

The logo of the AISA Research Project is a stylized, abstract graphic. It features a central vertical element that resembles a flame or a stylized letter 'I'. From the top of this central element, several curved, overlapping shapes emerge, creating a sense of movement or a flame-like structure. The entire logo is rendered in a light blue color, contrasting with the darker blue background of the slide.

AISA Research Project

Quality Management of Enterprise and Software Architectures

2005-2008

Eetu Niemi & Tanja Ylimäki

**INFORMATION TECHNOLOGY RESEARCH INSTITUTE
UNIVERSITY OF JYVÄSKYLÄ**

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Introduction

- A three-year research project studying the quality management and evaluation aspects of both **enterprise architecture (EA)** and **software architecture (SA)**
- 1.3.2005 – 31.3.2008
- Participating organizations: A-ware, Elisa, IBM, Osuuspankkikeskus, SOK, Tieturi
- Funded by the Finnish Funding Agency for Technology and Innovation (Tekes) and the participating organizations

Project Themes and Objectives 1/2

Major research questions:

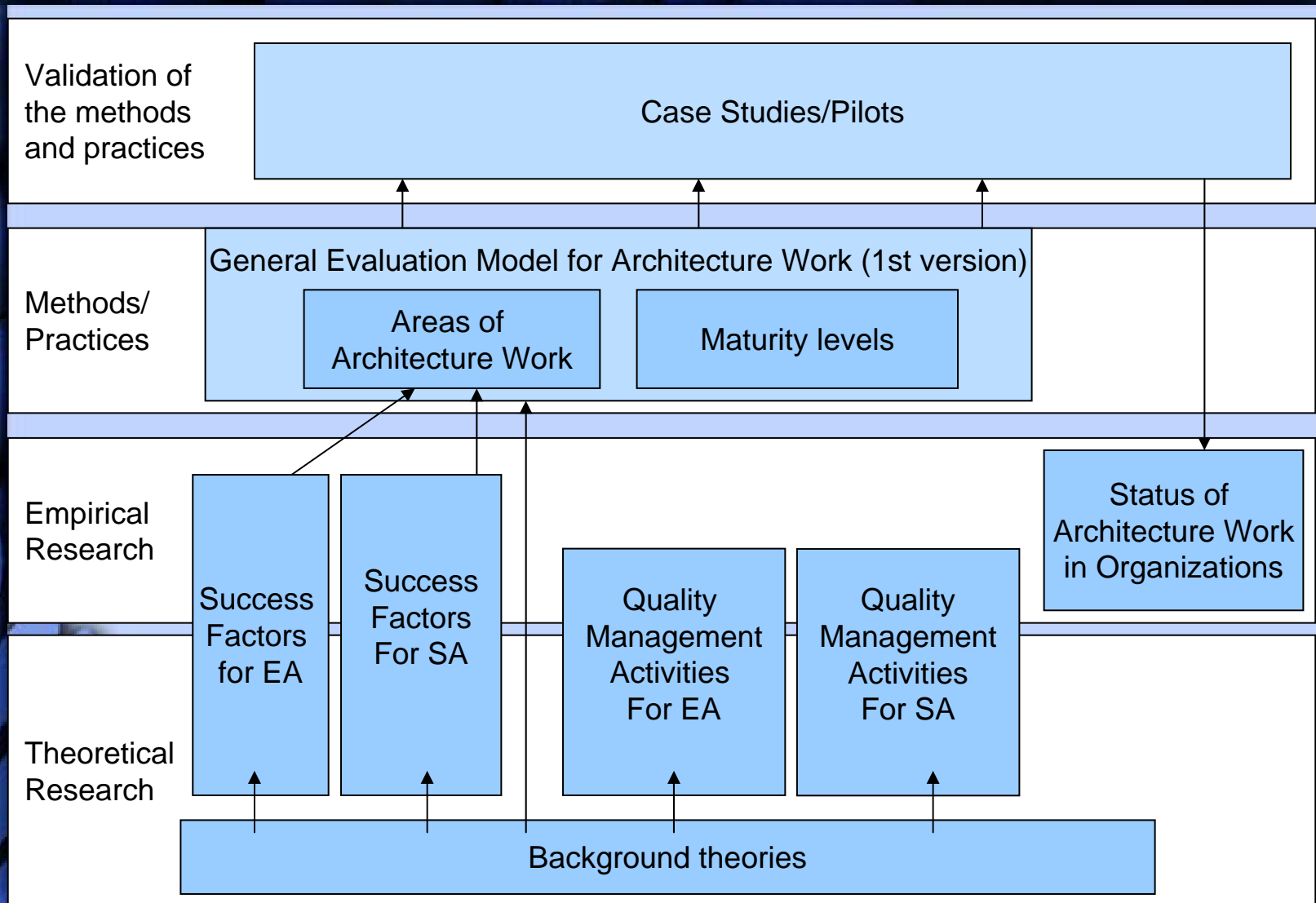
- What are the characteristics of architecture planning and development processes of high quality and maturity (= process view)?
- What are the characteristics of enterprise and software architectures of high quality and maturity (= product view)?

