

ANNEX:

LUCOEX Deliverable 5.18 Paper for professional journal: Summary in English

The original text of the article published in the “Posiva tutkii” publication is presented below.

Brief summary in English:

Posiva demonstrates buffer block installation

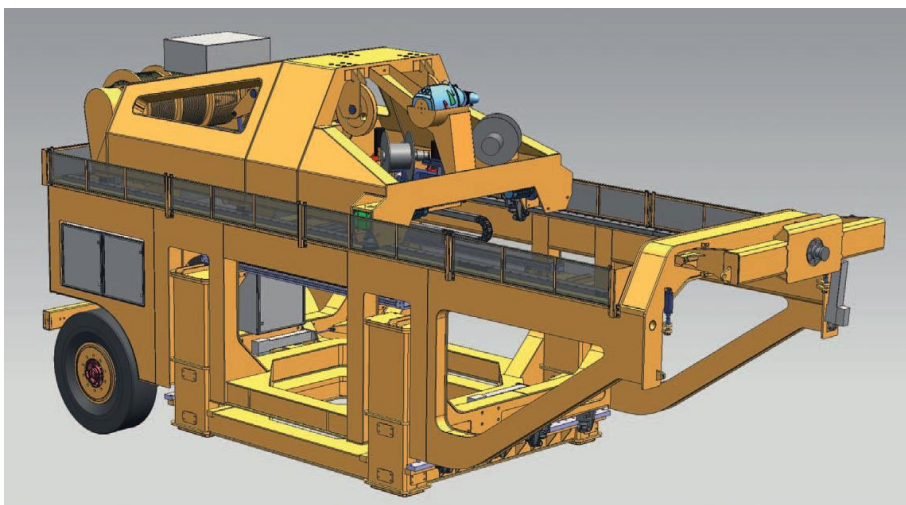
The bentonite buffer blocks have to be installed into the deposition hole with an adequate accuracy and speed. For realizing the demonstrations, Posiva will acquire new prototype equipment.

Posiva will test the geological disposal buffer block installation into the deposition holes during 2013. A prototype for the special, entirely unique installation machine has been designed in Finland and will be manufactured during 2012.

The demonstrations will be used for collecting information and experiences on the installation for the manufacturing of the final installation equipment. All buffer blocks have to be installed within a two-hour timeframe. The speed requirement is derived from the fact that bentonite reacts with the humidity in the installation space and starts swelling.

The designing of the buffer block installation machine prototype is a part of an EU financed project which Posiva has participated in together with the Swedish SKB, French Andra and Swiss Nagra who are responsible for geological disposal in their countries. The project started in 2011 and will end in 2014. In the project, the organisations who share similar challenges on handling bentonite and and manufacturing and installing the buffer, exchange information and collaborate in researching and developing installation solutions.

For Posiva, the EU Project is divided into three parts: buffer block installation, installation quality control and controlling possible problem situations.



Picture 1. According the design of the prototype of installing equipment, the dimensions are: length 7.7 m, height 3.7 m, width 2.6 m and weight 12 tons.