# SYSTEM DYNAMICS SOCIETY

To: Policy Council From: Tim Haslett VP Chapters Activities Date: 11 July 2007

I am pleased to offer the following report.

First I would like to thank Ginny Wiley, out-going VP Chapters for her contribution and advice to the incoming VP.

It has been a privilege and a delight to work with Aldo Zagonel as Assistant Vice President. Aldo has stepped back to provide space for his work on the 2009 conference.

We also welcome Martin Schaffernicht as the new Assistant VP Chapters

We now have seventeen chapters:

Australasia: Mark Heffernan	Korea: Man-Hyung Lee
Brazil: Hélder da Costa	Latin America: Martin Schaffernicht
China: Bing Wu	Pakistan: Ijaz Yusuf
Economics: David Wheat	Psychology: Ralph Levin
Egypt: Walid Badr	Russian: Leeza Osipenko
German: Switbert Miczka	Student: Nicole Zimmermann
Hellenic: Nikolaos Pomonis	Swiss: Stefan Groesser
Italian: Habib Sedehi	United Kingdom: Brian Dangerfield
Japan: Kaoru Yamaguchi	

All chapters were asked to submit written annual reports and membership lists.

As of 20 July 2007 reports were received from the following:

German Italian Latin America Psychology Swiss United Kingdom

Reports were not received from:

Australasia	Egypt
Brazil	Hellenic
China	Japan
Economics	Korea
Russian	Pakistan
Student	

Observations (with thanks to Ginny's 2007 report)

According to Society Policy, the Chapter Representatives were asked to submit reports of chapter leadership, membership, activities, publications and finances. Five (5) out of the seventeen (17) chapters of the Society complied with this requirement. The organization of the chapters varies substantially. Chapter membership ranges from seventeen (17) to over four hundred (400+). Several chapters are holding annual meetings of substance. Many have created a web site. Some are concerned with outreach to the academic and business communities. There is some effort to publish the product of chapter initiatives (proceedings, online journal, and an interactive book). There was virtually no financial reporting. There is wide variation in the coverage and format of the reports. With a few exceptions, the reports were prepared at the last minute, and very little time was available to synthesize and analyze them. In order to better meet this requirement, a number of recommendations are made to provide clarity of purpose, and improve the process and instruments to achieve better results.

# **Finances:**

There was virtually no financial reporting on the part of the Chapters. However, it is not clear from the Society Policies if the financial reports should be part of the annual reporting requirement.

# **Recommendations from 2007:**

- 1 Request missing chapter reports
- 2 Follow up with a survey of the membership of the chapters
- 3 Advance date chapter reports are due and specify reporting period
- 4 Clarify the objectives of the reporting requirement
- 5 Simplify the reporting requirement
- 6 Standardize the reports
- 7 Base the continuity of chapters upon the continued support of the chapter membership (minimum 10 members)
- 8 Automate the reporting and surveying process

# Swiss Chapter of the System Dynamics Society

### **Financial Audit**

Christian Flury, the Financial Auditor of the Swiss Chapter of the System Dynamics Society, presented the findings of the audit.

Christian stated the the Swiss Chapter had an income of CHF 775.00 and expenses of CHF 506.70 in the calendar year 2007. Hence, there was a profit of CHF 268.30.

The Swiss Chapter had assets of CHF 756.65 in the closing balance on 31 December 2007.

The bookkeeping was duly done by Gianluca Colombo and Luisa Tettamanti at the University of Lugano. Therefore, Christian proposed to discharge the policy council. This proposal was unanimously accepted.

# **Election of Policy Council**

The Executive Committee proposed the following persons to be (re-) elected:

• Co-Presidents – Stefan Grosser, University of St.Gallen / University of Bern – Thomas Beck, Swiss Re

• Vice President - Practitioner Workshops – Justus Gallati, seecon gmbh • Vice President - Academic Affairs – Cécile Emery, University of Lugano

• Cashier – Gianluca Colombo, University of Lugano • Financial Auditor – Christian Flury, Flury&Giuliani GmbH

#### **Report for 2008**

The Swiss Chapter consists of researchers, educators, consultants, and practitioners in the corporate and public sectors. Approximately 120 people currently receive our emails.

In late 2005, we introduced a membership fee whereas we granted a discount to members of the International System Dynamics Society. To date more than twenty persons have paid the membership fee for 2008.

#### The activities of the Swiss Chapter include:

• Chapter meetings at least four times a year. The number of participants in chapter meetings has been around ten ever since we first met in 2003 (although there are distinct

oscillations). In chapter meetings we usually combine a presentation about system dynamics in action with the discussion of organizational issues.

