Test Data Factory

Taking full control over test data on a legacy system

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Stater

TESTWORKS '16 CONF
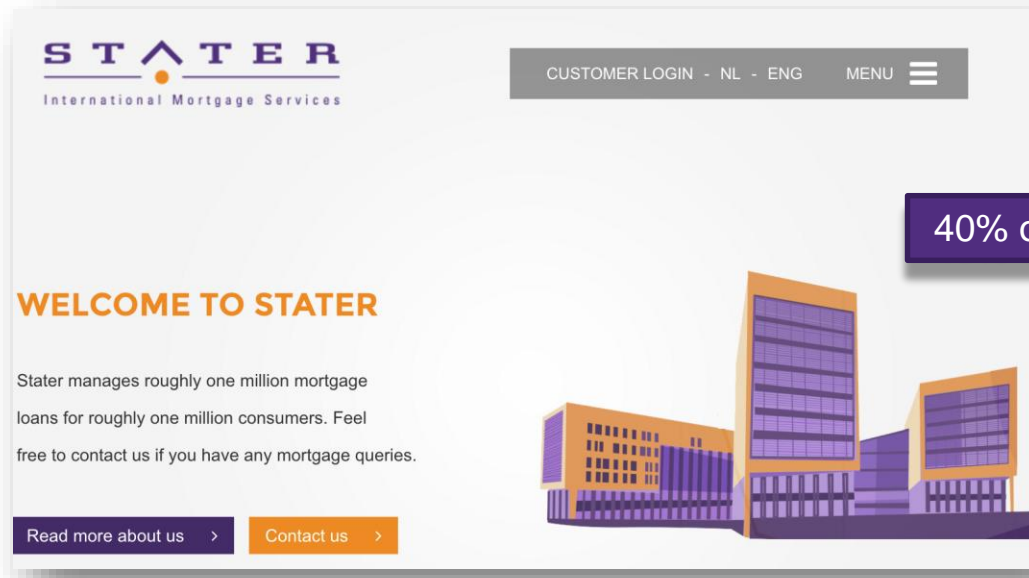
Contents

- Who is Stater?

