



CASE STUDY

TWS, NETHERLANDS
ARANET PRO 100 TEST

Introduction

SAF Tehnika, one of the leading microwave radio technology manufacturers, has recently launched a new addition to its product portfolio- Aranet.

Aranet is an environmental internet of things (IoT) monitoring solution for a variety of businesses such as agro-food sector, warehouse and storage management and building management companies. Product line consists of gateways and wireless sensors that can be deployed within 3km/ 1.9mi line-of-sight range from the base station.

Due to extensive interest from clients in IoT solutions, TWS, one of the leading specialist integrators of professional data and information connections, in collaboration with SAF Tehnika organized a field test for Aranet devices.

TWS tested Aranet PRO 100 gateway with Aranet T/RH sensors. The main aim of the trial was to examine the range of the Aranet devices and determine the possible applications for the Aranet solutions in future.



Tester

For nearly 20 years, TWS have been specialist in professional data and information connections. One of TWS offered service is system integration for wireless solution including network infrastructures such as microwave transmission and IoT systems.

One of the main applications that TWS foresees for Aranet product line is installing Aranet systems in elderly care facilities and rehabilitation centres to take care of the environmental monitoring and ensure the best conditions for the residents there.

Testing process description

SAF Tehnika supplied TWS with Aranet PRO 100 gateway and 30 Aranet T/RH sensors for 6 week trial period in Twello, Netherlands.

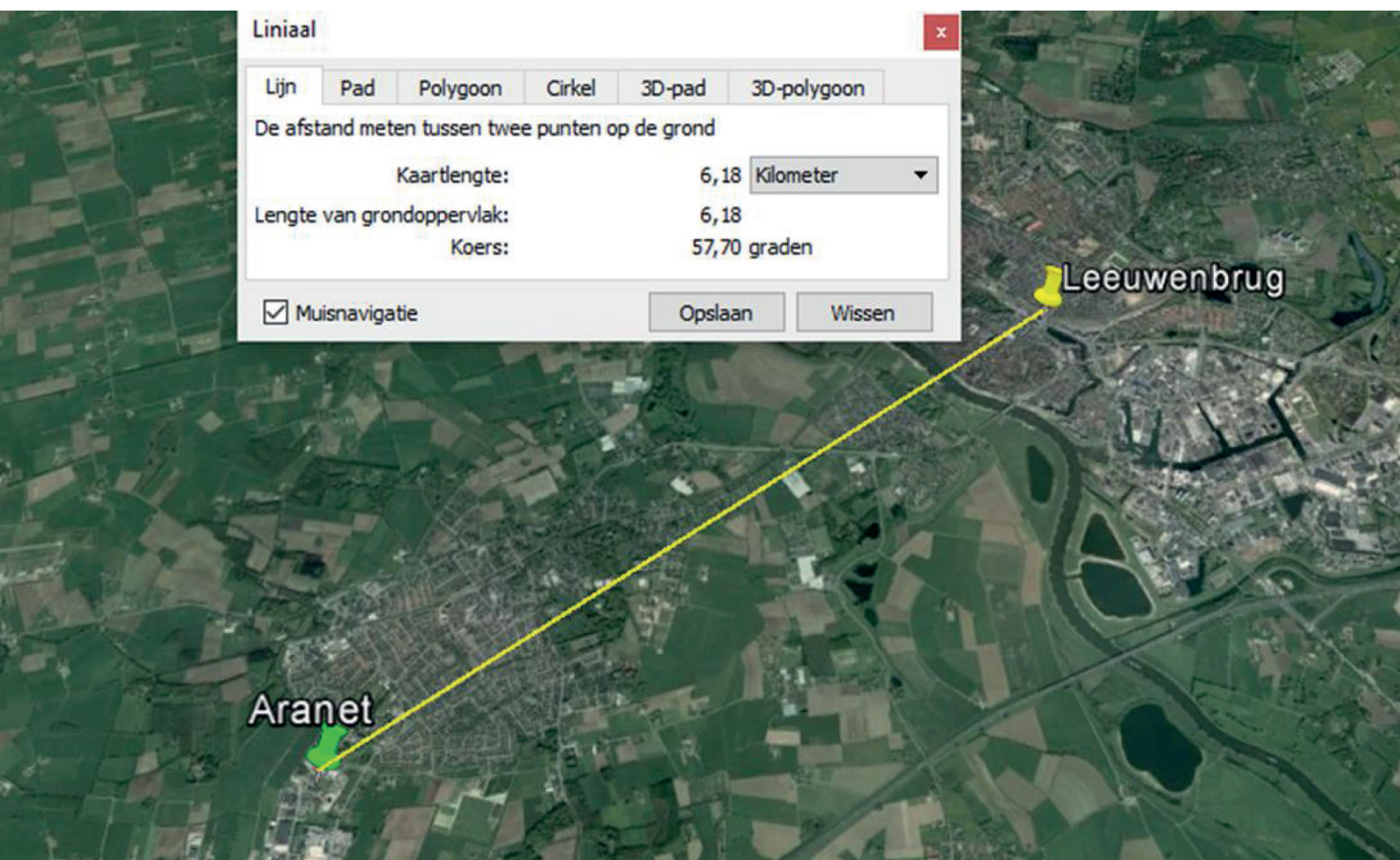
Richard Sluiter: "Aranet devices are very easy to install, anybody is capable to get the system up and running in no time."

The trial was mainly aimed to test the offered 3km/1.9mi line-of-sight range between the wireless sensors and the Aranet gateway. Therefore Aranet PRO 100 gateway was mounted on a 38m/124.7ft high mast and wireless sensors deployed in multiple locations around the city. For this test Aranet PRO was enclosed in a weatherproof container that provided IP67 protection class.



Aranet PRO 100 gateway in a weatherproof container at 38m/124.7ft.

Notably the maximum line-of-sight distance that was achieved by TWS on their field test was 6.18km/3.84mi. Afterwards Aranet PRO was tested in urban areas with such obstacles as buildings and trees, the maximum non-line-of-sight distance achieved between Aranet PRO 100 gateway and Aranet T/RH sensors, was 2km/1.24mi!



The maximum distance achieved between Aranet PRO 100 gateway and Aranet T/RH sensor.

Results

The tests for Aranet PRO were successful and showed exceptional receiving range between the gateway and sensors. Aranet over-exceeded the range expectations and proved to be fully functional even in dense urban setting with numerous obstacles. The outstanding performance of Aranet devices proves that Aranet can be easily used for deployment in large, industrial areas with no connectivity interruptions.

“Whether it’s microwave radios or environmental monitoring solutions SAF Tehnika produces quality products. For Aranet we see great potential for use in remote locations without internet as well as in various industrial applications where environmental monitoring is important.”
- Richard Sluiter, TWS

Aranet PRO environmental monitoring solutions are suitable for large industrial compounds as well as smaller site size applications. The solutions can be applied in a variety of industries including food manufacturing plants, grocery stores, warehouse management companies, museums and exhibition halls, hotels and restaurants, agricultural facilities and many others.

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