• Ph.D. round table for students in the field of system dynamics and related disciplines every three months. The location of the round table meeting alternates between the University of St. Gallen, University of Lugano, University of Berne, and University of Lausanne (to come).

• Additional, irregular activities involve enhancing academic and consulting competencies as well as educational programs.

Special activities in 2008 included:

• The further elaboration of our homepage: www.systemdynamics-swisschapter.ch

• The presentation of the Swiss chapter at the special chapter and SIG poster session at the ISDC in Athens.

• Members of the Swiss Chapter will create several session reports for the ISDC. The reports can be found on the SD-Society's website about the conference.

• A workshop about Strategy Dynamics has been organized at the University of St. Gallen. It was attended by practitioners as well as researchers.

• In the annual election, most of the previous officers of the Swiss Chapter have been reelected. Only, Dr. Thomas Hamann position as Vice President Academic Affairs has been replaced by Cecile Emery. We thank Thomas for his support and commitment to the chapter. We wish him success and all the best for his new challenges.

• A strong collaboration with the German Chapter has been established.

Since late 2005 the University of St. Gallen (webpage) and the University of Lugano (management of the annual membership fees and accounting) have provided institutional support.

Stefan Groesser and Thomas Beck

(Co-Chairs of the Swiss Chapter) June 2008

www.systemdynamics-swisschapter.ch

### Report of the German Chapter to the Policy Council of the System Dynamics Society

#### June 30 th, 2008

The past 12 months have been characterized by numerous activities aiming at the generation of further growth and an increased visibility of the German Chapter. Furthermore, the attention was turned on establishing routines and processes to ensure smooth and efficient operations after the extensive and laborious foundation phase.

As of today – i.e. 18 months after its foundation – the Chapter has 73 paying members (up from 45 in June 2007, cf. the attached list). In addition, about 80 people have registered for our newsletter. With about  $\notin$  1,700 on the current account and the 2008 membership fees still outstanding, the growth in membership also translates into a solid financial situation.

In order to align the Chapter's General Meetings with the financial year, two General Meetings have been held since the Boston conference. The recent meeting was held during a 11/2 day workshop event in Mannheim and, among other administrative aspects, included the election of a new Executive Board. The Chapter's Executive Board currently consists of:

- Switbert Miczka President and Society Liaison
- Mathias Fischer VP Finance
- Ju□rgen Strohhecker VP SD in Research and Education
- Florian Kapmeier VP Application of SD in Practice
- Markus Salge VP Information Technology

#### Major events and activities during the last 12 months

General Meeting, November 16 th, 2007, Mannheim.

o 17 members participated. o Tom Kuehner (PA Consulting Group, Frankfurt) gave a presentation on the application of system dynamics models in PA's project management business.

o The Chapter commemorated Prof. Gert-Harald von Kortzfleisch who had passed away in October 2007. Having met Jay W. Forrester in 1968, von Kortzfleisch pioneered the application and dissemination of system dynamics in Germany. o The General Meeting decided to create the Gert-von-Kortzfleisch-Award for outstanding publications in system dynamics, including a prize money of  $\in$  500,

o The General Meeting passed three motions regulating institutional memberships, and allowing the nomination of honorary members.

• Regional System Dynamics roundtables, January – April, 2008, Frankfurt, Munich, and Hannover.

Attracted in total more than 30 system dynamicists from the respective regions, both members and non-members.

2 nd System Dynamics Workshop "40 Years System Dynamics in Germany", June 9–10 th, 2008, Mannheim.

- $\circ$  The 11/2 day workshop event combined
  - a 2.5-hour modelling workshop,
  - the opportunity to play the beer game,
  - talks by Erich Zahn, Peter Milling, and Kim Warren,
  - a practitioners' colloquium,
  - a PhD colloquium, and an informal SD roundtable.
- 50 participants both members and non-members from academia and practice met during this event, spurred lively discussions and exchanged experiences, ideas, and insight on all aspects of system dynamics and related fields.
- The 1 st Gert-von-Kortzfleisch-Award was awarded to Nadine Schieritz for her work on the combination of system dynamics with agent-based modelling.
- General Meeting, June 10 th, 2008, Mannheim.
  - o Regular annual administrative meeting.
  - o Exoneration of the Executive Board.
  - o Election of a new Executive Board.

A poster presentation and a Chapter meeting are scheduled for the 26 th International System Dynamics Conference in Athens.

### Outlook and selected projects for 2008/09

• Joint workshop with the German OR Society on "Traffic and Logistics", November 13–14, 2008, Frankfurt International Airport. o Call for Paper is available from www.systemdynamics.de. o Invited Guest Speaker: David C. Lane.