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STATER

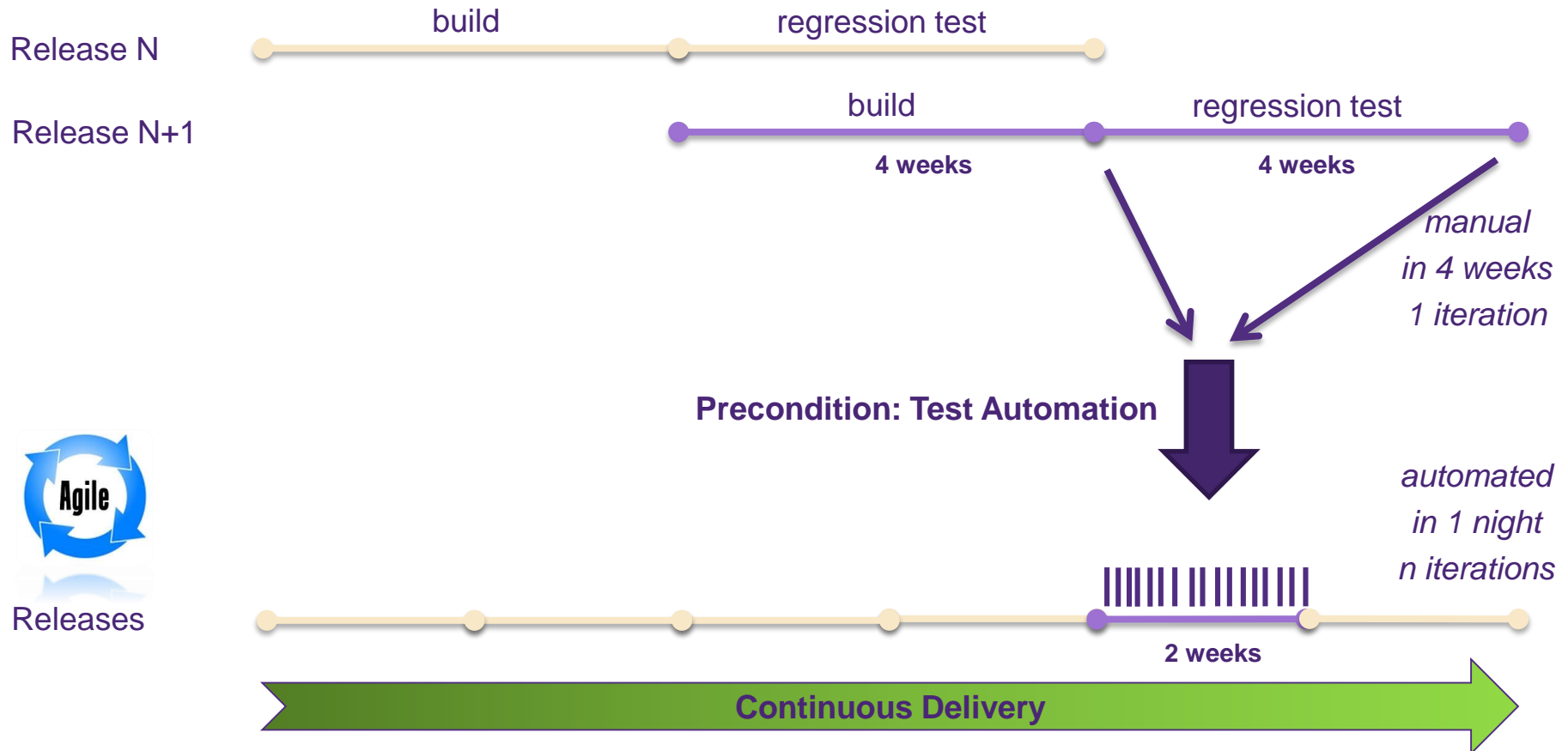Mortgage service provider

Over 1 million mortgages

30+ clients

REAAL

ABN·AMRO

delta lloyd

obvion
hypotheken

STATER
International Mortgage Services

CUSTOMER LOGIN - NL - ENG   MENU ≡

WELCOME TO STATER

Stater manages roughly one million mortgage
loans for roughly one million consumers. Feel
free to contact us if you have any mortgage queries.

