

CLEANTECH & ECO-INNOVATION

BUSINESS :

Lighting Up the World From Berne
Asetronics AG in Berne

RESEARCH & DEVELOPMENT :

Building on Innovation
CEMEX Global Center for
Technology & Innovation

LIVING :

Inspiration on Top Form
Designers' Saturday in Langenthal

COVER STORY :

"I Have a Sunny Disposition"
An interview with Professor
Thomas Stocker

“I Have a Sunny Disposition”

An interview with Professor Thomas Stocker

Thomas Stocker is a climate physicist, director of the National Centre of Competence in Research (NCCR) Climate, and chair of one of the three working groups of the Intergovernmental Panel on Climate Change (IPCC). He knows why it is important to be up to speed at all times.



Why is the climate such a major focus of everything you do?

“I have been interested in our relationship with the Earth’s climate from a scientific perspective ever since I was at university. I am fascinated by the fact that we can use climate models to understand climate change and even gauge how it will develop in the future. I am also driven by my work with and for people: my undergraduates, my PhD students and my colleagues at the University of Berne, as well as the people I work with as part of my UN mandate. It is both challenging and inspiring to have a hand in disseminating scientific knowledge to the world.”

What do you see as the biggest challenge in terms of climate change?

“First of all, we urgently need to define a global climate target. Copenhagen and Cancún have taken us a big step forward, but now we need to make this target binding and implement it. We must produce roadmaps that specify exactly who needs to reduce their greenhouse gas emissions from sources like fossil fuels, when, how, and by how much. To achieve this, it is absolutely essential that all countries – including countries like China and India – do their bit.”

Doesn’t change also offer opportunities?

“The opportunities lie in the fact that, rather than simply being faced with a major global problem, we are already able to estimate

THINKER, TEACHER, INITIATOR:
“THE CLIMATE AT THE
UNIVERSITY OF BERNE IS
IDEAL FOR ME,” SAYS PROFESSOR
THOMAS STOCKER. “THIS
UNIVERSITY HAS THE SIZE AND
STRUCTURE RESEARCHERS
AND TEAMS NEED TO REALLY
MAKE THINGS HAPPEN.”

what the consequences of our decisions will be over the next 10, 20 and 50 years. This scientific knowledge puts us in the unique position of being able to work out what products we will need in the future, and what innovations and improvements will need to happen.”

What specific impact does climate change have on business and industry?

“I am seeing companies in Switzerland splitting into two camps. Some – including a large number of SMEs – are highly innovative in their work, they have been keeping a close eye on the efficiency of

“We can gauge today what innovations we will need in the future.”

their processes for many years, and they are careful to minimize their use of resources. Others have either not yet recognized the opportunities or want to maintain the status quo at all costs. They have not yet understood that the status quo represents an extreme risk in these times of very rapid change.”

Do you collaborate with business and industry? What form does this collaboration take?

“The privilege of our research is that we are independent. As we do fundamental research here, we are only involved in development peripherally. On the experimental side, we create one-offs designed to answer very specific scientific questions. Having said that, a working party in our department has already developed various patents for things like special extraction methods and mass spectrometry applications.”

At the 4th National ClimateForum in Thun on October 20, personalities from the worlds of science, industry, politics and society met to exchange ideas on climate change. What do you see as the benefit of these forums?

“This platform is extremely valuable as a forum for exchanging new ideas, presenting the latest research results and options for action, and discussing them in wider circles. It is a place where key decision-makers meet – the kind of people we sci-

entists cannot often reach: politicians and business people.”

What do you do when you find the tide flowing against you?

“Just like in sailing, the stiffer the breeze, the faster you can go. But you do have to batten down the hatches and keep a tight grip on the helm. There was in fact a strong tide of opinion against us in the run-up to Copenhagen. We had to face a lot of criticism that subsequently proved untenable and was probably part of a longer-term strategy to spread doubt about the science behind climate change. That is a highly efficient and widely used method of blocking political processes.”

Does this “stiff breeze” put even more wind in your sails?

“Yes, absolutely. It spurs us on to be even better, to communicate even more clearly and to explain more carefully what impact the decisions made by the world’s community today will have on the development of our climate tomorrow – especially in terms of the temperature, the availability of water, and coastal areas.”

Who or what makes the sun shine for you?

“When I see the untiring enthusiasm with which my colleagues, my undergraduates, my PhD students go about their work in the team, and when we present the results of our work to the public and to political and industrial decision-makers: those are my true sunshine moments. But I could probably not do what I do if I didn’t have a sunny disposition to begin with. Pessimism

“Optimism is key when it comes to convincing people with facts.”

never delivers good, solid solutions. You have to be optimistic and believe that people can be convinced with facts and expertise.”

What keeps you on an even keel?

“Interacting every day with young people who are exactly where I used to be. My work at the University automatically gives me this stability; a good grip on reality is a vital prerequisite for my work with my students and colleagues.”

To what extent do we still have the opportunity to influence climate change today?

“Whether we meet the Copenhagen targets and stop global temperatures from rising by more than 2°C by 2100 or allow them to rise by 3°, 4° or 5° is entirely in our hands. But one thing is clear: the more greenhouse gases we emit, the more the planet will heat up, and the higher the cost of climate damage and the changes we will need to make to adapt to climate change will be. What we do as individuals – as citizens and voters – is crucial.”

Information

www.climate.unibe.ch

FACTS & FIGURES

Professor **Thomas Stocker** (51) studied environmental physics at ETH Zurich. In 1993 he was appointed as professor of the Institute of Physics at the University of Berne, where he heads the Department of Climate and Environmental Physics. The research department is a world leader in establishing greenhouse gas concentrations from Antarctic ice cores and modeling past and future climate changes. Thomas Stocker has published more than 150 peer-reviewed papers and has won numerous scientific awards. In September 2008 he was elected chair of the University of Berne Working Group “The Physical Science Basis”. Born in Zurich, Prof Stocker lives in the Swiss capital: “Just the right place for us and my work,” he believes.