

The trajectory of the Anthropocene and its implications for the evolution of science in society

Wendy Broadgate

Future Earth Secretariat, c/o Royal Swedish Academy of Sciences, Stockholm, Sweden (wendy.broadgate@futureearth.org)

The dramatic acceleration in the human enterprise and the impacts on the Earth system over the past century, with a synchronous acceleration of trends from the 1950s to the present day – over a single human lifetime – show little sign of abatement. This “Great Acceleration”, first described by the International Geosphere-Biosphere Programme (IGBP), contributed to the proposal that Earth is now in the Anthropocene. This talk will explore the Great Acceleration trends, and describe fundamental shifts in the state of the functioning of the Earth system thus providing a strong case for the 1950s as the start date of the new epoch. It will also discuss the role of the Anthropocene concept in uniting scientific disciplines and changing world views.