NIRA
DYNAMICS

NIRA's road to mastering requirements

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Quality Manager at NIRA Dynamics AB,
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About me

M.Sc. in Applied physics and electrical engineering, Linköping university

Summer 2008 — Aug 2010 — Jan 2012 — Jan 2016

About NIRA dynamics

- Established in 2001
- ~70 employees
- ~45 consultants and partners around the world

Field of excellence

Utilizing information from existing sensors to create new signals enabling value-adding functionality with high performance and precision. At low cost.

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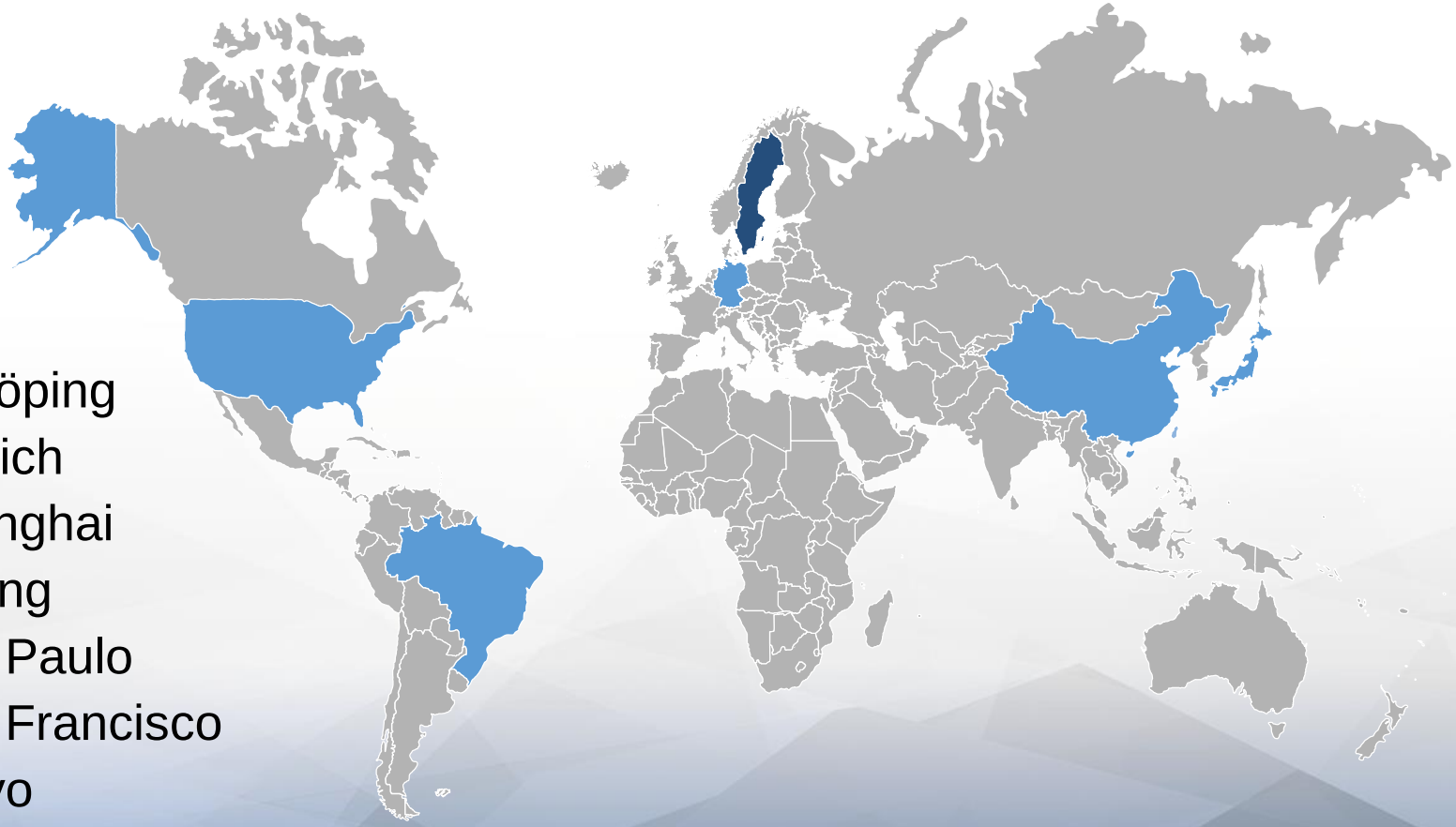
NIRA offices worldwide



Linköping
Munich
Shanghai
Beijing
Sao Paulo
San Francisco
Tokyo

TOGETHER FOR SMARTER SAFETY.

