



Dr Tommi Tervonen

Education and training

- 2012 **University Teaching Qualification**, *Erasmus University Rotterdam*, The Netherlands.
- 2009 **Drug Discovery and Development Training**, *Top Institute Pharma*, The Netherlands.
A 5-day intensive simulation course on drug development with realistic development teams.
- 2003–2007 **PhD in Computer Science**, *University of Turku*, Finland, *with honours*.
- 2003–2007 **PhD in Management Science**, *University of Coimbra*, Portugal, *with honours*.
- 2002–2003 **MSc in Computer Science**, *University of Turku*, Finland.
- 1999–2002 **BSc in Computer Science**, *University of Turku*, Finland.

Work history

- 03/2015–
(current) **Consultant**, *Pfizer Inc*, New York, USA.
Training of a Pfizer team (statisticians, epidemiologists, and market access experts) in application of multi-criteria decision analysis for drug benefit-risk assessment.
- 09/2010–
(current) **Assistant Professor in Business Intelligence Systems**, *Econometric Institute, Erasmus School of Economics, Erasmus University Rotterdam*, The Netherlands.
Assistant Professor of Business Intelligence Systems at the Econometric Institute. Teaching of bachelor, master, and PhD level courses (Topics in Business Intelligence, Programming for Econometrics, Advanced Programming, Programming for Research Master / PhD students, Security and ICT audit, Distributed Systems, Quantitative Decision Models, ICT & economics, Management Science 3 (Maritime Economics and Logistics MSc)). Supervision of Master students making both theoretically oriented theses, as well as more practical ones where innovative methods from management science get applied in real-life business problems in The Netherlands. Re-design of the Econometrics bachelor programming education curriculum. Writing and management of grant applications. Research in operations research, decision analysis, and medical decision making, both individually and with partners from other European universities.
- 09/2008–
08/2010 **PostDoc researcher**, *Faculty of Economics and Business, University of Groningen*, The Netherlands.
Coordinating researcher of a work package within the Escher Project of the national Dutch Top Institute Pharma. Coordination of Master- and PhD students and communication with external project partners. Research in medical informatics, agile software development and decision analysis. Teaching of undergraduate level computer science courses. Development of JSMAA (www.smaa.fi) and ADDIS (www.drugis.org).
- 10/2007–
07/2008 **Security engineer**, *ARDACO a.s.*, Bratislava, Slovakia.
Software design and development, design of software security components, security analysis, design and implementation of software testing procedures.
- 11/2007–
06/2008 **Part-time language teacher**, *KONE SSC*, Bratislava, Slovakia.
Teaching of an intermediate-level Finnish course.
- 06/2007–
07/2007 **Contracted researcher**, *US Army Corps of Engineers*, Vicksburg, USA.
Nanomaterial risk assessment research and development of related decision support software.

- 05/2005–12/2007 **Invited researcher / PhD student**, *Centre for Management Studies, IST, Technical University of Lisbon*, Portugal.
Research in management/computer science. Development of CSMAA, a cross-platform decision-support software.
- 09/2004–05/2006 **Invited researcher / PhD student**, *INESC-Coimbra and Faculty of Economics, University of Coimbra*, Portugal.
Research in management/computer science.
- 09/2003–07/2004 **Assistant**, *Department of Information Technology, University of Turku*, Finland.
Contact teaching of undergraduate and graduate level computer science courses (Introduction to Computers, Linux and Systems Programming, Discrete Event Simulation, Programming) and supervision of student assignments.
- 03/2001–08/2003 **Part-time teacher**, *Department of Computer Science, University of Turku*, Finland.
Contact teaching of undergraduate computer science courses (Introduction to Computers).
- 06/2002–02/2003 **Software/system developer**, *Keskiyö Oy*, Turku, Finland.
Re-design and implementation of a complete company ICT infrastructure.
- 06/2001–09/2001 **Software developer**, *Kovotekniikka Oy*, Naantali, Finland.
Design and implementation of an GSM-based centralized update system for Info-TVs.
- 06/2000–02/2001 **Software developer**, *Gatefive Oy*, Turku, Finland.
Design and implementation of web-based systems.

