



IN PARTNERSHIP WITH





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Julian Birkinshaw London Business School Conference Co-Chair



Bettina Büchel IMD
Conference Co-Chair



Albrecht Enders

IMD

Conference Co-Chair



Markus Nordberg CERN Conference Co-Chair



**Timo Santalainen** *Aalto University*Conference Co-Chair

Dear Conference Guests and Contributors,

We warmly welcome you to the SMS Lake Geneva Special Conference, "Strategizing Practices from the Outliers: Enabling Big Bang Innovation". Why outliers? We believe that a mind-stretching journey to the world of outlier organizations is one of the best ways to explore the underlying principles of innovation.

This conference is bringing together academics and business executives interested in innovation. We would like everyone to come to this conference with the following question in mind: "What role does innovation play for you?" We want to create a true exchange between the questions on innovation that academics want to advance and those innovation challenges that business executives are facing.

During the conference we will have dialogues on innovation topics as well as 110 academic presentations, selected through a competitive process in four themed tracks. Three keynote panels offer unique insights from the world of outliers. The opening panel, "Inside Outliers: Driving Systemic Change" sets the stage. The second panel, "Meet the Mavericks" features top managers from outlier companies including EasyJet, Intuitive Surgical and Quantum Black. The concluding panel asks "Why We Need to Learn from Outliers – and Often Fail to Do So?" There will also be three keynote presentations by global thought leaders: Sid Winter asks "Will Research Save Us?"; Hank Chesbrough explores the "Roots of Big Bang Innovations" and Clay Christensen discusses "The Great Divide Between Research and Practice".

The first conference day will be spent at CERN, an outlier organization genuinely searching for "big bang" innovation. During this visit, those who would like an outlier experience have an opportunity to visit the world's largest R&D instrument, the ATLAS Experiment at the LHC, 100 meters deep. The second and third days of the conference will be held at IMD's beautiful campus in Lausanne.

We take this opportunity to thank CERN/ATLAS and IMD, who have created a terrific setting for the conference as strategic partners. In addition we gratefully thank Boston Consulting Group, EPFL-Lausanne and ESADE for their contributions. Finally, we thank numerous volunteers and professionals, who during the last couple of years have given their invaluable input in converting our intent into reality.

The conference has already surpassed our expectations in terms of the number and mix of attendees. Slightly more than half of the attendees are academics, almost 40% are business practitioners, and 10% are consultants. The Lake Geneva Special Conference thus contributes to one of the core values of the SMS, namely to foster stronger linkages between these three different communities.

Big opportunities seldom make home visits; we have to go after them. We encourage you to grasp this opportunity of learning, networking, sparring, and testing your ideas. We hope that springtime in Lake Geneva Region will offer an amazing stage for finding inspiration.

Enjoy the conference!

Julian Birkinshaw, London Business School Bettina Büchel, IMD Albrecht Enders, IMD Markus Nordberg, CERN Timo Santalainen, Aalto University







Dear Conference Participant:

We bid you a warm welcome to our Special Conference at Lake Geneva; we are very happy to have you with us.

This Special Conference aims to employ the practices of outlier organizations as working examples of successful and innovative management of large scale change. We chose to partner with CERN and IMD to organize this conference because of their respective roles in propelling the practical and theoretical discussion of innovation to the next level. An intriguing and vital issue that this conference seeks to understand is how organizational and management capabilities strengthen such outlier performances.

In contrast to the SMS Annual Conference, special conferences provide a smaller forum for discussion and debate, thus allowing a more in depth examination of a specific topic. They also offer opportunities for members to meet and collaborate, as well as give the SMS the ability to grow our presence in different regions of the world. Thank you again for joining us for this event.

We would like to take this opportunity to thank those instrumental in organizing this conference. Without the hard work of our Program Chairs Julian Birkinshaw, Bettina Büchel, Albrecht Enders, Markus Nordberg and Timo Santalainen this event would not be a reality. We would like to thank the conference co-organizers, IMD and CERN, for their hard work and support in organizing this conference. We also would like to recognize BCG, ESADE and EPFL for their generous sponsorship of this event.

We hope that you have an enlightening and enjoyable conference. Please enjoy your stay at beautiful Lake Geneva!

Bob Hoskission President

Lobert E Soulisson

Nikolaus Pelka Executive Director

Ditolaus





The Strategic Management Society (SMS) is unique in bringing together the worlds of reflective practice and thoughtful scholarship. The Society focuses on the development and dissemination of insights on the strategic management process, as well as on fostering contacts and interchange around the world.

The SMS is membership-based and was founded at an inaugural meeting in London in 1981. Today, it enjoys the support of close to 3,000 members representing over 1,200 institutions and companies in over 80 countries. Our activities are made possible through the dedicated support from hundreds of individuals who take on a variety of responsibilities, volunteering their time and expertise.

#### **MEETINGS**

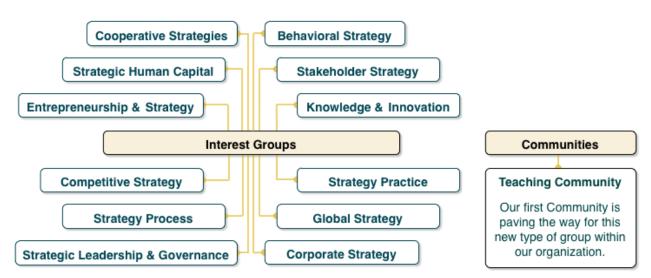
The SMS holds an annual meeting at various sites around the world, typically alternating between North America and Europe; some past locations included Amsterdam, Baltimore, Barcelona, Berlin, Boston, Chicago, London, Mexico City, Montreal, Orlando, Paris, Philadelphia, Phoenix, San Francisco, San Juan, Stockholm, Toronto, Vancouver, Vienna, San Diego, Washington DC, Rome, Miami, and most recently, Prague. Each conference addresses a current theme, with specific tracks addressing sub-themes, and presents multiple sessions by leading experts in the field from around the world.

The SMS has responded to membership interest in special topics through its introduction of a series of smaller, regionally based meetings addressing more specific industry or subject themes. Conferences have taken place in such places as Shanghai, Catania, Rio de Janeiro, San Diego, Singapore and Guangzhou.

#### **PUBLICATIONS**

The Strategic Management Society is proud to be involved with Wiley & Blackwell in the publication of leading journals and innovative books, which for more than three decades have been vital tools for the benefit of researchers and practitioners in the field. The Strategic Management Journal (SMJ) has since its inception been the official journal of the Strategic Management Society. This Class A journal is consistently rated one of the top publications in the management area. We also offer two quarterly journals, the Strategic Entrepreneurship Journal (SEJ) and the Global Strategy Journal (GSJ). The intent is for these two publications to become Class A journals that promote the development and dissemination of advances in the field by maintaining the highest standards of intellectual thought combined with practical relevance, just as their sister publication, the SMJ has done for many years. The SMS Book Series focuses on cutting edge concepts/topics in strategic management theory and practice. The books emphasize building and maintaining bridges between theory and practice. They generate and test theories of strategic management and demonstrate how to learn, understand and apply these theories in practice.

SMS INTEREST GROUPS AND COMMUNITIES (IG&C) The primary purpose of the Interest Groups and Communities within the SMS is to act as a catalyst for building and disseminating new ideas in research, practice, and teaching around a set of core issues in strategic management. Each Interest Group and Community recognizes a major, individual stream of practice and research interest, and aims to serve the needs of members with special interests in this stream of work. Members of the SMS can elect to join up to two Groups and one Community of their choice; additional Interest Groups may be added for a nominal fee.





### **ANNUAL CONFERENCES**

2012 PRAGUE

**2011 MIAMI** 

**2010 ROME** 

2009 WASHINGTON DC

2008 COLOGNE

2007 SAN DIEGO

2006 VIENNA

2005 ORLANDO

2004 PUERTO RICO

2003 BALTIMORE

**2002 PARIS** 

2001 SAN FRANCISCO

2000 VANCOUVER

**1999 BERLIN** 

1998 ORLANDO

1997 BARCELONA

1996 PHOENIX

1995 MEXICO CITY

**1994 PARIS** 

1993 CHICAGO

**1992 LONDON** 

**1991 TORONTO** 

1990 STOCKHOLM

1989 SAN FRANCISCO

1988 AMSTERDAM

**1987 BOSTON** 

1986 SINGAPORE

1985 BARCELONA

1984 PHILADELPHIA

**1983 PARIS** 

1982 MONTREAL

**1981 LONDON** 

#### RECENT SPECIAL CONFERENCES

2012 GUANGZHOU, CHINA Competing and Cooperating in and for China

**2012 SINGAPORE** 

Globalisation Of Innovation Strategies: Novel Moves for a Global Game

2011 SAN DIEGO, USA

CK Prahalad: Reaching Over Boundaries and Expanding Possibilities

2011 RIO DE JANEIRO, BRAZIL

Latin America's Burgeoning Strategic Role in Global Development

2010 LAPLAND, FINLAND

**Intersections of Strategy Processes and Strategy Practices** 

2008 HYDERABAD, INDIA

Emerging India: Strategic Innovation in a Flat World

2007 CANTANIA, ITALY

New Frontiers in Entrepreneurship: Strategy, Governance and Evolution

2007 SHANGHAI, CHINA

Successful Strategies in Chinese markets (Chinese Firms and Foreign MNCs) and International Markets (Chinese Firms)

### **UPCOMING CONFERENCES**











#### **Recommended Dress**

Business casual attire is recommended for all conference sessions.

#### Wednesday and Friday Evening Events

The dress for these events is business casual & <u>conference name</u> <u>badges are required for entrance into the event.</u>

#### Name Badges

Name badges must be worn by attendees and guests at all times. Your name badge will be your ticket to luncheons and evening events. Access to these functions will be denied if you are without your name badge.

#### **Name Tents**

Presenters on the program receive a name tent as part of their registration materials. If you are a presenter, it is your responsibility to bring this name tent with you to your session and to place it in front of you on the speaker's table before your presentation.

### **Exchange of Handouts and Presentations**

Upload and download functionality is available on the conference website and we have invited presenters to make their handouts and presentations available through this mechanism. If presenters have accepted this invitation, you will find a download button next to the presentation on the particular session page of the conference website.

### **No Smoking Policy**

In consideration of all attendees, we request that there be no smoking during all sessions and meal functions.

### **ATLAS Underground Visits**

The first day of the conference, Thursday, March 21, will take place on CERN's campus. All conference participants will have the unique opportunity to visit the ATLAS Experiment which is not open to the public. This 45 minute tour involves traveling via elevator to the underground caverns where the Large Hadron Collider is housed.

#### **Getting to CERN:**

Due to security reasons, all conference participants will be required to enter and exit CERN's campus via the bus transportation we are providing. The buses will depart promptly at 7:30am from the Movenpick Hotel. It is expected that you have checked-in with the conference registration desk the night prior or morning of before boarding the bus to receive conference materials and your name badge.

For individuals arriving directly to CERN on your own, you will need to check-in at Reception Building 33 upon arrival. Receptionists will give you instructions on how to reach the Globe conference area from Building 33. You will need to present identification to receive your registration packet





and name badge. Please note that although arrangements have been made for participants arriving on their own, we cannot guarantee entrance to CERN outside of our bus transportation. Parking availability is extremely limited and thus not guaranteed.

#### **Security and Safety Requirements:**

Your name badge is required for access to CERN and the ATLAS visits. You will also need a photo ID. For safety reasons, everyone will be required to wear a helmet and anyone with a pacemaker, who is pregnant, or wearing high heels will not be able to access ATLAS. If you have limited mobility, please contact our office to see if special arrangements can be made.

#### Your scheduled ATLAS visit:

Due to the large number of attendees, ATLAS visits will be held during the parallel and plenary sessions. You will be preassigned a non-transferable time for your ATLAS visit. This information was sent to you via email before the conference.



### **IMD Discovery Event**

The IMD Discovery Event is being held in conjunction with the SMS Special Conference on the IMD campus. All participants are invited to attend these highly topical sessions being held in parallel throughout Friday, March 22 and Saturday, March 23. As you check the conference schedule, please note all IMD Discovery Event sessions are highlighted in dark blue.



### WEDNESDAY, MARCH 20, 2013

LOCATION: MOVENPICK HOTEL

19:00 — 21:00 Conference Welcome Reception and Registration

### THURSDAY, MARCH 21, 2013

**LOCATION: CERN** 

07:30	Bus departure from Hotel
	Mövenpick to CERN
09:00 — 09:45	Conference Co-Chair Welcome and Introduction to CERN
10:00 — 11:15	Plenary Panel: Inside Outliers - Driving Systematic Change
11:15 — 11:45	Coffee Break
11:45 — 13:00	Parallel Paper/Common Ground Sessions
13:00 — 14:00	Luncheon
14:00 — 15:15	Parallel Paper/Common Ground Sessions
15:15 — 15:45	Coffee Break
15:45 — 17:00	Plenary Presentation: Can Research Save Us?
17:00 — 17:45	CERN Lecturettes
18:00 — 19:30	Cocktail Reception
19:00	Transportation to Lausanne for dinner on your own

### **FRIDAY, MARCH 22, 2013**

**LOCATION: IMD** 

08:15 — 09:30	Parallel Paper/Common Ground Sessions/Panel Sessions
08:15 — 09:30	IMD Discovery Event Session: Do Your Genes Fit? Innovation and Corporate Culture: Why Haier can, Sony could and Samsung Can't
09:30 — 10:00	Coffee Break
10:00 — 11:15	Plenary Presentation: Key Drivers Behind "Big Bang" Science and Open Innovation
11:30 — 12:45	Parallel Paper/Common Ground Sessions/Panel Sessions
11:30 — 12:45	IMD Discovery Event Session: Frugal Innovation
12:45 — 13:45	Luncheon
13:45 — 15:00	Plenary Presentation: Across the Great Divide: The Role of Theory as a Bridge Between Academia and Practice
15:00 — 15:30	Coffee Break
15:30 — 16:45	Plenary Panel: Meet The Mavericks
17:00 — 18:00	IMD Discovery Event Session: How Will You Measure Your Life?
18:00 — 22:30	Aperitif and Dinner Event at IMD

### SATURDAY, MARCH 23, 2013

LOCATION: IMD

08:15 — 09:30	Parallel Paper/Common Ground Sessions
09:30 — 10:00	Coffee Break
10:00 — 11:15	Plenary Panel: Why We Need to Learn from Outliers - and Often Fail to Do So
11:30 — 12:45	Parallel Paper/Common Ground Sessions
11:30 — 12:45	IMD Discovery Event Session: Entrepreneurial Solutions to Market Failure
12:45 — 14:00	Closing Luncheon

The individuals listed below worked with the Conference Theme Track Chairs, Christoph Zott, Christopher Tucci, Gabriel Szulanski and Julian Birkinshaw to review proposals for the conference. We appreciate and gratefully recognize the amount of time and effort spent making this a successful event.

