

Queensland University of Technology

Faculty of Information Technology

Business Process Management Group

Annual Report 2005

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Preface

While many might have believed that BPM is a fad which comes and goes, 2005 was the year in which the ongoing interest in BPM culminated in BPM being the number one priority (Gartner 2005). In any case, our anecdotal experiences and the increased interest from academic colleagues and organisations from all types of industries show that we are currently in the lucky situation to work on an intellectually stimulating and at the same time practically relevant topic.

The last year was characterised by a very effective integration process, in which we were able to increasingly identify links between the two main sub-groups within the BPM group. One tangible result of these endless efforts has been an incredible list of awards, publications, new research projects and an increased group size.

With more than 40 members, we now form one of the largest university-based BPM research groups. This size provides substantial opportunities for synergies within our group but also with related research groups within and outside QUT. In 2005, we were able to build up a very promising relationship with researchers from the Faculty of creative Industries and we maintained and further extended the extremely fruitful collaborations with a number of national and international research partners.

The in international standards impressive size of our group provides countless opportunities for further synergies and our established branding will be of benefit for our current and future research initiatives.

We are looking forward to harvesting many of the fruits which started growing in 2005.

Michael Rosemann & Arthur ter Hofstede

Brisbane, June 2006

Overview of the BPM Group

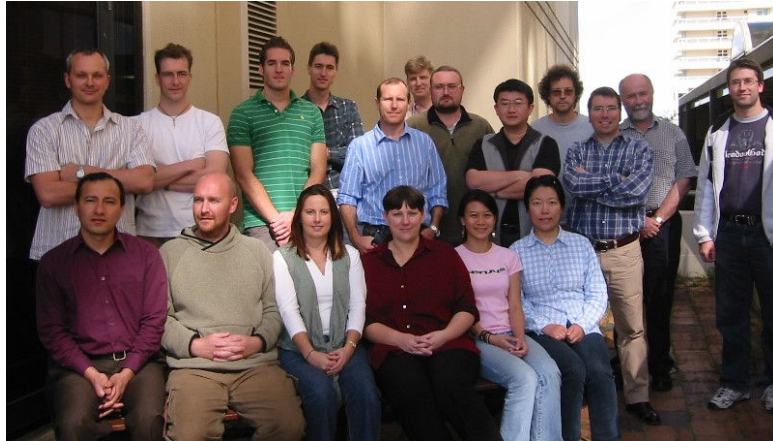
Business Process Management (BPM) is perceived as the number one business priority by CIOs internationally as stated by a Gartner Group report in January 2005. BPM has reached maturity and attracts substantial interest from a wide community. It receives now the attention of senior management, who increasingly have an enterprise-wide scope for their BPM activities in mind. The set of related methods and tools has significantly advanced and is now consolidated under the umbrella term 'Process-aware Information Systems'. As a research topic, BPM combines a variety of disciplines and research streams including business, management science, requirements engineering, conceptual modelling, service-oriented architectures and software engineering to name just a few.

QUT is one of the very few universities in the world with a research group dedicated to Business Process Management (BPM). BPM forms one of the research foci within the recently re-designed research portfolio of QUT's Faculty of Information Technology. It is one of the fastest growing research groups with credible academic achievements, significant third-party funded research projects and major industry linkages. The BPM Group at QUT is a vibrant research team consisting of more than 40 members that have a variety of expertise appropriately reflecting the different facets of BPM. The team consists of Professors/Assoc. Professors, a Research Fellow, further academic staff, a number of international Postdoctoral researchers, research assistants, international visitors and research students (PhD, Masters, Honours).

One of the core strengths of QUT's BPM group is its close links with national and international thought leaders in this domain. We are delighted with the commitments made to our research group by our Adjunct Professors Prof Wil van der Aalst, TU Eindhoven, The Netherlands, Prof. Iris Vessey, Indiana University, USA, and Prof. Lutz Heuser, Vice President SAP Research, Karlsruhe, Germany. Together with the Technical University of Eindhoven, we form the BPMCenter.org, the worldwide largest virtual community of BPM researchers.

The BPM research group is involved in a number of large third-party funded research projects. The BPM Group is a core component within the first ARC Centre of Excellence at QUT. As part of the ARC Research Network Enterprise Information Infrastructure, a team of QUT researchers currently is conducting a global study on the major issues of Business Process Management, which will lead to a research agenda. Two large ARC Discovery project are being conducted within the BPM Group related to the evaluation, comparison and engineering of process modelling techniques and executable business process definition languages. Furthermore, the group is engaged in five ARC Linkage projects with industry.



In alignment with QUT's branding as a university for the real world, the research of the BPM Group is very much grounded in practical problems and requirements. Through the quarterly BPM Round Table, we stay in touch with the largest Australian organisations across a number of industries. Our Research group is locally known for industry events on current BPM issues. These seminars are typically attended by 100 participants and combine presentations by external experts with updates on our latest research outcomes.





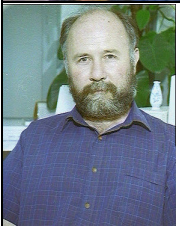
Members of the BPM Group

The BPM Group at QUT is a vibrant research team consisting of more than 40 members that have a variety of expertise in business, information systems and computer science. In the following we will provide an overview about the BPM group team members, which consists of two program leaders, academic staff, adjunct professors, research students, research assistants, post doctorates, and associated members.

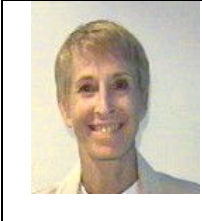


The **Leaders of the BPM Group** represent the two complementary facets of Business Process Management. While Professor Michael Rosemann's interest is focused on issues related to process management and business process modelling, Assoc. Prof. Arthur ter Hofstede's interest lies in the areas of workflow modelling and process execution.

	<p>Professor Michael Rosemann Phone: +61 (0)7 3864 9473 Email: m.rosemann@qut.edu.au</p>	<p>BPM Maturity BPM Governance Business Process Modelling Evaluation of Modelling Techniques BPM and Enterprise Systems</p>
	<p>Assoc. Prof. Arthur ter Hofstede Phone: +61 (0)7 3864 9474 Email: a.terhofstede@qut.edu.au</p>	<p>Workflow modelling Process execution Workflow management systems E-services</p>

A number of **academic staff members** are involved in our BPM Group.

	<p>Assoc. Professor Glenn Stewart Email: g.stewart@qut.edu.au</p>	<p>Enterprise Systems Implementation Success Technology Innovation Business Process Modelling Enterprise Architectures BPM Maturity Business-IT Alignment</p>
	<p>Dr Marlon Dumas Email: m.dumas@qut.edu.au</p>	<p>Business Process Management Enterprise Application Integration Service-Oriented Architecture Model-Driven Architecture</p>
	<p>Dr David Edmond Email: d.edmond@qut.edu.au</p>	<p>Service Description Workflow Modelling</p>

In addition to our internal resources, we significantly benefit from the contributions of three **Adjunct Professors**.

	<p>Prof. Iris Vessey Indiana University, USA</p>	<p>Cognitive fit in the design and development of information systems the role of the application domain in systems development management and organisation of Enterprise Systems</p>
	<p>Prof. Wil van der Aalst TU Eindhoven, NL</p>	<p>YAWL Workflow Patterns Next-Generation Reference Models</p>
	<p>Prof. Lutz Heuser SAP Research, Germany</p>	<p>Modelling in the large Configurable reference modelling Service-enabled BPM</p>

Further **external partners** are involved

- Professor Ron Weber, Monash (ARC Linkage)
- Professor Peter Green, University of Queensland (ARC Linkage, ARC Discovery)
- Professor Graeme Shanks, Monash University (ARC Linkage)

- Assistant Professor Michael zur Muehlen, Stevens Institute of Technology (ARC Linkage)

The QUT-internal members of the BPM Group can be found in the table below.

