Fraunhofer
ISE

Press Release

Global Energy Transformation as Vocation

Symposium for Institute Director Eicke R. Weber on Occasion of Retirement

On November 11, 2016 at the Konzerthaus in Freiburg, the Fraunhofer Institute for Solar Energy Systems ISE honored Prof. Eicke R. Weber's achievements at a scientific symposium on the global energy transformation. Having reached retirement age, Prof. Weber will step down from his position as Institute Director at the end of the year. Weber gave the German solar research a voice that is observed worldwide. With great enthusiasm he supported the energy transformation on both the scientific and political arenas. At the Institute, he organized the structure and business areas to optimally meet the demands of the energy transformation. From 2006 to 2016, he was able to double the number of employees to 1100 today. Over the same time period, the operating budget, based primarily on self-acquired projects, grew from ca. 25 million euros up to 73 million euros (2015).

Eicke R. Weber was the right person at the right time. With his research background in silicon materials and his excellent connections in industry and politics, Fraunhofer ISE under his leadership grew to become the second largest Fraunhofer institute, just as photovoltaics was booming in Germany. During Weber's term as Institute Director, Fraunhofer ISE also participated in setting up research facilities in Halle, Boston and Santiago de Chile.

All along, the solar researcher had more than one technology in view. He is committed to sustainably anchoring energy in the global economic system, supporting Jeremy Rifkin's concept on the third industrial revolution. The list of speakers at the symposium reflects Weber's

Fraunhofer Institute for Solar Energy Systems ISE
Heidenhofstrasse 2
79110 Freiburg
Germany
Press and Public Relations
Karin Schneider
Phone +49 761 4588-5150
Fax +49 761 4588-9342
info@ise.fraunhofer.de

www.ise.fraunhofer.de

networking strategy: Dr. Dirk-Holger Neuhaus, Solar World Innovations; Dr. Norbert Pralle, Ed. Züblin AG; Thomas Speidel, Bundesverband Energiespeicher (BVES); Prof. Lars Samuelson, Nanometer Structure Consortium; Prof. Rolf Brendel, Institute for Solar Energy Research and Prof. Hans-Martin Henning, Fraunhofer ISE. Prof. Rifkin will speak to the audience in a video message.

Aiming for a CO_2-free global energy supply, Weber is constantly searching for connections in science, finance and politics. He was instrumental in bringing the worldwide leading Freiburg solar trade fair Intersolar 2008 to San Francisco, and since then has served as chairman of the accompanying conference. In 2013, he signed a cooperation agreement with the International Renewable Energy Agency IRENA. One aim of the agency is to promote renewable electricity in rural areas in southern countries. In 2012 he was decisively involved in founding the Global Alliance for Solar Energy Research Institutes between the three largest solar research institutes in the world: the National Renewable Energy Laboratory NREL in the USA, the National Institute of Advanced Industrial Science and Technology AIST in Japan and Fraunhofer ISE in Germany. One among many of the Alliance's goals is to push photovoltaics into the terawatt range, a topic that was also focus of a workshop held by the Alliance in March 2016. As President of the Alliance of European Renewable Energy Research Centres EUREC, Weber succeeded in founding the European Innovation Council EIC. Parallel to the well-known European Research Council, the newly founded EIC shall concern itself in particular with the support of excellent applied research.

Networking was always important to Weber, also within the Institute. Early on, he prepared to make the Fraunhofer ISE ready to meet the energy transformation, using the solar gold rush to build the first pillars of the new era. Today Fraunhofer ISE's research areas represent all topics relevant to the energy transformation, be it energy retrofit, solar

Fraunhofer Institute for Solar Energy Systems ISE
Heidenhofstrasse 2
79110 Freiburg
Germany
Press and Public Relations
Karin Schneider
Phone +49 761 4588-5150
Fax +49 761 4588-9342
info@ise.fraunhofer.de

www.ise.fraunhofer.de

Text:
Solar Consulting GmbH, Freiburg
Phone +49 761 380968-0
info@solar-consulting.de

thermal energy, electric mobility or smart grids, medium voltage level, megawatt laboratory or energy system analysis and accredited test labs for the industry and energy economy to name a few.

Storage technology is one topic especially important to Weber, who himself drives a fuel cell car that runs on hydrogen and is refueled at the Institute's own solar hydrogen filling station. He was a prominent figure in establishing the Bundesverband Energiespeicher BVES (Federal Association of Energy Storage), serving as its first president up to Spring 2016. Weber also was chairman of the annual storage conference Energy Storage Europe in Düsseldorf from its founding until 2016. This storage conference is listed by the Federal Ministry for Economic Affairs and Energy as leading international trade fair for energy storage.

Weber is also committed to supporting the start-up companies from Fraunhofer ISE. During Weber's term as Institute Director, eight start-ups were founded. Three examples are: NexWafe, which uses processes developed at Fraunhofer ISE to manufacture thin silicon wafers without any losses due to sawing; Blue Inductive, which develops high efficiency inductive charging systems for electric vehicles and Vallis Solaris Project, which, based on ISE technology, aims to develop a cost-effective vertical PV production chain in sun rich countries. This shall facilitate a sustainable energy supply to be built up on the medium term using local industry.

