# Risk Newsletter

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# SRA Europe Hosts its 25<sup>th</sup> Annual Meeting



SRA Europe meeting dinner held in historic Pump Room of the Roman Baths in Bath, UK. Photo by Randa Kachef.

SRA Europe celebrated its Silver Jubilee in style amongst Roman ruins and fine art as members met in Bath, UK, to discuss the application of risk to policy and practice. *Read more on page 3.* 

#### **SRA Sponsors NATO Workshop**

Read from Igor Linkov, Benjamin Thomas, José Palma Oliveira and James H. Lambert on the SRA co-sponsored workshop "Resilience-Based Approaches to Critical Infrasturcture Safeguarding".

Read more on page 8.

### **Brexit Sparks Trend of "Take-Backs"?**

SRA Press Director David Clarke comments on the recent trend "Clexit": a call to exit the climate friendly Paris Agreement.

Read more in "Political Movements and the Science Roles of SRA Members" on page 10.

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Field and Science of Risk

Risk Newsletter Deadline

## Message from the SRA President

The SRA has upcoming major events in Gothenburg, Sweden; Adelaide, Australia; San Diego, California, USA; Oita, Japan; Curitiba, Brazil; Biobio, Chile; Venice, Italy; Lisbon, Portugal; and elsewhere. If you can, you should attend and engage with your worldwide colleagues often and with great effect!

Planning for the fifth World Congress on Risk is beginning—stay tuned for details on how to participate. SRA World Congresses are held every three to four years, usually in locations where membership has a high potential for growth.

The interviews for a new position of SRA Director of Communications are underway, led by the SRA standing committee on Communications, which is chaired by Robyn Wilson and Ragnar Löfstedt.

The preliminary program for the 2016 SRA Annual Meeting to be held in San Diego will be released soon, along with opportunity to both register for the meeting and renew your membership for the calendar year 2017. Memberships are available both for the worldwide organization and for more than a dozen regional organizations according to your home/work address across more than forty countries.

SRA members look forward to learning more of your accomplishments in this and future SRA newsletters and SRA social media. Thanks go to Randa Kachef for terrific results in this!

The SRA journal is having a record-breaking year in 2016. Please join in congratulating Tony Cox, Editor-in-Chief, and Karen Lowrie, Managing Editor, the journal Editorial Board, and the Publications Committee led by SRA Past President Pamela Williams.

Thank you for bringing the SRA to the attention of your colleagues, clients, employees, students, publishers, et al. They may be interested to sponsor exhibits or other items at the upcoming meetings. Of course they are also welcome to join us as members and meeting participants.

See you very soon at the upcoming SRA events!

James H. Lambert, SRA President

#### **Upcoming Webinar – 31 August**

Join us on 31 August for the next in our webinar series. Hosted by Dr. John Lathrop, President Elect of the SRA Applied Risk Management Specialty Group, the webinar is titled "Principles, Guidelines and Core Knowledge for Analytic Support of Risk Management". Sign up and listen to past webinars on our site:

http://sra.org/news/webinar-lathrop

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#### Politics and Risk Converge at SRA Europe 2016 Meeting



*University of Bath sets a picturesque backdrop for the SRA Europe 2016 Annual Meeting.* 

Randa Kachef, SRA News Editor All photos by Randa Kachef

Nestled within the picturesque campus at the University of Bath, the Institute for Policy Research (IPR) is among the United Kingdom's leaders in impactful policy research. With its goal of building the ever-necessary links between policy and practice, IPR was a uniquely appropriate host for the SRA Europe 2016 Annual Meeting entitled, "Understanding Risk: From Theory to Application in Policy and Practice."

Held from June 20-22, the meeting was well attended by both academic researchers and decision-makers. The night before the formal program began, meeting-goers caught up with colleagues and made new acquaintances over drinks at the beautiful Victoria Gallery in central Bath.

The formal meetings started the next day on the lush campus of Bath University in the ultra-modern Chancellor's Building. Vice Chancellor of the University, Professor Dame Glynis Breakwell, extended the attendees a warm welcome and set out how she hoped the meeting would benefit both the SRA and some of the work Bath University is undertaking.

The first keynote speaker was Bath's own Professor Bill Durodie, current head of the Department of Politics, Languages & International Studies. Professor Durodie gave us an interesting background on key risk concepts and applications in his talk "Theory informed by practice. Why to understand and manage risk – cultural context is key". During his talk he set out his key thesis that application is informed by purpose. Professor Durodie made astute observations concerning the forecasting of risk. His key argument was that analysts project contemporary concerns on the future and on laypeople's understanding of risk.

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As a result, there is an important need to understand the personal implications of risk and not just the probabilities.

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The meeting's second keynote, Ricardo Garcia Mira, came straight to Bath from his political efforts in Spain's general election campaign, where he was running for a position as Member of Parliament. Professor Mira spoke from his unique perspective on research and policy, in his presentation titled, "Risk communication and social participation: The application of environmental knowledge to environmental policy. The case of the Prestige disaster".

