

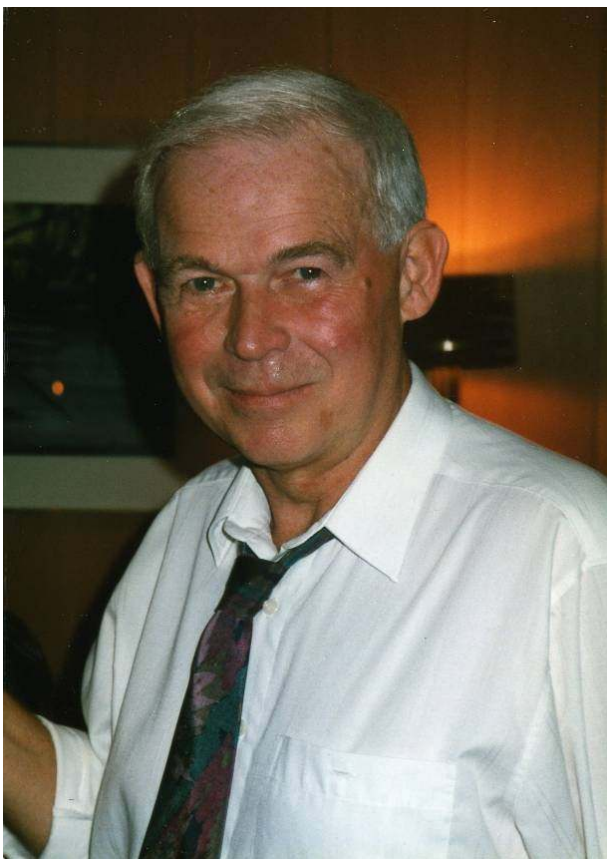
## **AGENDA:**

- *Bakgrunn*
- *Forretningside*
- *Nøkkeltall*
- *Offentlig støtte til FoU*
- *Eksport*

## **NORTROLL AS**

*Eilert Bjerkan, FoU-sjef*

# Nortroll ble etablert i 1977.



Jostein Gjermstad (1934 – 2004)

Nortroll leverer egenutviklet, teknisk utstyr til energiverk over hele verden (over 30 land).

Vi er 21 ansatte, og omsetter for 40 MNOK

Vi selger til sluttbrukere gjennom uavhengige distributører.

Vår eksportandel er 80%

# NORTROLL



# Nortroll's business idea



Ever since the start-up, Nortroll has been focusing on a clearly defined business idea :

- „...to reduce electric utilities outage times, by offering solutions for fault location, remote control and automation in the medium voltage distribution network.“



# NORTROLL 30 years

**Saving time, Saving money**

**1977 - 2007**

NORTROLL has gained considerable experience in the field of fault location and remote control in distribution networks since 1977. We offer a full range of equipment that is operating under the most extreme climatic conditions:

A reliable energy supply is a must in all modern societies. The NORTROLL system is a cost effective way to reduce outage times, thus improving the quality of supply.

NorTroll®



## NORTROLL

FIND FAULTS FAST

**Saving time Saving money**

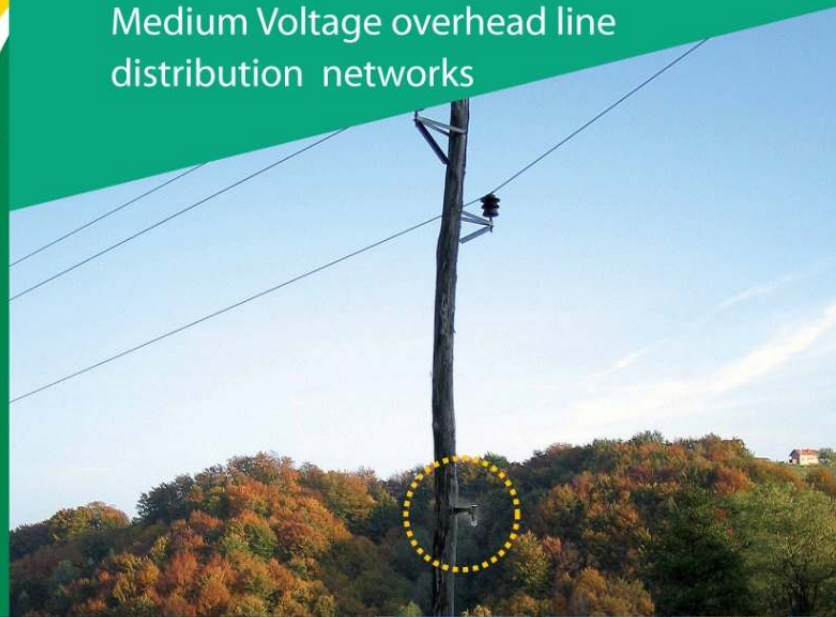
[www.nortroll.no](http://www.nortroll.no)

