

## Eawag Seminar Invitation

# A Complex Adaptive Systems Perspective on Sustainability: Limits to Governability and Management

Speaker **Prof. Jon Norberg**  
*Stockholm Resilience Centre, Sweden*

When **October 25, 11.00 – 12.00 a.m.**

Where **Forum Chriesbach, room C20, Eawag Dübendorf**

Abstract The complex adaptive systems (CAS) perspective entails a focus on diverse components that connect in non-linear interaction networks and respond to emergent phenomena which they are also an integral part of. Biology, societies, cultures and markets are all examples of CAS. Being so pervasive, what consequences do CAS phenomena have for understanding, governability and management? In this talk I will be highlighting some of the challenges of CAS dynamics in our quest for sustainable practices and I will discuss the general consequences this creates in societal decision making.

In the first example, I will illustrate how CAS dynamics can influence feedbacks between the biota and the global carbon cycles, linking the effects of biodiversity on global carbon stocks and flows to the capacity of the biota to respond to changing temperature regimes. The second example concerns our ability to govern resource users that are living in a socio-economic context which shape behaviours through emergent norms, and the implications this has for societal aspects of total revenue and income inequality.