

## **High accuracy RTLS (Real Time Location System) technology implemented at the port of Antwerp**

- **Essensium N.V. and PHI DATA successfully implemented an RTLS pilot project at DP World (Antwerp)**
- **Accuracy of 50 cm over a range of up to 400 m**

WEMMEL, LEUVEN and ANTWERP (Belgium), September 8, 2009. PHI DATA, Benelux specialist of automatic identification and location solutions, and Essensium N.V., specialized in wireless sensor network development for systems and system-on-chip products, today announced the successful implementation of the LOST technology pilot test at DP World, leader in international maritime terminal operations. The technology will help DP World to efficiently locate and track the container movements in the harsh environment of the port of Antwerp, one of Europe's largest sea ports.

Essensium's patented LOST is the innovative technology successfully used to track and locate the movement of straddle carriers moving containers in the port. The positioning and localization functionality was based on the fixed location of a number of LOST reference nodes, tracking in real time the moving Straddle carriers equipped with LOST mobile nodes. Capable of offering an accuracy of over 50cm over a range of up to 400m, the LOST technology is based on a Time-of-Arrival approach with Two-Way Ranging implementation and is working in the unlicensed 2.4GHz ISM band. It is scalable to track hundreds of nodes per second. This LOST technology is easy deployable and doesn't need infrastructural site changes nor complex installation costs.

Apart from the particular accuracy requirements, Essensium's technology also proved resistant to the harsh environment created by the multiple cranes and carriers with inductive motor spikes. Furthermore, LOST was neither influenced nor disturbed by the very extensive and loaded WiFi network omnipresent on the large site.

"Next to the excellent performance of its systems, Essensium masters all elements of this highly innovative technology and was capable of adapting it to our specific needs," said Ronny Steels, project leader at DP World. The scalability of this technology will allow a fast and easy expansion to the full container park, which could already be realized early next year.

"After having evaluated various technologies during the last years, we found Essensium's offering the best in terms of range, accuracy and cost of ownership because it is very easy to install and maintain," declared Guy Couder, General Manager of PHI DATA.

“The deployment at DP World is an important milestone in building credibility towards becoming the market reference in accurate, long range, low power location detection. We are differentiating this same technology towards the segment of people tracking, where the requirements are slightly different,” said Johan Danneels, CEO of Essensium.

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**You can download images of the LOST system on**  
<http://tinyurl.com/nnmr35> or <http://tinyurl.com/l1cql2>

### **About Essensium NV**

Essensium is a fabless semiconductor company located in Leuven, Belgium, which provides system-on-chip, complete products and design services to original equipment manufacturers, design houses, and ASSP suppliers. Essensium was created as a spin-off of the nanotechnology research center IMEC in Leuven. Essensium’s skills and technology focus on custom silicon for portable, wireless, and low power applications. In addition, Essensium is also working towards the development of standard products for wireless sensor networks, active RFID and RTLS applications. For more information on Essensium, please visit <http://www.essensium.com>.

### **About PHI DATA**

PHI DATA is a solution integrator that designs and implements Auto-ID & data collection solutions based on barcodescanners & –decoders, labelprinters, matrixline- & laserprinters, mobile computers & industrial PDA’s, Wireless infrastructure (WLAN & GPRS), RF Identification (RFID) & Real Time Location Systems (RTLS), voice recognition and associated software. PHI DATA was founded in 1981 and has offices in Woerden (The Netherlands), Wemmel & Mons (Belgium) and Windhof (Luxembourg) and a total of more than 120 employees. With a broad product- & services portfolio and almost 30 years of experience, PHI DATA optimizes company processes in a wide range of branches. Resulting in cost reductions and time savings for their customers.

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