



## FROM FLUTE TO APP: RAT-CATCHERS OF THE 21ST CENTURY

It may seem like it's a profession from a long time ago, but nothing could be further from the truth: in Flanders, multiple rat control teams spend each day studying and catching rats and other animals that you would rather not have running around your floor. They have been using an app to help them in their work for a few years now. The enchanting qualities of the flute have been replaced by the power of technology.

### Rats, beavers and crabs

The Flanders Environment Agency (Vlaamse Milieu Maatschappij, VMM) employs about 90 rat-catchers that control animal species such as the sewer rat, muskrat and beaver rat. Rats cause a great deal of damage to dikes, banks and other structures in the earth due to their digging. Among other things, this causes bank subsidence and dike breaches. At the same time, rats spread diseases and harm the agricultural sector and nature. In addition, international trade has led to the Chinese mitten crab ending up in our waterways. There are now millions of them making a nuisance of themselves. This is reason enough for VMM to map and control all these animals in a scientifically substantiated and ecologically responsible manner.

### The rat app

Since 2016, VMM's rat-catchers have been using an application called "the rat app" to support their work. This app consists of a mobile application and a browser management module. The catchers record their activities and collect data in a simple way on a daily basis. For example, it is possible to keep track of the regions where specific types of animal are found, what has been caught and where traps are set up. This all used to be done using pen and paper. All data collected is also analyzed, making it possible to keep an eye on trends. This led to the finding that the muskrat had been almost completely exterminated.

The app has been used for several years, and rat-catchers' methods have evolved since then. A Realdolmen team is responsible for the application's adaptive maintenance. Such maintenance focuses on adapting the functionalities to the environment as it changes. The team added the option of 'mitten crab' to the types of animal and made the app more dynamic, as the animals are now also weighed on the field.



## On the road

In July, a group of stakeholders and rat-catchers went out with the app to see how it worked in practice. Several Realdolmen employees were also present during the walk along the Oude Dender river at Dendermonde. They searched for tracks and other traces in order to determine the best place for a trap. They also walked past some NFC tags, which are at fixed locations. This near field communication (NFC) technology enables wireless communication at close range. An action occurs when an NFC chip is held close to a device containing NFC. The rat app can use tags of this kind to retrieve location data. Where are the traps? How many animals have been counted here? This information is instantly available. In short, the app and all its functionalities is a useful piece of technology that ensures that our living environment is and remains pleasant.