Name	Position
Stephen Milliner	Lecturer
Chun Ouyang	Post-doctorate
Boris Wyssusek	Post-doctorate
Johannes Zaha	Post-doctorate
Wasana Bandara	PhD Student/Lecturer
Michael Adams	PhD Student/Lecturer
Craig Huxley	PhD Student/Lecturer
Moe Wynn	PhD Student/Associate Lecturer
Lachlan Aldred	PhD Student/Research Assistant
Tore Fjellheim	PhD Student/Research Assistant
Lindsay Bradford	PhD Student/Research Assistant
Justin O'Sullivan	PhD Student
Mitra Heravizadeh	PhD Student
Islay Davies	PhD Student
Tonia de Bruin	PhD Student
Hui Min (Cherri) Tan	PhD Student
Jan Recker	PhD Student
Nick Russell	PhD Student
Kenneth Wang	PhD Student
Guy Redding	Masters Student/Research Assistant
Martin Graham	Masters Student
John Zimmerman	Masters Student
Jennifer Guandi	Honours Student
Stephan Breutel	Research Assistant
Christian Kluge	Research Assistant
Jessica Prestedge	Research Assistant
Felix Mueller-Wienbergen	Occup. Trainee
Saphira Heijens	Occup. Trainee



PhD Students within the BPM Group

QUT's BPM Group has one of the largest pool of PhD students exploring BPM-related research questions in the world. Many of them are working on third party funded research projects and are part of larger research initiatives. All full-time PhD students are located on level 5, 126 Margaret Street, Brisbane, in an environment which facilitates concentrated research work as much as open and effective communication. The areas of our PhD students cover all facets of the business process lifecycle. The following section names all of the PhD students in 2005, the title of their research and their supervisory team. Weekly seminars provide the opportunity to present and exchange research ideas.



Name: Michael Adams

Email: m3.adams@qut.edu.au

Title: *Facilitating Dynamic Flexibility, Evolution and Exception Handling for Workflows*

Principal Supervisor: Assoc. Prof. Arthur ter Hofstede

Associate Supervisor: Dr. David Edmond

Expected Completion: December 2006



Name: Lachlan Aldred

Email: l.aldred@qut.edu.au

Title: *Communication Abstractions for Business Process Integration*

Principal Supervisor: Assoc. Prof. Arthur ter Hofstede

Associate Supervisor: Dr. Marlon Dumas

Expected Completion: August 2007



Name: Wasana Bandara

Email: w.sedera@qut.edu.au

Title: *Business Process Modelling Success Factors and Measures*

Principal Supervisor: Prof. Michael Rosemann

Associate Supervisor: Prof. Guy Gable

Expected Completion: October 2006



Name: Lindsay Bradford

Email: l.bradford@qut.edu.au

Title: *Unanticipated Evolution of Web Service Provision Software Using Generative Object Communication*

Principal Supervisor: Dr Stephen Milliner

Expected Completion: June 2006



Name: Tonia de Bruin
Email: t.debruin@qut.edu.au
Title: *Business Process Management Maturity*
Principal Supervisor: Prof. Michael Rosemann
Associate Supervisor: Assoc. Prof. Glenn Stewart
Expected Completion: March 2008



Name: Islay Davies
Email: ig.davies@qut.edu.au
Title: *An Ontological Evaluation of ARIS Using a Meta Model Mapping Approach*
Principal Supervisor: Prof. Michael Rosemann
Associate Supervisors: Dr Marlon Dumas and Prof. Peter Green (UQ)
Expected Completion: Leave of absence



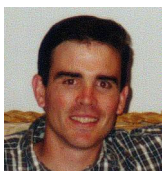
Name: Tore Fjellheim
Email: t.fjellheim@qut.edu.au
Title: *Agile Context-aware Mobile Applications*
Principal Supervisor: Dr. Stephen Milliner
Associate Supervisor: Dr. Marlon Dumas
Expected Completion: October 2006



Name: Mitra Heravizadeh
Email: Mitra.Heravizadeh@gbst.com
Title: *Towards Improved Decision Support for Online Shopping*
Principal Supervisor: Dr David Edmond
Associate Supervisor: Assoc Prof. Arthur ter Hofstede
Expected Completion: June 2006



Name: Craig Huxley
Email: c.huxley@qut.edu.au
Title: *An Exploration of the Differing Concepts of Alignment in BPM Projects*
Principal Supervisor: Assoc Prof Glenn Stewart
Associate Supervisor: Professor Alan Underwood
Expected Completion: July 2008



Name: Justin O'Sullivan
Email: Justin@service-description.com
Title: *Towards a Precise Understanding of Service Properties*
Principal Supervisor: Dr David Edmond
Associate Supervisor: Assoc Prof Arthur ter Hofstede
Expected Completion: July 2006



Name: Jan Recker
Email: j.recker@qut.edu.au
Title: *Evaluation and Adoption of Process Modelling Grammars*
Principal Supervisor: Prof. Michael Rosemann
Associate Supervisors: Dr Marlon Dumas and Prof. Peter Green (UQ)
Expected Completion: October 2008



Name: Nick Russell
Email: n.russell@qut.edu.au
Title: *Foundation of Process-Aware Information Systems*
Principal Supervisor: Assoc. Prof. Arthur ter Hofstede
Associate Supervisor: Dr David Edmond
Expected Completion: January 2007



Name: Hui Min Cherri Tan
Email: h.tan@qut.edu.au
Title: *Business Process Management Governance*
Principal Supervisor: Prof. Michael Rosemann
Associate Supervisor: Assoc. Prof. Glenn Stewart and Prof. Peter Green (UQ)
Expected Completion: August 2008



Name: Kenneth Wang
Email: kw.wang@qut.edu.au
Title: *Adaptive and Context-aware Service Composition*
Principal Supervisor: Dr Marlon Dumas
Associate Supervisor: Dr Stephen Milliner
Expected Completion: March 2008



Name: Moe Wynn
Email: m.wynn@qut.edu.au
Title: *Analysis techniques for Yet Another Workflow Language (YAWL)*
Principal Supervisor: Dr. David Edmond
Associate Supervisor: Assoc Prof. Arthur ter Hofstede
Expected Completion: July 2006



Post-Doctorates within the BPM Group

There are currently three members of the BPM Group are post-doctorates. In the following section, there will be a brief profile of each of these members, which details their PhD, their work within the BPM Group, how long are they at QUT, and what they like about working in the BPM Group.



Name: Dr Johannes Maria Zaha

Email: j.zaha@qut.edu.au

Year completed PhD: 2005

University where completed PhD: University of Augsburg, Germany

PhD title: *Automated Compatibility Tests for Business-Related Aspects of Software Components*

Project with the BPM Group: Design a language for service behaviour modelling, formalize the semantics of the designed language and design and implement a toolset to support the development of services based on the language

Length of time at QUT: I have been at QUT for 5 months and my contract is for 1 year

What you like about working in the BPM Group: I like working in the BPM Group because the people in the group have lots of different backgrounds and thus the group provides an interesting environment, both from an academic and personal point of view.



Name: Dr Boris Wyssusek

Email: b.wyssusek@qut.edu.au

Year completed PhD: 2004

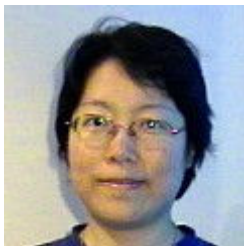
University where completed PhD: Technical University Berlin

PhD title: Methodological Aspects of Organizational Modelling in Business Computing – A Sociopragmatic-Constructivist Approach (in German)

Project with the BPM Group: UMOD: Enterprise Systems (ES) packages are software systems that seek to provide their organizational users with comprehensive, integrated support for their information system needs. The development, implementation, operation, support, maintenance, and upgrade of enterprise systems is a multi-billion dollar industry. This industry is replete with stories of high-cost problems. Many of these problems arise because the business models embedded within ES packages do not align with the needs of their users. This project develops a methodology and measures to evaluate how well the business models embedded in an ES package meet user needs.

Length of time at QUT: 2004- 2007

What you like about working in BPM Group: The mixture of people from different walks of life and their cultural backgrounds.



Name: Dr Chun Ouyang

Email: c.ouyang@qut.edu.au

Year completed PhD: 2004

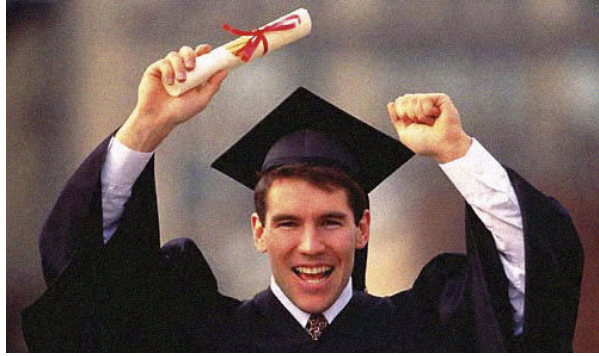
University where completed PhD: University of South Australia, Adelaide

PhD title: Formal Specification and Verification of the Internet Open Trading Protocol using Coloured Petri Nets

Project with the BPM Group: I'm working on BABEL (Expressive Comparison and Interchange Facilitation between Business Process Execution Languages)

Length of time at QUT: Been here for 16 months already

What you like about working in BPM Group: I like the very active and cooperative working environment in the BPM Group



Student Completions in 2005

Two PhD students completed their research in 2005.

