



Prof. Hans Joachim Schellnhuber

Founder and Director Emeritus of the Potsdam Institute for Climate Impact Research (PIK)



Most important awards, prizes and academies

Awards & Prizes: Hans Joachim Schellnhuber received, inter alia, the Royal Society Wolfson Research Merit Award (2002), the German Environment Prize (2007) and the Volvo Environment Prize (2011) and the Culture Prize of the district Passau (2014). *Academies:* He is an elected member of the Leopoldina, the Academia Europaea, the Academy of Athens, the US National Academy of Sciences (NAS), the Max Planck Society and several other academies. *Honours:* Schellnhuber was awarded a CBE (Commander of the Most Excellent Order of the British Empire) by Queen Elizabeth II (2004), the Order of Merit of the State of Brandenburg (2008), and the Order of Merit of the Federal Republic of Germany (2011) as well as The Order of the Rising Sun, Gold Rays with Neck Ribbon of the Japanese Government (2020). He holds honorary doctorates from the University of Copenhagen (2011) and Technische Universität Berlin (2012). Schellnhuber was given honorary citizenship of his hometown Ortenburg.

Summary of scientific research

Hans Joachim Schellnhuber studied physics and mathematics and completed his doctorate at the University of Regensburg. After a postdoctoral position at the Institute for Theoretical Physics,

Santa Barbara, he held professorships at the Universities of Oldenburg and Potsdam, as well as at the University of East Anglia, Norwich. In addition, he held numerous visiting professorships (e.g. Oxford University, University of California, Santa Cruz; Oxford University; and Santa Fe Institute). As founding director of PIK, Schellnhuber led the institute from 1991 until 2018. From 2001 to 2005, he was also research director at the Tyndall Centre for Climate Change Research in Great Britain. As leading scientist, he was appointed various positions, such as Co-Chair of the German Advisory Council on Global Change (WBGU), Governing Board Chair of the Climate-KIC of the European Institute of Innovation and Technology (EIT) and Chair of the Standing Committee on Climate, Energy and Environment of the German National Academy of Sciences (Leopoldina). Schellnhuber has been a long-standing member of the Intergovernmental Panel on Climate Change (IPCC) which was awarded the Nobel Peace Prize in 2007. He served as Chief Government Advisor on climate and related issues during the German G8/EU twin presidency in 2007 and as scientific advisor to a number of eminent political and religious leaders, including the German Chancellor Angela Merkel, European Commission President José Manuel Barroso and Pope Francis. He is a member of numerous national and international panels addressing scientific strategies and sustainability issues. Since 2019, he has been intensively engaged in the creation of a "Bauhaus of the Earth".

Main publications

Schellnhuber has authored, co-authored or edited more than 250 articles and more than 50 books in the fields of condensed matter physics, complex systems dynamics, climate change research, Earth System analysis, and sustainability science. His main publications include: Ostlund, S., Pandit, R., Rand, D., Schellnhuber, H.J. and Siggia, E.D. (1983). One-Dimensional Schrödinger Equation with an Almost Periodic Potential. *Phys. Rev. Lett.* 50, 1873; Schellnhuber, H.J. (1998). Indication of a universal persistence law governing atmospheric variability. *Physical Review Letters*, 81(3), 729; Schellnhuber, H.J. (1999). 'Earth system' analysis and the second Copernican revolution. *Nature*, 402(6761), C19-C23; Kates, R.W., et al. (including Schellnhuber, H.J.) (2001). Sustainability science. *Science*, 292(5517), 641-642.; Lenton, T.M., et al. (including Schellnhuber, H.J.) (2008). Tipping elements in the Earth's climate system. *Proceedings of the National Academy of Sciences*, 105(6), 1786-1793; Rockström, J., et al. (including Schellnhuber, H.J.) (2009). A safe operating space for humanity. *Nature*, 461(7263), 472-475; Rockström, J. et al. (including Schellnhuber, H.J.) (2009). Planetary Boundaries: Exploring the Safe Operating Space for Humanity. *Ecology and Society* 14, 32; Steffen, W., et al. (including Schellnhuber, H.J.) (2011). The Anthropocene: From global change to planetary stewardship. *Ambio*, 40(7), 739-761; Rockström, J., Gaffney, O., Rogelj, J., Meinshausen, M., Nakicenovic, N., & Schellnhuber, H. J. (2017). A roadmap for rapid decarbonization. *Science*, 355(6331), 1269-1271; Steffen, W., et al. (including Schellnhuber, H. J.) (2018). Trajectories of the Earth System in the Anthropocene. *Proceedings of the National Academy of Sciences*, 115(33), 8252-8259.

