

CURRICULUM VITAE
FELICJAN RYDZAK

International Institute for Applied System Analysis, Ecosystems Services and Management
Schlossplatz 1, A-2361 Laxenburg, Austria
Phone: +43 2236 807 374, Fax. +43 2236 807 599, E-mail: rydzak@iiasa.ac.at

EDUCATION:

- 10/2003 – 07/2007 – Wroclaw University of Technology (Poland), Faculty of Mechanical Engineering, Institute of Production Engineering and Automation,
PhD in Production Organization (*summa cum laude*)
Thesis – *Dynamic Model Based Resilience Analysis in Production Systems*
- 08/2005 – 02/2006 – Agder University (Norway)
Research project: ‘Experimental Explorations of Decision Making Focused on Resilience Analysis of Production Systems’
- 02/2003 – 06/2003 – Wroclaw University of Technology (Poland) & International Institute for Applied Systems Analysis (Austria),
Course: Computer Modelling of Complex Systems
- 09/2001 – 06/2002 – The Nottingham Trent University (UK), Faculty of Engineering and Computing,
BSc (Hons) Industrial Management (exchange programme)
- 10/1998 – 07/2003 – Wroclaw University of Technology (Poland), Faculty of Mechanical Engineering,
MSc Management and Manufacturing Engineering (*summa cum laude*)
Specialization of **Manufacturing Management**
Thesis – *Business Process Modelling as a Technique Supporting Changes in Enterprise*

WORK EXPERIENCE:

- 18/11/07 – present – International Institute for Applied Systems Analysis,
Research Scholar
– involved in a number of EU projects (e.g. GEO-BENE, EURO GEOSS)
– development of a methodology based on System Dynamics models and specific users tools to assess impact of policies across Societal Benefits Areas
– dynamic analysis of complex and highly interrelated systems
- 03/04/17 – present – BP Global Operations Organization, Upstream, Engineering Services
Systems and Processes Lead
– mapping, simplification and communication of core GOO workflows;
clarification of accountabilities and responsibilities
- 20/05/13 – 03/04/17 – BP Global Operations Organization, Upstream, Reliability and Maintenance
Reliability and Maintenance Specialist
– definition of global standards in line with Operating Management System
- 01/01/08 – 20/05/13 – BP Exploration and Production, Alaska,
OMS Learning Lead
– implementation of the Operating Management System and Continuous Improvement

22/04/05 – present – Centre for Systems Solutions (*voluntary work*)
Co-founder, former Chairman, and “Business Dynamics” Program Leader

SELECTED ACTIVITIES:

01/07/16 – 31/12/16 – Centre for Systems Solutions (Poland), Climate-KIC (Poland), Wuppertal Institute for Climate, Environment and Energy (Germany), Free Entrepreneurs Association (Poland), Estonian Ministry of the Environment (Estonia)

Project: *ACCURENT – Accelerating Urban Energy Transitions*

24/11/16 – 25/11/16 – Centre for Systems Solutions (Poland), Climate-KIC (Poland)

Workshop: *Leadership and Innovation for Accelerated Energy Transition*

19/09/10 – 02/10/10 – Centre for Systems Solutions (Poland)

Summer School: *‘Dynamics of Sustainable Development’*

15/01/07 – 02/07/07 – Tokyo Institute of Technology (Japan)

Research project: *‘Analysis of Dynamism among Technological Diversification, Learning and Functionality Development – System Dynamics Approach’*

06/12/06 – 31/07/07 – Wroclaw University of Technology (Poland),

Project: *‘LEADERSHIP – Leading European RTD to Sustained High Value Innovative Production for Manufuture’* (6th EU Framework Programme)

02/10/06 – 31/12/06 – Bombardier Transportaion (Poland),

Project: *‘Optimization of production process in Bogie Frames Division’*

05/09/05 – 09/09/05 – Agder University College (Norway), University at Albany (USA), SINTEF, The Norwegian Oil Industry Association

Project: *Group Model Building workshop within the confines of AMBASEC project*

22/04/05 – 02/06/12 – Chairman of Association **‘Centre for Systems Solutions’** (Poland)

01/11/04 – 30/06/05 – Agder University College (Norway)

Research project: *‘Development of an interactive simulation-based environment for learning management of production processes’*