Lawrence Si completed his PhD with Dr David Edmond as the principal supervisor and Dr Marlon Dumas and Assoc. Prof. Arthur ter Hofstede as the associate supervisors.

Phillipa Oaks completed her PhD with Assoc. Prof. Arthur ter Hofstede as the principal supervisor with Dr. David Edmond as her associate supervisor.

BPM Group Meeting Activities in 2005

The BPM Group meets regularly on Thursdays between 10am and 12pm to discuss the issues of interest for the group. The following table shows the details of the BPM meetings held in 2005.

Date	Person	Topic
4 August	Saphira Heijens and Felix Muller	Presentation on their individual thesis
11 August	Eddie Chalk, Water Corporation	Large-scale process modelling at Water Corporation
18 August	Moe Wynn	The Or-join in workflow
22 August	Prof. Karlheinz Kautz, University of Copenhagen, Denmark	Understanding Systems Development in Practice - The Utilization of Information Systems Development Methodologies in Practice
26 August	Dr. Joerg Evermann, University of Wellington, NZ	Integrating Philosophical and Semantic Web Ontologies”
15 Sept.	Prof. Tom Davenport, Babson College, USA	Process Standards
6 October	Dr Boris Wyssusek	Issues in Enterprise Systems Implementation
13 Octob.	Lindsay Bradford	Unanticipated Evolution of Web Service Provision Software Using Generative Object Communication
20 Octob.	Jessica Prestedge	Animations of resource patterns
27 Octob.	Ignatius & Prof. Iris Vessey	Presentation on YAWL PDF manipulation tool & a "Presenting a Descriptive Theory of IS Alignment: The Theory of Alignment as Guided Adaptation."
10 Nov.	Michael Adams	Dynamic flexibility, evolution and exception handling in workflows
17 Nov.	Jan Recker, Michael Rosemann	Presentation of accepted ACIS papers (1/2)
24 Nov.	Jan Recker, Tonia de Bruin, Dr Marta Indulska (UQ)	Presentation of accepted ACIS papers (2/2)
15 Dec.	Prof. Wil van der Aalst, TU Eindhoven	The ProM Framework



Awards and Recognitions in 2005

It is an integral part of our mission that we aim for high quality outlets for our publications. While a paper acceptance is always satisfying and rewarding, winning the Best Paper Award is the ultimate achievement. As you can see, we have been very successful in 2005.

Congratulations to **Dr Marlon Dumas!** His impressive contributions have now been acknowledged by **QUT's Award for Outstanding Contributions – Research and Scholarship.** Well done and well deserved!

Just before Christmas, Michael Rosemann became only the third current academic within QUT who has been successfully nominated for a role in the **ARC College of Experts.** In the years 2006 and 2007, Michael will be a member of the Panel Mathematics, Information and Communication Sciences.

The paper *“Specification of Composite Trading Activities in Supply Chain Management”* by Yain-Whar Si, David Edmond, Arthur ter Hofstede, Marlon Dumas, and Chan U. Chong won the **Best Student Paper Award** at the IEEE International Conference on E-Technology, E-Commerce and E-Services (EEE), held in Hong Kong in April. In total, there were 37 papers in the “student paper” category presented at this conference. This category included papers written solely or mainly by students.

The paper *“From Conceptual Process Models to Running Workflows: A Holistic Approach for the Configuration of Enterprise Systems”*, which was written by Alexander Dreiling, Michael Rosemann and Wil van der Aalst has been selected as **one of the top 8 papers (out of a total of 400 submissions)** at the Pacific-Asian Conference on Information Systems (PACIS), which was held in Bangkok, Thailand, in July. As a consequence, the authors have been invited to submit an extended version to the journal Decision Support Systems.

The paper “*On the Notion of Coupling in Communication Middleware*”, written by Lachlan Aldred, Wil van der Aalst, Marlon Dumas and Arthur ter Hofstede was the joint winner/runner-up of the **IFIP TC2 Manfred Paul Award** at the 7th International Symposium on Distributed Objects and Applications (DOA), which was held in Agia Napa, Cyprus, in November. There were a **total of 268 papers** in contention for the award.

The paper “*Integrating Risks in Business Process Models*” by Michael zur Muehlen, Stevens Institute of Technology, Hoboken, NJ, USA, and Michael Rosemann won the ACS-sponsored **Best Paper Award** at the Australasian Conference on Information Systems (ACIS 2005), Manly, 30 November – 3 December. **In total, 262 papers** were submitted to this conference.

Tonia de Bruin presented the current status of the PhD at the Doctoral Consortium of the 16th Australasian Conference on Information Systems (ACIS 2005) in Manly. Her presentation was very successful and she was **one of three selected PhD students**, who were given the opportunity to present her thesis at the actual ACIS conference. Independent from this presentation, Tonia also had an accepted paper at the conference. What an entry into the local IS community!

Michael Rosemann received the **Award for the Best Reviewer** of ACIS 2005. **In total, 167 reviewers** contributed to ACIS 2005.



Industry Events

Business Process Management Seminar

In July, the BPM Group held a seminar entitled “*Business Process Management Seminar*”, which was held at QUT’s Gardens Point campus. This seminar brought world-leading academics together and was a unique opportunity to discuss the current state of art in BPM in Brisbane. The focus of the event was on applied research and concentrated on bridging academic research agendas and current challenges in the BPM practice. The seminar included presentations from Prof. Michael Rosemann, Prof. Wil van der Aalst, Dr Michael zur Muehlen, and Lachlan Aldred.

Process Management – What’s Changing and What Isn’t

In September, the BPM group held a seminar entitled “*Process Management – What’s Changing and What Isn’t*” which featured Professor Tom Davenport from Babson College as a presenter. In the presentation, Tom described both the hot topics and the timeless realities of process management. His overall perspective focused on how organisations and individuals can develop deep, abiding capabilities in managing the process dimension of work. The event was attended by more than 90 participants including senior executives such as the CIOs from Suncorp and Brisbane City Council.



Tom Davenport is Professor and Director of Research at Babson College, Wellesley, MA, USA. As the Head of the Process Management Research Center at Babson College he works amongst others on research related to strategic alignment, process governance and knowledge-intensive processes. He has been a thought leader in organisational performance and consulting for two decades.

Continuing Professional Education

The BPM Group is dedicated to the transfer of our applied BPM-related knowledge into practice. A number of courses have been developed based on our course offerings. Further details can be found at www.bpm-training.com.

Business Process Modelling Notation (BPMN)

In December, the BPM Group conducted a one day training course on the new Business Process Modelling Notation (BPMN) for the BPM consulting company PivotRail. BPMN is a new emerging process modelling technique with high popularity in many Australian organisations. The picture below shows the participants and QUT instructors at the end of an exhausting day.



Participants of the BPMN Training Course on 8 December 2005

QUT's BPM group is now one of the very few national providers of BPMN training. The course has been extended to a two day event in order to provide more room for hands-on exercises and comprehensive case studies.

Australian BPM Community of Practice

Business Process Management (BPM) has emerged as a matured cross-functional approach which stresses a process-centred view. BPM has its roots in a number of concepts including Business Process Reengineering, Quality Management (e.g., TQM, Six Sigma), Operations Management (e.g., MRP II, CIM, Kanban, OPT), Business Process Modelling and Process-Aware Information Systems (e.g., workflow management systems, service-oriented architectures). It can be defined as a structured, coherent and consistent way of understanding, documenting, modelling, analysing, simulating, executing, measuring and continuously changing end-to-end business processes and all involved resources in light of their contribution to business improvement.

The Australian Community of Practice (also known as the BPM Round Table), was established in August 2004 and is a forum of experienced BPM practitioners. It provides an open and honest platform for the exchange of experiences and knowledge in the field of Business Process Management. It is aimed towards consolidating and enhancing the local body of BPM knowledge.

The list of participating organisations in the BPM round table discussions includes among others AMP, Australian Bureau of Statistics, Commonwealth Bank of Australia, CSC, DEST, Department of Defence, Energy Australia, Goldman Sachs, GWF, IAG, IP Australia, Ipswich City Council, National Australia Bank, Queensland Rail, QUT, Rio Tinto, Suncorp and Telstra.



There were three BPM round table meetings held in 2005. The first meeting took place in Sydney on 17 February at the Commonwealth Bank of Australia and the topic was “Strategic Alignment of BPM”. The second meeting was held in Canberra at the Australian Bureau of Statistics on 14 July and the topic was “Business Process Performance Measurement”. The third meeting was held in Sydney on 27 October at Telstra and the topic was “Business Process Modelling”.

