Open Letter to the members of the panel developing the WHO Environmental Noise Guidelines for the European Region.

Marie-Eve Héroux Wolfgang Babisch. Goran Belojevic. Mark Brink. Sabine Janssen. Peter Lercher. Jos Verbeek. Marco Paviotti. Göran Pershagen Kerstin Persson Waye. Anna Preis. Stephen Stansfield. Martin van den Berg.

Ladies and Gentlemen,

We understand that you are currently in the process of developing the WHO Environmental Noise Guidelines for the European Region as a regional update to the WHO Community Noise Guidelines. We also understand that:

- 1. The new Guidelines will be based upon a review of evidence on the health effects of environmental noise in the light of significant research carried out in the last few years.
- 2. The guidelines will review evidence on the health benefits of noise mitigation and interventions to decrease noiselevels.
- 3. The evidence will be systematically reviewed to assess likely effects such as: sleep disturbance, annoyance, cognitive impairment, mental health and wellbeing, cardiovascular diseases, hearing impairment and tinnitus and adverse birth outcomes.

One of the sources of noise you are investigating is that from wind turbines which was not addressed in previous guidelines.

We welcome your review because, despite mounting anecdotal and academic evidence, for too long mitigation against adverse health effects following the construction of wind turbines has been absent from planning guidelines and **noise pollution regulations** in many European countries, especially **with respect to sound below 200 Hz.**

There is a pressing need for new guidelines to encourage governments better to safeguard the health of their citizens.

You will be aware that these problems are not confined to Europe. Neither are they confined to human beings.

We are hopeful that your deliberations will result in tough new European guidelines which in turn will prompt a serious worldwide examination of all aspects of this problem, including the widely-reported effects on animals.

effects on animals.	orte
Yours sincerely,	
The undersigned:	

Mrs. V.C.K. Metcalfe Community Councillor	Scotland	07.07.2016
Mauri Johansson, MD, MHH Specialist in Community and Occupational Medicine, including Environmental Medicine (retired)	Denmark/EU	07.07.2016
Susan Crosthwaite Community Councillor. Author of 'Request for Action' to Scottish Government	Scotland.	07.07.2016
Sarah Laurie Bachelor Medicine, Bachelor Surgery and CEO, Waubra Foundation	Australia	07.07.2016
Dr. Rachel Connor Bachelor Medicine, Bachelor Surgery, and Fellow of the Royal College of Radiologists. Chair of Moscow and Waterside Community Council	United Kingdom	07.07.2016
Virpi Poikolainen Physical therapist, Bachelor of Health Care. Community & County Councillor	Finland	07.07.2016
Alun Evans MD Professor Emeritus.Centre for Public Health. The Queen's University of Belfast.Institute of Clinical Science B	Northern Ireland	08.07.2016
Vojko Bernard, metallurgist, President of Alpe Adria International	Slovenia	08.07.2016
Angela Armstrong, M.B., Ch.B. retired General Medical Practitioner and Occupational Physician	Scotland	08.07.2016
Tomaž Ogrin, BSc, MSc Chemistry, researcher, scientist	Slovenia	08.07.2016
Dr. Katarina Dea Žetko, BA, MSc, PhD historical and germanic linguistics, Lecturer	Slovenia	08.07.2016
William K.G. Palmer P. Eng.	Ontario, Canada	08.07.2016
Jerry L. Punch, Ph.D. Professor Emeritus, Department of Communicative Sciences and Disorders, Michigan State University, East Lansing, Michigan	USA	08.07.2016
Curt Devlin, B.A., MA Software Architect, Health Sciences	USA	08.07.2016
Alec N. Salt, PhD. Professor of Otolaryngology, Washington University School of Medicine, St Louis	USA	08.07.2016

