Fontys

DENK GROTER

Changing Requirements & Design

Frank Peeters

f.peeters@fontys.nl

Fontys Univ of Applied Sciences - ICT
LaQuSo – TU/e

Fontys

Outline

- Challenges, Scope
- Approach
- Demo Tool
- Conclusions, Future Research
- Questions

Fontys

Challenges

- **E**arly **Qu**ality **A**ssurance - Project
- Changing User Requirements
- Product owner validation
- Model Driven Design

Fontys

Scope

- URS (**U**ser **R**equirements **S**pecification)
- Object Oriented Software
- Domain Model

Fontys

Product Owner ←→ URS

input

validation

URS

- Actions
- Facts
- Rules
- Quality attributes

Fontys

Action Requirements

Actions

1. Registrate a new employee.
2. Change the salary of an employee.
3. Invite all employees with partner and kids for some company event.
4. …

Fontys

Fact Requirements

Facts

1. Grt has a monthly salary of 4560 euro.
2. Hub is working for HRM.
3. The 1e child of Hub is called Luke.
4. The partner of Grt is called William.
5. Grt is female.

Fontys

Rule Requirements

Rules

1. An employee can be identified by an employee code.
2. An employee is attached to one department.
3. …

Fontys

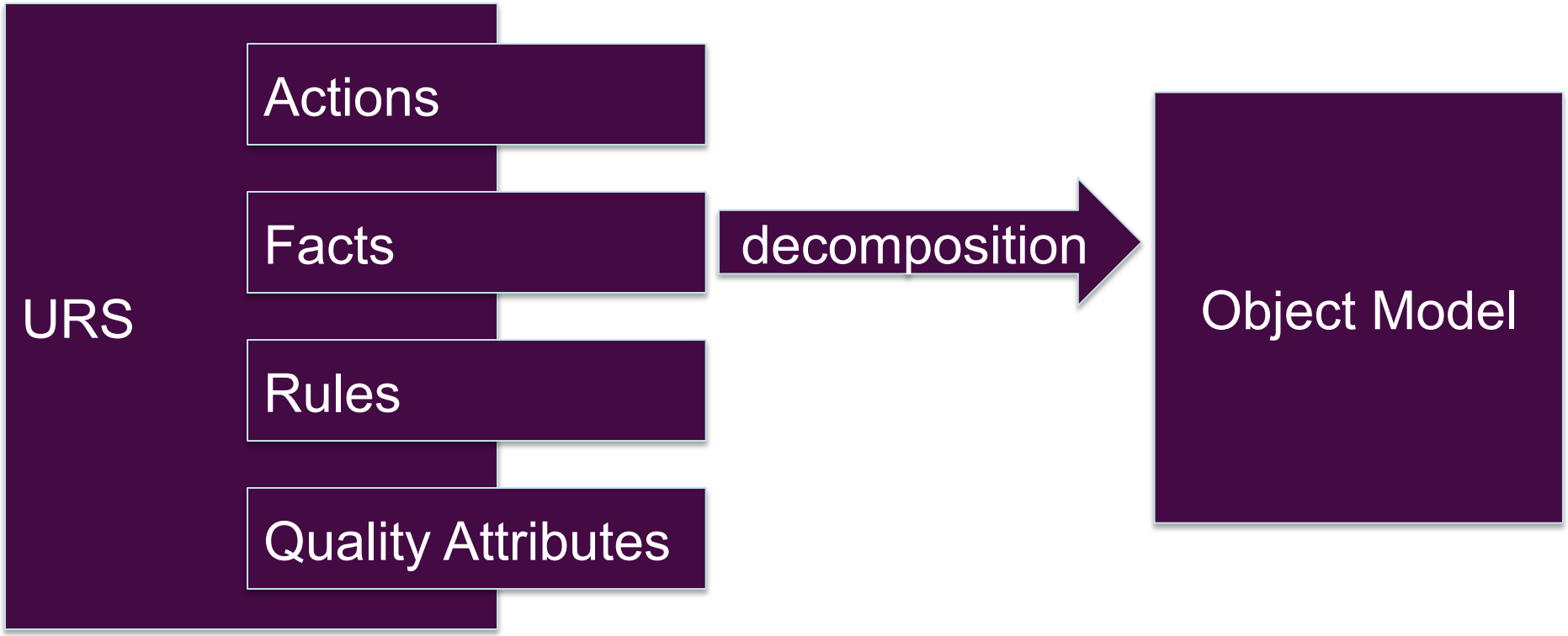
Non Functional Requirements

Quality Attributes

1. The laws of privacy may not be disturbed.
2. The system should be recovered within a minute after a break down of a server.
3. …

