



# BERT DE REYCK

# RÉSUMÉ

# **Academic Appointments**

## 2015 - Present

# **Professor and Director**

UCL School of Management
University College London, London, UK

# 2011 - Present Visiting Professor

London Business School, London, UK

# 2011 - 2017

# **Visiting Professor**

University of Ghent, Ghent, Belgium

# 2009 – 2015

# **Professor and Head of Department**

Department of Management Science & Innovation University College London, *London, UK* 

# 2009 - 2011

# **Adjunct Professor**

Department of Management Science & Operations London Business School, *London, UK* 

# 2007 - 2009

## **Associate Professor**

Department of Management Science & Innovation University College London, *London, UK* 

## 2007 - 2009

# **Adjunct Associate Professor**

Department of Management Science & Operations London Business School, *London, UK* 

## 2001 - 2007

# **Associate Professor**

Department of Decision Sciences London Business School, *London, UK* 

## 2005 - 2006

# **Visiting Associate Professor**

Department of Managerial Economics and Decision Sciences

Kellogg Graduate School of Management Northwestern University, *Evanston*, *IL* 

## 1999 - 2001

# **Assistant Professor**

Department of Decision Sciences London Business School, *London, UK* 

## 1998 - 1999

# **Assistant Professor**

Department of Management of Technology & Innovation

Rotterdam School of Management

Erasmus University, Rotterdam, The Netherlands

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# **Education**

1992 - 1998

**PhD Applied Economics** 

University of Leuven, Leuven, Belgium

1991 - 1992

**MSc Information Systems Engineering** 

University of Leuven, Leuven, Belgium

1988 - 1991

**BSc Business Engineering** 

University of Leuven, Leuven, Belgium

# Teaching Honours & Awards

2007, 2008, 2013

**MBA Teaching Award** 

London Business School

2010, 2011

MSc Entrepreneurship Teaching Award

University College London

2001, 2003, 2006

**Faculty Teaching Award** 

London Business School

2004, 2006, 2008

**Case Competition Award** 

**INFORMS** 

with "Project Portfolio Management at Novartis

Pharma" and "Phytopharm plc"

Runner-up with "Towards a Single European Sky"

# **Research Honours & Awards**

# ${\bf 2016-Daniel\ H.\ Wagner\ Prize\ for\ Excellence\ in}$ Operations Research Practice

**INFORMS** 

Finalist with "Vungle Inc. improves monetization using big-data analytics"

# 2014 — 4\* REF Case Study

Research Evaluation Framework

"An integrated decision— making framework for improving European air traffic management"

# 2014 — Daniel H. Wagner Prize for Excellence in Operations Research Practice

**INFORMS** 

Semi-finalist with "Optimizing Maritime Transhipment Operations for the Noble Group"

## 2013 - Best Publication Award

Decision Analysis Society

For contributing "Valuation of risky projects and other illiquid investments using portfolio selection models" to *Portfolio Decision Analysis*, International Series in Operations Research and Management Science, Springer, 2011.

# 2010 - Best Paper Award

IEEE Engineering Management Society
Finalist with "The effect of activity duration variability
on the eNPV of projects that allow for alternative
technologies in uncertain environments"

# 2011 - Top 10 most-cited articles of all time

Computers and Operations Research

"Resource - constrained project scheduling

— A survey of recent developments"

## 2008 — Best Paper Award

IEEE Engineering Management Society

"Project scheduling for maximum net present value with variable activity durations and uncertain activity outcomes"

# 2008 — Daniel H. Wagner Prize for Excellence in Operations Research Practice

INFORMS

Finalist with "Towards a single European sky"

# 2007 — Decision Analysis Society Practice Award INFORMS

Finalist with "An integrated decision—making approach for improving European air traffic management"

## 2003 - Excellence in Practice Award

**EURO** 

Finalist with "Broadcast scheduling for mobile advertising"

## 1999 - Fellow

Royal Netherlands Academy of Arts and Sciences

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# **Industry Sponsorship & Projects**

