## **ArchiMate**®



#### **SURF**

ArchiMate® modeling helps to answer the question of how students and staff can always have access to the information they need.

#### **Facts & Figures**

Founded: 1987 No. Institutions: 60

#### Stimulation of ArchiMate®

SURF stimulates and supports the use of ArchiMate in higher education in the Netherlands to improve the exchange and reuse of information and the cooperation between institutes.

# **Enterprise Architecture in the Dutch Higher Education Sector**

"SURF stimulates and supports the use of ArchiMate<sup>®</sup> in higher education in the Netherlands."

Ronald Ham, Project Manager

SURF is the collaborative organization for higher education institutions and research institutes aimed at breakthrough innovations in ICT. SURF provides the foundation for the excellence of higher education and research in the Netherlands.

SURF was founded in 1987 by the joint universities. At present, SURF represents over 60 institutions (academic universities, universities of applied sciences, research centers, and centers for documentary information services). SURF has pioneered connectivity between the higher educational institutes in the Netherlands and abroad. As a result, the present academic network infrastructure in the Netherlands is considered a leading example worldwide. SURF is also active in many international collaborative platforms such as JISC, TERENA, and GLIF.

SURF comprises SURFfoundation, SURFnet, and SURFdiensten (SURFservices). SURFfoundation is the initiator for innovation in higher education and research. SURFfoundation initiates, guides, and stimulates ICT innovation through sharing knowledge and partnerships.

#### Goal

In its latest multi-annual plan 2007-2010, SURFfoundation is expanding its mandate from the technical infrastructure into the information infrastructure of the higher educational institutes. Central in this strategy is the adoption of a services approach and the promotion of enterprise architecture best practices among its members.

The motivation is mainly a functional one, and not a technological one: for users, this strategy leads to more transparent information services and flexibility in creating a "personalized learning and working environment"; applications management is expected to benefit by reducing the number of duplicate functionalities and dedicated system interfaces; and cooperation between educational institutes and with other sectors is expected to benefit.

## **ArchiMate**®



#### 3TU

SURF supports the three Dutch Technical Universities in their work designing an integrated application landscape using ArchiMate<sup>®</sup>.

#### International

After SURF and the participating universities started using ArchiMate, many educational institutions in different countries started using ArchiMate and exchange practices.

### **Approach and results**

In promoting enterprise architecture and Service-Oriented Architecture (SOA), SURFfoundation targets different audiences within its member organizations: senior management, architects and information managers, functional system owners, and ICT professionals. Most activities are targeted at the second group, architects and information managers, as these are considered the "mediators" between the other three audiences. For this group, SURFfoundation organizes training sessions in enterprise architecture, ArchiMate and EA-tooling to establish a shared vocabulary and approach to enterprise architecture throughout the higher education sector. Furthermore, SURFfoundation facilitates the exchange of best practices through meetings and an online community. SURFfoundation also actively supports sharing of existing architecture studies and models between institutions through a Community of Practice. In addition, SURFservices is negotiating low-cost software licenses for enterprise architecture tools.

SURFfoundation participates in innovative enterprise architecture projects together with educational institutes and disseminates the lessons learned. An example of this is the 3TU federation, where the three Dutch Technical Universities of Delft, Eindhoven, and Twente are integrating their existing application landscapes based on SOA principles, to provide a federative learning and working environment for students and teaching staff. Such sector initiatives are further reinforced by national development like the development of the Dutch Government Reference Architecture (Dutch acronym NORA).

Together with sister organizations from Australia, New Zealand, and the UK, SURFfoundation participates in the e-Framework for Education and Research (www.e-framework.org). The e-Framework provides information to institutions on investing in and using information technology infrastructure. It advocates service-oriented approaches to facilitate technical interoperability of core infrastructure as well as effective use of available funding. One of the current activities within the e-Framework is matching its approach with Archimate.

Also in other countries is ArchiMate used in higher education; e.g., by a number of universities in the UK and Brazil, and by organizations similar to SURF, like JISC (UK). At many educational institutes, ArchiMate is also used to teach students on enterprise architecture.