Good morning everybody. My name is Christian Pleijel. Thanks for inviting me to describe how habitability came about.

Many innovations are concoctions. Charles Goodyear left a pan of rubber and sulfur on a hot stove in 1839. The rubber vulcanized and become a product with far-reaching effects on our society.

Habitability is a more modest innovation, but also a concoction of things that were not previously united. Four years ago, the island of Kökar was trying to make a plan for its long-term development – its sustainability. We wanted a model that was simple but not stupid, one that everyone could understand. We considered the Venn diagram, which is usually used to show that sustainability has three dimensions. We looked at the United Nation's seventeen goals for sustainable development, and we considered the seven areas of Åland's development and sustainability agenda.

We are a small island in Ahvenamaa – Åland. We are far out at sea, a municipality of our own with 232 all year inhabitants. In summer we are 800 people. We suffer from the deterioration of the Baltic Sea, from smallness, and from a slow, long-lasting reduction of resident population.

We got stuck. Neither of the sustainability models suited us well. We are not a town, we are different. The sea gives us work, it creates a unique culture, and gives us a distinctive character. The sea brings isolation, long distances, long journeys (in time), large consumption of energy and high costs of living. Being an island in the sea means a lack of some raw material, and an abundance of others. There is great knowledge but also a lack of competence and capital. People are few during one half of the year and many, sometimes extremely many, during the other half. People inhabit the island like birds, forming different populations: some are resident, some are migrating for longer or shorter time. Speaking from a sociogeographic perspective, islands are two landscapes: they are one place in winter and another place in summer.

We were trying to fit a square piece of a puzzle into a round hole.

I was the chairman of the municipal assembly. My most important task was to stop young islanders from moving away, and trying to get new ones to move in. I was trying to make the island habitable. To this end, there must be jobs, housing, school, shop, services and safe surroundings. It must be habitable all year round, with a diverse population of all ages, of all genders, origins and opinions. If we are not habitable, we have no carrying capacity. We will become obsolete and the depopulation of our society will continue.

It came to my mind that "habitability" is a nice, unused word. My society must be habitable if it is to be sustainable. We should analyse our habitability to understand what's happening to our people, why some are staying, others are moving away, and a few are moving in. We shouldn't think out of the box, we should think inside the box, inside the island. We should describe what is limiting us. We should focus on what makes us habitable – or not.

Said and done, we created a model, a system of our own, with 40 indicators of how habitable we are. We measured our own habitability. More than half of the island's population was actively involved as citizen scientists, exploring and investigating our own place on Earth.

We met, we talked, we argued, we quarreled, we made surveys, we held community meetings, and measured ourselves.

After half a year, we had created a new picture of the island. It was like Picasso's famous painting of Guernica: both beautiful and terrifying, new to the eye and the mind, strange but true. An image of ourselves we had never seen before.

After that, we started working with change, with making us more habitable. But that's another story. Habitability is a tool to analyse a small society with the help of its citizens.