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Innovative climate research and bright minds for a circular business model

DBU German Environmental Award: Prof. Seneviratne and ZINQ

Osnabrück. Excellent innovative climate research and an inspiring role model for resource, energy and environmental protection in the raw material-intensive zinc industry: the German Federal Environmental Foundation (*Deutsche Bundesstiftung Umwelt, DBU*) is recognising these achievements with this year's German Environmental Award worth a total of €500,000, one of the most highly endowed environmental awards in Europe. The award goes to Swiss climate researcher Prof. Dr. Sonia Isabelle Seneviratne (51) from [ETH Zurich](#) and the management duo Lars Baumgürtel (59) and engineer Dr. Birgitt Bendiek (58) from the steel galvanising company [ZINQ](#). The award ceremony will take place on Sunday, 26 October, in Chemnitz, Europe's Capital of Culture 2025. [German Federal President](#) Frank-Walter Steinmeier will hand over the award.

New insights into the climate system and an inspiring model for the zinc sector

According to DBU Secretary General Alexander Bonde, Seneviratne, the 'brilliant climate scientist,' has used new research methods such as satellite image analysis and 'groundbreaking studies on land-climate dynamics to highlight the interactions between soil moisture, vegetation, evaporation and the atmosphere in international discourse.' 'We now know that evaporation, which returns an average of two-thirds of all precipitation on continents back into the atmosphere, plays an important role in drought, and that soil moisture is a key variable in the climate system.' Thanks to Seneviratne, 'global climate models now take factors such as soil moisture, vegetation and evaporation into account more clearly than before,' says Bonde. One reason for this is that increased drought as a result of climate change is threatening the ecosystem function of land vegetation as a store for climate-damaging greenhouse gases (GHGs) such as carbon dioxide (CO₂). Its effect as a so-called CO₂ sink 'depends largely on sufficient soil moisture,' according to Seneviratne. According to Bonde, Baumgürtel and Bendiek have been 'persistent, tenacious and economically daring in their pursuit of the last calorie for decades: with their circular business model, both companies focus on the circular economy, i.e. comprehensive recycling – from product design to recycling.' This is an 'inspiring example for a resource-intensive industry.' From sheet metal, bridges and balconies to vehicle construction and wind and solar power plants: galvanisation – one of several coating methods – protects steel from rust, with around two million tonnes used nationwide each year, of which ZINQ accounts for around 550,000 tonnes at all 50 locations in Europe. Every year, rust causes immense economic damage in Germany alone, between 100 and 150 billion euros according to the [World Corrosion Organisation \(WCO\)](#) and the [Max Planck Society](#). Without galvanising, the sum would be much higher.

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Klaus Jongbloed
Kerstin Heemann
Lea Kessens

DBU press office

An der Bornau 2
49090 Osnabrück
Phone +49 541 9633-521
Mobil +49 171 3812888
presse@dbu.de
www.dbu.de



YouTube



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Bonde: Patented microzinc process is pioneering work by a medium-sized company

Through various measures ranging from heat recovery and optimised control technology to a patented micro-zinc process, the Gelsenkirchen-based surface specialist and its approximately 2,500 employees at all locations, including around 20 in Germany with approximately 1,000 employees, focus on circular products – from recyclable design to the complete recycling of all raw materials used. This also includes a digital circular product passport. 'A circular economy is feasible for energy- and resource-intensive companies,' Bendiek and Baumgürtel are convinced. The basis for this is products that conserve raw materials, are material-friendly, low in CO₂ and recyclable. For more than ten years, the company has been certifying all piece galvanising surfaces, including the microzinc process, according to the [cradle-to-cradle concept](#) based on [five sustainability criteria](#) – always with the aim of advancing energy and material transformation. The results so far: enormous savings in energy and raw materials plus a reduction in GHG emissions of around 285,000 tonnes of CO₂ since 2010. Bonde: 'Mikrozink is pioneering work by a medium-sized company.' The patented process, made possible by the company's own research and development department at the ZINQ Futurium in Gelsenkirchen, has an ultra-thin zinc coating that is 80 per cent thinner than traditional hot-dip galvanising, measuring just ten micrometres instead of 80 to 100 micrometres. Thinner than a hair.

From the IPCC to the National Drought Platform: advancing climate protection

According to Bonde, the German Environmental Award also recognises Seneviratne's 'outstanding climate protection communication'. She did not stop at warnings and appeals, but 'promoted climate protection with a high level of personal commitment', says Bonde. In this context, the DBU Secretary General cites Seneviratne's work on the board of the [Intergovernmental Panel on Climate Change \(IPCC\)](#) and the establishment of the [National Drought Platform](#), an early warning system coordinated by the Swiss Federal Office of Meteorology and Climatology ([MeteoSwiss](#)), which was initiated by her research. In times of increasing misinformation and conspiracy theories, Seneviratne's fact-based research provides indispensable guidance, according to Bonde. This includes the following insight: without evaporation, extremely dry soils can lead to a sharp rise in atmospheric temperature. The lack of soil moisture then also plays a central role in connection with heat waves.

➤ **Data, figures and facts also available on the DBU Environmental Award blog:**

<https://www.dbu.de/umweltpreis/umweltpreis-blog/>

Background:

The DBU German Environmental Award, which will be presented for the 33rd time in 2025, honours the achievements of people who make an exemplary contribution to protecting and preserving the environment. Employer associations, trade unions, churches, environmental and nature conservation associations, scientific associations, research communities, the media, trade associations and business associations are eligible to submit nominations to the DBU. Self-nominations are not possible. A jury of independent experts from business, science, technology and social groups appointed by the DBU Board of Trustees recommends award winners for the respective year to the DBU Board of Trustees. The DBU Board of Trustees makes the final decision. Information on the German Environmental Award and award winners: <https://www.dbu.de/en/umweltpreis/>.

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<p>No. 112/2025</p> <p>Klaus Jongebloed Kerstin Heemann Lea Kessens</p>	<p>DBU press office An der Bornau 2 49090 Osnabrück Phone +49 541 9633-521 Mobil +49 171 3812888 presse@dbu.de www.dbu.de</p>	<p>    </p> <p>    </p> <p>#uwp25</p>
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