

Raf Jans

Professor of Operations Management
HEC Montréal
3000, chemin de la Côte-Sainte-Catherine
Montréal (Québec) Canada H3T 2A7
Tel.: +1 514 340 7256
Email: raf.jans@hec.ca

Positions: **HEC Montréal, Canada**
Professor of Operations Management, June 2014 - present
Associate Professor of Operations Management, July 2008 – May 2014

Erasmus University, Rotterdam School of Management, The Netherlands
Associate Professor of Operations Management, January 2008 – June 2008
Assistant Professor of Operations Management, October 2003 – December 2007
Post-Doctoral Research Fellow, October 2002 – October 2003

McGill University, Desautels Faculty of Management, Montreal, Canada
Visiting Assistant Professor, Management Science Department, September 2006 – June 2007

Education: **Katholieke Universiteit Leuven, Belgium**
Ph.D., Department of Applied Economics, Specialization: Operations Research, September 1997 - September 2002
Dissertation: “Capacitated Lot Sizing Problems: New Applications, Formulations and Algorithms”
Advisor: Prof. Z. Degraeve, London Business School

London Business School, UK
Visiting PhD student, Decision Sciences Group, September 2000- September 2002

Katholieke Universiteit Leuven, Belgium
Degree in ‘Business Engineering’ (‘Handelsingenieur’), Department of Applied Economics, 1992-1997

Research Interests: Lot sizing, production and distribution planning
Operations Research: optimization, linear and integer programming, exact algorithms and heuristics.
Applications of Operations Research to industrial problems, mainly in the area of Operations Management and Supply Chain Management.

Teaching Interests: Operations Management: production and inventory planning, process analysis, product variety, SCM
Operations Research: LP and IP, combinatorial optimisation, computer modelling.
Decision and Risk Analysis: decision trees, Monte Carlo and Discrete Event Simulation.

Papers: **Articles in international scientific journals:**

1. de Araujo, S., Z. De Reyck, B., Degraeve, Z., Fragkos, I., Jans, R., 2015. Period Decomposition for the Capacity Constrained Lot Sizing Problem with Setup Times, accepted for publication in *INFORMS Journal on Computing*.
2. Adulyasak, Y., Cordeau, J.-F., Jans, R. 2015. Benders Decomposition for Production Routing under Demand Uncertainty, *Operations Research*, 63 (4), 851-867.
3. Fiorotto, D., de Araujo, S., Jans, R., 2015, Hybrid methods for lot sizing on parallel machines, *Computers and Operations Research*, 63, 136-148.
4. Adulyasak, Y., Cordeau, J.-F., Jans, R. 2015. The Production Routing Problem: A Review of Formulations and Solution Algorithms, *Computers & Operations Research*, 55, 141-152.
5. Retel Helmrich, M., Jans, R., van den Heuvel, W., Wagelmans, A., 2015, Economic Lot Sizing with an emission constraint, *European Journal of Operational Research*, 241 (1), 50-62. (February 2015)