TIRE MANAGEMENT | TPI® BY NIRA DYNAMICS | LWI® BY NIRA DYNAMICS | TGI® BY NIRA DYNAMICS

INTELLIGENT NAVIGATION | RSI® BY NIRA DYNAMICS

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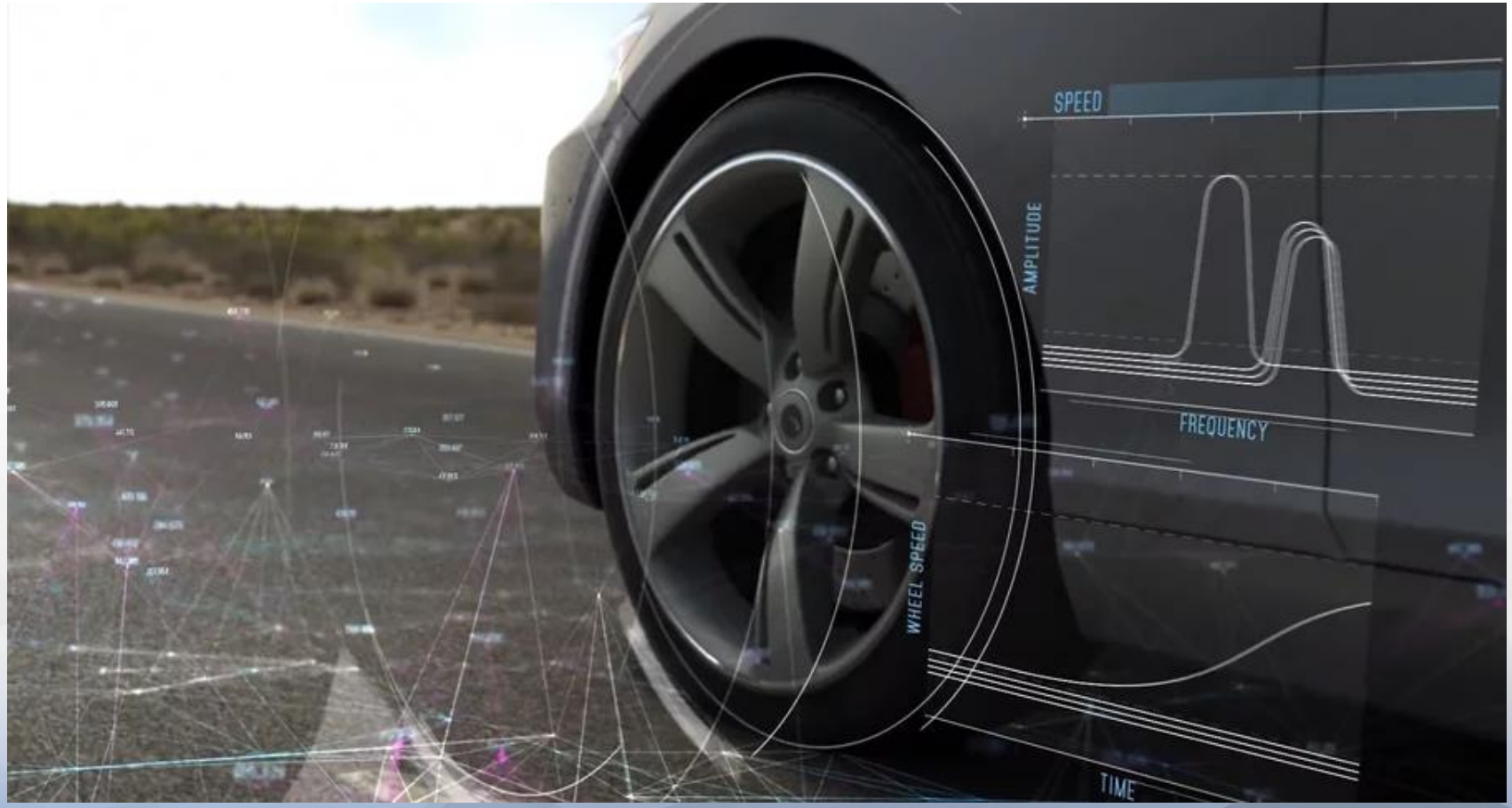
Tire Pressure Indicator

https://vimeo.com/161890961



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Installed in 40M vehicles

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Road Surface Information

https://vimeo.com/161890953

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The road to Polarion

- 2006 TPI installed in Audi TT.
  - No proper requirement handling.

- Handled the requirements in Excel
  - Hard to know when the specification was fulfilled.
  - At some point the customer started to send RIF-files.
  - Increasing number of customers with different requirements.

Picture by Mike Coats - https://www.flickr.com/photos/capnoats/266902480/, CC BY-SA 2.0, https://commons.wikimedia.org/w/index.php?curid=1314097

Introducing Polarion

2011

- Evaluation DOORS-Polarion
- Purchased Polarion license
- Configured Polarion

2012

- Test result reporting
- Traceability Tables
- New projects -> new configuration

2013-2015

- Updated traceability table
- Minor updates

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The traceability

ND-2538 - [illegible]	
ND-2539 - [illegible]	
ND-2540 - [illegible]	
ND-2541 - [illegible]	
ND-2542 - [illegible]	
ND-2543 - [illegible]	
ND-2544 - [illegible]	
ND-2547 - [illegible]	ND-4045 - [illegible] **Test Result:** Not Verified
ND-2548 - [illegible]	ND-4046 - [illegible] **Test Result:** Not Verified
ND-2549 - [illegible]	ND-4042 - [illegible] **Test Result:** Not Verified ND-4044 - [illegible] **Test Result:** Not Verified
ND-2550 - [illegible]	ND-4042 - [illegible] **Test Result:** Not Verified

