

transponder

Two Spaniards in the Lowlands

Best use a bike!

Joining Forces on Co-firing Biomass

Exchanging knowledge and combining expertise

New Blood

ZKU on being part of KEMA



**Big Opportunities
for KEMA in Rio**



Two Spaniards in the Lowlands

KEMA is becoming a truly global company. We now have people on virtually every continent and quite a number have moved across borders to take up new challenges. We wondered how they feel about living and working in a totally different environment. This time we asked two Spaniards – José Gonzalez and his wife María Carrera – for their impressions of the Netherlands.

Focus on: Specialist in Cooling Water José Gonzalez and María Carrera, Clinical Psychologist

Background: Marine Engineer, Naval Architect (José), Doctor in Psychology (María)

Relocation: 2011 from the Canary Islands to Arnhem in the Netherlands

Job: Consultancy, technical analysis and research as part of a multi-disciplinary team



In each issue we will introduce KEMA colleagues working in different countries. They will then suggest other people to interview. Not so much a relay race as a handover to an interesting colleague.

Graeme Sharp
Onno Florisson



Next:
Kristie DeJuliis



KEMA Connected: Onno Florisson

Who Onno Florisson, married, two children, one grandchild
Where KEMA Groningen, the Netherlands
Job Senior Consultant at Gas Consulting & Services (GCS)

Education and career I studied Technical Physics in Enschede and my first job was at Océ Nederland. From 1984 I worked for Gasunie, first in Research and Development and later in Engineering & Technology. Since the takeover of Gasunie in 2009, I've been working for KEMA.

What do you do exactly? I deal with all sorts of 'gas-related' matters, mostly in multi-partner projects. One important challenge is: how do you arrive at a collaboration agreement with other organizations – also internationally?

Hydrogen gas storage For the last 10 years I've been involved in the NaturalHy project. We investigate the conditions under which hydrogen can be safely added to natural gas. Hydrogen offers interesting opportunities in a sustainable energy system. Surplus energy from e.g. wind turbines and PV can be converted fairly easily into hydrogen gas. In this way, we can store electricity in the gas system. Then we can start talking about an 'energy system' instead of a natural gas or electricity system.

What I like (and don't like) At KEMA the approach is more commercial than at Gasunie, which gives our work a new dimension. But we can take a good idea and look for clients to turn it into a concrete project more quickly. That's very encouraging. I really enjoy setting up new collaborative ventures; I get a real kick out of that. What's sometimes annoying is that it takes a long time to finalize contracts. That can take the momentum out of a project... I feel really at home with KEMA in Groningen. It's a fairly small group, where we're all pretty much on the same level and there's a strong team spirit. I reckon I've got the best job at KEMA!

Free time I'm really fascinated by the way people lived long ago, especially in ancient Greece, in Roman times, and in the Middle Ages. On vacations we always visit museums and archeological sites. I also enjoy working with wood. One day I hope to restore an old wooden sailing boat.

Special Something that always strikes me is the number of different ways in which people work together and communicate. Italians and Greeks do it very differently from Norwegians and Swedes. That fascinates me.

Connected I once worked together with an American lady, Kristie DeJuliis, on a project launch in the U.S. I found her energetic approach inspirational, so in the next issue I'd like to read something about her and what happened with that project.

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Petra de Jonge
Zwanetta van Zijl



Next:
Narottam Aul



KEMA Connected: Zwanetta van Zijl

Who Zwanetta van Zijl, married, two children
Where KEMA Arnhem, the Netherlands
Job Corporate Legal Counsel

Education and career After studying law, I worked for KPN in The Hague for around eight years and then spent two years with Energiened in Arnhem. In March 2000 I moved to KEMA.

What do you do exactly? I deal with general legal work: assessing contracts and business terms and conditions, providing legal support in the case of acquisitions and negotiations, giving legal advice, etc. In fact just about everything except employment law. My work brings me in regular contact with all the other KEMA locations.

What I like (and don't like) What I really enjoy are negotiations with clients. Sometimes these can be heavy going to start off with and we really have to work hard to bring them round to our point of view. It's very gratifying when you do manage to reach a mutually satisfying agreement. What sometimes concerns me is the 'office politics' aspect of my work. If you notice that a decision is not heading the right way, how can you ensure that a legally well-founded decision is made in the end?

What do you think is the importance of your work? That's clear: risk management. If all goes well, a contract that's been signed can sit quietly on the shelf but, if there's a dispute, it's crucial that agreements have been set down clearly.