6. Adulyasak, Y., Cordeau, J.-F., Jans, R. 2014. Formulations and Branch-and-Cut algorithms for Multi-Vehicle Production and Inventory Routing Problems, *INFORMS Journal on Computing*, 26 (1), 103-120.
7. Adulyasak, Y., Cordeau, J.F., Jans, R., 2014, Optimization Based Adaptive Large Neighborhood Search for the Production Routing Problem, *Transportation Science*, 48 (1), 20-45.
8. Retel-Helmrich, M., Jans, R., van den Heuvel, W., Wagelmans, A., 2014, Economic Lot Sizing with remanufacturing: complexity and efficient reformulations, *IIE Transactions*, 46 (1), 67-86.
9. Jans, R., Desrosiers, J., 2013. Efficient Symmetry-Breaking Formulations for the Job Grouping Problem, *Computers and Operations Research*, 40 (4), 1132-1142.
10. Guner Goren, H., Tunali, S., Jans, R., 2012, A hybrid approach for the capacitated lot sizing problem with setup carry-over, *International Journal of Production Research*, 50 (6), 1582-1597.
11. Jans, R., 2010, Classification of Dantzig-Wolfe Reformulations for Binary Mixed Integer Programming Problems, *European Journal of Operational Research*, 204, 251-254.
12. Guner Goren, H., Tunali, S., Jans, R., 2010. A Review of Applications of Genetic Algorithms in Lotsizing, *Journal of Intelligent Manufacturing*, 21, 575-590.
13. Jans, R., 2009, Solving Lotsizing Problems on Parallel Identical Machines Using Symmetry Breaking Constraints, *INFORMS Journal on Computing* Vol. 21 (1), 123-136.
14. Jans, R., Degraeve, Z., 2008. Modeling Industrial Lot Sizing Problems: A Review, *International Journal of Production Research*, Vol. 46 (6), 1619-1643.
15. Jans, R., Degraeve, Z., Schepens, L., 2008. Analysis of an Industrial Component Commonality Problem, *European Journal of Operational Research*, 186, 801-811.
16. Jans, R., Degraeve, Z., 2008. Analysis of a symmetrical Set Covering problem: The lottery problem, *European Journal of Operational Research*, 186, 104-110.
17. Degraeve, Z., Jans, R., 2007. A New Dantzig-Wolfe Reformulation and Branch-and-Price Algorithm for the Capacitated Lot Sizing Problem with Set Up Times, *Operations Research*, Vol. 55 (5), 909-920.
18. Jans, R., Degraeve, Z., 2007. Meta-heuristics for lot sizing problems: review and comparison of solution approaches, *European Journal of Operational Research*, Vol. 177, 1855-1875.
19. Jans, R., Degraeve, Z., 2004. Improved Lower Bounds for Capacitated Lot Sizing Problems with Set Up Times. *Operations Research Letters*, Vol. 32, 185-195.
20. Jans, R., Degraeve, Z., 2004. An Industrial Extension of the Discrete Lot Sizing and Scheduling Problem. *IIE Transactions*, Vol. 36 (1), 47-58.
21. Degraeve, Z., Gochet, W., Jans, R., 2002. Alternative Formulations for a Layout Problem in the Fashion Industry. *European Journal of Operational Research*, Vol. 143, 80-93.

Chapters in scientific books:

22. Jans, R., Dittrich, K., 2008, A review of case studies in business research, book chapter in *Case Study Methodology in Business Research*, J. Dul and T. Hak (Eds.), Butterworth Heinemann, 19-29.
23. Edens, B., Leeman, D., van Nuenen, J., Van den Ende, J., Jans, R., 2006. Liquid Gold: Innovation on a European Scale, book chapter in *Teaching entrepreneurship: Selected cases*, Clarysse, B., Roure, J., San Jose, A. (Eds.), Gate2Growth Academic Network, Brussels, 157-178.
24. Huisman, D., Jans, R., Peeters, M., Wagelmans, A., 2005. Combining Column Generation and Lagrangian Relaxation, book chapter in *Column Generation*, G. Desaulniers, J. Desrosiers, M. Solomon (Eds.), Springer, 247-270.

Working papers:

25. Fiorotto, D., Jans, R., de Araujo, S., 2014. An analysis of formulations for the lot sizing problem with setup crossover, working paper *CIRRELT-2014-57*.
26. Desrosiers, J., Jans, R., Adulyasak, Y. 2013. Improved Column Generation Algorithms for the Job Grouping Problem, *Cahiers du GERAD G-2013-26*.
27. Ruokokoski, M., Solyali, O., Cordeau, J.-F., Jans, R., Süral, H., 2010, Efficient formulations and a branch-and-cut algorithm for a production-routing problem, *Cahiers du GERAD G-2010-66*.
28. Jans, R., Desrosiers, J., 2010. Binary clustering problems: symmetric, asymmetric and decomposition formulations; *Cahiers du GERAD G-2010-44*.

