

# The 'why' of science communication

Ivo van Vulpen

# A-topical lectures on science communication



*Clara Nellist*  
(Atlas)



*Gideon Koekoek*  
(Gravitational Waves)



*Vanessa Mexner*  
(Communication)

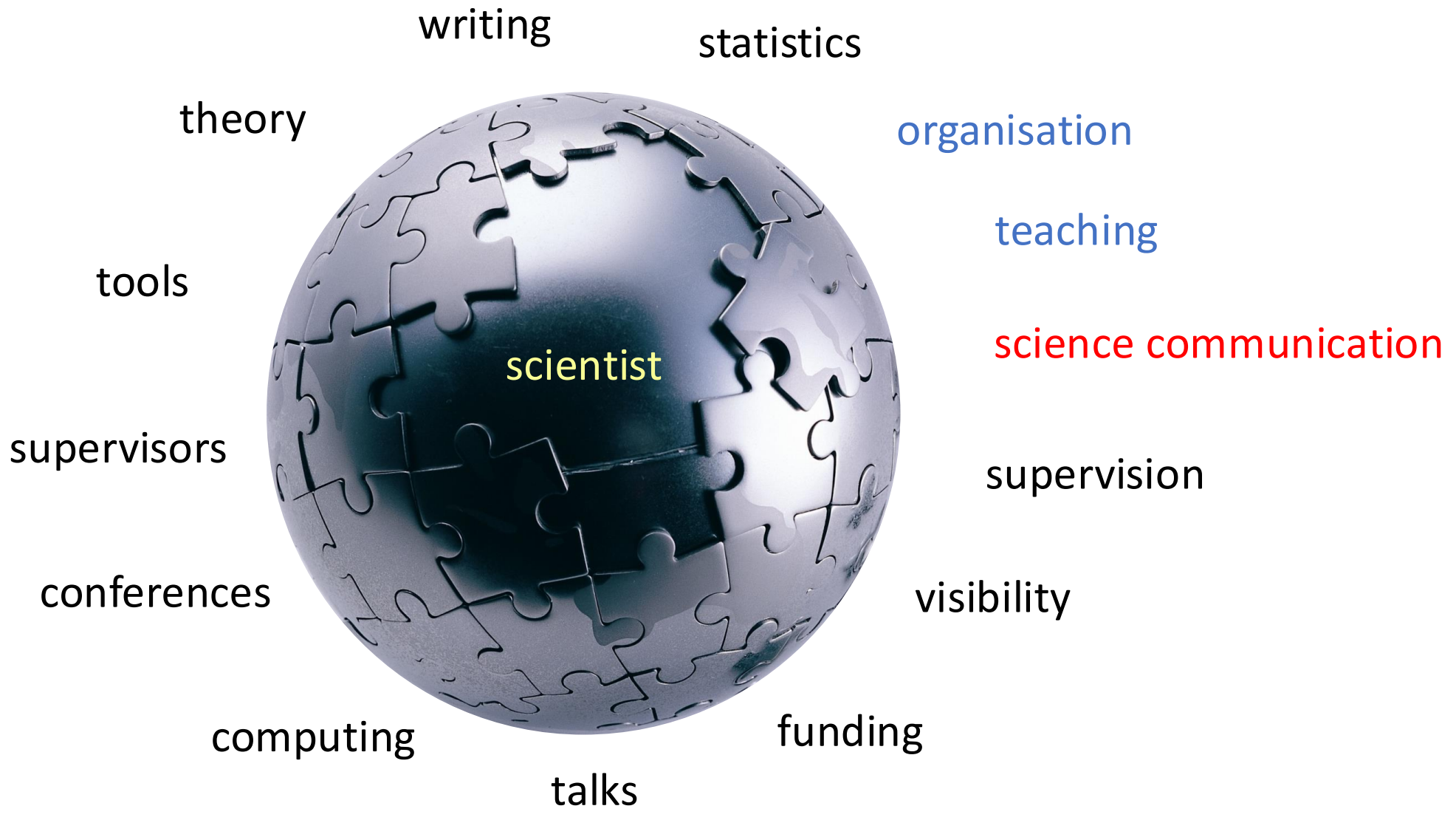


*Lisa Lehmann*  
(Atlas)



*Ivo van Vulpen*  
(Atlas)

Goal: - overview of broad science communication landscape and its role in science and society  
- inspire and discuss opportunities to get involved