11kV  
Program  
Fault cur  
indicator



# LineTroll®

Fault Passage Indicator for  
Medium Voltage overhead line  
distribution networks



#### Overhead line fault indicators

Our range of overhead fault passage indicators, called "LineTroll", are used to track down the location of a fault causing a loss of power supply to customers, as fast as possible. The indicators analyse the magnetic and electrical fields present underneath the conductors. When a fault occurs, the affected indicators are activated with a bright flashing light and can also send a fault message remotely - finding faults fast.



LineTroll®



Saving time Saving money

[www.nortroll.no](http://www.nortroll.no)



# CableTroll®

Fault Passage Indicator for  
Medium Voltage underground  
distribution networks



#### Underground Cable fault indicators

Our range of underground fault passage indicators, called "CableTroll", are used to track down the location of a fault causing a loss of power supply to customers, as fast as possible. The indicator sensors are mounted on switchgear cable terminations at strategic locations. When a fault occurs, the affected indicators are activated with a bright flashing light and can also send a fault message remotely - finding faults fast.



CableTroll®



## NORTROLL

FIND FAULTS FAST

Saving time Saving money

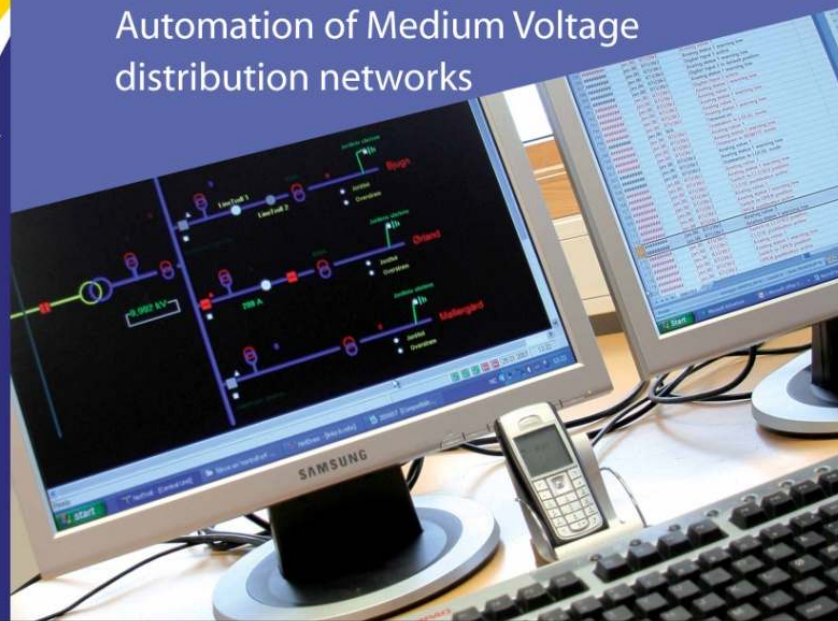
[www.nortroll.no](http://www.nortroll.no)

© Nortroll AS



# ComTroll®

System for Remote Control and Automation of Medium Voltage distribution networks



#### Remote control and monitoring systems

Our range of remote control and monitoring equipment is called "ComTroll". It is a modular system comprising RTU's, substations and base stations to provide remote monitoring and control of both overhead and underground switchgear. Designed to work with old existing switchgear or to be built into new systems, it is easy to install, operate and maintain whilst providing all the functionality of larger, more expensive SCADA systems.