Other experience / awards

- 2015 **Editors' Best Reviewer Award**, *Pharmacoepidemiology and Drug Safety*.
Award for providing reviews that were among the best (re: quality and timeliness) of Pharmacoepidemiology and Drug Safety in 2014
- 2015 **Editors' Award for Excellence in Reviewing**, *European Journal of Operational Research*.
Awarded in recognition of an outstanding contribution to the quality of the Journal (EJOR) in 2014
- 07/2014– **Associate Editor**, *Decision Support Systems*.
- 06/2014– **Visiting Professor**, *Systems Analysis Laboratory, Aalto University, School of Science*, Helsinki, Finland.
- 2014 **Invited Reviewer**, *European Commission Directorate-General for Communications Networks, Content and Technology (DG CONNECT/EC)*.
EC Policy Impact Assessment Guidelines 2014–2019
- 2012– **Project Leader**, *Erasmus Research Institute of Management (ERIM) Cluster Computing Pilot*.
Funded by the Dutch national science foundation (NWO)
- 2012–2013 **Project Leader**, *Econometric Institute Cluster Computing Pilot*.
Funded by the Dutch national science foundation (NWO)
- 2012– **Co-founder**, *Exdwarf consulting s.r.o.*, Bratislava, Slovakia.
- 2012– **Product Manager**, *Auctiometrix*, Rotterdam, The Netherlands.
Managing development of IT solutions for auction training
- 2010– **Full member**, *Erasmus Research Institute of Management (ERIM)*, Erasmus University Rotterdam, The Netherlands.

Skills

- Programming** Languages: Java, R, C, C++, Python, Matlab, x86 assembler, PHP, Perl. Proven working knowledge of agile and classical development processes and modeling (UML2).
- Analytics** Teaching, research, and application of various types of quantitative models: decision analysis, optimization, data mining.

Project management Management of small- to medium size projects in research, software development, and teaching.

Languages

Finnish	Mother tongue	
English	C1	<i>proficient user</i>
Portuguese	B2	<i>independent user</i>
French	A2	<i>Basic user</i>
Dutch	A2	<i>Basic user</i>
Swedish	A2	<i>Basic user</i>
Slovak	A1	<i>Basic user</i>

