

## ONE Society

### PUTTING SCIENCE INTO CONTEXT: THE FUTURE OF SOCIAL SCIENCE IN RISK ANALYSIS

#### Summary

Why incorporate social sciences in risk assessment, risk communication and risk management? This question has been debated in the regulatory arena for quite a while. Now we are witnessing a paradigm shift, marked by the inclusion of societal contributions to policymaking and an ever-growing importance of coordinated risk communication – accelerated not least by the pandemic, which brought the role of science to the centre of the public debate on effective risk analysis. At this evolving science–policy–society interface, the session aims to bring together some of the most experienced scholars and practitioners to discuss: (1) how social sciences can provide a societal perspective to – and stimulate the participation of diverse population groups in, risk analysis, and how such insights can help explain complex scientific concepts through innovative risk communication; and (2) what are the implications of technology on communication in the digital age and the underlying social research. Ultimately, we want to contribute to the ongoing debate by making as case for why and how the use of social sciences will be crucial to remain relevant in the changing One Health environment.

#### Vision

Global commitments, set out in the 2030 Agenda for Sustainable Development, call for science that accelerates human progress by providing new evidence, using technology and innovation to improve efficiencies and contributing to more sustainable consumption and production. The potential of social sciences to contribute to these commitments is huge – building knowledge about society, through use of new methods and technologies, can provide valuable advice to risk assessors, communicators, and managers in order to meet citizen’s expectations. With a paradigm shift towards society contributing to policymaking, the integration of social sciences within One Health-One Environment approaches is set to increase and play an important role in ensuring such contributions are provided in a relevant way. Technology advancements offer the opportunity to expand on this role, giving communication in a digital age a prominence in strengthening citizens’ trust that the risk analysis is underpinned by the objective of ensuring a high level of protection of human health and in line with consumers’ interests.

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## Background – Challenges and opportunities

Incorporating humanities and social sciences in risk assessment and risk management organisations has been extensively discussed over the past decade. Even if there is no wide agreement on a best-practice way to integrate these disciplines in regulatory science work, different models have evolved, recognizing the value of understanding the social, political and economic context in which science is delivered as well as using social research methods to inform communication activities.

Recommendations stemming from the EFSA 2018 conference included the need to frame and use social research in a way that can produce insights to meet information needs of audiences and contextualize risk assessments; investments in an open dialogue with society were sought with a view towards ensuring balanced representation of interested parties. At the same time, trends such as the democratisation of information in a highly interconnected and global environment, are affecting the trust of citizens in institutions and the expectations that society places on regulatory science; the ongoing pandemic has brought the role of science to the centre of the public debate on effective risk analysis. At this meeting point of public expectations and needs, social sciences must be utilized in designing both engagement and communication activities to effectively support risk analysis and related policymaking.

A lot has been done in EFSA and partner organisations, both at EU and international level, to progress in this area, but the fast-moving communication and engagement landscape, coupled with technology advances and the need for more encompassing risk assessments, present opportunities for the further integration of humanities and social sciences in the work of these organisations. The ONE - Health, Environment, Society - Conference 2022 offers us a chance to explore how existing and new social research methods can adapt to new trends that could facilitate social science in becoming one of the core competencies of those that need to deliver and communicate science within the One Health-One Environment approach.

## Scope and objectives

The objective of the thematic session will be to showcase the need within the current science-policy-society interface to integrate humanities and social sciences into risk analysis work. Successful examples of how it has been put in practice will frame the debate. More specifically:

- The session will call for societal contribution to science and policymaking at a global level, then showcase examples of how social science methods can support this: (1) foster engagement and innovation in an EU policy-making context; (2) provide behavioural insights that can support public health

measures; and (3) stimulate citizen contribution to widening the available evidence base in scientific organisations.

- Communication in the digital age will be tackled through a technology advancement lens, explaining the main trends and challenges; to be followed by practitioners providing insights on (1) innovative ways to communicate scientific information; (2) social research based on remote and app-supported data collection; and (3) communication in the context of sustainable food production solutions.
- A future-oriented discussion will focus on the importance of social sciences to remain relevant in the changing operating environment. It will bring together the main findings from the two discussions during the session and pave a path towards the future of social sciences at regulatory bodies working within the One Health-One Environment approach.

