Press Release

Smart Village project SMARTinfeld wins innovation competition "Digital Landmarks in the Land of Ideas"

The IoT company Alpha-Omega Technology presents successfully implemented smart village applications based on LoRaWAN technology. The jury of the "Digital Landmarks in the Land of Ideas 2023" competition chose the model village SMARTinfeld as the winner in the "Smart Community" category.

Schimberg and Berlin, 16 November 2023 - For more than five years, local company Alpha-Omega Technology GmbH has been implementing projects for a sensor-based Internet of Things (IoT) under realistic conditions together with the municipality of Martinfeld in Eichsfeld, Thuringia. In the model village of SMARTinfeld, it is thus possible to experience how IoT solutions work for an entire community and thus make village life sustainable for the future. SMARTinfeld is one of the five winners in the innovation competition for digital life in rural areas "Digital Places in the Land of Ideas 2023". The model village received the award on 14 November 2023 in Berlin as the best digital project in the "Smart Community" category. This shows the national importance of the local project. The applications include intelligent street lighting, measuring the temperature on carriageways, the level of particulate matter in the air and moisture in the soil, traffic counting and an IoT weather station park. They are all based on the long-range radio technology Long Range Wide Area Network, LoRaWAN for short, and open source software. The project serves as a blueprint for digitalisation in rural areas.

Over five years ago, entrepreneur Jan Bose and the municipality of Martinfeld came up with the innovative idea for SMARTinfeld in response to the fact that smart city projects are generally limited to urban environments. As a result, they do not take into account the special needs of rural communities. SMARTinfeld thus provides an answer to the many challenges that rural areas face when it comes to digitalisation. And the model location is a blueprint for the digitalisation of other small municipalities. Jan Bose, founder and Managing Director of Alpha-Omega Technology, explains: "This is an enormous added value because it is not necessary to implement pilot projects first, but simply select the appropriate IoT solutions from SMARTinfeld and adapt them in your own municipality. This saves time, manpower and costs."

Bringing innovation and a rural way of life together

Compared to a smart city, the SMARTinfeld project is tailored to a lower population density and a closer sense of community. It aims to maintain a rural way of life while integrating technology and innovation. The model site is already established and is being continuously developed: Alpha-Omega Technology, in collaboration with the community, regularly tests and optimises new sensor-based IoT applications for rural areas using LoRaWAN wireless technology. The advantage of this technology for transmitting the collected data lies in the minimalist data volumes, which ensure low power consumption and at the same time offer sufficient data protection because only the data that is absolutely necessary is used.

Exploiting the possibilities of digitalisation with LoRaWAN

Jan Bose says: "With SMARTinfeld, we are showing that rural areas can make full use of the opportunities offered by digitalisation. The municipality of Martinfeld became 'smart' with a LoRaWAN network. LoRaWAN has an enormous range, which can be up to ten kilometres in rural areas. By positioning the gateways higher up, we achieve excellent coverage. In addition, roads do not have to be torn up to lay the cable in order to put the network into operation. Be it the temperature on the mountain or the monitoring of water levels and water quality - there are many requirements without having to introduce new technology or software every time. A scalable, licence-free IoT technology with a wide range of applications such as LoRaWAN and open source software is better." In the coming months, Jan Bose would like to realise further applications together with the municipality: The focus here is on monitoring the village's energy consumption, which is to be carried out in collaboration with the local network operator.

Not all smart villages are the same as smart cities

Rural municipalities differ from urban areas not only in terms of use cases. If IoT applications are to cover a larger area in sparsely populated areas, several municipalities and therefore authorities are usually involved - the need for coordination increases. In addition, people in rural areas often identify strongly with their municipality. With the SMARTinfeld project, Alpha-Omega Technology and its partners are presenting an approach for scalable use in other municipalities.

However, not only other communities, but also Martinfeld itself should benefit even more from the local company's commitment in the future, as Jan Bose explains: "A central goal is to strengthen the location and the surrounding area in Eichsfeld in the long term and to generate synergy effects. This includes the future design of the site and also the integration of the local population into the project. In addition to the sensor-orientated solutions, there are many other measures that round off the Smart Village concept. For example, a cooperative is currently being founded in Martinfeld to strengthen the positive development of the village."

Competition showcases innovative strength in rural areas

Five projects from all over Germany have been honoured in the "Digital Landmarks in the Land of Ideas 2023" competition in the categories "Education", "Community", "Health", "Mobility" and "Smart Municipality". They all show how much digital innovation can be found in rural areas. And they show what digital answers people in rural areas have to the important questions of our time. The award for SMARTinfeld in the "Smart Community" category emphasises the importance of the project far beyond Thuringia.

Image material

The photo is available for download:
https://alpha-omega-technology.de/presse

Jan Bose, founder and CEO of Alpha-Omega Technology, accepted the prize of the "Digitale Orte im Land der Ideen" innovation competition in Berlin for his model project SMARTinfeld (Photo: Alpha-Omega Technology).

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About Alpha-Omega Technology
Alpha-Omega Technology GmbH & Co. KG, based in Schimberg, Thuringia, and Berlin, was founded in 2016 by Jan Bose as a sister company of the management consultancy Alpha-Omega Projects GmbH. With the development of IoT applications based on low-power networks such as LoRaWAN, Alpha-Omega Technology creates innovative and cost-effective solutions for public and commercial customers. In addition to selling IoT hardware and developing software, Alpha-Omega Technology works with partners to establish IoT networks for municipalities and companies and advises customers on implementation strategies. With iot-shop.de, Alpha-Omega Technology operates Germany's largest online shop for sensors and other equipment for setting up professional LoRaWAN networks. Customers include energy suppliers, local authorities, research institutes and industrial companies. Further information can be found at https://alpha-omega-technology.de/.