<https://indico.nikhef.nl/event/7767/>

**WHY**

**HOW**

**YOU**

*At Nemo science museum*

A

expert talks & science communication examples

B

hands-on workshops

C

extra activities

## Programme Monday

- the why of science communication
- STEM for governance & policy
- introduction of participants

→ coffee

- recognition & rewards
- example project (ETEC/MaGIC)

→ lunch

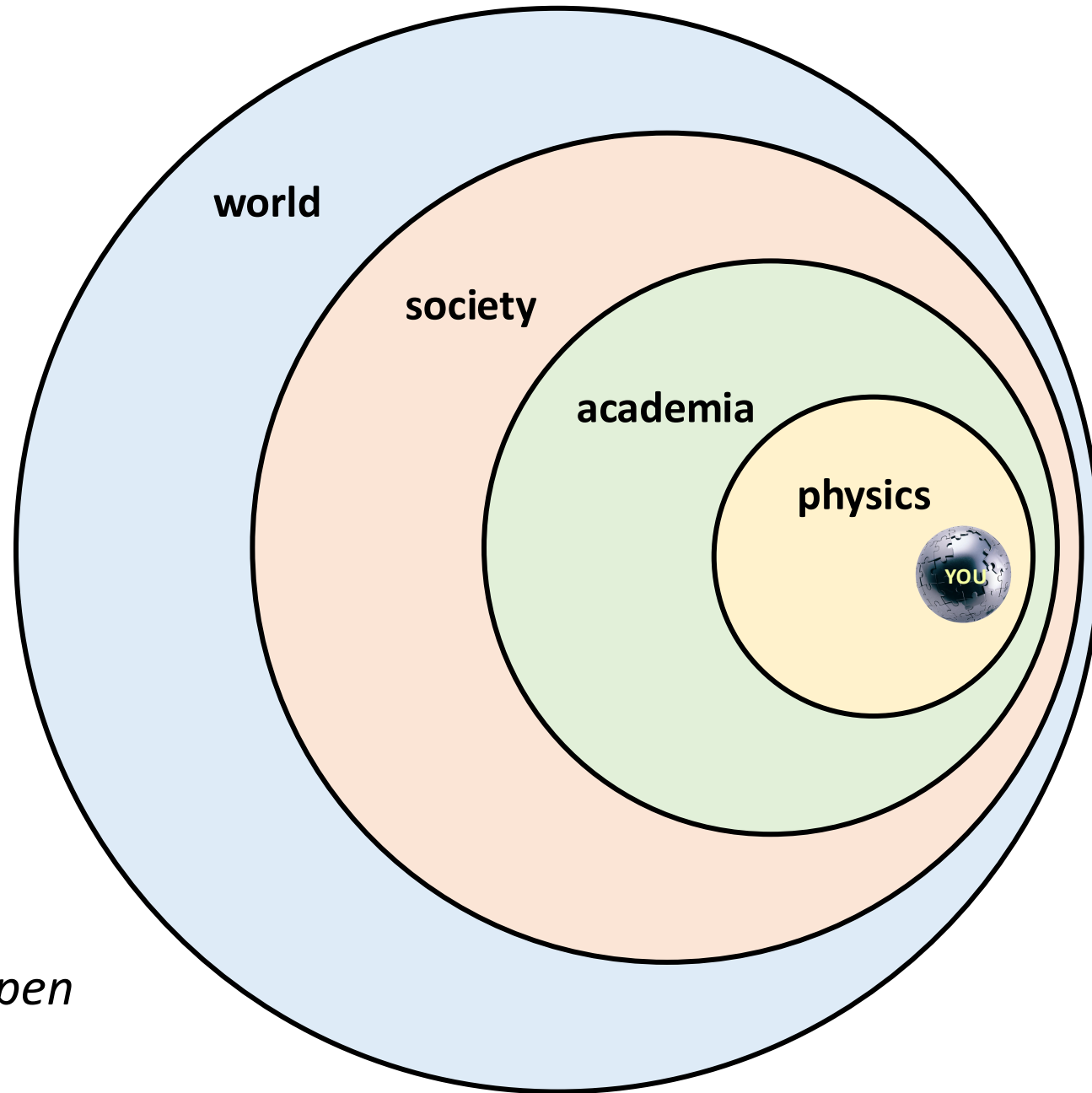
- workshop social media
- colloquium Ig Nobel Prize