(Amounts not disclosed)

2015 - 2016

**Eurocontrol and Heathrow Airport** 

Big – data collaborative decision making support for the Airport Operations Centre

2014 - 2016

**Great Ormond Street Hospital** 

Decision support for epilepsy diagnosis and surgery in children

2013 - 2016

**Department for Transport** 

Forecasting costs for major infrastructure projects

2012 – 2015

**Network Rail** 

Analysis of optimism bias in UK rail projects

2013 - 2014

Vungle

Recommendation engine development for mobile advertising

2014

Merck Serono

Pharmaceutical project portfolio management

2012 - 2013

**Noble Group** 

Optimization of transhipment operations in Indonesia

2006

**Eaton Aerospace** 

Project management for F - 35 Joint Strike Fighter

2005 - 2006

**EuroControl** 

European air traffic control system selection and optimization

2004

**Dunlop Aerospace** 

Project management for Boeing 787

2004

Phytopharm

Pharmaceutical R&D project valuation and

licensing negotiations support

# **Research Grants**

2010 - 2012

Technology Strategy Board, £1,199,575

 $\label{lem:condition} \mbox{Regenerative Medicine Programme: Value System} \\ \mbox{and Business Models, Co-Investigator} \\$ 

2000 - 2008

London Business School Research & Materials Development Fund, £53,600

2008

Resource Allocation in Project Management Principal Investigator, £4,800

2008

Resource Allocation in Project Management Principal Investigator, £4,800

2006

R&D Project Valuation Principal Investigator, £11,600 2005

Project Valuation in Mixed Asset Portfolio Selection Principal Investigator, £14,000

2004

Project Portfolio Management at Novartis Pharma Principal Investigator, £5,200

2002

The Aftermath of the World Trade Center Collapse Principal Investigator, £8,000

2001

New Methods for Resource Allocation in Projects Principal Investigator, £5,000

2000

Cases on Monte-Carlo and Discrete-Event Simulation Principal Investigator, £5,000

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# **Professional Activities**

Member

Institute for Operations Research and Management

Science, INFORMS

Project Management Institute, PMI

**Editorial Board** 

2012 - 2016

Journal of Decision Processes, EURO

2009

Wickham Skinner Awards, POMS

2005

INFORMS Case Competition Award, INFORMS

Ad-hoc Reviewer

Operations Research Management Science

Manufacturing and Services Operations Management

Marketing Science

Informs Journal on Computing

**IIE Transactions** 

European Journal of Operational Research

**University Committees** 

2014 - Present

China Steering Committee University College London

2014

Learning and Teaching Review Committee Cambridge Judge Business School

2012 - 2013

UCL Senior Promotions Committee University College London

2013

Chair Engineering Management Review Committee Melbourne University

2001 - 2006

MBA Curriculum Committee London Business School

2000 – 2008 Examiners Board London Business School

# **Teaching Activities**

## **Project Management**

2000 - Present

MBA, Executive MBA, Masters in Finance

London Business School

2008 - 2010

MSc Technology Entrepreneurship

University College London

2011

DIMP

China Europe International Business School

2006

MBA and MMM

Kellogg Graduate School of Management

Northwestern University

# **Executive Education**

Sberbank Oman Oil Lloyd's Continental Shire

United Health Group

Roche Diageo PwC

Sanofi-Pasteur MSD

Merck

#### **Decision Models**

2005 - 2010

Global Executive MBA – Americas & Europe London/Columbia Business School

2011 - 2013

Global Executive MBA - Asia

London/Columbia/Hong Kong University Business

School

# **Decision & Risk Analysis**

2007 – 2010 MSc Management *University College London* 

2007 - 2010

MSc Technology Entrepreneurship University College London

1999 – 2007 MBA

London Business School

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# **PhD Supervision**

# Supervisor

# 2013 - 2018

# Xiaojia Guo

University College London

"Time Series Forecasting in Decision Making: Methods and Applications"

