

<b>CHALLENGE</b>	To replace an existing advanced radio network.	<b>ABOUT</b>	Malmö port is the second biggest port in Scandinavia and has gone through a great expansion during the latest years, mainly due to the car import to northern Europe. CMP has two car terminals, both with modern facilities, in order to give high service level. In both terminals together there is enough space for 10.000 new cars.
<b>SOLUTION</b>	Swedish Radio Supply AB got together with our partner in Malmö ES Elektro Sandberg AB throughout hard competition the opportunity to supply TETRA system from Danish Damm together with TETRA terminals from English Sepura.	<b>CONTACT</b>	Contact person.....Leif Andersson Telephone.....+46 40 680 41 77 Web.....www.cmpport.com
<b>RESULTS</b>	A secure futuristic system which is possible to extend geographically both on the Swedish as well as the Copenhagen side.	<b>PARTNER</b>	ES Elektro Sandberg AB Contact person.....Bengt-Olle Fellert Telephone.....+46 40 24 48 84 Web.....www.elektrosandberg.com
<b>CONTACT</b>	Jonas Hoke.....+46 54 67 05 14		

## New digital TETRA radio system for Copenhagen Malmö port.

Copenhagen Malmö Port used to have an advanced analogue radio network with MRS5000 radio changer from Ericsson together with hand terminals and mobile stations from Icom. During 2005 the Post & Telestyrelsen announced that the radio frequency area must be changed and after an due to this Copenhagen Malmö Port realized that they had to exchange the equipment used. After a careful check up of what was available on the market they found that a digital TETRA network would stand up for the hard demands.

Next phase was to evaluate the infrastructure and different terminals. One demand was the possibility to extend the system in Sweden but also on the Danish side in Copenhagen and later be able to connect them together. On the terminal side it was very important with an easy handling and also adjustments after need. The terminals should also be very durable since port environment is tough and the terminals would always be used outside.

With these demands as a starting point the TETRA infrastructure from Damm TetraFlex® was chosen. The products from Damm's is very good for companies who operate within a limited space, example industries and construction sites.

With a insight system with double carriers (seven speech channels together with data/control channel) will it be possible, given the measurements done at the port, to cover the full area of the port with hand terminals. Measurements were also performed inside big cargo ships with very good results. With mobile station the full Malmö city will be covered. The terminals chosen is from Sepura who is world leading supplier of TETRA terminals and they will fit into any digital TETRA system. Sepura is represented in over 60 countries. SRH3800 is a



Photo: CMP

hand terminal with color screen and SRM3500 a mobile station for montage in e.g. forklifts and other vehicle.

### THE TOYOTA TERMINAL

At Toyota Motor Company, who is the worlds 3:rd biggest car manufacturer, CMP has gotten the opportunity to install one of the worlds most modern car terminals on 220.000 square meter with a capacity of 100.000 cars. The terminal shall provide the Nordic market with new cars.

The facilities in Malmö also contain a top modern efficient PDI-center, certified according to ISO 9002. The center has 70.000 square meter open area and 16.000 square meter inside area. The terminal is used by Honda, Peugeot, VW, Skoda, Seat and Kia.

Copenhagen Malmö port has a secure futuristic system who manage the high existing demands at a port. The TETRA system is totally IP-based which enable easy implementation into existing systems.



Partner ES Electro Sandberg www.elektrosandberg.se