Free time In my free time I'm often on the tennis court. I also do a lot of voluntary work for the tennis and hockey club. Apart from that, I like to read. A dream? One day I'd like to learn horse riding.

Special Once I went on a business trip to Bahrain and Dubai. That was a very special experience as I'd never been to the Middle East before. The interactions with my colleagues there were very pleasant, but in everyday life I sometimes felt that, as a westerner, I was being given the cold shoulder. A bit like the way some foreigners in the Netherlands probably feel. It was useful to have that sort of experience...

Connected In the next issue I'd like to hear something about a colleague at KEMA Australia: Narottam Aul. I wonder what it's like as an Australian to have to report to Arnhem. How does he experience his connection with KEMA?



J.C. van Staveren, 1955

J.C. van Staveren and the history of KEMA

The history of KEMA in the Netherlands reflects the history of electricity. The career of KEMA's first director, Professor J.C. van Staveren, reflects both.

'A profession with not much perspective'

Jacob Cornelis van Staveren was born in 1889 in Amsterdam. After Polytechnic, he studied electrical engineering at Delft University of Technology. His early years coincide with the development of practical applications for electricity such as the carbon arc lamp for street lighting, the electrical motor and the light bulb. Apparently, people thought at the time that its potential had already been reached. In an interview in 1977 Van Staveren recalls: "When I graduated from Delft in 1913, we had the feeling we'd chosen a profession which didn't really have a future."

Nothing could be further from the truth. After the First World War electricity supply really takes off. Typical for the Netherlands is the involvement of the government from the start. The first electricity companies are private enterprises, but as early as 1895, Rotterdam is the first municipality to take charge of its electricity supply. Around 1910, almost all of the larger municipalities have their own electricity company,

gradually provincial electricity companies are established, and central government has a supervisory role.

A matter of public interest

Clearly electricity is seen as a utility, something of national importance. Cooperation between all of the municipal companies is therefore vital. For this purpose the Association of Directors of Electricity Companies (in Dutch abbreviated as VDEN) is established in 1913. The VDEN holds discussions, advises, and – if necessary – takes action in order to support the common interests of the municipal electricity companies in the Netherlands.

One of the first tasks of the VDEN is research into the centralization of production: a limited number of companies, linked through a high-voltage overhead grid. The ultimate goal is an interconnected grid, through which the electrical capacity of the power stations can be better shared and used. To achieve this, the Commission of High-voltage power lines was estab-

lished in 1918, later becoming the Central Office of the VDEN. At the helm of both stood the young engineer Van Staveren. From that moment on, the creation of an interconnection grid became a constant in his career.

Another effect of the central role of government in the electricity supply is the focus on safety. Safety guidelines were drawn up at an early stage. There was also a need for unambiguous, independent auditing of installations and materials. For a time this was the task of the Central Office, but in 1927 the VDEN decides to set up a dedicated institute: KEMA, the N.V. tot Keuring van Electrotechnische Materialen (in English: Company for the Testing of Electrotechnical Materials). And Van Staveren is appointed director of KEMA.

Own premises

The young KEMA is located in the former Hotel Bellevue in Arnhem: an attractive building, but hardly ideal for establishing labs and anyway very soon too small. From 1931 the 'Den Brink' estate near Arnhem was purchased bit by bit. This estate is still at the heart of today's Business Park Arnhem.

The extra space was also needed to build a Short-circuit Lab, with the extremely high capacity – for those days – of 500 MVA. An accident in Amsterdam, in which a large, oil-insulated circuit breaker explodes, demonstrates the urgency of building testing stations with very high capacity. The Short-circuit Lab

and later extensions will make KEMA world famous. Soon other buildings appear on the site, including a warehouse, office, workshop and high-voltage lab. Van Staveren is said to be the driving force behind the building plans. He takes pains to ensure that the buildings fit well into the beautiful surroundings and makes sure that the trees remain part of the landscape.

