

Faster – Stronger – Higher Winning gold with efficiency

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The world connected – records waiting to happen

Applications
predominantly
in Internet

Multitude of
business
models



5 billion people
connected

Broadband
everywhere

Faster connections. Stronger competition. Higher traffic.

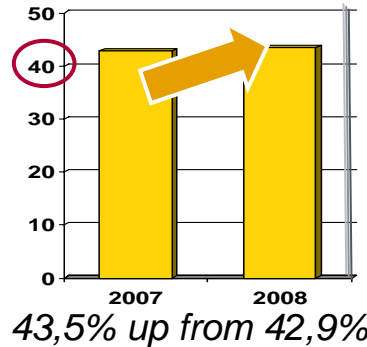
ThoughtShare
Efficiency Forum



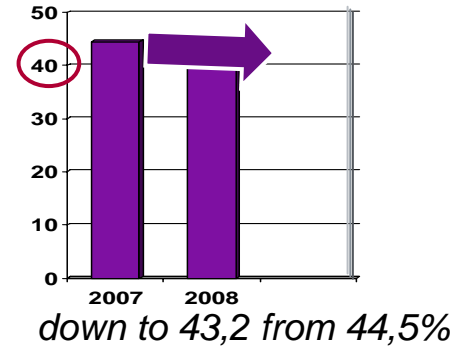
High profitability levels today

Growth markets

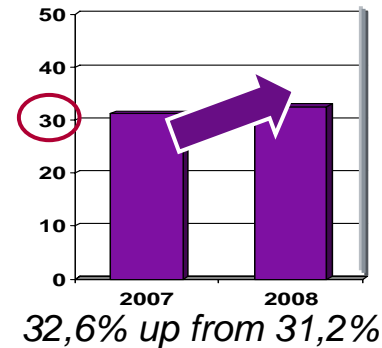
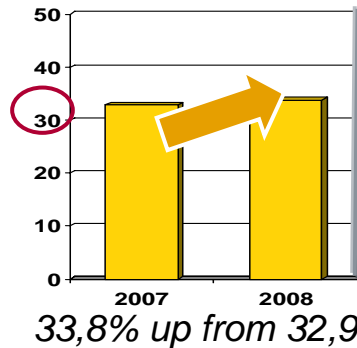
Mobile operators



