

The 12th GSMA EMF Forum Event Guide

Setting the stage for improved EMF policy harmonisation

**Tuesday 26 September
Brussels, Belgium**

09:15-12:30 (online and in-person) and 14:00-17:30 (in-person only)

Introduction

This year's theme is evidence-based EMF policies for mobile telecommunications.

Evidence-based EMF policy

The 2020 RF-EMF exposure guidelines from the International Commission on Non-Ionizing Radiation Protection (ICNIRP), along with the technical standards for demonstrating compliance from the International Electrotechnical Commission (IEC) and the International Telecommunication Union (ITU) should be the basis of EMF policy.

Harmonisation momentum

Countries in every continent are moving forward with adoption of the ICNIRP (2020) limits and updating their frameworks for EMF compliance to use the latest techniques from the international standards. An expert scientific committee recommended that European Union (EU) EMF limits for workers and the public should be based on ICNIRP (2020).

Strengthening the evidence base

The World Health Organization (WHO) Task Group on Radiofrequency Fields and Health Risks is continuing

work to develop an updated monograph assessing potential health effects of exposure to RF-EMF in the general and working population. Authorities are supporting projects addressing open research questions, such as the €29 million from the EU for a network involving more than 70 European research organizations, with additional contributions from scientists in USA, Korea, and Japan.

Actions for authorities

Maximising the potential of mobile technologies means getting the policy settings right. The international EMF exposure guidelines, the international technical standards and communication good practice effective are the essentials of evidence-based policies.

We encourage countries to use the information from the GSMA EMF Forum 2023 to inform their own policies.

EMF Developments in 2023



Agenda

09:15 Welcome and Introduction to the 12th GSMA EMF Forum

The forum brings together policymakers, international experts and industry leaders from around the world to exchange views on the latest scientific research, policy developments and the future of EMF policy harmonisation.

- Laszlo Toth, GSMA

9:30. Science Perspective

Summary of the SCHEER RF-EMF final opinion and introduction to European supported EMF research cluster (CLUE-H).

Overview of recent RF-EMF scientific developments

- Professor Theo Samaras, Aristotle University of Thessaloniki, Greece, and member of the European Commission Scientific Committee on Health, Environmental and Emerging Risks (SCHEER)
- Professor Isabelle Lagroye, Ecole Pratique des Hautes Etudes, Paris, France

10:30 Q&A with science speakers

- Facilitator: DI Manfred Ruttner, A1 Telekom Austria and GSMA EMF and Health

10:45 Coffee break

11:00 Update on WHO RF-EMF activities

Update on current WHO activities, including the work of the WHO Task Group on Radiofrequency Fields and Health Risks.

- Dr Jos Verbeek, WHO Task Group on Radiofrequency Fields and Health Risks, 2023
- Facilitator: Dr Jack Rowley, GSMA

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Agenda continued

11:30 Evaluating the effectiveness of RF-EMF policies

Panel discussion with emphasis on how to evaluate effectiveness of RF-EMF policies regarding compliance with limits, addressing public concern and ensuring that national regulations work locally.

- David Scerri, Malta Communications Authority
- Marzia Minozzi, Asstel
- Saida Ouerdarni, Iliad Group
- Bertus Ehmke, MTN Group
- Professor Isabelle Lagroye
- Facilitator: Claire-Marie Healy, GSMA Europe

12:15 Summary and Conclusions

- Mike Wood, Telstra – Chair GSMA EMF and Health
- Dr Jack Rowley, GSMA

12:30 Networking and Lunch for Brussels participants

All sessions from 14:00 until 17:30 are only available in-person in Brussels.

14:00 Progress in the adoption of ICNIRP (2020) and IEC 62232:2022

Chatham House rules discussion of progress, including case studies from Australia and Greece and update on IEC activities.

GSMA EMF and Health Delegates, industry guests and invited stakeholders will take part.