21/05/04 – 13/07/04 – Wroclaw University of Technology (Poland), Green Culture Association (Poland), The Sendzimir Foundation

Course: *‘Dynamics of Sustainable Development. How to protect the environment supporting local economy?’*

12/03/04 – 04/04/04 – Wroclaw University of Technology, International Institute for Applied Systems Analysis, Laxenburg, (Austria), The Manus Foundation (Poland), The Sendzimir Foundation (USA)

Course: *‘Computer Modelling of Complex Systems’*

21/11/03 – 23/11/03 – Centre for Advanced Manufacturing Technologies, Wroclaw University of Technology, IBM Business Consulting Services, The Sendzimir Foundation, The Manus Foundation

Course: *‘Dynamic Balanced Scorecard’*

18/11/03 – 13/12/03 – Wrocław University of Technology (Poland), Green Culture Association (Poland), The Sendzimir Foundation (USA), Teachers' Excellence Centre (Poland)
Course: *'Dynamics of Sustainable Development. Karkonosze Mountains and Odra Valley'*

29/11/02 – 01/12/02 – The Sendzimir Foundation (USA), University of Gdansk (Poland)
Course: *'Computer Modelling of Ecological Systems'*

GRANTS, SCHOLARSHIPS:

11/2005 – 09/2007 – Polish Ministry of Education and Science research grant (4T07D01929)
Research project: *'Development of dynamic simulation models of changes in production processes'*

08/2005 – 02/2006 – The Research Council of Norway Scholarship within the confines of Cultural Agreement between Norway and Poland, Norwegian Government Scholarship 2005/2006; Research project at Agder University (Norway);

09/2001 – 05/2002 – The European Union Exchange Programme Socrates/Erasmus Scholarship in academic year 2001/2002 and study at The Nottingham Trent University (UK)

AWARDS, HONOURS:

09/12/03 – Award ('The Gold Lion') for the best graduate at Faculty of Mechanical Engineering in 2002/2003 in recognition of outstanding results and achievements during study at Wrocław University of Technology

01/10/03 – The Chancellor's Award in recognition of very good result during study at Faculty of Mechanical Engineering

01/10/99 – The Faculty of Mechanical Engineering Dean's Award in recognition of very good results in academic year 1998/1999

JOURNAL REVIEWER:

- Technovation - The International Journal of Technological Innovation, Entrepreneurship and Technology Management
- International Journal of Information Technologies and the Systems Approach

PUBLICATIONS AND SELECTED PRESENTATIONS:

Walsh, B.J., Ciais, P., Janssens, I.A., Penuelas, J., Riahi, K., Rydzak, F., van Vuuren, D.P., Obersteiner, M. Pathways for balancing CO₂ emissions and sinks. *Nature Communications*, 2017 Apr 13; 8.

Monus, P.A., Rydzak, F., *Raising the Flag For Change - Lima Refinery Story*. Learning Session at the 31st International Maintenance Conference, December 12-16, 2016, Bonita Springs, USA.

Rydzak, F., Monus, P.A. *Implementing strategic insights to transform operations performance in large organizations*. The 34th International Conference of the System Dynamics Society, July 17-21, 2016, Delft, Netherlands.

Walsh, B.J., Rydzak, F., Palazzo, A., Kraxner, F., Herrero, M., Schenk, P., Ciais, P., Janssens, I.A., Penuelas, J., Niederl-Schmidinger, A., Obersteiner, M., New feed sources key to ambitious climate targets. *Carbon Balance and Management*, 2015 (10), 26.

Obersteiner, M., Rydzak, F., McCallum, I., Fritz, S., Valuing the potential impacts of GEOSS: A Systems Dynamics Approach. In *The Value of Information. Methodological Frontiers and New Application in Environment and Health*, R. Laxminarayan and M.K. Macauley (eds). Springer, Dordrecht, The Netherlands pp.67-90, 2012.