Read more about us >   Contact us >

40% of all Dutch mortgages

400 IT-professionals

Mid Office

1.400 FTE

Back Office

Shortening release cycle

Release N — build | regression test

Release N+1 — build | regression test
- **4 weeks** | **4 weeks**

manual in 4 weeks 1 iteration

Precondition: Test Automation

Agile

Releases
- **2 weeks**

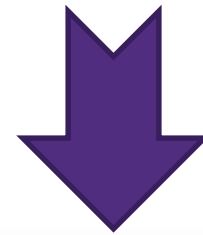*automated in 1 night n iterations*

Continuous Delivery

Current manual regression test

- Chains

- Batch calendar

- Copy production data

- Finding correct mortgage loan

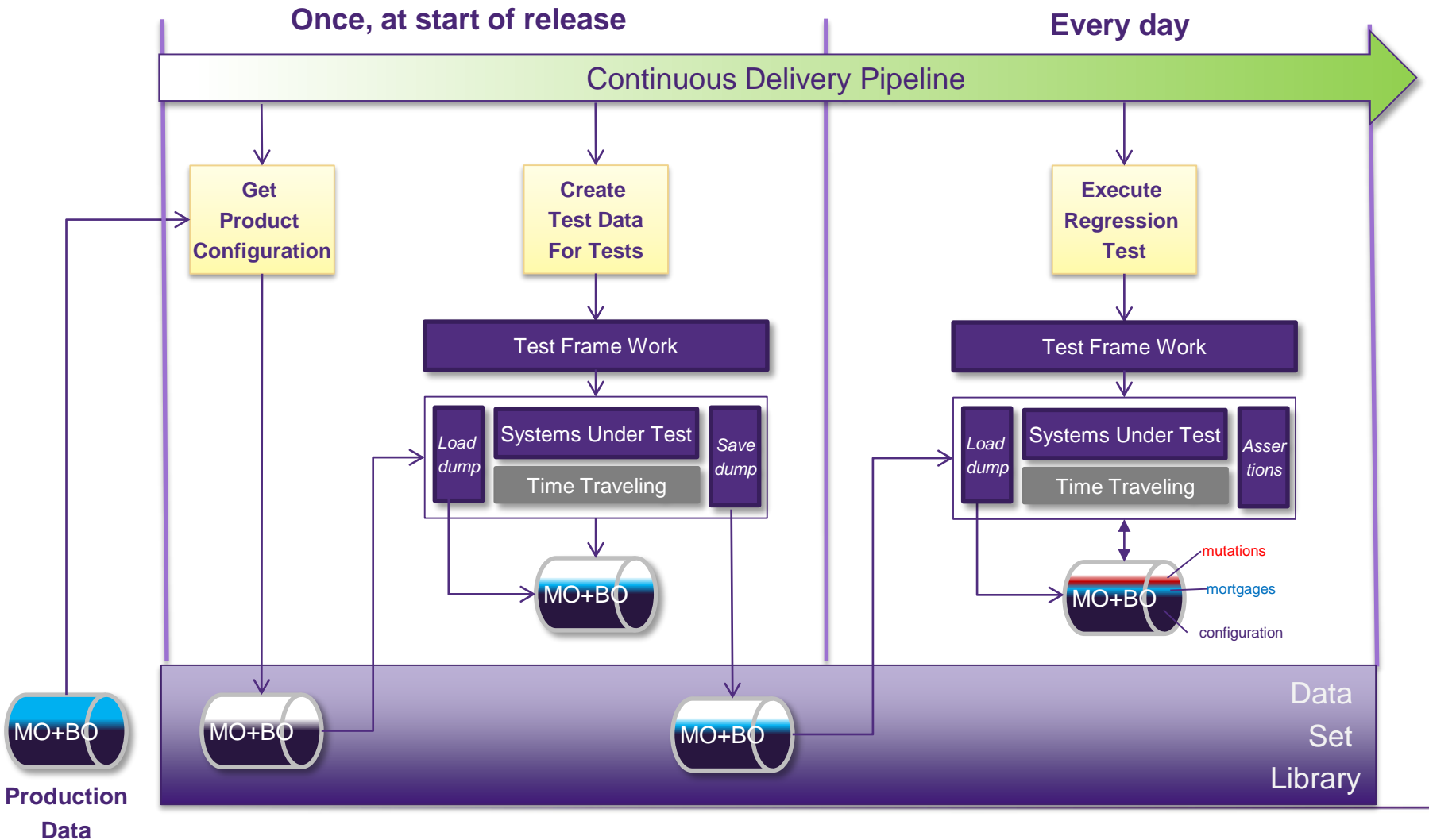# Issues for automation

- Duration

- No predictable tests

- No repeatable test

The challenge: creating test data

- Create test data via SQL-insertion

- Back Office system: legacy characteristics

  - Database model

  - Reverse engineering

  - To costly

- No option…

- What else?

Test Data Factory – The Concept

Example: Creating Test Data – FitNesse

Creating new mortgage from scratch

Run monthly batch on 1 mortgage

Save dumps library

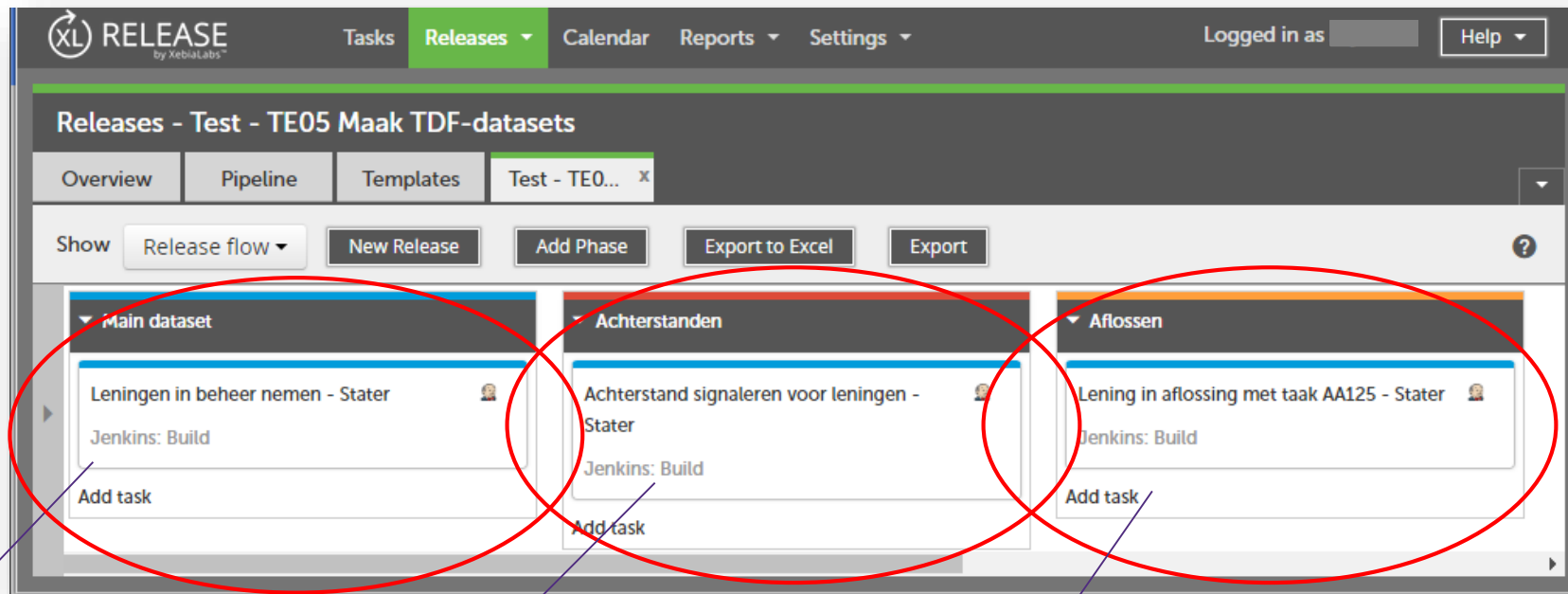# Example: Test Using Created Test Data – FitNesse

