



# Initial Due Diligence of Information Technology as Risk Identification before Capital Investment in Finance Industry

**M.Sc. Boštjan DELAK, CISA**

Nova Ljubljanska banka d.d., Ljubljana  
Šmartinska 130, 1520 Ljubljana, Slovenia (SVN)

**mentor: dr. Marko BAJEC**

University of Ljubljana, Faculty of Computer and Information Science  
Tržaška 25, 1000 Ljubljana, Slovenia (SVN)

# Slovenia (SVN)



# Student's Introduction- Boštjan Delak

- M.Sc. - 1985 – “Man Machine Communication in Automatically Controlled Production Processes”
- B.Sc. - 1982 – “Semiconductor Elements Models in Programs SPICE 1 and SPICE 2”
- Employed in Nova Ljubljanska banka, d.d. (NLB) Ljubljana, SVN
  - [www.nlb.si](http://www.nlb.si) biggest Slovenian Financial Group
  - Senior Advisor to Chief Information Officer
- More than 26 years of IT experiences:
  - NLB, IBM Slovenia, Intertrade - IBM Representative, ISKRA Avtomatika
- Member of:
  - ISACA (CISA), Slovenian Auditor Association and Slovenian Informatics Association

# Objectives of the presentation

- Present my thesis
- Present universal initial information technology due diligence framework
- Introduce the current situation and future plans
- Get feedbacks, comments, directions, hints and new ideas for improvements and further work

# Agenda

- Description of Science Area and Related Problems
- Motivation
- Related Work
- Research Proposal
- Research Approach
- Case Studies
- Expected Scientific Contribution
- Conclusions
- Questions & Answers

# Description of Science Area and Related Problems

- IT due diligence
  - Objectives
- Initial IT due diligence
  - Objectives
  - Types
- Initial IT due diligence and IT audit comparison
- Initial IT due diligence as IS research

# Motivation

- No broadly used worldwide IT due diligence frameworks
- Define the most appropriate concept of the framework
- Prove it by verification in independent (financial or other) institutions / company

## Related Work

- List of several methods, models, frameworks, best practices and standards:
  - BCM (Business Continuity Management) Analysis
  - COBIT (Control Objectives for Information and Related Technology)
  - CMM (Capability Maturity Model)
  - INFAUDITOR
  - ITADD (Information Technology Assessment Due Diligence Framework)
  - IT BSC (Information Technology Balanced Score Cards)
  - ITIL (Information Technology Infrastructure Library)
  - IS Risk Assessment

## Related Work (Continue)

- List of several methods, models, frameworks, best practices and standards (continue):
  - Val IT
  - NLB Method
  - Others
- List of research papers' authors:
  - S. Alter (several articles); M. Bajec;
  - I. Benbasat and R.W.Zmud; W.H. DeLone and E.R. McLean;
  - S. Gregor; A. Hevner, S.March, J.Park, S.Ram,
  - H.K. Klein and M.D. Myers; B. Kitchenham;
  - A.S. Lee and R.L. Baskreville; J.W. Orlikowski and S.R. Barely;
  - J.W. Orlikowski and C.S. Iacono; S.A. Sherer and S. Alter;
  - P.B. Seddon, S. Staples, R. Patnayakuni and M. Bowtell;
  - V. Vaishnavi and W. Kuechler; R.W. Zmud;

## Related Work (Continue) – NLB Method

- NLB method – basis for IT due diligence framework
  - Description
  - Phases
  - Tools / Questionnaires
  - Reports
- Comparison with Work System Framework
  - Frameworks
  - IS Risk Based
  - IS Success

# Research Proposal

- Most convenient basis:
  - ITADD
  - NLB Method
- Create initial IT due diligence framework based on:
  - Experiences within NLB (Model),
  - Best practices
  - Work System Framework (Alter's)
- Compare it with science researches
- Verify it on real case studies

