

Seinäjoen ammattikorkeakoulu
SEINÄJOKI UNIVERSITY OF APPLIED SCIENCES



EA adoption by Finnish network of Universities of Applied Sciences

EUNIS-conference

Dublin 15.6.2011

Jaakko Riihimaa

CIO at Seinäjoki University of Applied Sciences, Finland



Introduction: Background elements and motives



Introduction

- EA pilot on Finnish Higher Education Institutions (HEIs) between late 2009 – early 2011
- In this presentation:
 - Background elements/motives
 - Description of the pilot
 - Experiences and lessons learned
 - Preliminary results from PhD research



Authors

PhD Jaakko Riihimaa

jaakko.riihimaa@seamk.fi

CIO at Seinäjoki University of Applied Sciences

Project manager of EA-pilot

Member of various university networks

Mr Nestori Syynimaa

nestori.syynimaa@anvia.fi

CIO at Anvia Plc

PhD student at IRC, Henley Business School, University of Reading



Enterprise Architecture (EA)

- Four levels or domains
 - Business Architecture (BA)
 - Information Architecture (IA)
 - Systems Architecture (SA)
 - Technology Architecture (TA)
- Aims to
 - Achieving organisation's goals
 - Creating value to organisation



The Finnish Higher Education Institutes (HEIs)

- System consists of two complementary sectors:
 - Universities of applied sciences, UASs
 - former "polytechnics"
 - Universities



Background

- Structural development: Finnish Ministry of education and culture announced agenda to reduce the number of HEIs from 41 (originally 48) to 33 by 2020
- New types of co-operation among Finnish HEIs emerged on 2009
 - In Northern Finland a consortium of three HEIs
 - In Southern Finland two UASs merging
 - In Southern Finland four UASs cooperating on study programmes
- National law mandating compulsory EA adoption on public sector in Finland



Description of the pilot



EA Pilot

- Forerunners
 - Raketti -framework-program by Ministry of education and culture
 - Universities Handbook of EA by Helsinki University
- 2009 CIO network of Finnish UASs decided to start EA-pilot among 10 UAS and 2 universities
- Pilot aimed for:
 - Starting EA work among HEIs
 - Creating solid basis for continuous EA activities



EA pilot participants

- **The consortium of three HEIs**
 - Kemi-Tornio University of Applied Sciences
 - Rovaniemi University of Applied Sciences
 - University of Lapland
- **Two UASs merging**
 - Tampere University of Applied Sciences
 - Pirkanmaa University of Applied Sciences
- **Four UASs cooperating on study programmes**
 - Helsinki Metropolia University of Applied Sciences
 - Hämeenlinna University of Applied Sciences
 - Lahti University of Applied Sciences
 - Laurea University of Applied Sciences
- **Other participants**
 - Seinäjoki University of Applied Sciences
 - Kajaani University of Applied Sciences
 - University of Oulu



EA Pilot structure

- Steering group: HEIs' top management
- Project group: CIOs
- Operative sub-projects
 - Each focusing on a certain topic
 - Were formed from one or more HEIs having a common goal
 - Lead by CIOs
- Total reported working days of all participants were about 400
 - from 10 to 100 days per organization



Pilot outcomes: EA-framework

- "KARTTURI"-framework
 - "co-driver" / "rally map reader" in English
 - Loosely conforms to TOGAF
- Including
 - EA-maintenance model
 - EA-maturity assessment
 - Document templates
- A special, short guide on EA was also edited for university top managers and rectors



Experiences and lessons learned



So, what we reached for...

- Orientating and familiarizing us with EA-concept
- Involving universities' top management in EA-work
- Testing EA -thinking against new organizational structures
 - merging, consortium, network...
- Improving common EA-framework on more suitable for universities
 - with maintenance model and maturity assessment
- Proposing to connect EA -thinking with universities' strategy work, quality assurance systems and enterprise resource planning



...and what else we got

- Practical tools to document, compare and measure our everyday environment
 - Even too wide selection of tools
- New odd terminology vs. new common language
- Proposals for new organizational structures and new personal roles to support EA-work
 - Executive board of data administration
 - Business architect, Data architect...
 - Co-operation with organization development and quality management group
- Reference architectures
- A lot of organizational learning occurred



Lessons learned / What was good

- The networked peer group is an important strength
- While first adopting EA, focus to a narrow area
- One of the most essential points is mutual communication
- The EA-development work should be connected up to already existing continuous improvement practices, like to the university quality assurance system



Lessons learned / Areas to improve

- EA understanding among top-management must be enhanced
- Understanding of data administration professionals' on HEIs "business" must also be improved
- Public sector architectural principles are composed of hierarchical structures
 - new type of silos should be avoided
 - data security policies will become more important
 - stakeholders' architectures must be taken in account



Future in Finland...

- "EA law" will introduce a common public sector EA
- EA will be adopted by all of the HEIs
- Gradual, long term visions are needed when EA is wanted to be adopted
- Steering power of Ministry of education and culture points the way
 - Though, the shared architecture principles of universities must be formed by voluntary basis
- EA must be owned by university top management and develop managers, not CIOs
- A lot and lot more of organizational learning needs to be occur



Preliminary results from PhD research



PhD research on EA implementation

- RQ: How can EA be implemented successfully on HEIs?
- Qualitative, theory creating research
- During the pilot:
 - ~20 interviews on CIOs, top-management, and QA staff of participating HEIs
 - Attending on some of project and steering group meetings
- After the pilot:
 - www based survey on pilot's success for steering and project group members, and for HEI's EA pilot staff



Preliminary results from PhD research

- Interviews:
 - Goals of the pilot perceived differently
 - Most popular goal was reporting
 - HEIs are organised in very different ways
 - HEI field is facing a lot of changes
- Questionnaire:
 - 22 responses from 9 HEIs (population ~100)
 - “I consider EA-pilot being successful”
 - Likert-scale 1-5 (totally disagree – totally agree)
 - Average: 3.6, Deviation 1,01
 - Successful: 10, neutral: 8, unsuccessful: 2



Conclusions

- Communication about EA and it's goals should be enhanced
- EA is seen as an "ICT-project"
- Pilot is considered to be a success



Thank You!