According to Professor Mira, researchers lack interest in the possible impact of their research in the political arena and this limits the political appeal of academic research. Using the 2002 Prestige oil spill as a case study, Professor Mira concluded that in order to properly integrate research and policy the two fields must work to generate knowledge together, settling differences in opinions and agendas, allowing space for social innovation and coming to a consensus on governance models.

Coffee was followed by afternoon sessions on energy, health and climate change, graced by experts such as Dr. Nick Pidgeon and Dr. Ann Bostrom. Lunch brought about the first meeting of the new SRA Benelux group, hosted by President Dr. Frederic Bouder. During this session plans for the second annual meeting began to unfold, with agreement reached that the next Benelux meeting would be held at the Netherlands National Institute for Public Health and the Environment (RIVM) on March 20, 2017.

Other sessions on the Monday afternoon included fascinating insights and discussions on transparency in the information age, with the poster sessions concluding the day.

#### **Excellence Award**

Tuesday morning began with the Student Award prizes. The SRA sends its congratulations to the following winners for their exceptional work:



From left to right, Femke Hilverda, Ido Sivan-Sevilla and Artem Anyshchenko.

- Artem Anyshchenko of the University of Copenhagen for "Issues in the Regulation of GMO's. Bridging the Gap between Science and Socio-Economic Considerations".
- Femke Hilverda of the University of Twente for "The Effect of Facebook Comments and Likes on Risk Perception of Organic Food".
  - And the winner of the Ortwin Renn Prize for Applied Risk Research, Ido Sivan-Sevilla of the Hebrew University of Jerusalem for "U.S. Cybersecurity with and Without Privacy: A Risk Regulation Perspective on United States' Cyber Regimes".

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The first keynote speaker of the day then took over - Professor Michael Depledge, who shared a few of his thoughts on accepting global risks. Professor Depledge illustrated a grim present day scenario when, compared with 75 years ago, 2,500 times more chemicals are produced globally. The result of this production, he said, is that environmental hazards, air quality and chemical exposure dominate the list of negative health actors, where in the past genetics was a key indicator of an individual's future health. Professor Depledge then hypothesized on the mental health effects of the growing number of risks, uncertainties, and exposures that the public accepts daily.

The second keynote guest was Dr. Luisa Lima, who presented her research on the "plague of elitism" among decision-makers, using a case study on dam development in Portugal. Dr. Lima called for an approach to public perception that is inclusive of the public, and not exclusive. In her research she has found that the best way to sway the public is to be friendly, over simply being competent.

Lunch brought on the meeting of the SRA European Nordic chapter. Hosted by President Dr. Ullrika Sahlin the discussions focused on the upcoming meeting in Gothenburg from November 14-15. The theme of the meeting will be "Where are we and where are we going," and the abstract deadline is 29 August.



SRA Europe Nordic Chapter President Ullrika Sahlin discusses upcoming events.

Even after lunch was over, food dominated the afternoon with case studies by Professor Ragnar Löfstedt on dioxin poisoning in the Baltic Sea, perceptions of dietary supplements, nanotechnology in foods and the controversial benefit-risk analysis that accompanies GMO production.

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The SRA Europe Meetings are renowned for their lavish dinners and this one was up to standards. Hosted in the Roman Baths and Pump Room, attendees not only relished a sumptuous repast but also enjoyed a feast of conversation among the ancient Roman ruins dating back as far as 60-70 CE.





Dinner is served in the Pump Room.

Sparkling wine and snacks in the Roman Bath.



Entrance to the Pump Room.



Old and new friends catching up.

### View all photos from the meeting on the SRA Flickr account:

https://www.flickr.com/photos/society for risk analysis

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Wednesday, the final day of the meeting, focused on nuclear issues, social media and early warning evacuation decisions.

Clearly, SRA Europe 2016 brought together the at-times conflicting worlds of politics and risk analysis, giving meeting participants much to think about as policy-makers and analysts both consider the many risks confronting societies and seek solutions that make sense to the public as a whole.

The historic setting of Bath proved a perfect backdrop, with much anticipation generated for next year's SRA Europe Annual Meeting, to be held in Lisbon, Portugal, 19-21 June 2017.



Pulteney Weir in historic Bath, UK.

### **Upcoming SRA Meetings**

- **SRA Europe Nordic Chapter 2**<sup>nd</sup> **Annual Meeting** Monday, 14 November Tuesday, 15 November 2016, Gothenburg Sweden.
- **SRA Australia and New Zealand 2016 Conference** Wednesday, 23 November Friday, 25 November 2016, Adelaide, South Australia.
- **SRA-Japan 2016 Annual Meeting** Friday, 25 November Sunday, November 27, Oita city, Japan.
- SRA 2016 Annual Meeting "Risk and Resilience: Viva la Revolución!" Sunday, 11 December Thursday, 15 December 2016, San Diego, California, USA.
- SRA Europe Benelux Chapter 2<sup>nd</sup> Annual Meeting Monday, 20 March 2017, Amsterdam, Netherlands.
- **SRA Europe 2017 Annual Meeting** Monday, 19 June Wednesday, 21 June 2017, Lisbon, Portugal.

