

Research content for the short video Fairytale Life_ Utopia 2023

"Imagine a FUTURE with a FAIRYTALE life ... using social TIPPING POINTS for faster climate action"

Statement of the students: "This video shows an awakening of society, which entails a fundamental change. Our values and norms have been strongly in tune with nature ever since."

Faster than climate change

For all our faith in technological progress and the problem-solving abilities of Homo Sapiens, the news about natural disasters, weather extremes, the evident effects of climate changes that can already be measured, and the warnings of science force us to ask the central question: Can we still turn the tide quickly and effectively enough?

What picture of the future shows us that we were faster than climate change? That we have got a grip on the situation and have been able to steer the climate back towards more stable and livable paths?

On the one hand, it will be a matter of having won people over to the cause. So-called social tipping elements, on which the Wegener Center at KFU conducts research, will have captured people and brought them into action in a positive sense. Psychology and sociology as sciences can be an important key, and the use of new technologies such as artificial intelligence could also be a possibility to work here in the movement or activation of people. So everyone is pulling in the same direction.

Technically, however, it is also about scaling climate protection and circular economy solutions. The enormous amounts of energy, even with increasing energy and resource efficiency, must be produced in a 100% renewable way. To do this, technologies will become radically simpler and faster to use. New business models and a new way of doing business have revolutionized the world. An opportunity for the world, Europe, Austria, and especially the Green Tech Valley.

Styria & Carinthia were early pioneers in this field. More than 100 years ago, Viktor Kaplan invented the Kaplan turbine at the Graz University of Technology, the heart of the largest hydroelectric power plants in the world. And in the field of solar thermal energy, AEE pioneered a first wave for renewables with the self-assembly groups - the neighborhood joined in. With the first separate collection in Mureck, waste separation and thus recycling was widely started, especially in schools.

Research at the site

Social tipping elements - Wegener Center for Climate and Global Change at the University of Graz (Ilona Otto)

Smart Factory Assembly at TU Graz

Prefabricated facade modules for rapid building renovation (Institute for Sustainable Technologies: AEE INTEC)