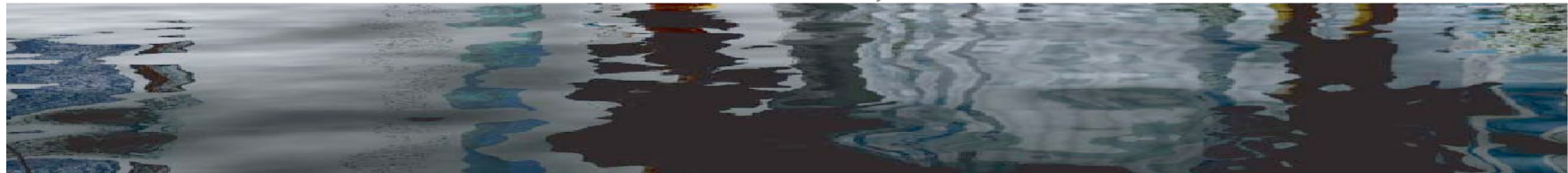


Klima X

THE NORWEGIAN MUSEUM OF SCIENCE, TECHNOLOGY AND MEDICINE



Norsk Teknisk Museum, Kjelsåsveien 143, 0491 Oslo, Phone: +47 22 79 60 00

About the exhibition

On December 11, 2007, the Norwegian National Museum of Science, Technology, and Medicine, launched the climate exhibition “Klima X”. Dr. Rajendra Kumar Pachauri, director of the IPCC and Nobel Peace Prize Laureate, opened the exhibition together with the Norwegian Prime Minister Jens Stoltenberg.

Klima X shows the causes, effects and possible solutions to global warming. The exhibition aims at increasing the knowledge of human induced climate change and promote engagement and action from the visitors.

The innovative Swedish architecture studio, Codesign, lead by Mr. Peter Ullstad, has created the exhibition design. The concept is to give the visitors an unforgettable experience by stimulating all senses and to let interactivity play a key role.

Klima X is made in collaboration with the Centre for International Climate and Environmental Research – Oslo (CICERO), the International Polar Year (IPY), the University of Oslo as well as national and international environmental organizations (World Wide Fund for Nature (WWF), Bellona etc).

The exhibition will be open for two years and is expected to have about 400.000 visitors.

Klima X

The exhibition



The first thing the visitors see is a large wall covered with waterproof rubber boots.
The visitors put on the boots and prepare to enter the exhibition.

Klima X



Spectacular effects are used in the exhibition to show the causes and effects of global warming. The exhibition floor is covered with 10 cm of water to illustrate the effect of increasing sea level. The visitors will experience drops falling from the roof (rain), water vapour (clouds), airflow (wind) and water currents (ocean currents).

Klima X



Two enormous melting ice cubes symbolise the melting of the Arctic ice cap.
On the wall next to one of the ice cubes is an animation showing the melting of the Arctic summer sea ice.
The visitors can see that the North Pole might become free of ice by the year 2050.

Klima X



The walls are covered with informative posters about the causes, effects and solutions to global warming. The content is developed in collaboration with researchers and environmental organisations.

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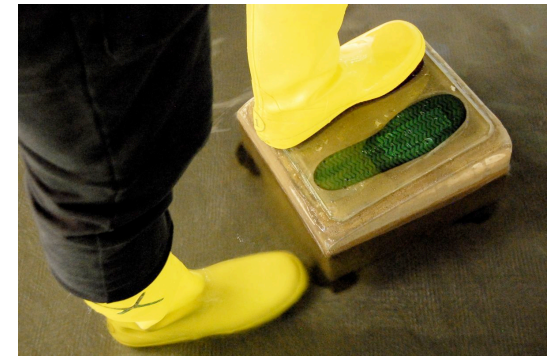
The visitors use remote controlled boats to visit different geographical places “around the world”. By entering one of the harbours with the boat, the visitor can start a short movie featuring a climate witness. The climate witnesses tell their stories on how they are affected by global warming. The witnesses come from places all around the world such as Australia, Nepal, Kenya, Brazil, Germany, Spain, Greenland, Fiji, and USA.

