

**7T**

***For a Cleaner Tomorrow***



**7T**

is becoming

**Schneider**  
Electric

# 7-Technologies (7T)

## 7T Vision

*Improve the global environment through engineering knowledge*

## 7T Mission

*Together with our partners delivering innovative environment friendly software solutions for industrial plants*



# 7-Technologies

- Founded in 1984
- 300+ Partners World Wide
- 7T offices:
  - Birkerød, Denmark
  - Northallerton, UK
  - Kuala Lumpur, Malaysia
  - Prague, Czech Republic
  - Miami, Florida, USA
- 40 employees



# 7T Ownership



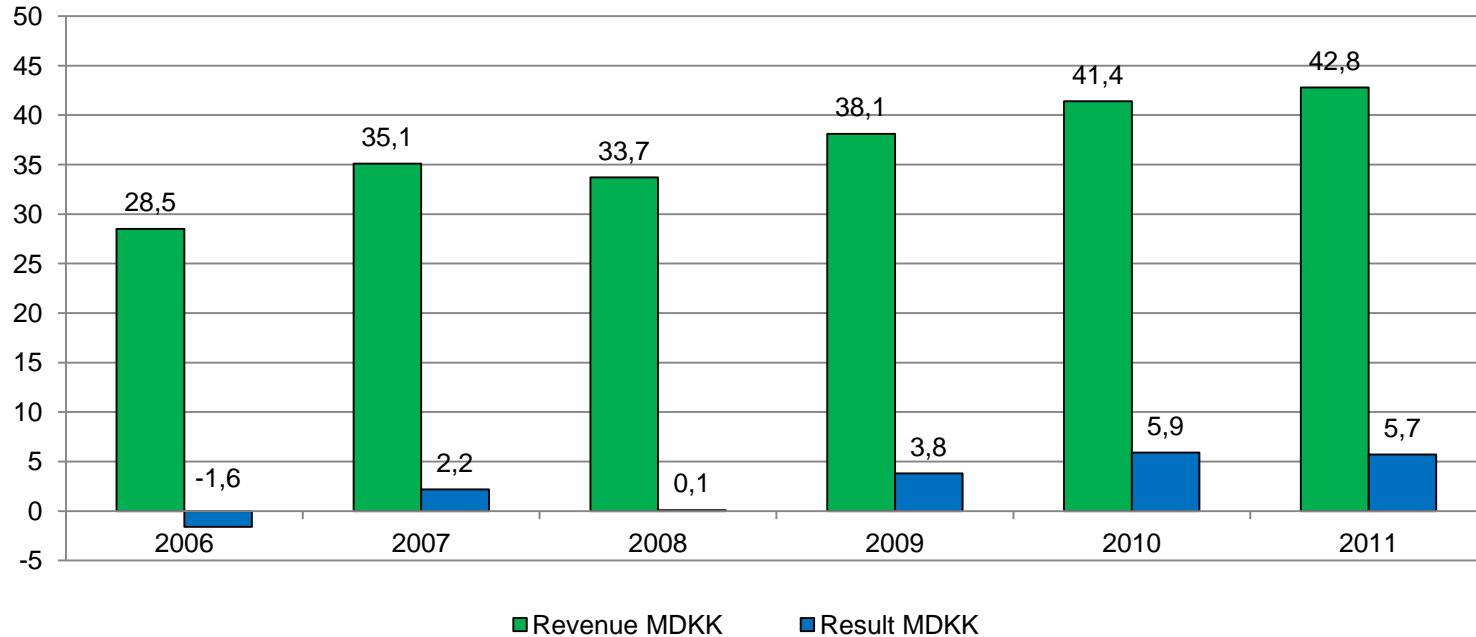
7T is owned by Schneider Electric

- global specialist in energy management
- operations in more than 100 countries
- 110,000 plus employees achieved
- sales of 20 billion Euros in 2010

With a commitment to help individuals and organizations make the most of their energy.