**Tina Claudia Ambos** Johannes Kepler University Linz

Véronique Ambrosini Monash University

Torben Juul Andersen Copenhagen Business School

**Shahzad Ansari** *University of Cambridge* 

Melissa Appleyard Portland State University

Craig Armstrong
University of Alabama

Sam Arts University of Leuven

**Oguz Baburoglu** Sabanci University

Charles Baden-Fuller City University London

Pamela Barr Georgia State University

Rene Belderbos University of Leuven

Ben Biddle Infosys

Christiane Bode INSEAD

**Marcel Bogers** University of Southern Denmark

Cyril Bouquet IMD

Layla Branicki University of Warwick

Henrik Bresman INSEAD

Alberto Brito CDA Tecnologia

**Alan Cabello** Swiss Federal Institute of Technology Lausanne

Jon Carr
Texas Christian University

**Xavier Castaner** *University of Lausanne* 

University of Laus
Tim Coltman
University of

Wollongong
Fariborz Damanpour

Rutgers University

Stephanie Dameron

Stephanie Dameron University of Paris-Dauphine

**Ozgur Dedehayir** Tampere University of Technology Benoît Demil University of Lille 1

Darshan Desai Berkeley College

Jim Dewald University of Calgary

Sandra Dubouloz

**Kimberly Ellis** Florida Atlantic University

**Nicolai Foss** Copenhagen Business School

Martin Friesl
Lancaster University

Aurora Garrido-Moreno University of Malaga

**Nuno Gil** *University of Manchester* 

Monique Goepel Berlin Technical University

Marc Gruber Swiss Federal Institute of Technology Lausanne

**Wolfgang H Guettel** Johannes Kepler University Linz

Magnus Gustafsson Åbo Akademi University

**Xu Han** University of Pennsylvania

Cornelis Vincent Heij Erasmus University -Rotterdam

Koen Heimeriks Tilburg University

Magnus Hellström Åbo Akademi University

Joachim Henkel Munich Technical University

**Susan Hill**London School of
Economics

Katja Maria Hydle BI Norwegian School of Management

**Justin Jansen** *Erasmus University -Rotterdam* 

Johanna Jaskari Aalto University

Anna Jonsson Lund University

Thomas Keil University of Zurich **Eonsoo Kim** Korea University

Patricia Klarner University of Munich

**Thorbjørn Knudsen** University of Southern Denmark

**Allya Koesoema** University of New South Wales

**Bruce Lamont** Florida State University

**Seppo Laukkanen** Hanken School of Economics

Xavier Lecocq
University of Lille

Hanna Lehtimaki University of Eastern Finland

**Saku Mäkinen** Tampere University of Technology

**Lorenzo Massa** IESE Business School

**Silvia Massini** *University of Manchester* 

R. Bruce McKern China Europe International Business School

Chet Miller University of Houston

Dana Minbaeva Copenhagen Business School

Mahka Moeen University of Maryland

Michael Mol University of Warwick

**Tom Mom** *Erasmus University - Rotterdam* 

Felipe Monteiro

**Uta Morgenstern** *University of Bath* 

Marie Louise Mors Copenhagen Business School

VK Narayanan Drexel University

Vincent Nassar HES-SO Valais Wallis

**Ivana Naumovska** *Erasmus University -Rotterdam* 

**Atul Nerkar** University of North Carolina-Chapel Hill Charlene Nicholls-Nixon IPADE

Pinar Ozcan IESE Business School

Anirvan Pant Indian Institute of Management-Calcutta

**Deep Parekh** Swiss Federal University-Lausanne

Giuseppina Passiante University of Salento

Sanjay Patnaik University of Pennsylvania

Markus Paukku Aalto University

Tilo Peters
Swiss Federal Institute of
Technology-Lausanne

**Jeffrey Petty** *University of Lausanne* 

Andrea Prencipe LUISS University

Howard Rasheed University of North Carolina Wilmington

Marlo Raveendran London Business School

Stephan Reinhold University of St. Gallen

**Taco Reus** *Erasmus University - Rotterdam* 

Louis Rinfret
University of QuebecThree Rivers

Michelle Rogan INSEAD

Renee Rottner
New York University

Josune Saenz University of Deusto

William Schulze
University of Utah

Markus Schwenke University of St. Gallen

Kathrin Sele University Toulouse 1 Capitole

JC Spender Lund University

**Jorge Tarzijan** *Catholic University of Chile* 

Richard Tee EPFL

**Robin Teigland** Stockholm School of Economics Jana Thiel

Esther Tippmann University College Dublin

**George Tovstiga** University of Reading

Christopher Tucci EPFL

**Marja Turunen** Helsinki University of Technology

**Marius Ungerer** Stellenbosch University

Vareska Van de Vrande Erasmus University -Rotterdam

Gianmario Verona Bocconi University

Luis Vives Ramon Llull University

Henk W. Volberda Erasmus University -Rotterdam

Johan Wallin Synocus Group

Richard Whittington University of Oxford

Kim Wikström Åbo Akademi University

**Jason Woodard** *Singapore Management University* 

**Feng Zhu** *University of Southern California* 

Alexander Zimmermann University of St. Gallen





### SPECIAL CONFERENCE LAKE GENEVA BEST PROPOSAL PRIZE

The Strategic Management Society is pleased to present one outstanding proposal with the Special Conference Lake Geneva Best Proposal Prize. Richard Whittington served as the Chair of the Prize Committee and worked with Markus Nordberg and Martin Reeves to identify the five finalists named below. There will be one winner named from this group at the conference awards dinner. They will receive a commemorative certificate and a cash award.

#### **FRIDAY**

SESSION 17 | TIME 08:15 - 09:30

Hybrid Multi-Channel Governance: How Boards Engage in Innovation

Patricia Klarner, University of Munich Gilbert Probst, University of Geneva Michael Useem, University of Pennsylvania

### **FRIDAY**

SESSION 47 | TIME 08:15 - 09:30

Epochal Innovation and Stock Market Bubbles
Alina Sorescu, Texas A&M University
Sorin Sorescu, Texas A&M University
Will Armstrong, Texas Tech University
Bart Devoldere, Vlerick Business School

### FRIDAY

SESSION 11 | TIME 11:30 – 12:45

I Love You but I Want to Change You

Xavier Castaner, University of Lausanne
Güldem Karamustafa HEC-University of

Güldem Karamustafa, HEC- University of Geneva Jeff Davis, Orabrush Inc.

### **FRIDAY**

SESSION 46 | 11:30 - 12:45

How to Survive When Launching a Business Model Innovation?

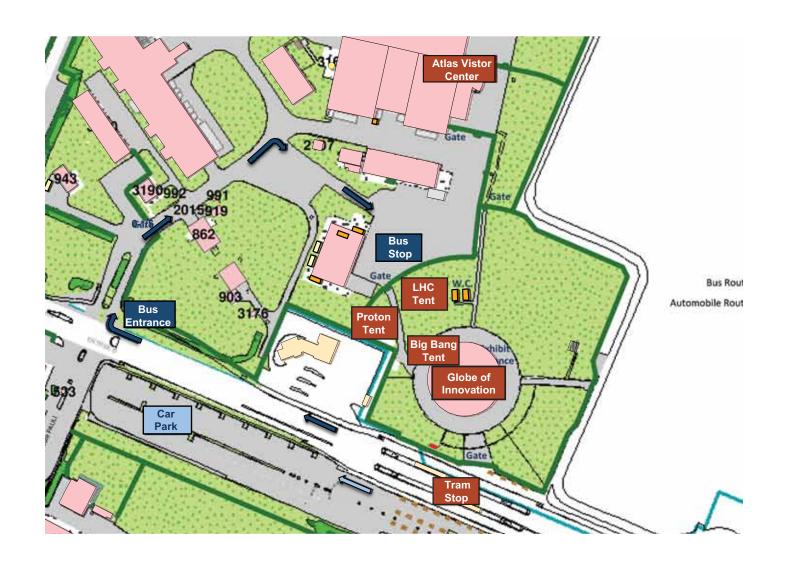
Bart Devoldere, Vlerick Business School
Marion Debruyne, Vlerick Business School
Ruud Frambach, VU University Amsterdam

### SATURDAY

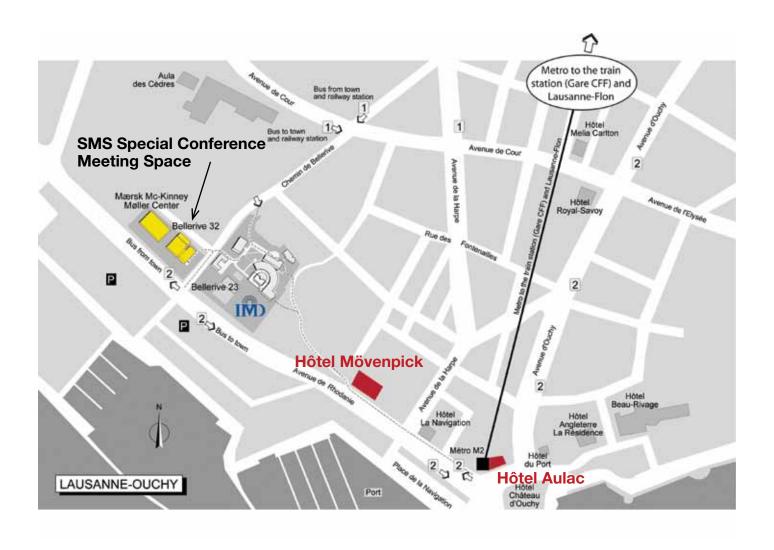
SESSION 43 | 08:15 – 9:30

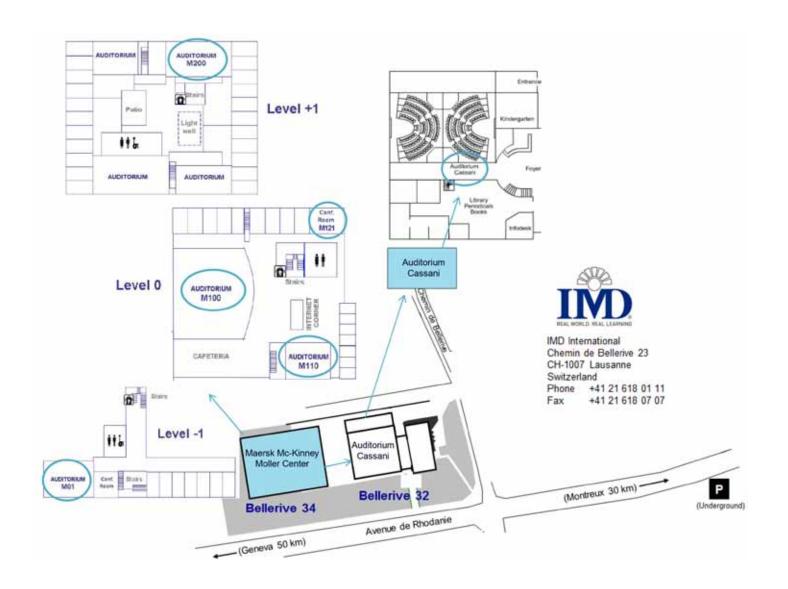
Value Migration and Architectural Design Choices in Innovation Ecosystems: The Case of Cloud Computing
Richard Tee, EPFL

Jason Woodard, Singapore Management University











#### **PLENARY TRACK**

 TRACK P
 Date
 Thursday, Mar 21

 Time
 09:00 – 09:45 h

 Presentation
 Room
 Globe

### Conference Co-Chair Welcome and Introduction to CERN

#### Co-Chairs

Julian Birkinshaw, London Business School Bettina Büchel, IMD Albrecht Enders, IMD Markus Nordberg, CERN Timo Santalainen, Aalto University

#### Speaker

Sergio Bertolucci, CERN



Julian Birkinshaw is Professor and Chair of Strategy and Entrepreneurship at the London Business School. He has PhD and MBA degrees in Business from the Richard Ivey School of Business, University of Western Ontario, and a BSC (Hons) from the University of Durham. He is a Fellow of the British Academy (FBA) and the Academy of International Business. In addition to

London Business School, he has worked at the University of Toronto, the Stockholm School of Economics, Price Waterhouse and ICI. Julian Birkinshaw's main area of expertise is in the strategy and management of large multinational corporations, and on such specific issues as corporate entrepreneurship, innovation, subsidiary-headquarters relationship, knowledge management, network organisations, and global customer management. He is the author of eleven books and over eighty articles. Julian Birkinshaw is active as a consultant and executive educator to many large companies, including Rio Tinto, GSK, ABB, Diageo, SAP, Ericsson, Kone, Bombardier, Sara Lee, HSBC, Akzo Nobel, Roche, Unilever, Hess Oil, Toshiba, and Novo Nordisk. He speaks regularly at business conferences in the UK, Europe, North America and Australia.



Bettina Büchel has been Professor of Strategy and Organization at IMD since 2000. She is member of IMD's President's Council. Her current research topics include strategy implementation, new business development, strategic alliances and change management. She is Director of the public program Orchestrating Winning Performance program as well as several partnership programs. She has worked extensively with companies such

as Nestlé, Allianz, Evonik, Commerzbank, Nilfisk-Advance and others in developing strategic priorities, implementing strategic initiatives and managing change. She received her bachelor of economics and public administration at the University of Constance, Germany, her Masters of Human Resources and Industrial Relations at Rutgers University, USA and her PhD at the University of Geneva, Switzerland. After obtaining her PhD, she worked as an Assistant Professor at the Asian Institute of Technology in Bangkok where she was teaching MBA and PhD students from across Asia.



Albrecht Enders is Professor of Strategy and Innovation at IMD. Prior to joining IMD, he worked as an Assistant Professor of Strategic Management at the University of Nuremberg in Germany and as a consultant for the Boston Consulting Group in Cologne. His major research interest is the reaction of companies to discontinuous changes in their environment. Most recently, he and his co-authors received the

2011 Glueck Best Paper Award of the Business Policy and Strategy Division of the Academy of Management for a study that examines the influence of CEO Narcissism on the ability of their organizations to react to discontinuous changes.



Markus Nordberg has a degree both in Physics and in Business Administration and is the Resources Coordinator of the ATLAS project at CERN, Switzerland, where his responsibilities include budget planning, reporting and resources allocation for the ATLAS project. He has a background in project management, technology transfer and corporate strategy. He has published

articles and books in the domains of innovation, strategy and project management and technology transfer. Markus Nordberg has also served as Visiting Senior Research Fellow at the Centrum voor Bedrijfseconomie, Faculty ESP-Solvay Business School, University of Brussels, and is a member of SMS, AOM and the Association of Finnish Parliament Members and Scientists, TUTKAS.



Timo J. Santalainen's career concept is a combination of academia, business and consulting. His previous academic positions include professorships at Thunderbird Graduate School of Global Management, Texas Tech University and Management Centre Europe. He has held senior executive positions in retailing, banking and world sports organizations. Currently he is President of STRATNET, a Geneva-

based network of strategy advisors, and Adjunct Professor of Strategy and International Management at Aalto University Business School, Lappeenranta University of Technology and Finnish Defence University. His most recent field of interest is strategic management and thinking in transformational and parastatal organizations such as telecommunications, energy, sports, public service and research. He has been a strategy adviser and Board member for many of these organizations throughout the world. Timo Santalainen is Founding Member of Strategic Management Society. He is the author or coauthor of ten books, numerous chapters in books and articles in leading international publications.



Sergio Bertolucci serves as Director for Research and Scientific Computing at CERN. Before his time at CERN, he chaired the LHC committee and was a member of DESY's physics research committee. He was also vice-president and a member of the Board of the Italian National Institute of Nuclear Physics (INFN). A former Pisa scholar, Sergio Bertolucci has worked at DESY, Fermilab and Frascati. He was a member of the

group that founded Fermilab's CDF experiment and has been involved in the design, construction and running of the CDF detector. Sergio Bertolucci has been technical coordinator of the team responsible for the design and construction of the KLOE detector at the DAFNE storage ring at the Frascati National Laboratories (LNF). He was appointed head of the LNF accelerator division and the DAFNE project, becoming Director in 2002.

#### **PLENARY TRACK**

 TRACK P
 Date
 Thursday, Mar 21

 Time
 10:00 – 11:15 h

 Special Panel
 Room
 Globe

### Inside Outliers: Driving Systemic Change

**Panelists** 

Robert Burgelman, Stanford University Lina Constantinovici, StartupNectar Marina Gorbis, Institute For The Future Liisa Valikangas, Aalto University

Being positively different is the goal of strategic management. Highly "impactful" organizations capitalize on heterogeneity not only in terms of fleeting egocentric competitive advantages but by driving system level changes in their environments. Outlier organizations distinguish themselves, and influence systems, through multiple, often overlooked, mechanisms that often are found not to fit within mainstream management research models. We find value in heterogeneity and look beyond regressed mean for organizations that can positively shape the future. We propose to bring Outliers back into the fold and learn from highly impactful organizations - how to be, how to become and how to remain an Outlier (in a dynamic interdependent ecosystem.)



Robert Burgelman is the Edmund W. Littlefield Professor of Management and the Executive Director of the Stanford Executive Program (SEP) of the Stanford University Graduate School of Business, where he has taught since 1981. He obtained a Licenciate degree in Applied Economics from Antwerp University (Belgium), and an MA in Sociology and a Ph.D.

in Management of Organizations from Columbia University, where he studied with doctoral fellowships from the Ford Foundation (US) and ICM (Belgium). His research has focused on the role of strategy-making in firm evolution. In particular, he has studied the strategy-making processes involved in how companies enter into new businesses and exit from existing ones to secure continued adaptation. In 2003 he received an honorary doctorate from the Copenhagen Business School for his contributions to the study of corporate innovation and entrepreneurship. He has published many articles in leading academic and professional journals. He has taught executive programs and led senior and top management seminars for major companies worldwide. He currently serves on the board of directors of SHOP.COM, a private company.



Lina Constantinovici is Founder of Startup Nectar, the Biomimicry Incubator - the first business incubator focused on increasing the number of viable biomimetic products, services, and organizations in the world with a curriculum for building organizations that create conditions conducive to life. She is also Head of US Operations at GrowVC US, the first global peerto-peer micro-funding marketplace for startups.

For over 20 years, Lina Constantinovici has been engaged in innovation in the public, private, and NGO sectors as an entrepreneur, strategist, sustainability consultant and educator. Lina Constantinovici has worked with the San Francisco Department of Environment, the EPA, Walmart, W Hotels, GreenBiz.com, the Detroit Health Authority, and dozens of sustainable start ups. She is the recipient of the international RE:STORE award for her sustainable retail center design and was a contributing researcher for the State of Green Business 2008.



Marina Gorbis is the Executive Director of the Institute for the Future (IFTF). Before becoming IFTF's Executive Director in 2006, Marina Gorbis created the Global Innovation Forum, a project comparing innovation strategies in different regions, and she founded Global Ethnographic Network (GEN), a multi-year ethnographic research program aimed at understanding daily

lives of people in Brazil, Russia, India, China, and Silicon Valley. She has been a guest blogger on BoingBoing.net and writes for IFTF and major media outlets. An innovative thinker and writer, Marina Gorbis is currently finishing a book tentatively titled Socialstructing: Designing for the Future, to be released by Simon Shuster in January 2013. During her tenure with IFTF and previously with SRI International, she has worked with hundreds of organizations in business, education, government, and philanthropy, bringing a future perspective to develop vision and strategies, improve innovation capacity, and design new products and services.