Klima X



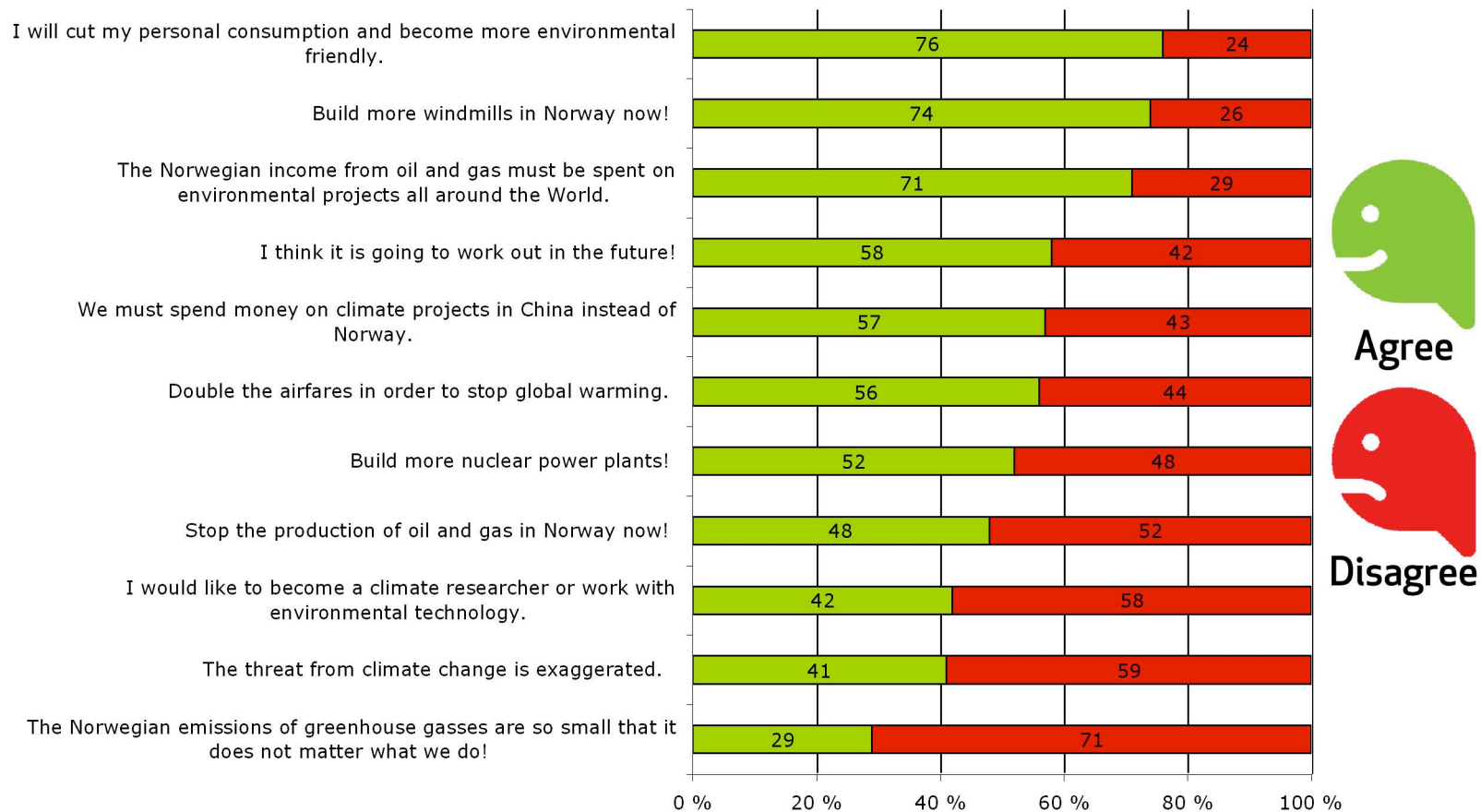
In the film room visitors can see short movies produced especially for the exhibition.
One of them has been nominated at the Toronto Worldwide Shortfilm Festival.

Klima X



In one of the exhibits the visitors can "vote with their feet" in a climate election. By using their boots they can vote for or against different controversial statements on environmental issues such as "Build more windmills in Norway now!" The visitors can see instantly see the results. In this way the feedback of the visitors is incorporated in the exhibit.

Klima X



Results from the climate election “vote with your feet”. Green is the proportion that agree and red the proportion that disagree on the statements. By Mars 2009, more than 300.000 votes have been registered.

