

# telenor

Operational excellence

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Operational  
excellence  
is a mindset -  
not a task

# Business oriented CTO function

## Traditional thinking

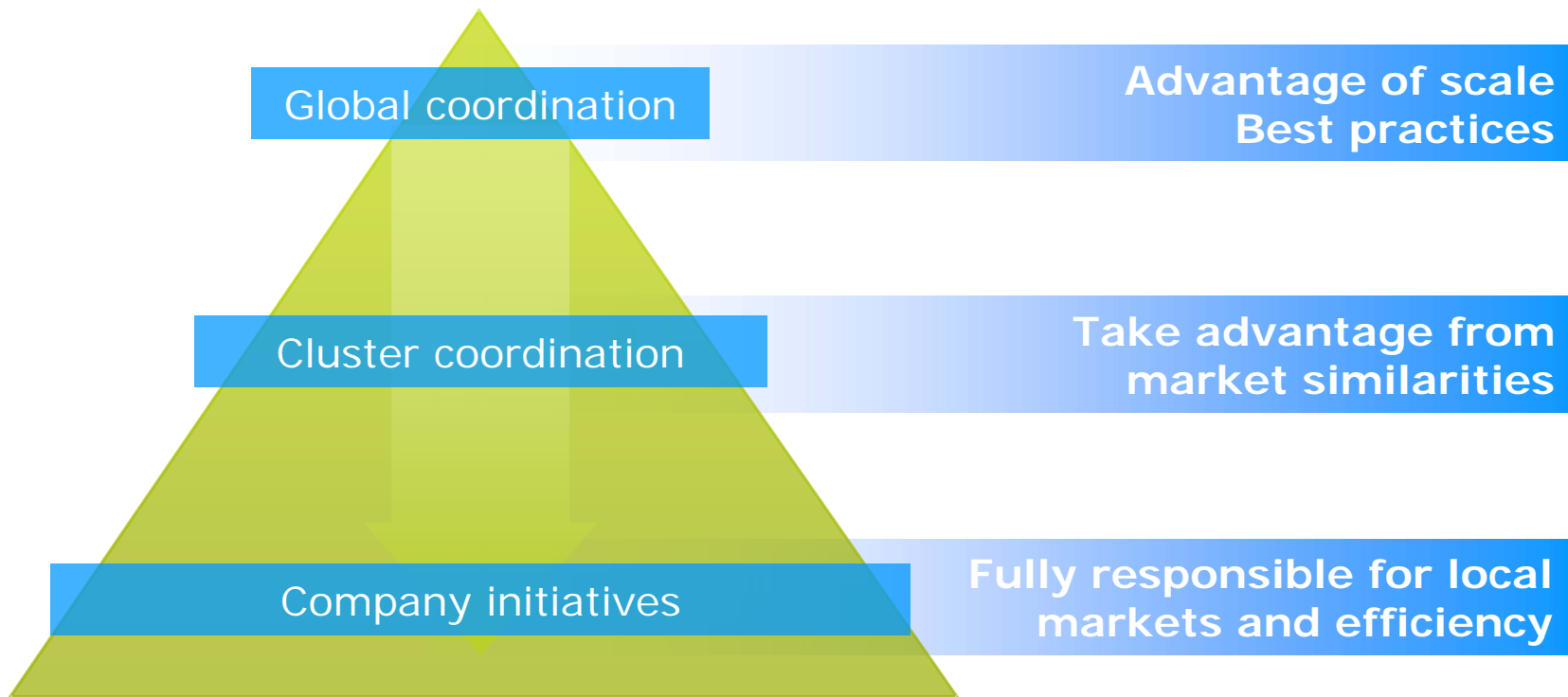
- Roll-out and technology focus
- Securing network capacity