When Fraunhofer ISE received the Zayed Future Energy Prize in January 2014, Eicke Weber was able to set up a funding program for Fraunhofer project ideas about sustainable energy supply in foreign countries thanks to a matching sum from the Fraunhofer-Gesellschaft. Thus, a funding volume of about 2 million euros came together. Up to now,

Fraunhofer Institute for Solar Energy Systems ISE
Heidenhofstrasse 2
79110 Freiburg
Germany
Press and Public Relations
Karin Schneider
Phone +49 761 4588-5150
Fax +49 761 4588-9342
info@ise.fraunhofer.de

www.ise.fraunhofer.de

Text:
Solar Consulting GmbH, Freiburg
Phone +49 761 380968-0
info@solar-consulting.de

28 international projects have been supported in the start-up phase.

Eicke Weber also succeeded in intensifying networking between the University Freiburg and the Fraunhofer Institutes. Together with Prof. Oesten of the Faculty of Forestry Economics and Sustainability, he was involved in founding the Zentrum für Erneuerbare Energien ZEE (Centre of Renewable Energy) that offers an English course of studies in Renewable Energy Management. Later he initiated the program Master Online Photovoltaics in cooperation with the Faculty of Engineering at University of Freiburg. Worldwide specialists from Fraunhofer ISE teach courses in both programs. Weber together with Prof. Thoma, the former Institute Director of Fraunhofer EMI, gave the impulse for founding a third department within the Faculty of Engineering, supported predominantly by the five Freiburg Fraunhofer Institutes. The new Department of Sustainable Systems Engineering INATEC is today a reality. Also, Weber was involved in setting up the new Sustainability Center Freiburg between Fraunhofer and the University.

Eicke R. Weber, born 1949 in Muennerstadt, Lower Franconia, received his qualification as professor of physics in 1983 from the University of Cologne. After working as a professor at the University of California, Berkeley for twenty years, he returned to Germany in 2006 to assume the position of Institute Director of Fraunhofer ISE. In 2006 he also co-founded the start-up CaliSolar that received total investments of over $200 million. Today as Silicor and located in Iceland, the company produces upgraded metallurgical silicon (umg-Si) for the PV industry.

In the field of material science, Weber made a name for himself worldwide with his work on defects in silicon and III-V semiconductors such as gallium arsenide and gallium nitride. He was especially interested in how metallurgical silicon with a certain amount of impurities could be used to

Fraunhofer Institute for Solar Energy Systems ISE
Heidenhofstrasse 2
79110 Freiburg
Germany
Press and Public Relations
Karin Schneider
Phone +49 761 4588-5150
Fax +49 761 4588-9342
info@ise.fraunhofer.de

www.ise.fraunhofer.de

Text:
Solar Consulting GmbH, Freiburg
Phone +49 761 380968-0
info@solar-consulting.de

produce high efficiency solar cells. Weber is a professor of physics/solar energy on the Faculty of Mathematics and Physics as well as the Faculty of Engineering at the University of Freiburg.

Selected Positions and Honors Received Since 2006

- 2006 Cross of the Order of Merit of the Federal Republic of Germany
- 2009 Honorary Member of the Ioffe Physical-Technical Institute of the Russian Academy of Sciences, St. Petersburg
- 2010 Member, acatech – National Academy of Science and Technology, Berlin
- 2013-2016 President, Bundesverband Energiespeicher BVES (German Energy Storage Association), Berlin
- 2013 Head, Board of Directors, Centre of Renewable Energy, University of Freiburg
- 2013 SolarWorld Einstein Award
- 2014 Zayed Future Energy Prize of United Arab Emirates, Abu Dhabi
- 2015 President, EUREC – Association of European Renewable Energy Research Centers, Brussels
- 2016 Vice-President, International Solar Energy Society ISES

Text of the PR and photos can be downloaded from our webpage: www.ise.fraunhofer.de

Fraunhofer Institute for Solar Energy Systems ISE
Heidenhofstrasse 2
79110 Freiburg
Germany
Press and Public Relations
Karin Schneider
Phone +49 761 4588-5150
Fax +49 761 4588-9342
info@ise.fraunhofer.de

www.ise.fraunhofer.de

Text:
Solar Consulting GmbH, Freiburg
Phone +49 761 380968-0
info@solar-consulting.de

Press Release

Prof. Dr. Eicke Weber, Director of the Fraunhofer Institute for Solar Energy Systems ISE in Freiburg. ©Fraunhofer ISE

Fraunhofer Institute for
Solar Energy Systems ISE
Heidenhofstrasse 2
79110 Freiburg
Germany
Press and Public Relations
Karin Schneider
Phone +49 761 4588-5150
Fax +49 761 4588-9342
info@ise.fraunhofer.de

www.ise.fraunhofer.de

Text:
Solar Consulting GmbH, Freiburg
Phone +49 761 380968-0
info@solar-consulting.de

Press Release

Fraunhofer Institute for
Solar Energy Systems ISE
Heidenhofstrasse 2
79110 Freiburg
Germany
Press and Public Relations
Karin Schneider
Phone +49 761 4588-5150
Fax +49 761 4588-9342
info@ise.fraunhofer.de

www.ise.fraunhofer.de

Text:
Solar Consulting GmbH, Freiburg
Phone +49 761 380968-0
info@solar-consulting.de