

The background of the slide is a dense field of smooth, rounded blue pebbles. In the center, there is a faint, semi-transparent architectural diagram consisting of several vertical rectangular blocks of varying heights and widths, connected by thin lines, resembling a stylized building or a data flow structure.

**Measurement in
Enterprise Architecture Work
-
the Enterprise Architecture Team
Viewpoint**

Hämäläinen, Niemi, Ylimäki

INFORMATION TECHNOLOGY RESEARCH INSTITUTE
UNIVERSITY OF JYVÄSKYLÄ

Motivation for Study

- In the development of a new process in a company, the company has to decide and define, what kind of measurement work will be performed relating to the process or included in it:
 - what the purposes of measurement are,
 - what measurement activities will be carried out, and
 - who has the responsibility of measurement.
- Enterprise architecture processes are currently developed in many organizations
→ measurement aspects in this EA work is thus also needed to be defined.
- A lack of a holistic view of measurement work that could or should be carried out relating to EA work

Study Description

- The goal: To define
 - EA work related measurement aspects and activities
 - responsibilities of EA team in measurement
- Study aims especially to assist practitioners in their EA measurement planning.

Research Approach, Phases and Data

- Constructive approach
- Pre Study –phases
 - Identification of needs for EA evaluation and measurement (literature review and focus group interview)
 - Literature review: identification why, how and where measurement and evaluation is carried out in organizations and identification
- Construction phases
 - Definition of EA work measurement aspects and activities
 - > Description of aspects and activities
 - Focus group interview of practitioners
 - Updating the description of the EA work aspects and activities

Measurement Process Acts

Understand framework



Plan Measurement



Collect and store data



**Analyze, Synthesize, Formulate Recommendations,
Present Results and Recommendations**



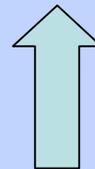
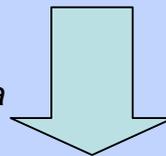
Make Decision, Take action

Juran, J. M.; Godfrey, A. B., 2000, Juran's Quality Handbook, McGraw-Hill Companies.

Results: Measurement Needs Affecting EA work

Measurement in Organisation
(e.g. performance measurement,
key performance indicators, KPIs)

*Measurement
needs and criteria*



- Reporting the results
- Participation in measurement planning

EA work – EA team

Architecture work specific
evaluation and
measurement needs



Organisation's General Measurement Work

- In organizations, there are general measurement needs which need to be taken into account also in EA work
 - e.g. quality management, performance measurement etc.
- Especially, performance measurement related key performance indicators (KPIs) are used in EA work (Christianssen and Gotze, 2007)
- Measurement aspects and activities
 - Performance measurement reporting
 - Company performance measurement planning / consulting

EA Work Specific Measurement Work

Evaluating EA Work Impacts	<ul style="list-style-type: none">▪ To evaluate the impacts caused by EA work▪ To demonstrate the impacts and possible benefits to company level▪ To aid decision making about e.g. the future and resources of EA work▪ To improve EA work practices
Evaluating EA Approach Use	<ul style="list-style-type: none">▪ To evaluate the extent of EA approach use/adoption in the company
Evaluating EA Team Operations	<ul style="list-style-type: none">▪ To support the management of the EA team▪ To monitor and report the EA team's and architects' accomplishments, particularly progress toward pre-established goals

EA Work Specific Measurement Work

Evaluating EA Work	<ul style="list-style-type: none">▪ To evaluate and monitor the quality of EA work and the artifacts produced▪ To identify improvement needs of EA work▪ To measure EA work against other companies (e.g. toughest competitors or industry leaders)
Evaluating of Architectures and Architectural Solutions	<ul style="list-style-type: none">▪ To evaluate architecture alternatives, architectures and architectural solutions produced in projects

EA Team's Responsibilities in Measurement

- To plan what measurement or evaluation work is carried out in EA work
- May carry out part of measurement work, and the rest part of this work can be carried out by other staff or partners
- Suggestion:
EA team should have the complete the whole, holistic picture of the measurement work carried out relating to EA work and its aims of it.

EA team's Measurement Activities

- gathering information for pre-planned measurements and reporting the results (e.g. company's performance measurement),
- carrying out the whole measurement process from the planning of the measurement work to the analysis of the results (e.g. quality evaluation of architecture work results)
- supporting and consulting the measurement planning (e.g. supporting the planning of company's general measurement activities),

Factors Affecting EA Measurement

- how clear are the roles and responsibilities of EA work and EA team,
- does it exist also long-term goals for EA work exist and,
- what is the status and maturity of EA process and practices

Conclusions

- means of EA measurement are
 - 1) the supporting the management of EA work,
 - 2) the improvement of EA work practices and products, and
 - 3) evaluation of impacts and benefits of EA work,
 - 4) to produce information for architecture planning and decision making
 - 5) responding to common measurement needs and requirements in organisation

Conclusions

- A limited effort is currently done to measure, for example EA progress and value in organizations (Christianssen, Gotze, 2007).
- As soon as the maturity of EA processes is increased and the role of EA work in companies is be stabilized, more and more EA measurement efforts can be expected to be carried out.
- Future of measurement in EA work
 - The significance of measurement will increase.
 - Measurement will be an actual part of daily enterprise EA work.