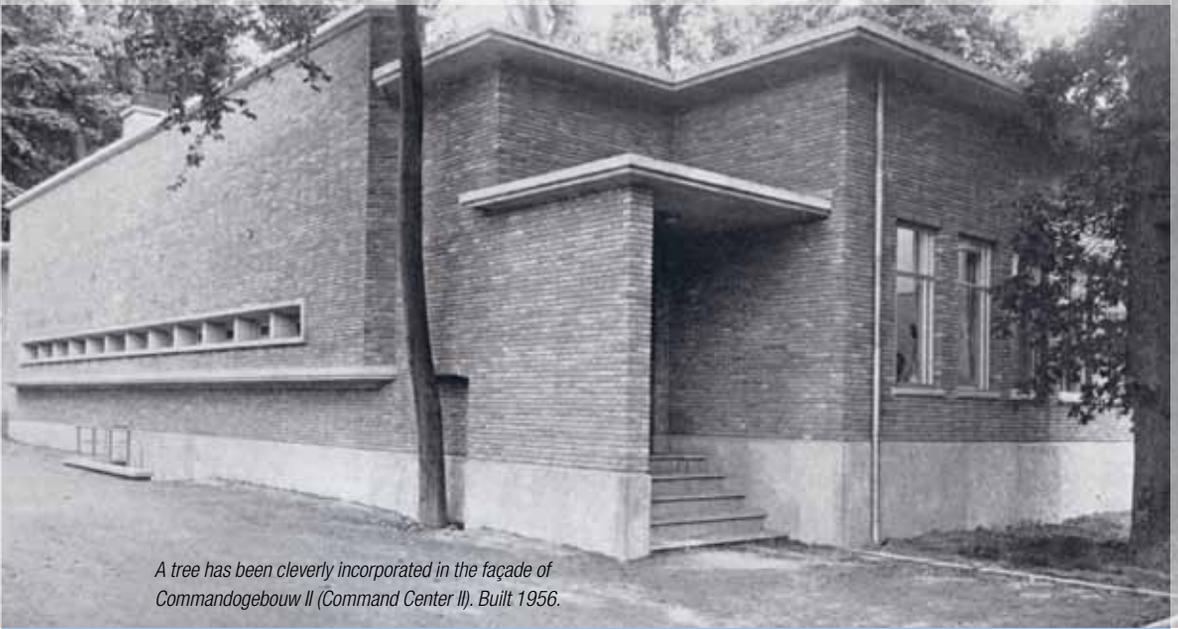
Networker before his time

Van Staveren must have been a charismatic man. When he leaves KEMA in 1964 (at the age of 75!) many of the speakers refer to his great oratory skills. One of his successors, J.H. Bakker, talks about it in an interview in 1997: "He had the ability to tell stories until you were completely convinced of his point of view. He had amazing presence." This power of conviction and the ability to clearly explain complex issues come in very useful with the development of KEMA, which depended on good contacts and cooperation with everyone in the electricity sector.

Van Staveren – as a real entrepreneur – focused on new development and opportunities for innovation. There are plenty of these in the first half of the twentieth century. Whereas KEMA started with examining and testing electrotechnical materials in for example power stations, transformer houses and networks, soon testing and examining domestic equipment and installations became increasingly important. After 1920 novelty items such as the vacuum cleaner and the

View of the Short-circuit Lab complex, late 1930s.





A tree has been cleverly incorporated in the façade of Commandgebouw II (Command Center II). Built 1956.

electric iron appear on the market. And electricity is increasingly used for electrical drive applications, such as electric trams and pumping water from the polders to keep them dry – something of vital importance for the Netherlands. Gradually KEMA starts working for other clients in the electricity sector, such as the Ministry of Defense and foreign companies and organizations.

The postwar years: a new start

The Second World War was as tough a time for KEMA as it was for the rest of the Netherlands... At the end of this period, Van Staveren and co-director Prof. De Zoeten make plans for strengthening cooperation between the electricity companies. This cooperation will finally lead to the creation of a National Grid. Back in the office after the war, both men are energetically engaged in rebuilding the organization and, after a few years, KEMA is once again fully operational.

The postwar years see a number of important developments, such as the construction of a grid that links the Dutch provinces and neighboring countries. Nuclear energy also shows promise. From 1958 KEMA carries out a number of tests in this area in a specially equipped nuclear reactor lab. To strengthen fundamental research within KEMA, a research fund is established and there's a steady increase in the number of buildings.

Van Staveren is closely involved in all of these renovations and in addition sits on the boards of numerous related organizations and companies. In 1930 he is appointed Affiliate Professor of Electrical Engineering and Technical Physics at Utrecht University.

In 1964 he leaves KEMA. At a farewell ceremony, many praise his ability to forge connections between people and organizations – one of his greatest achievements. Mr. Jansen, speaking on behalf of the personnel, refers to the saying which the departing director was fond of quoting: 'With your hat in your hand, you're welcome throughout the land'. According to him this illustrates the KEMA approach: "Our mentality is ... in many ways different from that of large companies. I think we're more modest and we don't put on airs. That's why there's such a strong esprit de corps here."

In 1979 J.C. Van Staveren dies, aged 89. ●