# 7T Revenue & Results: 2006 - 2011



# Management - 7T



**Jens Krogh Løppenthien**  
Managing Director and  
Business Unit Manager, Utilities



**Sebastien Ory**  
Business Unit Manager,  
Automation



**Anya Mantzius**  
Finance & HR Manager

# Management - 7T Automation



**Sebastien Ory**  
Business Unit Manager



**Christian Brøbeck**  
Development Manager

# Management - 7T Utilities



**Jens K. Løppenthien**  
Business Unit  
Manager



**Lars Troidahl**  
Product & Marketing  
Manager



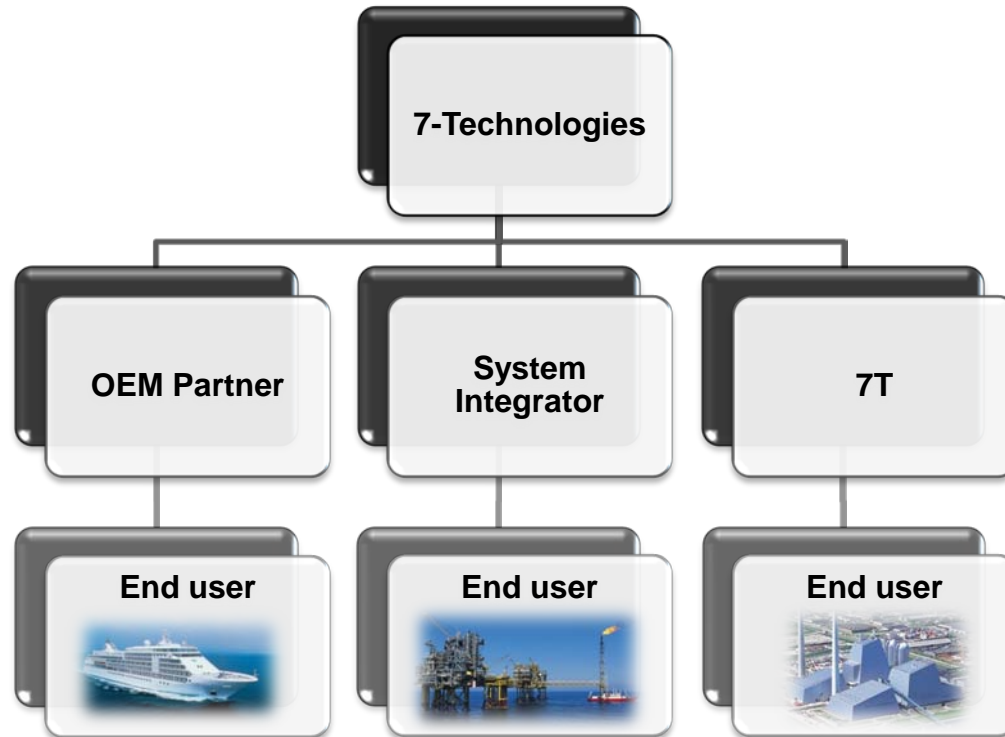
**Preben Ougaard**  
Development  
Manager



**Janus H. Christiansen**  
Projects & Support  
Manager



# 7-Technologies - a global web of partners





IGSS has been successfully  
installed in more than  
27,000 plants!

IGSS is used  
in all industries  
...worldwide!



Bio-Tech ■ Breweries ■ Food ■ Energy ■ Marine  
Oil and Gas ■ Power ■ Sewage ■ Water ■ Traffic

# IGSS in Utilities

- 70% of the market share on wastewater treatment plants in Denmark (DK)
- 50% of water supply plants (DK)
- 30% of district heating plants (DK)



# IGSS - Customer Case

## Kuala Lumpur International Airport (KLIA)



KLIA Apron Services Management Systems was conceived to provide a unified system for all major users of the passenger gates.

### The Challenge

Integration between several systems

### The Solution

One system for all users

### The Result

Unified information and smooth reporting



# Customer Case

## Kuala Lumpur International Airport (KLIA)


KLIA is Malaysia's main international airport and one of **Southeast Asia's major aviation hubs**.

KLIA ASMS monitors the availability, operations, and usage of the apron equipment located at each of the **52 passenger gates** at KLIA.

