

STANS AWARD 2018
(awarded 29 January 2019)

SLIDE 1

Dear Colleagues and Friends ,
On behalf of the two-headed jury – my distinguished colleague René Kleijn and yours truly (Jan J. Boersema) – a very warm welcome.

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For all our new colleagues I would start out with a bit of history.

In 1985 the just retired pharmacist Misses **Constance Eikelenboom** (her nickname was Stans) decided to take our CML Course ‘Environmental science’. Due to her expertise and outspoken character, she was an unusual critical student, but gradually she came to like the course and at the time she graduated she dedicated a substantial sum of money to establish an award for the best student’s thesis or paper. Her aim was to enhance the quality by introducing some competition. The board of CML extended the idea by introducing two new prizes, the first to challenge our PhD students, and the other to stimulate all researchers to reach out and interact with society at large.

The STANS prize was first awarded in 1986 so today we celebrate our 34th Anniversary.

Sadly enough Constance Eikelenboom passed away on March 12 2017 at the age of 95. Her famous walking aids were put on her grave. The prize named after her is a lasting tribute to this remarkable woman.

We are grateful to Stephan Slingerland, who donated in 2017 to the Prize to honour Stans.

So now you all know why we are here.

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I can tell you folks, René and I had to make tough choices. We received three really good nominations in the category best PhD scientific publication, reflecting the quality and productivity of these race horses in our stable. We discerned a growing number of candidates for the Outreach Award, usual suspects as well as promising newcomers. And for the Stans Award again we were surprised not only to receive good student reports but again work that could make it to a journal.

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Let us now continue with the award for the **best PhD publication**.

Here, as I said, we got three nominations.

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Glen Aguilar Hernandez wrote a nice introductory paper to his PhD project. In case you don't know what EEIOA means, you are in good company, we didn't either but Glen explains it clearly upfront (environmentally extended IOA). It is a good read and also a smart move of our almost Dutch speaking colleague as review articles tend to be cited more often than the science itself.

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Yujia Zhai's paper is an important step on the way to figure out the effects of nanoparticles in multispecies semi natural environments. The ubiquitous presence of those particles and their potential harmful effects are a growing concern – as is properly reflected in the way Yujia looks in this picture.

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Sebastiaan Deetman cleverly connected two lines of research - material flow analysis and integrated assessment models - and two institutions into meaningful scenario's about the future demand for metals as a result of climate change policies.

SLIDE 8

Three papers - in high ranking journals – as you can see all with different authors; So -apart from the unavoidable Tukker - none of them managed to multiply his or her chances to become a prize-winner.

We are not awarding Journals, we are awarding specific papers and are allowed to add our own criteria to the selection process: the Importance of the topic from a broader perspective; the originality in content or methods; clear, concise and coherent writing; convincing or pertinent results. Finding new ways to further CML research count as a plus.

Taking all these criteria into consideration one paper stood out, so the award for the best Scientific PhD publication published in 2018 goes to: **Sebastiaan Deetman**

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The best Outreach

I hope you are all convinced that in the end society is best served by good science. But even good science needs some outreach. Scientists need to be heard on their findings and insights, scientist need to tell the story, to build trust, to participate and give science a voice in the societal debate where it's due.

We even tolerate modest self-exposure.

If the results of your research is very appealing or even sexy and able to create publicity on its own: great! And if you manage to enter in the address books of science-journalist's as renowned experts, even better. The Jury is delighted to see this important message taking root at CML.

An astounding number of colleagues qualified for a nomination.

Among them the usual suspects,

SLIDE 11,12,13,14

a keen publicity seeker; SLIDE 15

someone telling an important story, SLIDE 16

We also saw excellent field work,

We saw papers in high level journals that did the hard work of creating publicity and continued to do so,.

SLIDE 17,18,19,20,21

and finally we saw innovative newcomers

SLIDE 22, 23

As you can see, quite an impressive Tableau. We were longing for an independent referee. SLIDE 24

SLIDE 25

Based on the unflagging effort to bring science to the public itself and to engage in personal contact with the audience, the best Outreach award 2018 goes to a person who - as we say in Dutch - “timmeraan de weg”: **Joris Timmermans**

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Last but not least the real **STANS Student Award**

Here we got four nominations, looked after two more and brought those six down to four again.

While perusing the reports there were a couple of things that struck the Jury and are worth mentioning here:

First of all the disappearance of the more than 100 pages thick student reports of the past. Frankly speaking: a blessing for the jury.

Second. Like most of their supervisors our students love to fly all over the Planet.

We saw results coming from across Europe, Indonesia, South Africa, under the earth's surface, the Caribbean and the Arctic. No ‘Vlieg-schaamte’, Shame to fly, at all

Third and on a more serious note: the topics were pretty much specialized; and rightly so. But what is missing in all student reports is any mentioning- just a few lines in the introduction or a paragraph in the discussion - of the relevance of this particular research for our present day environmental problems.

How does it contribute to solve those problems?

What bearing could the results have on pressing environmental issues?.

It remains silence why we are we doing this beautiful work here, at CML, the Institute of Environmental Sciences.

What did our nominees study?

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Pelle Sinke went all the way to Indonesia to tackle a vexing problem. Could uncertainty be properly dealt with in Life Cycle Assessment. He choose to study tempeh, a traditional Soybean product, to make his case that application of a Pseudo-statistical Approach could reveal significant differences in the production mode.

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Louie Krol pioneered in South Africa, set up an experiment with ugly mosquito's that transmit Yellow Fever and another to test a new measurement technique based on eDNA. While he was shedding more light on the community composition of mosquito's his own health could be at risk, according to his supervisor.

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Eline Baas studied the fate of very small creatures in the soil when exposed to the even smaller particles (Titanium dioxide TiO₂ NP). Particles that end up in the environment for instance when we brush our teeth. Mind you! We learned that it can impact diversity, abundance, composition and functional profiling of a soil bacterial community. Depending on exposure time and concentration of course, as Paracelsus already told us (in the 16th Century)

SLIDE 31

Yanze Yang tried to assess the European demand and recycling potential of cobalt until 2030. For sure uncharted territory. She decided to model in Python to estimate stock and flow in our societal metabolism. Decoupling of GDP growth and Cobalt use is almost impossible to achieve. The study calls for a user friendly database with coherent and transparent data.

That would be nice indeed.

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Taking into account the appealing results, the novelty, the prospects of the method used and the need to elaborate its use across CML.

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The STANS Student award 2018 goes to **Louie Krol**