15:00 Coffee Break

15:30 WHO RF Task group progress and activities

Discussion of progress of the WHO RF-EMF EHC activities and implications.

- Facilitator: Patricia Martigne, Orange – GSMA WHO EMF Project Group

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- Facilitator: Dimitra Gaitanidou, Deutsche Telekom

15:00 Coffee Break

15:30 WHO RF Task group progress and activities

Discussion of progress of the WHO RF-EMF EHC activities and implications.

- Facilitator: Patricia Martigne, Orange

16:30 Looking to the future of RF-EMF exposure and communication

Looking beyond current WHO activities, what can be expected for RF-EMF from technology and other developments? What are the implications for RF-EMF science, policy, standards, and communication?

- Facilitator: Sami Gabriel, Vodafone – Deputy Chair GSMA EMF and Health

17:00 Wrap-up of the day

- Mike Wood, Telstra – Chair GSMA EMF and Health
- Dr Jack Rowley, GSMA

Focus on Risk Communication, IoT, and mmWaves

At this year's EMF Forum we are launching both new and updated content on several important topics:

GSMA **MWF**
Mobile & Wireless Forum

Risk Communication Guide for Mobile Phones and Base Stations

Practical guidance and support on good risk communications practice for the mobile industry

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GSMA **5G mmWave Safety**
A closer look at electromagnetic field (EMF) health related science and research

Millimetre wave (mmWave) spectrum will maximise 5G's potential. The range provides fibre-like connectivity to suburban and rural areas as well as hot-spot capacity in dense areas, like manufacturing plants, stadia and travel hubs. National and international safety guidelines already include mmWaves protecting people against all established health hazards.

Recommendations for policymakers
The following recommendations will support efficient deployment of 5G mmWave based services.

- Adopt International RF-EMF limits and compliance methods:** Countries should adopt the ICNIRP (2020) limits and use international technical standards for RF-EMF compliance assessment.
- Update RF-EMF deployment rules:** Streamline deployment rules to support greater densification of antennas, especially in urban centres.
- Practice effective EMF communication:** National authorities should take the lead role in efforts to inform the public and address misinformation about RF-EMF.
- Prepare for interest during mmWave licensing:** There may be submissions questioning safety and it is important to prepare responses based on the consensus of health agencies.

5G mmWave frequencies Note: 5G Frequency Range 2: 24.5 to 71 GHz

20 GHz	26 GHz (24.25-27.5 GHz)	30 GHz	40 GHz (37-43.5 GHz)	50 GHz	60 GHz	70 GHz	80 GHz
	28 GHz (26.5-29.5 GHz)					66 GHz (66-71 GHz)	

Use cases for mmWave spectrum

Train/subway station commute Enjoying streaming Downloading video	School or university Hybrid classes: physical + virtual Immersive XR learning	Work in office, enterprise, factory Cloud-based and virtual desktop applications Wire-free production equipment	Shopping mall and high street AR-assisted navigation and shopping Digital signage	Fixed Wireless Access FWA using mmWave can provide fibre-like speeds without the environmental impacts of installing fibre.
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GSMA

5G, the Internet of Things (IoT) and Wearable Devices

What do the new uses of wireless technologies mean for radio frequency exposure?

September 2023

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[DOWNLOAD HERE](#)

Meet Our Speakers

Mike Wood, Chair IEC TC 106 – Telstra and Chair GSMA EMF and Health

Mike Wood is a Distinguished Professional with Telstra and Principal for Telstra's Electromagnetic Energy (EME) Strategy, Governance and Risk Management program. Mike graduated from RMIT and has over 30 years' experience in mobile network deployment, EME and community consultation and leads Telstra's 5G EME program.

Mike is currently Chairman of the International Electrotechnical Commission Technical Committee 106 which has global responsibility for EME testing standards for mobile phones, devices, wireless networks and radio communications systems including 5G.