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# SRA Sponsors NATO Workshop on Safeguarding of Critical Infrastructure

Igor Linkov and Benjamin Trump (US Army Corps of Engineers), José Palma Oliveira (University of Lisbon) James H. Lambert (University of Virginia)



Opening Panel. From left to right: Dr. I. Linkov, Workshop Director, Risk and Decision Science Focus Area Lead, US Army Corps of Engineers, USA; Dr. J.H. Lambert, President of the Society for Risk Analysis; Dr. M. Heitor, Minister of Science, Technology, Education, Portugal Mr. F. Brito e Abreu, the Regional Secretary of the Sea, Science and Technology, Azores, Portugal Ms. Konick, Principal Officer, Consulate of the USA, Azores, Portugal Professor J. Palma-Oliveira, Workshop Co-Director, University of Lisbon, Portugal. Photo by Government of Azores.

On June 26 - 29, 2016, fifty scholars and practitioners of risk and resilience analysis from some twenty countries met in Ponta Delgada in the Azores Islands to discuss the challenges associated with the emerging science of resilience theory and applications. Sponsored and funded in part by the North Atlantic Treaty Organization (NATO) Science for Peace and Security Programme, the overall topic of this meeting was "Resilience-Based Approaches to Critical Infrastructure Safeguarding." The workshop was co-sponsored by the Society for Risk Analysis and was organized and directed by two long-standing SRA Members (Drs. Igor Linkov and José Palma-Oliveira) and by Prof. Bojan Srdjevic of University of

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Novi Sad. SRA President Prof. J. Lambert, provided a summary of the roles of the SRA in advancing risk and resilience analysis around the world. The meeting utilized the collective experience and insight of scholars and experts across industry, government, academia, and other organizations to explore various interpretations and understandings of resilience in order to provide a comprehensive and universal understanding of how the methodology might be applied to critical infrastructure systems in various disciplines and applications.

The workshop focused on ways in which military commanders and civilian decision makers alike could utilize resilience analysis in operations. More specifically, workshop discussion centered on both general resilience theory and analysis as well as various applications of resilience in topics ranging from cybersecurity to infrastructural resilience to ecosystem health. In this vein, uncertain yet consequential shocks and stresses that challenge a system's resilience require immediate response and thus real time decision making. As such, this workshop sought to discuss how methods and tools are able to address such concerns by reconciling conflicting inputs, overcoming high uncertainty, and facilitating context-driven decision making within various resilience applications.

These topics were addressed via a collection of panel discussions and presentations as well as within smaller working groups. For the former, seven panels were organized across the three-day workshop to review various considerations and applications of resilience. Within such discussion, topics included areas such as with *Resilience Needs in Partner Countries, the Integration of Risk and Resilience into Policy, Cyber Risk and Resilience*, and others. Within each panel discussion, invited participants were asked to organize a presentation in order to stimulate discussion regarding various panel topics and applications of resilience theory and practice.

For the latter, workshop participants were organized into four working groups that addressed risk and resilience based management in (1) infrastructure, (2) cyber, (3) social domains, and (4) methodology and tools for cross-domain integration. Representatives of each working group were asked to lead discussion and strive to move towards "State of the Science and Practice" reviews, where each group will produce one or more chapters pertaining to the discussion of resilience theory and applications within their relevant domain of discussion.

This three-day effort both deepened and enriched the participants' collective understanding of resilience theory and applications, and also confirmed the significant potential influence that resilience may have upon various disciplines and fields in response to emerging threats. Springer will publish reflections and comments by workshop participants in 2017, where participants collectively advocate for a systems-driven view of resilience in applications ranging from cybersecurity to ecology to social action.

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#### Political Movements and the Science Roles of SRA Members

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David Clarke, SRA Press Director

An interesting article published by *The Guardian* August 8 describes a new group called "Clexit" (Climate Exit) that, taking a cue from the successful June 23 Brexit vote, aims to withdraw countries from the international climate treaty adopted last December in Paris. The article (1, links on page 23) notes that in both the Clexit and Brexit populations there is "a dangerous strain of anti-intellectualism, in which campaigners mock experts and dismiss their evidence and conclusions."

In the U.S. Senate and elsewhere, the Clexit advocates would find sympathetic audiences who consider climate change a "hoax" and, unfortunately, neither scientific evidence nor expert testimony will break that sound bite barrier, even as climate change scientists are warning that keeping global warming below the 1.5C target set at the Paris negotiations may be close to impossible. In February and March this year, temperatures peaked at 1.38C above pre-industrial levels.

This battle between those who see no problem and the majority of scientists who are deeply concerned probably won't be budged by a new report released August 2 by the U.S. Environmental Protection Agency, with contributions from the Centers for Disease Control and Prevention, National Oceanic and Atmospheric Administration, U.S. Department of Agriculture, and other agency experts, together with input from knowledgeable people in numerous universities, nongovernmental organizations, and international institutions.

