



Hans Joachim Schellnhuber



Date of Birth 7 June 1950

Place Ortenburg, Passau (Germany)

Nomination 16 June 2015

Field Theoretical Physics

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

Most important awards, prizes and academies

Schellnhuber is currently 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). He is an elected member of the Leopoldina, the Academia Europaea, the US National Academy of Sciences (NAS), the Max Planck Society and several other academies. He received, inter alia, the Royal Society Wolfson Research Merit Award (2002), the German Environment Prize (2007) and the Volvo Environment Prize (2011). 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). He holds honorary doctorates from the University of Copenhagen (2011) and Technische Universität Berlin (2012). Schellnhuber was given honorary citizenship of his hometown Ortenburg and the Culture Prize of the district Passau (2014).

Summary of scientific research

Hans Joachim Schellnhuber founded the Potsdam Institute for Climate Impact Research (PIK) in 1992 and has been its Director ever since. He holds a Chair in Theoretical Physics at Potsdam University and is an External Professor at the Santa Fe Institute (USA). From 2001-2005 he also served as Research Director of the Tyndall Centre in the UK and became a Visiting Professor at Oxford University thereafter. 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 has served as a principal advisor to the European Commission President Barroso. He is a member of numerous national and international panels addressing scientific strategies and sustainability issues.

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. 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; Kates, R.W. et al. (including Schellnhuber, H.J.) (2001). Sustainability Science. *Science* 292, 641; Koscielny-Bunde, E., Bunde, A., Havlin, S., Roman, H.E., Goldreich, Y. and Schellnhuber, H.J. (1998). Indication of a Universal Persistence Law Governing Atmospheric Variability. *Phys. Rev. Lett.* A 81, 729; Lenton, T., Held, H., Kriegler, E., Hall, J., Lucht, W., Rahmstorf, S. and Schellnhuber, H.J. (2008) Tipping elements in the Earth's climate system. *PNAS* 105, 1786; Schellnhuber, H.J. (Ed.) (2009). Tipping Elements in Earth System. *Special Feature PNAS* 106, 20561-20621; Rockström, J. et al. (including Schellnhuber, H.J.) (2009). Planetary Boundaries: Exploring the Safe Operating Space for Humanity. *Ecology and Society* 14, 32; Reid, W.V., Chen, D., Goldfarb, L., Hackmann, H., Lee, Y.T., Mokhele, K., Ostrom, E., Raivio, K., Rockström, J., Schellnhuber, H.J. and Whyte, A. (2010). Earth System Science for Global Sustainability: Grand Challenges. *Science* 330, 916; Messner, D.,

Schellhuber, H.J. *et al.* (2010). The budget approach – A framework for a global transformation towards a low carbon economy. *Journal of Renewable and Sustainable Energy* 2, 031003.