Laszlo Toth, Head of Public Policy, GSMA Europe

Laszlo Toth is the Head of Public Policy of GSMA Europe. Laszlo leads the public policy team in Brussels, overseeing all the advocacy activities of GSMA Europe and representing European mobile operators on a broad range of policy and regulatory matters. He works closely with members to facilitate coordinated advocacy efforts at the EU level in order to create a policy environment that maximizes the mobile industry's ability to invest in infrastructure and drive economic growth and social development.

Laszlo started his professional career working at telecoms operators. Prior to joining GSMA in 2011, he spent nine years at the Hungarian public administration, including spells at the Ministry responsible for ICT and at the national telecoms regulator. Laszlo has an MSc. in economics and holds a degree in computer sciences.

Dr Jack Rowley, Senior Director Research & Sustainability, GSMA

Jack Rowley, Ph.D is the Senior Director for Research & Sustainability and works in the Advocacy Department of the GSMA. He is responsible for technical and policy activities related to the safety of mobile communications and responsible environmental practices.

Jack has been a member of national and international working groups and contributed to the UNEP activity that led to the first international guidelines for environmentally sound management of used and end-of-life mobile phones. He has more than 30 years of experience in the telecommunications industry and joined the GSMA in 2000.

Thomas Daskalou, Health & Environmental Supervisor, Victus Networks

Thomas Daskalou was born in Elefsina, Greece (*European Capital of Culture* for 2023!), in 1974. He received his B.Sc. in Physics from the University of Patras, Greece and his MSc. in Medical Physics from the University of Surrey in the UK.

He joined the telecom industry at Vodafone-Panafon in 2001, as an EMF Specialist, working on Base Stations' EMF compliance and licensing (EMF and Environmental Studies, measuring and modelling electromagnetic fields and EMF consultancy for Legal & Public Affairs Depts.).

Since 2014, after the creation of Victus Networks (a joined venture of Vodafone GR & Wind Hellas with the scope of network sharing), he has been involved as EMF Supervisor in the EMF compliance of the two (out of three) networks of mobile telephony currently operating in Greece (Vodafone and Nova).

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Meet Our Speakers

**Bertus Ehmke,
Group General Manager for Technical Regulatory Affairs, MTN Group**

Bertus Ehmke is the Group General Manager for Technical Regulatory Affairs in the MTN Group Limited. The MTN Group has around 300 million customers over 20 markets across the Middle East and Africa. Bertus has been part of most of MTN's success story over the past 3 decades across various operations in the Middle East and Africa, leading Technology Strategy and more recently the executive Group Spectrum Strategy for 5G at industry level.

His department is also custodian of overall EMF Compliance Assurance in the Group and as such has become an emerging market leader in terms of EMF Policy and Governance.

**Sami Gabriel
Distinguished Engineer, Vodafone Group – Deputy Chair GSMA EMF and Health**

Sami Gabriel has worked in the field of EMF and specifically SAR measurement and evaluation for over 25 years, having designed the SAM phantom used for all SAR evaluations today, both experimentally and numerically.

He continues to be heavily involved in EMF standards as co-chair of multiple IEC standards groups and actively involved in CENELEC. Alongside this he supports the broad Vodafone Group footprint of Network Operators around the world with policy and implementation advice.

**Claire-Marie Healy
Policy Director, GSMA Europe**

Claire-Marie Healy is Policy Director at the GSMA Europe office in Brussels following sustainability, EMF and connectivity policies. Previously, she worked for Lysios, a consultancy specialising in European public and regulatory affairs advising telecom and digital clients. She also worked at the Centre on Regulation in Europe (CERRE), working on research projects in the Tech, Media, Telecom and Mobility sectors.

Earlier in her career, Claire-Marie worked at the OECD in Paris, following ICT policies for the Business and Industry Advisory Committee. Claire-Marie received her MSc in Global Politics from the London School of Economics (LSE), after completing her studies in International Relations with German at the Kent University and the Freie Universitaet Berlin (FUB).