Fixed operators

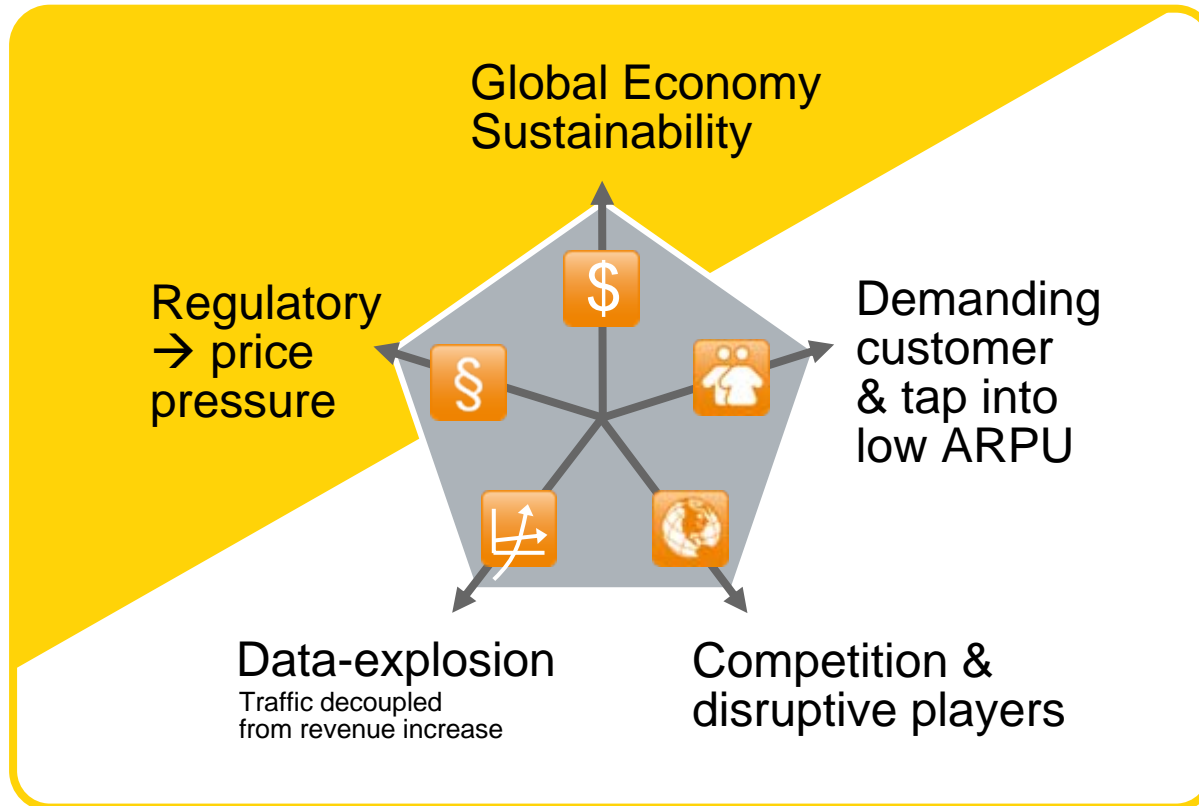


Mature markets



Ø EBITDA Margins 2007 and 2008 9m results, reported data from about 350 operators globally, compiled by Nokia Siemens Networks.

Pressure is rising



and requires higher efficiency as fast as possible



Bolds moves are one option – but certain conditions must be in place

Communication Service Providers are currently pursuing the following strategies:

Realize national economies of scale by merger & acquisitions
with competing operators

Realize international economies of scale
by implementation of cross-border working processes

Realize national economies of scope
by integrating e.g. fixed, broadband and mobile businesses

Improve productivity and cost efficiency through automation, centralization and partnering

Taking advantage of national economies of scale requires investment and a green light from the authorities.

Taking advantage of international economies of scale has upside potential for efficiency but not everyone can act internationally

Economies of scope: have high potential but have not yet been fully exploited

Realizing synergies is a complex process and takes time

The potential for economies of scope have not yet been fully exploited

Our benchmark results show the first positive results from the integration of fixed and mobile specifically in marketing & sales and in support functions. But in most areas the benefits of combining fixed and mobile are not yet realized.

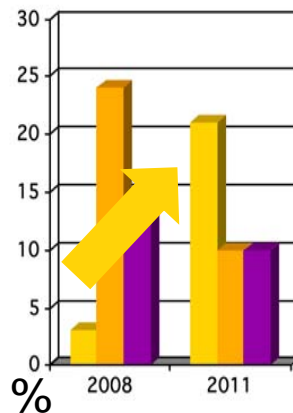
But the leveraging of further synergies is a major focus for converged operators today.

Hybrid operator reference group

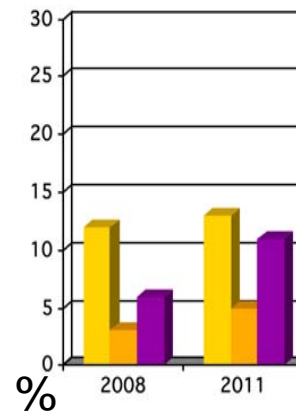


Source: Nokia Siemens Networks' operational efficiency reference benchmark 2008

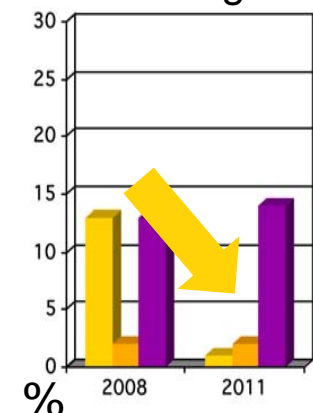
Fixed Line



Mobile



Converged



- OPEX Reduction
- CAPEX Reduction
- Converged Business

Source: Nokia Siemens Networks Operator Survey

Small steps are faster

Bold steps:
need to be
in line with
the global
company
strategy

Realize national economies of scale

through mergers & acquisitions with competing operators

Realize international economies of scale

by implementing cross-border working processes

Realize national economies of scope

by integrating e.g. fixed, broadband and mobile businesses

Small steps:
can always
be applied

Improve productivity and cost efficiency through automation, centralization, partnering, improved market differentiation and reengineering of work processes