The report Climate Change Indicators in the United States, 2016 (2), is the fourth edition of a report EPA first published in 2010. The report's 37 indicators include not only the familiar data on greenhouse gas emission levels, but new indicators such as river and coastal flooding, Antarctic sea ice, heat-related illnesses, West Nile Virus, stream temperature, and marine species distribution. Based on "changes observed from long-term records related to the causes and effects of climate change," the indicators are used to describe "the significance of these changes, and their possible consequences for people, the environment, and society," according to the report.

Not all climate change causes and effects are covered by the report, but those presented are worrisome, according to EPA's top air official, Janet McCabe, who said, "With each new year of data, the signs of climate change are stronger and more compelling." McCabe added: "This report reiterates that climate change is a present threat and underscores the need to reduce greenhouse gas pollution and prepare for the changes underway, to protect Americans' health and safeguard our children's future."

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EPA's new indicators underscore the human health impacts of climate change because, as the document notes, in recent years scientists have gained increasingly greater understanding of how climate change increases risks to human health. As the report points out, in April 2016, the U.S. Global Change Research Program (USGCRP), mandated by Congress in 1990, published the largest-ever assessment of the state of the science and concluded, "Every American is vulnerable to the health impacts associated with climate change."

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For those with ears to hear, the USGCRP words should give pause. But, those who are listening may be fewer today than in the past, according to a 2015 analysis of trends in how the public perceives the risk of climate change. The paper, "International trends in public perceptions of climate change over the past quarter century,"(3) notes that polls showed concerns rising from the 1980s to around 2007. But then the polls show "a sharp decline in belief and concern across many developed countries, followed by stabilization in some parts of the world since about 2010," the authors note. They comment that time series analyses taking into account a range of possible explanatory factors "indicate the economic downturn and political events have been particularly influential" in lessening public concerns.

As Society for Risk Analysis members well know from the groundbreaking studies published by members, risk perceptions don't always follow expert conclusions but reflect a litany of values and worldviews apart from whatever scientific evidence points to. But, that said, how dangerous is the anti-intellectualism observed in a number of populist movements? What is it putting at risk, other than perhaps the future of Britain's prosperity and the planet Earth's health?

#### **Conferences and Workshops Committee**

Sandra Hoffman, CWC Chair

Conferences and Workshops Committee (CWC) has two subcommittees. The Conferences subcommittee focuses on events outside the Annual Meeting. The Workshops subcommittee focuses on organizing workshops held in conjunction with the Annual Meeting. There are two upcoming SRA-sponsored events and three regional organization meetings advertised on the SRA website. If other organizations you are involved with are planning a conference or workshop, please consider SRA non-financial co-sponsorship. It's a great way to get wider advertisement about your event and organization and to spread word about SRA. An application form can be found on the SRA website.

## **Regional Organizations**

#### **SRA Australia New Zealand**

Steve Corin, SRA ANZ Treasurer

# Conference registration opens for SRA ANZ 2016 Conference.

The wait is over - conference registration for the SRA-ANZ 2016 conference is now open!

This year's theme for the multidisciplinary conference is 'Engaging Risk'.

The conference will be held at Central Queensland University's Appleton Institute, Adelaide, South Australia, and will run from 22 - 25 November 2016.

SRA ANZ 2016 will bring together worldclass speakers across Australasia for an action-packed conference covering all areas of risk.

A keynote from Professor Stewart Lockie will launch two days of presentations, followed by two days of professional workshops on risk perception, risk analysis and research career development.

Our presenters will also cover a range of topics including applied mathematics, environmental assessment expertise and safety management.

Earlybird registrations will close on 30 September 2016 and we are offering a very attractive fee for SRA-ANZ members of \$180.00 AUD to attend.

#### **SRA Europe Nordic Chapter**

Ullrika Sahlin, SRA Nordic President

We wish to welcome all SRA members to the 2<sup>nd</sup> Annual SRA Nordic Chapter Meeting in Gothenburg Sweden November 14-15. The theme of the meeting is "Where are we and where are we going: New insights into risk analysis in the Nordic countries". This meeting is open for anyone to attend, including those outside the Nordic-Baltic region. We are proud to announce that SRA President Lambert will be there to welcome us and give his support. If you haven't done it already, have a look at the list of keynote speakers! We look forward to an opportunity to share ideas, professional experiences, and enthusiasm.

Submit your abstract before August 29, 2016! More info at the meeting web page <a href="http://gri.handels.gu.se/konferens/sranordic-chapter-meeting">http://gri.handels.gu.se/konferens/sranordic-chapter-meeting</a>



Source - http://www.sraeurope.org.

#### **SRA Japan**

Yasunobu Maeda, SRA Japan President

On June 30, SRA-Japan held its 2016 general business meeting at the University of Tokyo. In this meeting, the following new officers were elected to serve from 2016 through 2018.

- Yasunobu Maeda (president, international committee)
- Hideya Kubo (vice president, program committee)
- Takehiko Murayama (secretary general)
- Midori Aoyagi (program committee)
- Reiko Kanda (treasurer, secretary)
- Atsuo Kishimoto (program committee)
- Hiromitsu Ogata (editorial committee)
- Kyoko Ono (international committee)
- Yoshihito Takeda (risk manager committee)
- Yuichiro Usuda (information committee)
- Minoru Yoneda (editorial committee)
- Noritaka Katatani (inspector)
- Kazuhiko Chikamoto (inspector)

SRA Japan has invited former SRA President Dr. Ortwin Renn to host a variety of workshops and symposia around Japan.

