

PLANCTATION

Nora Amalie Karlsen, Bachelor program in physiotherapy, Institute for Health and Care Sciences, UiT The Arctic University of Norway.

'PLANCTation' - The story about Aurelia Oline Ebeltoft is a story about the power and ingenuity of female leadership and large-scale collaboration help find solutions to the health and existential problems created by severe environmental change. With a focus on solving air-pollution and its consequences for people's health and lung function, Aurelia's invention of PLANCTation – an algae farm for oxygen generation – has given people and planet a new lease on life. Algae farming is, in fact, being increasingly explored for a variety of health and environmental benefits, so this story is incredibly close to some very real developments. Woven into, however, is also a sense of getting fed up with resistance to change and a call to take responsibility, as people and healthcare professionals. To recognize and open ourselves to the many different possibilities to contribute to people's health and wellbeing and take action.

The sun is shining. The birds are tweeting. You can hear the fish jumping in the river a hundred meters away from the crowd, and the sound of the river flowing. The sound of fresh water hitting the rocks. The bees are buzzing around the flowers in the grass, and the weathervane at the top of the community center is standing completely still with no signs of being affected by wind. The crowd around the stage is starting to grow. They are happy, hugging and greeting each other as they are pulling together towards the

stage. There is not a single cloud in the sky, nor does there seem to be a single cloud in the minds of the people here.

A man on the lower side of the stage is standing next to two other people. He has a charismatic and proud smile. There are smile wrinkles running from his nose down into half arches all around his mouth. There are no wrinkles on his forehead, at least none that are tightening on it right now. No sign of worry. He has light brown hair, and almost even lighter eyebrows and eyelashes. He is wearing a white shirt with a small pin attached to it. The sun is hitting the pin equally as strong as the man with the charismatic and proud smile. He pats one of the women he is talking to on the shoulder, smiles at another man, and goes up the stairs to the stage. On the way up, he quickly looks for his notes, which come up

AURELIA WAS DETERMINED TO CREATE CHANGE. SHE HAD HAD **ENOUGH OF BADLY SICK** PATIENTS, ENOUGH OF THE CLIMATE DEBATE AND ENOUGH OF POLITICIANS GIVING EMPTY PROMISES.

SHE READ UP ON CLIMATE CHANGE, AND DISCOVERED THAT WHILE THE ICE WAS MELTING. PHYTOPLANKTON IN THE OCEAN HAD POORER LIVING CONDITIONS. SOMETHING HAD TO BE DONE.

from on a transparent screen from the podium. He almost trips up the stairs. Now the crowd is fully gathered around the stage, and everyone is looking up at the man in excited anticipation. Everyone knows who he is and why he is standing there. It almost looks like he is meeting the eyes of every person and all the cameras around the stage. He smiles again, big and proud, while the microphone and the transparent screen with text are automatically adjusted toward him.

"My dear friends! This is a festivity. It is a celebration. "PLANCTation" has turned 30 years old. It is 30 years since 8 July 2045. 30 years since the first plantation for phytoplankton founded. 30 years since the beginning of a new era. A time that gave hope, change and a new vision for the future!

Occasions like this give us a chance to look back at history. It is important and necessary to ensure that such a story is not repeated. Let me tell you about Aurelia Oline Ebeltoft, who saw a need for change. A need for change that most people also saw, but for which no solution had been found.

Let me take you on a journey. Aurelia Oline Ebeltoft was a 47-year-old physiotherapist who, among other things, worked with many patients with complicated lung disorders. She was in the profession for a long time, and over the years saw a sad development in public health. More and more of the patients she worked with were lung patients who had become ill from air pollution, one of the biggest environmental health risks. Millions died prematurely each year because of air pollution. As early as 2012, the World Health Organisation had in fact reported that air pollution was the environmental problem that most contributed to lung diseases, and even then, around 400,000 people in Europe died prematurely as a result of severe air pollution. At that time, measure-ments showed that a human being emitted an average of 4.9 tonnes of CO2 every year.

Climate change was set in motion. Temperature on earth increased, there was more rain, more extreme weather, and permafrost and glaciers had begun to melt. Many people feared that they would have to flee their homes and become climate refugees, as there were already many of them. People who had to flee their homes because sea levels began to rise, floods drowned cities that already had vulnerable infrastructure, because of desertification in Africa, extreme weather destroying fertile soils, glaciers melting and leading to cuts in drinking water in the Himalayas, warmer seas with greater storms, and permafrost melting leading to the emission of greenhouse gases from the ground. If the sea level were to rise by another meter, 145 million people would have to find a new place to live." The man now spoke with grief in his face. The audience had the same. One could see grief in the faces of most people as he talked about all this. Blank eyes even. Most people were affected by it, just as he was. He took a break and a deep breath before continuing on.