Main publications

- [1] T. Tervonen, A. Sepehr, M. Kadzinski, A multi-criteria inference approach for anti-desertification management, *Journal of Environmental Management* 162 (2015) 9–19. doi:10.1016/j.jenvman.2015.07.006.
- [2] T. Tervonen, H. Naci, G. van Valkenhoef, A. E. Ades, A. Angelis, H. L. Hillege, D. Postmus, Applying multiple criteria decision analysis (MCDA) to comparative benefit-risk assessment: Choosing among statins in primary prevention, *Medical Decision Making* (to appear). doi:10.1177/0272989X15587005.
- [3] M. Kadzinski, T. Tervonen, J. Figueira, Robust multi-criteria sorting with the outranking preference model and characteristic profiles, *Omega* 55 (2015) 126–140. doi:10.1016/j.omega.2014.06.004.
- [4] G. van Valkenhoef, T. Tervonen, D. Postmus, Notes on 'hit-and-run enables efficient weight generation for simulation-based multiple criteria decision analysis', *European Journal of Operational Research* 239 (3) (2014) 865–867. doi:10.1016/j.ejor.2014.06.036.
- [5] O. Cailloux, T. Tervonen, B. Verhaegen, F. Picalausa, A data model for algorithmic multiple criteria decision analysis, *Annals of Operations Research* 217 (1) (2014) 77–94. doi:10.1007/s10479-014-1562-1.
- [6] R. Spliet, T. Tervonen, Preference inference with general additive value models and holistic pair-wise statements, *European Journal of Operational Research* 232 (3) (2014) 607–612. doi:10.1016/j.ejor.2013.07.036.
- [7] D. Postmus, T. Tervonen, G. van Valkenhoef, H. L. Hillege, E. Buskens, A multi-criteria decision analysis perspective on the health economic evaluation of medical interventions, *European Journal of Health Economics* 15 (7) (2014) 709–716. doi:10.1007/s10198-013-0517-9.
- [8] M. Kadzinski, T. Tervonen, Robust multi-criteria ranking with additive value models and holistic pair-wise preference statements, *European Journal of Operational Research* 228 (1) (2013) 169–180. doi:10.1016/j.ejor.2013.01.022.
- [9] M. Kadzinski, T. Tervonen, Stochastic ordinal regression for multiple criteria sorting problems, *Decision Support Systems* 55 (1) (2013) 55–66. doi:10.1016/j.dss.2012.12.030.
- [10] T. Tervonen, G. van Valkenhoef, N. Baştürk, D. Postmus, Hit-and-run enables efficient weight generation for simulation-based multiple criteria decision analysis, *European Journal of Operational Research* 224 (3) (2013) 552–559. doi:10.1016/j.ejor.2012.08.026.
- [11] G. van Valkenhoef, T. Tervonen, B. de Brock, H. Hillege, Deficiencies in the transfer and availability of clinical trials evidence: a review of existing systems and standards, *BMC Medical Informatics and Decision Making* 12 (95) (2012) (online only). doi:10.1186/1472-6947-12-95.
- [12] T. Tervonen, JSMAA: open source software for SMAA computations, *International Journal of Systems Science* 45 (1) (2014) 69–81. doi:10.1080/00207721.2012.659706.
- [13] G. van Valkenhoef, T. Tervonen, T. Zwinkels, B. de Brock, H. Hillege, ADDIS: a decision support system for evidence-based medicine, *Decision Support Systems* 55 (2) (2013) 459–475. doi:10.1016/j.dss.2012.10.005.
- [14] G. van Valkenhoef, T. Tervonen, J. Zhao, B. de Brock, H. L. Hillege, D. Postmus, Multi-criteria benefit-risk assessment using network meta-analysis, *Journal of Clinical Epidemiology* 65 (4) (2012) 394–403. doi:10.1016/j.jclinepi.2011.09.005.

- [15] G. van Valkenhoef, T. Tervonen, B. de Brock, H. L. Hillege, Algorithmic parameterization of mixed treatment comparisons, *Statistics and Computing* 22 (5) (2012) 1099–1111. doi:10.1007/s11222-011-9281-9.
- [16] G. van Valkenhoef, T. Tervonen, B. de Brock, D. Postmus, Quantitative release planning in extreme programming, *Information and Software Technology* (11) (2011) 1227–1235. doi:10.1016/j.infsof.2011.05.007.
- [17] T. Tervonen, G. van Valkenhoef, E. Buskens, H. L. Hillege, D. Postmus, A stochastic multicriteria model for evidence-based decision making in drug benefit-risk analysis, *Statistics in Medicine* 30 (12) (2011) 1419–1428. doi:10.1002/sim.4194.
- [18] T. Tervonen, I. Linkov, J. Steevens, M. Chappell, J. R. Figueira, M. Merad, Risk-based classification system of nanomaterials, *Journal of Nanoparticle Research* 11 (4) (2009) 757–766. doi:10.1007/s11051-008-9546-1.
- [19] T. Tervonen, J. R. Figueira, R. Lahdelma, J. Almeida Dias, P. Salminen, A stochastic method for robustness analysis in sorting problems, *European Journal of Operational Research* 192 (1) (2009) 236–242. doi:10.1016/j.ejor.2007.09.008.
- [20] T. Tervonen, H. Hakonen, R. Lahdelma, Elevator planning with Stochastic Multicriteria Acceptability Analysis, *Omega* 36 (3) (2008) 352–362. doi:10.1016/j.omega.2006.04.017.
- [21] T. Tervonen, J. R. Figueira, A survey on stochastic multicriteria acceptability analysis methods, *Journal of Multi-Criteria Decision Analysis* 15 (1–2) (2008) 1–14. doi:10.1002/mcda.407.
- [22] T. Tervonen, R. Lahdelma, Implementing stochastic multicriteria acceptability analysis, *European Journal of Operational Research* 178 (2) (2007) 500–513. doi:10.1016/j.ejor.2005.12.037.