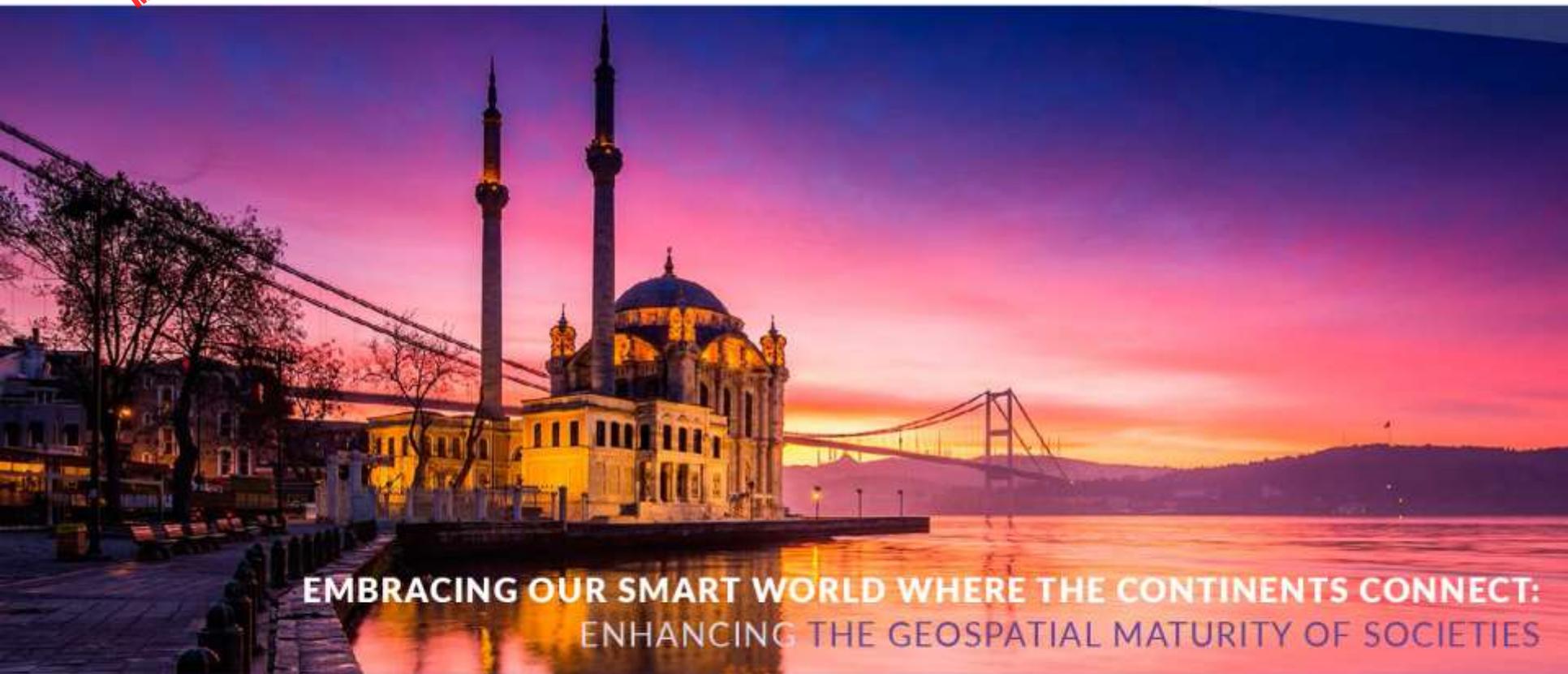




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**EMBRACING OUR SMART WORLD WHERE THE CONTINENTS CONNECT:
ENHANCING THE GEOSPATIAL MATURITY OF SOCIETIES**

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EMBRACING OUR SMART WORLD WHERE THE CONTINENTS CONNECT:

ENHANCING THE GEOSPATIAL MATURITY OF SOCIETIES

**TSITSI N. MUPARARI, WALTER T. DE VRIES &
JAAP ZEVENBERGEN**

Equilibration of Cadastre and Land Registry Components in a Cadastral Merger

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Presentation Layout

- Introduction
- Research Method
- Results
- Calibration of the Post merger values using the Competing Values Framework
- Conclusion

