

INTERVIEW

Remscheider General-Anzeiger Special on Economic Innovators



„WE WILL ONLY BE ABLE TO SOLVE THE CLIMATE CHALLENGE THROUGH TECHNOLOGY”

Interview

By Axel Richter, Deputy Editor-in-Chief

Richter: Dr. Schniering, are we still on time to solve the climate challenge?

Schniering: Yes. But it will be an uphill struggle.

What does this mean?

It will only work out if we combine technological innovation and regulatory measures. In any way, we will need massive research & development.

How come I cannot hear the words ‘change in behavior’ in your remarks?

A carbon tax would be a regulatory step and would change behavior through a clear price signal. But you are right: Any previous attempts to appeal to people’s energy consumption – also called behaviorism – have failed. Everyone wants to travel, use a smartphone, et cetera. Any streaming service we use, any search engine request results in carbon dioxide. This means: we will only be able to meet the climate challenge through technology.

What exactly do you have in mind?

We are focusing on high-impact innovation. This comprises technologies which have the potential to significantly reduce greenhouse gases like carbon dioxide or methane. The word used in this context is usually breakthrough technology.

Which you intend to support from Remscheid (medium-sized city in Germany)?

Yes. Ambitious cleantech systems usually have to undergo a very difficult development process with challenging innovation stages. Particularly hardware development requires an enormous amount of funding until it successfully reaches the mass market. Our organization Future Cleantech Architects accompanies high-impact innovators all the way from the laboratory through the prototype and niche market phases to the mainstream market.

Can you give us an example for this?

We are currently supporting a research consortium that develops a revolutionary kind of aviation kerosene. If successfully brought to market, this solar kerosene has the potential to reduce emissions



Dr. Schniering, at a panel discussion at Bonn University. | Picture: Christian Ewald

“ We support high-impact innovators all the way to the mass market.”



CNN Film Shoot at FCA Innovators
German Aerospace Center | Picture: Stefan Brendelberger

INTERVIEW

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from this sector by 90 percent. But too many decision-makers are not aware of this yet. In a joint project with CNN International, we have prepared a broadcast on this R&D project and thereby given the innovators an audience of several hundred million viewers. A second example is a start-up from Hawaii. We support innovators who work on a radically low-cost version of a PV system with a battery unit specifically for sub-Saharan Africa. Here the high-impact component comes from its affordability and scalability. The product can moreover be easily maintained by its users.

In your cooperation projects with the United Nations and the World Economic Forum, you are working with scientists from all over the world, moreover you teach at Bonn University. Why have you decided to build up the new think tank in Remscheid?

It would indeed have been easy to establish Future Cleantech Architects in Berlin or close to the UN Campus in Bonn. But on the one hand, I am originally from Remscheid and also support a family company in this region. On the other, Remscheid is one of the few remaining industrial cities in Germany. Where else could one support hands-on technologies for decarbonizing industrial activity if not here?

In international comparison: Is Germany innovative when it comes to climate protection?

Yes. In my view, Germany is one of the most inventive nations when it comes to cleantech. This is especially the case due to a very lively SME culture (small- and medium-sized enterprises).

Dozens of corporations work on new nuclear power technologies in the United States. Was it a wise decision to have a nuclear phase-out and withdraw from these technological segments in Germany?

Yes. It is possible that we might have to fall back on new types of nuclear power depending on how climate change will develop. But the unresolved question on nuclear waste disposal is reason enough to look for other options. I think we have enough other sustainable choices available.

Germany has suspended its research on capturing carbon dioxide directly at coal power plants. Australia on the other hand invests many million Euro into this technology.



FCA Board Members with Fridays for Future Crew. |
Picture: FCA

“ We are experiencing
a time of sea-change. ”



FCA Co-Working offices in Remscheid, Germany. |
Picture: Jochen von der Mühlen

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In Brazil, there are research projects based on genetic engineering that develop new plants which are more productive despite a decreased use of fertilizer and pesticides. In Germany, the topic green genetic engineering has been stopped politically. Are we really taking the right way?

Maybe not always. But I am not so pessimistic about it. I think we are experiencing a time of 'sea change'. There is a fundamental change in the way decision-makers think about cleantech. Everyone is beginning to realize which huge potential these technologies bring about for the economy – and this change in thinking also includes large multinational groups. We do not only see this in the way large energy companies/utilities are being rebuilt. If you look at various energy-intensive companies like Thyssen-Krupp, there is a completely new way of defining value creation and sustainability.

Let's go back to the beginning of our interview, Dr. Schniering. What does the climate of the future look like in Remscheid's region?

I have little hope that the development will be less intensive than predicted by most scientists. It will be rather the opposite; I am afraid that we will see galloping climate change and that our ecosystems will reach so-called tipping points. These are irreversible, drastic changes in the ecosystems, for example the complete melt of large ice sheets or the slow-down of the Atlantic thermohaline circulation.

Given this situation, what is your view on the claims made by the movement Fridays for Future?

I think this is an excellent movement, in particular the part of it that's drawing upon a strong scientific line of argumentation. I am particularly impressed by the local group in Remscheid. But I also believe that a purely prohibitive approach can never be sustainable. Even if we refrain from any of our travel from now on, it will not be sufficient to really influence the climate. We will need new technologies to really respond to these changes.

Will the German economy take an important role in this?

I am pretty optimistic that this will be the case.



Discussion with FCA Expert Panel members Vanessa Völkel and Michael Schmidt at cooperation partner United Nations Industrial Development Organization (UNIDO), UN Campus, Bonn

Picture: FCA

Further information

- Set-up and platform: www.fcarchitects.org
- Scope of work: [publication](#) for the World Economic Forum
- Our work with high-impact innovators: CNN International [film](#) series