### Capacity per year

35 million passengers

1.2 million tonnes of cargo

	
<b>Customer</b>	
Malaysian Airports Holdings Berhad (MAHB)	
<b>Country</b>	Malaysia
<b>Industry</b>	Airport Automation
<b>System Integrator</b>	SysWin Controls Sdn Bhd
<b>IGSS Application</b>	
<ul style="list-style-type: none"><li>• IGSS version 7.0</li><li>• 50,000 Objects License</li><li>• Multi User Dualized</li><li>• 2 Servers, 10 operator stations</li><li>• Uses the airport fiber optic infrastructure to connect the server to the PLCs and the Operator Stations</li><li>• 100% Server Redundancy. 200% redundancy on database</li><li>• Over 50 units of Omron CJ1 PLCs</li><li>• IGSS is connected to FIDS and MIS via custom-written VB code residing in IGSS and the SQL Servers</li></ul>	
<b>Data</b>	
<b>Number of passenger gates</b>	52
<b>Capacity per year</b>	
35 million passengers	
1.2 million tonnes of cargo	



# Customer Case

## Statens vegvesen

The largest traffic control center in Norway

### The Challenge

Integration of several OPC servers

### The Solution

IGSS V8 - multiuser

### The Result

Safety on the roads and in the operation



**Statens vegvesen**



# Customer Case

## Statens vegvesen

*„IGSS has been at the control center since 1990, and shown excellent customer support and willingness to meet new requirements and incorporate such changes in the next versions.“*

Mr. Amiri Farzin,  
Senior Manager  
Traffic Management Control Center  
Oslo, Norway



**Statens vegvesen**

<b>Customer</b>
The Norwegian Public Roads Administration – Traffic Management Control Center in Oslo
<b>Country</b>
Norway
<b>Industry</b>
Traffic Management Control and Traffic flow
<b>System Integrator</b>
Siemens AS – Mobility division – Intelligent Traffic Solutions, Norway
<b>Application</b>
IGSS V8 multiuser - 15,000 objects
<b>Data</b>
<b>Number of tunnels</b>
41
<b>Tunnels, distance</b>
52 km ~ 32 miles
<b>Cameras</b>
1014 cameras are monitoring the road system



# Customer Case

## RWE GasNet

Gas Distribution to 80% of the Citizens in the Czech Republic.

### The Challenge

New dispatch center

### The Solution

400,000 objects in one system

### The Result

Overview and flexibility



# Customer Case

## RWE

*„Thanks to the new dispatch centers, we can finish a process of gas distribution unification in the Czech Republic.“*

Mr. Jiri Zdvoracek,  
Director of distribution  
dispatching of the



<b>Customer</b>
RWE GasNet <a href="http://www.rwe-gasnet.cz">www.rwe-gasnet.cz</a>
<b>Country</b>
Czech Republic
<b>Industry</b>
Gas Distribution
<b>System Integrator</b>
UniControls <a href="http://www.unicontrols.cz">www.unicontrols.cz</a>
<b>Application</b>
IGSS - 400,000 objects
<b>Data</b>
<b>Distribution Area</b>
Almost 80% of Czech citizens





**AQUIS -**  
Water Network  
Management

Kuala Lumpur Aarhus

Shantou Belfast

Dubai Stockholm

Busan Hail

Bangkok Warsaw

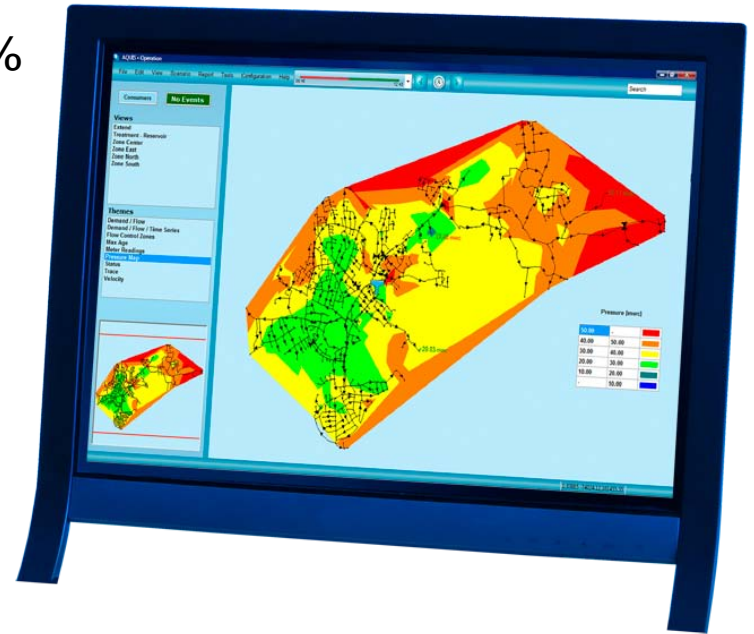
Providing clean water to more  
than 100 million homes

