# Migration Factory

Avaloq Migration powered by Excel, POI, Xtext and Xtend

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# Philipp Salvisberg

- With Trivadis since April 2000
  - Senior Principal Consultant, Partner
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- Main focus on database centric development with Oracle database
  - Application Development
  - Business Intelligence
  - Application Performance Management

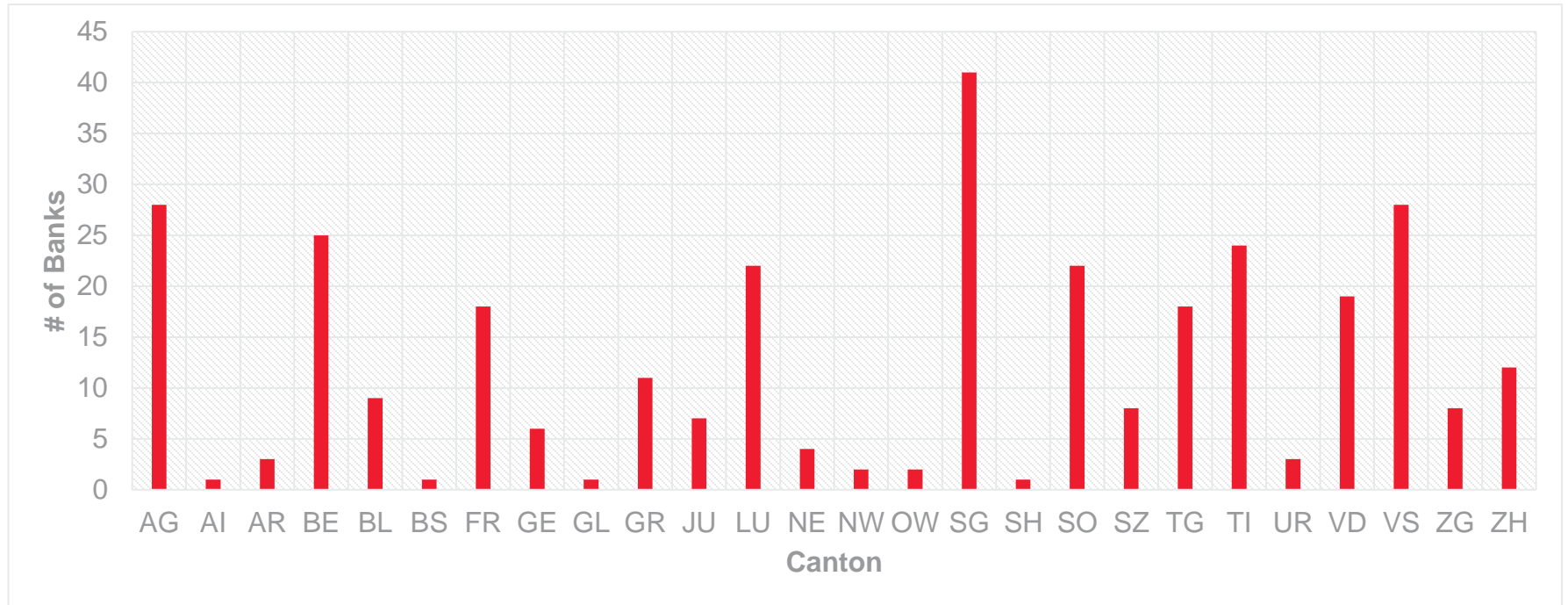- Over 20 years experience in using Oracle products

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# AGENDA

1. The Project

2. The Classic Solution Approach

3. The Model-Driven Solution Approach

4. Core Messages

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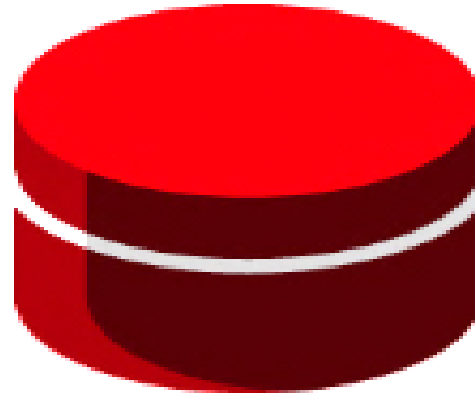
# The Project