ComTroll®



**NORTROLL**

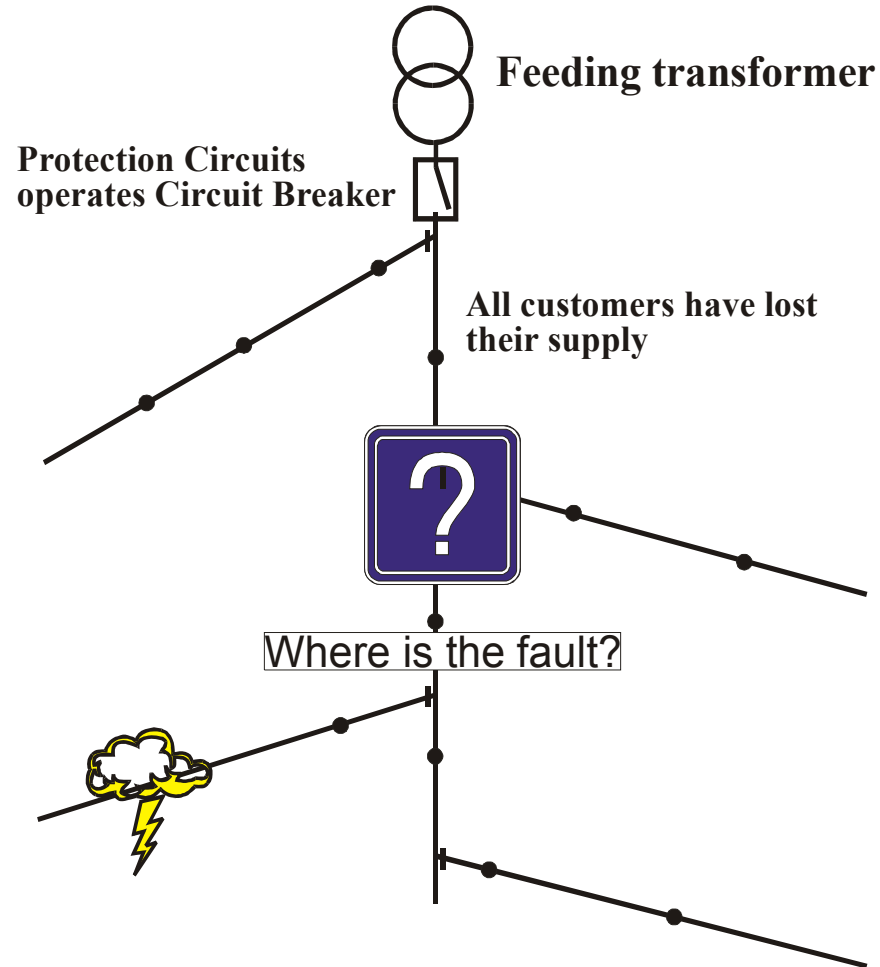
FIND FAULTS FAST

Saving time Saving money

[www.nortroll.no](http://www.nortroll.no)