### People behind the session

**Session Coordinator:** Domagoj Vrbos, European Food Safety Authority (EFSA)

**Chairpersons:** Domagoj Vrbos, European Food Safety Authority (EFSA)

**Moderators:** Ragnar Lofstedt, King's College London

**Rapporteurs:** Annibale Ferrini, European Parliament; Giorgia Zamariola, European Food Safety Authority (EFSA); Anthony Smith, European Food Safety Authority (EFSA)

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## ONE Society – Session affiliate profiles

### PUTTING SCIENCE INTO CONTEXT: THE FUTURE OF SOCIAL SCIENCE IN RISK ANALYSIS

#### **Anthony Smith, European Food Safety Authority (EFSA)**

Rapporteur

Anthony Smith works in the Department of Partnership and Cooperation, at the European Food Safety Authority (EFSA). Anthony studied political science, economics and anthropology at university and has over 20 years of experience as a professional communicator in the public, private and non-profit sectors. He has an eclectic track record of communications management and operational content production involving print and online media, multilingual news copy and public information, audiovisual formats, web and social media channels; on topics ranging from sport, leisure and finance to policy analysis, scientific food safety risk assessment and communication methodologies. His current role at EFSA is risk communication scientist, in which he uses social research insights to develop communications approaches and to contribute to strategic communication planning and operations. Anthony's research and contributions to EFSA outputs deal with topics on food safety risk communication, communication of scientific uncertainty and, in the future, risk/benefit communication.

#### **Domagoj Vrbos, European Food Safety Authority (EFSA)**

Chairperson and moderator

Domagoj Vrbos currently works as Team Leader in the Communication and Partnership Department of the European Food Safety Authority (EFSA) in Parma. His responsibilities relate to providing social science perspectives to different areas of EFSA's work, including generating insights from society that can support the delivery of trustworthy assessment and communication of risks from farm to fork as well as evolving the social science methods and capabilities available to the organisation. His recent publications focus on social research in areas within the remit of the EU food safety system and the science of risk communication. Prior to this assignment, he worked in areas of monitoring, evaluation and communication related to food and nutrition at the United Nations World Food Programme (WFP) and lived and worked in Rome and Bangkok. He has a background in economics and consumer studies from University of Zagreb (Croatia)

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and holds a master's degree in development studies from Università La Sapienza (Italy). Domagoj will be co-chairing the session on 'Putting science into context: the future of social science in risk analysis' within the One Society track of the ONE conference.

### **Giorgia Zamariola, European Food Safety Authority (EFSA)**

Rapporteur

Giorgia Zamariola is a social scientist at EFSA who is passionate about social research and risk communication. She obtained a PhD in psychology at the Catholic University of Louvain in Belgium for her work focusing on the relationship between body, emotions, and eating behaviour. She conducted research with both general and clinical populations affected by obesity which helped her understand the perceptions people hold towards food and the vital role that safe and nutritious food plays in people's lives. As an enthusiastic human-mind and behaviour expert, she truly believes that an audience-first approach to risk communication requires the implementation of social research to understand citizens' views, values, beliefs, and the cultural factors that influence their perceptions on food-related risks. She is committed to contributing to the achievement of the strategic objectives within the Farm to Fork Strategy with the goal of improving human lives, the life and welfare of animals, and the life of our planet.

### **Annibale Ferrini, European Parliament**

Rapporteur

Since 2020 Annibale Ferrini is an EU Health Policy Adviser at the European Parliament. He has extended experience in International Cooperation projects based in Latin America and the Mediterranean for sustainable food systems, territorial development and social risk assessment of large-scale projects. His professional efforts were aimed to inform, engage with and mobilize a large range of different stakeholders at local and regional level as well, from community leaders to national and international decision makers, from NGOs operators and volunteers to researchers and policy makers, from diplomatic bodies to UN and EU Agencies. In 2012, Annibale co-founded the "Biocultural Diversity and Territories Platform" and the related "Education, Training and Research-Action Hub", two initiatives between Latin America and the Mediterranean focusing on local biocultural diversity for Sustainable Territorial Development, involving more than 300 public and private institutions sharing strategic, human and financial resources. He organized and

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coordinated international multi-stakeholders' initiatives from workshops to forum, from innovation labs to postgraduate diplomas.