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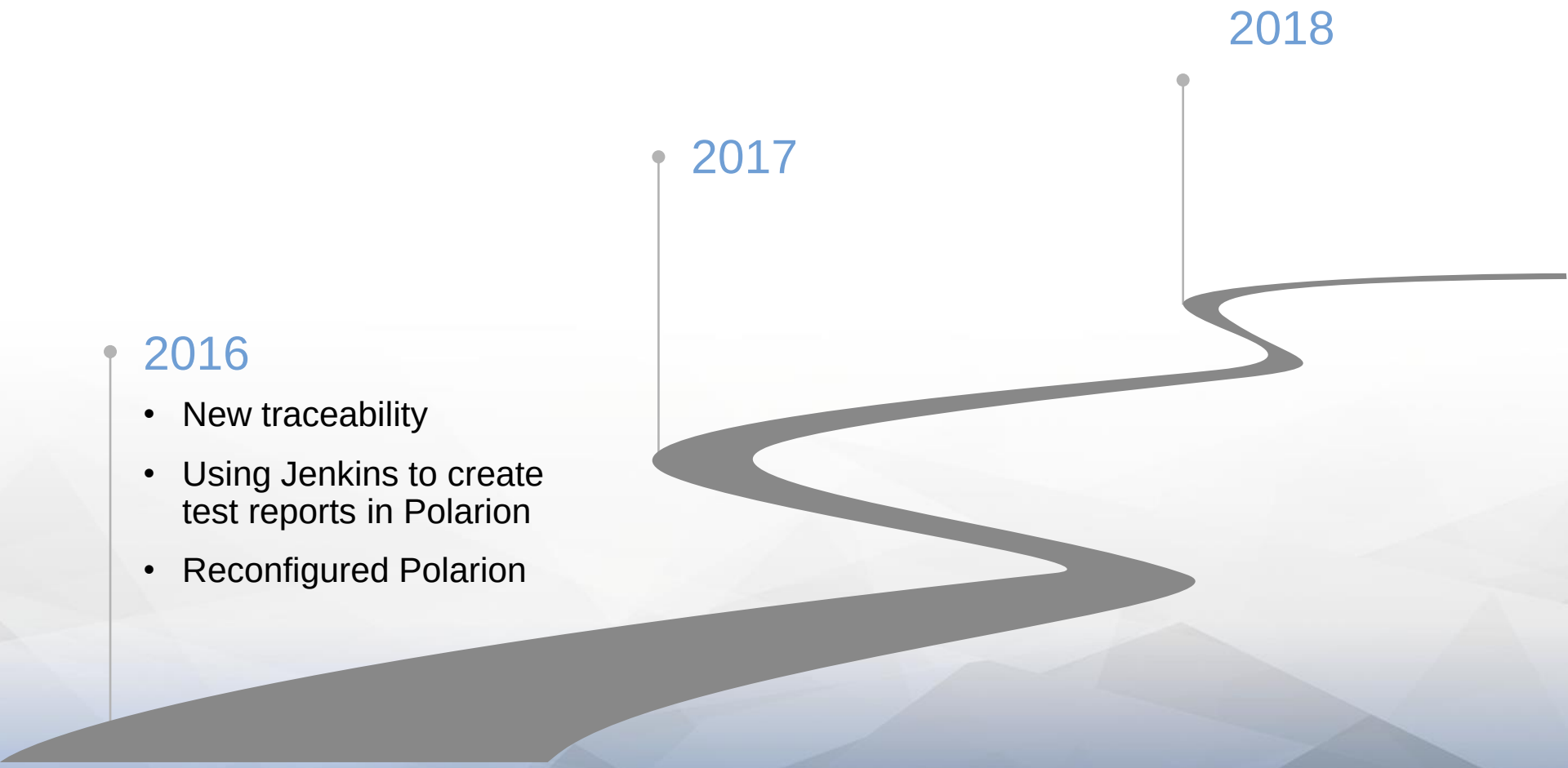
The road up till today



2016

- New traceability
- Using Jenkins to create test reports in Polarion
- Reconfigured Polarion