Liisa Välikangas is Professor of Innovation Management at Helsinki School of Economics. Previously, she was Research Director of the Woodside Institute in California—a professional research organization dedicated to advancing innovative management practice and organizational resilience. She is also Founder and President of Innovation Democracy, Inc., a nonprofit organization committed to supporting

innovative entrepreneurship in countries of importance to world stability. Her research on innovation, strategy and organizing has been published in Harvard Business Review, MIT Sloan Management Review, Wall Street Journal, among other leading journals, and presented to various executive audiences. She is in the board of SCANCOR, the Scandinavian Consortium for Organizational Research at Stanford University and Helsingin Sanomat Foundation, dedicated to the study of future, freedom of speech and democracy.



## ENABLERS AND ANTECEDENTS OF BUSINESS MODELS

Session Chair	Raffi Amit, University of Pennsylvania	
Paper	Room	LHC
	Time	11:45 – 13:00 h
TRACK A	Date	Thursday, Mar 21

### Crafting Business Architecture: The Antecedents of Business Model Design

Raffi Amit, *University of Pennsylvania* Christoph Zott, *IESE Business School* 

Anchored in the design literature, we identify antecedents of business model design and develop propositions that relate these antecendents to the value drivers of business models. As well, we ask how do the design antecedents affect the configuration of the business model in terms of its design elements? We use comprehensive interview data from nine new ventures to illustrate the theoretically derived antecedents and to tentatively indicate why and how the antecedents we propose matter for business model design.

# Enabling Business Model Transformation: Surviving Business Model Disruption Through Recursive Structural Alterations

Saeed Khanagha, *Erasmus University - Rotterdam* Henk W. Volberda, *Erasmus University - Rotterdam* Manfred Dasselaar, *Ericsson AB* 

Transition towards a fundamentally different business model is often associated with serious organizational challenges for incumbents. Particularly, optimal structural form for business model renewal is an important, yet unresolved managerial dilemma: while structural separation is often suggested to be crucial for fostering a new business model, the interdependence between two business models and resource constraints mandate close structural integration. Highlighting the importance of experimental learning in the business model renewal process, we develop a framework in which a firm's ability to survive business model disruption is influenced by recursive alterations between structural separation and integration which are aimed at gradual learning and development of new capabilities without damaging ongoing businesses of the organization. Our in-depth case study on Ericsson's transition to Cloud-based business model illustrates the nature and enablers of structural responses to business model disruption.

# In a Mature Industry Can Expert SMEs Succeed with a Non-Technological Outlier B2B Big Bang Innovative Strategy?

Marie-José Avenier, *University of Grenoble* Gianluca Colombo, *University of Lugano* 

SMEs play a crucial role in the overall European economy and they constitute the primary source of new job creation. Certain technological startups with innovative business models have succeeded in shaking mature industries. However, can expert SMEs that are not technological startups succeed in the contemporary B2B context with a radically innovative strategy and business model? This paper presents findings from an exploratory longitudinal case study carried out in an SME that is expert in the high reliability international road freight transportation industry in Western Europe. This study casts doubt on the possibility of expert SMEs that are not technological startups to succeed in a mature industry with an innovative business model, and provides some further insights on the circumstances under which business model innovation is bound to fail.

## International Business Model Replication: The Role of Contextuality of Inter-Firm Activities

Markus Kreutzer, *University of St. Gallen* Felix Meissner, *University of St. Gallen* 

The capability to replicate and adapt one's own business model to foreign markets represents a key driver of international growth and firm success. In this paper, we examine the role of contextuality of inter-firm activities, i.e. the extent to which a firm's activities are influenced by the activities of external partners, as well as their complementarity for international business model replication, by studying the internationalization of Klarna AB, a young Swedish venture that offers complementary payment solutions to online shops. Our preliminary findings suggest that contextuality, complementarity, and a firm's dependence on it influence the adequate replication approach, the required extent of local adaption, the ability of the replicator to appropriate a share of the profits, and the need for alignment of inter-firm activities.

SESSION 44

## DRIVING INNOVATION ECOSYSTEMS: RESEARCH OPPORTUNITIES AND EMPIRICAL CHALLENGES

TRACK B	Date	Thursday, Mar 21
	Time	11:45 – 13:00 h
Panel	Room	Proton

#### Session Chair

Christopher Tucci, EPFL

#### **Panelists**

Ari Ginsberg, New York University

Richard Tee, EPFL

Anu Wadhwa, Swiss Federal Institute of Technology Lausanne

SESSION 13

## WHAT PRACTICES CHARACTERIZE OUTLIER ORGANIZATIONS

TRACK C	Date	Thursday, Mar 21
	Time	11:45 – 13:00 h
Panel	Room	Globe

#### Session Chair

Saïd Yami, University of Montpellier 1

#### **Panelists**

Raghuram Garud, Penn State University Martin Ihrig, University of Pennsylvania Shantha Liyanage, University of Sydney Markus Nordberg, CERN

Philipp Tuertscher, WU Vienna

The ATLAS Collaboration is the ideal case of an outlier organization. The different organizational and strategic issues explored by the authors show clearly how stakeholders of knowledge-based organizations innovate at different levels and stages. What practices characterize an outlier organization? The panel will go beyond ATLAS' innovations in High Energy Physics and put them into a wider perspective. Through a selection of topics, from coordination, collective strategy, learning and innovation in procurement and leadership to e-science and the future of high-Energy Physics, the panelists will talk about the innovative management practices they found in the ATLAS context and explore how these practices can be applied in non-research outlier organizations or in other profit or not-for-profit knowledge-based organizations.

# CHINA'S CAPACITY FOR INNOVATION AND THE EMERGING COMPETITIVENESS OF CHINESE COMPANIES

TRACK B	Date	Thursday, Mar 21
	Time	14:00 – 15:15 h
Panel	Room	Globe

#### **Session Chair**

R. Bruce McKern, China Europe International Business School Panelists

Xiangli Chen, GE China Technology Centre

Thijs Jurgens, Shell

Steven Veldhoen, Booz & Company

China has recently embarked on a shift from investment to consumption and from exports to foreign direct investment. Achieving this re-direction of the economy will require an even greater emphasis on productivity and innovation than in the past. Success in this transformation will depend on China's capacity for innovation and the capabilities of Chinese firms to innovate. The panel discussion will bring together the findings of two recent surveys and the views of leaders of MNCs active in China. It will address the implications of these shifts for the innovative capacities of Chinese companies and foreign multinationals. It will also address the growing innovation dilemma for multinationals in the China market and emerging Chinese MNCs and whether there are unexplored models of R&D development which could lead to mutually advantageous innovation outcomes.

#### SESSION 9

#### INNOVATION

TRACK C		Date Time	Thursday, Mar 21 14:00 – 15:15 h
Paper		Room	LHC
Session Chair	Anu Wadhwa, Swis Lausanne	ss Federal i	Institute of Technology

# Creating Transformative Innovations: A Case Study of a Private Initiative for Radical Sustainability Innovation

Jukka Heinonen, *Aalto University* Lauri Pulkka, *Aalto University* Seppo Junnila, *Aalto University* 

A systemic transformation is needed to reduce the anthropogenic greenhouse gas emissions to a level sustainable for the global ecosystems. In this paper we analyze a private initiative for such a transformation within the field of biofuel production, the Energy Biosciences Institute. It seems an example of a private initiative for a sustainability oriented large scale system innovation, the fostering of which has predominantly been seen as a responsibility of the public sector. The study is conducted through semi-structured interviews with the institute's personnel. The results indicate that this type of long-term funding and relatively high degree of academic freedom could create a potential platform for radical innovation that benefits both the private party and the society as a whole.

## **Emerging Country Innovation Outliers: Lessons for Managers**

Ram Baliga, Wake Forest University Timo Santalainen, Aalto University

Gaining and sustaining competitive advantage in an ever-changing, everchallenging world is the bane of senior managers every-where. Gaining and sustaining competitive advantage has become even more challenging for managers of firms in the developed world following the liberalization of major economies such as India and China with newer, aggressive competitors nipping at their heels (Cuervo-Cazurra, 2012). Managers of firms in the developed world saw their salvation in innovation; unfortunately for them innovators from the emerging markets are not only transforming relative competitive positions in many industries they are fundamentally transforming them (Govidarajan & Ramamurti, 2011). Many such disruptions have been caused by firms that started out as innovation outliers in their home countries. In this paper we examine the underlying mechanisms adopted by these outliers in disruption and offer lessons for managers both in terms of becoming disruptors and responding to disruptions.

## Innovation in Fields in Crisis and Formation: An Exploratory Study of Search as Productive Inquiry

Inês Peixoto, Aalto University

The oil refining industry is going through a major transformation due to environmental regulations on renewable fuels for transport, which is bringing about business opportunities from technology innovations. In this paper, I provide an empirical inquiry into how innovation-related search takes place in contexts of field crisis and formation and large-scale transformative change. I suggest that search, typically defined as problem-solving, may take the form of productive inquiry (Cook and Brown, 1999) that supports organizations in generating useful knowledge to take action within an unsettled field. Thus, I use a case study research strategy to examine innovation in the production of transport fuels with organic raw materials. Main findings are practices of search as productive inquiry and the construction of a emerging strategic action field.

## Timing and the Heterogeneity of R&D Collaboration Outcomes

Jingshu Du, Vlerick Business School Bart Leten, University of Leuven Wim Vanhaverbeke, Hasselt University

Nowadays, increasingly more firms reach out of their organizational boundary and actively collaborate with external partners in their R&D activities. Despite the potential benefits, substantial heterogeneity exists in firms' R&D collaboration outcomes. As most R&D collaboration activities essentially take place in R&D projects, the heterogeneity of firms' R&D collaboration outcomes may be better explained by using project-level observations. In this paper we focus on the timing of organizing R&D collaboration activities at the level of R&D projects, and we explore four dimensions of the timing of R&D collaborations: collaboration duration, collaboration continuity, collaboration simultaneity, and collaboration pattern, with respect to different types of partners that are involved in the collaboration process. We find the timing of R&D collaboration is an overlooked, yet critical element in explaining the heterogeneity of R&D collaboration performance across different organizations.



## INSTITUTIONAL PERSPECTIVES ON MANAGEMENT INNOVATION

TRACK D	Date	Thursday, Mar 21
	Time	14:00 – 15:15 h
Paper	Room	Proton
Session Chair	Marja Turunen, Helsinki University of Technology	

#### Collective Intelligence Narrations as Source for Big Leaps

Marja Turunen, Helsinki University of Technology

This paper draws on collective intelligence as a resource for making big leaps in management. The paper explores the qualitative dimensions of the collective yet distributed cognition (Hutchins, 1995; Knorr Cetina, 1999; Sawyer, 2007) paying attention to narratives of an empirical case of changing management of academic work. The paper explores three different narratives of learning in the area of collective intelligence and the qualitative inclusion and exclusion tendencies of the diverse resources. The paper describes the narratives which tend to omit or rely on certain blind spots, which might have relevance in a wider scope in understanding alternative perspectives for leadership and management changes.

#### Legitimizing New Technology Concepts: Figures of Speech in the Rhetoric of Translation

Kathrin Sele, *University Toulouse 1 Capitole* Claus Jacobs, *University of St. Gallen* 

Whenever innovators form accounts that legitimize a novel technology concept, they engage in processes of translation. From a rhetorical perspective, each step in the process of translation plays a specific role. At the linguistic level, the specific persuasive function of each step is manifest in corresponding figures of speech and, more in particular, in the underlying alteration mechanism. We suggest that processes of translation most fundamentally rely on rhetorical practices. This requires us to integrate two so far unrelated theoretical domains, namely sociology of translation and rhetoric. In this proposal we sketch out a model, which specifies how the alteration mechanisms inherent to figures of speech are mobilized in order to legitimize new technology concepts.

### Structure and Agency: A Multi-Level View on the Process of Practice Implementation

Miriam Heyn, *University of Erlangen-Nuremberg* Harald Hungenberg, *University of Erlangen-Nuremberg* 

The implementation of new management practices is one of the central research areas in management and organization science. Organizations do not only adopt new management practices to gain a competitive advantage, but because institutional processes drive them to adopt certain practices. In institutional theory, the role of macro social forces versus agency on implementation of new practices is still unresolved. We claim that institutionalization results from the interaction of multilevel factors and that distinguishing their impact on formal policy versus actual practice implementation brings light into the "structure versus agency" discussion. We find that structure is sufficient to result in formal implementation of new management practices, but organizational-level factors and agency determine extent of actual change in practice. We develop our propositions by means of qualitative research.

## Transformative Organizations, Organizational Usability, and Dynamic Capabilities

Monique Goepel, Berlin Technical University

Organizational usability is defined as the degree an organization is responsive to its stakeholders' ad hoc needs and to transform it into mutual economic benefit through leveraging mutual interactions. Following Giddens' structuration theory, we propose that the more an organization develops a usability capability, the more stakeholders will engage in shaping the organization in such way as to fully unfold their potential, resulting in a mutually transformational process. The model is illustrated using a single case study of a large US retailing company that has pioneered in leveraging organizational level concepts to fully exploit their stakeholders' collaboration and co-creation potential and that has grown into a large-scale, billion-dollar company within less than a decade, changing the structure of the retail industry in its field.

#### **PLENARY TRACK**

 TRACK P
 Date
 Thursday, Mar 21

 Time
 15:45 – 17:00 h

 Presentation
 Room
 Globe

#### Can Research Save Us?

**Session Chair** 

Markus Nordberg, CERN

Speaker

Sidney Winter, University of Pennsylvania

Looking at the amazing achievements made in collective scientific and technological undertakings, I ask myself, "How does it happen that we can explore the Solar System, but we still can't feed Earth's population? How come we can break the atom but still have not addressed climate change effectively or cracked the global energy problem? Is it the way the scientists choose their problems and manage themselves? Or it the way they think? Or the influence of governments and politics? My talk explores the how the path of innovative achievement is shaped by the ecosystem where the related actors operate.



Markus Nordberg has a degree both in Physics and in Business Administration and is the Resources Coordinator of the ATLAS project at CERN, Switzerland, where his responsibilities include budget planning, reporting and resources allocation for the ATLAS project. He has a background in project management, technology transfer and corporate strategy.

He has published articles and books in the domains of innovation, strategy and project management and technology transfer. Markus Nordberg has also served as Visiting Senior Research Fellow at the Centrum voor Bedrijfseconomie, Faculty ESP-Solvay Business School, University of Brussels, and is a member of SMS, AOM and the Association of Finnish Parliament Members and Scientists, TUTKAS.



Sidney G. Winter is the Deloitte and Touche Professor of Management, Emeritus, at The Wharton School of the University of Pennsylvania. During his career he has held regular or visiting appointments at seven universities, served on the staffs of the U.S. General Accounting Office, the RAND Corporation and the U.S. Council of Economic Advisers, been a consultant for various

governmental and non-profit organizations, and appeared as an expert witness in antitrust and other litigation. With Richard Nelson, he co-authored An Evolutionary Theory of Economic Change (1982). His recent research focus has been on the study of management problems from the viewpoint of evolutionary economics. He is an elected fellow of the Econometric Society and of the American Association for the Advancement of Science. Sidney Winter is a graduate of Swarthmore College, and received his doctorate in economics from Yale University. He is also a member of the SMS Fellows.



#### **CERN LECTURETTES**

 TRACK P
 Date
 Thursday, Mar 21

 Time
 17:00 – 17:45 h

 Special Panel
 Room
 Proton

### **Medical Applications of Accelerators and Detectors**

#### **Panelists**

Manjit Dosanjh, CERN

CERN's Chief Life Scientist, Dr Manjit Dosanjh explains what is the connection between CERN's accelerators, detectors and medical applications, notably advances in cancer treatment.

#### SESSION 49

#### **CERN LECTURETTES**

TRACK P	Date	Thursday, Mar 21
	Time	17:00 – 17:45 h
Special Panel	Room	LHC

#### **Antimatter Cocktails Made at CERN**

#### **Panelists**

Rolf Landua, CERN

Dr Rolf Landua from CERN is an expert in antimatter research and acted as the scientific adviser for the blockbuster film "Angels and Demons" which was also filmed at CERN, featuring Tom Hanks. Rolf will explain some of the extraordinary facets of antimatter and why it matters, in particular as cocktails are being served.

#### SESSION 50

#### **CERN LECTURETTES**

TRACK P	Date	Thursday, Mar 21
	Time	17:00 – 17:45 h
Special Panel	Room	Globe

#### Discovering the Higgs and Anticipating Nature's Hand Panelists

Sergio Bertolucci, CERN

The CERN Director for Research and Scientific Computing, Dr Sergio Bertolucci will share with us the recent, exciting discovery of the Higgs (like) particle and explain why its discovery is significant. He will put this into cosmic perspective and make some educated guesses what this will imply for the future.

## BUSINESS MODELS AS SYSTEMS OF ACTIVITIES AND CHOICES

Soccion Chair	Joan E Ricart JESE Rusiness School	
Paper	Room	Cassani
	Time	08:15 – 09:30 h
TRACK A	Date	Friday, Mar 22

### Business Models and the Electric Car: The Trouble with 'Better Place'

F. Xavier Olleros, University of Quebec-Montreal

This paper presents an analysis of an unconventional actor in the emerging electric car industry: Better Place, a VC-funded 'mobility operator' whose service infrastructure marries the deployment of electric battery chargers with that of easily swappable rented batteries. This analysis offers a window on the strategic interactions between technological and business model choices. As I will try to show, while Better Place's technological choices are in little danger of becoming rapidly obsolete, the business model that sustains such choices is under a quadruple threat of rapid obsolescence.