- Continuation of SD roundtables in different German cities.
- Activities to attract individual as well as institutional members.

• Transfer of the Chapter's website to a commercial server, development of additional website functionalities.

• 3 rd System Dynamics Workshop and next General Meeting planned for May / June 2009.

# **Psychology Chapter of the System Dynamics Society 2008**

The Psychology Chapter of the Society will take part in the Athens conference by giving a poster presentation on Monday, July 21, at 10:30 am. The presentation will provide an overview of the chapter's purpose, membership and current activities. We hope to see you at that time. Come around and chat.

In addition the Chapter will be holding a breakfast meeting of the Chapter on Wednesday, July 23, at 8:00 am. This meeting is an opportunity for us to informally discuss common interests and projects and, if there is time, to discuss a current hot topic on the System Dynamics Society listserv regarding the use of "soft" variables in system dynamics simulation models.

# Developing a Bibliographic Resource for Chapter Members.

One on-going project of the Chapter, brought up at last year's meeting in Boston, MA, dealt with establishing a data base of articles and papers that in a broad sense focus on modeling psychological and social processes. The chapter received a few references from members thus far this year. We would like to establish a bibliographic resource by putting all references we receive into an Endnote file, to be distributed periodically to Chapter members.

Please send us anything you have to augment and enhance the collection by July 11, 2008 (e-mail to leviner@msu.edu). Just send us the reference (Date, author(s), Journal, etc) in a word document or in Endnote format.

# Soft Variables in System Dynamics Simulation Models.

People in the chapter have expressed an interest in incorporating social and psychological processes to enhance understanding of the dynamics of the problem and its solution. There are others who want to use system dynamics to develop either new psychological theories or a more rigorous representation and analysis of existing theories through SD models.

This year, there has been an exciting debate and discussion about the use and explicit inclusion of soft, non-conserved variables that capture information processes involved in loop structures. This issue is at the heart of what chapter is all about. If there is time, it would be interesting to discuss this issue at the meeting.

### System Dynamics Italian Chapter (SYDIC) Annual Report (July 2007- June 2008) (Habib Sedehi)

The development of the System Dynamics Italian Chapter (SYDIC) new website has been concluded. The final version (www.systemdynamics.it) is now available and is in use since the beginning of 2008. The site was designed and developed involving both Engineering faculty students of Rome "Tor Vergata" University and BSc Communication Sciences faculty students of Rome "La Sapienza" University. The SYDIC website characteristics are detailed through a paper presented in the poster session at the Athens ISDC 2008.

There has been continues academic and research activities, by the Chapter members, in the field all over the country. Following are those which were reported by SYDIC members:

**University of Bologna** – Faculty of Mathematical, Physical and Natural Sciences – Dynamics of Complex Organisations course.

http://www.eng.unibo.it/PortaleEn/Academic+programmes/Teachings/dettaglio.htm?Ann oAccademico=2006&IdComponenteAF=141346&CodDocente=035837&CodMateria=4 4759

Research activity in System Dynamics:

• Analysis of supply-chain dynamics using computer simulation.

• Analysis of the combination of computer simulation and mathematical analysis in conducting research (in cooperation with the Department of Mathematics).

Bachelor & Master Thesis in System Dynamics

University of Siena – Department of Social and Business Studies – Governance and Management Control degree course http://www.disas.unisi.it/?page=didattica&link=yes&l=s&l mat=ins&g=1024&j=y

Research activity in System Dynamics:

• Improving strategic thinking with System Dynamics based Interactive Learning Environments. Period: 2007-10.

• Applying the Balanced Scorecard in a System Dynamics perspective. Period: 2007-09.

**University of Pisa** – Faculty of Computer Sciences – Department of Environmental Sciences – Environmental modelling course

University of Rome "La Sapienza" - Faculty of Communication Sciences - Advanced

degree in Enterprise Communication – System Theory and Dynamic Simulation Modelling full course. Collaboration with Tor Vergata University in organising and supporting seminars for PhD graduated students (see below).

Research activity & Master Thesis in System Dynamics:

- Security & Safety Management
- ICT innovation management in the Government environment
- Dynamic and Web Marketing Management

SYDIC website: System Dynamics Italian Chapter site's supporting design.

**University of Rome "La Sapienza"**– Master at Faculty of Statistics Sciences – Department of Data Intelligence and Strategic Decisions – Integrative lessons in SD

**University of Rome "Tor Vergata"** – Faculty of Economics – Business Studies Department

#### Research activity in public governance & policies, health care, cultural sector and SD

• Master in Management and Innovation for the Public Administration: introduction to System Thinking, modelling and simulating with System Dynamics (June 2008)

• A set of seminars on SD methodology and practice (November - December 2007) dedicated to the students of different PhD courses at "Tor Vergata" University; in the seminars, discussions were carried out about System Thinking and System Dynamics, regarding both the theoretical aspects (Paal Davidsen chaired the first day session), and the practical applications of SD (Production, Sustainable Development, Finance, Economy, Services, etc...)