Gary Goland, Cert App Sci, (Medical Lab), Royal Melbourne Institute of Technology, Medical	Australia	08.07.2016
researcher, Adelaide Dominic Mette Friends Against Wind	France	08.07.2016
Sven Johannsen CEO & Erik Brunne, Cert. Acoustic Engineers & Infrasound Experts, GuSZ Gutachter u. Sachverständigen Zentrum für Umwelt-Messungen GmbH www.umweltmessung.com	Germany	08.07.2016
Johannes Mayer M.D. Family medicine, Osteopathic Medicine Clin. Ass. Prof. Osteopathic medicine Athens/Ohio/USA President Osteopathic physicians (BDOÄ)	Germany	08.07.2016
Greta Gallandy-Jakobsen author, retired teacher, editor of wind turbine victims' website vind-alarm-danmark.eu	Denmark	08.07.2016
Sherri Lange www.na-paw.org CEO North American Platform Against Wind Power.	USA & Canada.	08.07.2016
Wayne C. Spiggle, MD physician	USA	08.07.2016
John Harrison, PhD Expertise in wind turbine sound generation and propagation. Former member: Ontario Ministry of the Environment Focus Group on Wind Turbine Noise Regulation. Invited Speaker: 2008 World Wind Energy Conference	Canada	08.07.2016
Mark Duchamp President, Save the Eagles International www.saveTheEaglesInternational.org Chairman, World Council for Nature, www.wcfn.org +34 693 643 736	Spain	08.07.2016
Maxwell Whisson, MB,BS FRCPath retired medical consultant and leader in Medical Research, primarily cancer & haematology	Australia	09.07. 2016
George Papadopoulos Pharmacist (B. Pharm), Yass, NSW	Australia	09.07.2016
Mary Morris Community based noise and health researcher and community advocate, (near) Waterloo, South Australia	Australia	09.07.2016
R.Y.McMurtry CM, MD, FRCS, FACS	Canada	09.07.2016
Arline L. Bronzaft, Ph.D Professor Emerita,	USA	09.07.2016

Angela Kearns	Australia	09.07.2016
Retired Registered Nurse and Midwife	USA	09.07.2016
Eric Rosenbloom President National Wind Watch, Inc. https://www.wind-watch.org/		
Mariana Alves-Pereira, PhD Researcher and Expert on the biological response to Infrasound and low-frequency noise exposure	Portugal	09.07.2016
Susan Smith Retired teacher. Founding member of Mothers Against Wind Turbines. Experiencing life within 900 metres of an industrial wind turbine	Canada	09.07.2016
George M Lindsay, B.Sc., PhD Engineer	United Kingdom	09.07.2016
Ove Björklund Engineer. Board member of the Association "Good Environment Hylte"	Sweden	09.07.2016
Madeleine Kura Co-founder of Cesme Sustainabilty Platform website http://www.cesmeplatformu.org/en/ Izmir	Turkey	09.07.2016
Sandy Reider, MD Lyndonville, Vermont	USA	09.07.2016
Per Fisker, MD retired Consulting Gynecologist and Obstetrician	Denmark	10.07.2016
Jutta Reichardt, Soz.Päd.(graduate degree) behavioral therapist Spokeswoman of sound victims on www.opfer.windwahn.de (Affected by infra, low frequency and structure born sound of technical facilities such as wind turbines, pumps etc.)	Germany	10.07.2016
Esen Fatma Kabaday Whiting Çeşme Municipality Councillor Biologist, Environmental Specialist (MS), Project Cycle Management Specialist	Turkey	10.07.2016
Bernd Stymer Oldest and largest resistance against wind madness in Sweden website http://www.helgaro-liv.se/	Sweden	10.07.2016
William G. Acker Consulting Engineer with Acker & Associates; Eight years of research work on Infrasound & Low Frequency Noise from Cooling Towers, Industrial Wind Turbines, Boilers and Automoblies. Green Bay, Wisconsin	USA	10.07.2016
James Vanden Boogart President, Brown County Citizens for Responsible Wind Energy. Brown County	USA	10.07.2016

