International Partnerships in Ice Core Sciences (IPICS)

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Ice cores have already contributed hugely to our understanding of the Earth System, but ambitious new projects are required in order to maximise their input to discussions of future change. International Partnerships in Ice Core Sciences (IPICS) is a group of scientists, engineers and logistics experts from the leading laboratories and national operators carrying out ice core science. At the first IPICS meeting, in Washington, DC in 2004, participants identified several high priority international scientific projects to be undertaken over the next decade or more. At the second IPICS meeting, in Brussels, Belgium, in October 2005, these projects were further defined, and routes to implementation were discussed. The 2005 meeting also placed IPICS on a more formal footing. It now has an international steering committee including representatives of 18 nations, planning groups are being formed around each of the scientific projects, and an additional international group of drillers and engineers has been organized. Although formal recognition is under consideration, IPICS already has recognition from SCAR and PAGES. The four science projects identified by IPICS are: (1) The oldest ice core: A 1.5 million year record of climate and greenhouse gases from Antarctica; (2) The last interglacial and beyond: A northwest Greenland deep ice core drilling project; (3) The IPICS 40,000 year network: a bipolar record of climate forcing and response; (4) The IPICS 2k Array: a network of ice core climate and climate forcing records for the last two millennia. A separate grouping within IPICS will look at the ice core drilling technical challenges. This presentation will discuss the rationale for the four projects and the actions needed to implement them.