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On deaf ears

'Arguments are of limited value. You cannot change people's thinking with communication', says departing professor Cees van Woerkum. No wonder things went wrong in the debates about biotechnology and the plans for underground CO_2 storage in the Dutch town of Barendrecht.

TEXT RENÉ DIDDE **ILLUSTRATION** YVONNE KROESE

A few years ago, Shell and the Dutch government hatched a plan to store CO_2 in an empty gas field under a housing estate in Barendrecht, a Dutch town near Rotterdam. One evening, a Shell technician came to the town to give a glowing account of the science behind the storage plans. 'She did it very well', recalls Cees van Woerkum. 'She explained the technique in simple language and she emphasized that the chances of an accident are negligible.' But things still went wrong that evening, because technical issues were not the only thing on local residents' minds. There were other dissatisfactions in the air, causing a growing distrust of the CO_2 storage plans. By the time a group of officials including two ministers visited the rebellious town, protest had swelled to such massive proportions that further discussion was useless.
A wonderful case study, says Van Woerkum, who retired in November and is now emeritus professor. 'The Barendrecht residents were stoking each other's fears of an accident, of their houses losing value, and of the idea that Shell was treating the area as a rubbish dump for its waste products', says Van Woerkum. 'They looked for and found – from experts as well – arguments to support their ideas, their 'frame', in communication jargon.'

CLASSIC MISTAKE

Shell was convinced of its own frame and imagined it could convince the opponents of the CO_2 storage with sound arguments. A classic mistake, says the professor. 'Communication is not an instrument with which you can change other people's minds. People hold other opinions for a reason. It is not enough to put across clever arguments based on your own frame. You need to come to grips with your opponents' frame.'
It is the same with the decades-long debate about biotechnology and food, argues Van Woerkum: 'Scientists and company representatives who trade in genetically modified crops, such as the recently developed BASF potato from which good quality industrial starch can be made, emphasize the environmental and cost advantages.' But that is not a frame that people who see biotechnology as an 'unnatural' gastronomic nightmare can relate too. Nor will religious people who consider biotechnology as 'interfering in God's creation' be influenced by such arguments.
Van Woerkum also feels that the extreme positions taken by groups such as Greenpeace come in for too much attention from scientists and the business world. 'This leads to more moderate groups such as the consumer association being left out of the discussion.' He also feels that biotechnology companies fail to make use of websearches: finding out what people are saying about the company online. 'Once you know that, you can launch a webcare to get in touch with these people on the internet and try to influence them. I think there are a lot of unexploited opportunities in that area.'

INTEGRATION IN SOCIETY

Van Woerkum thinks scientists are too eager to prove that something like biotechnology is of interest to society in terms of environmental advantages or improved food security. 'What they should say instead, when they formulate their research questions as well, is: we are researching which uses of biotechnology could be of use to society. Scientists should focus less on the technology itself and more on its integration into society.' >

The debate in biotechnology has now reached an impasse. So it is time for scientists and companies to get to grips with the public's frame, says Van Woerkum. 'They should make contact with people, get an understanding of their fears and their prejudices, and take these seriously as the basis of their beliefs. You should never go into an extension meeting with just a technical PowerPoint presentation.'

So what should Shell and the Dutch government have done in Barendrecht? 'They should have walked around the neighbourhood more; they should have found out in advance what the mood was there. In other words, they should have tuned in to the community. Ask people questions: 'what are you afraid of?'; 'why do you think the whole thing will subside?' And they should never have gone ahead without the government. They should have acted together.'

There were a few slip-ups on the part of both local and national government too, says Van Woerkum. 'If a civil servant or a minister had made the importance of CO_2 storage clear on that first evening, it might have been possible to influence the frame of worried residents. They should have explained that it was a transitional measure to win time before making the switch from fossil fuels to sustainable energy and address the climate problem.' But the government left it all up to Shell, and Shell only sought dialogue on technical points. The result was a 'frozen frame', a war of words, an impasse. It is not yet widely understood, says Van Woerkum, that communication is not an instrument with which you can just go in and sort out an issue, but is more of a two-way system with one set of beliefs or frame on the side of the transmitter and a separate frame on the side of the receiver.

Bert Lotz
researcher at Plant Research International

'The role of contact person for the wider community is very important, and nice'

NEIGHBOURHOOD WALKABOUT

A bit of a simplification, says Wim van de Wiel, the Shell press officer who was involved in the Barendrecht case. 'More than a year before the information evening, we went on a walkabout in the neighbourhood in relation to the environmental impact report. We talked to an enthusiastic town councillor and to civil society representatives', Van de Wiel recalls. 'We explained the idea behind the CO_2 storage and literally asked them, 'What are your concerns?'