## Telenor CTO role

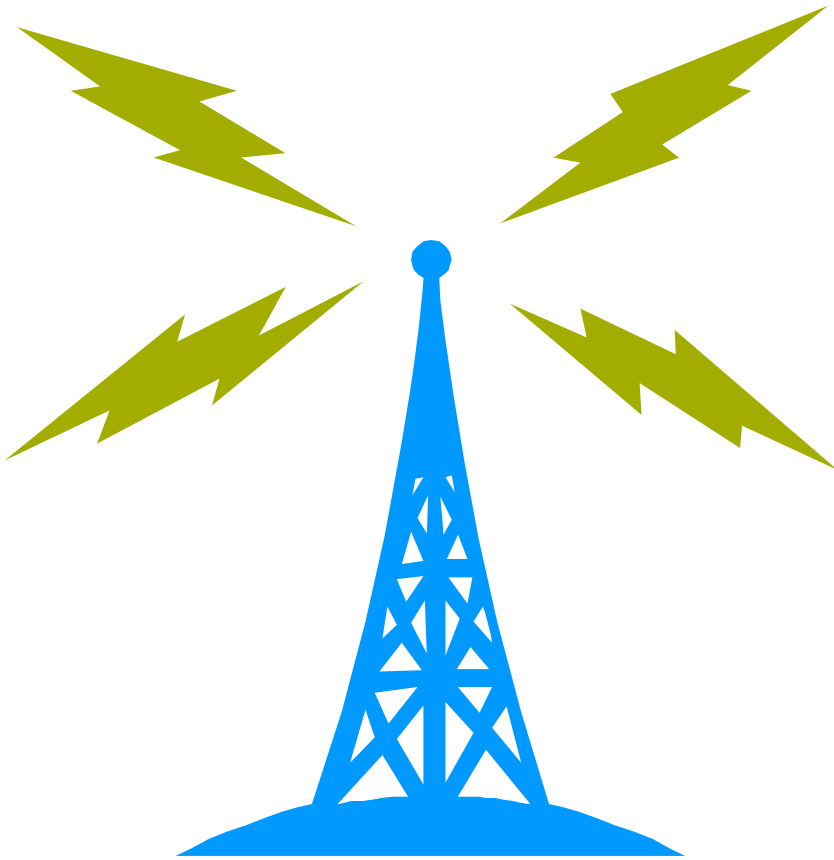
- Business-oriented and holistic approach
- Joint responsibility for product, price and profitability

Responsibility:  
90% of CAPEX and 20% of OPEX

# Striking the right balance between global and local entities



# CAPEX planning

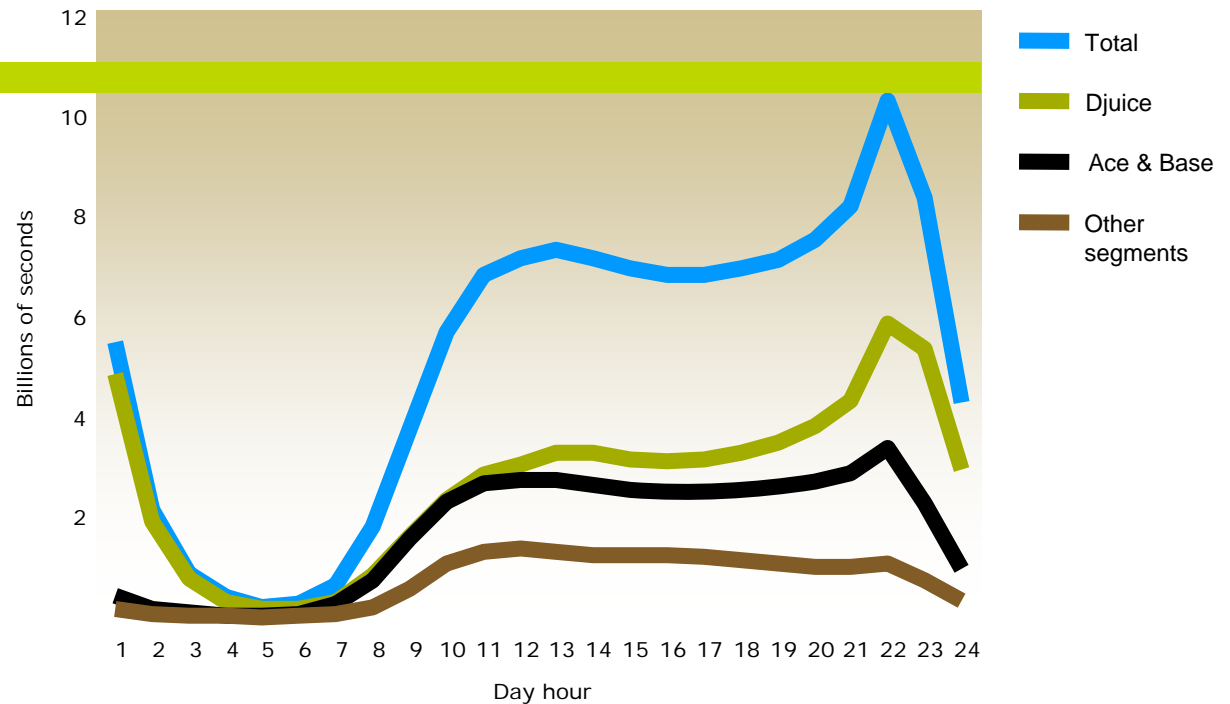


- Why invest?
- What to invest?
- From whom?