Klima X



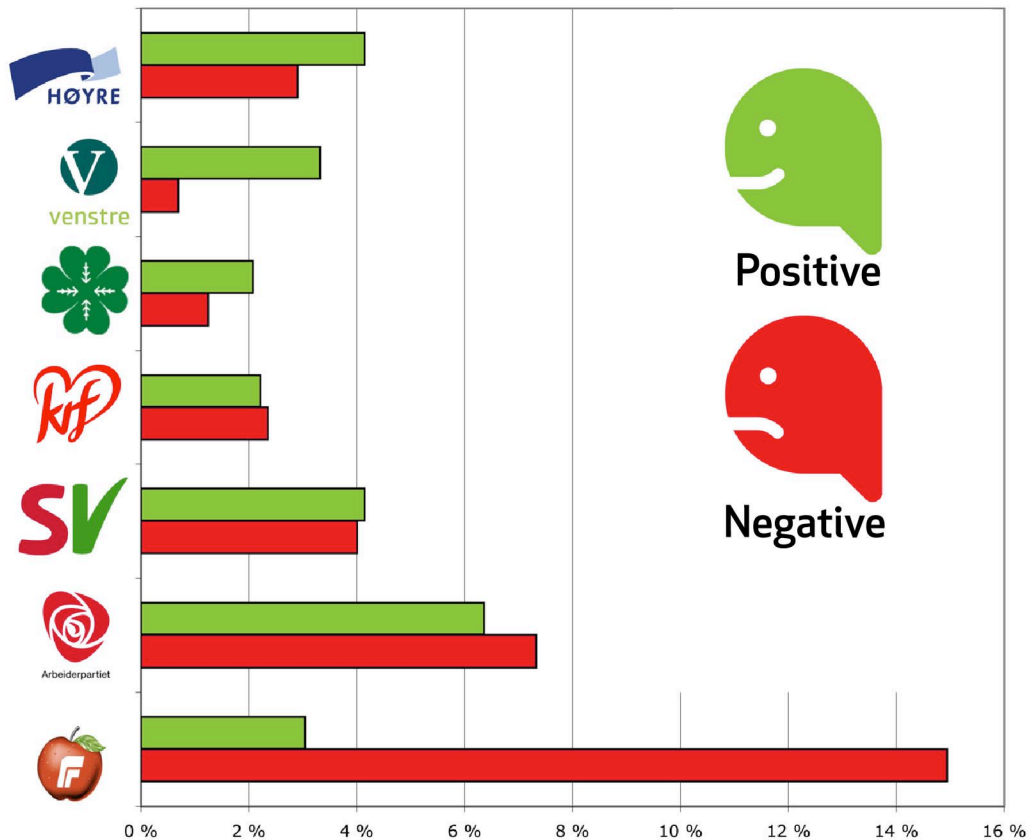
At the exit of the exhibition visitors can see their own "heat image" by a thermal camera.
Human activity is the cause of global warming!

Klima X



At the "feedback exhibit" the visitors can motivate their friends to become more environmentally friendly by sending them MMS's with climate friendly tips. They can also give feedback directly to the political parties.

Klima X



Results from "feedback exhibit" where visitors can write directly to political parties. Norwegian political parties. Green and red is the percentage of positive and negative feedbacks. One political party is clearly not regarded as environmental friendly one.

"Start developing renewable energy sources so that my unborn baby will have a future."

"Hi. My name is Mari and I need clean air to breath in. I am 7 years old."

"My classmates and me, think that there should be much more buses, and they should be allowed to drive almost everywhere."

"Please! Be responsible. Do something now!"

"Double fuel prices now!"

"Do not forget the environment. We only have one earth. You should all come and see this exhibition."

Klima X

Other activities



Some examples of other activities. From left to right:

1. The Demonstration: Children made a demonstration of snowmen with posters such as “Stop global warming! We are dying.” and “Save the winter”. In collaboration with the International Polar Year.
2. The Junior Inventor: Children made inventions that can stop human induced climate change. In collaboration with the Research Council
3. The Albedo Experiment: Children took part in the Albedo Experiment by creating large spots out of available white material. In collaboration with NASA and IGLO.