Test Specification

Load right dumps

Execute test

Example: Pipeline for Creating Test Data – XL Release

- 3 different data sets -> 75 test situations

Create mortgages from scratch:
- Start with dump with only product config
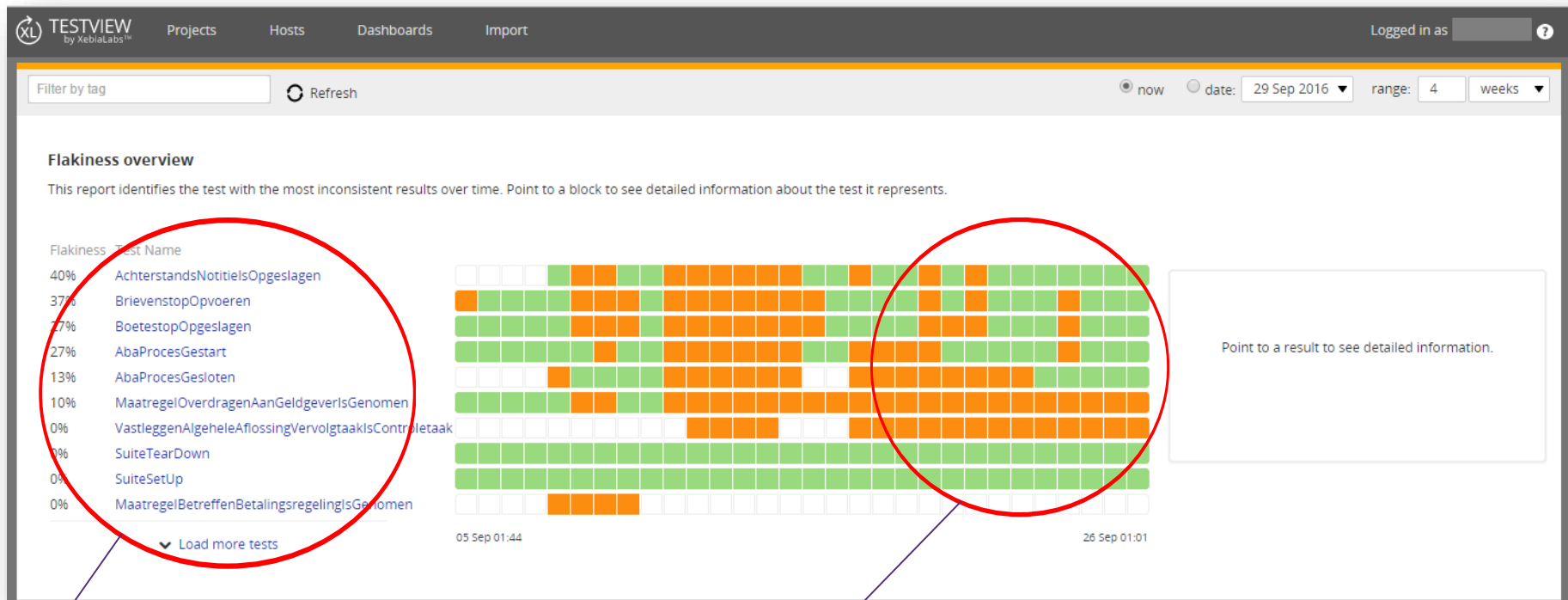- Create mortgages / run batches
- Save dump in data set library

Modify mortgages from main dataset:
- Load dump from Main dataset
- Modify mortgages / run batches
- Save dump in data set library

Modify mortgages from main dataset:
- Load dump from Main dataset
- Modify mortgages / run batches
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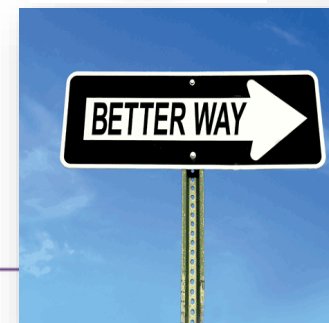# Proving the pudding: Flakiness Report – XL TestView

Repeatable tests on legacy system

Predictive results

Wrap up

- Is the Test Data Factory the best solution?

- No: for the long term.
  - Maintenance costs are high
  - Execution time high / no quick feedback
  - Testing high in the testing pyramid (less efficient and effective)

- Yes: for now.
  - Due to legacy character there is no better solution
  - It enables automated regression tests
  - It enables Stater to shorten the release cycle from 2 months to 2 weeks
  - It enables the customers to shorten time-to-market

- Future:
  - Renewing IT-architecture with testability in mind:
    - Enabling testing smaller functions
    - Enabling injecting test data

Questions?