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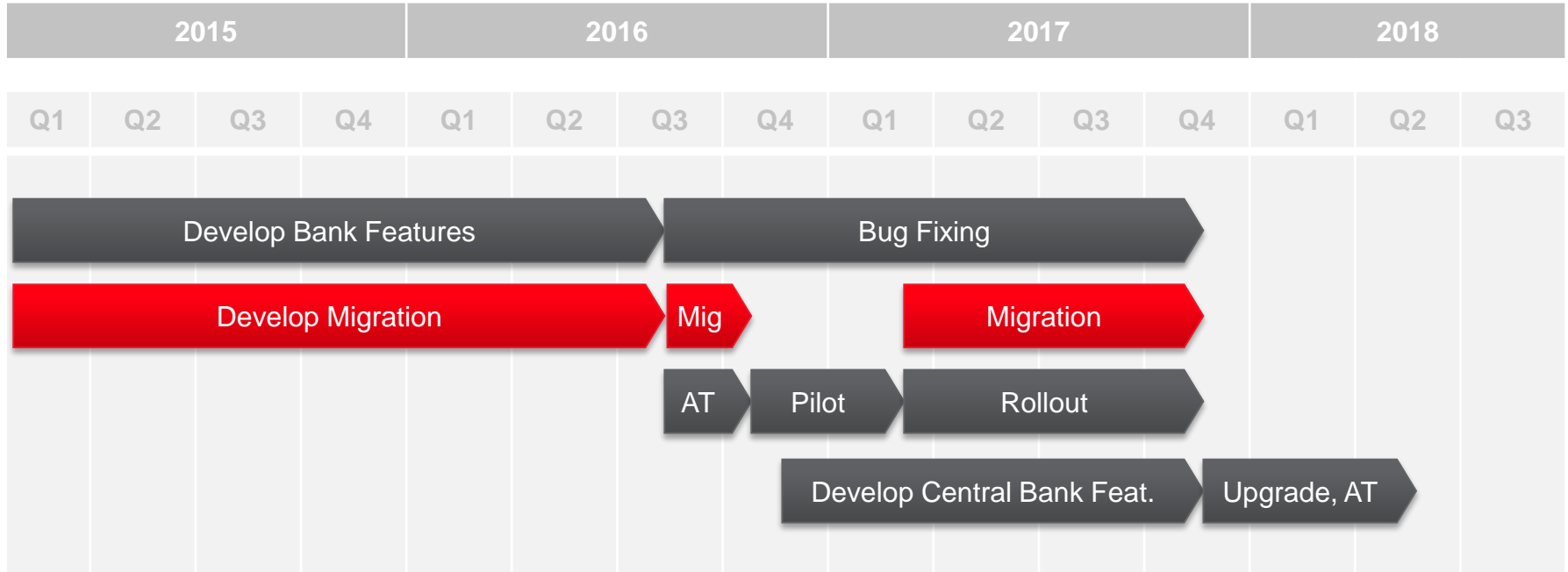# Swiss Raiffeisen Group consists of over 300 Banks

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# Replace "DIALBA 2000" with an Avaloq Banking System