On the basis of that research, Shell concluded that Barendrecht must be a 'viable plan'. 'We did not have the impression that people were against it, and the government, which at that time placed a high priority on CO_2 storage, promised to attend the meeting. But then the ministry of Economic Affairs cancelled shortly before the meeting, and we had to go into it on our own.' The enthusiastic councillor also made an abrupt U-turn.

Van de Wiel, who still feels somewhat frustrated about the affair, thinks that at worst, Shell may have been in too much of a hurry. 'It also turned out later that, besides concerns about CO_2 leaks and a drop in the value of houses, there was a feeling among the locals that Barendrecht had put up with enough from the government over the past 15 years, what with the laying down of the Betuwe and the high-speed railway lines, and

Wim van de Wiel
press officer for Shell

'There was a feeling that Barendrecht had put up with enough from the government'

FOTO LINELLE DEUNK

CEES VAN WOERKUM

After forty years at Wageningen University, part of Wageningen UR, Cees van Woerkum (b. Eersel, 1947) has said his goodbyes. He joined the then agricultural college as lecturer in extension studies straight after graduating in sociology at Nijmegen University in 1971. He went on to obtain a doctorate in 1982 for a study on planning in communication programmes. His appointment as professor of Communication and Innovation Studies followed in 1989. Eight years ago, Van Woerkum shifted the focus of his work from the extension message itself and how it reaches the target group to those on the receiving end of extension efforts. Understanding how they think is crucial to the communication process, Van Woerkum believes. And so in 2003 he delivered a second inaugural lecture, this time for a chair in Communication Strategies.

the widening of the A15 and the A29 highways. We may have underestimated that.'

POOR COLORADO BEETLES

At Wageningen UR's Plant Sciences group, Erik Toussant is a seasoned veteran when it comes to communication on the controversial subject of genetic modification. 'There are many different frames. It makes a lot of difference whether you are at a meeting with a group of rural women or at a press conference for science journalists. In fact, exactly the same sentence uttered by the same speaker can be interpreted in completely different ways by different people.'

According to Toussant, the different starting points of different audiences have been taken into account in scientific communication since the mid-1990s. For him the big eye-opener came during a meeting at which a genetically modified potato was discussed which manufactures a toxin that kills off the destructive Colorado beetle. Toussant: 'Someone in the audience called out: 'Yes, but then all those Colorado beetles will die'. They would otherwise have been wiped out by pesticide spraying, but this told us something about a frame which I hadn't really considered.'

This is reminiscent of a famous example of British scientists who published an article on a potato that was resistant to aphids that carry harmful viruses. During field trials they also noticed that there were fewer aphid predators such as ladybirds. 'The disappearance of the ladybirds caused a big outcry', says Toussant.

RADICAL CAMPAIGNERS

Some scientists have more sense of what is newsworthy and are more media-savvy and in touch with the general public than others, says Toussant. 'You can coach them and train them but it remains a talent that you've either got or you haven't. And make no mistake about it: even though it is time-consuming, our staff do take every media opportunity they get.'

Among the staff is Bert Lots of Plant Research International, part of Wageningen UR. Lotz is the type who will have a few beers down the pub with Greenpeace campaigners, so as to get a better understanding of their point of view. Or he'll drop in at a protest camp and enter into a debate with radical campaigners from A-seed, whose activities have included bringing out a film called 'Gene seeks farmer'.

'My first aim is to do independent research, to be transparent, and to publish in scientific journals', says Lotz. 'Debating, defending your scientific position, and being a contact point for the community are important too though. And nice. I give least emphasis in this to the radical groups with extreme standpoints. I focus more on church organizations, rural women the consumer association and the Rotary Club.'

Wageningen UR is organizing an open day of its own at which the general public are invited to have a look at trial plots with modified potatoes or resistant maize. 'In doing this I am aware of the different frames at work. By keeping up the dialogue, we can escape from the frozen frames. A good example of that is the way the Christian Union political party has started to view cisgenesis. The party now accepts this form of genetic modification, done with genes of the same kind. You can introduce resistance genes into potatoes or apples, for example, much faster with cisgenesis than with classic breeding techniques. The Christian Union therefore feels that cisgenesis can contribute to making agriculture more sustainable' ■

Erik Toussaint
spokesperson for the Plant Sciences Group

'Someone in the audience shouted out: yes, but then all those Colorado beetles will die'