# Controlling the peak hour

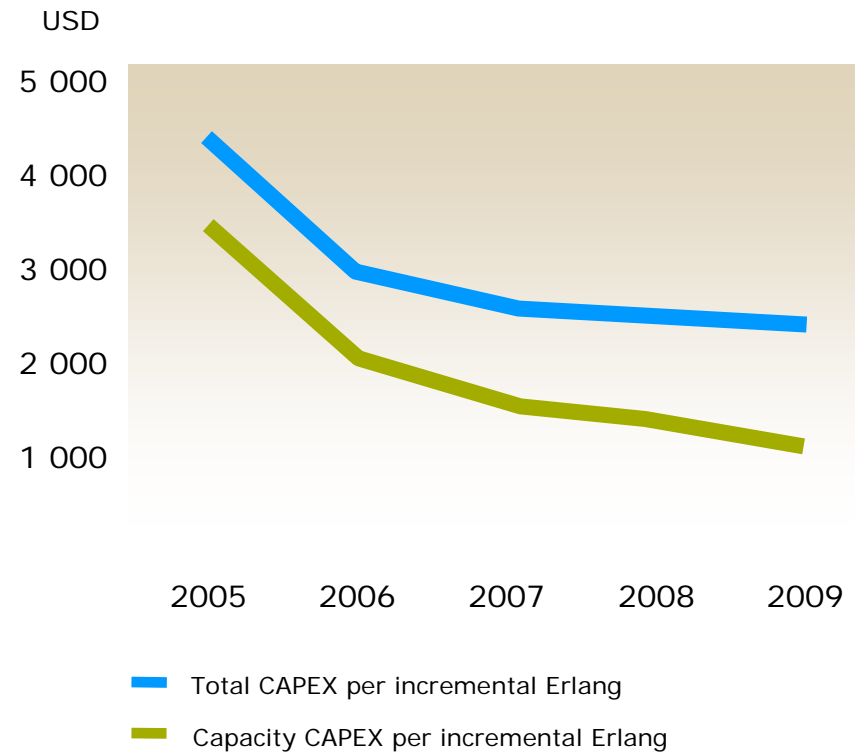
Erlang – traffic unit to supply one hour continuous call (in busy hour)