Grants & Awards:

HEC Professorship in ‘Operations Planning’, June 2015 – May 2018 (30,000 CAD)
Prix Chenelière Éducation/Gaëtan Morin, November 2014 (5,000 CAD), awarded to an associate professor at HEC Montréal for research in the past three years.
NSERC Individual Discovery Grant (Natural Sciences and Engineering Research Council of Canada): ‘Optimization Models and Algorithms for Integrated Production Planning Problems’; 100,000 CAD for the period 2014-2019.
Pôle E3 (HEC Montréal) grant, April 2014 (18,580 CAD), with J.-F. Cordeau and O. Jabali, ‘Improving the carbon footprint of distribution networks: the case of Suncor Mississauga lubricants refinery’.
FQRNT Team Grant, April 2013 (117,000 CAD) with J-F Cordeau (principal researcher) and G. Laporte, ‘Méthodes d’optimisation appliquées à la planification intégrée de la chaîne d’approvisionnement’ (Optimization methods for integrated supply chain planning), 2013-2016.
Shastri Partnership Development Seed Grant, September 2012 (8,000 CAD), with Rupesh Pati
HEC Professorship in ‘Operations Planning’, June 2012 – May 2015 (30,000 CAD)
NSERC Individual Discovery Grant (Natural Sciences and Engineering Research Council of Canada): ‘Models and Algorithms for Integrated Production Planning Problems’; 100,000 CAD for the period 2009-2014.
HEC Start Up Grant 2008-2009 (20,000 CAD).
High Performing Research Member: Erasmus Research Institute of Management, The Netherlands (April 2008 – June 2008)
PhD grant (January 2007 – January 2011) (187,000 euros) in the NWO (Dutch Science Foundation) Open Competition Programme on the project: “Production planning and scheduling problems with demand substitution and remanufacturing” The main supervisor is Prof. Albert Wagelmans (Faculty of Economics, Erasmus University). Co-supervisors are dr. W. van den Heuvel and myself.
Grant (10,000 euros) from the Gate-2-Growth Academic Network, sponsored by the European Commission to develop the case: *Liquid Gold Case: Innovation on a European scale at Unilever*; 2005, with J. van den Ende.
Post doctoral research fellowship of ERIM (Erasmus Research Institute of Management) in the Logistics group (October 2002 – October 2003).
PhD Scholarship: Research Assistant of the Flemish Fund for Scientific Research (October 1998-October 2002). This scholarship is awarded each year to a small number of Ph.D. students in the field of business and economics, based on their academic record.

Memberships:

Board Member of the EURO Working Group on Lot Sizing, since 2014.
Associate Member of CIRRELT (Centre Interuniversitaire de Recherche sur les Réseaux d’Entreprise, la Logistique et le Transport), since July 2013.
Member of CORS, since 2012.
Member of GERAD (Groupe d’études et de recherché en analyse des décisions), since April 2009.
Member of INFORMS, since 1999.

Supervision:**Supervision of PhD Students:**

1. Masoud Chitsaz, HEC Montréal, September 2014 – now, co-supervised with J.-F. Cordeau.
2. Yasser Valcarcel-Miro, HEC Montréal, January 2014 – now, co-supervised with J.-F. Cordeau.
3. Mathijn Retel Helmrich, Faculty of Economics, Erasmus University, The Netherlands, January 2006 – October 2013, “Green Lotsizing” The main supervisor is Prof. Albert Wagelmans and co-supervisor W. van den Heuvel.
4. Yossiri Adulyasak, HEC Montréal, September 2009 –December 2012, “Optimisation of Integrated Production Planning and Distribution Problems” Co-supervised with J.-F. Cordeau.
 - Recipient of an Esdras-Minville Award for the best published article by a PhD student at HEC Montréal (March 2013).
 - Winner of the Mercure Award for the best doctoral thesis of 2013 at HEC Montréal (April 2014).

Supervision of Post-Doctoral Students:

1. Ioannis Fragkos, HEC Montréal and CIRRELT, March 2015 – August 2015, «Multi-period Fixed Charge Network Design», co-supervised with Jean-François Cordeau.
2. Duygu Tas, HEC Montréal and CIRRELT, October 2014 – July 2015, “Lotsizing with stochastic setup times”, co-supervised with Ola Jabali and Michel Gendreau.
3. Rami Afif As’Ad, HEC Montréal and CIRRELT, February 2010 – July 2011, “Multi-level lotsizing and distribution problems”, Co-supervised with JF Cordeau.

