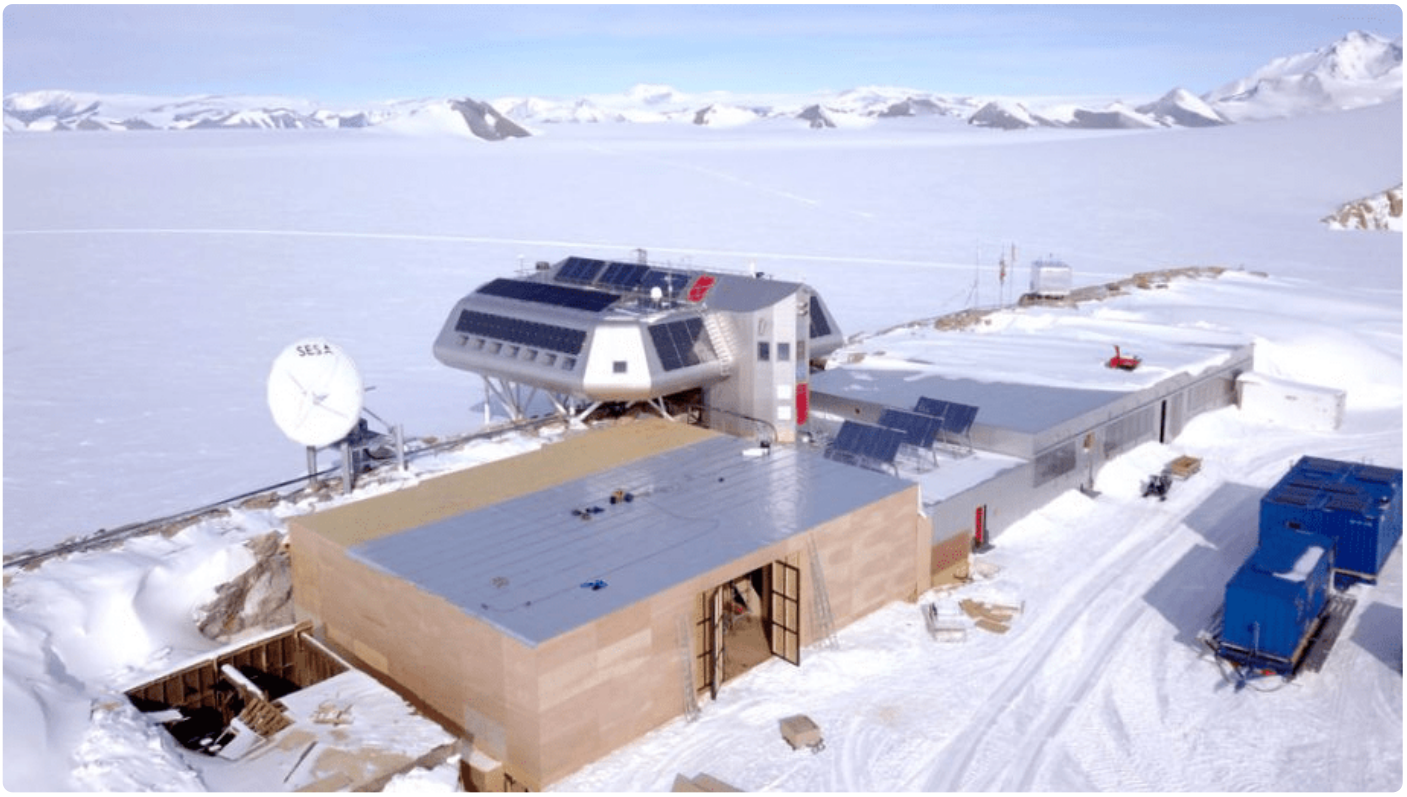
SUCCESS! PEA’S NEW GARAGE FINISHED BEFORE END OF BELARE SEASON



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Before the closure of Princess Elisabeth Antarctica (PEA) Station for overwintering, it was crucial for the BELARE team to complete the construction of the station’s new garage, located in the station’s north annex.

With the need to replace the more than ten year-old garage and workshops, which had been built on the ice to allo the supporting glacier’s movement, the BELARE construction team concentrated all their efforts on the constructi specifically designed PREFALUX structure.

The new structure can cope with the glacier’s movement and hold a long-awaited heated garage (for the maintenan all machines used at the station), several workshops, a storage area, and a definitive shelter for the station’s two ba Luckily, good weather conditions allowed the team to work hard and to conclude the construction process in just c

First steps of the construction in 2019

In November and December 2019, the old garage was dismantled. In January 2020, while waiting for the delivery construction materials by ship, the area was cleared of snow and leveled to two different heights to prepare for the foundations.

One of the challenges during this time was keeping the backup generators sheltered and operational in case they m needed. Therefore, a remaining part of the old garage was kept intact to keep them safe from the elements until en garage had been completed and their new storage area was ready.

Arrival of the construction materials by icebreaker

After the S.A. Agulhas II (a South African ice-breaking scientific and supply ship) arrived at the coast of the Dron on January 30th and unloaded all of its cargo onto an ice shelf, the BELARE team transported about 150 tonnes of delivered construction materials to PEA in order to start the construction of the new building as soon as possible.

In addition to the hard work of the construction crew, two machines were used to build the new garage: the Komat hybrid excavator and a large Terex TCC45 crane.

To create a firm anchor point on the supporting bedrock that would also allow some leeway to compensate for the movement, the wooden beams are fastened to the granite ridge on large hinges on the eastern side. On the western BELARE team prepared a proper foundation area where the wooden beams are held up by four wooden support st metal clogs. By regularly adjusting its height with pistons, this will allow the new garage to remain level despite th glacier underneath that retreats both sideways and vertically by about 8-10 centimeters per year.

Once the foundation was in place, the floor was assembled, and the vertical structural wood beams were installed. structure was already ready for the roof to be put on, which was then covered with an EPDM membrane (an extren rubber roofing material) to protect the new structure from moisture infiltration and damage that could be caused by Soon after, the BELARE team installed large folding doors that hermetically seal the building's entrance to keep t snow out!

The team also started putting the finishing touches to the structure, such as insulation in the walls, as well as struct compartmentalise the garage.

By February 16th, the new garage was completed and ready for overwintering. By that time, the second group of s already left the station and the last 16 members of the BELARE team were left to begin the technical operation of overwintering.

Functions of the new durable building

One of the biggest advantages of the new garage is that it will be heated starting next season! This was indispensal maintenance of all the machines and for the working comfort of the mechanics who will work there. When all the on its interior will be put in next season, the new building will also host a wood and a metal workshop, and a stora equipment and spare parts for machines.

Building this structure under such a tight schedule was very challenging, but ended up being a great success. It rep most important achievement of the BELARE 2019-2020 expedition!