- Maximize revenues in peak hour
- Utilize spare capacity

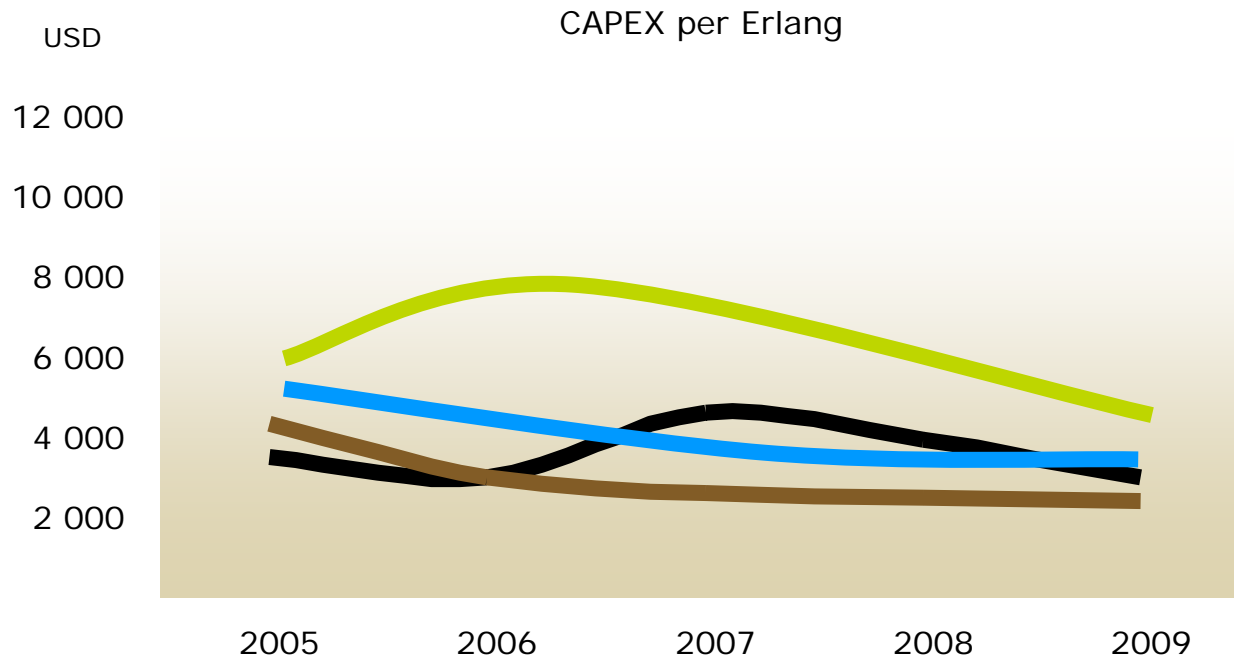


# Example - CAPEX/Erlang in Grameenphone

Pay back time on capacity CAPEX of 6 – 8 months



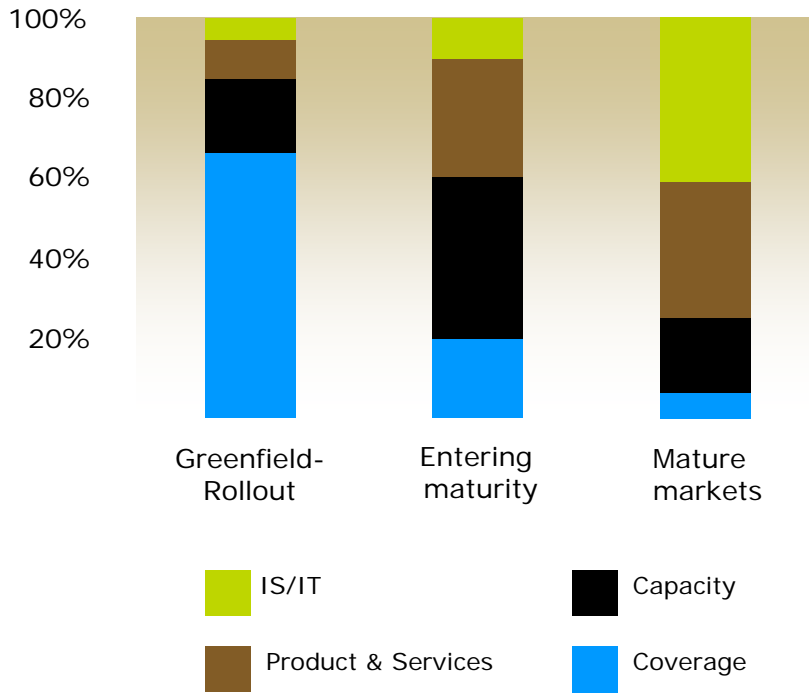
# Benchmarking CAPEX efficiency across the group