HEC Montréal MSc thesis supervision:

1. Nitin Ravichankar, in progress, April 2015, Analysis of the evolution of inventory levels in publicly listed companies in Canada, with C. Rebolledo.
2. Zhao Li, in progress, April 2015, Improved formulations for a printing planning problem using symmetry breaking.
3. Jingshu Liu, in progress, April 2015, The one-warehouse multi-retailer problem with a rolling horizon emission constraint, with O. Jabali.
4. Yiming Zhuang, in progress, Augustus 2014, The measurement of cost effects in component commonality.
5. Ngoc-Thuy-Chau Nguyun, in progress, Augustus 2014, Interaction among costs in different lot sizing problems with substitution.
6. Julian Martinez, in progress, April 2014, Application of network design, with J.-F. Cordeau.
7. Mengyu Nie, in progress, February 2014, How trade policy shocks affect global value chains, with A. Van Assche.
8. Qihua Zhong, June 2013 – October 2014, Two-level lot sizing with an emission constraint, co-supervision with O. Jabali.
9. Luis Saucedo, February 2013 – October 2014, Symmetry breaking for the Wagon Loading Problem.

HEC Montréal MSc project supervision:

1. Alexandre Ouellet, May 2015, in progress.
2. Lorraine Boulos, May 2015, in progress, with H. Giroux.
3. Maximin Zengue, May 2015, in progress.
4. Anne-Sophie Beauge-Malenfant, May 2015, in progress.
5. Oriane Philippe, June 2013 – January 2014.
6. William Beverly, June 2013 – January 2014.

Supervision of Visiting PhD Students and Researchers:

1. Gislaine Melega (visiting PhD student at HEC Montréal and CIRRELT, April 2015 – January 2016), Integrated lot sizing and cutting stock problems, PhD student at the Universidade Estadual Paulista UNESP, Brasil; main supervisor Silvio de Araujo.
2. Matthieu Gruson (visiting MSc student at HEC Montréal, April 2015 – November 2015), Co-supervised with Jean-François Cordeau, Lot sizing with backloging and service level constraints, MSc student at ISAE/SUPAERO, Toulouse, France.
3. Nha Vo-Thanh (Visiting PhD student at HEC Montréal and GERAD, September 2014-December 2014), “Mixed Integer Programming formulations for optimizing designs with one and two blocking factors”, PhD student at the University of Antwerp, Belgium, under the supervision of P. Goos and E. Schoen.
4. Majid Bazrafah (Research Associate at HEC Montréal and CIRRELT, June 2014 – December 2014), Co-supervised with Jean-François Cordeau, “Three level lot sizing with a distribution structure”, MSc student at Concordia.
5. Diego Fiorotto (Visiting PhD student at HEC Montréal and CIRRELT, October 2013 – September 2014), “Multi-machine lot sizing”, PhD student at the Universidade Estadual Paulista UNESP, Brasil; main supervisor Silvio de Araujo.
6. Mirko Ruokokoski (visiting PhD student at CIRRELT, August 2009 – February 2010), Co-supervised with JF Cordeau, “The integrated lotsizing and vehicle routing problem”, PhD student at the System Analysis Laboratory, Helsinki University of Technology.
7. Mathijn Retel Helmrich (visiting PhD student at HEC Montréal, May 2009 – July 2009), “Production planning and scheduling problems with demand substitution and remanufacturing”,

PhD student at the Faculty of Economics, Erasmus University, The Netherlands, main supervisors: Albert Wagelmans and Wilco van den Heuvel.

8. Hacer Goren Gunen (visiting PhD student at HEC Montréal, September 2008 – August 2009), “Meta-heuristics for capacitated lotsizing problems”, PhD student at the Department of Industrial Engineering, Dokuz Eylul University, Izmir, Turkey, supervisor S. Tunali.

Member of PhD jury:

1. Mohammad Nikoofal, Desautels Faculty of Management, McGill University, member of the jury, September 5, 2014.
2. Mira Thoumy, HEC-Montréal, président-rapporteur, June, 2013
3. Leandro Coelho, HEC Montréal, président-rapporteur, October 10, 2012.
4. Arcan Nalcan, Desautels Faculty of Management, McGill University, member of jury, October 2008.

Member of the PhD Phase II committee:

1. Mehdi Ghotboddini, Desautels Faculty of Management, McGill University, Supervisor: V. Verter, September 2011 - present.
2. Mohammad Nikoofal, Desautels Faculty of Management, McGill University, Supervisor: M. Ghumus, December 2010 - present.