The "2016 Kyoto Symposium" will be Dr. Renn's first event on August 31. For details, see:

http://risk.env.kyoto-u.ac.jp/kurrn/kurrn.html

The second event is the "International research workshop on risk governance" in Osaka University on September 1-2. The Japanese program is available at:

http://www.see.eng.osaka-u.ac.jp/seeem/seeem/03\_theme\_risk\_governance\_pj/document/20160901-02\_program.pdf

Dr. Renn's final event is the "Risk Governance International Symposium: Risk Governance in High Level Waste - Challenge and Experience in Germany and Japan" held at the University of Tokyo on September 6. Visit the program page: http://stig.pp.u-tokyo.ac.jp/?p=1832

Finally, SRA Japan will host its 2016 Annual Meeting from November 25-27 at Horuto Hall OITA in Oita, Japan. The theme is "Toward people's understanding and propagation of risk concept". For details, visit the meeting website:

http://www.sra-japan.jp/SRAJ2016HP/

#### **SRA Latin America**

Rosa Maria Flores Serrano, SRA LA President-Elect

This month SRA Latin America has started up the election process for its 2017-2018 Executive Committee. We currently are accepting nominations for the positions of President Elect, Secretary and Treasurer. Elections will be held in October 2016 with results being announced by the end of the year. We invite all members to apply or to nominate a colleague either on the SRA LA website or through our new Twitter account @SRALatinAmerica.

SRA LA is proud to support the first Brazilian Congress on Disaster Risk Reduction (CBRRD) to take place from October 12-15 in Curitiba, Brazil. The CBRRD is organized by the University Centre for Studies and Research on Disasters of Paraná (CEPED / PR), in conjunction with the State University of Paraná (UNESPAR) and Positivo University (UP).

CBRRD is expected to attract more than 500 participants and will feature presentations and discussions on technical and scientific articles on Disaster Risk Reduction (DRR), several of which will be led by SRA LA members. Some topics of interest are: risks and environmental disasters, risks and technological disasters, development, DRR and public policy, communication and education in DRR, networks and community participation, and technology and innovation in DRR. During the event, we will announce the formalization of the Brazilian Research Network on DRR. The deadline for abstract submissions is August 31, 2016.

More information please see: <a href="http://www.congressorrd.org">http://www.congressorrd.org</a>.

SRA Latin American will also be supporting the Seminar on Environmental Risks in the Region of Biobio. The seminar, titled "Contributions in Applied Research and Risk Management" will take place in the city of Concepcion, Biobio, Chile. The event will be held on September 1st, 2016 and is organized by the Universidad de Concepción (Environmental Sciences Center, EULA -Chile), Universidad Católica de la Santísima Concepción (Departament of Civil Engineering) and the Pontificia Universidad Católica de Chile (Departament of Geography). Anticipated topics of discussion include: Natural Hazards,

Anthropic Risks, Surveillance and Monitoring of Natural Hazards Network, and Planning and Risk Management Instruments.

For more information please contact <u>riesgosbiobio@gmail.com</u>.

#### **SRA Taiwan**

Kuen-Yuh Wu, SRA Taiwan President

Since its inception, SRA Taiwan has actively promoted risks analysis through a variety of channels. We have established an international academic network and participated in many academic conferences across the globe, including:

- The Toxicology Annual Meeting "AsiaTox" in Korea, May 2015
- SRA World Congress on Risk in Singapore, July 2015
- SRA-Japan Annual Meeting in Nagoya, Japan, November 2015
- SRA 2015 Annual Meeting in Arlington, VA, December 2015

These activities have helped our members to establish conversations and take part in knowledge-sharing projects that transcend international borders. The conversation among Taiwanese practitioners has also been promoted, mainly at our full-day SRA Taiwan Risk Analysis Conference held this past January in Taichung. The meeting focused on encouraging members and students to publish original work, and invited them to give lectures and engage in conversations on health risks in the central regions of Taiwan.

Our journal, *Global Perspective of Risks*, has published over 19 volumes. Each edition presented recent discoveries by risk experts, allowing members to expand their horizons and promoting collaborations in research.

Newly enacted SRA-Taiwan President Kuen-Yuh Wu took his position in February of this year. Dr. Wu is looking forward to devoting the next four years to further growing the international efforts of SRA-Taiwan. He also intends to promote the field of risk analysis in Taiwan in order to recruit new academics and future leaders. Dr. Wu plans to focus on topics such as food safety, environmental impact and protection, and occupational health, in the hopes of using academic research to shape the future of Taiwanese public policy.

SRA-Taiwan will continue to recruit members and has plans for expanding the regional 2017 Annual Meeting. We hope these actions will increase the visibility and influence of SRA-Taiwan in both the academia and public policy sectors.