Vertical: Bekkum AS

# Fault Situation

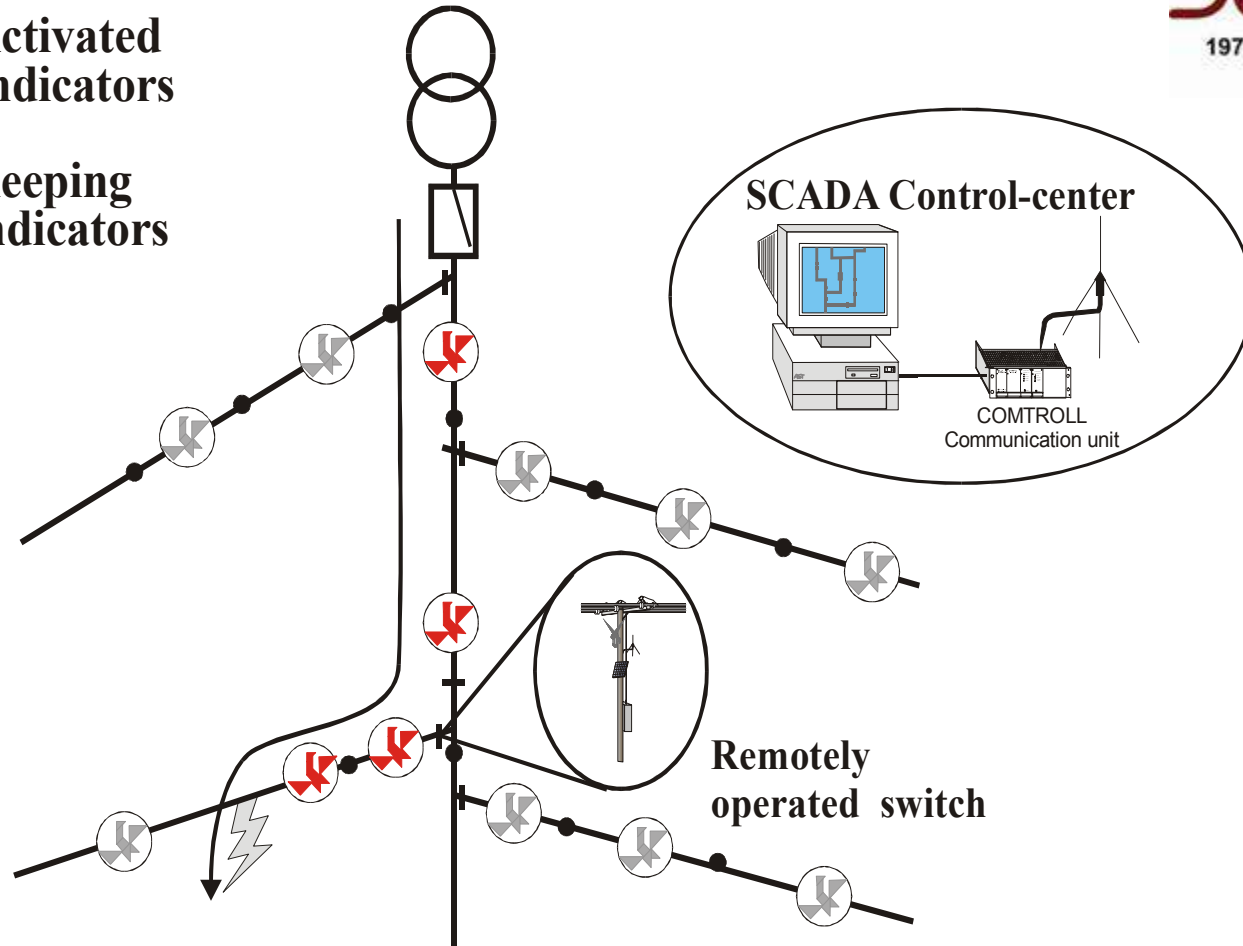


# Fault Situation

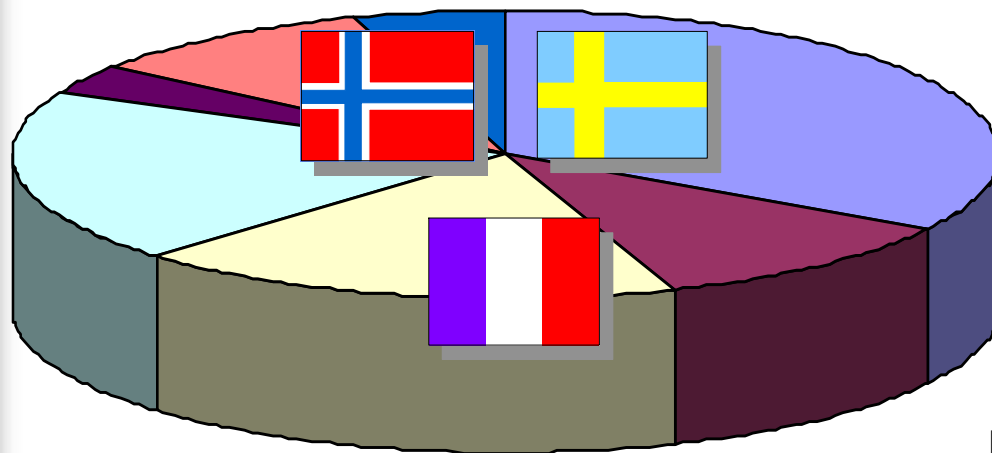


 **Activated Indicators**

 **Sleeping Indicators**



# EIERE



**FERRAZ SHAWMUT = 34%**

**NORTROLL SVENSKA = 10%**

**FURUHOLMENINVEST = 3%**

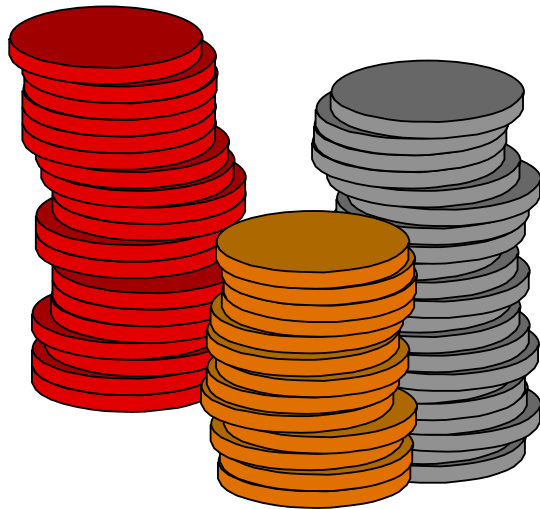