#### 2008 - 2014

## Ioannis Fragkos

University College London

"Large – scale optimisation in operations management: Algorithms and applications" Assistant Professor, Rotterdam School of Management, Erasmus University Rotterdam

#### 2003 - 2009

## Yael Grushka - Cockayne

London Business School

"Introduction of technological innovations: Valuation, selection and timing"

Associate Professor, Darden School of Business, University of Virginia

#### 2002 - 2007

# **Pascale Crama**

London Business School

"Designing licensing contracts for research and development projects"

Associate Professor, Lee Kong Chian School of Business, Singapore Management University

# 2nd Supervisor & Committee Member

# 2014 - present Verena Vickovic

University College London

"Equilibrium analysis of carbon emissions caps in regional electricity markets"

# 2010 - 2016

## Yufei Hang

University College London

"New product introduction and sales"

# 2010 - 2016

# **Emmanouil Avgerinos**

University College London

"Team and task dynamics in healthcare and professional service operations"

## 2009 - 2014

## **Lajos Horvat**

University College London

"Decision making under uncertainty and competition for sustainable energy technologies"

# 2008 - 2013

## Sebastiano Massaro

University College London

"Cognitive and affective features of interpersonal dynamics in knowledge – intensive organizations"

# 2008 - 2013

## Chia - Yu Kou

University College London

"Understanding implicit assumptions in learning: role of motivation and formal structure"

#### 2008 - 2011

### Songsong Liu

University College London

"Supply chain management for the process industry"

#### 2007 - 2011

## Michail Chronopoulos

University College London

"Optimal decision making under risk aversion and uncertainty"

#### 2006 - 2009

### Janne Kettunen

Helsinki University of Technology

"Stochastic optimization in the management of market uncertainties"

#### 2004 - 2008

#### **Toni Jarimo**

Helsinki University of Technology

"Optimal design of collaborative innovation networks"

## 2004 - 2008

## **Jade Herbots**

University of Leuven

"Capacity allocation in project portfolio management"

#### 2003 - 2005

#### Janne Gustafsson

Helsinki University of Technology

"Contingent portfolio programming for the management of risky projects"

# 2002 - 2006

# Mohammad Ranjbar

Sharif University of Technology

"Heuristics for resource – constrained project planning"

# 1998 – 2003

## **Roel Leus**

University of Leuven

"The generation of stable project plans: Complexity and exact algorithms"

## 1996 - 2001

## Mario Vanhoucke

University of Leuven

"Exact algorithms for various types of project scheduling problems"

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# **Selected Publications**

#### Citations

Google Scholar 3,200 citations; h-index 23 ISI 500 citations; h-index 13

## **Select Top Journals**

- "Licensing contracts: Control rights, options and timing", *Management Science*, 2017, 63(4), 1131-1149 (with P. Crama and N. Taneri).
- "An integrated decision— making approach for improving European air traffic management", *Management Science*, 2008, 54 (8), 1395 1409 (with Z. Degraeve and Y. Grushka— Cockayne).
- "Milestone payments or royalties? Contract design for R&D licensing", *Operations Research*, 2008, 56 (6), 1539–1552 (with P. Crama and Z. Degraeve).
- "Broadcast scheduling for mobile advertising", *Operations Research*, 2003, 51 (4), 509 517 (with Z. Degraeve).

#### **Select Practitioner Journals**

- "Vungle Inc. improves monetization using big-data analytics", *Interfaces*, 2017, forthcoming (with I. Fragkos, Y. Grushka-Cockayne, C. Lichtendahl, H. Guerin, A. Kritzer)
- "On improving the maritime transshipment operations at the Noble Group, *Interfaces*, 2016, 46 (3), 203-217 (with I. Fragkos).
- "Towards a Single European Sky", *Interfaces*, 2009, 39, 400 414 (with Y. Grushka– Cockayne).
- "R&D project valuation and licensing negotiations at Phytopharm Ltd.", *Interfaces*, 2007, 37 (5), 472–487 (with P. Crama, Z. Degraeve and W. Chong).

