## DIVECHA CENTRE FOR CLIMATE CHANGE (DCCC) & CENTRE FOR EARTH SCIENCES (CEaS)

### **PRESENT A SEMINAR**

# Shell in the Energy Transition: Challenges in Science and Technology to deliver More and Cleaner Energy

Abstract: Shell's purpose is to provide more and cleaner energy solutions to the world, but such that climate change is within the limits as agreed in the Paris agreement. In turn this has led to the development of a new scenario, called the Sky scenario, which provides possible pathways to a net zero emission energy system around 2070. This is underlying Shell's view on the Energy Transition to a low carbon energy world. Shell's aspiration is to thrive through the energy transition and be a thought leader in how such a transition may be realized. As such it has defined clear targets for a reduced net carbon footprint in particular on the GHG emissions of its operations as well as on most of its products. These targets set the context of our technology innovation programs and have identified several challenges to the underlying science and technology. These targets will only be met through effective collaborations with many expertise centres in particular with strong Academic groups like for example the IISC. I will address some of these challenges in particular possible areas of collaboration both for our current business, as well as some of our new energy business and explain how we go about these in the context of rapidly expanding energy markets such as in India.



DIRK SMIT Vice President Research Strategy, Chairman Shell Science Council, Chief Scientist

#### DATE: 9<sup>th</sup> May 2019 VENUE: AUDITORIUM, DIVECHA CENTRE FOR CLIMATE CHANGE, INDIAN INSTITUTE OF SCIENCE, BANGALORE 560012 TIME: 3 PM

**BIO:** Dirk graduated from Utrecht University in 1989 with a PhD in Mathematical Physics, String Theory. He went on to complete an academic post-doctorate at Berkeley and was awarded a post-doctorate at Harvard University. He joined Shell's Geophysics R&D department in the Netherlands in 1992. Since then he has held numerous positions, including Chief Geophysicist for Shell UK and Technology Manager for Hydrocarbon Exploration, and Vice President Exploration and Upstream Technology. Recently he has been appointed Vice President Research Strategy for Shell. He continues in his roles as Chairman for the Shell Science Council and Chief Scientist. Dirk holds several positions outside Shell: He is a member of the MIT Advisory Board (part of the MIT Corporation) and recently has become a Fellow of MIT at the Earth Research Lab in the Earth Science department. He holds a Visiting Professorship in Geoscience at the Chinese University of Petroleum in Beijing and is an Adjunct Professorship and Advisor at the Indian Institute of Science in Bangalore, India. He serves on numerous university advisory boards in The Netherlands, China and US. Dirk served as a member of the National Research Council on Solid Earth Observations in the US and is currently a member of the National Dutch Science Board for Basic Science Research in the Netherlands as well as member of the Advisory committee for Earth and Planetary Sciences of the MIT Corporation. In his spare time, Dirk is an amateur astronomer and, together with his son, enjoys searching the deep skies through an 11 inch SCT (telescope) during long, Dutch, winter nights.



## **ALL ARE CORDIALLY INVITED**