#### Taking Turns Wearing the Innovator's Hat: Deconstructing the Levels of Firm's Artistic and Managerial Ambidexterity

Daniella Laureiro-Martínez, Swiss Federal Institute of Technology Zurich

Allya Koesoema, University of New South Wales

We perform an inductive, longitudinal case study of Image Comics, an interesting case to observe the aggregation of activities at the individual and the organizational levels of analysis. We rely on rich secondary information to classify the different activities the company and its six founding members have undertaking since the foundation until present. We have three preliminary findings: First, across different and loosely coupled domains exploration and exploitation are orthogonal. Second, at higher levels of analysis one observes more often that exploration and exploitation coexist. Third, at the individual level of analysis those who consistently engage in different activities and play different roles over time achieve a higher productivity in terms of variety and total number of outcomes.

#### The Co-Evolution of Business Models and the Web

Louis Rinfret, *University of Quebec-Three Rivers* Scheherazade Assefsaf, *University of Quebec-Three Rivers* 

The World Wide Web is arguably amongst the most important changes that have occurred since the 1990s in the business landscape. It has fueled the rise of new industries, supported the convergence and reshaping of existing ones and enabled the development of new business models. During this time the web has evolved tremendously from a relatively static page-display tool to a massive network of user-generated content, collective intelligence, applications and hypermedia. As technical standards continue to evolve and rollout, business models catch-up to the new capabilities. New ways of creating value, distributing it and profiting from it emerge more rapidly than ever. In this paper we review the literature on the web and its influence on business models and we identify avenues for future research in light of the web's ever-evolving nature.

#### The Corporate View of Business Model Innovation

Ramon Casadesus-Masanell, Harvard University
Jorge Tarzijan, Catholic University of Chile
Joan E Ricart. IESE Business School

A fundamental corporate task is operating businesses in which the corporation can add value. By choosing original internally consistent configurations of policies, assets, and governance structures, innovative business models integrate business units in ways that create compelling new value propositions able to fill important spaces in already crowded environments and to capture value. This chapter analyzes the fundamental economics underlying such corporate model innovations and highlights their organizational implications. The analysis reveals that TCE's recommendations as to which transactions to conduct inside the firm through authority and which ones to outsource through contracts are qualified when a business model lens is applied to corporate level choices.

SESSION 42

#### **NETWORK DYNAMICS**

TRACK B	Date Time	Friday, Mar 22 08:15 – 09:30 h
Paper	Room	M01
Session Chair	Yi-Ju Lo, <i>Yuan Ze University</i>	

### **Ambidexterity in Open and Closed Networks**

Alex Makarevich, Ramon Llull University

This paper analyzes how the size of firms' knowledge base (KB) and the properties of networks in which they are embedded affect their exploration activity. We argue that two processes guide firms' exploration: the need to increase their knowledge base and the need to derive returns from exiting knowledge. Based on this insight we propose that there is a U-shaped relationship between the size of a firm's KB and the intensity of its exploration activity. We further hypothesize that firms with small KBs will engage in exploration more when embedded in closed networks, while firms with large KBs – when embedded in open networks. We find support for out hypotheses in the data on exploration activities of the U.S. venture capital firms.

## Audiences, Firms, and Networks: A Simulation Study of the Emergence of New Industries

Stephen Mezias, INSEAD Florian Schloderer, INSEAD

During industry emergence, finding adequate resources for firm survival and the growth of the new sector can be challenging. According to the ecology of identity, this problem is exacerbated in the absence of collective actors, such as industry associations, to coordinate the expectations of audience members and the characteristics of firms. Using simulation methodology, we explore whether informal network ties might fill this void with the following results: First, network ties increase the number of surviving firms and total industry resources. Second, the effects of network ties are of similar magnitude to those of legitimacy and resources. Third, we discover the paradox of big bets, suggesting that policy makers and investors need to choose between investing more heavily in individual firms and growing the industry.

## Managerial Challenges to Improve Resource Productivity in Industrial Ecosystems

Rick M.A. Hollen, Erasmus University-Rotterdam

Triggered by environmental regulations and competitive pressures, firms in chemical and other process industries increasingly transfer by-products and waste to each other through physical pipeline connections in industrial ecosystems in order to improve their resource productivity. The increasing interorganizational process integration and associated reciprocal interdependence over time, however, require new managerial challenges that remain largely unexplored in the literature. To address this gap, we develop propositions on how new formal and informal managerial coordination practices enable further resource productivity improvements. We empirically investigate these propositions in a case study of an industrial ecosystem consisting of three interconnected leading chemical firms in one of the world's largest industrial complexes. The findings provide important implications for managing innovation in industrial ecosystems.

### **Network Dynamics and Innovation**

Yi-Ju Lo, *Yuan Ze University* Tungmin Hung, *San Francisco State University* 

This paper aims to provide an integrative framework to explore the network dynamics with considering the tension between firms' collaboration and competition. Exploring the change of inter-firm relationships between firms, this paper reveals the antecedents of network dynamics and the impact of network dynamics on a firm's innovation performance. In addition, this paper identifies the importance of complementary partnerships on the inter-firm collaborations, and underscores the effects of rivalry that may influence a firm's partner selection and innovation performance. Furthermore, this paper advances the theoretical understanding of the interplay between network dynamics and different layers of context. Ultimately, this paper may provide a valuable lesson for the academy as well as for corporate managers.



#### DYNAMIC CAPABILITIES AND DECISION MAKING

Session Chair	Véronique Ambrosini, Monash University	
Paper	Room	M200
	Time	08:15 – 09:30 h
TRACK C	Date	Friday, Mar 22

#### Creating a Coopetitive Context for Knowledge Sharing by an Outlier Organization: The Case of **ATLab at Cern**

Saïd Yami, University of Montpellier 1 Martin Ihriq, University of Pennsylvania Agusti Canals, Open University of Catalonia Markus Nordberg, CERN Marzio Nessi, CERN

The concept of coopetition is used in the literature to characterize firms' strategies in industrial and trade contexts. Little research is dedicated to the study of coopetition in scientific contexts. The contribution of this paper explores the following question: How can a scientific organization implement a coopetitive environment as a proactive strategy to create innovation? The ATLab case study explores an innovative initiative which aims to generate new technologies and ideas by creating a coopetitive environment for knowledge sharing. The implementation of such an innovative practice is based on a number of determinants, among them: a clear ambition, scientific and technical capabilities, and an open way in organizing the coopetitive context.

#### **Information Power and Strategy-as-Practice:** Integrating Personal Gains as Hidden Agency Costs in the Innovation Process

Jonathan Raelin, University of Bath Christina Cataldo, George Washington University Véronique Ambrosini, Monash University

Large scale organizational innovation has been established as resting on a foundation of micro-level information transfer processes. Yet, the traditional argument underlying information transfer, employees' best interests are served by maximizing firm value, is under scrutiny given recent actions where firms exploited employees to bolster profits for an exclusive few (i.e. Enron). Accordingly, employees are now more willing to put their interests over those of the firm. To achieve this, micro-information previously surrendered becomes contested during innovation processes. We argue that employees likely trade information rather than surrender it, undermining the innovation process in large firms. Our purpose is to integrate information power into strategy-aspractice, uncovering innovation's hidden agency costs. Specifically, microtensions arise in organizations that, when left unexplored, can undercut the organization's innovative capability.

### Template Creating as Capability Building in Process-Oriented Settings: The Case of PetroChina

Yi Wang, Tsinghua University

This paper focuses on template creating, which is relevant in natural gas exploration and exploitation as large scale practice implementation. Following the typical inductive research tradition, We took the Sulige Gas Field project of PetroChina as our locus of inquiry. It only took five years for Sulige to amount to the annual production of more than 10 billion cubic meters of natural gas, representing one-tenth of China's total annual natural gas output. The successful achievement of Sulige Gas Field was finished by PetroChina and five direct collaborators, which evolved toward a dynamic community for large scale practice implementation. The preliminary finding of this study is that there are three stages of template creating in a process-oriented setting, which evolves toward a mature template along with knowledge integration.

SESSION 47

#### **DISRUPTIVE CHANGE AND STRATEGIC** INNOVATION

TRACK D	Date Time	, , ,
Common Ground	Rooi	m M121
Facilitator	Marc Gruber, Swiss Federal Institute of Technology Lausanne	

### Epochal Innovation and Stock Market Bubbles

Alina Sorescu, Texas A&M University Sorin Sorescu, Texas A&M University Will Armstrong, Texas Tech University Bart Devoldere, Vlerick Business School

Nobel prize winner Simon Kuznets has defined epochal innovations as "major breakthroughs in the advance of human knowledge, and dominant sources of sustained growth " (Kuznets 1971). We conceptualize epochal innovation and propose four defining characteristics for their ex-ante identification. We also examine stock market reactions to the emergence and commercialization of epochal innovations. For a census of epochal innovations we find that firms involved in their commercialization experience a stock market bubble. We document each bubble's timing and size, and show that on average these innovations add value even after the bubble bursts. Our results imply that stock market bubbles associated with epochal innovations allow firms to raise inexpensive capital used to commercialize these innovations.

#### Extreme Success and Failure in Pharmaceutical R&D: Evidence based on the Bayh-Dole and Hatch-Waxman Acts

Atul Nerkar, University of North Carolina-Chapel Hill Kevin Miceli, University of North Carolina-Chapel Hill

Most successful pharmaceutical firms typically have FDA approved drugs that are protected by patents. We combine two separate changes in the patent law from the 1980s to explore extreme events or outliers in the patent population. Specifically, even though large number of pharmaceutical patents are granted there is a extremely small proportion of these patents that are renewed beyond the 20 years. Similarly a relatively small number of patents are not renewed past the 4th year. We demonstrate the R&D processes underlying the super-extended patents are driven by increased boundary-spanning efforts as compared to nonrenewed patents but the relationship is mitigated by excessive search.

#### Firms, Alliances and System Integration: A Perspective Based on Knowledge Articulation

David W Versailles, Pantheon-Sorbonne University Valerie Merindol, ESG Management School

The conception of complex products requires the support of stable networks of contributors and supposes sharing knowledge between contributing firms, under the leadership of a system integrator. We investigate knowledge articulation in integration networks and alliances in reference to Boisot's strategic management of knowledge. We conclude that tightly-coupled interactions build up a stable alliance installed in the long-run, where 'boundary objects' play a pivotal role in knowledge articulation. The system integrator's influence relates to knowledge articulation. Strategic knowledge assets have to be run with respect to knowledge diffusion in the alliance and in the extended network. We elaborate on a case study investigating Dassault's integration network for the French combat aircraft Rafale.

## Path Dependency, Recombinant Exploration and the Discovery of Technological Breakthroughs

Sam Arts, University of Leuven

How can established companies increase their chances at inventing technological breakthroughs? Prior R&D might lead to path dependency and competency traps causing a company to be locked out in case the technology frontier shifts to a new area. Prior literature has advised companies to move beyond areas of established competence by investing R&D in or externally sourcing prior art from unfamiliar and emerging technology fields. In this paper, we take a complementary perspective and study if and how continuity with established technological capabilities can facilitate companies to invent technological breakthroughs in the future. We study how brokering disconnected but very familiar technological components or subfields provides established companies the opportunity to develop technological breakthroughs while redeploying knowledge and capabilities accumulated from prior R&D.

#### **Strategizing Practices for Service Innovation**

Katja Maria Hydle, *BI Norwegian Business School* Tor Helge Aas, *Norwegian School of Economics* Karl Joachim Breunig, *BI Norwegian Business School* 

The paper focuses on radical and incremental service innovations in scale-intensive service firms. The firms' strategies are related to costs, customer segments and products and service innovations are internally understood as means for obtaining the strategy. Although the service innovations do not constitute the firms main economic drivers, they form part of the relations to customers due to public attention, media coverage and internal focus. This paper shows how service innovation practices become the de facto strategy making.

#### System Innovation: A Blueprint for Disruption

Albrecht Enders, endersgroup
Melissa Appleyard, Portland State University

This paper details how a holistic approach to innovation can set new industry standards and deliver game-changing value to customers. We call the approach System Innovation, and it integrates four primary components: an internal mindset shift; outside-in visioning; system concepting; and buffering by pivotal leaders. By committing to this process, the nuclear imaging division at Siemens was able to introduce a platform that dominated the industry for nearly two decades. Implementing this approach will lead to market disrupting outcomes and abolish incremental thinking in product development teams.

SESSION 17

## CORPORATE STRUCTURES FOR MANAGING INNOVATION

TRACK D		Date	Friday, Mar 22
		Time	08:15 – 09:30 h
Paper		Room	M110
Session Chair	Stuart Read, IMD		

#### Governance and Innovation: A Meta Analysis

Stuart Read, *IMD* Nicholas Dew, *Naval Postgraduate School* 

Philippe Margery, IMD

We integrate contemporary theoretical work on hybrid organizational forms with classic empirical work on governance and innovation to construct and test a model of organizational governance against innovation outcomes. We use a meta-analysis of 423 observations extracted from 75 empirical studies. Our results support the connections we predict between innovation and the governance levers of autonomy, rewards and ownership. We further refine our analyses by building and testing a model with organizational support for innovation as a mediator of the governance-innovation relationships. Together these results indicate that our theoretical framework adds an important insight to research on governance mechanisms and innovation that neither the organizations literature on hybrid organizations that neither the management and innovation literatures had fully identified.

## ★ Hybrid Multi-Channel Governance: How Boards Engage in Innovation

Patricia Klarner, *University of Munich* Gilbert Probst, *University of Geneva* Michael Useem, *University of Pennsylvania* 

In contrast to prior corporate governance research, which has emphasized that boards play a role in company strategy, we examine how directors engage in it. Focusing on product innovation as a major strategic challenge for companies, we conduct a multiple-case study of four publicly-traded pharmaceutical firms. Findings reveal that boards have developed a hybrid multi-channel governance structure, allowing them to simultaneously monitor and advise on innovation through full-board, sub-board, and individual-director channels. Depending on how firms combine these channels, they display distinct governance patterns. These findings have implications for understanding board behavior and, more broadly, the role of governance in facilitating innovation. We suggest a view of governance that includes multi-channel, multi-tier, multi-directional, and formal and informal dynamic exchanges that underlie board involvement in innovation.

#### Reaching for the Stars: Conditions for Successful Basic Research Collaboration between Pharmaceutical Firms and Academic Star Scientists

Stijn Kelchtermans, Hogeschool - Universsity of Brussels Rene Belderbos, University of Leuven Bart Leten, University of Leuven

This paper analyzes under which conditions joint basic research with academic 'star' scientists improves firms' technological performance. Using data on 61 of the most R&D intensive firms in the biopharmaceutical sector in 1991-2003, we find that collaboration with academic stars for basic research increases inequality in technological performance across firms, with only the upper tail of the performance distribution benefiting from such partnerships. Further, we find that joint basic research with top academic scientists is more beneficial if the firm and the star also do joint applied work. Finally, we find a dual effect of firms' exclusive access to academic stars, with a positive impact on technological performance for exclusive access to 'translational' stars versus a negative effect for exclusive access to 'ivory tower' stars.

## The Role of Knowledge-Oriented Leadership for Knowledge Management Practices and Innovation

Mario Donate-Manzanares, *University of Castilla-La Mancha* Jesus David Sanchez de Pablo, *University of Castilla-La Mancha* Fatima Guadamillas Gomez, *University of Castilla-La Mancha* 

This paper analyses the role of a knowledge-oriented leadership for the implementation of Knowledge Management initiatives in technology-intensive firms and its effect on innovation results. From the knowledge-based view of the firm seven hypotheses were established and statistically tested using the Partial Least Squares (PLS) technique in a sample of 111 Spanish companies belonging to technological industries. Survey methodology was used with the aim to gather data about knowledge management (KM) practices and organizational aspects in these firms. Overall, this paper provides empirical evidence of a moderating effect of KM practices on the relationship between a knowledge-oriented leadership and innovation outcomes. In line with previous literature we suggest that although KM practices are important on their own for innovation purposes, when leadership is properly carried out the innovation capacity of the firm will be more successfully exploited.



#### **DISCOVERY EVENT SESSION**

 TRACK IMD
 Date
 Friday, Mar 22

 Time
 08:15 – 09:30 h

 Presentation
 Room
 M100

# Do Your Genes Fit? Innovation and Corporate Culture: Why Haier can, Sony could and Samsung Can't Panelist

Bill Fischer, IMD

This is not about denim! Instead, it's about how the likelihood for innovative success can be assessed by studying the "genetic material" that gives birth to corporate cultures and their potential for innovation. Apple's got it; Pixar's got it; Toyota's got it; even Haier's got it! Sony had it, but lost it; and Samsung had the right DNA for what it was doing as an OEM supplier, but tried to move into being a fast-moving, big-branded consumer electronics company, and found that it didn't have the genes for it. What we're talking about here is how corporate culture drives innovation potential, and how corporate culture is, in fact, determined by the granular, detailed choices that managers make throughout an organization. We'll look at how to develop an analytical approach to "decoding" organizational DNA for innovation.