## John Kinsman, European Centre for Disease Prevention and Control (ECDC)

Speaker

John Kinsman has conducted social and behaviour change research since 1996, including on the social determinants of health, health system strengthening, public health emergency preparedness, and the prevention and control of specific diseases such as HIV/AIDS, Ebola, Zika and poliomyelitis. He has lived and worked for many years in Zimbabwe and Uganda, with research projects in a number of other African countries, as well as in Asia and Latin America. John gained his PhD in medical anthropology at the University of Amsterdam in 2008, and was Associate Professor in Global Health at Umeå University in Sweden from 2013 to 2019, when he joined the European Centre for Disease Prevention and Control (ECDC). At ECDC, he worked initially on promoting vaccination acceptance and the prevention of antibiotic resistance in the EU, but since the emergence of the COVID-19 pandemic, his work has focused exclusively on the response. Projects have included addressing pandemic fatigue, supporting socially vulnerable populations, promoting COVID-19 vaccination, and countering online vaccination misinformation.

**Title of talk:** Behavioural insights in support of the response to COVID-19

### Abstract of talk

Behavioural Insights (BI) research is based on social and behavioural scientific methods, and aims to provide an understanding of behavioural choices, barriers and drivers within a population. In the context of COVID-19, BI is highly relevant for (i) facilitating adherence to non-pharmaceutical interventions and (ii) promoting vaccination. Without BI, policies and communication strategies may be not be consistent with the needs and expectations of the population, and intervention effectiveness will therefore be suboptimal.

The COVID-19 pandemic has facilitated the recognition of BI as an area of key importance in public health. An ECDC survey published in 2021 found that BI findings shaped the development of COVID-19 implementation plans during the pandemic in several countries; for example, helping to frame the ways in which different recommended behaviours were presented to the public and enhancing the uptake of COVID-19 testing through the use of behaviour change theories. BI has also helped to provide direction in the messaging around promoting acceptance and uptake of the COVID-19 vaccination, while also addressing issues surrounding pandemic

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fatigue. However, BI is still not fully integrated into the preparedness and response systems of a number of EU/EEA countries, with social and behavioural scientific expertise generally under-represented in national COVID-19 management teams. In addition, human and financial resources have limited the capacity of several countries to conduct BI research: there have been calls for additional efforts to enhance decision makers' understanding of the potential value of BI, so that they can prioritise and invest in this area.

In conclusion, the COVID-19 crisis has provided an opportunity to demonstrate the potential of BI in the prevention and control of infectious diseases. We need now to highlight the achievements made to date, and work towards embedding BI capacities more fully into national structures across the EU/EEA.

### **Marc Kuchner, National Aeronautics and Space Administration (NASA)**

Speaker

Dr. Marc Kuchner is the Citizen Science Officer for NASA's Science Mission Directorate, looking after 28 NASA citizen science projects that connect more than 2 million volunteer scientists around the world. An astrophysicist, Kuchner began his work on cit sci as the PI of both the Disk Detective project and the Backyard Worlds: Planet 9 project. These projects discovered the Peter Pan disk phenomenon, the first extreme T subdwarfs, and most of the known ultracool brown dwarfs, and won the Robert H Goddard award for scientific achievement. Kuchner was born in Montreal, Canada. He has an A.B. in Physics from Harvard University and a Ph.D. in Astronomy from Caltech. After he earned his Ph.D., Kuchner studied at the Harvard-Smithsonian Center for Astrophysics as a Michelson Fellow, and then at Princeton University as a Hubble Fellow. He invented the "band limited mask" used on the James Webb telescope; this work earned him the Early Career Award from the SPIE. Kuchner also writes country songs and children's books.

**Title of talk:** Reaching out to volunteers for evidence: lessons from citizen science

#### **Abstract of talk**

NASA gives anyone, anywhere the chance to do real science via 28 different citizen science projects spanning all five NASA science divisions. Through these projects, millions of volunteers have discovered thousands of new space objects such as asteroids, comets and planets. They have helped save lives by reporting landslides, mapping mosquito habitats and tracing the effects of climate change. They have discovered 400,000 Martian seasonal fans, 283,000 emperor penguin nests and a new kind of aurora named STEVE.