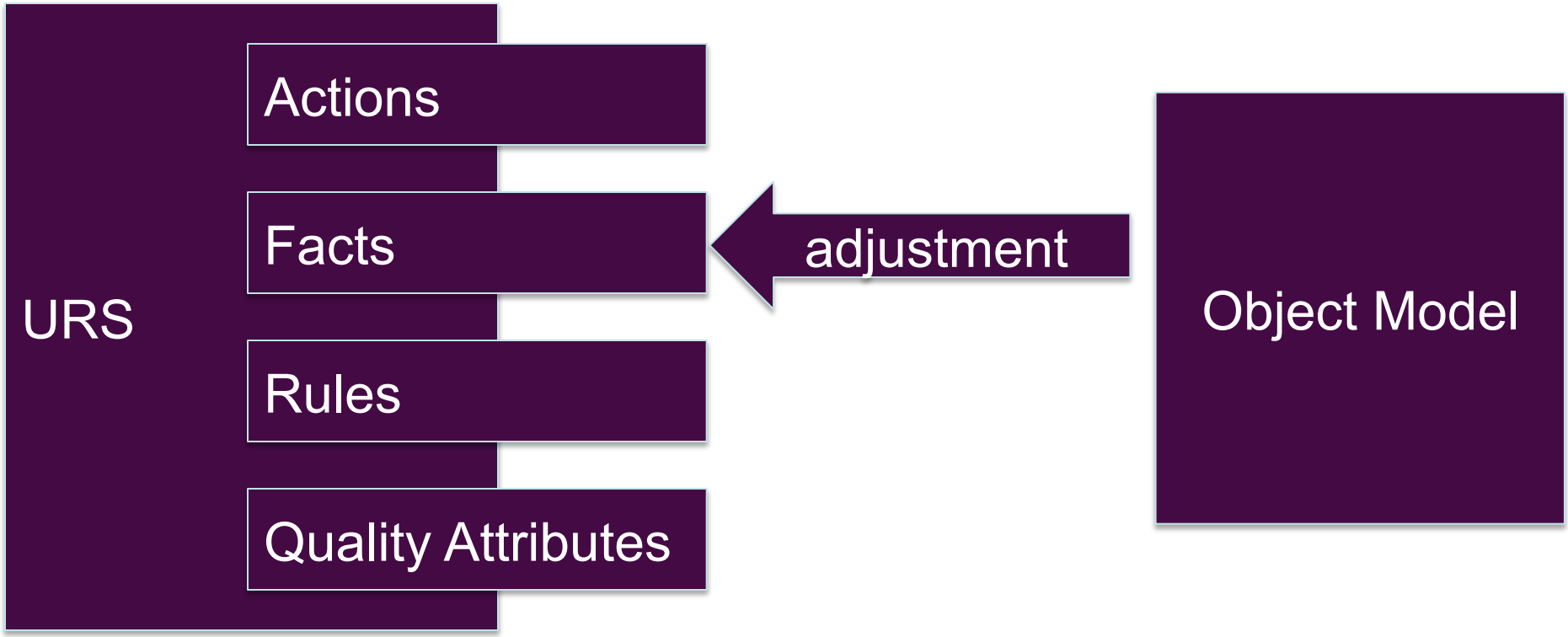
Fontys

Construction



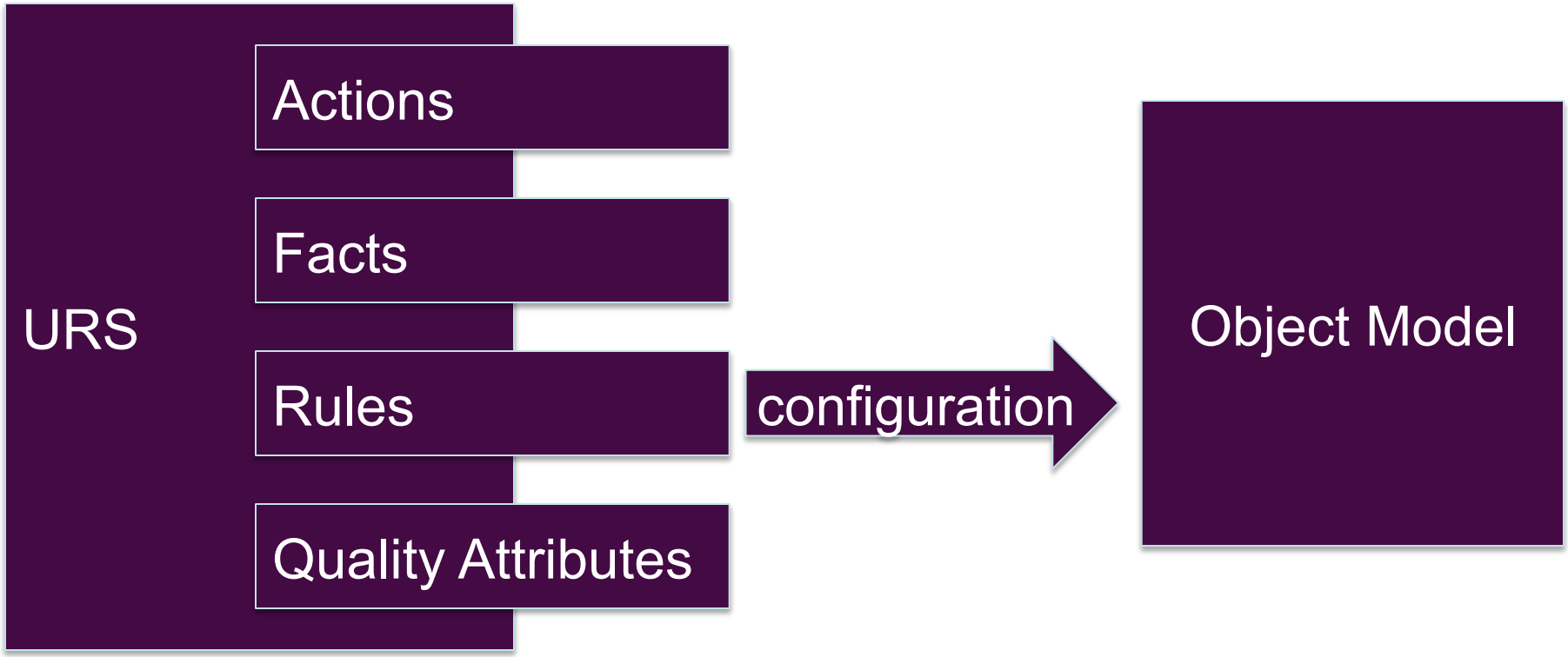
Fontys