Bill Fischer is Professor of Innovation Management at IMD. He has been actively involved in technology-related activities his entire professional career. He was a development engineer in the American steel industry; an officer in the US Army Corps of Engineers; and has also consulted on R&D and technology issues in industries such as:

pharmaceuticals, telecommunications, textiles and apparel, and packaging. Bill Fischer was the Executive President and Dean of China Europe International Business School (CEIBS), in Shanghai, and was on the faculty at the University of North Carolina-Chapel Hill. He has served as a consultant to a number of government and international-aid agencies on issues relating to the management of science and technology. His areas of special interest include: technology of transfer, management of technology, including management of the creative processes within R&D, and the creation and coordination of an international technology presence.

### **PLENARY TRACK**

 TRACK P
 Date
 Friday, Mar 22

 Time
 10:00 – 11:15 h

 Presentation
 Room
 M100

### Key Drivers Behind "Big Bang" Science and Open Innovation

**Session Chair** 

Bala Chakravarthy, IMD

Speaker

Henry Chesbrough, University of California-Berkeley

"Big Bang" Innovations are, by definition, paradigm shifters and discontinuous by nature. Such jumps are typical in the domain of leading scientific undertakings, such as in cracking the human genome, hunting for the Higgs in particle physics or attempting to solve the energy problem by fusion research. Open science supports open innovation. But these "quantum leaps" are not only the privilege of frontier science. Industry has also grasped the fact that not all best ideas originate from their own research labs which can be successfully marketed internally. My talk will look at the key drivers behind the open innovation process and explain how early adopters can make best use of it. I'll give some examples, also in industries outside 'high technology' domain.



Bala Chakravarthy is Professor of Strategy and International Management and holds the Shell Chair in Sustainable Business Growth at IMD, Switzerland. Bala Chakravarthy's research and teaching interests cover three related areas: strategy processes for sustainable business growth, corporate renewal, and leadership dilemmas. He has published four books,

several case studies and numerous articles on these topics in top journals. He was a member of the Board of Directors of the Strategic Management Society (SMS) from 1999-2004. He is also an inaugural

Fellow of the SMS.



Henry Chesbrough is best known for his theories of modern business – open innovation. He is the author of several award winning books and was named to the Thinkers50 list in 2011. He serves as Executive Director, Garwood Center for Corporate Innovation at the University of California, Berkeley, Haas School of Business, which focuses on conducting

research, publishing articles and developing teaching materials around open innovation. Henry Chesbrough is also a tenured Full Professor at ESADE Business School in Barcelona, Spain. He is the author of more than 20 case studies on companies in the IT and life sciences sectors, available through Harvard Business School Publishing. Prior to his academic career, Henry Chesbrough spent 10 years in various product planning and strategic marketing positions in Silicon Valley companies.



#### **BUSINESS MODEL INNOVATION**

TRACK A Friday, Mar 22 11:30 - 12:45 h Time **Paper** Room Ivanka Visnjic, Ramon Llull University **Session Chair** 

★ How to Survive When Launching a Business

Model Innovation?

Bart Devoldere, Vlerick Business School Marion Debruyne, Vlerick Business School Ruud Frambach, VU University Amsterdam

Business model innovation is lauded in business and academia. However, insights on how to succeed when launching a new business model are missing. We study how new entrants and incumbents can successfully enter a new market niche created by business model innovation. We identify strategic decisions such as adherence to the innovator's business model, and a firm's timing, scale and mode of entry. We find that adhering to the innovator's business model and being a first-mover increase survival chances. Entry scale and mode have no survival effects. The context is the free daily newspaper business model introduced by Metro International early 1995, which disrupted the newspaper industry worldwide. We collect and analyse data on 134 free daily newspapers across 29 countries in the period 1995-2010.

#### Innovating Backwards: The Process of Innovation in **Relational Services**

Ivanka Visnjic, Ramon Llull University Taija Turunen, Aalto University Andy Neely, University of Cambridge

The aim of this paper is to elucidate scarcely understood process of innovation in the context of relational services, such as long-term service contracts in transportation, utility and ICT. We find that the role that the customer plays in the innovation process exceeds the advisory role in the process of exploration; indeed customer has an advisory role in the design of the service contract, but throughout the delivery of the service over the lifetime of the contract he represents the core part of the locus of exploration as well as exploitation. Due to customer's involvement, the exploration and exploitation occur in parallel instead sequentially. Parallel nature of exploitation and exploration emphasizes the importance of the platform-view of innovations, as subsequent service business developments and follow on innovation projects represent additional exploitation opportunities. Finally, business model innovation is very important precursor rather than the follower of the service innovation.

#### Platform-Driven Business Model Innovation

Tim Coltman, University of Wollongong Magno Queiroz, University of Wollongong Peter Reynolds, MIT Paul Tallon, Loyola University

Companies are increasingly looking to new business models based on digital platforms to create an interoperable environment or ecosystem for their customers. However, little has been written about the development and evolution of the complementary digital platform capabilities required to weave processes and data together so that they can interoperate. A critical requirement for management is to define the level of standardization and integration of processes and data across the ecosystem to deliver a stable digitized platform. Business models can then seek to create customer value by bundling co-specialized assets to generate complementarities. These principles apply to digital companies born of the web and more traditional companies looking to innovate their business models. Two such expert organizations are examined in this study (DHL and AGL).

#### **Value Innovation: How Different Orientations affect** its Success and Sustainability

Urs Daellenbach, Victoria University of Wellington Sally Davenport, Victoria University of Wellington Michelle Renton, Victoria University of Wellington

Value innovation is argued to be the cornerstone for creating 'blue oceans', where firms make competitors irrelevant by opening up new and uncontested market space (Kim & Mauborgne, 2005). This approach highlights that competing differently with a novel business model is the

desirable end goal but notes that successful "creators of blue oceans, surprisingly, didn't use the competition as their benchmark" (p.12). However, if competitors' actions do not provide the major impetus, what orientations then are drawn on to drive efforts for competing differently? Based on in-depth case studies on the extent and sources of competitive advantage, our findings suggest that when firms both combine and balance orientations across time, this enabled them to achieve and sustain greater value creation and capture.

SESSION 45

#### RETAINING THE ENTREPRENEURIAL SPIRIT

TRACK B Date Friday, Mar 22 Time 11:30 - 12:45 h Common Ground Room M121 **Facilitator** Raghuram Garud, Penn State University

#### **Behavioral Antecedents of Entrepreneurial** Orientation in Owner-Centric Firms

Peter Hürzeler, University of St. Gallen Marcus Matthias Keupp, University of St. Gallen Maximilian Palmié, University of St. Gallen Dietmar Grichnik, University of St. Gallen Oliver Gassmann, University of St. Gallen

In a pioneering approach, our paper discusses behavioral antecedents of entrepreneurial orientation (EO) in owner-centric firms. Based on a theoretical framework that links the three salient behavioral antecedents affordable loss, precommitments, and causation to the EO dimensions risk taking and proactiveness, we elaborate hypotheses and test these with a unique sample of 148 firms operating in the highly dynamic renewable energy and energy efficiency industries. Our results suggest that affordable loss behavior is negatively associated with risk taking, whereas precommitments behavior is negatively and causation behavior positively related with both risk taking and proactiveness. The contributions of these findings to entrepreneurship research and management practice are discussed.

#### **Exploration and Exploitation in Chinese New** Ventures: The Role of Social Networks of **Entrepreneurial Teams**

Xiaobai Ma, Peking University

This paper develops a model of exploration and exploitation, extending our understanding of the relationship between entrepreneurial teams' social networks and firm behaviors. Using a sample of 132 Chinese new ventures, I look at the impact of early top management team (TMT) composition and the relationships between team members on firm's exploitative and explorative behavior. Results show that entrepreneurial teams whose members have more strong ties pursue exploitation strategies. Conversely, entrepreneurial teams whose members have more weak ties pursue exploration strategies. I also argue that early top management team heterogeneity moderates the impact of network ties on firm behavior. Findings indicated that early top management team heterogeneity facilitates firm to pursue exploratory strategies but less effective to leverage exploitative strategies.

#### How Court Jester Attributes in the Knowledge Worker Collective Facilitate Effective Shared Leadership and Truly Dynamic Capabilities in Outlier Organizations

Ingo Bildstein, University of Liechtenstein Stefan Gueldenberg, University of Liechtenstein

Capabilities can become maladaptive, when organizational action off the beaten track is needed. They then morph into rigidities, which reliably replicate anachronisms. We propose in our conceptual contribution how court-jester-like virtues in the knowledge worker collective introduce dynamic renewal into per se static organizational capabilities. Separating practicing a routine from reflecting on it is the first side of the jester coin, because the resulting perpetual self-reflection resolves the capability-rigidity-paradox on the micro-level. The other side of this jester coin is about keeping key values of the founders alive to retain the entrepreneurial spirit. Effective shared leadership is pivotal here, which prevents knowledge-based organizations and their abilities from becoming too rigid.

## Punching Above Your Weight: Outliers, Incumbents and Amplification

Markus Paukku, Aalto University Liisa Valikangas, Aalto University

Outlier organizations, in contrast to industry incumbents, have been characterized as innovative, idea rich, disruptive and drivers of systemic transformation. However, the interaction mechanisms that some outliers leverage that enable such outsized impact are not fully understood difference in and of itself does not equal voice or influence. Drawing on our on-going empirical research in two arenas of cross-industry change we seek to develop how outliers both challenge and build on existing innovations and are able to amplify their ideas in order to drive change. We identify five such amplification strategies by that not only enable the creation of different knowledge but also enable the transfer to, and impact on, incumbents.

## Scaling Up Innovation: Lessons from Collaborative Projects in the Canadian Oil Sands

Frances Bowen, Queen Mary, University of London Natalie Slawinski, Memorial University Tima Bansal, University of Western Ontario

"Scaling up" is usually portrayed as positive goal of business ecosystems. By expanding activities over a wider domain, organizations aim to increase profitability, impact and, ultimately, grow. But are there limits to scalability? In this paper, we suggest that there are natural limits to scalability, and exceeding those limits could compromise the success of innovative projects. Through comparing five collaborative innovation projects within the Canadian Oil Sands ecosystem, our paper shows the consequences of fit between the scales of innovation challenges and the scales of projects designed to tackle them. By mapping the scales of innovation challenges, projects and solutions, we will explore whether there are natural limits to scalability and possible ways to overcome them.

## Why and How to Implement Democratic Leadership? The Way to Enforce Innovation

Zoltán Bakonyi, Corvinus University of Budapest

Democratic leadership supports the innovation process of the company because employees become more committed to strategy making and implementation. To handle its downsides – such as its time-consuming nature and information asymmetry problem – a limited concept of organizational democracy is defined. This paper describes the three main factors which should be handled during the implementation of limited organizational democracy, as follows: 1. contextual factors (environmental need for innovation or operational responsiveness); 2. stakeholder factors (the needs and skills of management and employees); and, 3. limitation factors (strategy making periods, the portfolio of resources and activities). Implementation of democratic leadership is presented by Central European company cases.

SESSION 39

## INNOVATION ECOSYSTEMS AND THE PUBLIC SECTOR

TRACK B	Date Time	Friday, Mar 22 11:30 – 12:45 h
Paper	Room	M01
Session Chair	Johan Wallin, Synocus Group	

### 'High Energy' Collisions and Sustainable Collaborations in Outlier Organisations: The Cases of ATLAS Experiment and KIC InnoEnergy

Sabrina Ottani, ESADE Business School Elena Bou, ESADE Business School Agusti Canals, Open University of Catalonia

Overcoming 'high energy' collisions and promoting sustainable collaborations between partners in some outlier organisations is of central importance for their continuance. The intermediary function, performed by human and non-human agents, acquires an important role in these contexts by helping partners to effectively integrate knowledge that would lead into successful innovations. This study aims to investigate this function through an exploratory study of two outlier organisations: ATLAS Experiment and KIC InnoEnergy. Initial findings show that the informal emergence of the intermediary function is contingent on issues

that prevent collaborative activities to be developed and that, in the case of human agents, intermediaries need to be internally legitimised so they can influence the development of practice.

### **Innovation Ecosystems in the Public Sector**

Melissa Lee, ESADE Business School Esteve Almirall, ESADE Business School

Faced with a new financial landscape and an increasingly global society, cities are looking for new ways to effectively provide for their citizens. They are following the lead of private business in exploring outside the traditional boundaries of the organization to realize the potential of collaborative development. We investigate how the public sector, and specifically city halls, are developing these innovation ecosystems. We identify three public innovation ecosystem models and investigate how their structure and governance influence successful outcomes.

#### **Mobilizing Resources for Collaborative Innovation**

Renee Rottner, New York University

By applying a social movement perspective to collaborative innovation, I examine how a project team mobilizes resources from diverse stakeholders. Analysis of an innovation project at NASA offers insights into how a project team influences stakeholders in the face of divergent and shifting criteria. I find that the project team mobilized stakeholders' resources, such as Congressional funding and academic endorsement, after developing three mechanisms for collective action: constructing a clear project identity, adopting flexible roles, and performing institutional groundwork that changed the arrangements through which resources were distributed.

### Public-Private Collaboration to Foster Innovation in Networks

Johan Wallin, Synocus Group Timo Vuori, Hanken School of Economics Patrik Laxell, Synocus Group Pekka Pesonen, Finnish Funding Agency for Technology and Innovation

Innovations increasingly emerge in networks. A national innovation agency can affect the undertaking of innovation activities by funding research of individual companies, establishing new networks for innovation activities, and by contributing to the general contextual factors supporting innovative behavior. This paper develops a framework to identify alternative possibilities for public-private innovation collaboration. The framework is applied to analyze the Finnish national innovation agency Tekes's support of the emergence of innovation ecosystems in Finland in two particular fields: structural steel and biotechnology.



### **ORGANIZATIONAL CHANGE**

TRACK C Friday, Mar 22 Date Time 11:30 - 12:45 h **Paper** Room M200 **Session Chair** Martin Friesl, Lancaster University

#### Absorptive Capacity in Practice: The Case of **Biopharmaceutical Firms**

William Patterson, Avison Consulting Limited Véronique Ambrosini, Monash University

Absorptive capacity is a well- documented construct in the management literature, however there is a lack of knowledge regarding to how the process occurs in practice in organizations. Our paper addresses this lack of evidence by presenting a qualitative process study conducted in the European biopharmaceutical industry using the Zahra and George's (2002) construct as a point of departure. We found that the absorptive capacity process was present in all our cases but that in practice the process was configured differently to that of Zahra and George's (2002) theoretical model.

#### ★ I Love You but I Want to Change You

Xavier Castaner, University of Lausanne Güldem Karamustafa, HEC- University of Geneva Jeff Davis, Orabrush Inc.

Most acquirers struggle to effectively learn from dissimilar targets and leverage their desired differences through the implementation process. Both academic and practitioner understanding is limited as to why. This paper explores this question, i.e. why are acquirers unable to learn from and leverage the target knowledge when it is acquired precisely for its different capabilities? After briefly reviewing the extant literature on acquisition implementation, we present the case study, the acquisition case of Wella by P&G, which offers several insights.

#### **Technological Resources Reconfiguration and Organizational Scope: A Longitudinal Analysis**

Jean-Philippe Timsit, ESC Rennes School of Business Jean-Michel Viola, ESC Rennes School of Business Desislava Yankova, Strafitech

This paper explores the evolution of the technological resource portfolio of Technicolor, formerly known as Thompson, a global leader in entertainment services and digital delivery. We investigate the effect of technological resources recombination on the scope of the firm. We analyze the firm's 9,413 patents and their 60,000 citations over a thirtyone years period from 1980 to 2010. We apply co-citation analysis to track technological roots over time. We show that (1) the evolution of the technological portfolio is not additive or hierarchical, but combinatorial through the implementation of technological resources; (2) the firms evolves its technological resources profile according to its technological strategy following three phases: emergence-disseminationreconfiguration; and (3) the evolution of the technological portfolio is founded on specific technological resources which are the pivots of the evolution of the firm.

SESSION 14

#### MANAGEMENT INNOVATION

TRACK D Date Friday, Mar 22 11:30 - 12:45 h Time M110 **Paper** Room Michael Mol, University of Warwick Session Chair

#### **How does Management Innovation Influence Exploitative Innovation: The Moderating Role of Organizational Size**

Cornelis Vincent Heij, Erasmus University-Rotterdam Frans A.J. Van Den Bosch, Erasmus University-Rotterdam

Although research on management innovation is flourishing, few scholars examined how new managerial practices, processes, structures and techniques influence exploitative innovation. To contribute to this research gap, we examine how management innovation influences exploitative innovation. To cope with the influence of organizational

complexity, we include organizational size in this relationship. Based on literature review we developed three hypotheses. Findings, based on a large survey, indicate that management innovation has an increasing positive relationship with exploitative innovation. However, the larger a firm, the more this relationship becomes a J-shaped relationship. These findings contribute to an increased understanding of how management innovation enables learning and recombination of existing knowledge to realize exploitative innovation and that organizational size is an important contextual variable in it.