Teaching:

Development of teaching cases

- *Liquid Gold Case: Innovation on a European scale at Unilever*; 2005, with Edens, B., Leeman, D., van Nuenen, J., and J. van den Ende.
A short version of this case appeared in the following text book: N. Thomson and C. Baden-Fuller, 2010. *Basic Strategy in context*. Wiley, 303-306.

HEC Montréal

- *Conception et amélioration des systèmes opérationnels*, core course in the MSc. Programme, Winter 2015.
- *Managing Supply Chains*, elective in the MBA programme, Fall 2014 (with J. Roy).
- *Operations Management*, core course in the MBA programme, Winter 2009 (3 sections), Winter 2010 (3 sections), Winter 2011 (3 sections), Winter 2012 (2 sections), Winter 2013 (2 sections), Winter 2014 (2 sections).
- *Gestion des Opérations*, core course in the MBA programme, Winter 2011 (1 section), Winter 2012 (1 section).
- *Managing Product and Service Variety*, elective in the MBA programme, Spring 2009.
- *Logistics and Supply Chains*, elective in the MBA programme, Winter 2009, Winter 2012.
- *Decision Support Tools for the Operations Manager*, elective in the MSc programme, Winter 2010, Summer 2011, Summer 2012, Winter 2013, Winter 2014, Winter 2015.
- *Advanced Production Planning*, PhD course, Summer 2010, Summer 2015.
- *Operations Management*, core course in the Bachelor’s programme, Fall 2008.

Rotterdam School of Management, Erasmus University

- *Managerial Decision Analysis*, OneMBA program, January 2013, January 2014, January 2015.
- *Management Science*, MBA program, Oct. 2003 – Jan. 2004, Oct. 2004 – Jan. 2005, Oct. 2005-Jan. 2006, Dec. 2006-Jan. 2007, Oct. 2007-Jan. 2008, Dec. 2008.
- *Management Science*, Executive MBA program, Jan. – March 2004, Jan. – March. 2005, Jan. - March 2006, Jan. - March 2007, Jan. - March 2008, April - June 2009, May - June 2010, May – June 2011, May-June 2012, May-June 2013, May-June 2014.
- *Management Science*, Master program General Management, Jan. – March 2007, Jan. – March 2008, April 2009.
- *Refresher Mathematics*, MBA program, Oct. 2004, Oct. 2005, Oct. 2007.
- *Managing Product Variety*, Supervision of Bachelor’s thesis projects (in Dutch), Third year Bachelor’s program in Management, Oct. 2003 – May 2004, Oct. 2004 – May 2005, Oct. 2005- May 2006.

- *Production and Logistics Management* (case discussion classes), second year Bachelor's program in Management, Sept. 2004 – Nov. 2004.
- Supervision Executive MBA In-Company Projects, February 2004 – May 2004, April 2011 – September 2011.

Desautels Faculty of Management, McGill University

- *Data, Models & Decisions*, MBA program and Masters in Manufacturing Management, Sept. – Dec. 2006, Sept. – Dec. 2007.
- *Analysis of Production Operations*, MBA program and Masters in Manufacturing Management, Sept. – Dec. 2006.

Presentations:

Invited Presentations

- “Heuristic methods for a capacitated lot sizing problem with stochastic setup times”, with D. Tas, M. Gendreau, O. Jabali, **Sixth International Workshop on Lot Sizing (IWLS 2015)**, Montreal, 24-26 August 2015 (26 August 2015).
- “Recent Advances in Solving the Production Routing Problem”, with Y. Adulyasak and J.-F. Cordeau, **ERIM / Economics Institute Workshop**, Rotterdam, October 4, 2013
- “Reoptimization Capabilities of Benders Decomposition for Production Routing under Demand Uncertainty”, with Y. Adulyasak and J.-F. Cordeau, **Fourth International Workshop on Lotsizing**, Brussels, August 26-28, 2013.
- “Symmetry breaking in MIP optimization problems” **CIRRELT**, Montréal, March 28, 2013.
- “Improved Column Generations for Clustering Problems”, with J. Desrosiers, **Journée de la recherche**, HEC Montréal, April 2012.
- “A hybrid heuristic for the production routing problem”, with Y. Adulyasak and J.-F. Cordeau, **Second International Workshop on Lotsizing**, Istanbul, Turkey, August 2011.
- “Improved Formulations for Symmetry Breaking: The Job Grouping Problem”, with J. Desrosiers, **Journée de la recherche**, HEC Montréal, April 2011.
- “Binary clustering problems: symmetric, asymmetric and decomposition formulations”, with Jacques Desrosiers, **CORE**, Université Catholique de Louvain, Belgium, March 29, 2011; **Journée de la recherche**, HEC Montréal, April 2010.
- “Formulations and a Branch-and-Cut algorithm for a production-distribution-routing problem”, with M. Ruokokoski, O. Solyali, J.F. Cordeau and H. Süral, **International Workshop on Lotsizing**, Gardanne, France, August 2010.
- “Dynamic Lotsizing: Introduction and decomposition approaches”, **GERAD**, Montréal, November 2009.
- “A classification of MIP’s for Dantzig-Wolfe decomposition”, **Workshop on Column Generation**, Aussois, France, June 2008.
- “Breaking symmetry in MIP’s: parallel machine lotsizing”, invited seminars at **CORE**, Louvain-La-Neuve, Belgium, March 2008; **University of Antwerp**, Belgium, April 2008; **Econometrics Institute**, Erasmus University, The Netherlands, May 2008.
- “Solving production planning problems using decomposition approaches”, Research Seminar, John Molson School of Business, **Concordia University**, Montreal, Canada, April 2007
- “Solving industrial lot sizing problems using decomposition approaches”, Research seminar, **McGill University**, Montreal, Canada, December 2006
- “Solving Integer Programming Problems Using Symmetry Breaking Constraints”, Research seminar, **McGill University**, Montreal, Canada, October 2006
- “Combining Column Generation and Lagrangian Relaxation”, with D. Huisman, **International Colloquium for the 25th anniversary of GERAD**, Montreal, Canada, May 2005.
- “Decomposition Approaches for the Capacitated Lot Sizing Problem”, with Z. Degraeve, Research Seminar, **GERAD**, Montreal, Canada, August 2003.
- “Two Alternative Decomposition Reformulations for the Capacitated Lot Sizing Problem”, with Z. Degraeve, Research Seminar, **Erasmus University**, The Netherlands, June 2002.
- “Solving Industrial Lot Sizing Problems: A Column Generation and Branch-and-Price Approach”, with Z. Degraeve, Research Seminar, **Erasmus University**, The Netherlands, March 2002.
- “Solving an Industrial Lot Sizing Problem”, with Z. Degraeve, Research Seminar, **London School of Economics**, March 2002.

“A Strategic Product Range Split Problem”, with Z. Degraeve and L. Schepens, Research Seminar, **London Business School**, March 2001.