Further information on this community can be found at www.bpm-roundtable.com.



Current Research Grants

The BPM group has been very successful in acquiring grants to further their research. Listed below are the grants that were active in 2005.

ARC Centre of Excellence	
ARC Centre of Excellence in Cultural and Media Industries	21
ARC Research Network	
Enterprise Information Infrastructure.....	22
ARC Discovery	
Next-Generation Reference Process Models.....	23
Expressiveness Comparison and Interchange Facilitation between Business Process Execution Languages	24
Ontologically-based Evaluation, Comparison, and Engineering of Integrated Process Modelling Techniques.....	25
ARC Linkage	
Using Measures of Ontological Distance to Evaluate the Alignment between Organizational Needs and Enterprise Systems Capabilities	26
Modelling in the Large.....	27
Reconciling Activity-centric and Business Object-centric Approaches to Business Process Modelling.....	28
Design of a Reference Methodology for Extended Enterprise Architecture	29
PASS: Personalised Adaptive and Semantics-driven Selection and Composition of Web Services	30
Smart State Fellowship	
SAFAI: Model-driven and Service-oriented Architecture for Flexible Application Integration	31
QUT Strategic Links	
Service Choreography Patterns: A Reference Framework for Interconnecting Business Processes.....	32
QUT-funded Projects	
Case Studies in Business Process Management.....	33

ARC Centre of Excellence

The ARC has established the Centres of Excellence Scheme to create the scale and focus necessary to maintain and develop Australia's international standing in areas of research priority. These are highly prestigious research clusters and the application process is highly competitive.

The BPM Group is intensively involved in a Centre of Excellence which is managed by QUT's Institute for Creative Industries and Innovation (www.ici.qut.edu.au).

Name: "ARC Centre of Excellence in Cultural and Media Industries"

Interim Director: Professor Stuart Cunningham (QUT, Creative Industries)

Investigators: Professor Michael Rosemann
Assoc. Prof. Arthur ter Hofstede

Budget for BPM Group: AUD \$ 330,000 (2006-2009)

Summary: The ARC Centre of Excellence in Cultural and Media Industries drives the development of Australia's capacity to maximise the national economic and cultural benefits of digital content industries. It integrates research across a range of disciplines to develop new modes of access and distribution for user-led innovation. It will provide integrated, empirically grounded solutions to structural, conceptual and policy problems, during an exciting period when new technologies, end-user activism and semi-professional practices are challenging traditional models of production and consumption in the creative value chain. The Centre's research outcomes across six program areas will improve industry, government, education and creative services in Australia. The focus of the work within the BPM group will be on the development of an executable reference model for this industry. A first presentation on 16 December 2005 at the Australian Film, Television and Radio School in Sydney attracted substantial interest among the research and industry representatives. We will officially start this project in March 2006. This project will involve a Post-Doc and a Research Assistant.

ARC Research Network

Building on a strong platform of excellent research already selected for funding under the ARC's Discovery and Linkage programs, ARC Research Networks funded under this new program provide an environment supporting highly creative, interdisciplinary research that is not averse to risk taking, and which aims to move a field forward or creating exciting, novel research themes.

Name: "Enterprise Information Infrastructure"

Network Convenor: Professor Maria Orlowska (UQ)

Investigators: Professor Michael Rosemann
Dr Marlon Dumas
Ms Wasana Bandara

Budget: AUD \$3,200,000

Period: 2004-2009

Summary: The ARC Research Network in Enterprise Information Infrastructure (EII) targets a consolidated investigation into the comprehensive development and establishment of information infrastructures, with an emphasis on emerging advanced technologies and practices, for large-scale scientific and business organisations, government agencies and community groups. There are numerous research programs under this system, which include:

- computing infrastructure;
- data and knowledge management;
- enterprise centric computing;
- security, privacy and trust;
- vertical applications;
- technology adoption and impact; and
- service centric computing.

Members of the BPM Group are involved in the Enterprise Information Infrastructure network and provide the Chief Investigators for a task force on the *'Major Issues in Business Process and Service Management'*.

As part of this research project, we conducted in 2005 two focus groups in Perth and Brisbane with BPM representatives from various organisations. This project involves research partners from The University of Queensland and Curtin University.

ARC Discovery

ARC Discovery grants support fundamental research by individuals or teams. The AC Discovery schema is highly competitive with an average success rate of approx. 25 %. The BPM Group has currently three Discovery grants.

In 2005, we were successful with one new proposal.

Name: “Next-Generation Reference Process Models”

Grant Number: DP0665480

Investigators: Professor Michael Rosemann
Assoc. Prof Arthur ter Hofstede
Dr Marlon Dumas
Professor Wil van der Aalst (TU Eindhoven, The Netherlands), PI
Dr Michael zur Muehlen (Stevens Institute of Technology, USA), PI

Budget: AUD \$282,000

Period: 2006-2008

Summary: Business process modelling is a key tool for organisations striving to create efficiencies by leveraging their IT infrastructure. This project will develop techniques for increasing the productivity of business process analysts by allowing them to reuse as much as possible existing models rather than systematically designing new ones from scratch. Specifically, the project will develop and validate a language for designing highly configurable process models. This language will enable superior approaches to business process modelling and hence smarter use of information. This will place Australia at the forefront of developments in business process management: a crucial technology in today’s global, dynamic and heterogeneous environments.

This is a new project, which will start on 1 March 2006.

Name: “Expressiveness Comparison and Interchange Facilitation between Business Process Execution Languages”

Grant Number: DP051092

Investigators: Assoc. Prof Arthur ter Hofstede
Dr Marlon Dumas
Professor Wil van der Aalst (TU Eindhoven, The Netherlands), PI

Budget: AUD \$240,000

Period: 2004-2006

Summary: Developments in the area of business process management are currently hindered by the plethora of diverse business process execution languages. This project will develop techniques for dealing with interoperability issues induced by this language heterogeneity. The project combines theoretical research, grounded in concurrency theory and workflow patterns, with pragmatic research focusing on languages supported by commercial tools. The outcome will be a framework for comparing the expressiveness of process execution languages and defining mappings between them. This will place Australia at the forefront of developments in business process management systems: a crucial technology in today’s global, dynamic, and heterogeneous environments.

Name: “Ontologically-based Evaluation, Comparison, and Engineering of Integrated Process Modelling Techniques”

Grant Number: DP0211789

Investigators: Professor Michael Rosemann
Professor Peter Green (the University of Queensland)
Ms Islay Davies

Budget: AUD \$205,000

Period: 2002-2006

Summary: Integrated process modelling techniques such as UML and ARIS form the conceptual platform for many management and IT projects. Though most IS development tools contain these techniques, anecdotal evidence indicates many shortcomings. This project uses a well-established theory developed in philosophy and applied in information systems domains for the evaluation of these techniques. The expected outcomes are evaluations of ARIS and UML. Thus, this project contributes to the development of two of the most popular modelling techniques. Based on the theory used and the results of an international empirical study, suggestions for the further development of these techniques will be derived.

Selected Publications in 2005:

- P. Green & M. Rosemann: *Ontologies and Business Systems Analysis*. IDEA Publisher 2005.
- P. Green & M. Rosemann: *Ontological Analysis of Business Systems Analysis Techniques: Experiences and Proposals for an Extended Methodology*. In: *Business Systems Analysis with Ontologies*, Eds. P. Green and M. Rosemann. IDEA 2005, pp. 1-27.
- M. Indulska, P. Green & M. Rosemann: *Ontological Evaluation of Enterprise Systems Interoperability Using ebXML*. *IEEE Transactions on Knowledge and Data Engineering*. 17 (5) 2005, pp. 713-725.
- M. Rosemann, M. Indulska, J. Recker and P. Green; *Do Process Modelling Techniques Get Better? A Comparative Ontological Analysis of BPMN*. *Proceedings of the 16th Australasian Conference on Information Systems (ACIS 2005)*. Sydney, 30 November – 2 December 2005.

ARC Linkage

ARC Linkage grants help support collaborative research projects between higher education researchers and industry and identifies an allocation to projects of benefit to regional and rural communities. The BPM Group has six current grants under this system.