2017

2018

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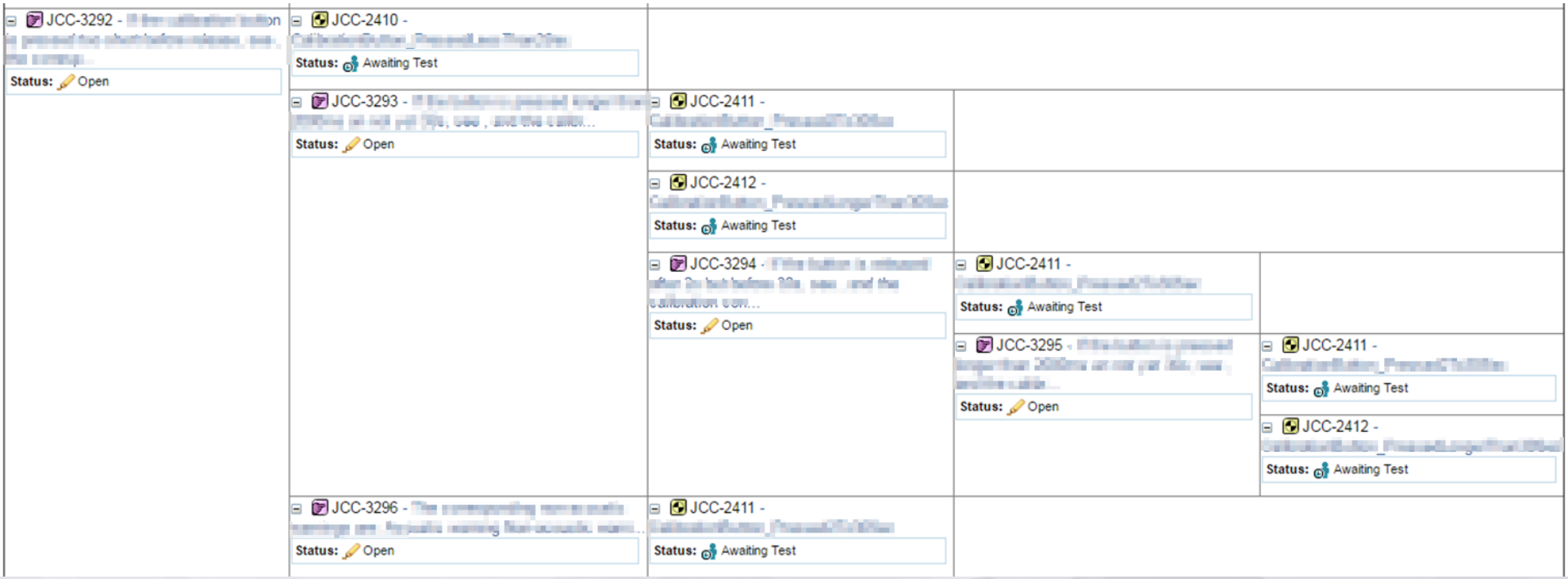
The new traceability



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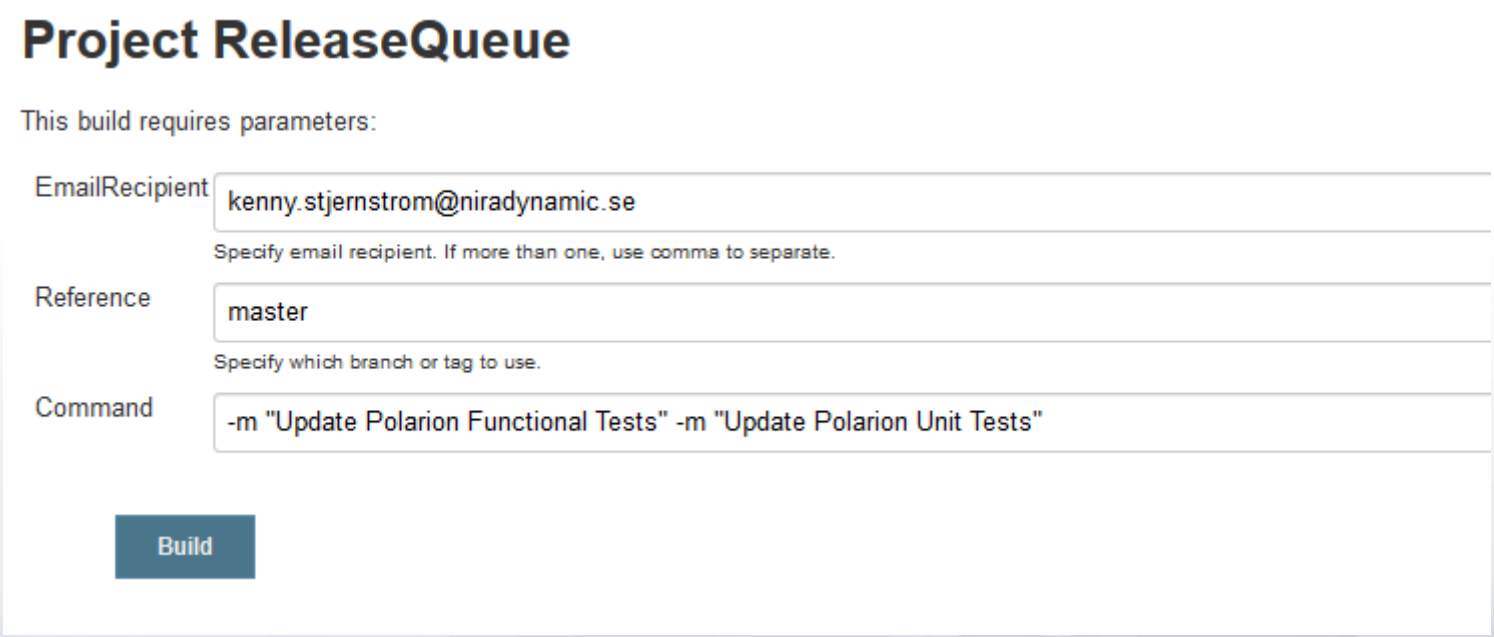
Jenkins