**NORINVENT = 18%**

**HCA MELBYE = 20%**

**E. FASTING = 10%**

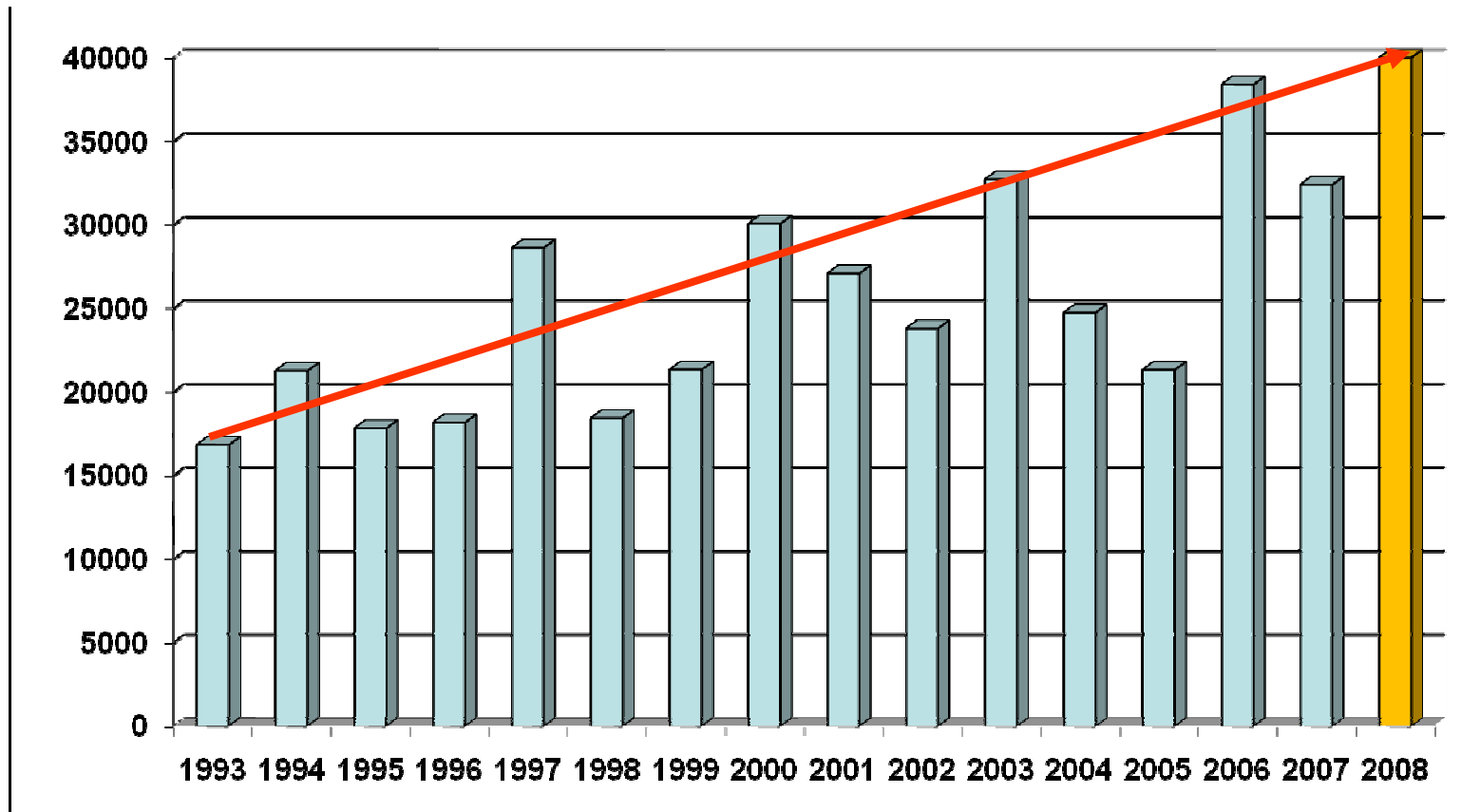
**NORTROLL & EMPLOYEES = 5%**

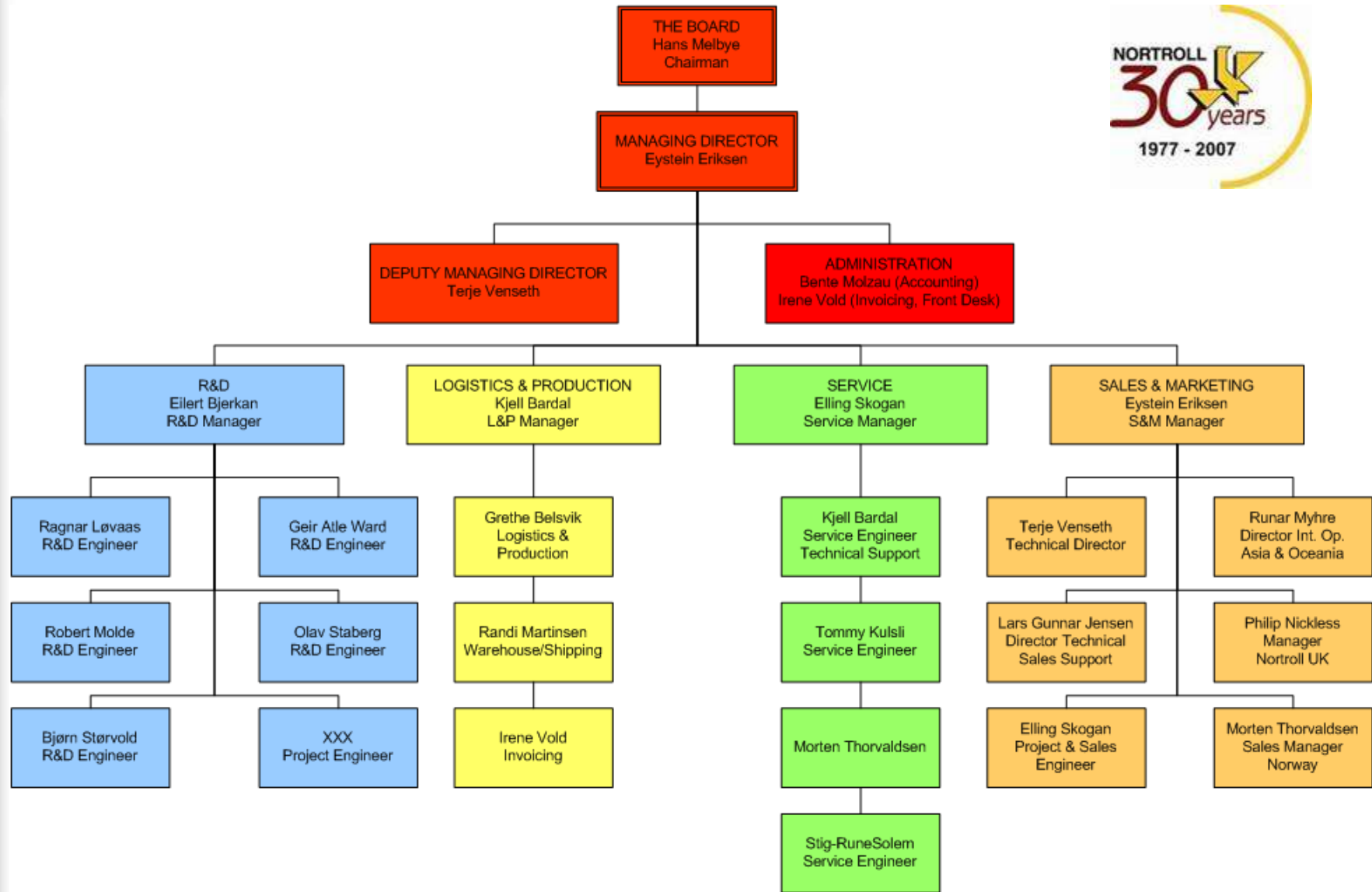
# Finanser 31/12-2006



- **Aksjekapital:**  
NOK 3,0 mill.
- **Egenkapital:**  
NOK 17 mill.

# TURNOVER 1993-2008





# Offentlig støtte til FoU

- **Skattefunn:** Over 3 MNOK på 5 år.
- **OFU/IFU:** Flere prosjekter på slutten av 90-tallet
- **Forskningsrådet:** 9 MNOK, 2006-2009
- Mange mindre prosjekter (Innherred Vekst og lignende partnere)
- Masse erfaring – som vi gjerne deler!