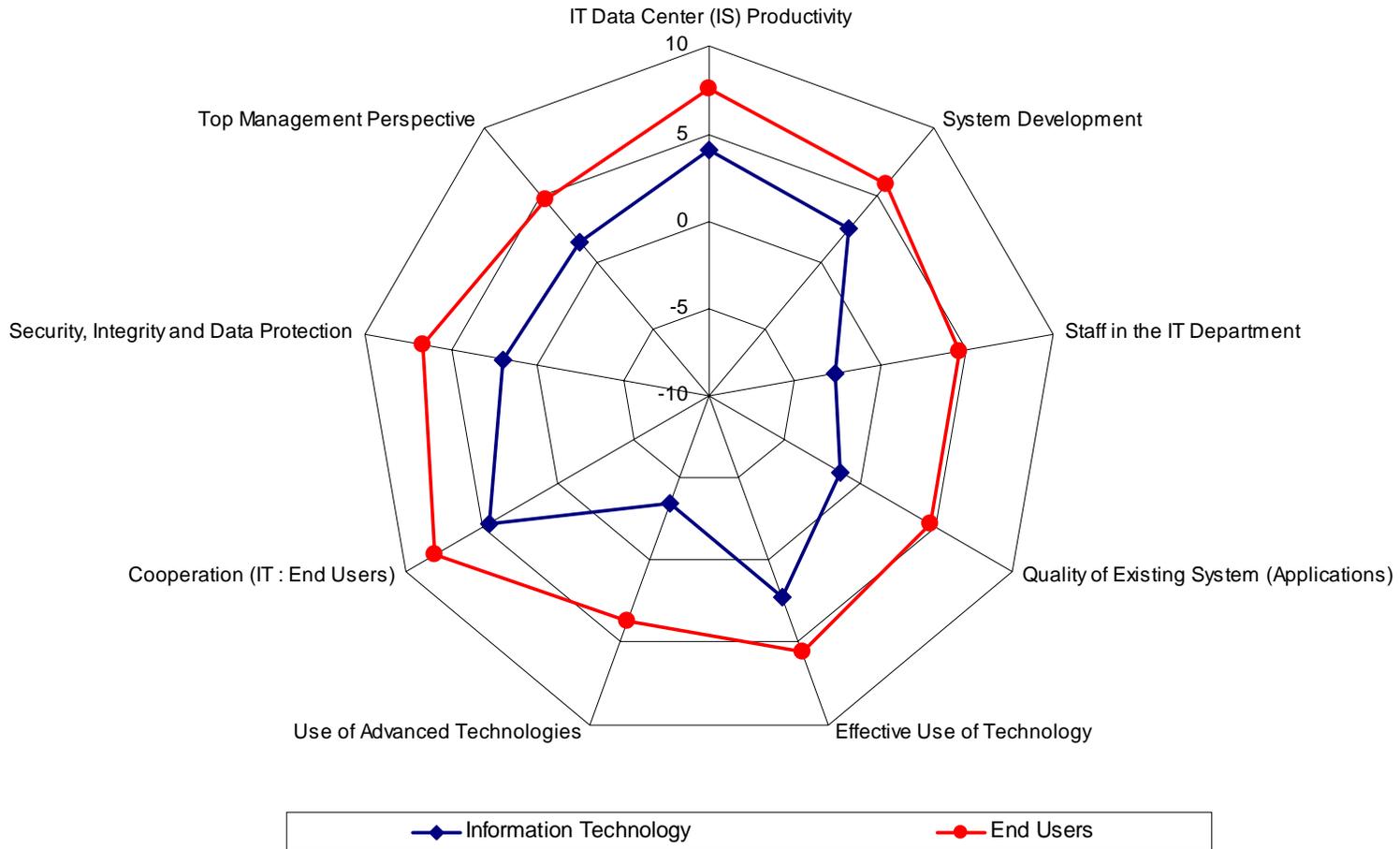
# Research Approach

- Based on NLB method
  - Proven in many initial and general IT due diligences (see Case Studies)
  - Basis for universal IT due diligence framework
  - Prototype tools will be develop for:
    - Draft action plans
    - Draft questionnaires
    - Draft spreadsheets with macros (for questionnaires' analysis)
    - Draft reports
  - Framework will be documented
  - Framework will be tested and proven as universal framework which could be used almost everywhere

# Case Studies

- Current data base:
  - More than **15** initial IT due diligences
  - More than **10** IT due diligences
  - In finance industry (banks and other financial institutions)
  - Within **15** countries in Central and South-Eastern Europe
  - Time period (**1998 – 2008**)
- Future plans:
  - Prove and verify framework in other areas (e.g.: insurance companies, pension funds companies, broker companies, stock exchanges)
  - Time period (**2008 – 2009**)

# Sample: "Treatment" of IT Strengths & Weaknesses Questionnaire



# Expected Scientific Contribution

- IT Due Diligence Framework
  - Foundation of generic framework for practical approach to IT due diligences
  - Tool for identification and potential mitigation the IS risk through due diligence
  - Tool for identification IS success through due diligence
  - Tool for identification the requested resources

# Conclusions

- IT Due Diligence is not simple task
- No world wide used frameworks
- Some limited methods, tools, standards, frameworks are available
- NLB method as basis for Universal Initial IT Due Diligence (UITDD) Framework
- Content of UITDD Framework will be:
  - Instructions,
  - Plans,
  - Questionnaires
  - Spreadsheet tools
  - Reports
- Framework should be proven outside banking industry with case studies

After all ...

***“INITIAL INFORMATION  
TECHNOLOGY DUE DILIGENCE,  
IS ONLY ONE’S  
DUE DILIGENCE”***

# Questions & Answers





Thanks for your attention!

[delak.bostjan@gmail.com](mailto:delak.bostjan@gmail.com) / [bostjan.delak@nlb.si](mailto:bostjan.delak@nlb.si)