- Over 300 decentral "DIALBA 2000" installations

- Individually configured

- Central Avaloq Banking System

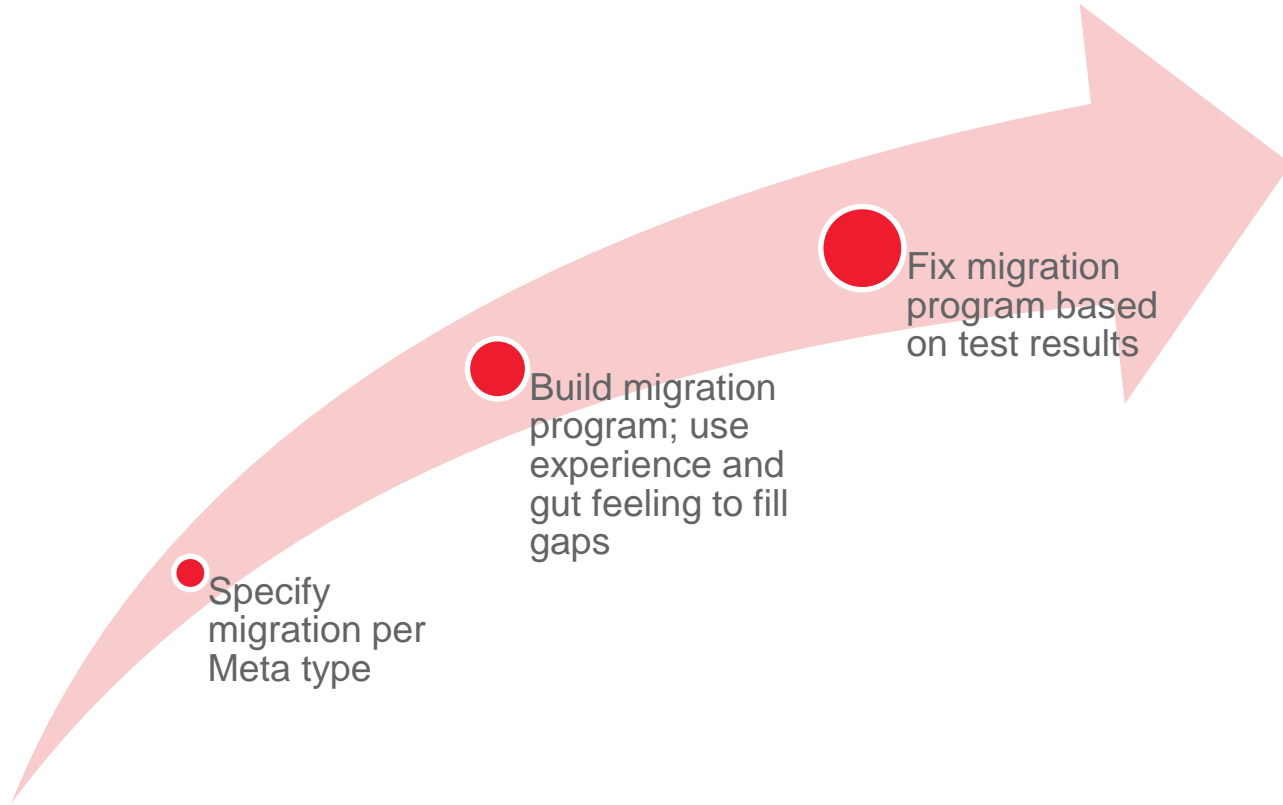- Banks = Business Units

- Homogenously configured

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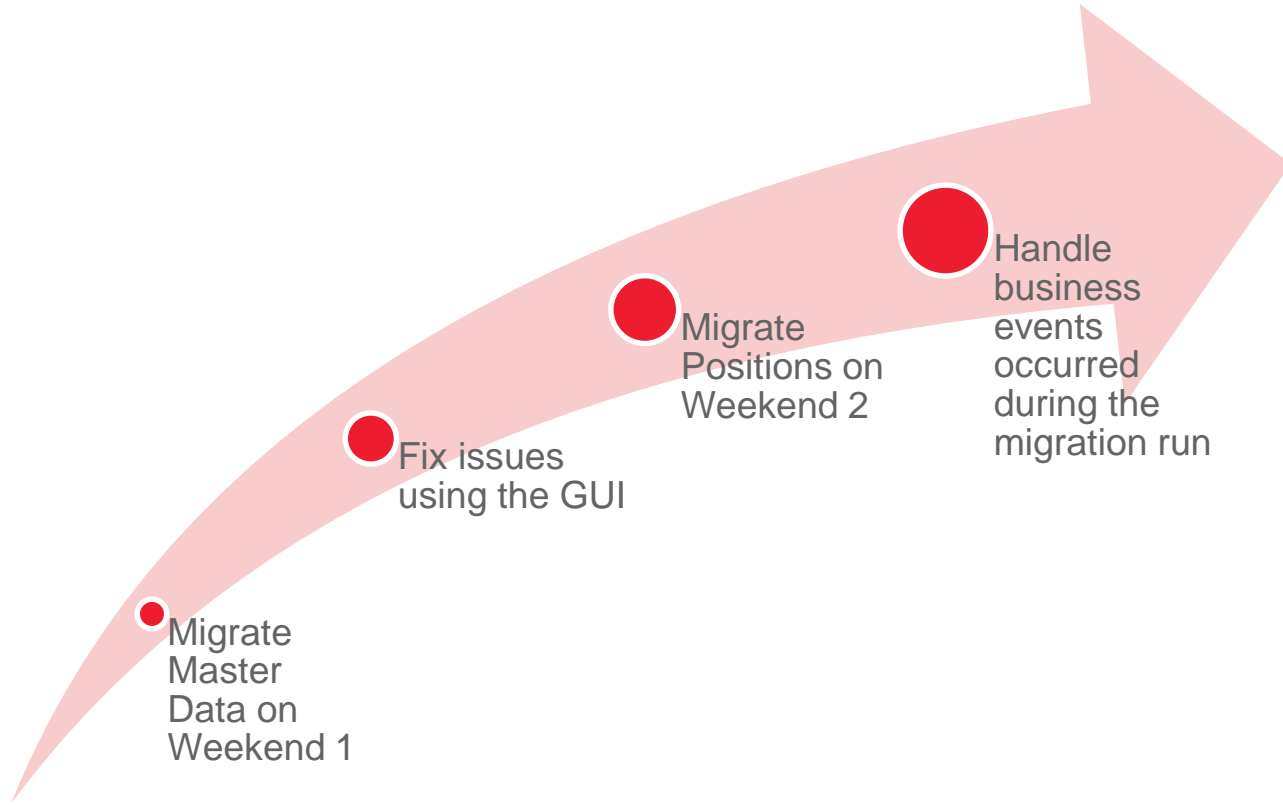makes IT easier.

# High Level Schedule

# The Classic Solution Approach (Migration)

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# Develop Migration



Specify migration per Meta type

Build migration program; use experience and gut feeling to fill gaps

Fix migration program based on test results

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# ■ Migrate



Migrate Master Data on Weekend 1

Fix issues using the GUI

Migrate Positions on Weekend 2

Handle business events occurred during the migration run

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# Traceability

- Keep Staging Area / snapshot of source systems

- Keep ETL programs

- Keep content of migration tables (input for Avaloq migration API)