**Europe**, Margot Kuttschreuter - M.W.M.Kuttschreuter@utwente.nl

Europe Benelux Chapter, Frederic Bouder <u>f.bouder@maastrichtuniversity.nl</u>

Europe Nordic Chapter, Ullrika Sahlinullrika.sahlin@cec.lu.se

**Japan**, Yasunbo Maeda - tymaeda1@ipc.shizuoka.ac.jp

**Korea**, Dong-Chun Shin - dshin5@yuhs.ac

Latin America, Elizabeth Nunes Alves - presidencia@srala.org

Russia, Valery Lesnykh - v\_lesnykh@vniigaz.gazprom.ru

**Taiwan**, Kuen-Yuh Wu - kuenyuhwu@ntu.edu.tw

Ukraine/Kiev, Naum Borodyanskiy - naumb@list.ru

United Kingdom/London, Julie Barnett - julie.barnett@brunel.ac.uk

#### **SRA Regional Organizations**

Australia/New Zealand, Naomi Coggern.cogger@massey.ac.nz

**Canada**, Gaëlle Triffault-Bouchet - gaelle.triffaultbouchet@mddep.gouv.gc.ca

China, Chongfu Huang - hchongfu@bnu.edu.cn

Egypt, Shady Noureldin - shady@sra-egypt.org

#### Are you on LinkedIn?

Stay connected with the SRA by joining the official LinkedIn group.



https://www.linkedin.com/groups/4265467

# **SRA Specialty Groups**

# The Ecological Risk Assessment Specialty Group

Alison Pecquet, ERASG Chair

The Ecological Risk Assessment Specialty Group (ERASG) is going through some changes! This year, we welcomed our new secretary, Ms. Patricia Nance, and our new treasurer. Dr. Lawrence Martin. With their help, we were able to begin holding quarterly conference calls and to offer funding incentives to group members for session proposals. We were able to award student travel, international travel, and merit awards to those who applied. We have also drafted a new set of bylaws that should be posted online soon. Our next quarterly call will be coming up, and anyone is welcome to participate as we talk about the future direction of the ERA SG (contact information below to learn about upcoming calls).

Our group will also be looking for volunteers and nominations for the Chair position at this upcoming Annual Meeting. Ms. Alison Pecquet is ending her second term as Chair of the group and is looking to pass the torch to the next round of interested scientists. We encourage you to submit nominations and boost your own networking, career, and involvement in the community through volunteering. We are looking forward to a great Annual Meeting in December. For more information, please contact: Alison.Pecquet@uc.edu.

# Risk Communication Specialty Group

Janet Yang, RCSG Chair

Attention members of the Risk Communication Specialty Group (RCSG) or members thinking of joining the RCSG: We have designed a three-minute survey that seeks your thoughts on how to use our budget. Please help us identify ways of using your dues that benefit you most: <a href="https://cardiffunipsych.eu.qualtrics.com/SE/?SID=SV-38mRdT2OTsVqdSJ">https://cardiffunipsych.eu.qualtrics.com/SE/?SID=SV-38mRdT2OTsVqdSJ</a>.

#### **Specialty Group Contacts**

Applied Risk Management, Myriam

Merad - <u>myriam.merad@ineris.fr</u> <u>http://sra.org/armsg</u>

Decision Analysis and Risk, Matt Wood - matthew.d.wood@usace.army.mil http://sra.org/darsg

Dose Response, Allen Davis - davis.allen@epa.gov
http://sra.org/drsg

Ecological Risk Assessment, Alison Pecquet - <u>alison.pecquet@UC.edu</u> and Katherine Von Stackelberg -<u>kvon@nekassociates.com</u> http://www.sra.org/erasg

Economics and Benefits Analysis, Sandy Hoffmann - <a href="mailto:shoffmann@ers.usda.gov">shoffmann@ers.usda.gov</a> <a href="http://sra.org/ebasg">http://sra.org/ebasg</a>

## Emerging Nanoscale Materials, Jeremy Gernand - <u>jmgernand@psu.edu</u> http://sra.org/enmsg

Engineering and Infrastructure, Samrat Chatterjee - <u>samrat.chatterjee@pnnl.gov</u> <u>http://sra.org/eisg</u>

Exposure Assessment, Chris Greene christopher.greene@state.mn.us http://sra.org/easg

### Foundational Issues in Risk Analysis,

Terje Aven - <u>terje.aven@uis.no</u> <u>http://sra.org/frasg</u>

Microbial Risk Analysis, Moez Sanaa - moez.sanaa@anses.fr http://mrasg.org/

### Occupational Health and Safety, Fred

Boelter - <u>fboelter@environcorp.com</u> http://sra.org/ohssg

Risk and Development, Vanessa Schweizer - vanessa.schweizer@uwaterloo.ca

Risk Communication, Janet Yang zyang5@buffalo.edu http://sra.org/rcsg

Risk Policy and Law, Genya Dana - gvdana@gmail.com

Security and Defense, Jun Zhuang - <u>jzhuang@buffalo.edu</u> http://sra.org/rplsg

## **Society for Risk Analysis Annual Meeting**

Sheraton, San Diego, California 11-15 December 2016

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#### Workshop on the Field and Science of Risk Analysis

Terje Aven, FRASG Chair



Workshop Participants: David Alderson, Naval Postgraduate School, USA, Terje Aven, University of Stavanger, Norway, Frederic Bouder, Maastricht University, The Netherlands, Seth Guikema, University of Michigan, USA, Katherine McComas, Cornell University, USA, Pia-Johanna Schweizer, University of Stuttgart, Germany, Kimberly M. Thompson, University of Central Florida, USA, Felicia Wu, Michigan State University, USA; and, as secretaries, Roger Flage, University of Stavanger, Norway, Allison Reilly, University of Michigan, USA, and Kristen Schell, University of Michigan.