Project Themes and Objectives 2/2

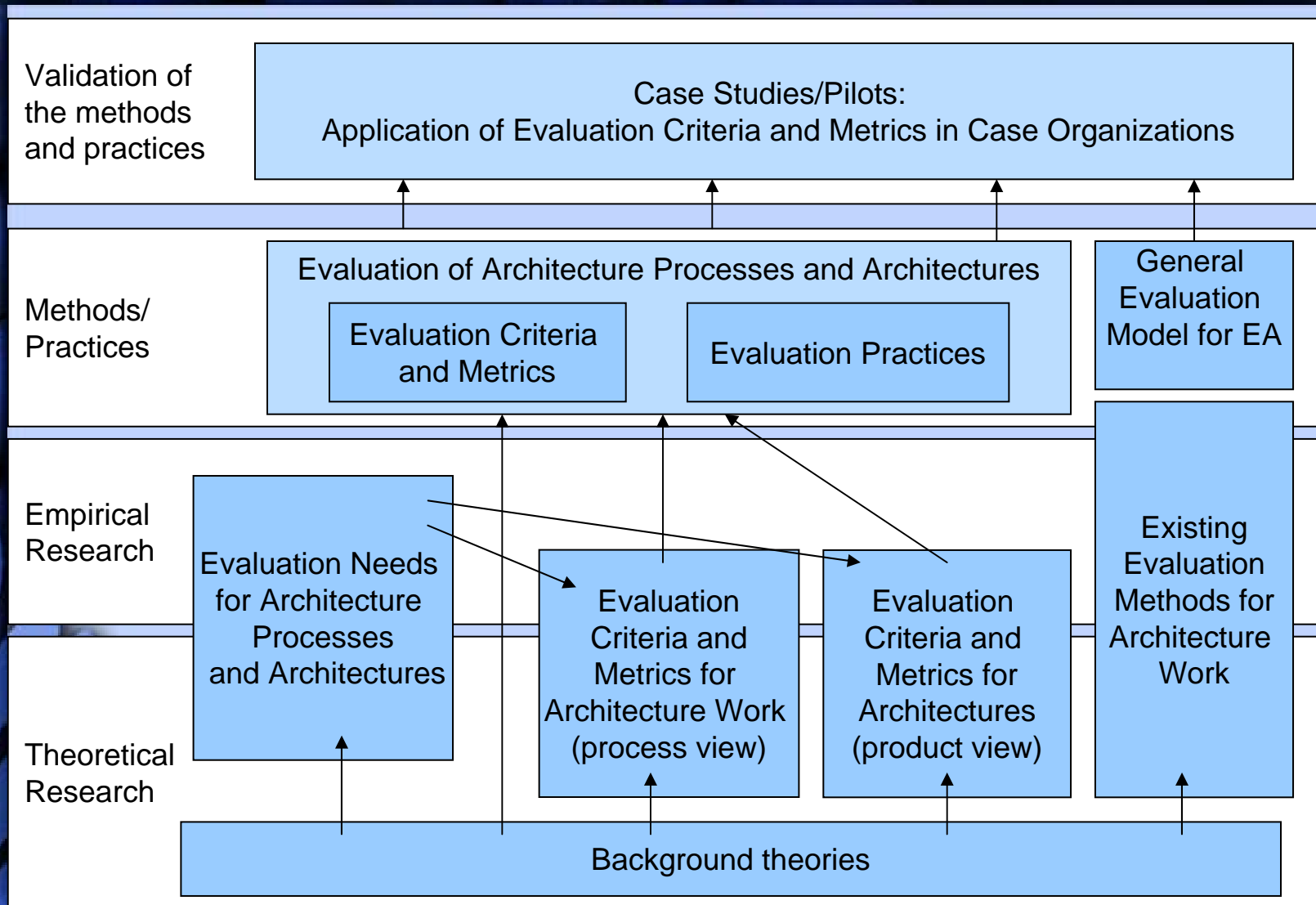
To tackle the research questions the following sub-themes were scrutinized:

- Architecture success from the viewpoint of architecture maturity and quality
- Architecture quality management processes
- Architecture work status and development needs in ICT-provider and user organizations
- Architecture quality evaluation criteria and metrics
- Architecture quality management/evaluation methods and practices
- Architectural decision-making
- Architectural risks

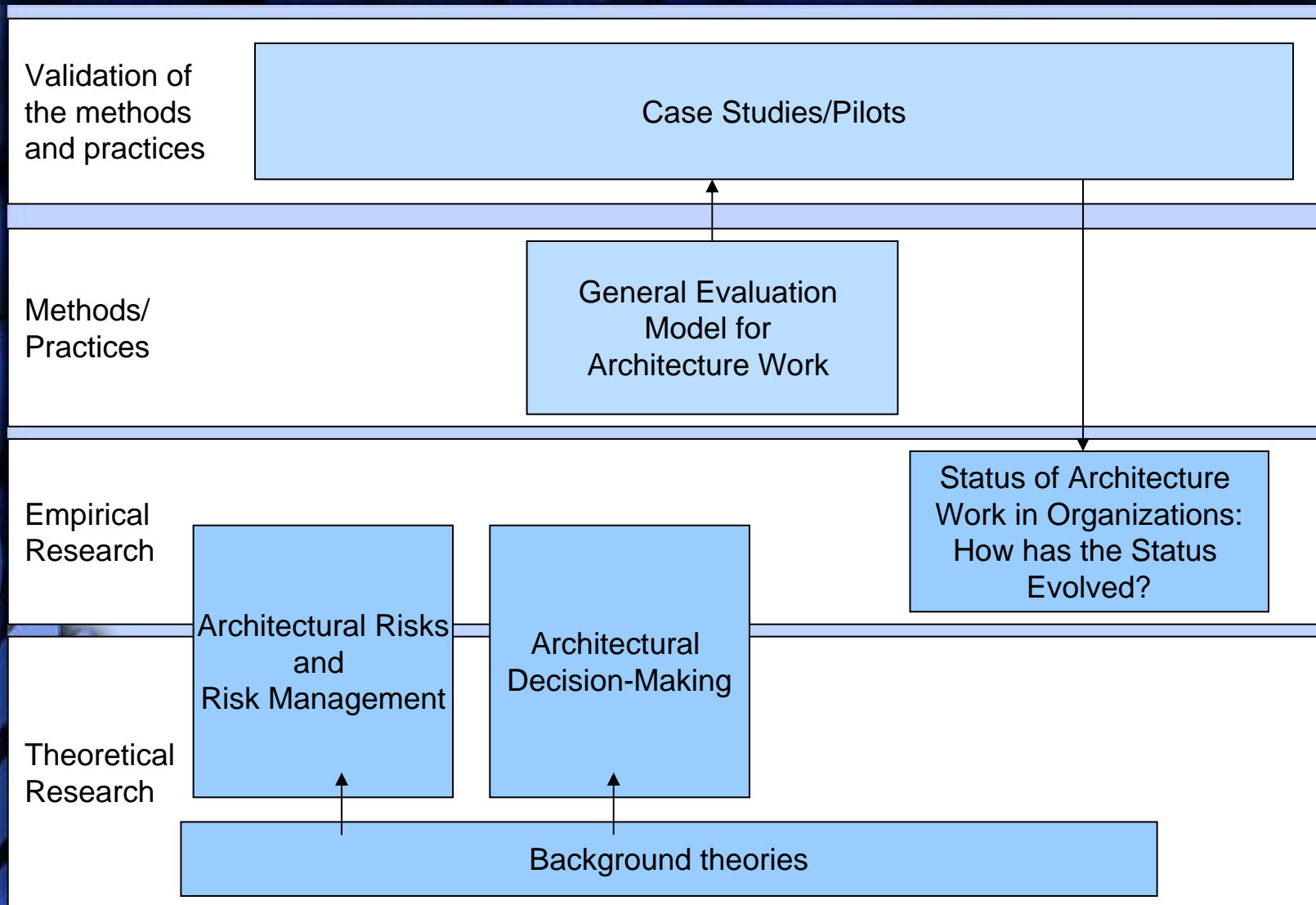
First Year Results



Second Year Results



Third Year Results



Publications

- 17 Scientific Articles
 - 4 Journal Articles
 - 13 Conference Articles
- 16 Project Reports and Related Presentations
- Theses
 - 1 Dissertation
 - 1 Master's Thesis
- Results are also wrapped up in a CD-Rom publication titled "Evaluation of Enterprise and Software Architectures – Critical Issues, Metrics and Practices". Publications of the Information Technology Research Institute, 18, 2008.

Main Conclusions 1/2

- Architectural work is a vast area, and the success and quality of both EA and SA work seem to be influenced by multiple - and to some extent interrelated – factors
 - factors can be used as checklists or to support the definition of company-specific success factors
- Architecture work is currently under development or in initial state
 - Organizations may have defined e.g. architectural frameworks and principles, but architectural models are still generally under construction as well as the transition plan