Project ReleaseQueue
This build requires parameters:
EmailRecipient
kenny.stjernstrom@niradynamic.se
Specify email recipient. If more than one, use comma to separate.
Reference
master
Specify which branch or tag to use.
Command
-m "Update Polarion Functional Tests" -m "Update Polarion Unit Tests"
Build

The road up till today

2016

- New traceability
- Using Jenkins to create test reports
- Reconfigured Polarion

2017

- Variants
- Status pages
- Seperated test result from test cases

2018

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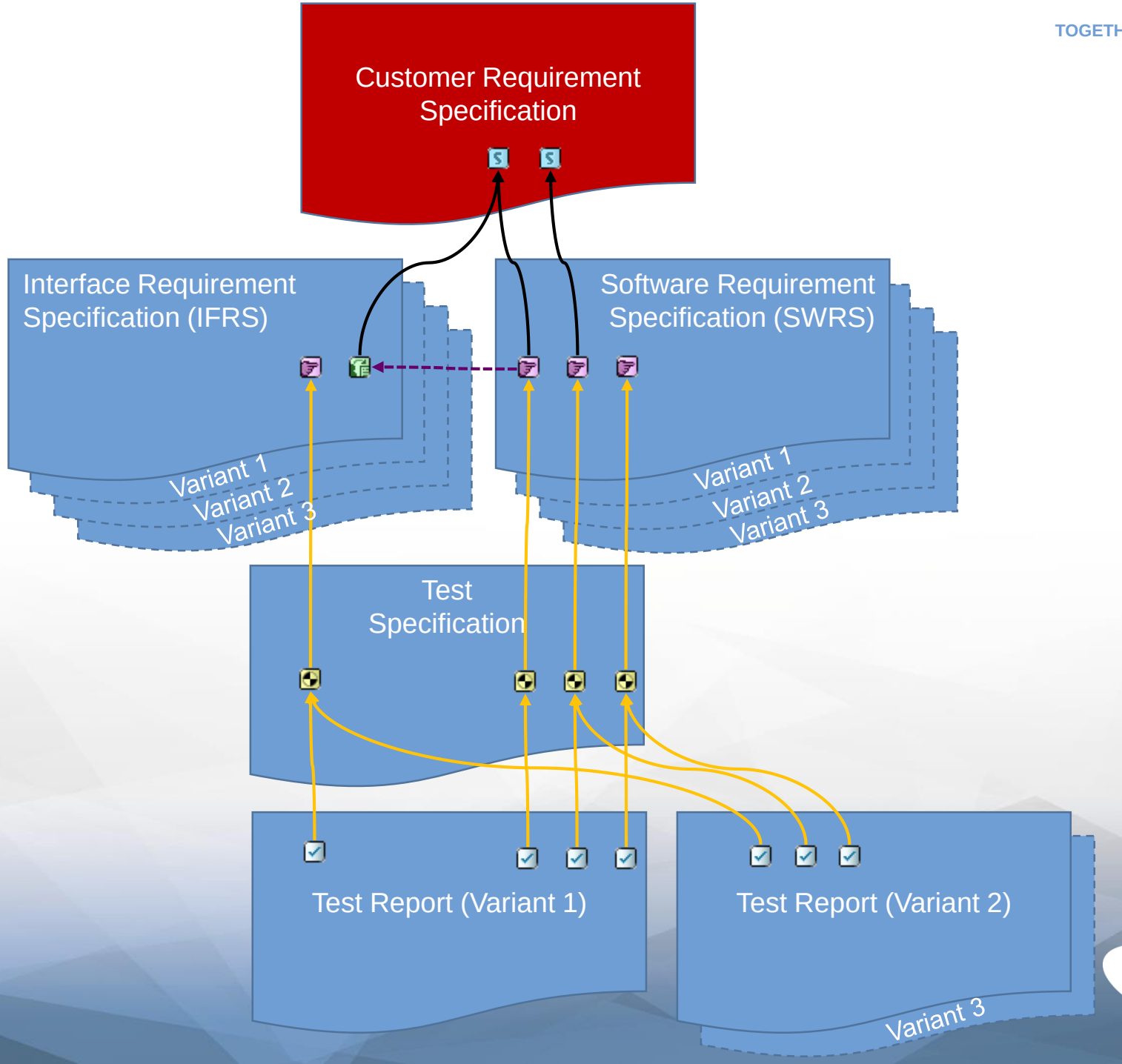