- Reconciliation reports showing the "same" result on source an target system

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# The Model-Driven Solution Approach
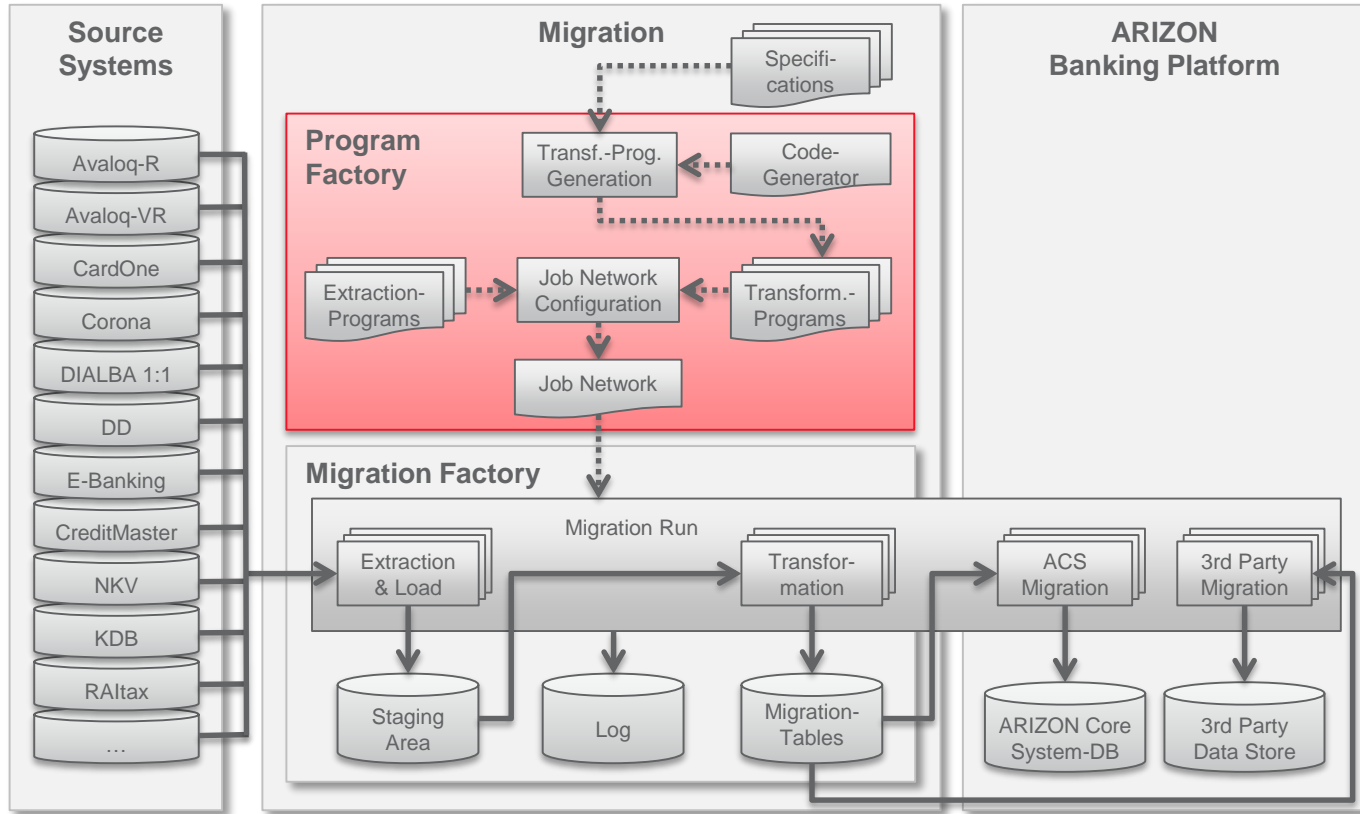
# (Migration)

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# Requirements (1 of 2)

- Migrate one or more banks per migration run

- Distribute the migration of all banks over a longer period

- Fully automated migration runs (no manual interventions required)

- Efficient change of transformation rules (avoid programming efforts)

