



Michael Dittel

CEO of LeafTech GmbH

Main product: LeafTech

Aim: To anticipate people's needs in indoor environments by predicting upcoming energy and comfort demands, enabling the improvement of building systems

LEAFTECH

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Predicting buildings' energy needs to enhance smart home systems

The project

The idea

We examine a building and develop a digital twin to generate a thermal building model. By feeding that model with weather insights, energy usage patterns and user behaviour, we anticipate future energy and comfort demands. The analytic results transform smart home and building automation systems from reactive to proactive control.

The EIT Climate-KIC education team and network provides a perfect environment without any bias or pressure, which allows ideas and yourself to be tested.

Inspiration

During EIT Climate-KIC's summer school, our team developed advanced shading technologies based on organic photovoltaic module. We kept working on the concept first but soon recognised the market demand for smart building control strategies.

Unique selling points

We combine Building Information Modelling, 3D-City models and satellite scans to setup our digital twin. The intel we collect is assembled and merged in an automated process and linked to user data and weather APIs. Our processes are designed in the leanest way possible to keep our services fast and efficient without compromising on quality data.

Societal impact

People spend 93 per cent of their time inside buildings. It is therefore not surprising that these consume 40 per cent of global energy production. Our solution helps improve quality of life while simultaneously reducing energy consumption and CO₂ emissions.

Supported by:



EIT labelled programme: Master in Environmental Pathways for Sustainable Energy Systems



Challenge: Energy efficiency for buildings



Prizes: BMW's award "Gründerwettbewerb" – Digitale Innovationen", Top 50 PropTech Startups in Europe

EIT Community support

We benefited from substantial support from the EIT Climate-KIC Accelerator. We benefit from the funding, the offered work space, our peers, and the expert coaching. We were even able to cooperate with other start-ups. In addition, we exchange ideas with the network and are active members of the EIT Climate-KIC community.

The nominee

Entrepreneurial spirit

As a creative person with a passion for engineering and innovation, I never knew where to put my ideas and energy. The EIT Climate-KIC Master label degree showed me the right path. Merging science and market demands with the desire to mitigate climate change matched my attitude and my ambitions. So I somehow became an entrepreneur by chance and without regrets.

Rewarding moments

The most rewarding moment in my entrepreneurial career was the moment when we delivered our product for the first time. We received positive feedback from the client and knew that we were now going to sign a partnership with a major player from the industry. Especially in product innovation, you are often uncertain if the value you offer is the real deal. But at that time we finally knew we were on the right track and we felt we were actually creating value!