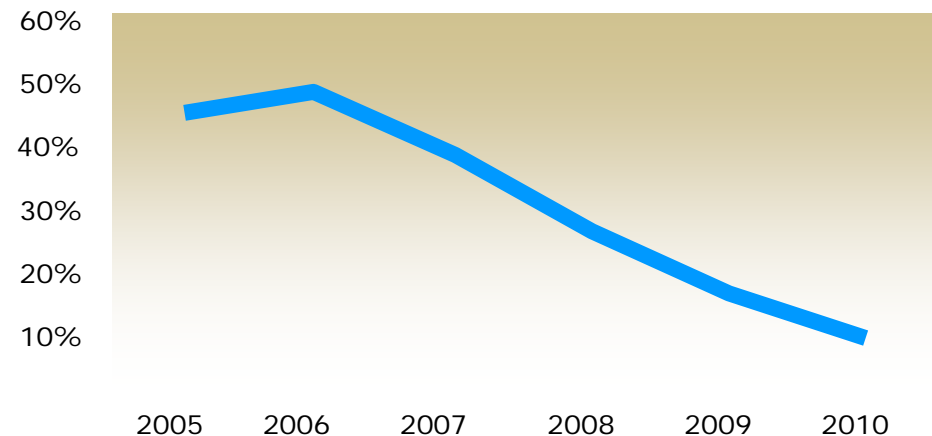


# CAPEX/Sales in saturating markets should come down to 10%

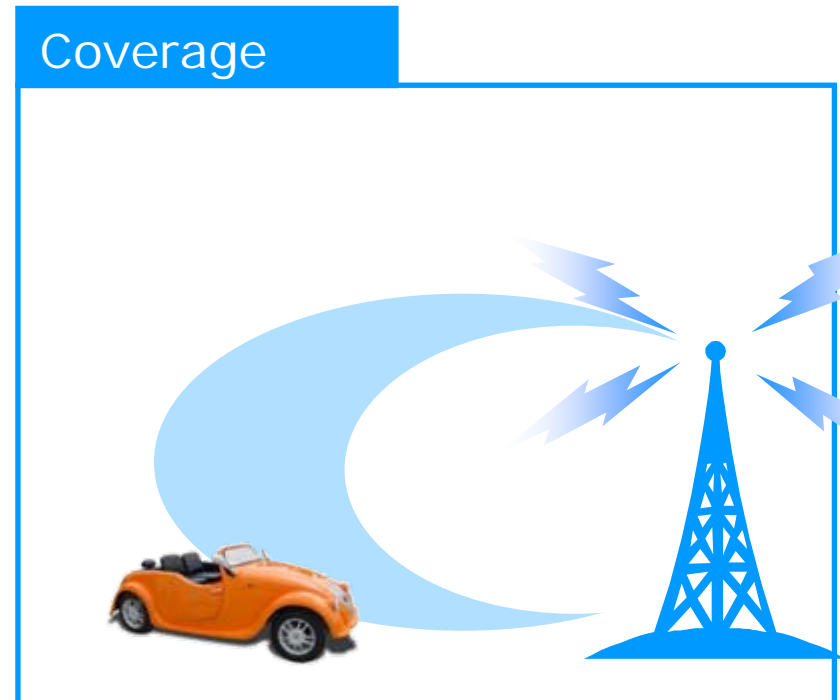
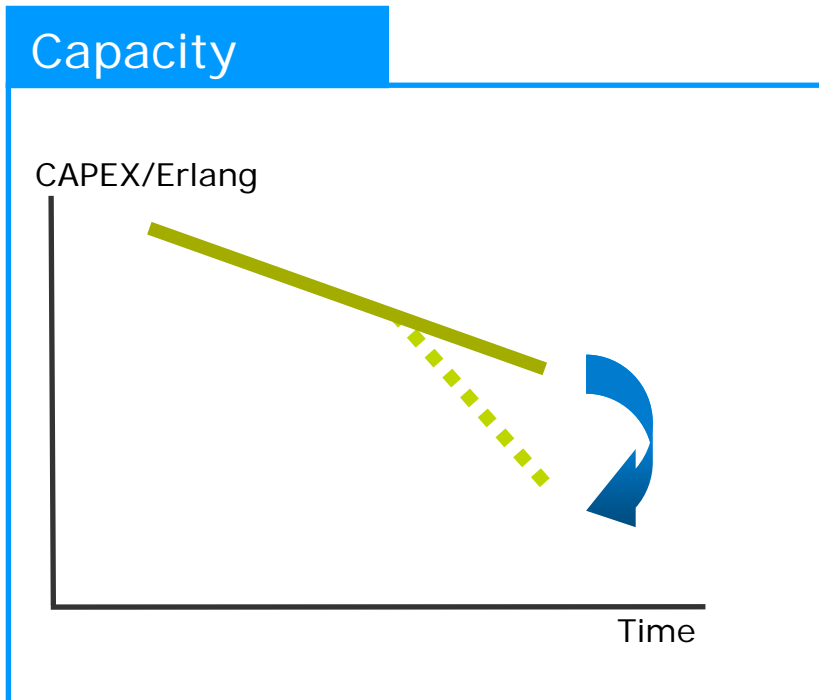
CAPEX development and distribution