#### How External Involvement Shapes Management Innovation: A Perspective from History

Michael Mol, University of Warwick Julian Birkinshaw, London Business School

We extend work on the role of external change agents in creating management innovations by suggesting that external input to the management innovation process can come from internal change agents, through prior external experiences or use of external knowledge sources, and illustrate this using three well-known historical innovations. We propose a typology of management innovations around the extent to which they are radically new and organizationally systemic. We explore the links between the forms of external involvement and this typology through an analysis of 23 major historical innovations. The different forms of external involvement may substitute for each other in the production of radical and systemic innovations and involvement of external change agents tends to be associated with less radical but more systemic innovations.

#### The Impact of Openness on Organizational Innovation: An Emperical Analysis of French **Manufacturing Firms**

Sandra Dubouloz, IREGE Rachel Bocquet, IREGE

Despite the fast growing literature on open innovation, little research has addressed its effect on Organizational Innovation (OI). Moreover, the literature on OI neglects the role of openness on the adoption of new organizational practices. This paper aims at bridging the two fields, filling the gap by analysing the antecedents of OI from an open innovation perspective. Using the French COI (Organizational Change and Computerization) survey for the period of 2003-2006, we find that the open innovation framework, which mainly focuses on technological innovations, is also adequate for manufacturing firms seeking to adopt OI. However, results show that openness to external knowledge sources must be coupled with absorptive internal mechanisms to foster IO adoption and intensity of adoption.

#### The Role of Management Innovation in **Enabling Technological Process Innovation: An** Interorganizational Perspective

Rick M.A. Hollen, Erasmus University-Rotterdam Frans A.J. Van Den Bosch, Erasmus University-Rotterdam

competitive advantage of established manufacturing firms, in particular in (petro)chemical and other energyintensive industries, technological process innovation to improve resource productivity and environmental performance has become of pivotal importance. These firms, however, often face intraorganizational tensions to reconcile pressures for exploration and exploitation across subsequent phases (i.e., discovery, development and deployment) of technological process innovation. This paper considers the interorganizational context of an external dedicated development facility used by firms to perform the development phase of technological process innovation to overcome these intraorganizational tensions. We argue that such an approach requires new-to-the-firm management activities, i.e. management innovation. The paper contributes to the literature on both management innovation and the relationship between management innovation and technological innovation, and thereby to important managerial insights.

#### **DISCOVERY EVENT SESSION**

 TRACK IMD
 Date
 Friday, Mar 22

 Time
 11:30 – 12:45 h

 Presentation
 Room
 M100

#### **Frugal Innovation**

#### **Panelist**

Ishtiaq Mahmood, IMD

From \$2500 cars to \$35 laptops, frugal innovations that characterize the art of improvising effective solutions using limited resources, have been the hall mark of many emerging economies. As many developed economies face economic downturn, MNCs from these economies need to look to emerging economies for ways to do more for less, while serving broader markets. In this session, we use various examples to discuss the typical challenges facing frugal innovators and learn how firms can overcome those challenges



Pasha Mahmood is currently a Professor of Strategy & Asian Business at IMD Lausanne. Prior to this, he has been an Associate Professor at the National University of Singapore, and a visiting Professor at the Hitotsubashi University, Japan. He also worked as a consultant for Levitan and Associates and The MAC Group/ Gemini Consulting. He serves as a member of

the editorial board of the Strategic Management Journal and as an Area Editor for the Journal of International Business Studies. Pasha Mahmood holds a PhD from Harvard University, and a B.A. from Oberlin College. He won the Haynes Prize from the Academy of International Business (AIB).



#### **PLENARY TRACK**

 TRACK P
 Date
 Friday, Mar 22

 Time
 13:45 – 15:00 h

 Presentation
 Room
 M100

## Across the Great Divide: the Role of Theory as a Bridge Between Academia and Practice

**Session Chair** 

Albrecht Enders, IMD

Speaker

Clayton Christensen, Harvard University

We have lost sight of a subtle but powerful fact, that data is only available about the past. We have become so fact based and data driven in our research that we can't see in the future ourselves, nor do we enable others, practitioners and society at large, to see more clearly. As a result, the world around us has grown increasingly skeptical about the value of academic research. Ultimately, however, both practitioners and we, as academics, are interested in providing better answers to very similar questions such as: "When is one approach to innovation preferable over another approach?" or "What types of innovations will appeal to certain customers and which ones will not?". Well-articulated theory provides answers, albeit preliminary ones, to these questions, as it puts forward statements about what causes what, why and under what circumstances . When put into the right language, these statements allow us to have insightful and fruitful conversations between practitioners and academics, which, in turn, allow us to test our assumptions, to identify our blind spots and to clarify our thinking.



Albrecht Enders is Professor of Strategy and Innovation at IMD. Prior to joining IMD, he worked as an Assistant Professor of Strategic Management at the University of Nuremberg in Germany and as a consultant for the Boston Consulting Group in Cologne. His major research interest is the reaction of companies to discontinuous changes in their environment.

Most recently, he and his co-authors received the 2011 Glueck Best Paper Award of the Business Policy and Strategy Division of the Academy of Management for a study that examines the influence of CEO Narcissism on the ability of their organizations to react to discontinuous changes.



Clayton Christensen is the Kim B. Clark Professor of Business Administration at the Harvard Business School. He started four successful enterprises including Innosight, a consulting firm that uses his theories of innovation to help companies create new growth businesses. Besides advising major corporate executives, Clayton Christensen is the author of nine books

and more than a hundred articles. He received his BA with honors in economics from Brigham Young University and an M.Phil. in applied econometrics from Oxford University, where he studied as a Rhodes Scholar. He received both an MBA with high distinction and a DBA from the Harvard Business School. Clayton Christensen was named a White House fellow and served as assistant to U.S. Transportation Secretaries Drew Lewis and Elizabeth Dole. He holds five honorary doctorates and an honorary chaired professorship at the Tsinghua University in Taiwan.

### **PLENARY TRACK**

 TRACK P
 Date
 Friday, Mar 22

 Time
 15:30 – 16:45 h

 Plenary Panel
 Room
 M100

#### Meet The Mavericks

#### **Panelists**

Frederic Gastaldo, Louis Dreyfus Communications/Swisscom Rachel Kentleton, EasyJet Martin Reeves, Boston Consulting Group Lonnie Smith, Intuitive Surgical George Stalk Jr, The Boston Consulting Group Simon Williams. OuantumBlack

Industries leaders are frequently toppled not by large competitors doing "more of the same", but increasingly by smaller companies that manage to shift the basis of competition in their industry with disruptive innovations. This session brings together academics, business practitioners and consultants to explore several real examples of when, how, and why such shifts happen. Four C-level executives from successful "outlier" companies will participate in a moderated panel discussion to share their rich first-hand accounts of how their companies have reshaped entire industries or attempt to do so. It's a great opportunity to collide theory with fact and deepen our understanding of the outlier phenomenon.



Frederic Gastaldo began his professional career in 1988 at UGINE, switching in 1994 to the Boston Consulting Group in Paris. In 1997 he joined Cegetel Entreprises (Vivendi Group) as Chief Technology Officer. In 1998 he joined the Louis Dreyfus Group to become CEO and co-founder of Louis Dreyfus Communications. In 2003 Frédéric Gastaldo joined Swisscom, where he successfully

developed Swisscom Hospitality Services, an international specialty provider of internet services for hotels and conference centers. He has since held various positions within the Swisscom Group, among others a member of Swisscom Switzerland Executive Board, in charge of Strategy and Innovation. He is currently Chairman of the Board of Swisscom Directories and local.ch and leads Swisscom entry in the Smart Grid space as CEO of Swisscom Energy Solutions AG. Frédéric Gastaldo holds a Master of Science degree from the Ecole Polytechnique, Paris and an Engineering M.Sc. degree from the Ecole des Mines, Paris.



Rachel Kentleton is Director of Strategy at easyJet plc. Since the beginning of 2011, she has been responsible for corporate strategy, investor relations, and regulatory affairs. She joined easyJet in 2007 as Head of Investor Relations. Prior to easyJet, Rachel Kentleton worked in a number of finance and investor relations roles at Unilever, Diageo, and SABMiller.



Martin Reeves is a Senior Partner and Managing Director in BCG's New York office and a senior member of the healthcare practice. He also leads The Strategy Institute, BCG's vehicle for translating ideas from beyond the world of business, which have implications for strategy. Recent research themes include strategy and sustainability, new bases of competitive

advantage, the economics of trust and sustainability, adaptive strategy and managerial heuristics. Martin Reeves joined BCG in London in 1989 and later moved to Tokyo, where he led the Japan health care practice for eight years and was responsible for BCG's business with global clients. He has led numerous strategy and organizational assignments both for individual companies and industry associations. Before joining BCG, he worked for ICI, in Japan and the UK, in marketing and strategic planning. He holds a triple first class MA in natural sciences from Cambridge University and an MBA from Cranfield School of Management.



Lonnie Smith joined Intuitive Surgical as President and CEO in June 1997, and currently serves as Chairman of the Board of Directors. During his tenure as CEO, Intuitive Surgical grew from a start-up with no revenue to over one billion dollars in revenue and approximately 1,300 employees. Prior to joining Intuitive Surgical, Lonnie Smith was Senior Executive Vice

President of Hillenbrand Industries. He joined Hillenbrand in 1978. During his tenure, he was a member of the executive committee, the office of the president and the board of directors. He has also held positions at the Boston Consulting Group and IBM. Lonnie Smith received his B.S.E.E. from Utah State University and an M.B.A. from Harvard Business School.



George Stalk Jr. is Senior Partner and Managing Director for The Boston Consulting Group as well as an Adjunct Professor of Strategic Management for the Rotman School of Management at University of Toronto. He joined BCG in 1978 and has worked in its Boston, Chicago, Tokyo and Toronto offices. His professional practice focuses on international and time-based competition. He holds a BSEM from the University of Michigan,

an MSA&AE MIT and MBA from Harvard Business School. George Stalk Jr. co-authored a best-seller on "time-based" competition, Competing Against Time, and Kaisha: The Japanese Corporation. A somewhat controversial book, Hardball: Are You Playing to Play or to Playing to Win? was published in October of 2004. George Stalk Jr.'s latest book: Memos to the CEO: Strategies in Our Future was published in early 2008. He has also been published in several business publications, including the Harvard Business Review where he has won the McKinsey Award for the best article.



Simon Williams is the Chief Executive and Co-Founder of QuantumBlack, a Data Science agency that help their clients derive new intelligence from data, craft strategic responses to that intelligence and help shape the capabilities required to deliver that response. They achieve this though a multi-disciplined approach blending strategy, analytics and design. Example projects include helping a global aerospace

firm improve yield in strategic R&D investment, developing cuttingedge predictive audience analytics for a leading media company and creating a new visual language for biological research for a leading software firm. Prior to QuantumBlack Simon Williams led several data-driven start-ups including SmithBayes, a spin-out from Vodafone McLaren Mercedes Formula One racing team. He started his career in real-time trading systems at Reuters and then product management at ABN AMRO Bank.



#### **DISCOVERY EVENT SESSION**

 TRACK IMD
 Date
 Friday, Mar 22

 Time
 17:00 – 18:00 h

 Presentation
 Room
 M100

### **How Will You Measure Your Life?**

#### **Panelist**

Clayton Christensen, Harvard University

In 2010 Clayton Christensen gave a powerful speech to the Howard Business School's graduating class. Drawing upon his business research, he offered a series of guidelines for finding meaning and happiness in life. He used examples from his own experiences to explain how high achievers can all too often fall into traps that lead to unhappiness. A series of questions will be put forth in this session: How can I be sure that I'll find satisfaction in my career? How can I be sure that my personal relationships become enduring sources of happiness? How can I avoid compromising my integrity-and stay out of jail? Using lessons from some of the world's greatest businesses, he provides incredible insights into these challenging questions.



Clayton Christensen is the Kim B. Clark Professor of Business Administration at the Harvard Business School. He started four successful enterprises including Innosight, a consulting firm that uses his theories of innovation to help companies create new growth businesses. Besides advising major corporate executives, Clayton Christensen is the author of nine books

and more than a hundred articles. He received his BA with honors in economics from Brigham Young University and an M.Phil. in applied econometrics from Oxford University, where he studied as a Rhodes Scholar. He received both an MBA with high distinction and a DBA from the Harvard Business School. Clayton Christensen was named a White House fellow and served as assistant to U.S. Transportation Secretaries Drew Lewis and Elizabeth Dole. He holds five honorary doctorates and an honorary chaired professorship at the Tsinghua University in Taiwan.

#### **BUSINESS MODEL AS DYNAMIC CAPABILITY**

 TRACK A
 Date
 Saturday, Mar 23

 Time
 08:15 – 09:30 h

 Paper
 Room
 Cassani

Session Chair Timo Santalainen, Aalto University

## Opening Strategy at HAMK University: Designing Silo Solvents an Open Strategizing Ecosystems

Timo Santalainen, Aalto University Risto Salminen, HAMK University of Applied Sciences Antti Äkräs, ACD Consulting

Despite wide-spread popularity in R&D open innovation is only slowly taking foothold in strategy. It is less known that European Laboratory of Nuclear Research, CERN is an open innovation ecosystem that has developed outlier effects with global impact, e.g. www. This paper discusses how two Finnish academic institutions have developed open strategizing concepts based on "Research Management Model" coined at ATLAS Experiment of CERN. Piloting at Metropolia University opened two avenues of development. Opening strategy internally enhances horizontal collaboration and synergies. OS is a "silo solvent". Externally, creating a diverse strategizing ecosystem of insightful interpreters increases the probability of gaining outlier impact. HAMK University is experimenting open strategy concept piloted at Metropolia. Results and implications for academics, business practitioners and consultants will be discussed in the paper.

#### Regulatory Focus of the General Manager as a Psychological Antecedent of Organizational Dynamic Capabilities

Aybars Tuncdogan, Erasmus University - Rotterdam

The dynamic capabilities framework has been a remarkable extension to the resource-based view of the firm. Recently, the endless debates of the last decade and a half on the nature of dynamic capabilities have enticed researchers to investigate the origins of the dynamic capabilities at their micro-foundations. In this paper, by means of a survey study conducted with the participation of 167 general managers, we will discuss regulatory focus of the general manager as a psychological antecedent of organizational dynamic capabilities. Furthermore, we will examine the level of external regulation as a moderator of this relationship. Performance implications of dynamic capabilities will also be discussed.

## **Technological Discontinuities and Alliance Portfolio Reconfiguration**

Navid Asgari, *National University of Singapore* Kulwant Singh, *National University of Singapore* 

We study how firms reconfigure their alliance portfolios following a technological discontinuity and the performance consequences of such reconfiguration. We evaluate three issues that address the predictors and outcomes of such reconfiguration: (1) how a firm adds or disbands alliances within its portfolio as part of reconfiguration following a technological discontinuity; (2) how the structural properties of the alliance portfolio affect reconfiguration; and (3) the effects of reconfiguration on the firm's performance. Empirically, we examine large global biopharmaceutical firms from 1990 to 2000, during which these firms faced a technological discontinuity in the form of the emergence of combinatorial chemistry in 1995. This study has the potential to improve understanding of how firms adapt to major changes and reinvent their alliance portfolios.

## The Role of Projecting as a Dynamic Capability in Research-intensive Organizations

Wolfgang H Guettel, Johannes Kepler University Linz Stefan Konlechner, Johannes Kepler University Linz

The dynamic capabilities concept facilitates the analysis of purposeful adaptation processes. In this paper, we show how projecting serves as a dynamic capability in research-intensive contextually ambidextrous organizations. Based on empirical case study data, we distinguish between the strategic and the operational aspect of projecting. The strategic aspect of the projecting dynamic capability refers to the organization's strategic project portfolio-management via seizing and abandoning projects. The operational aspect refers to the concrete implementation of those strategic decisions. Finally, we emphasize that firms may use the dynamic

capability of projecting to deliberately modify the balance of exploration and exploitation, to regulate conflicts between heterogeneous learning demands, and to create a "knowledge bridge" between knowledge generation and knowledge application.

SESSION 35

#### **OPEN INNOVATION**

TRACK B
Date Saturday, Mar 23
Time 08:15 – 09:30 h
Common Ground Room M110

Facilitator Esteve Almirall, ESADE Business School

#### From Closed to Open Innovation: An Analysis of Strategic Types and Innovation Practices

Louis Rinfret, *University of Quebec-Three Rivers* Felix Arndt, *University of Lausanne* Josée St-Pierre, *University of Quebec-Three Rivers* 

When should organizations seek to develop innovation ecosystems? The central assertion of our study is that strategic capability endowments derived from firms' strategic orientations will tend to lead organizations' internal or external orientation in innovating and that an appropriate 'fit' between capability endowments and innovation orientation that will lead to increased performance. More specifically, we examine whether linkages between each of the three primary strategic types of Miles and Snow (1978) and different modes of innovation (open vs. closed) lead to increased performance. We use a sample of 500 Canadian SMEs and preliminary results indicate that defenders pursue significantly different innovation strategies than prospectors. We also find a moderating effect of environmental dynamism for the performance implications depending on the strategic orientation of firms.