→ diner (pizza)

Ivo van Vulpen  
Marcel Kouwenhoven

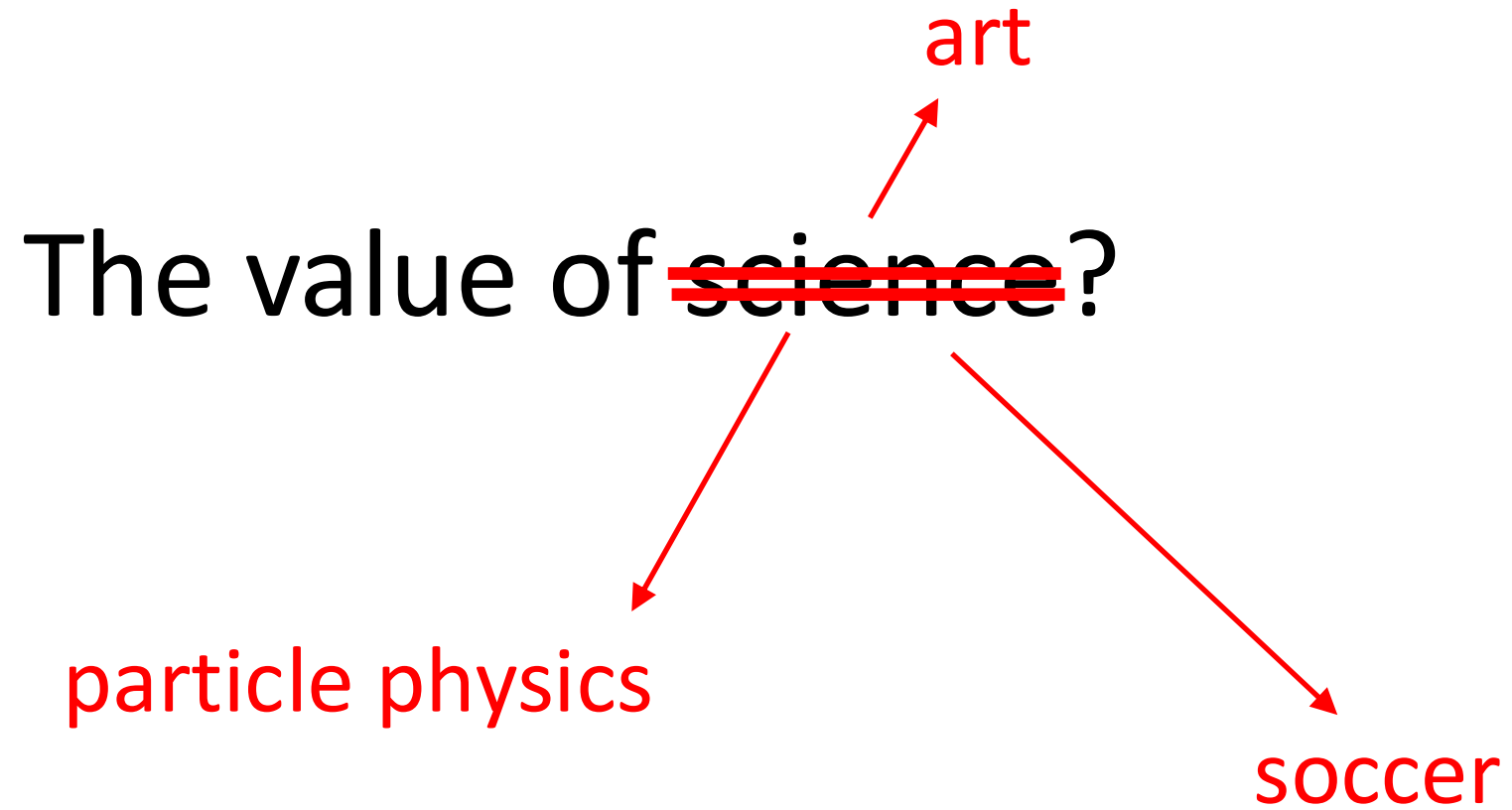
Gideon Koekoek  
Gideon Koekoek

Clara Nellist  
Kees Moeliker  
guests: Tess Heeremans & Tristan du Pree



*Science does not happen  
in a vacuum*

The value of science?





