

Stig Vindeløev In Memoriam.

By Preben Maegaard, director, Folkecenter for Renewable Energy.

When Denmark today is leader in wave energy, it's because more than any other individual Stig Vindeløv. He was the man who in the early 1990s led many dormant inventors and entrepreneurs to the light, got them organized and injected them confidence. Later there also were state appropriations, which boosted development.

Over the next three to five years will probably be a commercial breakthrough for wave energy, thus also the tremendous forces that exist in the waves in the ocean can be tamed and used in human services for the production of clean energy. But someone has to take the first step and this was Stig who was among the pioneers in the field.

Stig has had a varied life. As a young adventurer he was a jet pilot in Texas. After a serious plane crash that handicapped him, he chose teaching as profession. He was a teacher, attended municipal politics and had an ordinary life like most others with house, children and car.

But he would use his time and ideas on something else. In mature age Stig moved and came to Thy in the late 1980s. I have since come close to him on at least three areas: As an employee of the Folkecenter, in government committees and 14 years of cooperation with the young wave sector.

He turned to me whether we could use him at the Folkecenter. That we could. At that time we had a strong team of talented engineers and designers and Stig took his role. He had constantly new impulses and ideas and was good at quickly translate ideas for models that could be tested in practice. It was important to find out whether an idea should be scrapped or used so that we could move forward.

During a few years he began to develop ideas and network, which would be crucial for the rest of his life and work, until death put an abrupt end to it Christmas Day 2008. He did not retire or rested on laurels. He was constantly active with plans for inventions with wind, bicycles with sails and electricity,

but most of all wave machines. Many of the ideas he has taken with him in death, but even a few weeks ago we were at the Folkecenter invited to rehearsal of a brand new invention that Stig had developed with one of his disciples, engineer Oejvind Boltz. Nobody can now say about the machine will prove to be the solution which will provide the wave energy the final breakthrough.

But we need to go a little back in time to something that is not known to the public. In the early 1990s, said Stig repeatedly to me that he had the feeling that many inventors were working with ideas on machines that could convert wave power to useful energy. They worked with primitive models at home in swimming pools or a harbour pier.

I encouraged Stig to invite inventors at a meeting at the Folkecenter, where inventors could meet, present their ideas and share experiences. We figured that there might come ten people, but almost 40 came! At that time was generated a network, which later became a genuine reconciliation. Since has the Secretariat who hired themselves in to the Folkecenter, organized the joint efforts wave energy in Denmark and gave the country a leading role internationally.

Stig was natural as chairman; he was the central and unifying figure in the association, which he strongly, with skill and agility led through many vicissitudes of the first chaotic network and made it a serious organization, representing the wave power of governmental committees, the media and by Conferences in many countries. He had written to members, had held the annual wave summits and gave room for new initiatives.

It is natural that each of the many inventors thought so much of their own invention, he would be the wave power Edison. But where was this hidden Edison? It was about finding a design model, so each inventor had the chance, whether he was poor or a millionaire. After several unsuccessful experiments with wave machines in Denmark and abroad with large state funding for established institutions, we had to explore new avenues.

The moment came in 1996 in which a political settlement allocated 40 million kroner to wave energy; a lot of money, but peanuts compared to what other places have spent in the so-called professional trials. A committee for wave energy was set up by the Energy Agency with Prof. dr. tech. Niels I. Meyer as chairman. The committee had three members from institutions, while we were three from the popular sector.

Stig had a very clear sense of its work. We should support and encourage "the popular engineer spirit" in the wave power. It caused great uncertainty among committee members from the institutions if we could defend the use of taxpayers' money on this. The solution was as Stig wanted it. Each inventor could through the wave energy association get 50,000 kroner to build a model. The model could the inventors try at the Folkecenter newly built test station in Helligsoe. The most successful inventions could later get around 300,000 kroner at the Energy Service for more professional models and test. A few inventions received after a careful assessment significantly larger contribution from the state for a third phase.

The results of our attempt to mobilize the popular engineer spirit in 2001 had put Denmark in front in the wave power globally, just like Denmark 20 years earlier had made it in wind energy. It was not the size of your wallet but the quality of the inventions and the skills of the inventors, dedication and perseverance that were essential for success.

Today, there are a few types Danish wave machines, which enjoy international recognition. It tormented Stig that the development of 8 to 10 other equally promising inventions in 2001 was put on stand-by by the government, which resigned the wave energy committee and a lot of valuable knowledge was lost. We at the Folkecenter had much benefit from Stig who gave tuition about wave energy to both Danish and foreign students. He knew into the details of all existing wave machines in the world, their strengths and weaknesses, and their development potential. He east generously of his vast knowledge. When the old teacher really got into him, he was in the best sense the professor who had the ability to make the complicated simple and understandable. Many are

Stig grateful that he gave them a basic understanding of theory and practice in wave energy.

Stig was a humble, diligent human. He used without thought for his own gain all his forces to the benefit of humanity, even if his personal life was not always a dance on roses. He had a wooden leg, but defied it by consistently not using cars. If he went to a meeting in Copenhagen he would bring his bike on the train, so he could bike around in the capital. Many have met him on a bicycle in west Thys hard wind even on dark winter days. Stig did not have contact to his children, but he held out by working for what gave his life meaning despite everything.

Stig was deeply concerned about the modern industrial society track towards an ecological disaster, but personally he did what he could to provide practical solutions to future energy supply. Already in the 1980s he realized that at the sun, wind and wave power, we could produce all the energy that was needed to replace the coal and oil, which more than anything creates the accelerating climate change, besides being that they also run out.

Stig had experienced that even after decades of research and development the wave power is not yet commercial. So there is no time to lose! The best memorial to Stig will be a continuation of his life's work and vision of the popular engineer spirit as the driving force for the continued development of wave energy and renewable energy in general.