

DESERTEC: The man with the red rectangle is dead – desert energy pioneer dies in Hamburg

Obituary for Gerhard Knies (born 10 June 1937, died 11 December 2017)

Despite his long illness, Gerhard Knies' death at age 80 in Hamburg came as a surprise to many of his friends. Until the very end, the doctor in physics had been dedicating his energy on many levels to the big issues facing mankind: peace, prosperity, education and clean energy.

Gerhard Knies grew up as the oldest of 6 siblings in a pietistic parsonage where education played a crucial role. Having received a scholarship from the Evangelisches Studienwerk Villigst programme, he subsequently joined CERN in Geneva. After a sojourn at the University of California (Berkeley), he worked as a researcher in elementary particle physics at DESY (Deutsches Elektronen-Synchrotron) in Hamburg.

The Chernobyl nuclear disaster left a deep impression on Gerhard Knies who started to rethink the big questions facing mankind and increasingly viewed nuclear energy with a critical eye. According to Knies, "nuclear energy solves a problem – the energy question – for which a much better solution already exists. At the same time, we are creating a new problem – radioactive waste – for which a solution does not exist."

He recognised that overpopulation, energy scarcity and over-exploitation of declining resources were all factors planting the seeds of future conflict. On top of this, the climate change caused by these factors would exacerbate the problem over time. Calling the current state of the world "organised crime against the future," he set about searching for solutions to these complex relationships. It was his strong conviction that the livelihood of future generations had to be protected and preserved.

In 1995, during a one-year sabbatical at the German Aerospace Centre (DLR), which turned out to be an important landmark in his life, he became aware of the enormous potential the world's deserts hold in terms of clean energy. With the desert energy idea taking a firm hold of him, he set about raising awareness of this potential and encouraging its actual exploitation. The deserts of the Middle East and North Africa (MENA) alone would be capable of generating around 40 times the clean energy needed at the global level. There were only two problems to overcome: political instability and energy transport, which became his main subjects after he retired in 2001. Having been actively involved in peace work for many years, he recognised that working for peace and fighting for clean energy were complementary activities.

This eventually resulted in the so-called Desertec Vision (use of the world's deserts for electricity generation). Although Knies was not the original inventor of this idea, he re-discovered it, found fellow campaigners and thus gave the vision fresh ideas and a new lease of life. Whenever he was described as the 'father' of Desertec, he broke into a smile. If anything, he saw himself as the godfather of Desertec. He was very aware that the success of the Desertec concept and the subsequent Dii GmbH industrial initiative (www.dii-desertenergy.org) was the result of close teamwork and the contributions of countless committed campaigners who he collectively declared to be fathers of Desertec.

In 2003, the German Federal Ministry for the Environment provided funds for three feasibility studies. Under the leadership of the German Aerospace Centre DLR, the Med-CSP, Trans-CSP and Aqua-CSP studies investigated and confirmed the feasibility of the concept. In this context, the TREC (Trans-Mediterranean Renewable Energy Cooperation) network was established, consisting of 50 scientists and committed individuals, the Hamburger Klimaschutz Fonds, the Club of Rome and, inter alia, the NERC National Energy Research Center of Jordan, as well as further partners in Morocco, Algeria, Libya and Egypt.

In the early days, the Club of Rome played a crucial role, opening many doors and providing necessary infrastructure. When I met Knies for the first time in October 2006 and became TREC's Middle-East representative in Dubai, he was looking for a champion, maybe a politician or a manager, at any rate someone who would act as a standard bearer who would raise awareness of his ideas and the work of the cooperation partners. He was afraid that the studies might be left to gather dust on some office shelf. Knies was finally persuaded that he himself would be by far the most credible champion of the cause and that an organisation should be set up for its promotion.

At the beginning, he was very reluctant to take on this role since he saw himself primarily as a networker and did not enjoy public appearances. Over time, he became increasingly confident and came to like his new role. In April 2007 Gerhard Knies and I visited the MASDAR Initiative in Abu Dhabi, which had been inspired by TREC. We were planning a conference in Dubai and had to find new name for it since the term TREC was limited to a certain region and would have excluded Dubai. For marketing reasons, we also wanted to promote the USP of the desert energy idea – the fact that it is applicable everywhere on the globe. The name was to be self-explanatory. This is how TREC was renamed and how the subsequent reorganisation, which culminated in the establishment of the multiple award-winning Desertec Foundation in Berlin in 2008, came about. Masdar recommended former Chancellor Gerhard Schröder as “champion of the cause” -a term coined by the Leader of MASDAR himself- and Knies approached him at the 4th MENAREC Conference in Damascus in 2007 (Knies played a prominent role in the establishment of the MENAREC conference series which is still ongoing today). Both Schröder and the German Federal Foreign Office suggested that it would be better to seek the support of industry first – a strategy that actually later on proved to be successful.