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NASA's citizen scientists make unique contributions by gathering field data from remote locations or many locations at once. Moreover, many of NASA's citizen scientists are trained in science, maths or software development, and apply their skill to make unique contributions, such as developing new analysis tools. Others contribute in new and surprising ways, for example by creating scientific illustrations or devising their own research problems. More than 200 NASA citizen scientists have become published authors of refereed scientific papers. More than 100,000 of them hold advanced degrees. Many of the biggest discoveries from NASA citizen science projects were completely unanticipated by the science teams that planned the projects, and arose only because of ideas generated by the volunteers. Several of our projects leverage volunteer efforts using machine learning techniques – sometimes even programmed by the citizen scientists themselves.

Citizen science benefits NASA and the public in multiple other ways. It helps build scientific literacy and has vast potential as an educational tool. It makes NASA science more open and inclusive, and helps NASA build stronger relationships with underserved communities. As the size of NASA's data archives climbs above 100 Petabytes, the role of citizen science in harnessing this data will continue to expand. I'll give an overview of NASA's citizen science programme and explain how NASA has come to rely on members of the public to drive scientific progress.

### Ragnar Lofstedt, King's College London

Moderator

Professor Ragnar E. Lofstedt is Professor of Risk Management and the Director of King's Centre for Risk Management, where he teaches and conducts research on risk communication and management.

Previously, he was a Reader in Social Geography at the University of Surrey. He is Adjunct Professor at the Department of Engineering and Public Policy, Carnegie Mellon University.

Professor Lofstedt earned his BA and MA degrees at University of California Los Angeles (1988) and Clark University (1991), respectively, before completing his PhD in geography at Clark University (1993). After a post-doctorate position at the Risk, Society and Policy Group at the International Institute for Applied Systems Analysis (IIASA) (Laxenburg, Austria), he joined the University of Surrey as a lecturer in social geography before coming to Kings in 2002.

Over the past years he has conducted risk communication research in the following areas: nuclear power, pharmaceuticals, food scares, siting hazardous facilities and mobile telephone base stations.

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## Sudhanshu Sarronwala, Infarm Indoor Urban Farming

Speaker

Sudhanshu Sarronwala (Suds) is Chief Impact Officer at Infarm, the world's fastest-growing urban farming network, harvesting and distributing more than 1,500,000 plants each month across its network in 11 countries. A long time advocate for environmental conservation, Suds leads Infarm's Impact Division, created within the company to drive understanding of the tremendous health, sustainability and environmental benefits of Infarm's urban farms and the industry at large. His team works with governments, NGOs, companies and other key partners to multiply Infarm's impact and create positive change in our society. Suds has spent more than 30 years in management, communications and as an internet entrepreneur. Prior to Infarm, Suds was Executive Director of Marketing and Communications with the World Wide Fund for Nature (WWF), where he directed brand, media, digital communications and partnership efforts in service of the organization's mission to help conserve natural resources; transform markets, societies and policies toward sustainability; and protect and restore species and their habitats. He was also responsible for Earth Hour Global and WWF-Singapore and was a member of both boards. Suds has lived in India, Hong Kong and Singapore prior to being based in Geneva, Switzerland for the past decade with his family.

**Title of talk:** Communicating with impact: solutions towards sustainability

### Abstract of talk

In an era of climate change shocks, diminishing natural resources and vulnerable supply chains, we need to transform our current food systems to feed a growing urban population in a reliable way.

Consumers are increasingly cognisant of the social and environmental toll the current food system exacts on our planet, and are demanding sustainably grown produce. On the other hand, the risks (both reputational and operational) are significant and growing. For example, a recent report commissioned by the World Wide Fund for Nature (2021) found that more people than ever are in search of a sustainable future. The authors found the number of Google searches relating to sustainable goods has increased by 71% globally since 2016. Another survey by Havas Group Worldwide reported that 2 in 3 consumers believe that when it comes to driving positive social change, brands bear as much responsibility as governments. The European Commission's Farm to Fork Strategy aims to create a fair, healthy and environmentally-friendly food system. The Strategy is an essential element of the European Green Deal and will impact food businesses by

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recommending improvements to their corporate governance framework, including a requirement for the food industry to integrate sustainability into corporate strategies. For innovative AgTech companies with a compelling sustainability narrative, there is a tremendous addressable market, but numerous complex logistical challenges to solve on the way to widespread acceptance by food retailers, regulatory agencies and the public. Therefore, a comprehensive, multi-channel communication strategy must address the concerns of multiple critical stakeholders, including academia, investors, talent, regulatory agencies, retail partners and end consumers.