"Aurelia could see the health damage that air pollution had caused to the greatest extent. In 2042, she saw a disconcerting development in global health, both for the planet and for the people on it. She saw a need to prevent pollution in the lungs! Air pollution was due to, among other things, industry, heating, fires and transport. mentioned, the ice in the Arctic had also begun to melt. Aurelia was determined to create change. She had had enough of badly sick patients, enough of the climate debate and enough of politicians giving empty promises. She read up on climate change, and discovered that while the ice was melting, phytoplankton in the ocean had poorer living conditions. Something had to be done. After all, phytoplankton accounted for half of all the oxygen produced on earth! Less nutrients for the algae would lead to less oxygen production, and less food for the rest of the ecosystem. This would mean that the CO2 levels would increase even further, and more people would get sick." The man looked from one side of the crowd across to the other. The grief in his face disappeared more and more, and a smile appeared on his mouth. In the few seconds of silence, everyone could hear the birds chirping.

"Thanks to Aurelia, a plantation was built to produce more phytoplankton. PLANKTasjen was built in a sustainable way, and of course without additional emissions. Within 3 years an idea had become a reality and the production of algae was underway. Since then, we have seen a positive increase in the quality and content of gases in the air. Even though the earth became warmer, the ice had melted significantly, and the earth is not the same, it is still on its way back to being what it once was. The number of people dying from air pollution has decreased and there is much less CO2 in our air. The air we all breathe. The air that we feel and at

66

PUBLIC HEALTH HAS CHANGED, NATURE HAS CHANGED. TOGETHER, THE HEALTH OF PEOPLE AROUND THE WORLD HAS CHANGED. IT IS NOW OUR JOB, AS A SOCIETY, AS PEOPLE WHO ARE ALLOWED TO LIVE ON THIS PLANET, AS CLIMATE FIGHTERS AND AS HEALTH WORKERS, TO **ENSURE THAT IT** CONTINUES LIKE THIS.

the same time don't feel around our skin. The same air. The same air that is in the desert in Africa, and over the ice in the Himalayas. The concentration of air pollutants is reduced and the air quality we have today has never been better! All this as a result of the PLANCTation, and of course, all other measures that have been taken. The emissions are as low as they can be, people transport themselves to places using their bodies, and the globe has become a healthier and better place to live.

Because air quality had improved so much in a short time, new species have

also evolved. The plant "Algillis" was discovered in the Arctic 10 years ago. We know it to release a special gas that is attracted to the minerals in the ice, before it itself is turned into ice. And so. the ice in the Arctic, which had begun to melt, is now covering almost the same area as it was 150 years ago! This is historic. It's revolutionary. It's deeply touching." And he really meant it. Some in the audience gave a cheer, others smiled hopefully with shining eyes. "I'm glad Aurelia got to see what she did, and what she did for our planet, before she left us. What she did for our health. For everyone.

I want to reflect on where we are today and where we are going. Today, the ethnic groups and cultures around the Arctic are no longer facing a threatening future, where they feared having to flee their homes, find new jobs and new living conditions. The ecosystem is no longer in danger. The temperature of the earth has reached a plateau, and there is no longer any sign that it will continue to rise - there is in fact a hope that the temperature can fall back. Public health has changed, nature has changed. Together, the health of people around the world has changed. It is now our job, as a society, as people who are allowed to live on this planet, as climate fighters and as health workers, to ensure that it continues like this. We have seen what direction things can go, what can happen to our earth, and what can happen to us. We will not go that way again, and we will not let that way become a possibility again.

Dear friends! Tonight, we celebrate. Tonight, we have a festival. Thanks to everyone who has helped us celebrate 30 years, and to all who continue to contribute. PLANCTation has given jobs to many unemployed people, but what you have given us is much bigger. YOU have made this possible. Together. I thank you and hope you will continue this journey with us. Tonight, we are going to toast! We will toast to 30 years and everything we have achieved. We

will toast to Aurelia, and above all - to friendship, knowledge and our global health! Thank you."

It was quiet for just a second before the audience broke out in cheers and applause. And the man gave applause to the audience. The podium, microphone and transparent screen went down toward floor of the stage, and the man stepped down the stairs towards the audience.