**Christophe Grangeat,
EMF Mitigation Lead and Principal System Architect, Nokia**

Christophe Grangeat is Nokia EMF mitigation lead and principal system architect. He is coordinating EMF activities related to products and features, research and development, validation tests, compliance, and standardization. He is also supporting energy efficiency improvement programs. He has contributed to multiple European and national research programs.

He is actively contributing to international standardization bodies such as the IEC, ITU, CENELEC and ETSI. He is the convenor of IEC TC106 MT3 working group specifying RF exposure assessment methods for base stations. He received the IEC 1906 Award in 2019 for his contribution to the standardization of RF exposure assessment methods of 5G base stations.

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Meet Our Speakers

Dimitra Gaitanidou, EMF expert in Technology, Deutsche Telekom

Dimitra Gaitanidou studied physics at the University of Cologne, Germany. Before joining Deutsche Telekom in 2001 she worked at the Research Centre of Jülich (Institute of Medicine) and as a medical physicist in a hospital, specialized in radiotherapy. At Deutsche Telekom she was involved at the “German Mobile Telecommunication Research Programme”. Currently, she is responsible for the cooperation with universities and the coordination of international EMF activities. Dimitra is a member of national and international EMF working groups.

Prof Isabelle Lagroye, Ecole Pratique des Hautes Etudes, Paris, France

Isabelle Lagroye, PharmD and PhD in Life Science, graduated from the Bordeaux II University, France, in 1997. After a post-doctoral position at the Radiation Oncology Center in Dr Roti-Roti's laboratory (St-Louis, MO, USA), she has done research work at the Bioelectronics group of the IMS laboratory, Bordeaux University, France, since 1999, leading the Bioelectromagnetics team 2010-2018.

She is a Director of studies at the Ecole Pratique des Hautes Etudes-Paris Science & Letter university (EPHE-PSL). Her research deals mainly with the biological and toxicological effects of non-invasive electromagnetic fields (EMF), investigating genotoxicity, apoptosis, stress markers or electrical activity in rodents and cell cultures exposed to mobile phone signals or 50 Hz magnetic fields.

Her teaching deals with intra- and inter-cellular signalling in the context of cancer and with occupational and public standards for exposure to EMF. She is author of sixty peer-reviewed papers, thirty-two invited conferences and about eighty national and international conferences.

She was part of the technical consultation for WHO RF research agenda in 2010. She was a member of the ICNIRP Scientific Expert Group “Low Frequency Guidelines (≤ 10 MHz)” in 2020-2022. She is also currently member of the Bruxelles-Capitale and Wallonie expert committees on the topic of non-ionising radiations and involved in the GOLIAT and ETAIN European projects.

Patricia Martigne, EMF & Health (Electromagnetic Fields) Officer, Orange

Patricia Martigne is EMF & Health (Electromagnetic Fields) Officer at Orange since November 2020.

She has been working for more than 25 years in radiocommunications, from the manufacturer's side (beginning as GSM base stations validation engineer, in Nortel Matra); through the spectrum regulator's (Head of French delegation at international meetings for terrestrial broadcasting in ANFR); to the Operator's (successively R&D engineer on new radio technologies, Internet of Things project manager, IoT standardization chairperson, IT Services Buyer, then EMF & Health Officer, in Orange).

Her current activity consists in studying the interactions of the radiofrequency EMFs towards living organisms, which activity combines scientific, regulatory, standardization and communication aspects. Patricia has been granted an Engineer diploma (option Electronic and Telecommunications) in France in 1994; she then passed the Project Management Professional Certification from the American PMI Institute; and a Business Sourcing Certificate in 2018 co-delivered by SciencesPo-Paris and Orange.

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Meet Our Speakers

Marzia Minozzi, Head of Telecommunications Policy and Regulation, Asstel

Marzia Minozzi is head of telecommunications policy and regulatory affairs in the Italian association of telecommunication industry.