On May 5-6 a workshop on risk analysis and science was organized in Ann Arbor, Michigan, USA. The idea of the workshop was to stimulate discussions and future activities related to the topic. Risk analysis was interpreted at the workshop in a wide sense, as in Society for Risk Analysis (SRA) contexts covering in particular risk assessment, risk communication and risk management). Below are summarized some of the reflections that emerged from the discussions.

A distinction highlighted during the workshop introduction and frequently referred to throughout the workshop was that between:

- A. Studies and management of the risk of specific activities
- B. Generic risk practices and research: How to conceptualise, understand, assess, communicate and manage risk

For example, it was pointed out that it is not a goal to have as many analysts as possible working on area B, but rather to see enough work in the area to have development occur

there and to generate momentum. There is a need for a proper balance between A and B types of activities.

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Moreover, there was a suggestion for a new area C, covering the interrelation between A and B, i.e. how to arrive at a coherent framework for reflecting on A and B. Others considered this aspect covered by B. There was also broad agreement that publications contributing to the field of risk analysis should contribute to generalizable knowledge, so although a publication is addressing A, there should be some impact also on B.

The discussions at the workshop revolved around the following questions and issues:

1. Defining the risk analysis field/science. Is risk analysis actually a field/science? Is it really important?

The answer was a clear and unambiguous 'yes' to the questions of whether risk analysis is a field. This is also important, from an individual (self-serving) point of view, in terms of career progression, to be recognized for work performed, for promotion, and for tenure. But it is also important because there are many people working across applications/domains who face similar issues, and the field provides a venue for them to share ideas, learn about best practices, and contribute to the development of these practices.

The question of whether risk analysis is a science came up with more divergent answers. One line of argument was that it depends on how "science" is defined; whether the reference is the traditional scientific method, with requirements for reproducibility and validation, or a broader understanding. For the latter, there were arguments that although indeed a science, risk analysis is not a unified science. However, risk analysis is definitely scientific in the sense of being systematic and evidence-based

2. What are the main challenges/obstacles for the development of this field/science? How can we best meet these challenges/obstacles?

Several main challenges/obstacles were identified and discussed, including:

- Lack of clear research funding mechanisms specifically tied to risk: Research project calls tend to be issue-focused, i.e. focused on A rather than B.
- Lack of standards: Standards are difficult to come up with due to the interdisciplinary nature of the field; and the lack of such standards makes it hard for the community to be authoritative.
- Unclear career paths for those who work in the field: In academia, there are tensions for interdisciplinary researchers to get tenure; and in industry, risk analysis is not an established profession (beyond actuaries, finance, consultants).
- Lack of advocacy for the field/science (e.g., visibility in policy circles).

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- Lack of critical mass in the community.
- Lack of a unified approach to training.

Suggestions for how to meet these challenges/obstacles included:

- Raise the field's visibility and increase outreach to decision-makers and the media (e.g., publicize specific examples of great work having an impact, and collaborate with like-minded or complementary professional organizations, to increase the visibility of risk analysis as a field and science).
- General outreach and PR (e.g., recruit educators or figure out a way for SRA to work on such communication as a Society, invite and chaperone media at the Annual Meeting).
- Establish standards for quality control.
- Fund postdocs within government (like AAAS fellows).
- Better coordinate with academic programs to offer robust curricula in risk, and improve educational offerings at conferences
- 3. Define key, concrete subjects of the risk field/science

The following subjects were identified:

- Risk assessment: Methodology (probability, statistics, domain-specific topics), modeling, and process; evidence evaluation; survey of domain-specific techniques/areas of application (financial, engineering, human health, ecological, environmental).
- Risk management and governance: Decision analysis, policy analysis, operations research, economics (microeconomics, cost-benefit analysis, behavioral economics), regulatory systems, stakeholder and public engagement, ethics; key concepts (e.g. resilience).
- Risk perception and communication: Cognition about risk (heuristics, biases, mental models, etc.); cultural, social, institutional factors; framing effects, experimental design, surveys; public engagement, messaging, focus groups; quantitative and qualitative methods (mental models, experimental design, survey research, statistics); key concepts (e.g. trust).

There was also a broad discussion in particular about what a curriculum in risk analysis would look like. What goes into an undergraduate/graduate understanding of risk? What goes into a professional certification for risk? One suggestion was to define a "ladder of competence" for risk analysis, analogous to the one suggested by Hubert Dreyfus in the 1970s in the field of software engineering.