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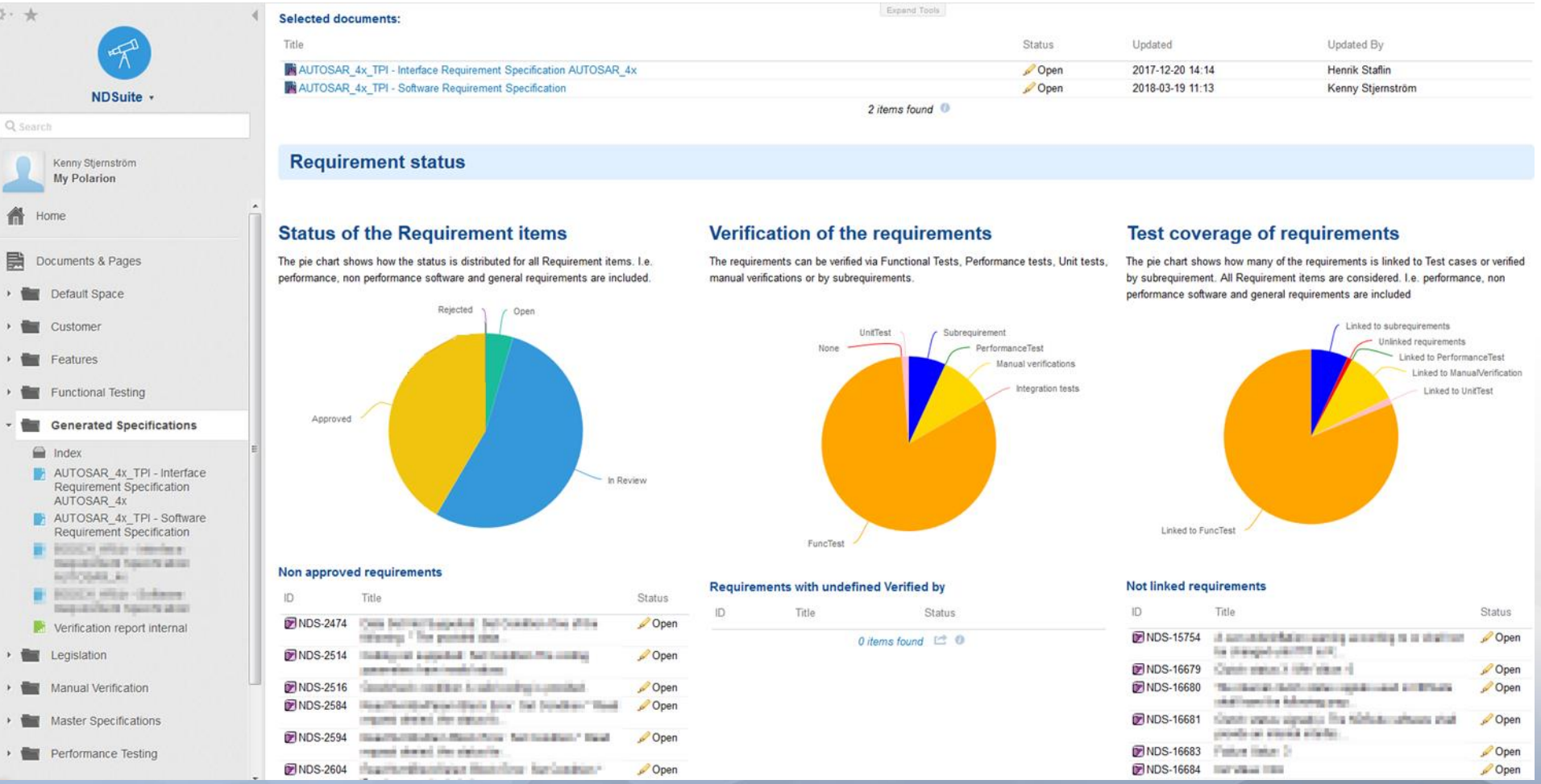
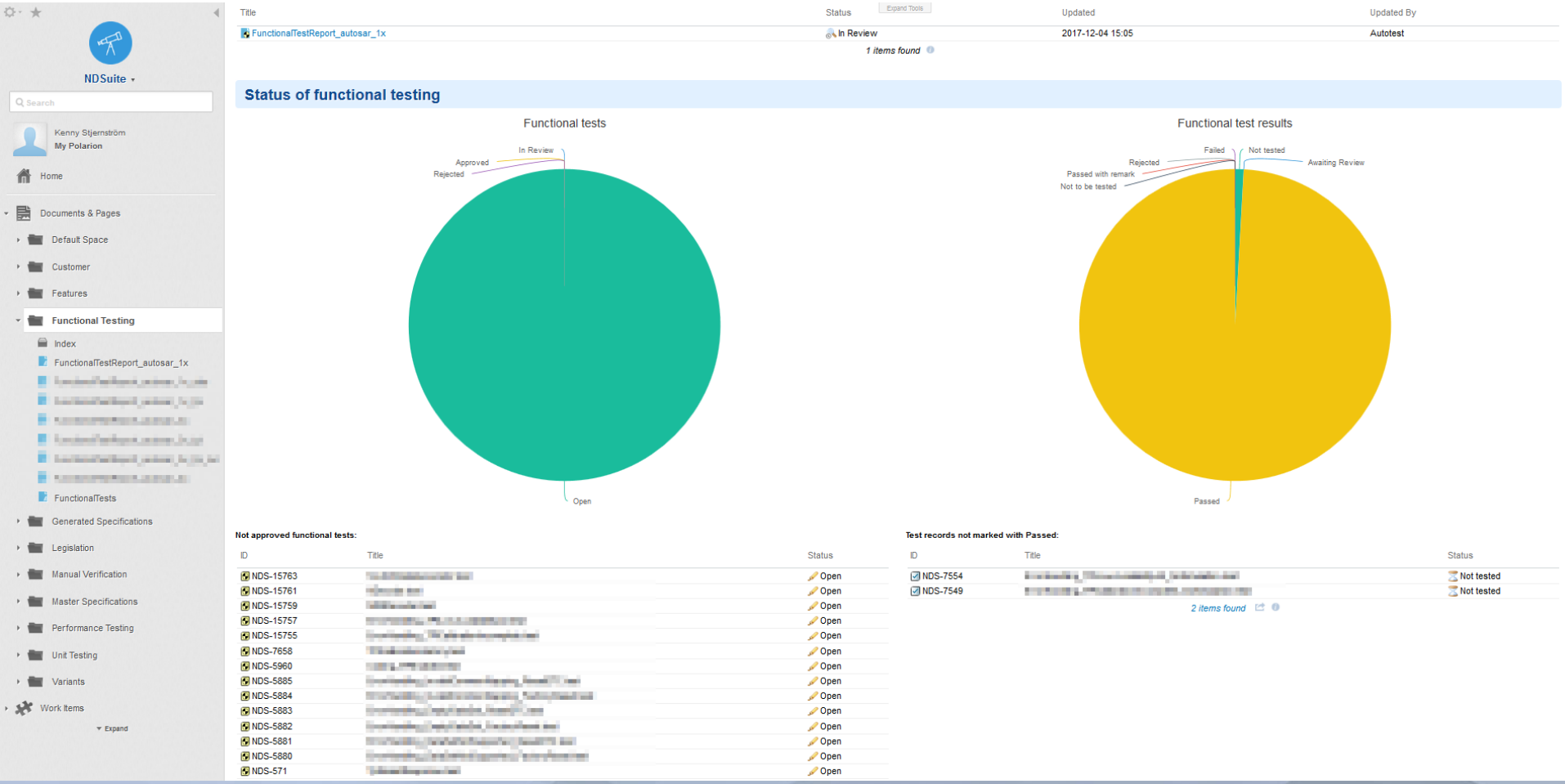
Status pages