David Moriarty Falmouth, Mass	USA	10.07.2016
Marshall Rosenthal MA Cultural Anthropology, Syracuse University, BS Biology, City College of NY, former Health Officer, Child Development Group of Missisippi	USA	10.07.2016
Bruce Rapley, BSc, MPhil, PhD Consulting Scientist. Principal Consultant: Environmental Health, Acoustics and Human Cognition, Atkinson & Rapley Consulting Ltd. arg@paradise.net.nz	New Zealand	11.07.2016
Steven Cooper Acoustical Engineer, The Acoustic Group	Australia	11.07.2016
Janet Holtkamp practitioner of Chinese Medicine, Nieuw-Buinen	Netherlands	11.07.2016
Ipar Buğra Dilli Head of Karaburun City Council	Turkey	11.07.2016
Ghislaine Siguier Présidente, Victimes des Éoliennes (Victims of Wind Turbines), http://en.friends-against-wind.org/victims	France	11.07.2016
Dr Mireille Oud medical physicst, founder of Dutch LinkedIn Expertise Group on Low Frequency Noise, author of 'Explanation for suffering from low-frequency sound'	Netherlands	11.07.2016
Prof. Dr. Ümit Erdem EGE University, Agricultural Faculty, Dep. of Landscape Architecture, Izmir Emeritus Fellow Member of the European Ecological Federation http://www.europeanecology.org	Turkey	11.07.2016
Prof. Dr. Zuhal Okuyan (MD) Community Health specialist and Medical Ethics lecturer Dokuz Eylul University, Izmir	Turkey	11.07.2016
Mustafa Tanısık Bodrum Peninsula Environmental Protection Platform	Turkey	11.07.2016
Stephen E. Ambrose, ASA, INCE Brd.Cert. Acoustic Investigator	USA	11.07.2016
Jean Pierre Riou Président de l'association "Le Mont Champot" (<u>lemontchampot.blogspot.fr</u>)	France	11.07.2016
Robert W. Rand, ASA, INCE	USA	11.07.2016

Christine Lavanchy Research laboratory technician. Member of Paysage Libre Vaud committee, 1096 Cully	Switzerland	11.07.2016
Paul Housiaux Solicitor (retd.)	United Kingdom	11.07.2016
Simon & Brooke Yates Mt Torrens, South Australia	Australia	11.07.2016
Barbara Lebiedowska Professor emeritus, independent researcher http://lebiedowska.blog.onet.pl/	Poland eu/	11.07.2016
Marek Lebiedowski Professor emeritus, independent researcher http://www.kdeportor.org/	Poland t.eu/	11.07.2016
Marcin Przychodzki Lawyer and editor-in-chief of stopwiatrakom.eu website	Poland	11.07.2016
Paweł Kotwica Political scientist, translator and community advocate	Poland	11.07.2016
Marek Jasudowicz Mayor, Municipality of Giżycko, Masurian Lake District	Poland	11.07.2016
Hal Wilson B.Ed ((Chemistry and Mathematics) retired, Staffordshire	England	11.07.2016
Rick James, INCE E-Coustic Solutions, LLC, Okemos, MI 48805	USA	11.07.2016
Prof. Dr. Ali Osman Karababa Faculty of Medicine, Department of Public Health, Ege Unive Izmir	Turkey rsity,	11.07.2016
Annette Smith Executive Director, Vermonters for a Clean Environment	USA	11.07.2016
Dr Gary Hopkins Emergency physician	Australia	11.07.2016
Dr. Alan C Watts OAM; HDA; B.Sc; M.B., Ch.B; L.R.C.P; M.R.C.S. retired medical practitioner with an interest in the health effect wind turbines	Australia ts of	12.07.2016
Dr. Colleen J Watts OAM; B.Sc.Agr.(Hons); M.Phil; Ph.D. Environmental scientist	Australia	12.07.2016
Carl V Phillips, MPP PhD consumer health advocate; former professor of public health a evidence-based medicine	Australia nd	12.07.2016
Annie Gardner	Australia	12.07.2016