Name: “Using Measures of Ontological Distance to Evaluate the Alignment between Organizational Needs and Enterprise Systems Capabilities”

Grant Number: LP0454094

Industry Partner: SAP Australia (SAP Research, Brisbane)

Administering Institution: Queensland University of Technology

Investigators: Professor Michael Rosemann
Professor Ron Weber (Monash University)
Professor Iris Vessey (Indiana University)
Dr Boris Wyssusek

Budget: AUD \$188,474 from ARC
AUD \$75,000 from SAP

Period: 2005-2007

Summary: Enterprise Systems (ES) packages are software systems that seek to provide their organizational users with comprehensive, integrated support for their information system needs. The development, implementation, operation, support, maintenance, and upgrade of enterprise systems is a multi-billion dollar industry. This industry is replete with stories of high-cost problems. Many of these problems arise because the business models embedded within ES packages do not align with the needs of their users. This project develops a methodology and measures to evaluate how well the business models embedded in an ES package meet user needs.

Selected Publications in 2005:

- M. Rosemann, I. Vessey, R. Weber & B. Wyssusek: Reconsidering the Notion of “Requirements Engineering” for Enterprise Systems Selection and Implementation. Proceedings of the 16th Australasian Conference on Information Systems (ACIS 2005). Sydney, 30 November – 2 December 2005.
- M. Rosemann & B. Wyssusek Enhancing the Expressiveness of the Bunge-Wand-Weber Ontology. Proceedings of the Americas Conference on Information Systems (AMCIS 2005). Omaha, Nebraska, USA, 11-14 August 2005.

Name: “Modelling in the Large”

Grant Number: LP0560417

Industry Partner: SAP Australia (SAP Research)

Administering Institution: Queensland University of Technology

Investigators: Professor Michael Rosemann
Professor Peter Green (UQ)
Professor Graeme Shanks (Monash)
Ms Wasana Sedera
Assist. Prof Michael zur Muehlen, PI
Dr Wasim Sadiq (SAP Research), PI

Ms Hui Min Tan (PhD student)

Budget: AUD \$230,000 from ARC
AUD \$90,000 from SAP

Period: 2005-2007

Summary: Business modelling supports a variety of approaches, which are currently of significant interest for Australian organisations. This includes business process management, risk management or Enterprise Architecture design. The trend to centralised and integrated business modelling leads to projects with a high number of models, modellers, users, and modelling purposes. This phenomenon is called modelling in the large. The proposed research project explores the major issues within these projects and develops improved modelling techniques and project management approaches for large modelling initiatives. The outcomes will streamline the design, integration, maintenance and communication of models with a focus on Enterprise Systems.

In 2005, we organised in total six focus groups in three continents with more than 20 organisations. The identified major issues contributed to the development of a research agenda.

Name: “Reconciling Activity-centric and Business Object-centric Approaches to Business Process Modelling”

Grant Number: LP0562363

Industry Partner: SWS

Administering Institution: Queensland University of Technology

Investigators: Dr Marlon Dumas
A/Prof Arthur ter Hofstede
Mr Adrian Iordachescu (Partner Investigator, SWS)
Ms Jarka Sipka (Partner Investigator, SWS)

Budget: AUD \$72,444

Period: 2005-2008

Summary: Business process models are fundamental instrument for analysing and automating the operations of organisations. At present, the space of business process modelling techniques is characterised by fragmentation with various approaches striking different tradeoffs. Two major families of approaches can be distinguished: activity-centric and business object-centric. These approaches correspond to complementary viewpoints. We see great potential in creating a level of integration between them. Accordingly, the project will investigate the relative expressiveness of these approaches, identify incompatibilities and synergies, and design model transformations. This will establish a foundation for next-generation business process modelling tools.

Name: "Design of a Reference Methodology for Extended Enterprise Architecture"

Grant Number: LP0348712

Industry Partner: Water Corporation, Leederville, WA, Australia

Administering Institution: Queensland University of Technology

Investigators: Professor Michael Rosemann
Mr Christian Kluge (FT Research Assistant)

Budget: AUD \$71,300 from ARC
AUD \$25,000 from Water Corporation

Period: June 2003 - March 2006

Summary: Enterprises have nowadays a very critical perception of the actual benefits of Information Technology (IT). Significant investments in IT infrastructures have been made. However, in many cases no monetary benefits could be demonstrated. Enterprise Architectures provide a way to link the business and the IT perspective. This project aims to develop an operational methodology with a solid theoretical foundation for the design of such Enterprise Architectures. The outcomes and the innovation of this project are an extension of the popular Zachman Framework. Integrated modelling techniques proposed within the Architecture of Integrated Information Systems will be used to populate this framework.

Name: “PASS: Personalised Adaptive and Semantics-driven Selection and Composition of Web Services”

Grant Number: LP0455394

Industry Partner: SAP

Administering Institution: University of New South Wales

Investigators: Dr Boualem Benahallah (UNSW)
Professor Paul Compton (UNSW)
Dr Marlon Dumas (QUT)
Dr Stephan Milliner (QUT)
Dr Julien Vayssiere (SAP)
Mr Murray Spork (SAP)

Budget: AUD \$142,000 from ARC
AUD \$183,000 from SAP

Period: March 2005 – March 2008

Summary: Web services are the pillar of the new generation of Internet technologies. They provide standardized access to functionality that would otherwise be hidden inside enterprise information systems. As the existing base of web services expands, there is a need for techniques to select, configure, assemble, and coordinate web services to perform complex user tasks. This project will advance the fundamental understanding and know-how in this area by addressing three complementary research challenges: how to, organize and search semantically rich service descriptions; select services with respect to flexible and personalized criteria; and coordinate services in an adaptive and context-aware manner.

Smart State Fellowship

Smart State Fellowships support the Queensland Government's investment in leading edge research facilities by funding outstanding national and international researchers, working in leading Queensland based research teams. The BPM Group has one current grant under this system.

Name: "SAFAI: Model-driven and Service-oriented Architecture for Flexible Application Integration"

Administrating Institution: Queensland University of Technology

Investigator: Dr Marlon Dumas

Budget: AUD \$150,000 from Queensland Government
AUD \$105,000 from SAP
AUD \$45,000 from QUT

Period: December 2004 – November 2007

Summary: With the increasing reliance on software applications for the conduct of business, the need to integrate these applications with minimal effort and in short timeframes is becoming ever more evident. Concomitantly, model-driven and service-oriented architectures are emerging as effective paradigms for developing and interconnecting applications. This project aims at exploring the possibilities opened by the combined use of these two paradigms in order to achieve flexible application integration. Specifically, the project will devise new techniques for building integrated systems of applications in such a way that changes in business requirements can be rapidly and reliably propagated into changes in the system.

QUT Strategic Links

QUT is strongly committed to collaborative research with external clients and as such runs an internal grant scheme to assist in the facilitation and development of collaborative research partnerships. The QUT Strategic Links with Industry Scheme has an open closing date and is designed to fast-track collaborative research projects with industry. The BPM Group has two current grants under this system.

Name: “Service Choreography Patterns: A Reference Framework for Interconnecting Business Processes”

Investigators: Assoc. Prof Arthur ter Hofstede
Dr Marlon Dumas
Dr Helen Paik
Dr Alistair Barros (SAP)

Budget: AUD \$47,000 from SAP
AUD \$23,500 from QUT

Period: 1 December 2004 – 30 November 2005

Summary: Service-Oriented Architectures (SOA) have emerged as a promising paradigm for interconnecting business processes across organizational boundaries: a subject of open challenges in the area of Business Process Management (BPM). Recent developments in SOA have resulted in increasingly sophisticated insights and best practices. This project will address this need by formally capturing the requirements of service-oriented business process interconnection in the form of a collection of service choreography patterns. These patterns will be used to analyse relevant standards and tools. The project will strengthen the strategic relationship between QUT and SAP in the area of BPM by complementing ongoing externally funded projects and paving the way for future ones.

QUT-funded Projects

The BPM Group has one current grant under this system.

Name: Case Studies in Business Process Management

Investigator: Professor Michael Rosemann

Budget: \$ 25,000

Period: 2005-2006

Summary: The purpose of this project is to write a series of case studies on Business Process Management with national and international organisations. The case studies will be used within various BPM research projects at QUT as well as within related units.

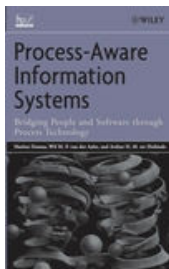
We started with case studies on '*Process-based Compliance Management at Commonwealth Bank of Australia*' and '*The Process of Process Management at NOVA Chemicals*'. It is our intention to produce an entire book which will include a number of such case studies by the end of 2006.