#### Open Innovation or Innovation in the Open?

Karl Joachim Breunig, *BI Norwegian Business School* Tor Helge Aas, *Norwegian School of Economics* Katja Maria Hydle, *BI Norwegian Business School* 

This paper addresses the role of explicit innovation strategies for open innovation. An explicit innovation strategy is considered a prerequisite for performance, but when we empirically explore service innovation practices in five large scale-intensive service firms we find that explicit innovation strategies lack in all five firms. The findings also suggest that clients are to a lesser degree utilized in innovation activities than suggested in literature and that the logic of innovation and strategy is hard to integrate in practice. Our empirical exploration confirm that service innovations need to be distinguished from product innovations and that service innovations necessitate a broader link to business strategy due to the more game changing nature of the service dominant logic.

### Problemsourcing: An Innovative Practice for 'Open' Development

Stephen Cummings, Victoria University of Wellington Urs Daellenbach, Victoria University of Wellington Sally Davenport, Victoria University of Wellington Charles Campbell, Victoria University of Wellington

While open innovation (OI) and crowdsourcing (CS) have been heavily promoted in recent years, their appropriateness for R&D or clientled organisations have not been explicitly considered. We examine CS drawbacks in this context and, using a case study exemplar, analyse why the alternative of problem-sourcing (PS) may prove more effective. Major benefits included generating a clearer focus on a client-led strategy, a pipeline of projects and avoiding the challenge to status of the professional researchers. The PS model represents a new organisational approach, a way of complementing traditional professional competencies in a firm with the openness, innovative outlying influences, and increased networking possibilities that OI/CS seek to leverage.



## Towards a System of User-Driven Innovation: Resolving Market Failure in Healthcare

Annika Schröder, *University of Potsdam* Tim Franke, *Technical University of Berlin* 

Though the phenomenon of user innovation has received tremendous attention other the last years, it broader economic antecedents and potential impact clearly deserve further investigation. Building on economic allocation theory we investigate the role of market failures (externalities, information asymmetry and transaction costs) as antecedents for user innovation with significant impact on social welfare. We draw on the cases of rare chronic disease and off-lable drug use to exemplify the potential of a user driven system of innovation to resolve welfare burden of market failures. We propose further a research approach on how current outliers (patient "outlaw" innovators) can be enabled to become a strong but established source of future innovation systems such as in healthcare.

#### Types of R&D Collborations and Process Innovation

C. Annique Un, Northeastern University Kazuhiro Asakawa, Keio University

We analyze how research and development (R&D) collaborations impact process innovation. Few studies analyze this since most studies focus on their impact on product innovation; however the conclusions cannot be easily extrapolated as the innovation mechanisms differ. Specifically, we extend the knowledge-based view of the firm to propose that the impact of R&D collaborations on process innovation primarily depend on two knowledge dimensions: position in the knowledge chain and contextual knowledge distance. We argue that R&D collaborations that are located upstream in the knowledge chain and that are closer in contextual knowledge distance better support process innovation. An analysis of 781 manufacturing firms during a four-year period supports these arguments.

## Understanding the Microfoundations of Open Innovation

Uta Morgenstern, *University of Bath* Anthony Roath, *University of Bath* 

The purpose of the paper is to examine the little explored dimensions associated with the micro-foundational activities and processes of open innovation; a closed-loop process of intra and interorganizational knowledge creation and sharing. The individual and firm are part of a wider system which is not passive; rather this system is composed of organizational structures that actively challenge and/or cooperate with each other for limited resources. We propose that this environment demands a better understanding of open innovation's mechanisms of knowledge creation and sharing from a cognitive perspective. This vantage provides an important foundation from which to explore how knowledge creating and sharing mechanisms of open innovation contribute to the development of dynamic capabilities which benefit the firm and its collaborating partners.

SESSION 43

#### **ECOSYSTEM ORCHESTRATION**

Session Chair	Llewellyn Thomas, Imperial College London	
Paper	Room	M01
	Time	08:15 – 09:30 h
TRACK B	Date	Saturday, Mar 23

#### **Ecosystem of Innovation in Oil and Gas Industry**

Hossein MahdaviMazdeh, *University of Calgary* Jim Dewald, *University of Calgary* 

Despite efforts to diversify energy sources, oil based fuels play a crucial role in meeting the growing global energy demand, which is forecasted to increase 35% by 2035. As important as innovation is for meeting such demand, a theoretical description of innovation ecosystem that fits the oil and gas industry and resource industries in general, does not yet exist. This is due partly to the diverse nature of firms involved and the monopolistic nature of natural resources. Using findings from a qualitative exploratory study, we describe the key decision-making factors along the supply chain, and apply behavioral theory of the firm to develop a model that describes the ecosystem of innovation in the broader industry, incorporating the relationship among players along the supply chain.

#### **Technological Externalities in Innovation Ecosystems**

Brice Dattee, EMLYON Business School

Complex value propositions forces firms to participate in innovation ecosystems where their external relationships with many other organizations are becoming increasingly horizontal and interconnected. To successfully play the ecosystem game, a firm must understand the structure of interdependencies within which it is or wish to become embedded. In this paper, we present five types of technological externalities (network effects, complementary products, complementary assets, horizontalization, and interconnect coupling) that contribute to collective value creation. The configuration – actual or envisioned – of these externalities informs firms about the role of different players and where the important control points might shift within an innovation ecosystem.

## Tilting the Playing Field: Towards a Strategic Theory of Endogenous Action

Llewellyn Thomas, *Imperial College London* Erkko Autio, *Imperial College London* 

The performance of "outlier" organizations frequently depend on the integration and coordination of resources of many organizations across many industries. We propose that in contrast to the traditional resource based view where the logic of resource efficacy is exogenously determined, outlier organizations can enhance their performance by manipulating the standards of worth that reside within the ecosystem in which their resources will be applied. We identify and discuss four arenas of endogenous strategic action: manipulating meaning; manipulating technological instrumentality; manipulating economic instrumentality; and manipulating norms and regulations. Qualcomm is used as an example to illustrate the various strategies.

### ★ Value Migration and Architectural Design Choices in Innovation Ecosystems: The Case of Cloud Computing

Richard Tee, EPFL

Jason Woodard, Singapore Management University

Our paper focuses on firms' strategic decision making in innovation ecosystems, highlighting the role of value migration in influencing architectural design choices. Based on a study of cloud computing, we analyze how firms strategically shape the design of an emerging technology architecture. Drawing on qualitative longitudinal data, we trace the development of these organizations and analyze firms' design choices. In particular, we highlight the processes by which interfaces are negotiated and adopted, as well as the ways in which competitive tensions are both encouraged and mitigated. This case contrasts with existing literature that assumes competing variants that are selected over time. Instead, industry participants might, learning from historical events, attempt to pre-empt these dynamics through collaboration and interest alignment of the various stakeholders.

#### SESSION 15

### **AMBIDEXTERITY**

TRACK D	Date	Saturday, Mar 23
	Time	08:15 – 09:30 h
Paper	Room	M200
Session Chair	Michelle Rogan, INSEAD	

## Cognitive Flexibility: Evidence From a Sample of Managers and Entrepreneurs

Daniella Laureiro-Martínez, Swiss Federal Institute of Technology Zurich

Stefano Brusoni, Swiss Federal Institute of Technology Zurich

This paper focuses on how individuals, different in personality and professional background, take complex decisions. Relying on Verbal Protocol Analysis and Temperament and Character Inventory, we look at how expert decision makers reveal their 'cognitive flexibility'. We find that when facing a complex and ill-structured problem, entrepreneurs not only examine a greater number of alternative solutions than managers, but take also a greater number of decisions and implement most of them in a better way. Also, analyzing the VPA data, we find that entrepreneurs exhibit a greater ability of changing their point of view in order to face a situation

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of crisis and uncertainty, higher than the managers. Finally, in terms of personality, their behaviour is fostered by a characteristic 'Persistence' in the temperament rather than by a 'Novelty Seeking' disposition.

#### Leading to Ambidexterity in SMEs and Business Units: The Direct and Indirect Effect of Senior Managers' Behavioral Complexity

Martin Jäckel, *University of St. Gallen*Alexander Zimmermann, *University of St. Gallen* 

Researchers argued that exploration and exploitation should be reconciled within a single organizational unit. Earlier studies suggested that this may be achieved through behaviorally complex senior managers, who have either a direct or an indirect effect on ambidexterity, due to their immediate actions or their ability to frame a behavioral context for their employees that fosters exploration and exploitation. We test these relationships in SMEs and business units and find that senior managers in SMEs have both a direct and indirect effect on unit-level ambidexterity, while those in business units only have an indirect effect. We discuss theoretical insights on the relationship between individual-and organizational-level mechanisms for reconciling exploration and exploitation, and comment on the relevance of the broader administrative context when studying ambidexterity.

#### Radical Innovation from Within: Comparing Formal Ambidexterity with Informal Ambidexterity

Lars Bengtsson, *Lund University* Ingela Elofsson, *Lund University* 

This paper contributes to the research literature on ambidexterity. We make a distinction between formal and informal ambidexterity. Moreover, we propose that formal radical or explorative projects is often conceived and/or formed into a sustaining innovation for the company, i.e., expanding into new and previously not targeted markets. We also propose that informal radical or explorative projects are conceived as disruptive innovations. As such they run the risk of being terminated by top management. They may survive if they could be transformed into less disruptive or sustaining innovations, i.e., in the form of expansion projects to new markets or as components in current products.

#### The Ambidexterity of Managers' Networks

Michelle Rogan, INSEAD

Marie Louise Mors, Copenhagen Business School

Addressing the call for a deeper understanding of ambidexterity at the individual level, we propose that managers' networks are an important yet understudied factor in the ability to balance the trade-off between exploring for new business and exploiting existing business. Analyses of 1449 ties in the networks of 79 senior partners in a management consulting firm revealed significant differences in both the structure and nature of ties of networks of managers who engaged in both exploration and exploitation compared to managers that predominately explored or exploited. The findings suggest that managers' networks are important levers for their ability to behave ambidextrously and offer insights into the micro-foundations of organizational ambidexterity.



#### **PLENARY TRACK**

 TRACK P
 Date
 Saturday, Mar 23

 Time
 10:00 – 11:15 h

 Special Panel
 Room
 M100

### Why We Need to Learn from Outliers – and Often Fail to Do So

#### **Panelists**

Julian Birkinshaw, London Business School Costas Markides, London Business School

The essence of superior strategy is standing out from the crowd. But most companies end up looking just like their competitors – they copy each other's products and services, they benchmark each other's best practices, and they hire each other's executives. One well-known way of breaking out of this self-referential loop is to get inspiration from outliers – from the mavericks within an industry, to the unusual players in related industries and indeed entirely unrelated social settings. This sounds like a good idea, but it is extremely hard to do in practice. The evidence shows that the interesting "outliers" in the world of business, companies such as Apple, Google, Semco, Oticon, WL Gore, and HCL, typically attract a great deal of interest but don't end up having much real impact on the companies studying them. The session will offer practical and theoretical insights into the challenge of learning from outliers.



Julian Birkinshaw is Professor and Chair of Strategy and Entrepreneurship at the London Business School. He has PhD and MBA degrees in Business from the Richard Ivey School of Business, University of Western Ontario, and a BSC (Hons) from the University of Durham. He is a Fellow of the British Academy (FBA) and the Academy of International Business. In addition to

London Business School, he has worked at the University of Toronto, the Stockholm School of Economics, Price Waterhouse and ICI. Julian Birkinshaw's main area of expertise is in the strategy and management of large multinational corporations, and on such specific issues as corporate entrepreneurship, innovation, subsidiary-headquarters relationship, knowledge management, network organisations, and global customer management. He is the author of eleven books and over eighty articles. Julian Birkinshaw is active as a consultant and executive educator to many large companies, including Rio Tinto, GSK, ABB, Diageo, SAP, Ericsson, Kone, Bombardier, Sara Lee, HSBC, Akzo Nobel, Roche, Unilever, Hess Oil, Toshiba, and Novo Nordisk. He speaks regularly at business conferences in the UK, Europe, North America and Australia.



Costas Markides is Professor of Strategy and Entrepreneurship and holds the Robert P. Bauman Chair of Strategic Leadership at the London Business School. He received his BA (Distinction) and MA in Economics from Boston University, and his MBA and DBA from the Harvard Business School. He serves on the Editorial Boards of several academic journals including the Strategic

Management Journal, the Academy of Management Journal and the Sloan Management Review. He has done research and published several books as well as articles on the topics of diversification, strategic innovation, business-model innovation, and international acquisitions. His current research interests include the management of diversified firms and the use of innovation and creativity to achieve strategic breakthroughs.

## BUSINESS MODEL RESEARCH: CLARIFYING CONCEPTUAL ISSUES

TRACK A	Date	Saturday, Mar 23
	Time	11:30 – 12:45 h
Paper	Room	Cassani
Session Chair	William Schulze, <i>University of Utah</i>	

#### Business Model Elements, Value Creation and Value Appropriation, and Firm Performance

Karolin Frankenberger, University of St. Gallen

Firms allocate their resources between two fundamental processes of creating value (i.e. innovating, developing products and deliver them) and appropriating value (i..e commercializing products achieving profits in the marketplace). Business models are recognized as novel construct that enables firms to create and capture value and thus to achieve competitive advantage. However research lacks a detailed understanding of the antecedents of value creation and value capture potentials and also about the effect of both of them on firm performance. This paper addresses the open issues. We show that a superior value proposition and superior processes lead to value creation and to superior firm performance. And that a superior revenue model leads to value appropriation and superior firm performance.

## **Business Model Elements, Value Creation and Value Appropriation, and Firm Performance**

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## **Business Models and Strategy: A Critical Comparative Analysis**

George Tovstiga, *University of Reading*Jacob Bruun-Jensen, *University of Reading* 

The recent heightened interest in the notions of business models and business model innovation has given rise to a number of debates in academic circles, one of which has centered on the difference between the notions of a 'strategy' and a 'business model'. In this study we examine both terms with the help of bibliometric techniques (citations, co-citations and weightings). The findings, based on composite importance ranking of the key terms was derived from normalized weightings of the key terms identified for both notions, suggest consistency with the existing strategy-structure-performance paradigm towards explaining congruence and convergence of elements common to both "business models" and "strategy", and thereby support the argument that while the two notions share some common elements, they do represent different concepts.

#### **Navigating the Business Model Maze**

William Schulze, University of Utah

In this paper, we propose that at least part of the confusion associated with the business model concept is that the label is commonly applied to models that have two different functions. In particular, we argue that business discovery models – which describe a coherent set of best practice that can be used to validate a business concept or value proposition – differ substantially from the business models. The later are used to establish the financial value of a business concept or to identify sets of activities that can be eliminated or performed more efficiently or effectively. We describe the history of the emergence of business discovery models and discuss their proper use. Lastly, we explain the critical relationship between the discovery and business innovation model.

SESSION 37

## DYNAMIC CAPABILITIES AND INNOVATION ECOSYSTEM DYNAMICS

Facilitator	Kulwant Singh, National University of Singapore	
Common Ground	Room	M110
	Time	11:30 – 12:45 h
TRACK B	Date	Saturday, Mar 23

## Beyond Core Competencies: Towards an Ehanced Concept of the Corporation in the Age of Innovation Ecosystems

Dodo zu Knyphausen-Aufsess, Technical University of Berlin Tim Franke, Technical University of Berlin Chiara Fuhrmann, Berlin Institute of Technology

Based on the seminal work "core competence of the corporation" by C. K. Prahalad and Gary Hamel, we endeavor to present an enhanced concept of the corporation – one we coin "searching for real-world-solutions" – in view of current and future economic conditions. Drawing on multiple cases across industries, we conceptualize the corporation as a constituent of a holistic network, which is closely connected to its economic and societal environment, the so-called innovation ecosystem. However, we go beyond this ecosystem perspective and identify real-world-issues as the key drivers of today's innovation as well as competition and thus contribute to the concept of the core competencies. Finally, we outline fsQCA as an empirical approach to analyze, evaluate and review our concept.

## Do We Mind The Gap? Divergence and Convergence of Subsidiary Charters and Capabilities

Martin Friesl, Lancaster University
Raphael Silberzahn, University of Cambridge

When an MNE changes its subsidiaries' charters, these adaptations need to be mirrored by changes to subsidiary level resources and capabilities. This paper describes why subsidiaries may fail to adapt their capabilities to new charters. We investigate when this divergence occurs and how HQ and subsidiary managers respond. While it has been assumed that managers strive to close the charter-capability gap, we find that divergence prevails. We find three interrelated mechanisms that help explain this divergence of charter and actual practice: surface-level alignment, capability lock-in and charter lock-in. We advance existing theory on subsidiary evolution by showing how subsidiaries become locked into a new charter while at the same time retaining existing routines and capabilities that do not match the new charter.

## Dynamic Capabilities and Innovation Ecosystems: The case of Technology-Based Premium Firms

Brice Dattee, EMLYON Business School Thomas Lawton, The Open University Paolo Barbieri, University of Bologna

The recent literature on dynamic capabilities – a firm's ability to leverage and reconfigure its existing competencies and assets – has called for a more fine-grained understanding of the underlying organizational processes and of the role of senior managers as critical determinants in the deployment of different forms of dynamic capability. This paper presents an ongoing qualitative fieldwork with a technology-based premium firm in the Italian automotive industry. UltraSporti has been extremely successful at maintaining its competitive advantage by repeatedly renewing its core competencies and accessing best-in-industry technologies from its innovation ecosystem. Through rare empirical access to a clearly best-practice firm and several of its suppliers, we present rich and contextualized data on UltraSporti's dynamic capabilities.