**University of Rome "Tor Vergata"**– Faculty of Engineering – Department of Enterprise Engineering –Production Processes Modelling course and Master in Network System Engineering – Introduction to simulation" course.

• Business & Management Engineering, "Tor Vergata" University of Rome. Systems Services Models, light course: introduction to System Thinking and System Dynamics (February 2008)

• Master in Network Systems Engineering, light course: introduction to System Thinking, modelling and simulating with System Dynamics (September 2007) Research & Thesis in System Dynamics:

• The paperless process in Italian Government Administration

- The human resource management in Software Projects
- The Beergame: A Microworld for Supply Chain multiplayer analysis

• Software project Open source and collaborative development SYDIC website: System Dynamics Italian Chapter site's re-engineering and site's community development.

**University of Genoa** – Faculty of Engineering; Production, Thermoenergy & Mathematical Modelling department in collaboration with CNR(National Research Council)-ISSIA and together with Cranfield University(UK) are developing (starting from June 2007) a PSS (Product Service Systems) SD model oriented to their economic, social and environmental evaluation.

**ENI Corporate University** – Mattei School of Management – Master in Energy and Environmental Economics and Management - Integrative lessons in SD

• Introduction to SD with some applications to energy and environment

• Energy and Environmental Modelling using SD ENI S.p.A - Strategies and Development Department.

• Analysis and development of SD models in the European automotive sector's fuel consumption

• Study of the oil's asymmetrical production curve merging the Hubbert dictates and classical economists approach through SD modelling, evaluating the impact of economic conditions on reserves and their production rate

**Massachusetts Institute of Technology (MIT)** – NSE & ESD Department PhD Graduate Student and Teaching Assistant in the risk and safety division. Use of SD in the following main fields;

• Thermo-Hydraulic Design of Power Plants with specific focus on the use of SD model capable to detect accident evolution of nuclear power plants,

• Risk and Safety assessment and modelling (i.e. uncertainties propagation analyses, learning machines to detect patterns in the probability of failure of physical systems),

• Energy Markets Modelling (financial and competition model in the energy market).

Finally during this year a new SYDIC member 14 belonging to the Municipality of Verona has reported that in the main phases of a complex project, supporting the enhancement process of an important part of the public historical heritage of the Verona

city, System Dynamics approach has been used. It's possible to find the information on the project (period and kind of activities, information about the Military Architecture considered in the project, first results and contacts on the site http://www.veronafortificata.it ).

## SYSTEM DYNAMICS SOCIETY

### **UNITED KINGDOM CHAPTER REPORT 2008**

- 1. About 400 members with live email contacts.
- 2. President : Roderick Brown Secretary : Steffen Bayer
- Treasurer : Michael Kennedy Vice Presidents: Susan Howick (Past President), Brian Dangerfield (VP Liaison), Christina Spencer, Kim Warren, John Swanson Student Liaison: Michael Quigley (Univ of Salford)
- 4. Recent activities:
- 10<sup>th</sup> Annual Gathering London South Bank Univ. Feb 2008: Theme: SD+. (Joint with the SD+ Study Group of the UK OR Society)
- Speakers were:
  - John Morecroft & Stuart Robinson.
  - Colin Eden
  - Jim Lyneis (Current President of the SD Society)
- A full account of the meeting was presented in the *SDSociety Newsletter* for June 2008. This will be reproduced on our website (www. systemdynamics.org.uk/) which is presently being updated. Attendance was over 60 people.
- Next (11<sup>th</sup>) annual gathering, to be held in London in Feb 2009, is currently being planned. Suggestions for a theme are welcome.
- Networking event: London 29 May 2008. This was our 3<sup>rd</sup> social & networking meeting, held in the basement of a London pub. Around 15 attendees during the course of the evening. We plan to continue with these occasional events.

Proceedings of the 10<sup>th</sup> Annual Gathering of the UK Chapter of the System Dynamics Society: ISBN no. 1 87418-66-7

Steffen Bayer (Imperial College) was elected onto the Policy Council as Secretary. Our best wishes to Alfredo Moscardini who takes leave of the Policy Council after many years of sterling service.

The finances are tabled and accepted at each Annual Gathering. For the latest financial standing please contact our Treasurer, (<u>Mike.Kennedy@lsbu.ac.uk</u>)

Brian Dangerfield VP Liaison