Construction(2)



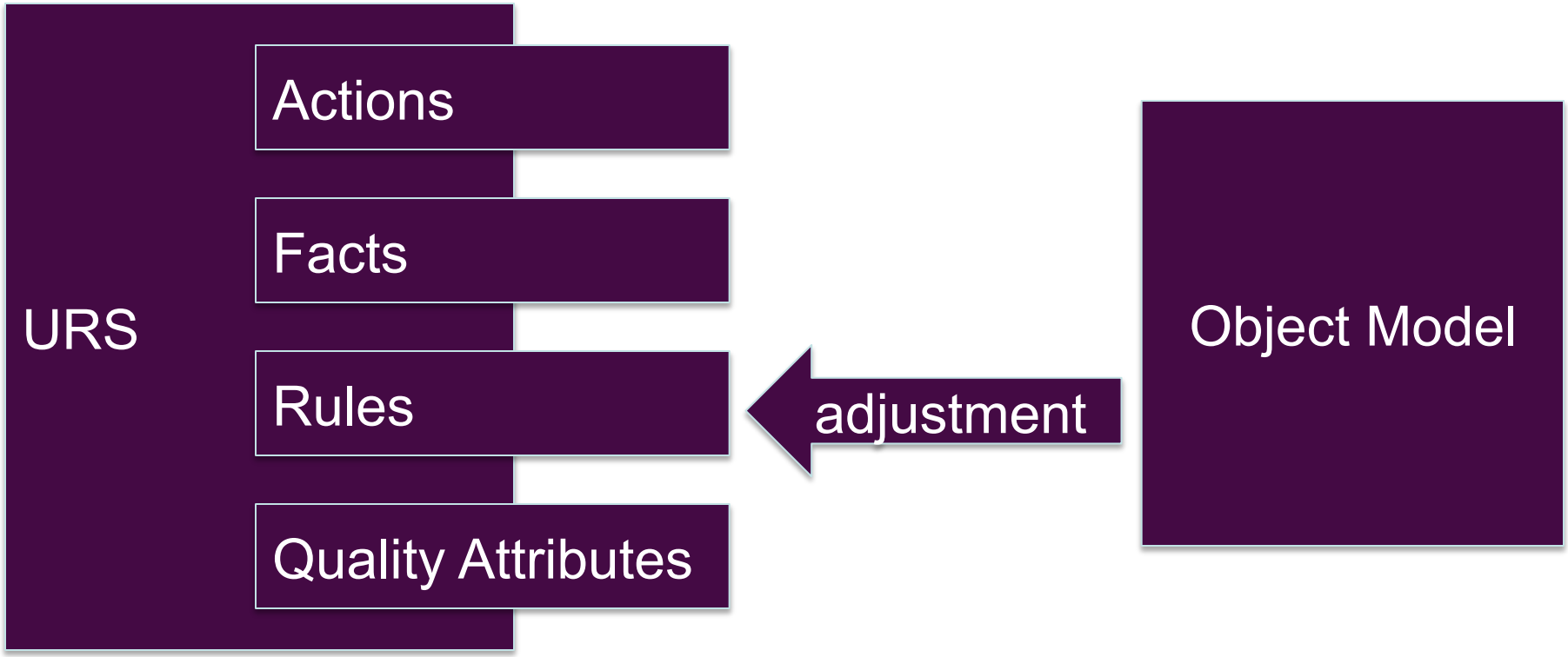
Fontys

Configuration



Fontys

Configuration(2)