## Fostering Resilient Community Innovation: How Boundary Organizations Balance Intrinsic and Extrinsic Motivation

Jacob Redding, *Drupal Association*Melissa Appleyard, *Portland State University*Erica Wagner, *Portland State University*Jon Perr, *JP Consulting* 

While open, collaborative innovation has taken root in numerous industry ecosystems, the maturing practices followed in open source software (OSS) hold lessons for innovation resiliency. This study



compares how two OSS boundary organizations approach "community innovation," i.e., collaborative development within a defined ecosystem. One of their challenges is striking a balance between motivating their collection of developers through intrinsic versus extrinsic means. We posit that getting this balance right will ensure the source code of each project remains healthy while peripheral innovations are developed to meet specific needs of segments in the ecosystem. We will use survey and interview data to analyze these relationships. The findings inform the practicing manager trying to determine the appropriate incentives in the context of community innovation.

## How can Radical Innovation be Brought about by an Embedded Actor of the Existing Ecosystem?

Xavier Castaner, *University of Lausanne* Howard Yu, *IMD* 

Extant research has pointed out that individual organizations have a natural and logical tendency to focus in exploitation of existing knowledge rather than to engage in exploration of new ways of providing the same goods. There is also empirical evidence that undertaking exploitation reduces the likelihood of undertaking exploration. This situation is further amplified or complicated when the practice or technology adopted in a dominant design which, by definition, is highly embedded in the entire industry or field, by virtue of inter-dependencies between the different eco-system actors and possible network externalities. This paper describes the process by which an existing actor that is highly embedded within an established eco-system circumvent structural inertia at the system level and how it introduces a radical innovation.

#### Inter-organizational Learning or Co-specialization: The Effect of Alliance Partners on Firms' Evolution of Exploration and Exploitation

Pengfei Wang, *Erasmus University-Rotterdam* Vareska Van de Vrande, *Erasmus University - Rotterdam* Justin Jansen, *Erasmus University - Rotterdam* 

Studies on exploration and exploitation have been blossoming, but we still have limited knowledge on how exploration and exploitation within firms evolve. This paper aims to advance the literature by focusing on the evolution tendency of firms' exploration and exploitation, as well as the influence of alliance partners. On the one hand, this paper examines whether organizations' current exploration and exploitation will reinforce their future exploration and exploitation, respectively. On the other, we investigate the impact of alliance partners on this evolutionary progress. Inter-organizational learning may suggest that partnering with exploitative (exploratory) organizations will lead firms to improve their exploitation (exploration) over time. However, co-specialization logics suggest that firms could only focus on their exploration (exploitation) if they collaborate with others good at exploitation (exploration). In order to verify the evolutionary process and clarify the effect of partners, we collect data from the pharmaceutical industry.

SESSION 10

#### LARGE SCALE COLLABORATION AND INCLUSION

TRACK C	Date	Saturday, Mar 23
	Time	11:30 – 12:45 h
Paper	Room	M01
Session Chair	Michael Leiblein, Ohio State University	

#### Managing Large Scale Collaboartions for Organisational Development

Shantha Liyanage, University of Sydney

ATLAS and CMS detectors symbolise what human can achieve when coordinated and collaborative efforts are directed towards specific aims and objectives. The particle physics community can be just proud of the successful collaboration of these large scale high energy physics achievements. This paper outlines the recent developments of ATLAS with reference to parallel achievements of CMS experiments of the Large Hydron Collider at CERN in order to examine management imperatives for large scale projects. New challenges are emerging as the physics community continuously discover new particles and produce brand new physics. ATLAS and CMS are unique in its own ways with very high efficiency, design and manner in which they were put together. The paper presents new challenges for deciding on large scale practice implementation.

## Robust Inter-Institutional Collaboration at Atlas, CERN: Implications for Large Scale Business and Cross-Sectoral Collaborations

Raghuram Garud, *Penn State University* Barbara Gray, *Penn State University* Philipp Tuertscher, *WU Vienna* 

Large-scale, inter-institutional collaborations in science and society offer intriguing models for future business relationships. Our paper explores the social architecture of collaboration in the ATLAS Experiment at the Large Hadron Collider (LHC) at CERN - a collaboration among more than 3,000 physicists, engineers and administrators hailing from 174 institutions in 37 countries who have designed and constructed a detector to study the results of sub-atomic particle collisions. We investigate several facets of this robust collaboration including its socio-material aspects, the evolution of its social architecture, and mechanisms for addressing scientific and social controversies. We consider implications for designing similar large scale collaborations among business and between business and other sectors of society.

#### Strategic Planning for Large Scale Transport Infrastructure Hubs: A Stakeholder Management Approach

Michael Dooms, University of Brussels

Ineffective stakeholder management during strategic planning processes and downstream implementation phases increasingly hampers the effective realization of large scale infrastructure projects. This proposal highlights the conclusions of ongoing research that analyzes how managers of large scale infrastructure hubs integrate stakeholder objectives in long term strategic planning processes, with a focus on dynamic and spatial aspects of stakeholder management and the mechanisms of formal stakeholder inclusion. Based on action research, we provide an analysis of four airport and seaport cases from the European infrastructure sector.

## Unique Identification Project for 1.2 billion People in India: Enabling Big Bang 'Inclusive' Innovations

Vanita Yadav, MIT

India has no equivalent of a social security number and more than 400 millions of poor suffer in the hands of the existing corrupt system because they are unable to participate in the formal economy. In a nation that is struggling to meet basic challenges of poverty, hunger, poor infrastructure and corruption, the government of India's UID project appears to be a striking outlier as it is building the world's biggest and advanced biometric-based database of identities for 1.2 billion people at a remarkable pace. Using the theoretical lens of institutional entrepreneurship this paper describes the case study of UID project and its potential to leapfrog and tackle institutional voids. Despite political opposition, the ongoing UID project is enabling big bang inclusive innovations in India.

#### INNOVATIVE MANAGEMENT PRACTICES

 TRACK D
 Date
 Saturday, Mar 23

 Time
 11:30 – 12:45 h

 Common Ground
 Room
 M121

Facilitator Gilbert Probst, University of Geneva

## An Analysis of the Comprehensiveness of Strategic Plan Implementation in an Emerging Economy

Yasir Fadol, *University of Dubail* Said Elbanna, *United Arab Emirates University* 

Little is known about factors influencing strategy implementation. This study explores the antecedents and consequences of the comprehensiveness of strategic plan implementation. Out of 500 questionnaires, 231 usable ones were collected from UAE public organizations. Sampled organizations were divided into 49% federal organizations and 51% local organizations. We find that our three factors of strategy formulation, namely, adoption of intended mode of strategy, enhancing employees' participation, and minimizing political behavior significantly influence the comprehensiveness of strategy implementation which in turn has a significant positive effect on strategic planning effectiveness.

## **Boom and Bust Dynamics of Strategy Tool Implementation**

Markus Schwenke, University of St. Gallen Stefan Groesser, University of St Gallen

This article aims to promote a dynamic perspective on the issue of strategy tool implementation and rejection. While research on strategy tools mainly used surveys for a long time, practice and process perspectives of strategy enriched the discussions about the actual use and value of strategy tools. However, the process of implementation and subsequent rejection of a successful strategy tool cannot be explained by existing research. On the basis of a revelatory case study, we present the process of strategy tool implementation by means of a systems model. We provide an initial dynamic hypothesis that explains the underlying dynamics of the boom and bust phenomenon.

#### Management Forms: When Control is Irrelevant

Zahra Solouki, ESADE Business School Nuria Nadal, ESADE Business School Udo Zander, Stockholm School of Economics

The structural aspects of organizations have been a focal point in organizational studies, being able to describe and analyze different types of organizations, while the subject of management forms has been underdeveloped. At the structural level new dimensions have been included, but no substantial changes have happened at the managerial level. Traditional management forms show limitations when dealing with aspect of management, limiting the range and application of management under uncertainty. Therefore, this study addresses forms of management when control is counterproductive. The model presented attempts to clarify that different types of goals and tasks will lead to different forms of management as well as different organizational structures.

#### Power and Commitment: Drivers of Technologybased Innovation Business Models

Marion Debruyne, Vlerick Business School Walter Van Dyck, Vlerick Business School

Although innovation ecosystem and business model are increasingly recognised as mediating constructs between an innovation and the economic value it delivers, their role is often poorly understood and interchangeably applied, both in the literature as in practice. Therefore, in this contribution we propose a unified definition of both concepts and theoretically derive a typology of collaborative business model archetypes usable by the various ecosystem players involved in converting technology-based innovation into value. Finally, taking a business model design perspective we propose the optimal business model archetype choice to be driven by two design factors; (1) the technology- and market-derived power potential of the innovative idea and (2) the commitment intensity level chosen to deliver the value captured from innovation. A propositional choice model is developed.

## The Analiza Strategic Planning Method: A High-tech, Agile and Traceable Method for our VUCA World

Alvaro Aznar, Analiza Strategic Management S.A.

In a VUCA (Vulnerable, Uncertain, Changing, and Ambiguous) World the top management struggle to adapt their global strategies to this scenario. In our view, only with the use of online software and technology we can provide the Vision, Understanding, Clarity and Agility (VUCA requirements) that our global companies and teams require. We will present the method called Analiza Strategic Planning (ASP) that, together with a team-work online software, has been successfully implemented in small and big companies and industrial sectors to develop quick and agile strategic plans where regional and business lines differences are integrated into comprehensive and coherent business models that can be easily updated and controlled with the active participation of its world-wide team minimising the time and money required.

#### When Entry Strategy Becomes Exit Strategy: Knowledge Transfer in Innovative Shipbuilding Projects in China

Hans Solli-Sæther, BI Norwegian Business School Kim van Oorschot, BI Norwegian Business School Jan Terje Karlsen, BI Norwegian Business School

Innovative Western firms that want to enter China are facing a difficult trade-off. On the one hand, by sharing knowledge with Chinese partners, the entry process will benefit on the short-term. But at the same time, the firm's long-term existence in the Chinese market may be endangered, because the Chinese partners can copy the knowledge and become a new competitor. On the other hand, when the Western firm chooses to protect knowledge, this will make the market entry process more difficult. In this paper we analyze this trade-off and examine the best policy by means of a system dynamics model based on a case study in the shipbuilding industry.



## ALLIANCES, VENTURE CAPITAL FIRMS, AND INNOVATION

TRACK D	Date Saturday, Mar 23	
	<b>Time</b> 11:30 – 12:45 h	
Paper	Room M200	
Session Chair	leffrey Petty University of Lausanne	

## Alliance Portfolio and Firm Innovation:Partnering with Close or Peripheral Firms

Yi-Ju Lo, Yuan Ze University
Ming-Je Tang, National Taiwan University

This study aims to examine how an alliance portfolio affects firm innovation. We define innovation as the ability to create wider business scopes and develop an understanding of close relationships and peripheral relationships in a firm's alliance portfolio. Our findings reveal significant positive impacts of both close relationships and peripheral relationships on firm innovation. Most importantly, our findings underscore the interaction effect of peripheral relationships with close relationships on firm innovation and indicate the innovation performance is better when increasing the peripheral relationships in a alliance portfolio that is composed of too many close relationships. Based on the findings, we suggest corporate managers to form a alliance portfolio that includes the partners locating on the periphery of the network in order to enhance innovation performance.

## Come and Collaborate with Me, but When Collaboration is Not a Good Thing?

Jingshu Du, Vlerick Business School Wim Vanhaverbeke, Hasselt University

In this study we investigate firms' R&D collaboration propensity and the outcome in their different technology fields (technology core, distant non-core, related non-core fields). We find that R&D collaboration is not necessary a good thing: the benefit of collaboration depends to a large extent on the type of technology fields that are involved into R&D collaboration activities. While there is in general a higher propensity to collaborate in firms' technology core fields, it is collaboration conducted in the technology non-core fields of the firm results in most benefits. However, collaboration in firms' technology non-core fields are hard to establish if the firm has little, or no background knowledge in place. In order to benefit from R&D collaborations, a firm may need to develop some pockets of background knowledge (technology related non-core fields) to make itself attractive for external partners.

## Forecasting Capability or Crystal Ball: How Experience Matters

Violetta Gerasymenko, New University of Lisbon

Drawing on the behavioral and organizational learning theories, this study searches to understand if reviewed forecast is more accurate than initial one and how success and failure experience shapes forecast accuracy. We test our hypotheses on a unique dataset of venture capital firms, predicting the types of exit from portfolio companies. Our results challenge a commonly established belief since we find no support that reviewed forecast is more accurate than initial one. Our findings also contribute to the organizational learning theory by showing how failure and success experience have distinct impacts on forecast and improved performance.

## No VC is an Island: Internal and External Contextual Influences on Venture Capital Decision Making

Jeffrey Petty, University of Lausanne Marc Gruber, Swiss Federal Institute of Technology Lausanne Dietmar Harhoff, University of Munich

Drawing on social judgment theory, this study is one of the first attempts to integrate the content and process aspects of venture capital (VC) decision making in a dynamic model. Using a longitudinal data set of 2,486 investment decisions over the life of an investment fund, we investigate how, over time, the content and process aspects of the VC's decision making are (i) increasingly constrained by factors related to the characteristics of the VC's portfolio and (ii) affected by the overall investment climate. Analyzing both the internal and external contextual influences provides new insights and allows us to propose an updated, multi-level conceptual model of VC decision making. Our findings offer important new implications for the entrepreneurship, innovation, strategic decision making and operations management literatures.

#### **DISCOVERY EVENT SESSION**

 TRACK IMD
 Date
 Saturday, Mar 23

 Time
 11:30 – 12:45 h

Presentation Room M10

## **Entrepreneurial Solutions to Market Failure Panelists**

Joseph Bower, *Harvard University* Howard Yu, *IMD* 

Research with leaders of global enterprises based in countries around the world – carried out before the Great Recession – revealed great concern that the preconditions that permit a market system to flourish and create wealth for all, was being undermined by a series of disruptive forces such as unstable financial system, a vulnerable trading system, growing income inequity and environmental degradation. These same leaders thought governments around the world too weak economically and politically to step up to these problems, and global institutions outdated in their design and powers. They did think that corporations could devise new strategies for sustainable profitable businesses that could mitigate some of the disruptive forces. The panel will present examples of successful strategies for discussion.



Joseph Bower is the Baker Foundation Professor of Business Administration at Harvard Business School. He served as the faculty chair of both The Corporate Leader Program and The General Management Program at Harvard. An expert on corporate strategy, organization, and leadership, he has devoted much of his teaching and research to challenges

confronting corporate leaders in today's rapidly changing hypercompetitive conditions. Joseph Bower has also been active in the development of institutions and programs. He helped establish the International Institute for Applied Systems Analysis in Vienna. He also founded the Program for Senior Managers in Government at Harvard's JFK School of Government. Currently, he is helping to build the new joint MBA-MPP degree program joint offered by the Business School and the Kennedy School of Government. Joseph Bower has consulted widely on problems of strategy and organization with companies here and abroad and has written more than a dozen books.



Howard Yu is Professor of Strategic Management and Innovation at IMD. His research interests include technological innovation, strategic transformation, and change management. His teaching and research activities focus on why and how some firms can sustain new growth while others cannot. His research has examined the evolution of the global personal computer

industry. Of six major firms where he conducted in-depth investigations on the subject, three of them were the largest motherboard makers in the world, the other three were the largest laptop manufacturers. Currently, Howard Yu is collaborating with private equity firms and venture capital funds in studying how established companies can expedite the process of creating new businesses by involving external entrepreneurs and third-party investors. He received his doctoral degree in management at Harvard Business School. Prior to his doctoral training, he worked in the banking industry in Hong Kong.



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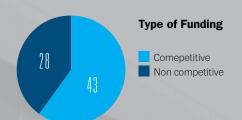
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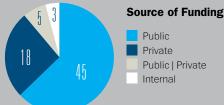
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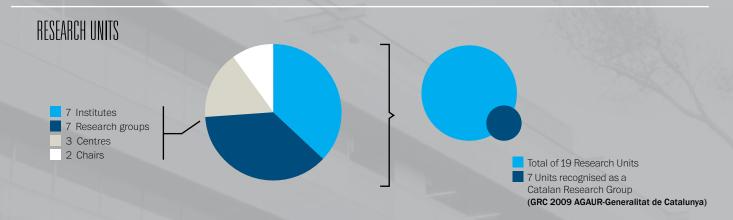


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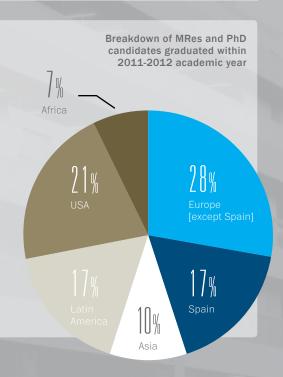
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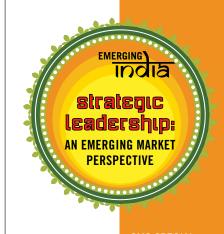
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