University Information Management

Our reference no. SECR/IM/10/51/FS/bkx telephone +31 (0)53 - 489 4151 date 6 July 2010 email <u>f.snels@utwente.nl</u> final version subject UT Architecture Governance

### Introduction

Architecture has been on UT's agenda for several years, but the university's architecture is currently used in a non-structural, often ad-hoc fashion. This document describes how the architecture and its functions within UT can be brought to the next level of maturity.

UT's architecture governance is inspired by the common architecture process models TOGAF and DYA and the architectural language Archimate.

#### **Architecture function**

The architecture function is a description of tasks, powers and responsibilities in the field of architecture. The following three roles are distinguished:

- The University Architecture Working Group (UAW)
- The enterprise architect
- The project architect

The University Architecture Workgroup (UAW) is set up by the director of university information management, advises the director on UT's architecture policy and contributes to choices made to optimise information provision at UT. The UAW has the following tasks:

- Evaluating project start architectures. This means that the UAW must test whether the
  project start architecture meets the requirements for UT architecture and, accordingly,
  whether the intended results of the project also meet these requirements. If necessary, the
  UAW will recommend certain changes;
- Maintain a Plan-Do-Check-Act (PDCA) cycle for the baseline and target architecture. These
  cycles ensure that the added value of working with an architecture is realised in a
  purposeful, gradual manner.

The enterprise architect is appointed by the director of university information management and serves as the chairperson of the UAW. The enterprise architect has the role of managing the architecture framework established by the Executive Board and applied by UAW and the project architect. The enterprise architect has the following tasks:

- Chairing the UAW and coordinating with stakeholders;
- Managing the architecture vision. The architecture vision indicates: IT principles for the business, application and technology layer, stakeholders, objectives regarding UT architecture, description of the architecture process, tasks, powers and responsibilities

- within the UT architecture, overall description of the baseline architecture (existing, IST) and the target architecture (SOLL)<sup>1</sup>;
- In addition, the EA is responsible for monitoring and reporting on the implementation of the framework.

The project architect is responsible for drawing up a project start architecture. The purpose of a project start architecture is: "to ensure that new developments and changes are realised cohesively and fit within the intended system. The project start architecture is the translation of the architecture to the specific situation of the project". The project start architecture ensures that the project actually contributes to the realisation of the target architecture. Just like the baseline and target architecture, the project start architecture is split up into three disciplines (see principles). Depending on the necessity, size and complexity of the project, these will be worked out in greater detail under the responsibility of the project architect.

### **Principle**

- The core principle is that projects "follow an architecture", which means that they
  should tend towards the aspirations set out in the architecture vision. "Following an
  architecture" does not imply a hierarchical relationship, but rather means that the
  architecture serves as a guideline for the integration of the project's objectives into UT
  architecture.
- A baseline, target and project start architecture will be shown for three domains<sup>2</sup>. This document uses archimate terminology:
  - A business architecture (business layer)
  - An information system architecture consisting of a data and application architecture (application layer)
  - A technology architecture (technology layer)
- The business layer is directly derived from the three primary processes and the associated operational management processes:
  - o Teaching;
  - o Research;
  - o Valorisation;
  - o Operations

# Approach

Start small and show it works. The University Architecture Working Group (UAW) will have to draw up an initial version of an architecture vision and a baseline and target architecture.

Project start architectures must be drawn up for those projects that require/could benefit from this. In any case, this new approach will first be implemented in the education and research information domains.

<sup>&</sup>lt;sup>1</sup> According to TOGAF, a baseline architecture is the existing system architecture before the cycle of redesign is completed. According to TOGAF, a target architecture is the description of a future architecture in one or more situations.

<sup>&</sup>lt;sup>2</sup>The terminology used here follows TOGAF, while the bracketed term shows the Archimate alternative:

# Implementation of architecture governance

- The director of university information management sets up the UAW and appoints the
  enterprise architect, who chairs the UAW. The director submits architectural frameworks for
  adoption to the Executive Board, which is advised by the University Operations Committee.
  The enterprise architect has final responsibility for the working group, convenes meetings,
  draws up the agenda and is responsible for the secretariat.
- For the "technology" and "information systems" disciplines, representatives of ICTS will be by the Director of ICTS. These representatives are responsible for drawing up an initial baseline and target architecture, testing project start architectures and ensuring that the project start architecture is embedded in the baseline and target architecture.
- For the "business" discipline, there is one representative per information domain. In the first year, there will be at least one representative for
  - o the education information domain, who will be appointed by the director of the Student and Education Service Centre.
  - the research information domain, who will be appointed by the Library & Archive director and the group controller of the Directorate for Financial and Economic Affairs

For the other domains, representatives will be appointed as needed.