She has been working for Asstel since 2010 and had previous experiences both in the public sector, as an expert on regulatory issues in public utilities sectors for the Government, and in the private sector, where she worked for Telecom Italia at dawn of the liberalization of electronic communications in the EU and for the Confederation of all the industries (Confindustria). She has a master degree in economics, is married and has three children.

Saïda Ouederni, Acting Head of Local Authorities Relationship and EMF Pool Expertise, Iliad Group

Saïda Ouederni is acting Head of Local Authorities Relationship and EMF Pool Expertise for Iliad operations in France since June 2020. Before joining Iliad she was an independent consultant for 14 years, from 2006 to 2020, providing regulatory and market expertise for major telecommunications operators and public institutions (including ARCEP, ITU, and the Worldbank).

Prior to that, from 1998 to 2006, Saïda worked at Sfr group as regulatory manager covering both fixed and mobile market. Saïda holds a MSc Degree in Telecommunications, with a specialization in mobile, satellite and optical communications.

DI Manfred Ruttner, Head of EMF & Special Complaints, A1 Telekom Austria – Deputy Chair GSMA EMF and Health

DI Manfred Ruttner has been active in the EMF topic since 2001 and is responsible for all aspects of EMF/EMC related to network and devices at A1 Telekom Austria AG. He is a court certified expert for EMF in communication technology. He contributes to working groups of the Austrian national standardization body TSK-EMV-EMF, WG1 TC106x of CENELEC and MT3 TC106 of IEC.

Since 05/23 he is also Deputy Chair Europe of the GSMA EMF and Health working group.

Prof Theodoros Samaras Aristotle University of Thessaloniki, Member EU SCHEER

Prof Theodoros Samaras is a Medical Physicist, by training. He specialises in the safety and medical applications of electromagnetic fields, working mainly with exposure assessment and dosimetry. He is currently a Professor of Applied Electromagnetics and Bioelectromagnetics at the Aristotle University of Thessaloniki and an Affiliate Professor at the University of Malta. He has co-authored several papers and served as a reviewer for various journals and funding organizations.

He is currently member of the European Commission's Scientific Committee on Health, Environment

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Meet Our Speakers

David Scerri, Senior Manager, Malta Communications Authority

David Scerri is a Senior Manager within the Spectrum Management and Technology Unit of the Malta Communications Authority (MCA), the Maltese regulatory authority for electronic communications. He joined the MCA in 2008. He has been actively leading the MCA's regulatory aspects related to EMF since 2015.

Prior to joining the MCA, David worked within the Test and Product department at STMicroelectronics and, subsequently, as a Quality Assurance engineer with Vodafone Malta and the Vodafone Group.

David is an engineer by profession with a Masters Degree specialised in telecommunications. Additionally, over the years, David has attained a number of certifications related to networking, geospatial mapping, security management and telecommunications.

Jos Verbeek, MD, PhD Senior Researcher, consultant to WHO as guideline methodologist University Medical Centers Amsterdam, Public and Occupational Health Department, Cochrane Work

Jos Verbeek was involved as a WHO guideline methodologist in guidelines on environmental noise, working safely with nanomaterials, and air pollution. Currently, he is the methodologist for the WHO radiofrequency electromagnetic fields systematic reviews. He trained and worked as an occupational physician, and he is also a registered epidemiologist in the Netherlands.

He conducted research at the University of Amsterdam at the Coronel Institute for Occupational Health specializing in evidence-based medicine and practice guideline development and evaluation. As a methodologist he was involved in the development of four Occupational Health clinical practice guidelines for the Dutch Society of Occupational Medicine.

He worked at the Finnish Institute of Occupational Health as a researcher in systematic review methodology and as Coordinating Editor of the Cochrane Work Group. He authored and co-authored several dozen systematic reviews both inside and outside the Cochrane Library. He co-authored several guideline articles of the GRADE Working Group on environmental health issues.

He is based in Kuopio, Finland and holds an associate professorship at the University of Kuopio, Finland and he is an honorary member of the Dutch Society of Occupational Medicine.