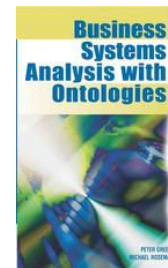
Publications

2005 was a very productive year for the BPM group in terms of high quality publications. Throughout the year, a variety of publications were released by the members of the group including two new edited books and a number of journal papers and papers accepted at the leading academic conferences in our area. Furthermore, we published various technical reports and white papers for the wider distribution of our research findings.

Edited Books



Dumas, M., van der Aalst, W.M.P., & ter Hofstede, A.H.M. (Ed.) (2005). *Process-Aware Information Systems: Bridging People and Software Through Process Technology*. John Wiley and Sons.



Green, P., and Rosemann, M. (Ed.) (2005). *Ontologies and Business Systems Analysis*. IDEA Publisher.

Journal Publications

Bandara, W., Gable, G., & Rosemann, M. (2005). Factors and Measures of Business Process Modelling. Model Building Through a Multiple Case Study. *European Journal of Information Systems*, 2005, Vol. 14, No. 4, pp. 347-360.

Bandara, W., & Rosemann, M. (2005). What Are the Secrets of Successful Process Modeling? Insights From an Australian Case Study. *Systèmes d'Information et Management*, No. 3. Vol. 10, pp. 47-68.

Benatallah, B., Dumas, M., & Sheng, Q.Z. (2005). Facilitating the Rapid Development and Scalable Orchestration of Composite Web Services. *Distributed and Parallel Databases*, 15(1), 5-37.

Dumas, M., Aldred, L. Govenatori, G., & ter Hofstede, A.H.M. (2005). Probabilistic Automated Bidding in Multiple Auctions. *Electronic Commerce Research*, 15(1), 23-47.

Green, P., Indulska, M., & Rosemann, M. (2005). Ontological Evaluation of Enterprise Systems Interoperability Using ebXML. *IEEE Transactions of Knowledge and Data Engineering*, 17(5), 713-725.

Rosemann, M., & Maurizio, A. (2005). SAP-related Education – Status Quo and Experiences. *Journal of Information Systems Education*, Vol. 16, No. 4, pp. 437-454.

Si, Y.W., Edmond, D., ter Hofstede, A.H.M., & Dumas, M. (2005). Orchestrating Interrelated Trading Activities. *International Journal of Business Process Integration and Management*, 1(1), 12-25.

van der Aalst, W.M.P., & ter Hofstede, A.H.M. (2005). YAWL: yet another workflow language. *Information Systems*, 30(4), 245-275.

Invited Minor Journal Contributions

Rosemann, M. (2005). Translating IS Models into Practice [Invited Comment]. *International Journal of Technology and Human Interaction*, 1(4), 17-18.

Rosemann, M. (2005). Just Do It [Invited contribution to forum on ‘Empirical Research Strategies in Conceptual Modeling – Silver Bullet or Academic Toys?']. *Wirtschaftsinformatik*, 47(2), 157-158.

Book Chapters

Benatallah, B., Dijkman, R., Dumas, M., & Maamar, Z. (2005). Service Composition: Concepts, Techniques, Tools, and Trends. In Z. Stojanovic & A. Dahanayake (eds.), *Service-Oriented Software Systems Engineering*. Idea Group.

Dumas, M., van der Aalst, W.M.P., & ter Hofstede, A.H.M. (2005). Introduction. In *Process-Aware Information Systems: Bridging People and Software Through Process Technology*. John Wiley and Sons.

Rosemann, M., & Green, P. (2005). Ontological Analysis of Business Systems Analysis Techniques: Experiences and Proposals for an Extended Methodology. In P. Green, & M. Rosemann (Eds.), *Business Systems Analysis with Ontologies* (pp.1-27). Idea Group.

Rosemann, M., Green, P., & Indulska, M. (2005). A Procedural Model for Ontological Analyses. In D.N. Hart, & S.D. Gregor (Eds.), *Information Systems Foundations: Constructing and Criticising* (pp. 153-163). Canberra: ANU Press.

van der Aalst, W.M.P., ter Hofstede, A.H.M., & Dumas, M. (2005). Patterns of Process Modelling. In *Process-Aware Information Systems: Bridging People and Software Through Process Technology*. John Wiley and Sons.

Conference and Workshop Publications

International Conferences

Aldred, L., van der Aalst, W.M.P., Dumas, M., & ter Hofstede, A.H.M. (2005). On the Notion of Coupling in Communication Middleware. *Proceedings of the 7th International Symposium on Distributed Objects and Applications (DOA)*, Agia Napa, Cyprus, November 2005, pp.1015-1033. Springer Verlag.

[Joint winner/runnerup, the IFIP TC2 Manfred Paul Award – out of 268 papers]

Barros, A., Dumas, M., & ter Hofstede, A.H.M. (2005). Service Interaction Patterns. *Proceedings of the 3rd International Conference on Business Process Management (BPM 2005)*, Nancy, France, September 2005. Springer Verlag.

Bradford, L., Milliner, S., & Dumas, M. (2005). Experience using a Coordination-based Architecture for Adaptive Web Content Provision. *Proceedings of the 7th International Conference on Coordination Models and Languages (COORDINATION)*, Namur, Belgium, April 2005. Springer Verlag.

Cooney, D., Dumas, M., & Roe, P. (2005). Programming and Compiling Web Services in GPSL. *Proceedings of the 3rd International Conference on Service-Oriented Computing (ICSOC) – Short papers track*, Amsterdam, The Netherlands, December 12-16 2005. Springer Verlag.

Cooney, D., Dumas, M., and Roe, P. (2005). A Programming Language for Web Service Development. *Proceedings of the 28th Australasian Computer Science Conference (ACSC)*, Newcastle, Australia, February 2005. Australian Computer Society.

Dumas, M., Fjellheim, T., Milliner, S., Vajssiere, J. (2005). Event-based Coordination of Process-oriented Composite Applications. *Proceedings of the 3rd International Conference on Business Process Management (BPM)*, Nancy, France, September 2005. Springer Verlag.

Fauvet, M-C., Duarte, H., Dumas, M., & Benatallah, B. (2005). Handling Transactional Properties in Web Service Composition. *Proceedings of the 6th International Conference on Web Information Systems Engineering (WISE)*, New York, NY, USA, November 2005. Springer Verlag.

Hidders, J., Dumas, M., van der Aalst, W.M.P., ter Hofstede, A.H.M., & Verelst, J. (2005). When Are Two Workflows the Same? *Proceedings of Computing: The 11th Australasian Theory Symposium (CATS)*, Newcastle, Australia, February 2005. Australian Computer Society.

O'Sullivan, J., Edmond, D., & ter Hofstede, A.H.M. (2005). The Price of Services. *3rd International International Conference on Service Oriented Computing*, Amsterdam, 13-15 December 2005.

Ouyang, C., Verbeek, H. V. W., van der Aalst, W.M.P., Breutel, S., & Dumas, M., & ter Hofstede, A. H. M. (2005). WofBPEL: A tool for automated analysis of BPEL processes. *3rd International Conference on Service Oriented Computing (ICSOC05)*, Amsterdam, 13-15 December 2005.

Rosemann, M., & de Bruin, T. (2005). A Model for Measuring Business Process Management Maturity. *Proceedings of the 13th European Conference on Information Systems (ECIS 2005)*, Regensburg, Germany, 26-28 May 2005.
[Invited for publication in the *Journal of Enterprise Information Management*]

Rosemann, M., Dreiling, A., Khan, S., & van der Aalst, W.M.P. (2005). Enterprise System Process Configuration using Configuration Patterns and Configurable Event-driven Process Chains. *Proceedings of the 7th International Conference Wirtschaftsinformatik 2005*, Bamberg, Germany, 23-25 February 2005.

Rosemann, M., Dreiling, A., Klaus, H., & Wyssusek, B. (2005). Open Source Enterprise Systems: Towards a Viable Alternative. *Proceedings of the 38th Hawaii International Conference on System Sciences (HICSS 2005)*, Big Island, Hawaii, USA, 3-6 January 2005.

Rosemann, M., Dreiling, A., & van der Aalst, W.M.P. (2005). From Conceptual Process Models to Running Workflows: A Holistic Approach for the Configuration of Enterprise Systems. *Proceedings of the 9th Pacific Asia Conference on Information Systems (PACIS 2005)*, Bangkok, Thailand, 7-10 July 2005, pp.363-376.
[Nominated for the Best Paper Award (8 out of 400) and invited for publication in *Decision Support Systems*]

Rosemann, M., & Sedera, W. (2005). A Process Modelling Success Model: Case Study Insights from an Australian Public Sector Organisation. *Proceedings of the Information Resources Management Association (RIMA) Internal Conference 2005*, San Diego, California, USA, 15-18 May 2005.