# Public Relations vs role of science in society

## **University communication departments:**

PR-focussed, potential students, superstar-scientists/prizes

## **Outreach activities most scientists:**

content driven - deficit model

Who talks about the value and role of (fundamental) science in society?

Who talks to younger generations and non-academic audiences?

### FAQ about budget cuts in higher education

On this page we provide answers to the questions asked most frequently about the budget cuts in higher education.

#### 2025 budget

What is going on?

What collap

**T**he University of Twente has been facing financial difficulties for some time. These are largely caused by the faculty of Technical Natural Sciences, which has been making losses for years and where a reorganisation [was already announced](#) in September.

Now it appears that the faculty is indeed taking drastic measures. Not only are 46 staff members being dismissed, but the faculty is also scrapping eight departments (research groups affiliated with a professor). In recent days, the management has held discussions with the affected staff members.



### Science is like competitive sports

I'm often struck by the parallels between competitive sports and good scientific research', says Chair of NWO's Executive Board Marcel Levi. 'Research is often just as competitive as the rivalry between athletes.'

## Developments in (funding) science & higher education

**Prof Anna Watts** @profannawatts.bsky.social · 1h  
607 senior staff to be lost from Goddard Space Flight Center? 🤔

**Chanda Prescod-Weinst...** @chanda.... · 2h  
ALL CAPS

THIS IS CATASTROPHIC FOR SPACE SCIENCE AND ASTROPHYSICS ...

GLOBALLY CATASTROPHIC, NOT JUST FOR AMERICANS 🌍🚀

[www.politico.com/news/2025/07...](http://www.politico.com/news/2025/07...)




Over 2,000 senior staff set to leave NASA under agency push  
The losses could endanger the administration's plans for landing astronauts...

© www.politico.com

### Brian Cox says UK physics funding cuts are 'destruction of the future'

Grant cuts of nearly 70% may force university departments to close and 'annihilate' research, scientists say



News · Dutch government officially cuts funding for Open Science

## Dutch government officially cuts funding for Open Science

8 April 2025

On 8 April, the Dutch Senate approved the budget of the Ministry of Education, Culture and Science (OCW). As a result, the funding for Open Science NL is halved, a decision that is now final. NWO will temporarily cover part of the cuts.



Prof. Anna Watts, BlueSky, 2 days ago

# Fighting fake news and pseudo-science



**3blue1brown**  
Grant Sanderson  
7 million subscribers

motion, and the second number tells you how far to walk parallel to the y-axis

Vectors, wat zijn ze? | Essentie van lineaire algebra, hoofdstuk 1

3Blue1Brown  
6,43 min. abonnees

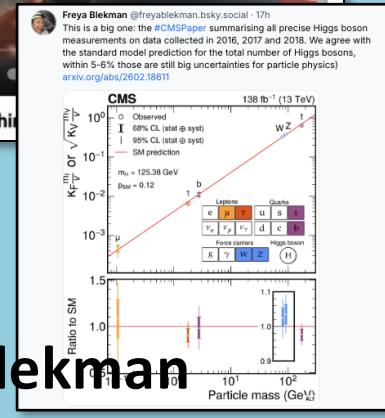
**Sean Carroll**

**Mindscape podcast**

0:25 / 6:56

**Katie Mack**  
@astrokatie.com  
312.5K followers 1.4K following 11.4K posts

Cosmologist, pilot, author, connoisseur of cosmic catastrophes. TEDFellow, CIFAR Azrieli Global Scholar. Domain verified through my personal [astrokatie.com](http://astrokatie.com) website. She/her. Dr.



**Freya Blekman**

**You may like**

and I am a particle physicist

Replying to @shanac19 Well, t...  
particleclara  
17.6K · 3-31

Let's go underground at...  
particleclara  
75.1K · 2-28

**Clara Nellist**

**Veritasium (Derek Muller)**  
18 million subscribers

Why It Was Almost Impossible to Make the Blue LED

0:00 / 3:44

Powerful quantum computers in years not decades, says Microsoft

0:04 / 7:03

**Sabine Hossenfelder**  
2 million subscribers

**SPECIAL RELATIVITY**  
Chapter 1

Hi, this is Henry, and this is the first in a series of videos about special relativity