# **High-Quality Journals**

- "Optimal Selection of Distributed Energy Resources under Uncertainty and Risk Aversion," *IEEE Transactions on Engineering Management*, 2016, 63(4), 462-474 (with L. Maurovich-Horvat, P. Rocha, and A. Siddiqui).
- "A Horizon Decomposition approach for the Capacitated Lot Sizing Problem with Setup Times", INFORMS Journal on Computing, 2016, 28, 465 482 (with Z. Degraeve and I. Fragkos).
- "Period decompositions for the capacitated lot size problem with setup times", *INFORMS Journal on Computing*, 2016, 28 (4), 431 448 (with S. A. de Araujo, Z. Degraeve, I. Fragkos, R. Jans).
- "New product development flexibility in a competitive environment", *European Journal of Operational Research*, 2015, 244 (3), 892–904 (with J. Kettunen, Y. Grushka– Cockayne, Z. Degraeve).
- "Project planning with alternative technologies in uncertain environments", *European Journal of Operational Research*, 2015, 242 (2), 465–476 (with S. Creemers and R. Leus).
- "Duopolistic competition under risk aversion and uncertainty", *European Journal of Operational Research*, 2014, 236, 643 656 (with A. Siddiqui and M. Chronopoulos).
- "The value of capacity sizing under risk aversion and operational flexibility", *IEEE Transactions on Engineering Management*, 2013, 60 (2), 272 288 (with M. Chronopoulos and A. Siddiqui).

- "Step by step. The benefits of stage– based R&D licensing contracts" *European Journal of Operational Research*, 2013, 224 (3), 572 582 (with P. Crama and Z. Degraeve).
- "Effective project planning: making the most of project planning tools", *Production & Inventory Management*, 2011, 46 (2), 10 25
- "Optimal investment and operational decision making under risk aversion and uncertainty", *European Journal of Operational Research*, 2011, 213 (1), 221 237 (with A. Siddiqui and M. Chronopoulos).
- "A hybrid Scatter Search and Path Relinking algorithm for the discrete time/resource trade—off problem in project scheduling", *European Journal of Operational Research*, 2009, 193 (1), 35 48 (with M. Ranjbar and F. Kianfar).
- "R&D project scheduling when activities may fail", *IIE Transactions*, 2008, 40 (4), 367 384 (with R. Leus).
- "Project options valuation using Net Present Value and Decision Tree Analysis", *European Journal of Operational Research*, 2008, 184 (1), 341 355 (with Z. Degraeve and R. Vandenborre).
- "MABS: Spreadsheet– based decision support for precision marketing", *European Journal of Operational Research*, 2006, 171 (3), 935 950, feature issue for the Excellence in Practice Award of the Association of European Operational Research Societies (with Z. Degraeve).
- "A hybrid Scatter Search / Electromagnetism meta— heuristic for project scheduling", *European Journal of Operational Research*, 2006, 169 (2), 638 653 (with D. Debels, R. Leus and M. Vanhoucke).
- "On 'Investment decisions in the theory of finance: some antinomies and inconsistencies'", *European Journal of Operational Research*, 2005, 161(2), 499 504.
- "The impact of project portfolio management on information technology projects", *International Journal of Project Management*, 2005, 23 (7), 524 537 (with S. Calderini, Y. Grushka– Cockayne, M. Lockett, M. Moura and A. Sloper).
- "On the paper 'Resource— constrained project scheduling: notation, classification, models and methods' by Brucker et al.", *European Journal of Operational Research*, 2001, 128, 679 688 (with W. Herroelen and E. Demeulemeester).
- "The discrete time/resource trade— off problem in project networks A branch– and– bound approach", *IIE Transactions*, 2000, 32, 1059 1069 (with E. Demeulemeester and W. Herroelen).
- "The multi– mode resource– constrained project scheduling problem with generalized precedence relations", *European Journal of Operational Research*, 1999, 119 (2), 538 556 (with W. Herroelen).
- "Phase transitions in project scheduling", *Journal of the Operational Research Society*, 1999, 50 (2), 148 156 (with W. Herroelen).

