



Each year, Rudi van Eldik inspires his team to give a great performance during the university's spectacular chemistry show, which always reaps storms of applause.

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Rudi van Eldik

King of Chemistry

In the form of a spectacular but also highly educational stage show, a chemistry professor's "Magic Lecture" is a major hit with students and the public alike.

TEXT Thorwald Ewe

and raised in South Africa by his Dutch parents. The professor considers hard work to be the elixir of life. Sitting in his meticulously tidy office, he exudes the cheery air of a man who is right on top of his job — and everything else.

In 1994, when he took up his current position as Professor of Inorganic and Analytical Chemistry in Erlangen, his predecessor, Klaus Brodersen, asked him to continue a tradition of almost 25 years' standing: in mid-October, at the start of the winter semester, the current professor regularly gives what is known as the "Magic Lecture". Before van Eldik's time, this involved little more than classic demonstrations of various experiments that were popular with students and university staff.

Yet van Eldik wanted more. Together with colleagues from his working group, for whom he displayed his considerable talents of persuasion, van Eldik proceeded to liven up this once rather stuffy occasion. In the following years, he and the team proceeded to present not only the whole chemistry set of bangs, flashes, fire and coloured smoke, but also more and more show elements — including humorous commentary, sketches and lively tunes played from loudspeakers installed in the chemistry auditorium.

That's not to say mere spectacle is all "Magic Rudi" wants to achieve. His aim is "edutainment" — a balanced blend of education and entertainment. That's why the shows always feature a healthy

sprinkling of instruction, so that the audience can grasp that chemistry — despite its less than scintillating reputation in some circles — is a great science as well as a lot of fun.

With each passing year, the crowds have continued to grow. Since 2004, there have been as many as five annual lectures in Erlangen alone — including charity events. And now they fill the university's largest auditorium, the Audimax, which can accommodate an audience of up to 1,200 people. In 2005 and 2006, there were also two additional shows in Frankfurt and Munich.

Back in the 1990s, schoolchildren were merely invited to the rehearsals before the actual event. Today, the approach has been changed entirely. "The performances for school groups have a much higher priority now — we don't need to convince chemistry students of how great chemistry is," explains team member Carlos Dücker-Benfer. Along

with van Eldik, the 43-year-old is one of the veterans of the show, on board since the very beginning.

The overall character of the event has also changed dramatically. Peter Illner, another team member, explains: "Our aim is to tell a complete story, based on a general

storyline — for example a journey through time or around the world — and with continuous speaking parts for performers in costume." Audiences in 2004 were treated to a trip around the world with Salvador Dalí; the following year



Success can be a dangerous thing. Just ask Rudi van Eldik, a chemistry professor at the University of Erlangen-Nuremberg, Germany. "The whole thing has just mushroomed since we started — as has the effort required, of course," he says. "To be honest, it's a lot of work. And it's becoming more all the time."

Others might groan at this prospect, but van Eldik is tranquillity personified. A slightly built man with dynamic energy, he was born in Amsterdam in 1945



“Magic Rudi” certainly knows how to put on a good show. Yet educating the audience is also a top priority. Instead of merely

gasping in amazement as the sparks fly, it should also be able to grasp the chemistry behind the reaction.

they visited the “Alchemy Clinic”; and in 2006 it was time to take a look at “Alchemy in Fairytales”. This year, the theme is a journey into space.

Originally, the team of between 20 and 25 people was responsible for everything, on stage and backstage. But today they couldn’t possibly manage it all without outside support. “Three years ago, we brought in a company by the name of In Phase Event to provide the lighting and sound, plus a security company to take care of things in the auditorium,” van Eldik says.

This all costs money, needless to say. And although the team provides its services free of charge, the overhead involved in actually staging the event — which includes chemicals, costumes, external services, and accident and third-party insurance — amounts to approximately 15,000 euros a year.

And a lot of time must be invested in the show. Can group members really afford this without neglecting their academic duties? Rudi van Eldik spells out the rules of the game: “If you spend three weeks doing nothing but prepar-

ing for the show, then you’ve simply got to make up for it during the other 49 weeks of the year.”

Professor van Eldik certainly leads by setting an example. Dücker-Benfer shakes his head in admiration of “Rudi” — everyone is on a first-name basis here. “Rudi arrives at 6:00 a.m. every day and then works for 15 hours. And before he gets to work, he’s already been jogging! He’s an amazing guy.” Does he demand the same from his colleagues? “Nobody else can do that much,” says Illner. “But he definitely expects us to give it all we’ve got.”

The effort definitely pays off. Rudi van Eldik’s Magic Lecture is now a hit far beyond Erlangen, not least since the Bavarian TV channel broadcast a 20-minute programme of the show. Van Eldik’s

dream is to take to the road with a slimmed-down version of the lecture, on a tour of major German cities throughout the year, thus helping to drum up enthusiasm for science. But such an under-

taking would require a sponsor with plenty of staying power.

Many applaud his efforts, but there are killjoys, too — those who resent his success and question whether it can be in the proper interests of a university institute to have most of its staff tied up for weeks on end putting on a circus show?

“Sure, some people say that,” van Eldik confirms.

His colour deepens and his normally pale eyes darken with annoyance. It’s clearly a very emotionally charged issue for the otherwise ebullient professor. He leaps up from his chair and seizes a ring-folder from an adjacent table. It contains the proof to silence all the envious and carping voices: a list of all the scientific publications by him and his colleagues — the recognised measure of success for any academic institution.

“In 2006, we had 28 publications in the very best chemistry periodicals,” says van Eldik, “including *Angewandte Chemie*, *Inorganic Chemistry*, and the *Journal of the American Chemical Society*. My team produces a publication about once every two weeks. We’re right at the cutting edge, academically speaking. And that’s why we can afford to put on our annual show!”