CAPEX/Sales



# How do we improve network efficiency?



# Coverage enhancement solutions

Diversity and combined transmitter units give wider coverage

## Example

Covering 350 km highway requires:

- 20 sites with new radio features
- 30 sites with traditional cell range

Traditional cell range

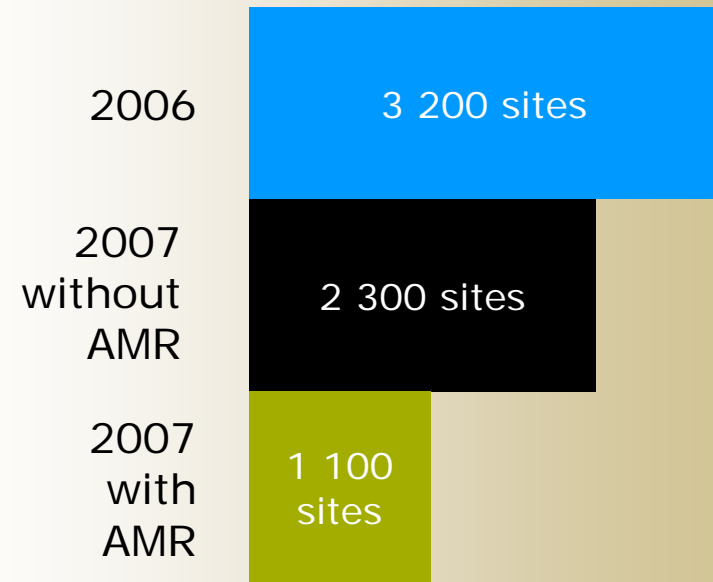
Cell range with new radio features

6.0 km

8.5 km

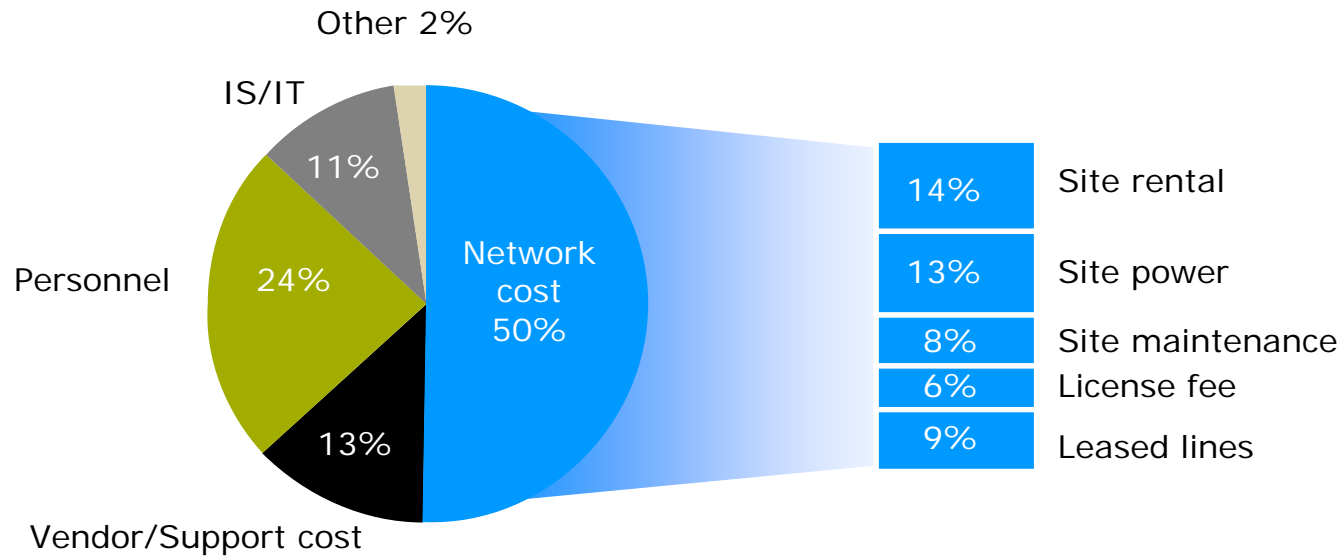
# Capacity enhancement solutions

AMR reduces need for new sites by more than 50%



# Optimization of OPEX

## Technical cost distribution



# Summary

- Business focused CTO role
- Systematic use of group scale and best practice sharing
- Proactively optimizing CAPEX and OPEX