The talk will focus on the communication strategy of Infarm, a global vertical farming (VF) company committed to setting a science-based carbon net-zero target through the Science Based Targets initiative. Infarm seeks to communicate transparently about the sustainability, environmental and health benefits of Infarm's cloud-connected urban farms. Specifically, Infarm aims to drive real and positive change in the way people grow, eat and 'think food', creating powerful partnerships across the VF industry, public-private platforms, multilateral and non-governmental organisations.

### Ana Persic, United Nations Educational, Scientific and Cultural Organization (UNESCO)

Speaker and panellist

Dr Ana Persic is Programme Specialist at the Section of Science Policy and Partnerships, Natural Sciences Sector, at the UNESCO headquarters in Paris. Ecologist by training (Master in Ecological Sciences at the University of Padova, Italy and PhD in Ecotoxicology at the University of Paris South, France), Dr Ana Persic joined UNESCO in April 2006 as an assistant program specialist serving the UNESCO's Man and the Biosphere program within the division of Ecological and Earth Sciences. She has then served as Science Specialist at the UNESCO Liaison Office in New York. Her work relates to strengthening the science-policy interface and the promotion of science technology and innovation in the implementation of the United Nations 2030 agenda for sustainable development and the Sustainable Development Goals (SDGs). Her current work focuses on the implementation of the UNESCO Recommendation on Open Science and strengthening inclusive and gender transformative science technology and innovation systems.

**Title of talk:** A global roadmap for opening science to scientists and society

### Abstract of talk

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The inclusion of societal contributions to policymaking and the need to bring citizens closer to science and facilitate the production and dissemination of scientific knowledge is a paradigm shift marking the work of regulatory organisations around the world. In response to this change, aligned to the commitments captured by the Sustainable Development Goals (SDGs), and at request of 193 countries across the globe, the United Nations Educational, Scientific and Culture Organisation (UNESCO) delivered a Recommendation on Open Science - adopted by its General Conference in November 2021. The aim of the Recommendation is to provide an international framework for open science policy and practice that recognises disciplinary and regional differences in open science perspectives, takes into account academic freedom, gender-transformative approaches and the specific challenges of scientists and other open science actors in different countries, and contributes to reducing the digital, technological and knowledge divides across our society. The recommendation outlines a common definition, shared values, principles and standards for open science at the international level and proposes a set of actions conducive to a fair and equitable operationalisation of open science for all at the individual, institutional, national, regional and international levels. The talk will provide a definition of open science and it will focus on the key objectives and areas of actions of the recommendation, highlighting the open science core values and guiding principles. There are seven areas of actions identified that countries are encouraged to take – one of these is investing in human resources, training, education, digital literacy and capacity building for open science – this area includes recommendations related to science communication, as well as open engagement of societal actors beyond the scientific community. Understanding citizens, engaging them in research and implementing tools such as citizen science are key to success in this area of work.

### Federica Fragapane, Independent Information Designer

Speaker

Federica Fragapane is an independent information designer. She designed projects and data visualizations for Google, the United Nations, Scientific American, BBC Science Focus, Columbia University and she periodically collaborates with La Lettura - Corriere della Sera. She is co-author of the Geopolitical Atlas of Water (Hoepli, 2019) and of Planet Earth (National Geographic Kids and White Star, 2016). She is Research Associate at ODI, global think tank. She won the Fast Company Innovation by Design Awards 2021, the gold medal at the Core77 Design Awards 2018 in New York and was awarded at the European Design Awards 2019 and 2017, Core77 Design Awards 2017 and Information is Beautiful Awards 2017 and 2014.

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In October 2021 she won the Pierre Keller Award at the Hublot Design Prize 2021 in London, an international recognition that aims to support young talents in the world of design. Many of her projects have an experimental approach and are aimed at exploring the design of new visual languages and the relationship between data visualization and people