The ‘Clean Power from Deserts’ white paper, subtitled ‘The DESERTEC Concept for Energy, Water and Climate Security’, was drawn up in 2007 with the support of the Club of Rome. In November 2007, we travelled to Brussels to present the paper to the public. Knies managed to recruit Prince Hassan of Jordan, the then president of the Club of Rome, as the keynote speaker. A symposium held with members of parliament ended up having a very significant impact after the French government was approached with the symposium results. Within less than a year, part of the Desertec concept had been integrated into European policies: The solar energy plan based on the above-mentioned feasibility studies became an essential component of the ‘Union for the Mediterranean’ which was founded at the initiative of the French government. Knies had achieved a level of political success that neither Schröder nor the German Federal Foreign Office would have believed possible (especially at the speed at which he achieved its).

Once Dii GmbH was founded, Knies became known to a wider public. At his request, the industry initiative was presented to the public on 13 July 2009, exactly one year after the establishment of the ‘Union for the Mediterranean’. With the media turning out en masse, this became the biggest media event ever held by Munich Re, the host and coordinator of the successful subsequent founding negotiations. A virtual media hype followed which, although difficult to manage, showed that Knies had already achieved an important objective with the foundation of Dii: all over the world, people were discussing the Desertec concept as part of the solution for some of our most pressing global problems. The helpful little red rectangle on the map, which symbolised the surface area required for the power plants, became Knies’ trademark. Looking at the huge expanse of the Sahara and the little red rectangle, we immediately see what numerous extensive studies and publications have now proven beyond doubt: Desertec works.

A great visionary and realist with a sharp mind, Knies promoted a wider global debate on renewable energy, pursuing his aim of speeding up the transition to clean energy. In his mind there was no doubt that this step would have to be taken, but he feared that it might be taken too late to limit global warming to a maximum of 2 degrees. He was convinced that we have to do everything in our power to speed up this unavoidable transition. He was always open to suggestions and ready to learn something new every day. A question he frequently asked was: “Is humanity insane enough to commit collective suicide?”

Since this question is now more relevant than ever, it is crucial that we carry on Knies' work. He has established several organisations for this purpose, among them the Desertec University Network.

For a number of years, Desertec was the subject of international debate. This was even before the subsequent 'energy transition' took off in Germany and before the change to renewable energy became mainstream. In this respect, Knies was a pioneer who managed to bring together a diverse range of like-minded people. He was not a lone warrior, although many might have thought so. On the contrary, he was a highly talented team player. He had a healthy distrust of organisations and remained, first and foremost, a scientist and networker. Although he recognised the need for fund raising, organising majorities and concluding agreements, he rarely enjoyed these activities and found them rather troublesome.

The impact of his work is substantial: Not only have several North African countries adopted their own solar power plans, but renewable energy in North Africa and beyond is expanding significantly. Desertec branches have sprung up in various parts of the world, adapting the basic idea to their local circumstances. An outstanding example of Knies' influence is Ouarzazate, Morocco, home to the largest solar power plant worldwide.

After 2010, he set his sights even higher, promoting concepts which had been waiting in the wings of the Desertec Vision. With his focus on advancing international security and cooperation between countries to create a peaceful and safe planet for its 11 billion inhabitants, he worked to revive the concept of Global Governance.

Knies was a member of the German Association of the Club of Rome and wrote a chapter in the latest report for the international Club of Rome entitled 'Come on'. Published in September 2017 under the German title 'Wir sind dran' (It's our turn), the report has become an important document in the context of the 50th anniversary of the foundation of the Club of Rome in 2018. Knies' contribution consists of a description of, and calls for, a new kind of cooperation among states taking the form of the so-called COHAB model, which he presented and subsequently developed further on the Viable World Design Network (<http://www.viableworld.net>). According to this model, states should view nations as a unified entity instead of competitors. Knies contributed ideas suggesting how this could work in practice. He considered the article as his legacy, his last will and testament.

Gerhard Knies has worked hard to make the world a better place. In numerous speeches at conferences, many of which he helped organise himself, he reached, appealed to and inspired vast numbers of people. He gave hundreds of interviews and, over time, became a genuine media professional.

He leaves behind 2 children, 5 grandchildren and his wife of 30 years, Heike Hartmann, who played a crucial role in providing the freedom he needed to achieve his life's work.

The reactions of his long-term companions on the Desertec Foundation website (www.desertec.org/gerhard-knies) show the enormous effect he had on people. We all intend to carry on his life's work.

Friedrich Führ
Lawyer
friedrich.fuehr@clubofrome.de

Member of the German Association of the Club of Rome
Co-founder and first CEO of the Desertec Foundation