Patina Schneider Australian Industrial Wind Turbine Awareness Network	Australia	12.07.2016
Jean-Louis Butré President of EPAW.org. Also: President of the French Fédération Environnement Durable regrouping 1060 French local associations	France	12.07.2016
Witold Jaszczuk, D.Eng. Vice President, Central Board, Liga Walki z Hałasem (Anti-Noise League), http://www.lwzh.org.pl/	Poland	12.07.2016
Zbigniew Sienkiewicz Ecology, environment & human health, protection of citizens' rights	Poland	12.07.2016
Keith Stelling, MA, MNIMH, Dip Phyt Independent Researcher, Ontario	Canada	12.07.2016
David R. Lawrence, MD Board Certified Internal Medicine ABIM Member Connecticut State Medical Society. Member Litchfield County Medical Association, Executive Committee.	USA	12.07.2016
Assistant Clinical Professor, Department of Medicine, University of Connecticut School of Medicine		
Norma C. Schmidt, RN BScN Retired Professor of Nursing	Canada	12.07.2016
Peter R Mitchell, AM BchE Founding Chairman of the Waubra Foundation	Australia	13.07.2016
Catherine Mitchell Director, Mothers Against Wind Turbines, Ontario	Canada	13.07.2016
Linda Rogers, NP-PHC Nurse Practitioner Primary Health Care, Ontario	Canada	13.07.2016
John O'Sullivan CEO, Principia Scientific International, principia- scientific.org	United Kingdom	13.07.2016
Krzysztof Skotak Researcher, Environmental and Health expert, National Institute of Public Health	Poland	13.07.2016
Dr. Matthias Kleespies Environmental scientist and climate researcher	Germany	13.07.2016
Ross McLeod Environmental Health Officer(retired), Queensland	Australia	13.07.2016
Dr Timothy Ball (Climatologist), Professor (retired), University of Winnipeg	Canada	13.07.2016

Andrew Duncan B.S.c Property Studies. County Councillor Westmeath County Council. Spokesperson Lakelands Windfarm Information Group. (LWIG).	Eire	14.07.2016.
Malcolm Roberts, BE, Engineering University of Queensland, MBA, Business, University of Chicago. Project manager for The Galileo Movement (Aus).	Australia	14.07.2016
Lon Briet, Environmental Platform. Bodrum.	Turkey	14.07.2016
Michael Jankowski. Electronics Engineer.	Canada	14.07.2016
Nicholas Kouwen, PhD., P.Eng., FASCE. Distinguished Professor Emeritus and Adjunct Professor Department of Civil and Environmental Engineering University of Waterloo. Waterloo, ON. NOC 1E0	Canada	14.07.2016
Shellie Correia, Mothers Against Turbines TM	Canada	15.07.2016
Ferdinand Deželak. Head of laboratory for physical measurements Institute of Occupational Safety. Ljubljana. Vice president of the Slovenian Acoustic Society.	Slovenia	15.07.2016
Miha JANC, Dr.Vet.Med., Dr.Sci., Emeritus Professor of Microbiology., University of Ljubljana, Slovenia.	Slovenia	15.07.2016
Mads F. Hovmand, Senior Scientist Terrestrial Ecology, Department of Biology University of Copenhagen. DK-1353 Copenhagen K, MFH@bi.ku.dk	Denmark	15.07.2016
Gitte Nielsen Monnetvej 8	Denmark	15.07.2016
Jay J Tibbetts MD Vice Chair/Chair Brown County Board of Health Declared Shirley Wind IWTs a Human Health Hazard Oct, 2014 Green Bay, WI	USA	15.07.2016
Kalevi Nikula Legal and External Affairs Director (retired) M.Sc., Physiology/Biophysics/Biochemistry. Chairman, The Finnish Association of Citizens Against Industrial Wind Power Plants (TV-KY ry.) http://www.tvky.info	Finland	16.07.2016