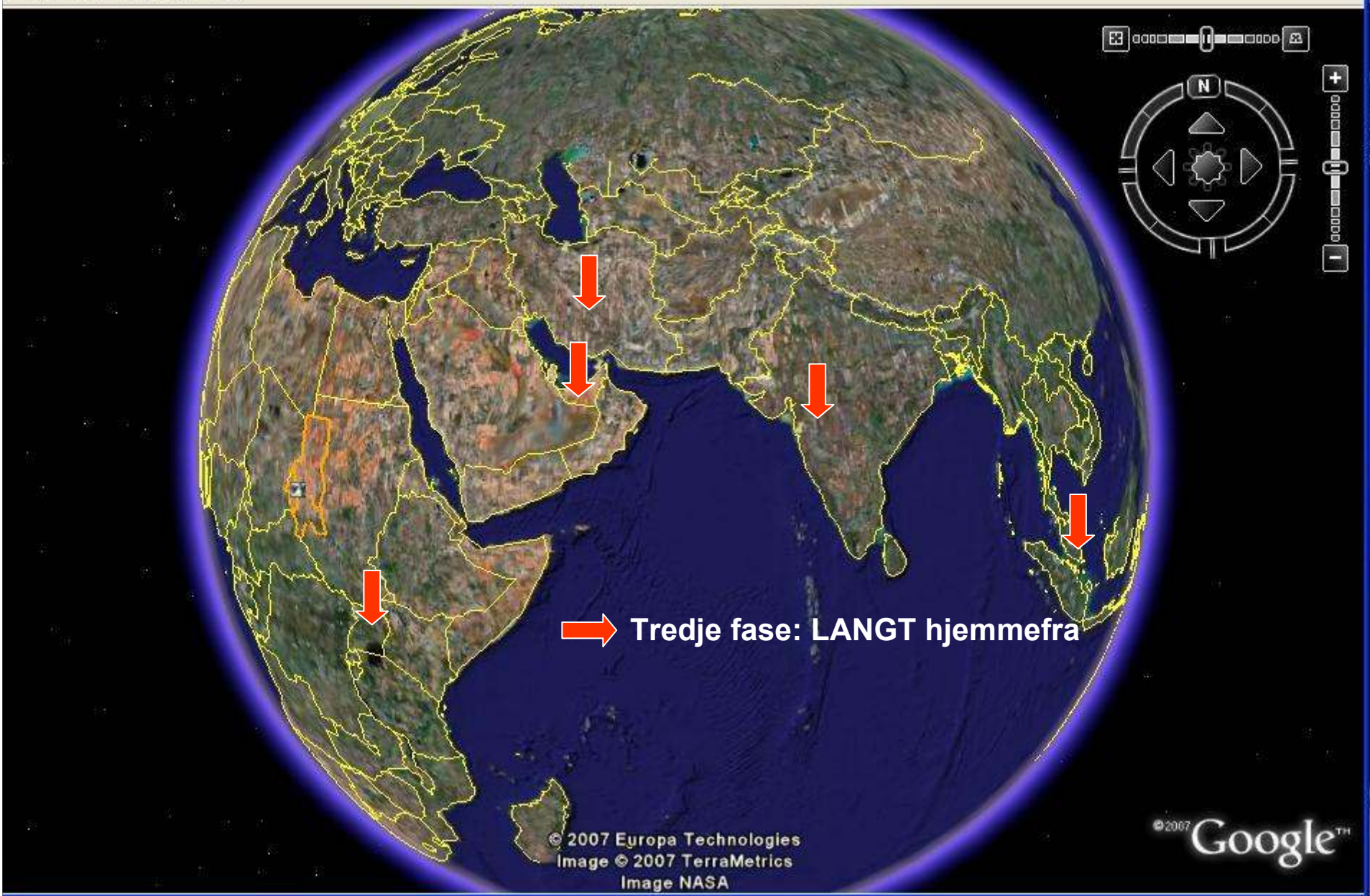
# Eksport – hva er viktig?

- **Distributørnettverk og distributøravtaler**
  - Enkelt å finne alternativer men vanskelig å velge de riktige (bruk tid)
  - Innovasjon Norge, messer, internett, tidsskrifter med mer.
- **Fagkunnskaper**
  - **Produktet:** Ikke overdriv
  - **Handelstekniske:** Betalingsbetingelser, Leveringsbetingelser, Toll, opprinnelsesregler, frihandelsavtaler: Bruk Innovasjon Norge!
- **Kommunikasjon**
  - **Språk:** Forstå og bli forstått. Kort og konsist (ikke Oxford-engelsk)
  - **Kulturforståelse:** Lokalkunnskap. Det holder ikke med VG! BBC, The Economist, Wikipedia, CIA world fact book ++
- **Relasjoner**
  - Periodisk kommunikasjon ispedd en passe mengde gjensidig respekt og vennskap. Møt dem ofte, gjerne på deres hjemmebane. Vær deg selv. Bruk ØRENE! Vær ærlig, også om din bedrifts svake sider. Still spørsmål, gjerne politiske! Humor er tillatt! Det er lov å ikke vite.

