PROGRAMME

09:00 **Registration & Coffee / Tea**

09:30 **Opening by the Chair of the Day**
Prof. Bas Zwaan, Wageningen University

09:45 **Science has never been 'pure'**
Prof. Bert Theunissen, Utrecht University

10:30 **Coffee / Tea**

11:00 **Framing our world: the words we use and the message they carry**
Dr. Martin Sharman, retired member of the Directorate General for Research, European Commission

11:45 **The challenge of science**
Prof. Jacob Fokkema, professor emeritus TU Delft / Chair of the NWO board of Earth and Life Sciences

12:30 **Lunch**

13:45 **The publication treadmill in science: from pressure to pleasure?**
Prof. Just Vlak, Wageningen University

14:30 **Unity of knowledge? Global science for global changes**
Dr. Sarah Cornell, Stockholm Resilience Centre

15:15 **Coffee / Tea**

15:45 **Panel discussion**

16:30 **Synthesis and Closure**

16:45 **PE&RC Publication Award Ceremony**

17:00 **Drinks**

18:00 **Dinner**

PE&RC Day 2014

Optimization of Science: Pressure & Pleasure

13th of November, Hotel de Nieuwe Wereld, Wageningen

Evolution of Science in a Changing World

PE&RC Graduate School

PPC PE&RC PhD Council

The C.T. De Wit Graduate School PE & RC — PRODUCTION ECOLOGY & RESOURCE CONSERVATION

ABSTRACTS

09:45 Science has never been 'pure'

Prof. Bert Theunissen, *Utrecht University*

Critics of the idea that science has to be socially relevant often silently assume that the call for relevance is a new idea, inspired by neoliberal ideology. In the past, they think, science was 'pure', meaning that scientists had the search for universal truth as their only aim, and were free to investigate whatever they wanted. The German university as created by Wilhelm von Humboldt, who propagated 'Freie Wissenschaft und freie Lehre' is taken as a model for how scientific research was organised in the past, and also for how it should be organised. I will show that professional scientist in the past never experienced such freedom. Scientists who were paid for their work have always been expected to come up with something useful in return. Only amateurs could do whatever they wanted. We shall discuss the changing meaning of the 'usefulness' of science in the past, and this will enable us to explain where the idea of the purity of science came from, and also why, in the current political climate, the usefulness of science is emphasized more and more explicitly.

11:00 Framing our world: the words we use and the message they carry

Dr. Martin Sharman, r*etired member of the Directorate General for Research, European Commission*

We communicate with words, but words are not innocent carriers of unbiased meaning. Thus words and phrases like natural "resources" and "capital", conservation and biodiversity "offsets", mitigation, bio, and habitat "banking", "no net loss", "green infrastructure", "ecosystem services" and "enhancing nature" tell us more about the world views of the people who use them than about the world we inhabit. In particular, they tell us that the understanding of the relationship between humans and the rest of nature is profoundly and dangerously misunderstood.

11:45 The challenge of science

Prof. Jacob Fokkema, *professor emeritus TU Delft / Chair of the NWO board of Earth and Life Sciences*

Nobody will deny it: Universities are the centres where new knowledge is generated by eager minds, where students are trained in the highest echelons of thinking and are invited to join the quest for knowledge. Universities are the batteries from which the society draws the power to continue on the path of lasting success. All true, but will this concept last for ever in the way we have implemented it now? Today we observe that science has a market value and that the universities with the best reputation have the highest value and therefore obtain the highest financial support. The university is seen as an intellectual workshop where knowledge is for sale and advice is given on demand. It is the money that primarily drives the success and that money is only attracted if the university has an excellent reputation: higher ranking attracts money. To achieve this you have to recruit the best scientists; pay them more, because you are in competition with other universities. On top of that, the universities are strongly invited by the government through words and budget to contribute to the state's welfare with the credo: "thou should innovate". Does this do justice to the university? My fear is that in the end, it will not create the environment where vulnerable curiosity easily sprouts, where we attract young minds eagerly looking for an adventure in knowledge land. The young university scientist stands in the centre of this turmoil. She has to find her own scientific niche, provide justification for her contribution to the scientific reputation of the university and while doing that retain the "joy of finding out". The rat race for academic success is in fact a reputation race, a rep race, as the Dutch former Rector Magnificus of the University of Twente, Frans van Vught stated in his far-well speech. Industries, state agencies and academia have to accept a level playing field to guarantee that the university as an intellectual stronghold subsists. In my talk I will present my vision on how to keep on track on the winding road of academic success, while allowing yourself the decision not to pursue this road further.

13:45 The publication treadmill in science: from pressure to pleasure?

Prof. Just Vlak, *Wageningen University*

As a (young) scientist you want to communicate your research results, either in the form of a thesis or in the form of publications. However, the pressure to publish has increased tremendously over the years and this has resulted in a number of developments in the publication system, such as a staggering number of publications, multiple authorships, a bewildering amount of new journals, impact factors, etc. This all has also led to an increasing number of cases of misconduct (in all its forms) and to a general mistrust of science by society. Also the quality of science is questioned and scientific impact ('Get excited to be cited') has become the mantra. There is also a lot societal pressure to produce science that has economic and societal impact, is a transparent process and should be available to all (Open Access). At the same time, however, natural sciences have become more and more dependent on industrial support, while government support for fundamental research is dwindling and independent scientific research has become a challenge. How to deal with all this as a young scientist, eager to contribute to the body of scientific knowledge and to experience that scientific research is fun? During this presentation I will discuss the various issues related to publication of science and add from a personal perspective the 'lessons learned'.

14:30 Unity of knowledge? Global science for global changes

Dr. Sarah Cornell, *Stockholm Resilience Centre*

Global changes, both environmental and social, are the focus of intense research attention – and for very good reasons: human activities are a key cause of these changes, and our societies are feeling their consequences. I will explore the development of the global science of global changes, using the "grand idea" of the unity of knowledge as a prism to highlight some current challenges and some cheering prospects for the place of this science in society. Advancing global change research implies attention to internationalism, not least to ensure global coverage of essential data about the world, but also aligning with internationally agreed sustainability principles, policies and rights. Obtaining a broader and deeper understanding of the world requires interdisciplinarity, especially addressing the enduring intellectual challenge of bridging the natural and social sciences, which is often seen as a kind of Cartesian dualism. And rising on the research and policy agenda is the need to address the many interculturalisms, incorporating and respecting different worldviews in the (co)production and application of global change science. At the frontiers of knowledge, there will always be new divides to be bridged, so I will also reflect on if, when and how experience in these "inters" might become generalizable guidance for researchers finding themselves in the fray when it comes to understanding and responding to global changes.