High complexity -
Slower return



Low complexity -
Faster return

Our analysis shows:

Automation, centralization and partnering provide the fastest return, are straightforward to implement and are typically not fully utilized



– Automation can help to deliver first quality service while increasing efficiency

Leading German regional provider implementing Nokia Siemens Networks Inventory solution



55%

Shorter set up time for IT support for new telecom service products

40% increase in the level of automation for provisioning and activation

40%

Reduction in throughput time for customer projects

~20 %

14 databases & systems



replaced by 1

The solution

Exploit the support systems to the fullest

- Streamline IT expenditures through cost cutting and outsourcing
- Consolidate back-office systems
- Improve the usability of network and customer data to enable better customer insights
- Exploit network and service inventory

Enable process automation

- Automate individual tasks through batching, scripting, job scheduling
- Utilize Service Optimization and Assurance to orchestrate automated workflow routines in your OSS/BSS
- Benefit from the in-built automation in next generation network solutions

– Centralization can help to enhance customer experience

T-Mobile stick together

4

Reporting systems for regional and national level

40
Million

Counters collected and processed per 15 minute interval

Multi-technology support in one solution covering 2G, 3G, and others from vendors

50 +

The solution

Nationwide, multi-vendor & multi-technology reporting solution

Multi-vendor adapters & reports supporting easy access to all relevant performance data

T-Mobile US:

“T-Mobile continues to focus on enhancing the quality of service to our customers, and real-time visibility into the performance of our network is critical. Nokia Siemens Networks’ reporting solution helps us gauge the health of our networks in real-time in order to enhance our customers’ experience.”

John Lohe, Director of Operation, T-Mobile US

– Partnering can save around 30% of capital and operational expenditures

The Indian telecommunications market

~25%

It is estimated that about 25% of the more than 100,000 cellular towers in India are currently being shared

Source: Telecom Regulatory Authority of India (TRAI), “Infrastructure Sharing in Telecom Networks – Indian Perspective”, 2007.

~ 30%

Cost benefits from passive infrastructure sharing agreements are estimated to be up to around 30% of capital and operational expenditures

Source: Capgemini TME Strategy Lab analysis

The solution

Sharing of passive infrastructure: physical sites, towers, buildings, shelters, air-conditioning equipment, diesel, electric generators and battery backup

Carve out of tower business into independent tower companies

– Outsourcing can save around 15% of operational expenditure

Bharti Airtel Ltd. is the Indian telecommunication market leader, serving more than 64 million customers (March 31st, 2008)



~-30% Outsourcing of IT services can reduce IT expenditure by around 30%

Network outsourcing can help operators reduce their OPEX by around 15% ~-15 %

Source: Capgemini TME Strategy Lab estimates

Bharti Airtel is undertaking a massive expansion and integration exercise across its mobile and fixed networks to significantly augment its service delivery capacity. Nokia Siemens Networks with its industry leading product portfolio and strong services capabilities is the strategic partner for Bharti Airtel to deliver on its vision of world class telecom services to its customers.”

