

## PROJECT IN THE SPOTLIGHT:

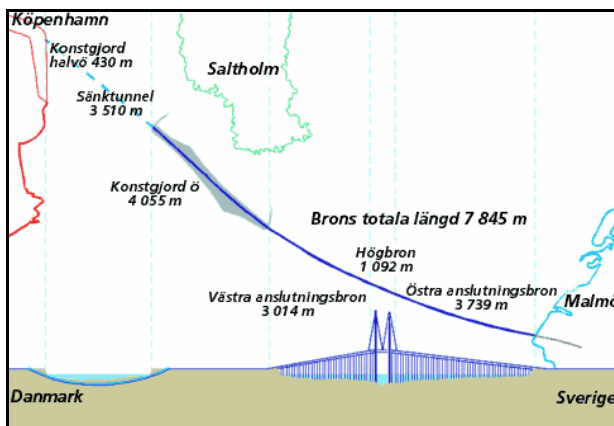
### The Öresund Link Copenhagen (Denmark) – Malmö (Sweden)



The Öresund link is a fixed connection of 16,4km between Copenhagen (Denmark) and Malmö (Sweden). The link supports rail traffic and tolled road traffic.

The link consists of the following elements:

- a peninsula in Kastrup of 430m
- an artificial island south of the Island of Saltholm of 4.055m
- a four tube tunnel submerged in the Canal of Drogden of 3.510m
- a viaduct that unites the artificial island with Sweden of 7.845m



The complete project includes:

- a CCTV system for supervision of the traffic
- a dynamic signalisation system for guiding the traffic and informing the users
- a fire detection system
- a SCADA system in the control centre for supervision of all control systems.
- a video detection system for traffic data collection and incident detection

The video detection system with VIP2, VIP22, VIP23 and VIP41 provides direct incident detection on 174 cameras including stopped vehicle detection in the tunnel and on the bridge.

The system also provides vehicle counting, queue detection and detection of wrong-way drivers.

When an incident occurs, the VICCOM board completes the picture with pre- and post-incident image recording.

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*The video detection system provides incident detection on 174 cameras with stopped vehicle detection in the tunnel & on the bridge.*

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## Evaluation

We strive to meet our customer requirements and to deliver reliable high quality products. Customer satisfaction is the ultimate criterion for our performance. With this in mind, we always offer to provide a follow-up evaluation for each new installation.

In case of the Öresund tunnel, an evaluation was carried out over a period of 6 months. In order to perform this evaluation, the COM3 boards were replaced by VICCOM boards for communication with WATTS PC software.

Within a rack, the VICCOM polls the detection boards and stores images of each into a circular memory.

In case of an alarm on one of the detection boards, the corresponding image sequence is saved and transmitted to the Watts PC that stores it in a database. On the PC, the sequences can be viewed as AVI files with the Media Player. They contain images of the alarm event itself and also from a predefined post -and pre-incident period. These images show the original camera image superimposed with detection information. Based on this information, an evaluation can be made on the number and kind of alarms reported by the detector boards.

Depending on the results of the evaluation, we were able to adjust the existing detection system to reach the highest performance.

## System At a Glance

### 140 VIP23

for flow monitoring, queue and stopped vehicle detection inside the tunnel

### 9 VIP41

for stopped vehicle detection outdoors

### 29 VIP22

for flow monitoring and queue detection

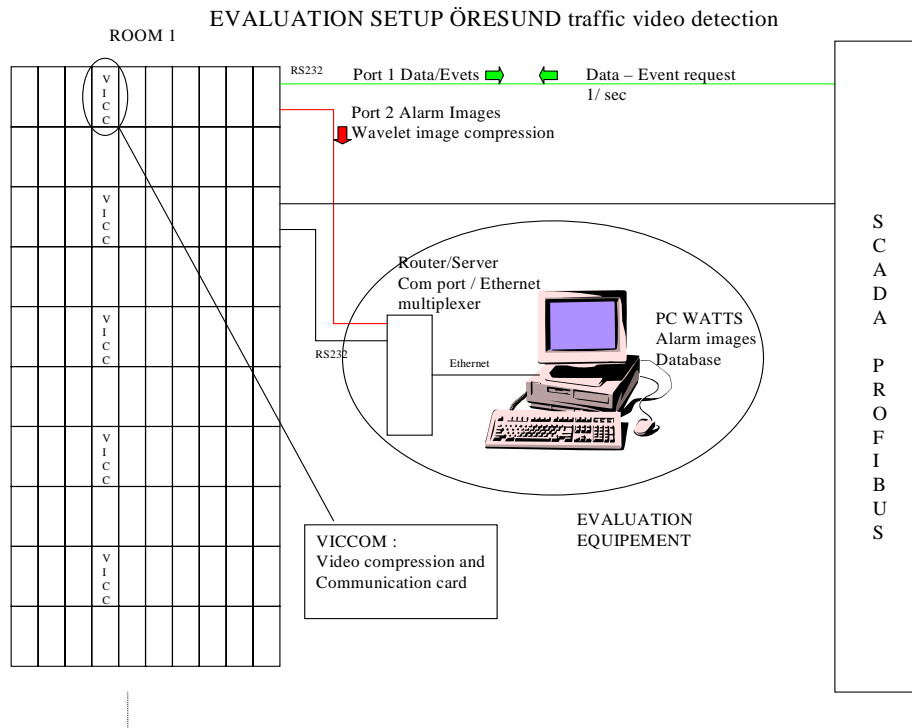
### 5 VIP2

for standard traffic data acquisition (such as volume, speed and length class)

### 13 COM3 (or VICCOM)

for communication between rack systems - central host PC and alarm monitoring

*current VIP/D replaces VIP2  
current VIP/I replaces VIP22,  
VIP23 & VIP41*



FOR MORE INFORMATION, PLEASE CONTACT MR. KOEN SOENENS - TRAFICON (KS@TRAFICON.COM).  
THE ÖRESUND LINK PROJECT IS A JOINT REALISATION OF THE ÖRESUND KONSORTIET,  
ABENGOA SAINCO TRAFICO AND TRAFICON.