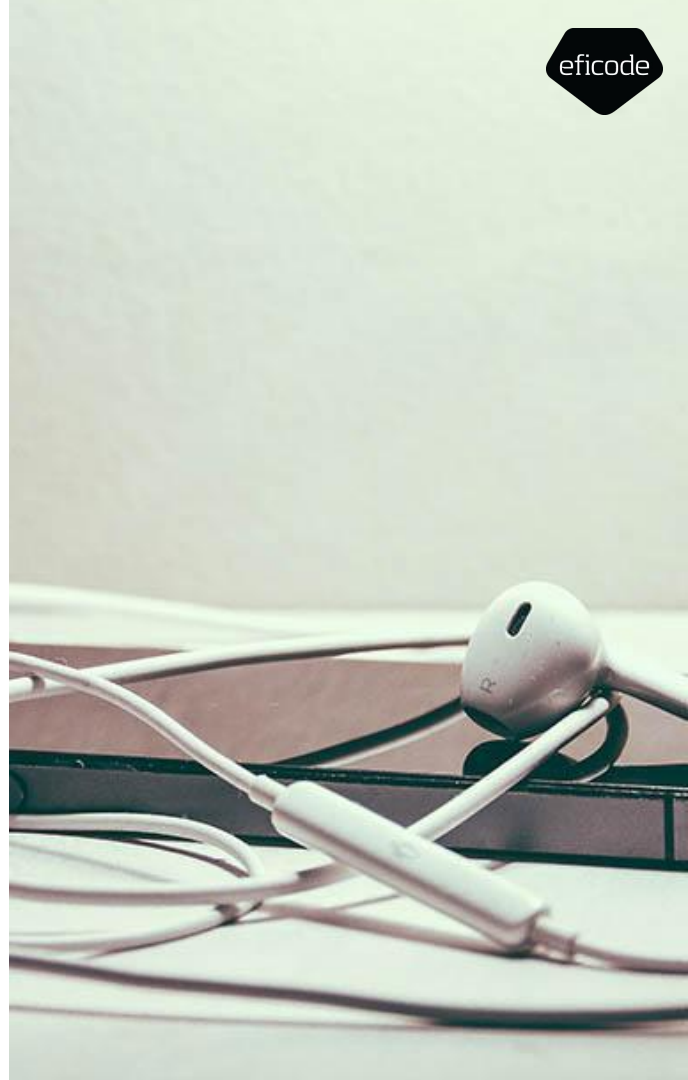
KEY FINDINGS – WIDER ISSUES

- Tools are not optimal for development

- Collaboration with HCL
  - Slow response time
  - Inflexible processes

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OTHER KEY FINDINGS

- KPI prioritization
    - Emphasis on stability
    - Pressure towards release infrequency

- Communication is mostly based on talking
    - Skype, face-to-face or meetings
    - Need to be present

- Good attitude towards new ways of working
    - Avoid complacency
    - Be stubborn

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THANK YOU