Rosemann, M., & Vessey, I. (2005). Linking Theory and Practice: A Reality Check on a Model of IS Success. *Proceeding of the 13th European Conference on Information Systems (ECIS 2005)*, Regensburg, Germany, 26-28 May 2005.

Rosemann, M., & Wyssusek, B. (2005). Enhancing the Expressiveness of the Bunge-Wand, Weber Ontology. *Proceedings of the Americas Conference on Information Systems (AMCIS 2005)*, Omaha, Nebraska, USA, 11-14 August 2005.

Rosemann, M., & Wyssusek, B. (2005). Reconsidering the Notion of “Requirements Engineering” for Enterprise Systems Selection and Implementation. *Proceedings of the 16th Australasian Conference on Information Systems (ACIS 2005)*, Sydney, Australia, 30 November – 2 December 2005.

Rosemann, M., & zur Muehlen, M. (2005). Integrating Risks in Business Process Models. *Proceedings of the 16th Australasian Conference on Information Systems (ACIS 2005)*, Sydney, Australia, 30 November – 2 December 2005.
[Winner of the Best Paper Award]

Rosemann, M., & Bandara, W. (2005). Business Process Redesign in Information Technology Incident Management: A Teaching Case. *Proceedings of the 16th Australasian Conference on Information Systems (ACIS 2005)*, Sydney, Australia, 30 November – 2 December 2005.

Rosemann, M., de Bruin, T., Freeze, R., & Kulkarni, U. (2005). Understanding the Main Phases of Developing a Maturity Assessment Model. *Proceedings of the 16th Australasian Conference on Information Systems (ACIS 2005)*, Sydney, Australia, 30 November – 2 December 2005.

Rosemann, M., Indulska, M., Recker, J., & Green, P. (2005). Do Process Modelling Techniques Get Better? A Comparative Ontological Analysis of BPMN. *Proceedings of the 16th Australasian Conference on Information Systems (ACIS 2005)*, Sydney, Australia, 30 November – 2 December 2005.

Rosemann, M., Recker, J., & van der Aalst, W.M.P. (2005). On the User Perception of Configurable Reference Process Models. *Proceedings of the 16th Australasian Conference on Information Systems (ACIS 2005)*, Sydney Australia, 30 November – 2 December 2005.

Russell, N., ter Hofstede, A.H.M., & van der Aalst, W.M.P. (2005). Workflow Data Patterns: Identification, Representation and Tool Support. *Proceedings of the 24th International Conference on Conceptual Modeling (ER 2005)*, Klagenfurt, Austria, October 2005. Springer Verlag. [acceptance rate: 18.45%]

Russell, N., van der Aalst, W.M.P., ter Hofstede, A.H.M., & Edmond, D. (2005). Workflow Resource Patterns: Identification, Representation and Tool Support. *Proceedings of the 17th International Conference on Advanced Information Systems Engineering (CAiSE 05)*, Porto, Portugal, June 2005. Springer Verlag. [acceptance rate: 13%]

Si, Y.W., Edmond, D., ter Hofstede, A.H.M., Dumas, M., & Chong, C.U. (2005). Specification of Composite Trading Activities in Supply Chain Management. *Proceedings of the 2nd IEEE International Conference on E-Technology, E-Commerce, and E-Service (EEE-05)*, Hong Kong, China, March 2005. IEEE Computer Society.

Wohed, P., van der Aalst, W.M.P., Dumas, M., ter Hofstede, A.H.M., & Russell, N. (2005). Pattern-based Analysis of the Control-flow Perspective or UML 2.0 Activity Diagrams. *Proceedings of the 24th International Conference on Conceptual Modeling (ER 2005)*, Klagenfurt, Austria, October 2005. Springer Verlag. [acceptance rate: 18.45%]

Wynn, M.T., Edmond, D., van der Aalst, W.M.P., & ter Hofstede, A.H.M. (2005). Achieving a General, Formal and Decidable Approach to the OR-join in Workflow using Reset nets. *Proceedings of the 26th International Conference on Application and Theory of Petri Nets and Other Models of Concurrency*, Miami, Florida, June 2005. Springer Verlag.

Workshops

Barros, A., Dumas, M., & Oaks, P. (2005). Standards for Web Service Choreography and Orchestration: Status and Perspectives. *Proceedings of the Workshop on Web Services Choreography and Orchestration for Business Process Management*, Nancy France, September 2005. Springer Verlag.

Oaks, P., & ter Hofstede, A.H.M. (2005). Guided Interaction: A language and method for incremental revelation of software interfaces for ad hoc interaction. *Proceeding of Workshop on Business Processes and Services (in conjunction with the 3rd International Conference on Business Process Management)*, Nancy, France, September 2005.

O'Sullivan, J., Edmond, D., & ter Hofstede, A.H.M. (2005). Two main challenges in service description: Web service tunnel vision and Semantic myopia. *W3C Workshop on Frameworks for Semantics in Web Services*, Austria, 9th – 10th June 2005.

O'Sullivan, J., & Edmond, D. (2005). RFT: a useful model for dynamic web processes. *International Workshop in Dynamic Web Processes (ICSOC 2005)*, Amsterdam, 12 December 2005.

O'Sullivan, J. (2005). Invited Speaker. 2nd Web Service Modelling Ontology (WSMO) Implementation Workshop, Digital Enterprise Research Institute, Austria, 6-7 June 2005.

Recker, J. (2005). Conceptual Model Evaluation. Towards more Paradigmatic Rigor. *10th International Workshop on Exploring Modeling Methods in Systems Analysis and Design*, Porto, Portugal, 14 June 2005.

Rosemann, M., Recker, J., van der Aalst, W.M.P., Mendling, J. (2005). On the Syntax of Reference Model Configuration. Transforming the C-EPC into Lawful EPC Models. *Workshop on Business Process Reference Models as part of BPM 2005 (E. Kinder, & M. Nuettgens (Eds.))*, Nancy, France, 5 September 2005, pp. 60-75.

Rosemann, M., van der Aalst, W.M.P., Dreiling, A., & Jansen-Vullers, M.H. (2005). Configurable Process Models as a Basis for Reference Modelling. *1st International Workshop on Business Process Reference Models as part of BPM 2005*, Nancy, France, 5 September 2005.

van der Aalst, W.M.P., Dumas, M., ter Hofstede, A.H.M., Russell, N., Verbeek, H.M.W., and Wohed, P. (2005). Life After BPEL? *Proceedings of the 2nd International Workshop on Web Services and Formal Methods (WS-FM)*, Versailles, France, September 2005. Springer Verlag.

Commercial Conferences/Public Seminars

Rosemann, M. (2005). Business Process Management. The Integration of SAP NetWeaver and ARIS. *Webinar for SAP NetWeaver Advisors and SAP Customers Asia/Pacific*. 15 February 2005.

Rosemann, M. (2005). Interoperability based on Enterprise Services and the SAP Business Process Platform. *Panel Discussant at SAPPHIRE 2005 (with Peter Zencke, Lutz Heuser, Pat Snack)*. Boston, MA, USA, 18 May 2005.

Fjellheim, T. (2005). Mobile Applications: Architecture and Methodology. SAP – Workshop. *Presentation at SAP Research*. Brisbane, Australia, June 2005.

Rosemann, M. (2005). Business Process Management: International Experiences and the Next Challenges. *SAP User Group*. Sydney, Australia, 3 August 2005.

Rosemann, M. (2005). Process Modelling Standards and Notations. *BTELL Enterprise Architecture Conference*. Sydney, Australia, 8 August 2005.

Recker, J. and Rosemann, M. (2005). Modelling Configurable Business Processes. *Presentation at the SAP Research*. Brisbane, Australia, 31 August 2005.

Rosemann, M. (2005). Evaluating and Improving Business Process Management Capabilities. *3rd Australian Process Days Conference*. Sydney, Australia, 13 September 2005.

Rosemann, M. (2005). Business Process Modelling for Supply Chain Management. *SAP Special User Interest Group on Supply Chain Management*. Melbourne, Australia, 26 October 2005.

Rosemann, M. (2005). The Pitfalls of Business Process Modelling. *Webinar for the Australian SAP User Group*. 23 November 2005.

Prototype Demonstrations

Ouyang, C., Breutel, S., van der Aalst, W.M.P., Dumas, M., ter Hofstede, A.H.M., & Verbeek, H.M.W. (2005). WofBPEL: A Tool for Automated Analysis of BPEL Processes. *Proceedings of the 3rd International Conference on Service-Oriented Computing (ICSOC) – Prototype demonstrations track*, Amsterdam, The Netherlands, 12-15 December 2005. Springer Verlag.