**Title of talk:** How can we display scientific information in engaging ways?

### **Abstract of talk**

I work as an independent information designer, collaborating with organisations and the world of publishing. I visually translate contents using shapes and visual elements and I design data visualisations. As an information designer, I constantly explore the possibilities that designing a data visualisation opens in terms of creating a connection with the people. My main purpose is communicating about subjects and helping them to be understood. The aim of the design process behind many of my projects is to engage the readers, inviting them to read my pieces and therefore to explore the information and stories I am telling through them. Visual experimentation has a significant role in such research. During the talk I will show the process behind a set of data visualisations designed to engage the readers and help them to explore subjects in their complexity. Every piece tells a unique story: the content is presented by overlaying multiple layers of information, so as to allow the reader to choose how to explore the visualisation and the depth of the analysis. Every visualisation is the result of a multistep design process: research of the topic and data, data analysis, design of the visual model and visual refinements. Usage context has a significant role in my design approach: I will talk about how I often work on pieces that can be read, taking the proper time to do it because the usage context allows it, with a slow reading approach. I will also explain how designing visualisations is similar to the writing process; I write with visual alphabets, and often experiment with new 'visual letters'. For this reason, it is extremely important to provide the readers with all the tools to use these alphabets. This is why a clear legend is essential, and this is always present in my pieces. Furthermore I think that, as with writing, the choice of the visual words is meaningful. I often work with organic and soft shapes. This is one definition of organic, by the Oxford dictionary: 'Relating to or derived from living matter'. Drawing organic visual elements helps me to make the living behind the numbers visible. Sharing information accurately to help people understand intricate topics is very important, possibly now more than ever. I believe that designing an engaging visualisation can play a role in including more readers in the conversations around such topics.

## Dolors Montserrat, European Parliament

Panellist

Dolors Montserrat is a Spanish lawyer currently serving as a Member of the European Parliament (EP). She is Head of the Spanish Delegation of the European People Party and was elected as Chair of the Committee on Petitions of the EP in 2019. She is member of the Committee on the Environment, Public Health and Food Safety (ENVI); co-chair of the Health Working Group in the ENVI Committee; member of the European Parliament's Special Committee on Beating Cancer; member of the COVI Special Committee on COVID-19 impact on European Health Systems, Economy, Society and citizens, and European Parliament Representative in the Davos Alzheimer's Collaborative. Previously, between 2008 and 2019, she was a member of the Spanish Congress of Deputies, representing the Barcelona region. Throughout the X Spanish Legislature, she was third Vice President of the Bureau of the Congress of Deputies, former Minister of Health, Social Services and Equality from 2016 to 2018 and Spokesperson of the PP in the Congress of Deputies.

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## Michelle Patel, Food Standards Agency

Speaker

Michelle Patel is the Deputy Director of Analysis and Insight within the Science team at the Food Standards Agency. With twenty years in Government and a background in communications she remains an endlessly curious scholar of public attitudes and behaviours. Her personal academic interest is in how the citizen perspective is brought into food regulation. In 2018 she started work to transform how the Food Standards Agency approaches its social science, combining skill sets from the communications insight team with more traditional social science disciplines, and establishing a strategic foresight function to increase the organisation's capability in horizon scanning. She now leads a fine team of over forty analysts including social researchers, economists, statisticians, operational researchers and intelligence analysts and has access to leading experts and a wide range of research tools to

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understand how and why people do what they do and what the future holds when it comes to food, seeking to provide better evidence so we can make better decisions.

**Title of talk:** Digital methods in social science for risk communication

### **Abstract of talk**

The involvement of social scientists, including social researchers, economists and communications experts, can provide vital information when assessing, managing and communicating a risk. Digital tools are helping us to do this at a scale and pace which was previously impossible. I will outline some digital research methods that are used at the FSA to understand people. Web-push surveying has allowed us to have statistically-valid data from a wider range of consumers, on broader topics, more frequently, more economically and with a larger sample size. Rapid turnaround surveys allow us to gather survey data from a nationally representative sample in a matter of hours. However, it is not just about the numbers. Online ethnography has allowed consumers themselves to record and tell us about their food safety behaviour in contexts and ways that reflect their lives and values. The use of digital cameras and sensors allows us to observe behaviour in real life - in both domestic and commercial settings, bridging the say-do gap and helping inform risk assessment modelling as well as develop better risk management strategies. Social media listening allows us to observe what people are talking about when they talk about food, to scan for emerging trends and risks and, when we need to, to listen in real time. Digital techniques can also increase participation; since the start of the pandemic we have successfully run three multi-method studies, including an online deliberation study. Using digital methods in this way increases our ability to understand consumer views more holistically and ensure the actions we take on their behalf are appropriate and in line with the values of the people and communities we serve. Finally, experiments mirroring online behaviour are allowing us to test and evaluate behavioural interventions at pace and scale. In this session, I will describe our current methods and how they are being used to connect with attitudes and behaviours to better understand food risk.