Status pages



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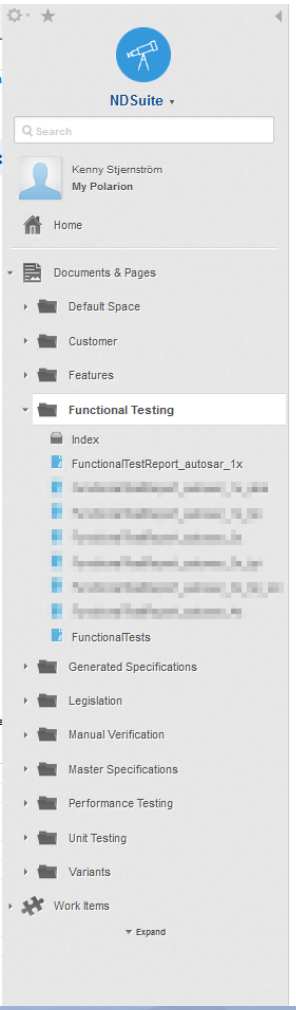
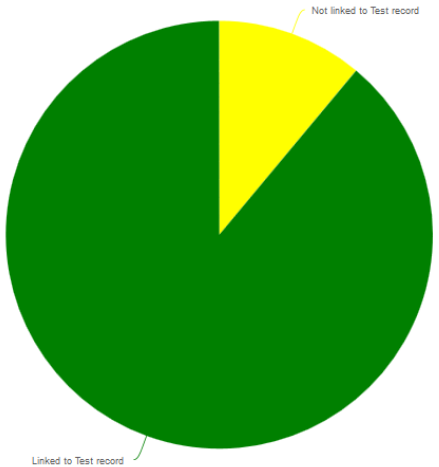
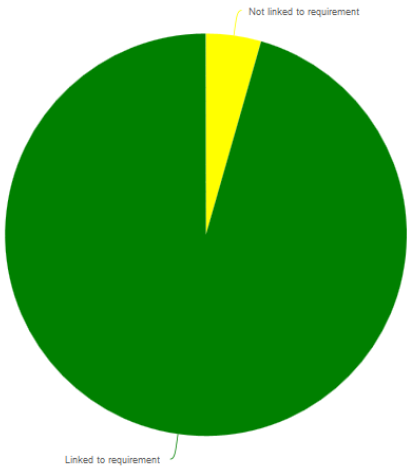
Status pages







Test cases that are not linked to test record for selected variant:

ID	Title	Status
NDS-507	[redacted]	Open
NDS-511	[redacted]	Open
NDS-505	[redacted]	Open
NDS-506	[redacted]	Open
NDS-514	[redacted]	Open
NDS-6844	[redacted]	Open
NDS-534	[redacted]	Open
NDS-513	[redacted]	Open
NDS-543	[redacted]	Open
NDS-522	[redacted]	Open
NDS-517	[redacted]	Open
NDS-499	[redacted]	Open
NDS-510	[redacted]	Open
NDS-509	[redacted]	Open
NDS-541	[redacted]	Open
NDS-542	[redacted]	Open
NDS-512	[redacted]	Open
NDS-520	[redacted]	Open
NDS-129	[redacted]	Open
NDS-498	[redacted]	Open

