
# Eurostars backed high-tech firm helps taxi drivers

In its most common use, geospatial data mining helps to unveil precious information hidden in GPS devices. Thanks to a Eurostars project an Israeli SME has extended its market beyond the traditional GPS-based applications.

**With the help of the Eurostars programme, the first European funding and support programme specifically dedicated to R&D SMEs, an Israeli SME called Correlation Systems, in cooperation with Czech and Hungarian partners has developed a unique data mining engine that is able to understand the way geospatial entities, such as vehicles or individuals, move depending on several factors. "The amount of information to process in this area is growing exponentially, our company's objective is to find the information that will provide added value to our clients, we find hidden information in the figures" says Erel Rosenberg, R&D director at Correlation Systems.**

### A Positive impact

"Finding patterns based on GPS data is a relatively easy task due to the truthfulness and homogeneity of the collected data" says Mr. Rosenberg. "Although some measurements may be imprecise, most GPS information is very accurate. This is not the case when handling geospatial data from other sensor types as we did during this project". The Eurostars INSIDER project focussed on the development of a geospatial data mining engine that can handle different types of complex geographic information. "During the project we tested our engine on a geospatial database. The results were complex polygons with different accuracies and certainties and our engine was able to find routines and abnormalities using this data".

The same appliance was used by Correlation Systems to maximize the efficiency of a taxi company in the Israeli city of Ashdod. Armed with two weeks of location data extracted from a taxi company's fleet management system, Correlation Systems analysed the movements of 150 taxis in an area of 60 km³. With those findings, taxi companies in Ashdod were able to considerably improve the efficiency of their services and, consequently, their profits. "Taxi drivers know their market very well, yet much of the information we received from Correlation Systems was quite surprising. We immediately began implementing it to improve our fleet deployment" says Mr. Shmulik, the manager of Hakenion Taxis, one of the taxi companies taking part in the experiment.

### The Added value of Eurostars

Public funding is important for the company, helping it to better cope with the risk it is taking in developing new technologies. "The main reason for us to apply for public funding was the possibility to cooperate with other partners. For us participating in international programmes is a way to access new markets through them" says Rosenberg. "We also found out that there are better opportunities in Eastern Europe than in other parts of the continent. This is simply because clients there are more open to new ideas and innovative technologies".

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> **Erel Rosenberg**
> R&D director
> Correlation Systems

Correlation Systems' geospatial data mining engine is already marketed under licence agreements by several large international companies, but the company is continuously looking for new opportunities and new markets for its application.

**Project participants:**
**Israel, Czech Republic, Hungary**

**Budget: 0.5 MEuro**
**Duration: 12 months**

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