

Aleksandar Jovanović

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Aleksandar (MSc. ME, PhD) has worked for industry, research, EU institutions and universities, in a number of different countries, such as Belgium and Italy (EU, university), Germany (industry, research, university), France (university), USA (industry, university, research), etc. Since 2001, he is the director of the Steinbeis Advanced Risk Technologies Group in Stuttgart, Germany providing consultancy in the areas of risk assessment and risk management for industry and public sector. He is the CEO of the European Institute for Risk & Resilience Management (EU-VRi), bringing together about 50 industrial and research organizations active in the area of applied risk and resilience management, full professor at Steinbeis University Berlin (Technical Risks) and his other current and previous assignments include Italy (Politecnico di Milano), France (Ecole Polytechnique), Japan (University of Tokyo), USA (La Jolla), Serbia, Croatia and China.

Aleksandar's main contributions to risk research and advancement of the respective state-of-the-art have been related to (a) industrial "risk projects", (b) academic research in the area of risk (especially emerging risks and resilience) and (c) European and international risk standardization.

Aleksandar has a long-year professional experience as project manager of many large international **industry "risk projects"**, dealing with risk management, engineering risks, innovation risks, risk governance for new technologies, use of big data for risk analysis and related areas, etc. Main clients in these projects have been the EU, national governments (Norway, Belgium, Japan...), industry, utilities, insurances companies, R&D and academia. Main topics of the current projects deal with risk management in industry (e.g. for insurance, power, process) and include HSSE (Health, Safety, Security, Environment), RCM (Reliability Centered Maintenance), RBI (Risk-Based Inspection). Examples of the industrial projects are, e.g., the assessing risk of 40,000 MWe installed electric power capacity for Eskom in South Africa (about \$10 million) or assessing risks refineries in Gazprom. Sample EU projects managed by him include iNTeg-Risk (www.integrisk.eu-vri.eu, 19.3 million €, 80+ partners), SmartResilience (Resilience Indicators for critical infrastructures in Europe, www.smartresilience.eu-vri.eu) or InfraStress (www.infrastress.eu).

In the area of **academic risk research** Aleksandar has been pioneering the risk-oriented probabilistic structural mechanics in 1980's (stochastic finite element method), introduced risk methods in the engineering analysis of remaining life in 1990's, developed new methods for risk-based optimization of inspection and maintenance in the industrial plants (power and process primarily). He is a coauthor of the milestone study/book on Future Global Shocks of the OECD (2013), author of 7 books and over 170 publications (www.researchgate.net/profile/Aleksandar_Jovanovic5).

As a "risk practitioner" in the area of **international standardization**, A. Jovanovic has contributed to the global risk community by a number of actions. He is the Convener and main author of:

- (a) European standard CEN-CWA 15740:2008 ("Risk-Based Inspection and Maintenance"),
- (b) European standard EN16991:2018 ("European Risk-Based Inspection Framework")
- (c) CEN-CWA 16449:2013 ("Management on New Technologies-Related Risks" also appeared as DIN SPEC)
- (d) ISO standard ISO 31050 "Management of emerging risks for enhanced resilience" – has involved SRA into the process, as an Organization in Liaison to ISO.

He acts as the Liaison Officer in the ISO 31000 (risk management) ISO Committee, as a member of the Committees TC292 (security) and ISO 31010 (risk assessment methods), and as convener for the new ISO 31050 standard (<https://committee.iso.org/sites/tc262/home/projects/ongoing/iso-31022-guidelines-for-impl-2.html>).

In 2019, A. Jovanović was one of the main "Organizing Chair" of the SRA World Congress in Cape Town, South Africa (<https://srawc.wpengine.com/congress-organization/>).

Aleksandar speaks fluently French, Italian, English, German and Serbo-Croatian, reads and communicates in Spanish, Portuguese and Russian and has always used this to promote the risk-related issues in many countries.