Source: Nokia Siemens Networks Press Release

The solution

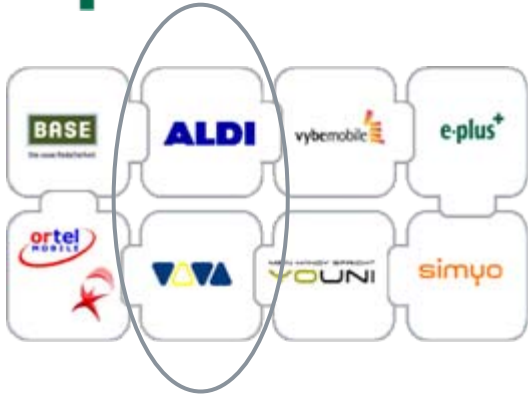
Wide scope of Managed Services in a multivendor environment

Network operations include fault and performance monitoring provided from our GNSC in India

Turnkey deployment of GSM/GPRS/EDGE networks in eight Airtel circles and WAP solution across its networks

– Improved market differentiation can increase EBITDA at 16.3% versus last year

e-plus⁺



- differentiating through 6 brands and 2 partners using one network
- improving profitability steadily in a high competitive market

3Q results:

- Service sales increased significantly versus market growth at 6.4% to 782 Million Euro
- EBITDA increased at 16.3% versus the last year, margin reached for the first time 40%

FOCUS on

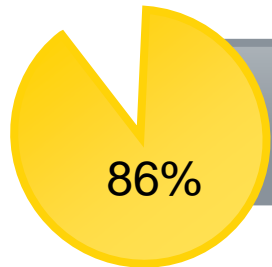
Customer intimacy
Multi-brand strategy
User centric
Communities

& Efficiency
Outsourcing
Wholesale
Broadband

ThoughtShare
Efficiency Forum

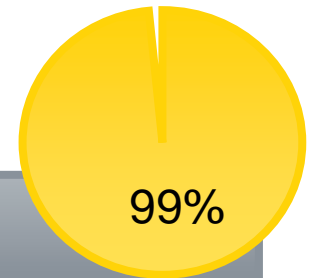
– Re-engineering of processes can reduce number of alarms by 86%

Global operator offering a wide range of communication services in various countries and is the leading telecommunications and ICT service provider in European home country. Their offering includes wire-line and wireless telephony, internet, TV, and ICT services.

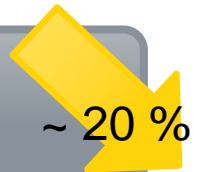


Number of alarms reduced by 86% in average

And even reduced during peak times



Reduced OPEX enabled by process automation and energy saving



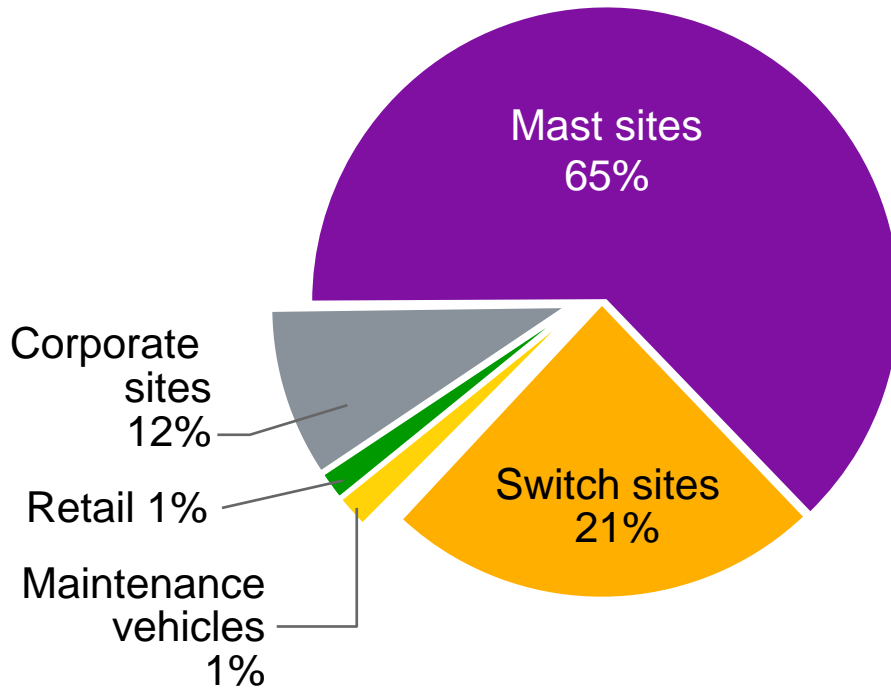
The Solution

Process engineering including process auditing and consulting

Solution for alarm reduction

Solution for automatic shutdown of idle capacity in base stations on defined co-located traffic thresholds