0:04 / 4:41

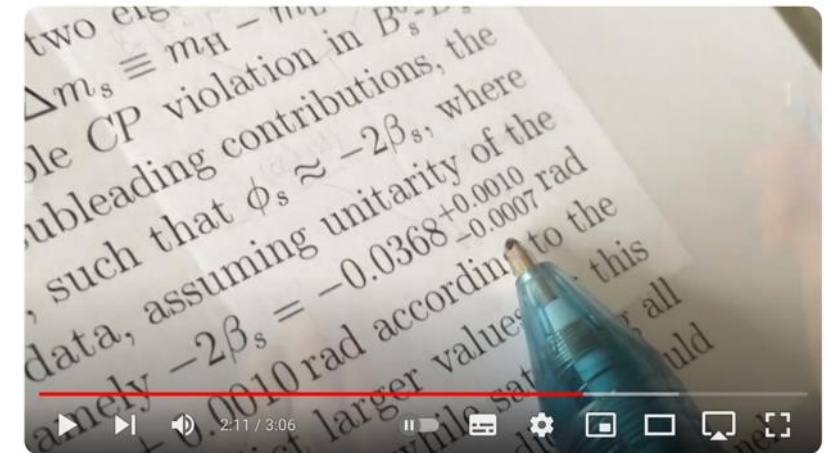
**minutephysics**  
6 million subscribers

# Show the people behind the science

The enthusiasm and passion is with the scientists, i.e. YOU



PAPERCLIP katya govorkova



PAPERCLIP katya govorkova

# Why invest in outreach as a scientist?

## **Society:**

- Given back to society - responsibility
- Reach and inspire a new generation / audience

## **Yourself (important):**

- Look at your own work from outside!
- Own visibility & networking
- Creativity / fun!

## **Personal funding grants**

- convince a broad panel of scientists (that have no clue what a lepton is) to fund your research

Note: also helps with internal talks, seminars, job applications inside and outside academia

# Talking science



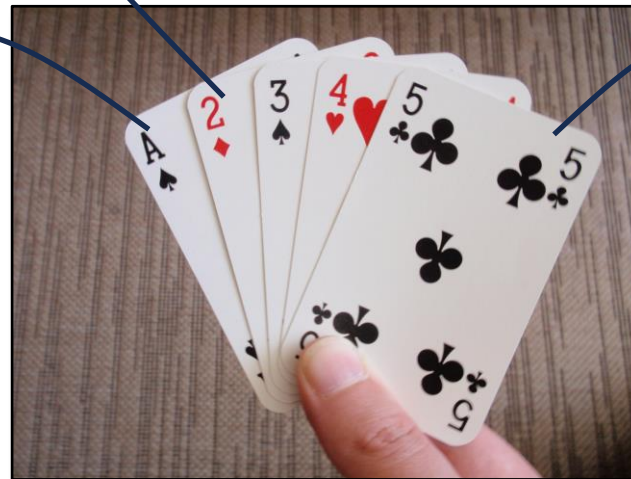
the next generation



general public / friends



colleagues/students





# Approach science communication seriously

## **1. What is your goal**

Information / enthusiasm / dialogue / look-at-me-being-smart / network

## **2. Connect to your public**

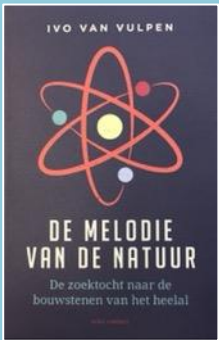
Adapt to the people you're connecting with (metaphors)

## **3. Evaluate impact**

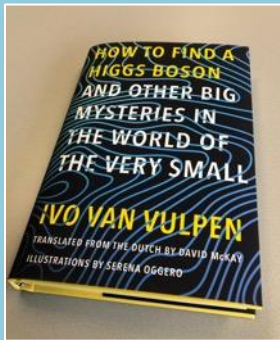
Did you achieve your goal? What did you learn?

Note: plenty of help available at Nikhef to learn and develop

# Personal outreach activities



Popular science book



Minor physics for non-physicists at Leiden University



Leiden wall formulas

With Sense Jan van der Molen & Tegen-beeld Foundation



Gala van de Wetenschap



Lowlands festival with @freyablekman



Junior college at Leiden University

BNR radio podcast



'Expeditie deeltjesfysica' (Studium Generale Leiden)



'De wereld is quantum' (Studium Generale Leiden)



'Paperclips' with Martijn van Calmthout



Find your own voice

# Science communication

- Much more than transmitting scientific facts
- Essential part of life as a scientist

Important for you and for society → Explore!