Statement of Goals

If elected, as SRA Councilor, I will wholeheartedly work on achievement of the three main goals below, which I believe, will help contribute to the realization of the SRA general goals and enhance its presence and relevance worldwide. The three main goals are pragmatic, related to my previous and current research and educational work, and should bring useful added value to the current SRA scope of activities. These goals are:

SRA concepts in ISO STANDARDIZATION:

Boost application of SRA concepts, actions and activities in national, EU and international standardization.

As the convener and main author of several European and international standards in the area of risk and resilience management, as well as member and liaison officer in several risks and resilience related standardization committees (e.g. for the ISO 31000 risk management - www.iso.org/iso-31000-risk-management.html, or the “risk-related” committees of DIN and NEN), I am in a privileged position to promote the SRA position and interests in the field of standardization. As the main developer and the convener of the European standard EN 16991 (risk-based inspection – www.cen.eu/news/brief-news/pages/news-2018-011.aspx), the EU CWA 16449 (emerging risks of new technologies - www.beuth.de/en/technical-rule/din-cwa-16649/192492793) and the corresponding DIN SPEC 91299, I have already promoted the “SRA approach” and will continue to do so in further developments of the standards. These developments are currently very much oriented towards resilience, resilience indicators, systemic risks, risks of Industry 4.0 and emerging risks. As convener of the new ISO standard on “emerging risks and resilience” in the International Standardization Organization (ISO) series 31000. The new ISO 31050 standard “Management of emerging risks for enhanced resilience” – <https://committee.iso.org/sites/tc262/home/projects/ongoing/iso-31022-guidelines-for-impl-2.html>), is a new standard in the ISO 31000 family, fully involving SRA. The importance of this standard has been emphasized by the recent events such as COVID-19 crisis (https://link.springer.com/article/10.1007/s10669-020-09779-8?wt_mc=Internal.Event.1.SEM.ArticleAuthorAssignedToIssue).

SRA concepts for “RISK PRACTITIONERS”:

Improve visibility of the SRA, its concepts, actions and policies in national and industrial projects.

Academic and research originated risk brought in by the SRA members (methods, tools, concepts) is often not well known or not known at all, in industrial environments, and consequently less used in national and industrial projects. My goal is to help changing this for better. Not the least as the educator of the new “risk practitioners” (e.g. at the Steinbeis University <http://sti.risk-technologies.com/home.aspx?lan=230&tab=2833&itm=2989&pag=3044> and www.risk-technologies.com/filehandler.ashx?file=16117) Thanks to a large number of international the EU, national and, especially, industrial projects and a network of over 30,000 contacts, as a counselor, I hope to be in the position to promote further the SRA actions and activities. An example of these is the work on organization of the **SRA World Congress on Risk 2019 in South Africa** (<https://srawc.wpengine.com/congress-organization/>), where I acted as the Organization Chair. My goal is to continue this type of activities, especially in industrial and other non-academic environments.

RESILIENCE & EMERGING RISKS for SRA:

Develop and promote the SRA-related research and activities on issues of resilience and emerging risks.

The issues of promoting SRA in the area of risks and resilience is in the focus of the large past and future EU projects managed/coordinated by me: iNTeg-Risk (www.integrisk.eu-vri.eu), SmartResilience (Resilience Indicators for critical infrastructures in Europe, www.smartresilience.eu-vri.eu) or InfraStress (www.infrastress.eu). Current projects in the area of risk and resilience involve very much application of AI (machine/deep learning), use of resilience indicators for assessment of critical infrastructures and communities. functions, as well as the related non-academic and professional education (“risk education for all” – e.g. in the EU SwafS-context <https://ec.europa.eu/programmes/horizon2020/en/h2020-section/science-and-society>).

A **practical objective deliverable** resulting from above would be enriching the SRA resources with SRA BEST PRACTICE DOCUMENTS (BRD) on the topics above: at least 3 respective BRD documents should be created, in collaboration with other SRA members, and additional 3 on other topics, during my councilor’s mandate.