Even higher achievements are possible



~ 86% of a Mobile Operators energy is used by the network

Reduce energy consumption per site

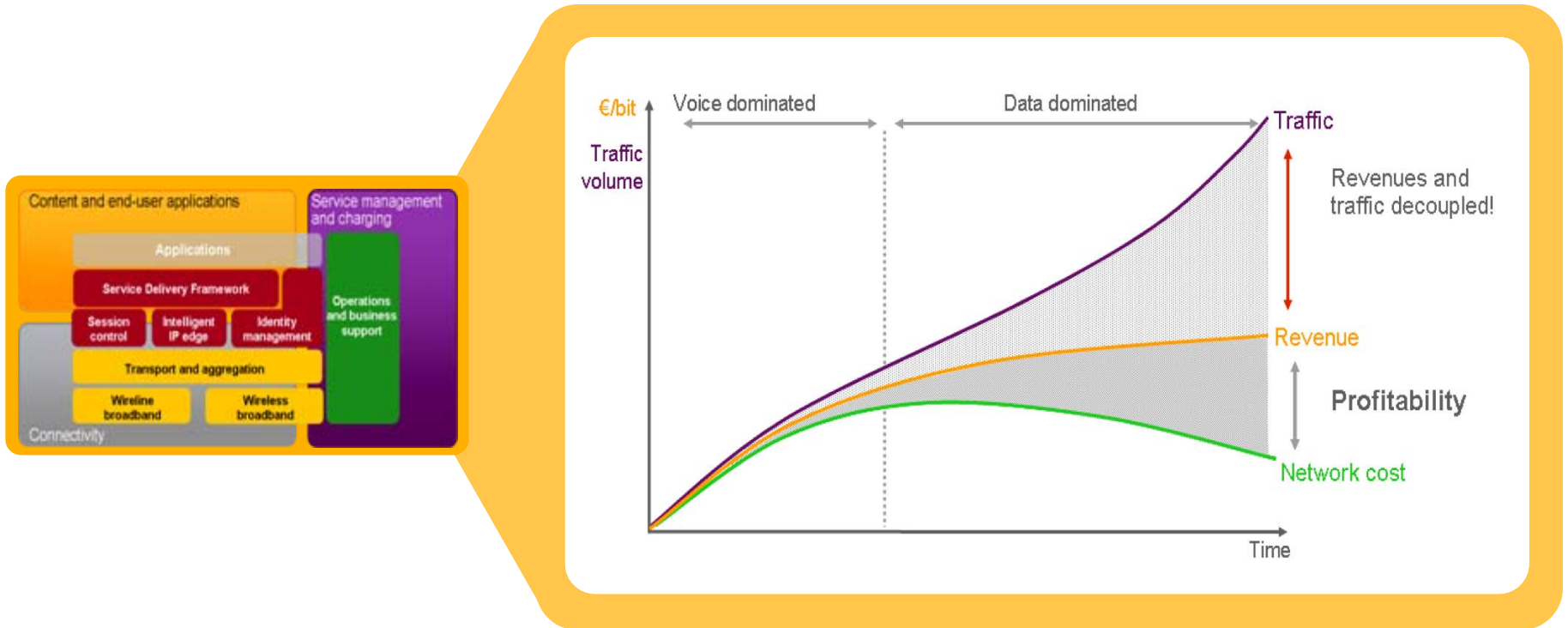
- Use more energy efficient BTS
- Reduce site power consumption
 - Increase site temperature
 - Use outdoor BTS
- Optimize energy consumption versus traffic

