

PRIZE FOR FIRE WORK

‘Dr Fire-lady’ – Cathelijne Stoof – has won the Dutch Research Council Stairway to Impact Award for her efforts to help the Netherlands handle fires better. A welcome boost for transdisciplinary research.

Text Roelof Kleis

That's a typical journalist's question,' laughs Cathelijne Stoof. No, her research into integrated fire management is not based on a childish fascination with fire. 'But experiencing a fire in the countryside is really quite something,' she acknowledges, 'and for my work, it is important to see fires regularly. So I go along every winter and spring to be present at controlled burns. You always learn new things.'

Her interest in fire arose during her PhD studies. After completing her degree in Soil, Water and Atmosphere, she was given the opportunity to carry out research as part of a large EU project on desertification. 'The proposal also mentioned something about fire. I thought that sounded interesting. Fire hadn't been covered in my degree. Of the four traditional elements – earth, wind, water and fire – the first three were in my study programme, but not fire. Which is a bit weird, in fact. In Portugal, I studied why floods and erosion occur after forest fires. That was what got me started.'

But that was in Portugal; there were no wildfires in the Netherlands. 'It may

sound a bit silly, but I wasn't aware of that at all.' Her ideas about fire and combustion continued to smoulder during a postdoc at Cornell University (in New York state). Back at WUR, she developed PyroLife, an EU programme in which 15 European PhD students were trained as experts in integrated fire management.

Her ideas developed as she progressed, not least thanks to her many appearances in the media. This resulted not only in a lot of inventor mail ('I get emails two to three times a month from inventors who've found a solution to a fire problem'), but above all in an extensive network of people with practical experience who are involved in wildfires. 'That shaped my ideas about fire management, my line of research, and how we collaborate in transdisciplinary research.'

Living with fire

Creating connections between the stakeholders at different levels plus what she set in motion as a result have now earned her the impact award from the Dutch Research Council. The jury report

praised her influence on national and European policy on wildfires and her commitment to making landscapes and communities more fire-resistant. 'The impact I had is that I set up Integrated Fire Management as a discipline in the Netherlands and north-western Europe. I don't want people to be killed in wildfires, so we must learn to live with them. As a scientist, I can see that we have a problem: there are fires and we're not well prepared for them.'

She has been saying that in the media for years now. Initially without much result. 'Early on, my most critical comments were simply edited out. I noticed that this made me express myself more and more forcefully. There was one moment when I said on the current affairs programme *Een Vandaag* that it wasn't a question of whether there'd be a disaster, but when. Not of whether there'd be fatalities, but how many. And that was broadcast.'

The real momentum for change came five years ago when the nature reserve De Peel was hit by a major fire. 'That fire

really set the wheels in motion. There weren't any fatalities, but it was a disaster for the province.' Thanks to the efforts of the King's Commissioner Ina Adema, the topic of wildfires was then put on the national agenda.

Since early 2022, students have been able to enrol in the Master's course on Integrated Fire Management (initially called Pyrogeography). An average of 40 students take it every year. Stoof explicitly brings in practitioners and people in the arts in order to 'teach students to look at the subject matter differently'. She believes that this transdisciplinary approach is essential. 'I believe wholeheartedly that you can make science better and more relevant

if you work closely – on an equal footing – with people who have practical experience in the field. The social problems we are facing require that kind of approach to research.'

A critical note

However, this approach also has its limitations. 'The things that let me have an impact aren't what scientists could use in the old tenure track system to get promoted. Impact is generally seen as a nice-to-have "extra". In theory, this will be taken into account within the new Recognition & Rewards career system. We'll see. However, the system also expects you to be involved in the university's governance, participating in committees and consultations. As a transdisciplinary researcher who works closely with people in the field and invests a lot

of time in impact, you can't fulfil that expectation. You simply need that time to invest it in relationships and building trust. I can only spend each hour once.' Stoof thinks that Recognition & Rewards is essentially a good system. 'However, if we're to see impact as an integral part of a researcher's work, the culture has to change as well as the system. A university is a place for innovation. So make sure there's a structure in place that encourages innovation and lets you develop new areas of expertise. Transdisciplinary researchers connect disciplines together, both within the sciences and beyond. Collaborations are difficult to get going, though. Setting up research so that it has an impact requires a shift in the culture. People who approach science differently come up against the limitations of the system. That's demotivating. Winning a prize like this is something to celebrate, but I'm expressing this critical note nevertheless, now that I have this platform.' ■

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There was a large wildfire on the heathland near Ede in April 2025. It was caused by a mistake when letting off a hand grenade during a military exercise. Cathelijne Stoof: 'We're still not well enough prepared for wildfires.' • Photo Guy Ackermans