➡ Første fase, de GODE naboene

➡ Andre fase, de NYE naboene





**→ Tredje fase: LANGT hjemmefra**

© 2007 Europa Technologies  
Image © 2007 TerraMetrics  
Image NASA

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# Avtaler

## **Ha klare målsetninger og forventninger!**

Markedsstørrelse – ditt potensiale osv.

## **Hvem er ansvarlig for hva?**

Pass deg så du ikke ender opp med å gjøre distributørens jobb!

## **Aktiviteter og omsetningsmål.**

I en oppstart er det lettest å bli enige om det første.

## **Eksklusivitet?**

Vær spesielt forsiktig i midt- østen!

## **Tidsavgrensing.**

# Dagens Piotr

- " We hope that a new year for you!"
- "We wish you good health and new idea in the future."
- "I Hope You are not boring if I have problem"

# Vår venn i Bulgaria:

We shall You meet in Sofia in the aeroport and will make You in the hotel.

So prevalue themselves.

I you come list that us needed for the participation in the tenders and program of our meeting.

# Nortroll på Iransk TV



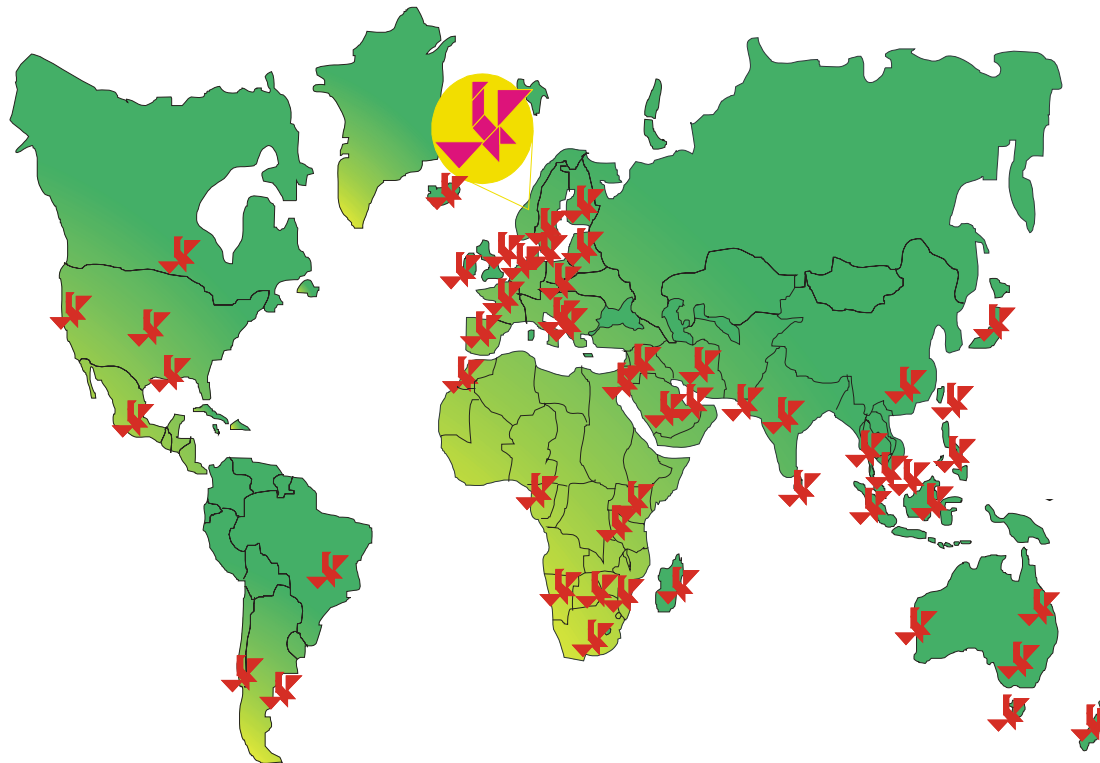
# Noen tips

- I østen skal ingen skal "miste ansikt"
- I Afrika gjelder én regel: **VÆR TÅLMODIG!**
- I Inda **PRUTES** det **LENGE ETTER** at avtalen er inngått!

# NORTROLL WORLD WIDE



We have been able to defend our position in a demanding market for 30 years.



NorTroll®



Takk for oppmerksomheten!

NorTroll®