McCallum, I., Fritz, S., Khabarov, N., Fuss, S., Szolgayova, J., Rydzak, F., Havlik, P., Kraxner, F., Obersteiner, M., Aoki, K., Schill, C., Quinten, M., Heumesser, C., Bouma, J., Reyers, B., Schneider, U., Pignatelli, F., Pavanello, L., Borzacchiello, M.T., Craglia, M., 2010. Identifying and Quantifying the Benefits of GEOSS. *Earth Observation, Economy, Featured Article, GEOSS/ICEO News*. Available at: <http://www.earthzine.org/2010/07/12/identifying-and-quantifying-the-benefits-of-geoss/>. Accessed: July 12th, 2010.

Rydzak, F., Obersteiner, M., Kraxner, F., 2010. Impact of Global Earth Observation – Systemic view across GEOSS Societal Benefit Areas. *International Journal of Spatial Data Infrastructures Research*, 2010 (5), 216-243.

Rydzak F., Ledet, W., Monus P., *Sustainable Organizational Change - Can you make the change happen with Large Teams alone?* 27th International Conference of the System Dynamics Society, July 26-30, 2009, Albuquerque, New Mexico, USA.

Rydzak F., Obersteiner, M., *System Dynamics Model for Analyzing and Measuring the Benefits of Global Earth Observation*. 33rd International Symposium on Remote Sensing of Environment, May 4-8, 2009, Stresa, Lago Maggiore, Italy.

Rydzak, F., Monus, P. 'Building Understanding of Organizational Change'. 26th International Conference of the System Dynamics Society, 20-24.07.2008, Athens, Greece.

Rydzak, F., Chlebus, E. 'Application of Resilience Analysis in Production Systems – Bombardier Transportation Case Study'. 25th International Conference of the System Dynamics Society, 29.07-02.08 2007, Massachusetts Institute of Technology, Cambridge, USA.

Sawicka, A., Rydzak, F. 'Incorporating Delays in the Decision-Making Interface: An Experimental Study'. 25th International Conference of the System Dynamics Society, 29.07-02.08 2007, Massachusetts Institute of Technology, Cambridge, USA.

Martin, L., Magnuszewski, P., Sendzimir, J., Rydzak, F., et al. 2007. 'Gaming with a Microworld of a local product chain in the Oder river basin, Lower Silesia, Poland'. *Simulation & Gaming*, 38 (2), 211-232.

Rydzak, F., Chlebus, E., Gajewski, E. 2007. 'Optimization of production process in Bogie Frames Division, Bombardier Transportation, Wroclaw'. Report 01/2007, Institute of Production Engineering and Automation, Wroclaw University of Technology.

Rydzak, F., Magnuszewski, P., Sendzimir, J., Chlebus, E. 'A Concept of Resilience in Production Systems'. 24th International Conference of the System Dynamics Society, 23-27 July 2006, Nijmegen, The Netherlands

Rydzak, F., Breistrand, L., Sveen, F. O., Qian, Y., Gonzalez, J. J. 2006 'Exploring Resilience Towards Risks in eOperations in the Oil and Gas Industry'. 25th International Conference on Computer Safety, Security and Reliability 26-29 September 2006, Gdansk, Poland (SAFECOMP2006). In *Computer Safety, Reliability, and Security (Lecture Notes in Computer Science 4166)*, edited by J. Górski. Heidelberg: Springer.

Rydzak, F., Sawicka, A. 'Experimental exploration of decision making in production-inventory system'. Advanced Production Management Systems Conference 2006 of the IFIP Working Group 5.7, 18-20 September 2006, Wroclaw, Poland

Rydzak F., Chlebus, E. '*Analysis and Management of Resilience in Production Systems*'. PhD Colloquium during 23rd International Conference of The System Dynamics Society, 17-21 July 2005, Massachusetts Institute of Technology, Cambridge, USA.

Rydzak F., Magnuszewski P., Pietruszewski P., Sendzimir J., Chlebus E. *Teaching the Dynamic Balanced Scorecard*. The 22nd International Conference of The System Dynamics Society, 25-29 July 2004, Keble College, University of Oxford, Oxford, UK.

Chlebus E. Rydzak F. *Business Process Modelling for an enterprise productivity analysis*. The 4th Wroclaw Conference on Production Automation, 2003. Institute of Production Engineering and Automation, Wroclaw University of Technology, Poland.

BOOKS:

Rydzak F., Chlebus E. 2008. *Dynamic model based Resilience Analysis in production systems*. Wrocław: Oficyna Wydawnicza PWr.