(for details also see: Evaluation of Mergers of Cadastral Systems: A corporate cultural perspective -

https://webapps.itc.utwente.nl/librarywww/papers_2013/msc/la/muparari.pdf)

Introduction

- The Swedish cadastral merger exhibits that:
 - ❖ The role of merging the components is **not** necessarily tailored for the **external environment** where competition and creation of new products and technologies dominates **but** rather tailored for the **internal environment** where processes, people must collaborate through engaging slow and incremental change to modulate diversity.
 - ❖ Although cadastral systems are said to evolve along with the humankind-land evolution, effectiveness of the systems is **not** established by **aligning the value systems** to the external environment **but** rather by seeking proactive **adaptive working methods**, to match complex data structures and rapidly evolving technologies, standards and law.

To begin with:

- The complex fields of surveying together with their inconsistent and immeasurable mutative nature, along with the decision to merge the cadastre and land registry components clearly asks for an inquiry into the **effectiveness, efficiency and nature of change** that arise from the communion of the two components (land registry and cadastre) under a single agency;
- *How does merging the institutions of legal and cadastre components influence the effectiveness, efficiency and the nature of change of the merger, given that the spatial and legal profession evolve separately in terms of both the professional practice and the educational systems?*

- The study of cadastral systems is familiar with the issues of **reengineering of processes**, **benchmarking of cadastral systems**, development of cadastres from 2D to 3D to 4D; The data capturing techniques, The data processing techniques, The data dissemination and data storage techniques, but places little attention on the system overhaul as devised by the invisible hand of the **human influence** over the decisions of change and **implicit processes** emerging from his/her decisions during task execution.

- The objective of the paper is to unravel the behavior of cadastral mergers and its potential abilities and disabilities through a comparison of the nature of change, effectiveness and efficiency.
- Human Behaviour is extracted through subjectivity using a psychometric tool called Q methodology.

RESEARCH METHODS: Q-METHODOLOGY

A concourse for the determination of the
“Statement sample was produced”

36 statements
used

A participant group of 20 participants
evaluated the Statements on a Forced
Distibution Scale

Quantitative &
Qualitative data
collected

A factor analysis approach was used to
process the Quantitative Data;

Factor Arrays

RESEARCH METHODS: Q-METHODOLOGY

Meaning of the Quantitative data is derived through integrating with Qualitative data collected using the extreme poles (+5; -5) and the neutral (0)

Narratives
By Logic of
Abduction

Calibration/ Coalescing of narratives to the Competing Values Theory to gain entrance to the Nature of Change, Effectiveness and Efficiency

Discussion

THE END !!!!

RESULTS – 4 value systems

Post merger	Premerger Cadastre	Premerger Land registry
(1) “Rules are for the new employees and definitely not us;	(1) “We were embodied in rules and regulation, obedience and consistence”	(1) We were goal oriented and fast to change”;
(2) “We are the overseers of the system”;	(2) “Non conformists and Activists”;	(2) “ we were independent from rules yet we did not make final decisions”
(3) “Flexibility under the house of the law”	(3) “we were product oriented and slow to change”;	(3) “we were conservative and obedient”;
(4) “We have authority over processes, procedures and task”.	(4) “Hierarchicalists”	(4) “we struggled to break new grounds yet we remained obedient to our leaders”.

The **four Value systems** reflect their lack of inclination to the external environment, while the inclination to the internal environment is characterised by flaws that yields inconsistency and the subordination of new recruits to the experienced expertise.

The missing value drivers for incremental change degrades the effectiveness of the organisation and forces the expertise to seek solution from spontaneity

There is however collaboration on training the new recruits to maintain the tradition of operation.



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Conclusion

How does merging the institutions of the legal and cadastre components influence the effectiveness, efficiency and the nature of change of the merger, given that the spatial and legal profession evolve separately in terms of both the professional practice and the educational systems?

*According to the results and recalibration it is clear that **effectiveness is minimal** within the Swedish cadastral merger as this may be the phase of change and migrating the systems from the land registry and cadastre to the new environments.*

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There is no inclination to the external environment . Even as cadastral systems are said to evolve with the dynamic humankind –land relationships; Surprisingly the large volumes of land data is the factor that was not predicted during Ting's Cadastral trends

To date human behaviour is the modulator not emphasised in cadastral systems despite that he/she is a unique case from which disabilities and abilities can be revealed.

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