Regular Presentations

- “A capacitated multi-item lot sizing problem with stochastic setup times”, with D. Tas, M. Gendreau, O. Jabali, **INFORMS Meeting**, Philadelphia, 1-4 November 2015 (4 November 2015).
- “An analysis of formulations for the capacitated lot sizing problem with setup cross-over”, with S. de Araujo and D. Fiorotto, **CORS/INFORMS International Conference**, Montréal, Canada, June 14-17, 2015. (June 17, 2015)
- “The Stochastic Production Routing Problem”, with Y. Adulyasak and J.-F. Cordeau, **EURO/INFORMS 26th Conference on Operational Research**, Rome, Italy, July 1-4, 2013.
- “Optimization Based Adaptive Large Neighborhood Search (ALNS) for the Production Routing Problem”, with Y. Adulyasak and J.-F. Cordeau, **INFORMS Meeting**, Phoenix, 14-17 October 2012 (15 October 2012).
- “Efficient Symmetry Breaking Formulations for the Job Grouping Problem”, with J. Desrosiers, **Optimization Days**, Montreal, Canada, May 2-4, 2011.
- “Binary Clustering Problems: Symmetric, Asymmetric and Decomposition Models”, with J. Desrosiers, **INFORMS**, Austin, TX, USA, November 7-10, 2010; **Optimization Days**, Montreal, Canada, May 10-12, 2010.
- “Symmetry Breaking constraints in MIP’s”, **INFORMS Meeting**, Washington DC, October 2008.
- “Solving lotsizing problems on parallel identical machines using symmetry breaking constraints”, Poster presentation, **MIP Workshop 2007**, Montreal, July 2007.
- “Symmetry breaking in IP models: Parallel machine lotsizing”, **INFORMS Meeting**, San Francisco, November 2005.
- “Lot Sizing on Parallel Machines”, **Optimization Days**, Montreal, Canada, May 2005.
- “A Comparison of Lower Bounds for the Capacitated Lot Sizing Problem”, with Z. Degraeve, **EURO/INFORMS Meeting**, Istanbul, July 2003.
- “Strong Lower Bounds for the Capacitated Lot Sizing Problem with Set Up Times”, with Z. Degraeve, **INFORMS Meeting**, San José, November 2002.
- “A Branch-and-Price Algorithm for the Capacitated Lot Sizing Problem”, with Z. Degraeve, **INFORMS Meeting**, Miami, November 2001.
- “A Production Planning Problem in the Tire Industry”, with Z. Degraeve, **INFORMS Meeting**, San Antonio, November 2000.
- “An Algorithm for the Multi-Item Lot Sizing Problem with Setup Times at Solideal”, with Z. Degraeve, **14th International ORBEL Conference**, Belgium, January 2000.
- “Tire Production Scheduling at Solideal”, with Z. Degraeve, **INFORMS Meeting**, Philadelphia, November 1999.
- “Alternative Formulations for a Layout Problem in the Fashion Industry”, with Z. Degraeve and W. Gochet, **13th International ORBEL Conference**, Belgium, January 1999.

Consultancy Projects:

- Consultant, Ernst & Young**, London, U.K.
January 2005 – April 2005,
Project on the optimisation of corporate tax planning.
- Consultant, Atlas Copco**, Wilrijk, Belgium
April 2004 – August 2004, with Prof. Z. Degraeve and Prof. F. Spieksma
Optimization of a product range using component commonality.
- Consultant, Solideal**, Gent, Belgium / Colombo, Sri Lanka
1999 – 2002, with Prof. Z. Degraeve
Solideal is a leading industrial tire manufacturer based in Sri Lanka.
The aim of the project is the optimisation of the production planning and inventory management.
- Consultant, OMPartners**, Brasschaat, Belgium
June 1998 – September 1998, with Prof. Z. Degraeve and L. Schepens (OMPartners)
OMPartners is an international software and consulting firm specializing in operations management and production planning applications. We studied the optimisation of a product range using component commonality at an international industrial manufacturer in Belgium.
- Academic Supervisor** (RSM Erasmus University, The Netherlands, 2003-2008) on student’s projects for companies such as Heineken, LU, TNT, UPS Supply Chain Services, Peugeot Netherlands, DAF, Riedel Drinks.

Professional Service (Administration) Department representative in the Local PhD Committee at HEC (February 2009 – present)
Responsible for the GOL profile in the MBA programme (June 2010 – June 2012)
Organisator of the internal GOL seminar series (January 2011 – present)
Member of the HEC committee on MBA reform (March 2011 – June 2012)
President of the Search Committee GOL (September 2011 – February 2012, September 2014 – February 2015)

Professional Service (Research) Member of the Steering Committee for the International Workshop on Lotsizing, Gardanne, France, August 25-27, 2010.
Member of the Steering Committee for the Second International Workshop on Lotsizing (IWLS 2), Istanbul, Turkey, August 24-26, 2011.
Member of the jury for the CORS undergraduate student paper competition (April 2011, April 2012)
Evaluator for the RIRL 2012 Programme Committee, August 2012
Member of the Steering Committee for the Third International Workshop on Lotsizing (IWLS 3), Rotterdam, The Netherlands, August, 2012.
Member of the Steering Committee for the Fourth International Workshop on Lotsizing, Brussels, Belgium, August 26-28, 2013.
Member of the Steering Committee for the Fifth International Workshop on Lotsizing, Porto Portugal, August 27-29, 2014.
Chair Organizing Committee of the Sixth International Workshop on Lotsizing, Montréal, August 24-16, 2015.