



Global Energy Solutions e.V.

For Prosperity and Climate Neutrality

Interview Axel Pieper

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Bert Beyers: You are an entrepreneur and you have also founded an initiative on the subject of energy and climate. Perhaps you could briefly introduce yourself.

Axel Pieper: My wife and I have been running a medium-sized family business for over 25 years. We manufacture energy-intensive systems for the textile industry and supply them all over the world. Such a plant has an installed capacity of around one megawatt. And a textile factory usually has several such systems. We are then talking about an installed capacity in the order of 20 megawatts. That's our business and I'm responsible for the technical area in our company, i.e. for research and development, design, mechanical, electrical, software and so on. The topic of energy has been on my mind here at the company since the very beginning. Of course, we endeavour to make the systems as energy-efficient as possible. I also asked myself: how can this process, which today is mainly powered by natural gas and sometimes coal, be defossilised in the long term?

Did you succeed?

I realised how difficult the whole thing is. At the same time, I have invested a lot of time in understanding what climate change is all about. Of course there is man-made climate change. But I didn't like the way it was communicated at all,

because it was very alarmist, because it was very much about scaremongering. I have two teenage children. And I think it's irresponsible to try to persuade the population to do something through the driver of fear. And then I thought to myself: I have to do my bit somewhere to objectify the issue.

What does this have to do with your 4Pi Solutions initiative?

We have representatives from various scientific fields. From energy technology, which also includes renewable energies, but we also have experts from the fields of architecture and construction and agriculture. An anxiety researcher is also a member of our organisation. And now comes the topic of 4 Pi. The formula $4 \times \text{Pi} \times r^2$ stands for the surface area of a sphere. The earth is a sphere. And our approach is to look at the whole thing from many perspectives in an interdisciplinary way. And of course also solution-based.

You have mentioned some of the dimensions of the topic. What is its core?

Our first priority is to analyse the German energy transition, or more precisely, electricity generation: How can it be defossilised? What can be done? What are the paths currently being propagated and pursued by the Federal Ministry for Economic Affairs and Climate Protection? Where are the weak points? So where are the problems with the approach and how could the whole thing be done as an alternative? Not everything that is technically possible is also the best solution. You always have to keep an eye on the costs. How can we utilise our limited resources in such a way that they also have a global impact? This brings us back to our sphere. There's no point in starting to solve the problem from Germany, we have to look at how we as Germany can use all of our resources to achieve this: How can we as Germany, with all our talents and resources, maximise our impact on the world in order to reduce our CO₂ emissions?

What are your solutions?

In principle, we should not try to save the world from Germany. That will only lead to us implementing radical measures in Germany - as is currently planned - that will cost us a lot of prosperity. We are currently talking a lot about the high energy costs and the high level of regulation that we have here in the country. And that won't achieve anything if we self-flagellate and ensure that our country declines industrially. That's why we should think very carefully: Is there any point in making a house as energy-efficient as possible, right down to the last decimal place? Or are there perhaps measures that would be much more effective globally?

So, what do you suggest?

In any case, we must distance ourselves from solutions that are so expensive that they are not financially viable and take away our economic basis. And the current path, where we want to do everything 100 per cent with solar and wind, will be infinitely expensive. This approach will drive up electricity prices to such an extent that no industry will be able to operate competitively. What we need instead is a balanced energy mix. And this is where, for example, the issue of carbon capture in gas-fired power plants comes into play, which has been the subject of very controversial debate to date and was basically banned. This technology is part of the solution. Then there is the issue of nuclear energy. Unfortunately, we have completely abandoned this. Many countries are taking a different path. Of course, we can't turn back the clock, but we can take a look: Is there perhaps a way to reactivate some of the existing nuclear power plants in Germany?

Do you think there will be a political majority in favour of this in the foreseeable future?