Fontys

Product Owner ←→ URS

input

validation

URS

- Actions
- Facts
- Rules
- Quality attrib.

adjustment

Fontys

Demo

Fontys

Symbiosis

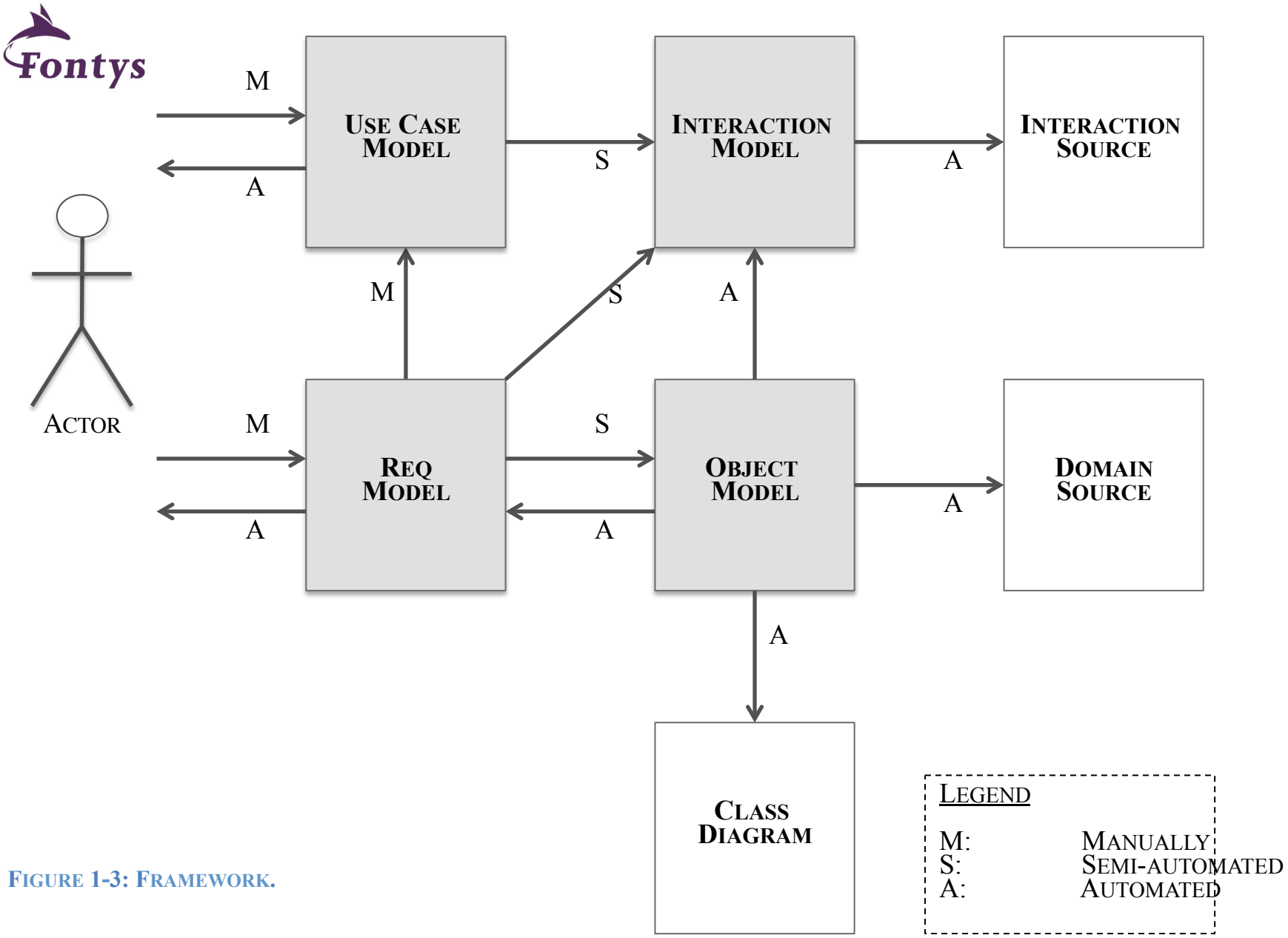


FIGURE 1-3: FRAMEWORK.

Fontys

Future research

- Requirements Editor - Validator
- Multi-User Aspects
- Automated Source Generation
- Interaction Model
- Model Checking - Refactoring

Fontys