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"Local search methods for the discrete time/resource trade— off problem in project networks", *Naval Research Logistics*, 1998, 45, 553 – 578 (with E. Demeulemeester and W. Herroelen).

"A branch – and – bound algorithm for the resource – constrained project scheduling problem with generalized precedence relations", *European Journal of Operational Research*, 1998, 111 (1), 152 – 174 (with W. Herroelen).

"An optimal procedure for the resource – constrained project scheduling problem with discounted cash flows and generalized precedence relations", *Computers and Operations Research*, 1998, 25 (1), 1 – 17 (with W. Herroelen).

"Resource – constrained project scheduling – A survey of recent developments", *Computers and Operations Research*, 1998, 25 (4), 279 – 302 (with W. Herroelen and E. Demeulemeester).

"New computational results for the discrete time/ cost trade-off problem in project networks", *Journal of the Operational Research Society*, 1998, 49 (11), 1153–1163 (with E. Demeulemeester, B. Foubert, W. Herroelen and M. Vanhoucke).

"On the use of the complexity index as a measure of complexity in activity networks", *European Journal of Operational Research*, 1996, 91, 347–366 (with W. Herroelen).

#### **Book Chapters (Refereed)**

"Valuation of risky projects and other illiquid investments using portfolio selection models", *Portfolio Decision Analysis,* International Series in Operations Research and Management Science, Ed. F. S. Hillier, Springer, 2011 (with J. Gustafsson, Z. Degraeve, A. Salo).

"Using decision analysis to value R&D projects", in *QFinance*, Bloomsbury Publishing, 2009.

"A classification scheme for project scheduling problems", Chapter 1 in Weglarz, J. (Ed.), *Project Scheduling – Recent Models, Algorithms and Applications*, Kluwer International Series in Operations Research and Management Science, 1998, Vol. 14, 1–26, Kluwer Academic Publishers (with W. Herroelen and E. Demeulemeester).

"Algorithms for scheduling projects with generalized precedence relations", Chapter 4 in Weglarz, J. (Ed.), Project Scheduling – Recent Models, Algorithms and Applications, Kluwer International Series in Operations Research and Management Science, 1998, Vol. 14, 77–106, Kluwer Academic Publishers (with E. Demeulemeester and W. Herroelen).

"Resource – constrained project scheduling – A survey of recent developments", in Zimmerman, U., Derigs, U., Gaul, W. Möhring, R.H. and Schuster, K.P., *Operations Research Proceedings*, Springer, Heidelberg, 1997, 197 – 202 (with W. Herroelen and E. Demeulemeester).

## Magazines & Newspapers

"Decisions more important than Results", Business Strategy Review, 2010 (with Z. Degraeve).

"Managing project portfolios", Business Strategy Review, 2008.

"Tools to keep projects on the rails", Financial Times, 9 September 2005.

#### Cases

"A/B testing at Vungle"

"Agile project management at CA"

"Microsoft's Xbox 360 and the battle of the consoles"

"Toward a single European sky"

Finalist for 2007 INFORMS Case Competition Award

"Phytopharm plc."

Winner of 2006 INFORMS Case Competition Award "Project portfolio management at Novartis Pharma" Winner of 2004 INFORMS Case Competition Award

"The aftermath of the World Trade Center collapse"

#### Conferences

More than 100 papers presented at the following conferences:

**INFORMS Annual Meeting** 

**INFORMS** International Meeting

POMS Annual Conference

IEEE Conference on Industrial Engineering and

**Engineering Management** 

IFORS Triennial Conference

**EURO Annual Conference** 

EURO - PMS

MSOM Annual Meeting

**MISTA** 

**DSI Annual Meeting** 

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