I believe that until a year ago, the topic was still very negatively labelled. However, I believe that something is happening and that we can now discuss it again because people have realised

that it is not just about solar and wind energy, but that we also need other energy sources. I read yesterday that a decommissioned nuclear power plant in the USA is being put back into operation because Microsoft needs huge electricity capacities and they also want to become CO₂-neutral. So I admit that it's not the best solution, but it's the solution of the least evil. We have to find compromise solutions. And also invest in development. Unfortunately, we have totally neglected this in Germany in recent years. Nuclear energy research was no longer funded here and has basically died out. However, other countries have continued to research and develop this topic. There are fourth-generation nuclear power plants, which are much safer and can also process some nuclear waste, which means that the half-life of nuclear waste is much shorter.

What other opportunities do you see?

It is often argued that hydrogen is the super storage solution for renewables. And I took a closer look at this. In the energy-intensive industry in particular, where I have a lot of natural gas requirements, the question arises: Do I go for hydrogen or for derivatives of hydrogen, for example synthetic methane? If you produce hydrogen from renewable surplus electricity in Germany, for example from photovoltaics, the idea is to use it to produce hydrogen. You store it and convert it back into electricity later. Is that even economically feasible? My conclusion is the following: It's far too expensive. So if we produce green hydrogen here in Germany, it's at least three times as expensive as natural gas. And if I then convert it back into electricity, it will be six times as expensive. The price of electricity will rise enormously. And hydrogen as an energy source for energy-intensive processes in industry is also far too expensive, because the rest of the world will continue to work with natural gas. If we want to do everything with hydrogen here in Germany, then we will no longer be competitive. For me, this hydrogen story is a fairy tale. It doesn't work like that. Even if we import hydrogen, it will be extremely expensive. And that's why we have to think about something else. That means we will have to work with natural gas for a long time to come.

Who do you want to reach with your solutions? What is your political strategy?

We have developed a solution for every problem. How do we want to implement this? We have developed a thesis paper and a study as background. And we want to present this to the public in the coming months. We see our allies as critically-minded citizens who recognise that things are going wrong in Germany, and we want to reach them primarily via social media. Other allies for us are companies, especially energy-intensive companies that are suffering from high cost pressure. We want to bring them on board and jointly propagate an industry-friendly and citizen-friendly approach. And if we develop this, I hope that other media will take an interest and report on it. We are also in contact with politicians. I had Boris Palmer visit a while ago, and later an MEP from the EPP. And tomorrow I have the Green Party member of parliament as a guest and will be discussing the issue with him. Because I want to understand how they think.

There will be elections in Germany in about a year's time. What does that mean for you?

Yes, we still have a year to show an alternative path. We have the problem of climate change. We need to change the energy system, but we have to do it in a way that is beneficial and that we can afford. I would describe myself as more of a conservative-liberal, but I can't find the solution I'm looking for in any of the political parties. I only ever find politicians who talk a lot but often don't understand enough about the issues. We need more expertise in politics. That's a huge problem.

You are an entrepreneur, and you have also given a lot of thought to these topics. Why are you doing all this?

Of course these are difficult times, even for us in the company. We are facing economic difficulties because the order situation is getting worse and worse, as is the case in most other companies at the moment. But I say to myself, in the end you

have to do something. There must be people who are prepared to invest their time for the common good so that things that are going in the wrong direction can be corrected. We simply need more common sense on this issue and more sensible people who say: yes, we have to change something and we have to stand up and try to bring more realism into this whole discussion. Otherwise we in Germany will run into a wall with our eyes wide open. And I actually like living in this country too much for that. And I also want my children to have a future here.

What would you like?

I would definitely like us to be heard enough. We now need to become more visible. So far, this is an initiative by my wife and me. We need more supporters, we need financial resources to finance campaigns, perhaps also to employ sensible and competent people from marketing and public relations so that we can get our message across to citizens and companies and then perhaps at some point get enough people together to say: yes, we have to do something. We also need to talk to politicians about this and put more pressure on them to change things. That would be my wish.