3. Where do we go from here? What steps do we need to take?

In addition to the initiatives identified in response to issue b), the following suggestions for how to move forward were made:

- Make use of SRA New Initiatives to increase visibility: Invite media to be chaperoned at Annual Meeting (cf. b). Encourage (via support) creation of TED talks (or create TED-like talks on SRA website).
- Make a short video competition (e.g., 3-5 min, topics to be defined, appeal to students, finalists to be filtered, online voting of finalists, to be shown at SRA meeting luncheon with an award to be announced/presented there):
- Discuss with SRA Council, awards committee; define a process to do it, guidelines/requirements, timeline for submission, etc.
- Develop a certification process for risk analysts, along the lines of INFORMS.

The output/deliveries from the workshop were an increased understanding of what are the obstacles for the further development of the risk analysis field, as well as an increased understanding of what it means to be a risk analysis professional. Furthermore, several ideas for how to improve the current situation were generated, and preliminary drafts of subjects defining the core of the risk field and science were drawn up. Finally, the workshop provided a basis for a roundtable at the SRA Annual Meeting 2016 in San Diego, where most the workshop participants will take part.

See <u>www.sra.org/frasg</u> for more detailed information from the workshop, including slides from the presentations.

## **Upcoming SRA Sponsored Events**

- **2016 Kyoto Symposium** Wednesday, 31 August 2016, Kyoto, Japan.
- Environmental Risks Seminar Thursday, 1 September 2016, Concepcion, Chile.
- International Research Workshop on Risk Governance Thursday, 1 September Friday, 2 September 2016, Osaka, Japan.
- Risk Governance International Symposium Tuesday, 6 September 2016, Tokyo, Japan.
- Brazilian Congress on Disaster Risk Reduction (CBRRD) Wednesday, 12 October Saturday, 15 October 2016, Curitiba, Brazil.
- **SRA Policy Forum: Risk Governance for Key Enabling Technologies** Wednesday, 1 March Friday, 3 March 2017, Venice, Italy.

#### **Standing Committees**

The SRA Council maintains a number of committees to facilitate the governance and operation of the Society. Members interested in the topics covered by committees or serving on a committee may contact their chairs

Annual Meeting, Margaret MacDonell - macdonell@anl.gov

Audit, Aylin Sertkaya - Aylin Sertkaya@erg.com

Awards, George Gray - gmgray@gwu.edu

Communication, Robyn Wilson - wilson.1376@osu.edu, Ragnar Löfstedt - ragnar.lofstedt@kcl.ac.uk

Conferences and Workshops, Sandra Hoffman - <u>SHoffmann@ers.usda.gov</u>, Robyn Wilson - <u>wilson.1376@osu.edu</u>

**Education**, Jennifer Kuzma - <u>jkuzma@ncsu.edu</u>, Robin Dillon-Merrill - <u>rld9@georgetown.edu</u>

Executive, James H. Lambert, <a href="mailto:lambert@virginia.edu">lambert@virginia.edu</a>

**Finance,** Jacqueline Patterson - patterson@tera.org, Bilal Ayyub - ba@umd.edu

**Membership,** Linda Teuschler - <u>lindateuschler@gmail.com</u>, Ragnar Löfstedt - <u>ragnar.lofstedt@kcl.ac.uk</u>

**Nominating,** Ortwin Renn - <u>ortwin.renn@sowi.uni-stuttgart.de</u>

**Publications,** Pamela Williams - pwilliams@erisksciences.com

Regions, Joseph Arvai - <u>jlarvai@umich.edu</u>, Frederic Bouder - <u>f.bouder@maastrichtuniversity.nl</u>

**Specialty Groups,** Terje Aven - terje.aven@uis.no, Sandy Hoffmann - SHoffmann@ers.usda.gov

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Risk Newsletter is published by the Society for Risk Analysis

#### Deadline for upcoming Risk Newsletter submissions

Contributing to the **end of year** Risk Newsletter is an excellent way to promote workshops and meetings that you may be organizing for the 2016 Annual Meeting in San Diego, CA. Be sure to submit your contribution before November 4<sup>th</sup> by emailing: newseditor@sra.org

#### **Society for Risk Analysis**

1313 Dolley Madison Blvd., Suite 402, McLean, Virginia, 22101, USA.

SRA Website: http://www.sra.org

Links from "Political Movements and the Science Roles of SRA Members" p. 10-11

- 1. <a href="https://www.theguardian.com/environment/climate-consensus-97-per-cent/2016/aug/08/rejection-of-experts-spreads-from-brexit-to-climate-change-with-clexit">https://www.theguardian.com/environment/climate-consensus-97-per-cent/2016/aug/08/rejection-of-experts-spreads-from-brexit-to-climate-change-with-clexit</a>
- 2. <a href="https://www.epa.gov/sites/production/files/2016-08/documents/climate\_indicators\_2016.pdf">https://www.epa.gov/sites/production/files/2016-08/documents/climate\_indicators\_2016.pdf</a>
- 3. <a href="http://onlinelibrary.wiley.com/doi/10.1002/wcc.321/abstract">http://onlinelibrary.wiley.com/doi/10.1002/wcc.321/abstract</a>