Klima X

Feedback and evaluation



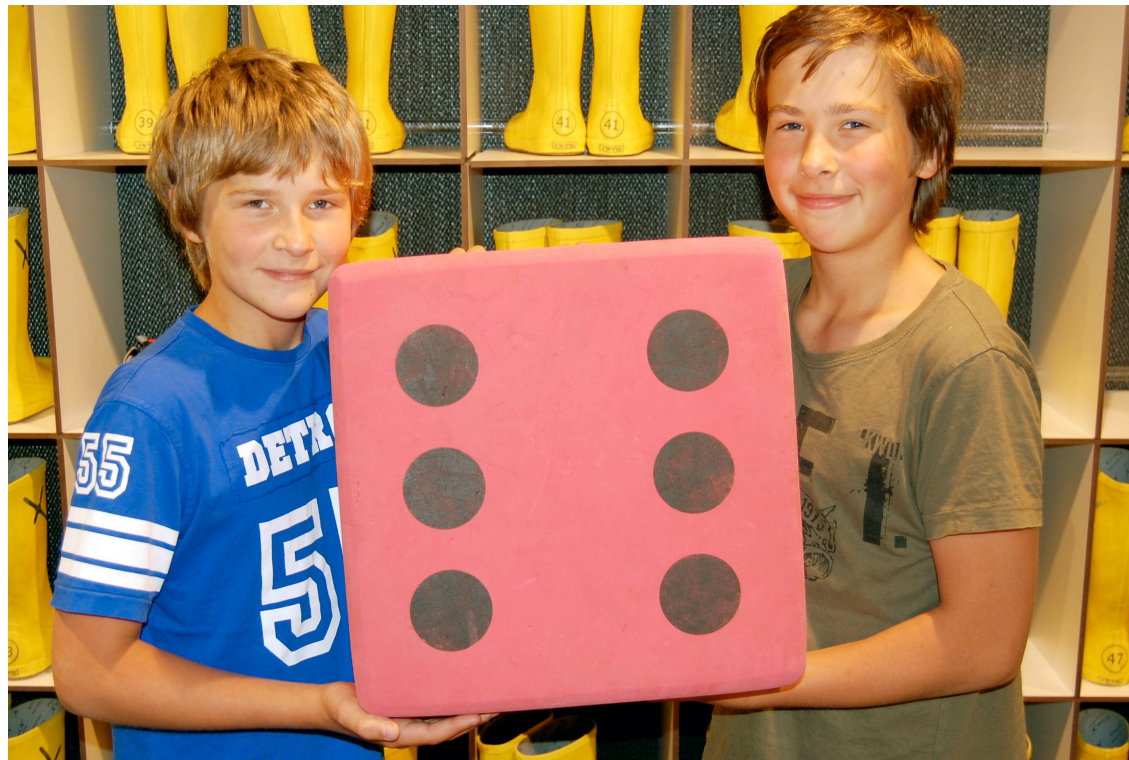
"It was a brilliant idea to cover the exhibition floor with water. Then you can really see what kind of challenges many countries now face."

Dr. Rajendra Kumar Pachauri,
Nobel Peace Prize Laureate

"I have never been to an exhibition where you have to wear rubber boots and where you walk in water. Then you understand what this is all about."

Jens Stoltenberg,
Prime Minister of Norway

Klima X



The evaluation of the exhibition showed that:

- The average rating among the visitors was 5,1 (1 = worst, 6 = best).
- None of the visitors gave score 1-3.
- 1 out of 3 gave score 6.
- What visitors liked the most was the ice, the water, the voting with your feet and the boats.
- 43% had heard about the exhibition before their visit to the museum.

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Promotion



To promote the exhibition the museum bought an electric car.

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Awards



On October 30th 2009 Klima X receives the " Roy L. Shafer Leading Edge Award for Visitor Experience" by The Association of Science-Technology Centers (ASTC). From left to right: Peter Ullstad (exhibition designer in Codesign), Jan Alfred Andersson (director of the Science Centre), Hans Weinberger (director of the museum) and a representative of ASTC. Previously, Klima X has also received the award for "the most innovative exhibition in the Nordic countries in 2009".

Klima X



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Director of the National Museum of Science, Technology and Medicine
Hans Weinberger

Project leader
Dag Andreassen

Project group
Geir Christiansen, Kathrine Daniloff, Frode Weium, Håvard Heggelund, Marie Ørstedholm, Jon Haavie

Exhibition design
Codesign, Peter Ullstad (CEO)

Collaborators
The International Polar Year (IPY), the Centre for International Climate and Environmental Research - Oslo (CICERO), FAROS - The Norwegian University of Science and Technology (NTNU) in Trondheim, The Norwegian Meteorological Institute (DNMI), The University Centre of Svalbard (UNIS), The University of Oslo (UoO), Statistics Norway (SSB), World Wide Fund for Nature (WWF), Bellona, Institute for Energy Technology (IFE), The Norwegian Oil Industry Association (OLF)

Sponsors
The International Polar Year (IPY), the Freedom of Expression Foundation (Fritt Ord), The Ministry of the Environment (Klimaløftet), Siemens, DNV (Det Norske Veritas), Tandberg, Oslo Sporveier, Viking, Elkem, Norsk Telemuseum, NITO, TEKNA, NSB, Scanpix, Tilbakemelding.no, Pipelife, FLIR Systems