Showing 20 items of 28 found

Not linked test cases:

ID	Title	Status
NDS-15755	[redacted]	Open
NDS-15757	[redacted]	Open
NDS-15759	[redacted]	Open
NDS-15761	[redacted]	Open
NDS-15763	[redacted]	Open
NDS-390	[redacted]	Open
NDS-396	[redacted]	Open
NDS-475	[redacted]	Open
NDS-555	[redacted]	Open
NDS-7658	[redacted]	Open

10 items found

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The road up till today

2016

- New traceability
- Using Jenkins to create test reports
- Reconfigured Polarion

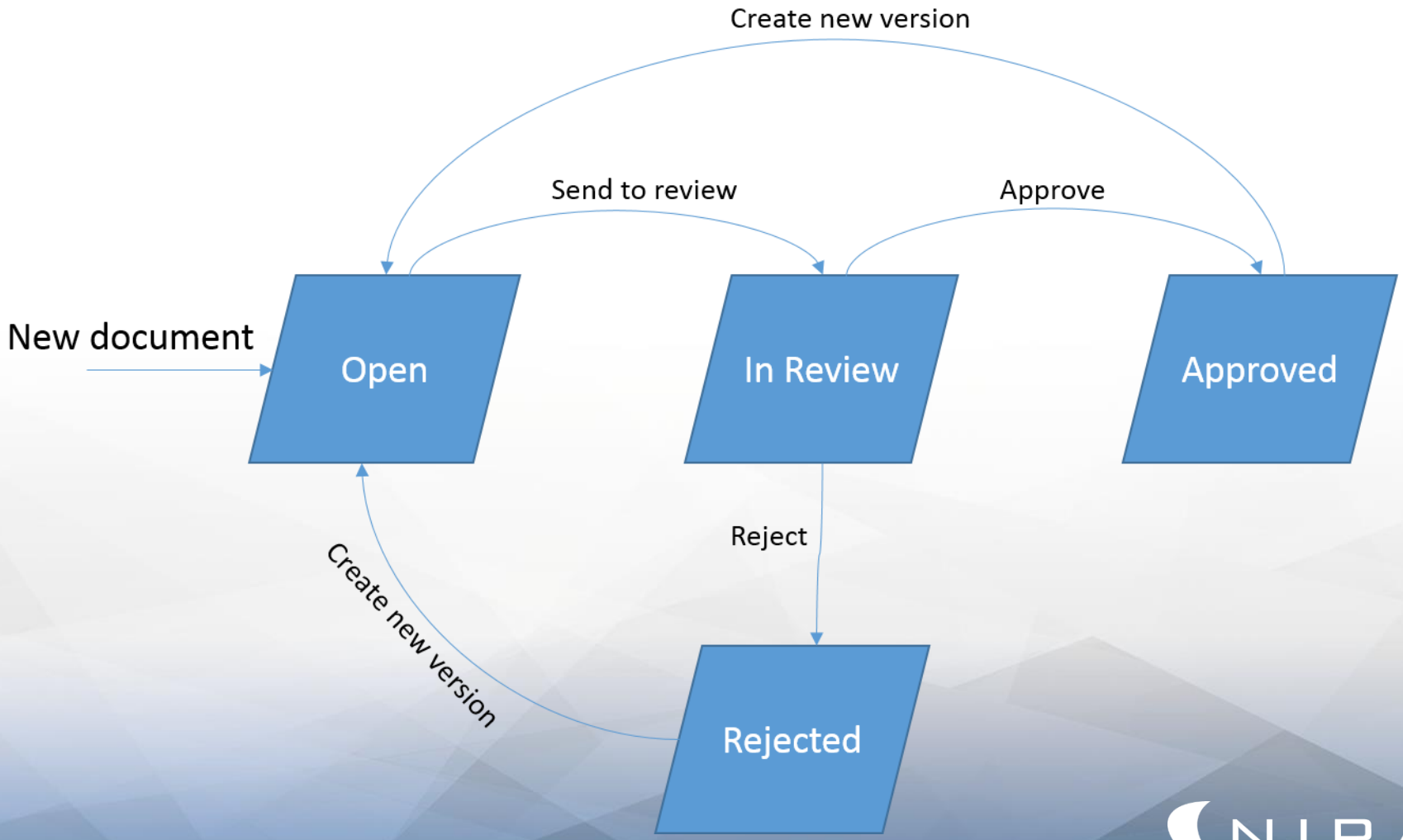
2017

- Variants
- Overview pages
- Seperated test result from test cases

2018

- Document workflow

Document workflow



Challenges

- NCS
- The tool must support the user to do the right thing.
- Use the comment functionality to do the reviews.

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Improvement suggestions

- Usability improvements.
  - Automatic set up of imports.
  - Number of savings needed must be decreased.
- Performance improvements
  - Saving performance.
  - Poor performance when viewing history, especially SQL queries.

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