



StoraEnso

# Svalbard Folkehøgskole

## Longyearbyen, Norway

Partner of Stora  
Enso

WOODCON

Sylva™ school in a box delivered to the North Pole where students learn with whales, and northern lights

Sustainable school building at the 78th degree, 500 miles from the North Pole, Folkehøgskole is possibly the world's most northern school.

And shows clearly how fast-to-assemble, healthy Sylva™ CLT schools-in-a-box can reach places where they are very much needed and would be unsustainable and impractical with most other construction materials today.

The climate on Svalbard requires special building techniques. Svalbard is placed in a climate classified as tundra, with temperatures often reaching less than  $-20^{\circ}\text{C}$ .

The building is founded on piles to prevent the heat from penetrating into the ground and thawing of the permafrost.

The ground floor is approximately 1.5 meters above ground level. All piping is visible above the ground under the building. This is common for most buildings in Svalbard. During construction, everyone involved faced challenges amidst the harsh arctic climate.

In particular, sub-zero temperatures made the wood used for interior walls prone to cracking using prefabricated elements made a rapid install possible.

Light, or a lack thereof, was also a factor during the project. Svalbard is extremely dark during the winter months, experiencing polar night - where night-time lasts all day - yet incredibly bright in the summertime, when the islands witness midnight sun, the phenomenon of constant daylight. These factors were a key consideration when selecting materials and colour palettes to form pleasant, comfortable spaces for year-round enjoyment.

During the timber frame erection, retaining permafrost throughout the seasons was vitally important. The solution was to gain stability from pile foundations, which drill directly into the frozen terrain, allowing cool air to flow beneath the building, thus maintaining the required ground temperature.

Particular care was taken in storing the construction materials at an appropriate temperature before installation.

It was also crucial to take great care when transporting and lifting the product into the building, as sourcing further supplies could take several weeks, delaying the project.

Away from construction-related challenges, the workers were not troubled by dangerous Svalbard wildlife - including polar bears and walrus - which typically do not venture towards the heart of Longyearbyen. However, it was not unusual for them to witness unproblematic reindeer walking nearby during construction.

Now fully operational, Svalbard Folkehøgskole has become a beautiful learning environment within even more beautiful surroundings. Its flooring accentuates the elegant design scheme - complete with complementary furniture and modern decorations - which draws inspiration from the magnificent scenery on display.



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## General

### Delivery year

2022

### Building type

Education

### Area (m<sup>2</sup>)

4,900

### Storeys

2



Photo credit: Fjellfanten/Martin Andersen

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## Products

### Products and Services

[Sylva™ CLT Floors and Roofs](#)

### Product quality

INV, IVI

### Product volume (m<sup>3</sup>)

666

### Number of deliveries

2



Photo credit: Hæhre Arctic

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## Team

### Partner of Stora Enso

[Woodcon AS](#)

### Developer

[Store Norske Spitsbergen  
Kullkompani AS](#)

### Architect

[LINK](#)

### Main contractor

<https://akh.no/>