**Sander Van der Linden, University of Cambridge**

Speaker and panellist

Sander van der Linden, Ph.D., is Professor of Social Psychology in Society and Director of the Cambridge Social Decision-Making Lab in the Department of Psychology at the University of Cambridge. He has published over 100 research papers, is ranked among the top 1% of social scientists in the world by number of

citations, and his work is regularly covered by outlets such as the New York Times, Rolling Stone, NPR, and the BBC. He has won numerous awards for his research on human judgment, risk communication, and decision-making, including the Sir James Cameron Medal for the Public Understanding of Risk from the Royal College of Physicians. He regularly advises governments and social media companies on how to communicate risk and evidence. He is on the board of the Journal of Risk Research, the Winton Centre for Risk and Evidence Communication, and is the former Editor-in-Chief of the Journal of Environmental Psychology. He recently edited the book "Risk and Uncertainty in a Post-Truth World (with Ragnar Lofstedt).

**Title of talk:** Risk communication in a digital age: keeping up with the trends

### **Abstract of talk**

How does the public navigate 'risk' and 'uncertainty' in the digital age? As people are increasingly overwhelmed with complex information about risk and uncertainty, there is a pervasive assumption among practitioners and government officials that people do not like uncertainty. Yet, does being open and transparent about statistical uncertainty around facts and numbers necessarily undermine audiences' trust? Despite frequent anecdotal concerns, this has not been the subject of much empirical study. In this talk, I will describe the results from several large empirical studies in both the laboratory and in the digital media, in which uncertainty (in a variety of forms and around various topics) was communicated to the public, ranging from economic news to environmental risks to medical decision-making. Overall, our body of research suggests that—under certain conditions— people can 'handle the truth', i.e. communicating uncertainty in the media alongside numbers and facts does not substantially decrease public trust in either the figures or in the professional responsible for producing the uncertainty. However, as risk information is increasingly simplified on social media, there is a tension between persuading and sufficiently informing people, especially during public health emergencies. I present 'five rules for risk and evidence communication' we designed and tested to help address this challenge. Our results should help reassure all communicators of facts, numbers, and science that they can be more open and transparent about the limits of human knowledge in the digital age.

**James Ramsay, European Food Safety Authority (EFSA)**

Panellist

At EFSA since 2011, James Ramsay currently heads up a team of ca. 40 communication professionals working on content development and digital

platforms, campaigns, multimedia, media relations, internal communications, scientific publishing, social science and research, and analytics. Previous roles at EFSA include Head of Unit for Engagement and Cooperation, and Head of Unit for External Relations. With his background in public relations, James has been instrumental in driving forward EFSA's audience-first approach, with a special focus on EU-wide, co-ordinated communications campaigns targeted at both technical and non-specialist audiences. Immediately prior to EFSA, James worked as a communications consultant in London in the financial services sector and before that for public and voluntary sector clients, including the UK government's Ministries of Health and Education on food-related campaigns. James ran the UK office of the pan-EU communications agency, Media Consulta, between 2006-2009, where his clients included various Directorate-Generals of the European Commission, ECDC, and EU-OSHA. James has a Master's degree in International Relations from Leicester University and a Bachelor's degree in Hispanic Studies from Birmingham University. He is a Member of the Management Board of the Translation Centre for the Bodies of the EU (CdT) and a Member of the Chartered Institute of Public Relations.

### **Anne-Katrin Bock, Joint Research Centre (JRC)**

Speaker

Anne-Katrin Bock is the Head of the Competence Centre on Foresight at the European Commission's Joint Research Centre (JRC) in Brussels. The Competence Centre provides strategic and future-oriented input into EU policymaking by using inclusive and participatory techniques with key stakeholders. It strives to make foresight practically useful for decision making processes. Being involved in Foresight since 2012, recent work by Anne-Katrin includes projects such 'Concepts for an EU sustainable food system', 'Farmers of the Future', and long-term scenarios for EU rural areas. Anne-Katrin spend most of her career working at the science-policy interface. She joined the JRC and its Institute for Prospective Technological Studies, Seville, Spain, in 2000. Her work focussed on techno-economic analyses of emerging biotechnological developments and applications in agriculture and health. A biologist by training, Anne-Katrin Bock holds a PhD in microbiology from the Freie Universität Berlin, Germany.

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