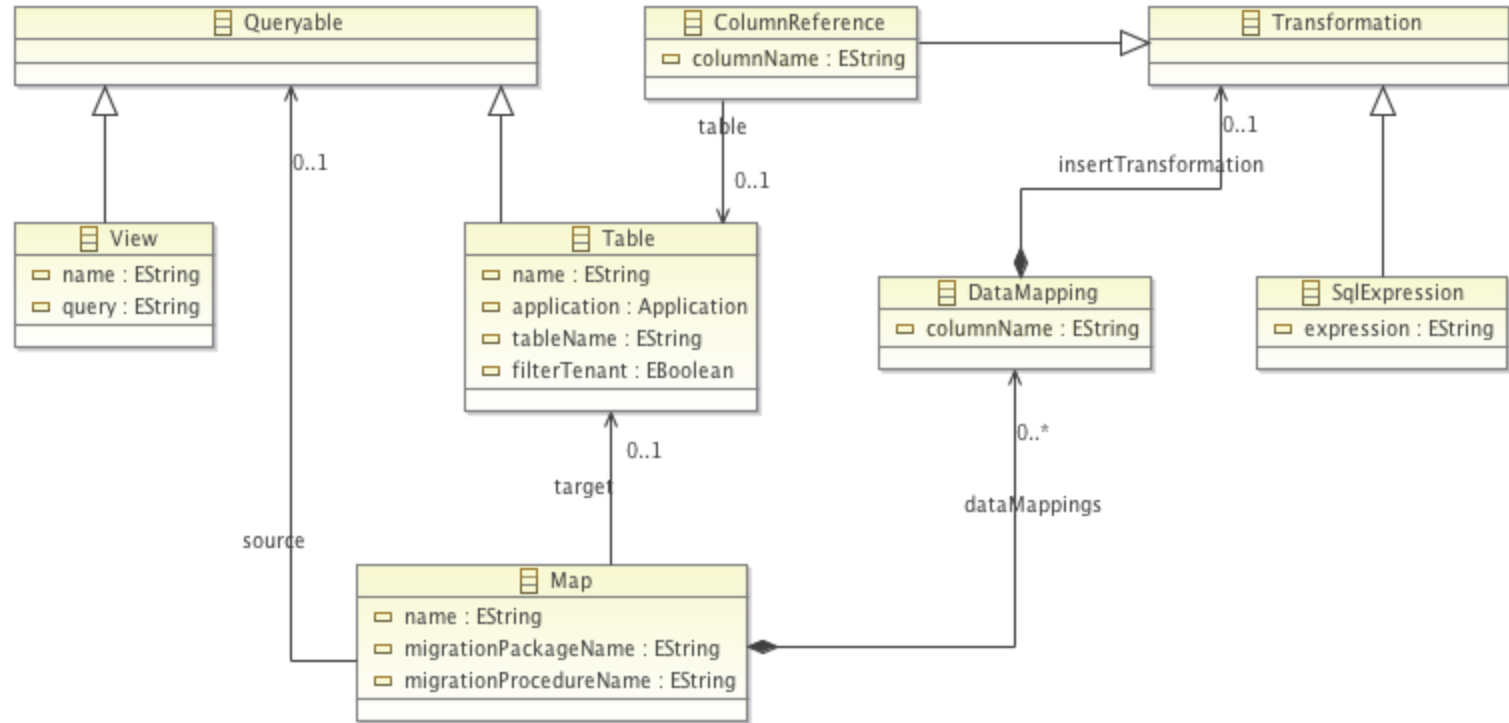- Monitor the progress of a migration run end-to-end

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# Requirements (2 of 2)

- Trace transformation logic for every migration run per bank and column

- Trace transformation results for every migration run per bank

- Use logging data for reporting purposes

- Report quality problems and not migrated data to fix issues
  - in productive source systems after test migration runs
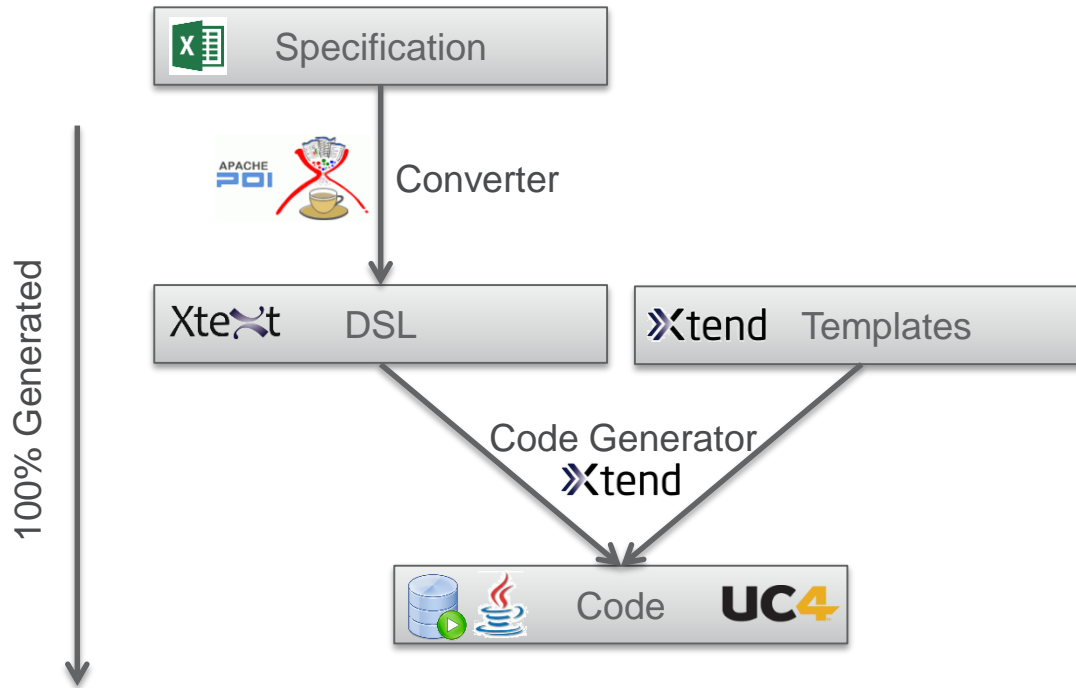  - in productive target systems after productive migration runs