Main Conclusions 2/2

- Architecture evaluation is a multifaceted instrument in architecture work; the wide selection of evaluation questions, criteria and metrics charted for various evaluation targets can be used to define the few specific metrics for the organization-specific needs
- In practice, architectural work seems to be very different from theoretical frameworks and process models. There seems to be **a need for a light and agile EA methodology**, or at least a usable and simple enough EA process, in organizations initiating architectural work.

Further Research

Suggestions for further research relate e.g. to the

- improvement of the generic evaluation model for EA
- construction of the evaluation methods and metrics for architecture benefits
- creation of a systematic, consistent architecture evaluation methodology
- clarification of the initialization phase of architecture work
- implementation and utilization of architectures

Contact Information

University of Jyväskylä
Information Technology Research Institute (ITRI/TITU)
P.O. Box 35 (Agora)
FIN-40014 University of Jyväskylä, FINLAND

University of Jyväskylä: www.jyu.fi
ITRI/TITU: www.jyu.fi/titu
E-mail: itri@titu.jyu.fi

Research Director Hannakaisa Isomäki
Tel. +358 14 260 3021
hannakaisa.isomaki@titu.jyu.fi

Office:
Tel. +358 14 260 3044 / +358 14 260 3059
Fax +358 14 260 2544

INFORMATION TECHNOLOGY RESEARCH INSTITUTE
UNIVERSITY OF JYVÄSKYLÄ