# AQUIS - The water distribution tool

Tangible and measurable ROI

- Reduction of Leakage (NRW) by 10-15%
- Reduction of energy by 20%
- Reduction of CO<sub>2</sub> by 20%
- Improved water quality

Water distribution at your fingertips



# Customer Case

## SYABAS, Kuala Lumpur, Malaysia

### The Challenge

32% of the produced water disappears before reaching the consumers. 1.2 million m<sup>3</sup> of drinking water. Enough to supply a small town for 1 year - is lost every day.

### The Solution

AQUIS Operation

### The Goal

To bring the NRW down below 15% by 2013




# AQUIS - Selected Customers

## SYABAS, Kuala Lumpur, Malaysia

Models are being used to generate an overview of the hydraulics as well as the water quality of the entire distribution system. Having a total of **22,000 km pipelines** and about **1,000 reservoirs** it is only possible to gain the full overview by using AQUIS .

The models will help SYABAS to **plan for future developments and pipe replacement projects** in the rapidly growing urban and rural areas of Kuala Lumpur, Putrajaya and Selangor.



FACTS
<b>Customer</b> Kuala Lumpur, SYABAS
<b>Country</b> Malaysia
<b>System Integrator</b> ALECTIA
<b>Water consumption</b> 3.8 mill. m <sup>3</sup> /day
<b>Km of main pipes</b> 22,000 km
<b>Number of reservoirs</b> 6,000
<b>Number of consumers</b> 6,000,000
<b>Number of employees</b> 3,000



**TERMIS -**  
District Energy  
Management

Copenhagen

Oslo

Tallinn

Belgrade

Albuquerque

Austin

Barcelona

Paris

Ljubljana

Gdansk

Warsaw

Milan

Jiamusi

Gothenburg

**Providing reliable energy to  
more than 120 million homes**

# TERMIS - The District Energy distribution tool

Tangible and measurable ROI

- Reduction of Heat Loss by 10-20%
- Reduction of energy by 2-5%
- Reduction of CO<sub>2</sub> by 2-5%
- Improved safety

District energy distribution at your fingertips



# Customer Case

## Copenhagen Energy/Københavns Energi A/S

The city of Copenhagen has a population of 1.000.000. Copenhagen Energy steam and hot water distribution systems go all the way back to 1925 and has grown over the years into one of the world's largest district energy systems.

### The Challenge

A desire to become more efficient, reduce heat loss from 15-10% (20 million USD) and improve the safety of the steam system

### The Solution

Plan, design, optimize... TERMIS

### The Result

Prepared for the future



# TERMIS - Selected Customers

## Copenhagen Energy/Københavns Energi A/S



*“It would be fair to say that TERMIS has been the source of cost savings amounting to USD 25 million and a key driver that has kept the price of sustainable heating at one of the lowest levels in the global market place.”*

Magnus Foged,  
Head of department, Engineering group  
Copenhagen Energy

<b>Customer</b>
Copenhagen Energy
<b>Country</b>
Denmark
<b>System Integrator</b>
COWI A/S
<b>Application</b>
TERMIS and TERMIS Operation
<b>Data</b>
<b>Number of consumers</b>
500,000
<b>Piping</b>
Steam: 170 km ~ 105 miles Hot Water: 1,150 km ~ 711 miles
<b>Maximum effect</b>
Steam: 500 MW Hot Water: 1,000 MW
<b>Heat source</b>
Purchase of residue heating
<b>Reduced CO<sub>2</sub></b>
“Equivalent to the removal of 105,000 cars off the streets”



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is becoming

**Schneider**  
Electric