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# Context

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# UML Model (Simplified Excerpt)

# Program Factory Overview



Abstractions-Layer 1

Abstractions-Layer 2

Code-Layer

# Example

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# Pros

- Unbroken chain from specification to implementation

- Reduced to the max (specification contains all essential information)

- Design decisions are implemented in code templates

- Code template changes are immediately applied

- High flexibility and responsiveness

- Good reporting and analysis base

- No cases that could not be solved by this approach

- Approach is applicable for future ACS customers
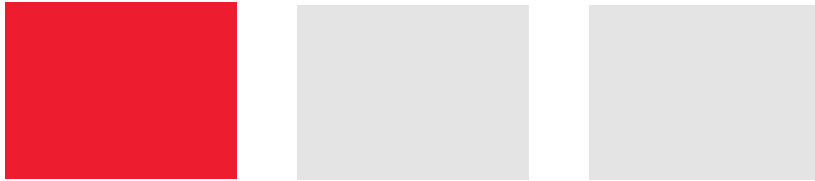
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# Cons

- The approach differs from previous Avaloq migration projects

- The initial costs are higher compared to the traditional approach

- Does not replace graphical overviews for complex migration paths

- The requirements for business analysts are relatively high

- The handover of Excel specifications might not scale

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# Core Messages

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# Core Messages
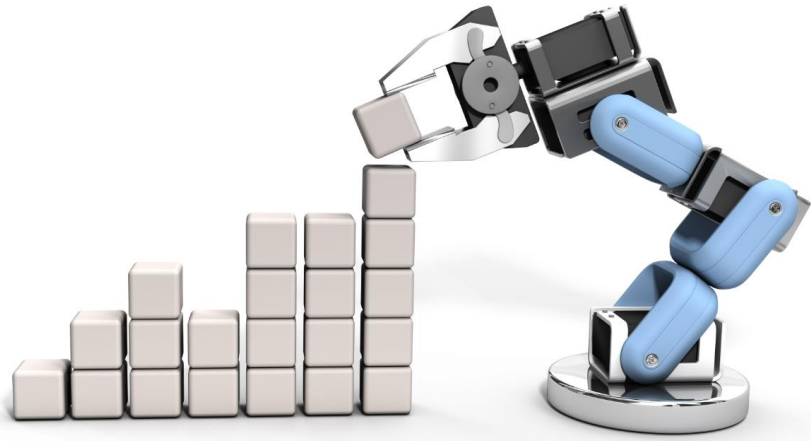
- Eclipse Xtext and Xtend is well suited for model-driven software development

- Arizon decided in favor of the program factory

- No program factory, no Trivadis

- Less human resources for standardized tasks required

- Model-driven software development is an opportunity

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# Questions and answers ...

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