

**University of Vienna's Doctoral Programme (DK)  
"Microbial Nitrogen Cycling – From Single Cells to  
Ecosystems"**



cordially invites to an

**Open Lecture**



**Jan Willem Erisman**

Professor of Integrated Nitrogen Studies, VU University of Amsterdam, The Netherlands,  
CEO of Louis Bolk Institute

*"Nitrogen: too much of a vital resource"*

Human modification of the nitrogen cycle is one of the central global ignored challenges affecting human health, ecosystem integrity and biodiversity. The planetary boundary for nitrogen has been breached by a factor two, making nitrogen one of the most urgent pressures on the earth system. Excess nitrogen originating from chemical fertilizers, animal manure and burning of fossil fuels, are increasingly affecting soil, water and air quality. However, nitrogen also plays an important role in food security. The human creation of chemical nitrogen fertilizer has enabled the production of more food and a change to more protein rich diets. It has been estimated that without chemical nitrogen fertilizer, only half of the people would have enough food given current diets and agricultural practices. I will present an overview of the nitrogen challenge and also explores options to decrease the negative impacts of excess nitrogen on biodiversity and ecosystems, while at the same time providing food security to a growing world population.

**29 June 2016, 4:10p.m.**

**Location:** KLI Klosterneuburg, Martinstraße 12,

3400 Klosterneuburg

**Host:** Christa Schleper, Department of Ecogenomics and Systems Biology, University of Vienna



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