BPTrends

Barros, A., Dumas, M., and Oaks, P. (2005, March 1). A Critical Overview of the Web Services Choreography Description Languages (WS-CDL). *BPTrends Newsletter*, Vol. 3, No. 3.

Barros, A., Dumas, M., Bruza, P. (2005, December 6). The Move to Web Service Ecosystems. *BPTrends Newsletter*, Vol 3, No. 12.

A paper in the popular BPTrends Newsletter, which has more than 12,000 subscribed users, featured BPM Maturity models. The model, developed by Tonia de Bruin, is one of only two models which are explicitly described in this paper. This article triggered already substantial interest from all over the world including amongst others American Express (Argentina) and a number of Australian organisations.

Technical Reports

Adams, M., ter Hofstede, A.H.M., Edmond, D., & van der Aalst, W.M.P. (2005). Facilitating Flexibility and Dynamic Exception Handling in Workflows through Worklets. *BPM Center Report BPM-05-04*. BPMcenter.org.

Aldred, L., van der Aalst, W.M.P., Dumas, M., & ter Hofstede, A.H.M. (2005). On the Notion of Coupling in Communication Middleware. *BPM Center Report BPM-05-14*, BPMcenter.org.

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Rosemann, M.. Measuring Business Process Management Maturity. Arizona State University. Phoenix, USA [*Invited by Assoc. Prof. Uday Kulkarni*]. 3 May 2005.

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Members in Editorial Boards

Researchers of the BPM Group are active as members of the editorial boards of a number of international journals. In this role, they contribute with regular reviews to the overall quality of these journals. At the same time, this provides the opportunity to involve research students in such review activities.

In 2005, we provided members to the editorial board of the following journals:

Journal	BPM Representative
Business Process Management Journal	Michael Rosemann
Enterprise Modelling and Information Systems Architectures	Michael Rosemann
Information & Management	Michael Rosemann
Information Systems and e-Business Management	Michael Rosemann
Information Systems Frontiers	Iris Vessey
International Journal of Enterprise Information Systems	Michael Rosemann
Journal for Global Information Management	Michael Rosemann
Journal of Database Management	Michael Rosemann Iris Vessey (Associate Editor)
Journal of Enterprise Information Management	Glenn Stewart (Associate Editor)

Conference Chairs & Members in Program Committees

In 2005, we provide the (Co-)Chairs to the following events.

Conference / Workshop	BPM Representative
Chair of the Enterprise Systems mini-track of Enterprise Systems at the Americas Conference of Information Systems Omaha, Nebraska, USA 11 August – 14 August 2005	Glenn Stewart (Chair)
Co-Chair of the International Workshop on Business Process Design: Past, Present, Future (WBPD 2005) in conjunction with BPM 2005 Nancy, France 5 September 2005	Michael Rosemann (Co-Chair with Hajo Reijers and Thomas Davenport)
Co-Chair of the International Workshop on Business Processes and Services (BPS'05) Nancy, France 5 September 2005	Marlon Dumas (Co-Chair)

In 2005, we provided members to the program committees of the following conferences and workshops.

Conference / Workshop	BPM Representative
<i>2nd Asia-Pacific Conference on Conceptual Modelling – APCCM 2005</i> Newcastle, Australia 30 January – 4 February 2005	Michael Rosemann
<i>Australian Database Conference</i> Newcastle, Australia 31 January -3 February 2005	David Edmond
<i>Track “Customer Relationship Management and Supplier Relationship Management”, part of the Wirtschaftsinformatik 2005</i> Bamberg, Germany 23-25 February 2005	Michael Rosemann
<i>1st International Workshop on Model-Driven Enterprise Information Systems (MDEIS'2005)</i> Miami, USA 24-25 May 2005	Marlon Dumas

<p><i>10th CAiSE/IFIP 8.1/INTEROP/AIS-SIGSAND International Workshop on Exploring Modelling Methods in Systems Analysis and Design (EMMSAD '05)</i></p> <p>Porto, Portugal 13-14 June 2005</p>	Michael Rosemann
<p><i>1st International Workshop on Adaptive Self-Managing Enterprise Applications (ASMEA '05)</i></p> <p>Porto, Portugal 14 June 2005</p>	Marlon Dumas
<p><i>1st International Workshop on Context for Web Services (CWS-05)</i></p> <p>Paris, France 5 July 2005</p>	Marlon Dumas
<p><i>2nd International Conference on Enterprise Systems and Accounting</i></p> <p>Thessaloniki, Greece 11-12 July 2005</p>	Michael Rosemann
<p><i>3rd International Conference on Web Services (ICWS'2005)</i></p> <p>Orlando, Florida, USA 11-15 July 2005</p>	Marlon Dumas David Edmond
<p><i>3rd International Workshop on Ubiquitous Mobile Information and Collaboration Systems (UMICS'2005)</i></p> <p>Porto, Portugal 13-14 July 2005</p>	Marlon Dumas
<p><i>Workshop on Process Automation and Management at the Americas Conference on Information Systems</i></p> <p>Omaha, Nebraska, USA 11 August 2005</p>	Michael Rosemann
<p><i>International Workshop on Business Process Monitoring & Performance Management (BPMPM 2005) in conjunction with DEXA 2005</i></p> <p>Copenhagen, Denmark 22-26 August 2005</p>	Michael Rosemann
<p><i>6th International Workshop on Technologies for E-Services (TES'2005)</i></p> <p>Trondheim, Norway 2-3 September 2005</p>	Marlon Dumas

<p><i>International Workshop on Business Process Intelligence (BPI 2005), in conjunction with BPM 2005</i></p> <p>Nancy, France</p> <p>5 September 2005</p>	<p>Michael Rosemann</p> <p>Marlon Dumas</p>
<p><i>International Workshop on Business Processes and Services (BPS'05)</i></p> <p>Nancy, France</p> <p>5 September 2005</p>	<p>David Edmond</p>
<p><i>1st International Workshop on Business Process Design (BPD'05)</i></p> <p>Nancy, France</p> <p>5 September 2005</p>	<p>Michael Rosemann</p> <p>Marlon Dumas</p>
<p><i>3rd International Conference on Business Process Management (BPM 2005)</i></p> <p>Nancy, France</p> <p>5-7 September 2005.</p>	<p>Michael Rosemann</p> <p>Marlon Dumas</p> <p>Arthur ter Hofstede</p>
<p><i>1st EDOC International Workshop on Vocabularies, Ontologies and Rules for the Enterprise (VORTE 2005) as part of the 9th International IEEE Enterprise Distributed Object Computing Conference</i></p> <p>Enschede, The Netherlands</p> <p>19-23 September 2005</p>	<p>Michael Rosemann</p>
<p><i>2nd Workshop on Contract Architectures and Languages (CoALa'2005)</i></p> <p>Enschede, The Netherlands</p> <p>20 September 2005</p>	<p>Marlon Dumas</p>
<p><i>13th International Conference on Cooperative Information Systems (CoopIS'2005)</i></p> <p>Agia Napa, Cyprus</p> <p>31 October – 4 November 2005</p>	<p>Marlon Dumas</p>
<p><i>International Workshop on Object-Role Modeling (ORM'05)</i></p> <p>Agia Napa, Cyprus</p> <p>3-4 November 2005</p>	<p>Arthur ter Hofstede</p>
<p><i>2nd International Conference on Qualitative Research in IT and IT in Qualitative Research (QualIT 2005)</i></p> <p>Brisbane, Australia</p> <p>23-25 November 2005</p>	<p>Michael Rosemann</p>

<p><i>4th Workshop on Process Management with Event-driven Process Chains</i></p> <p>Hamburg, Germany</p> <p>8-9 December 2005</p>	<p>Michael Rosemann</p>
<p><i>International Conference on Information Systems (ICIS 2005) Track on 'Valuing IT Opportunities'</i></p> <p>Las Vegas, USA</p> <p>11-14 December 2005</p>	<p>Michael Rosemann (Assoc. Editor)</p>
<p><i>Workshop on Service-Oriented Business Processes Integration (SOBPI'2005)</i></p> <p>Amsterdam, The Netherlands</p> <p>12 December 2005</p>	<p>Marlon Dumas</p>
<p><i>International Workshop on Dynamic Web Processes (DWP'05)</i></p> <p>Amsterdam, The Netherlands</p> <p>12 December 2005</p>	<p>Marlon Dumas</p>