Reduce the number of BTS sites

- Increase cell coverage
- Share networks



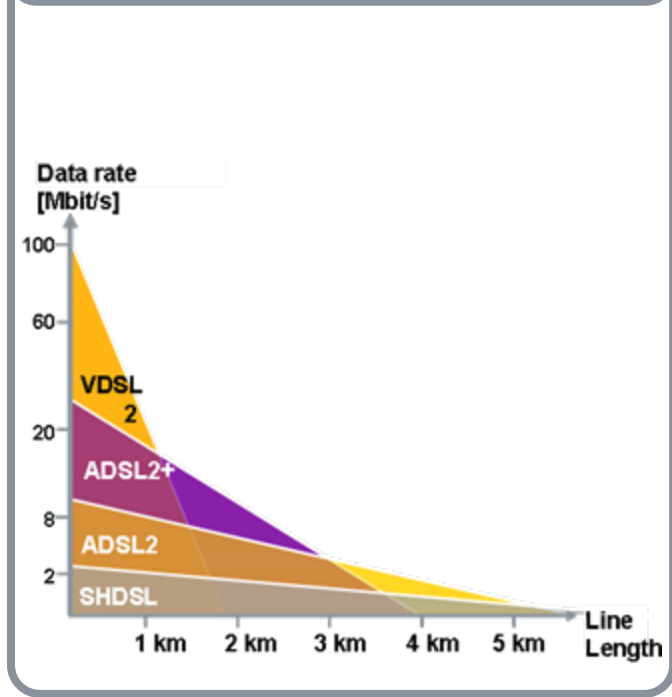
Gap between customer expectations and profitability is growing



and requires higher efficiency and in all areas

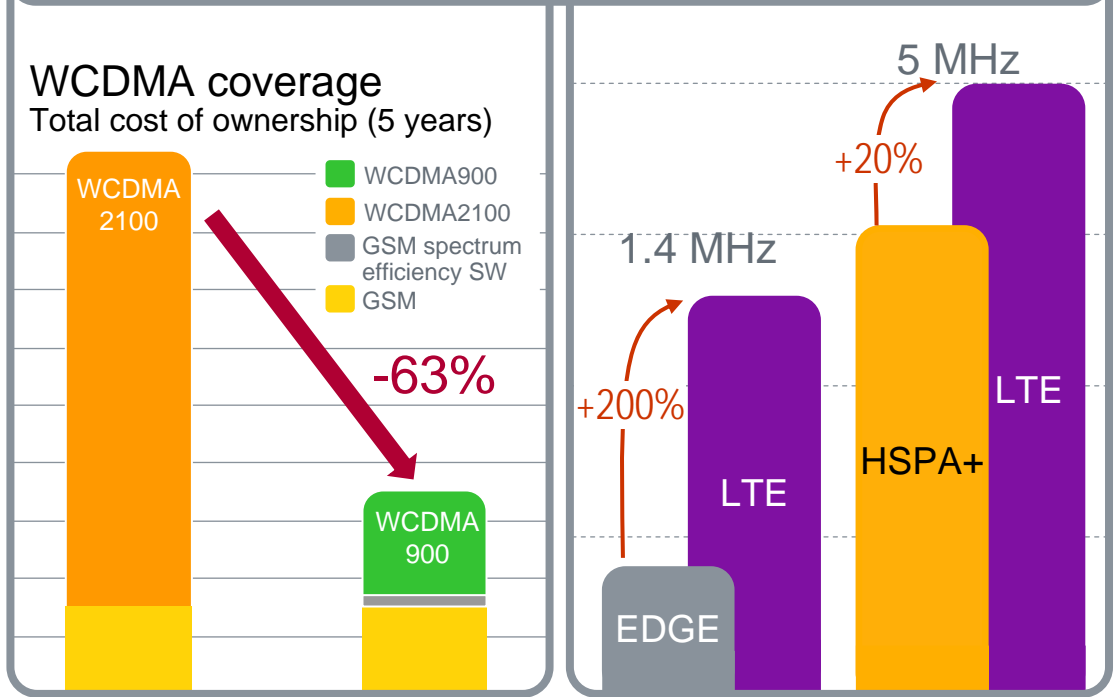
Taking full advantage of network assets

Copper resources



Higher data rates – on copper

“Spectral resources”

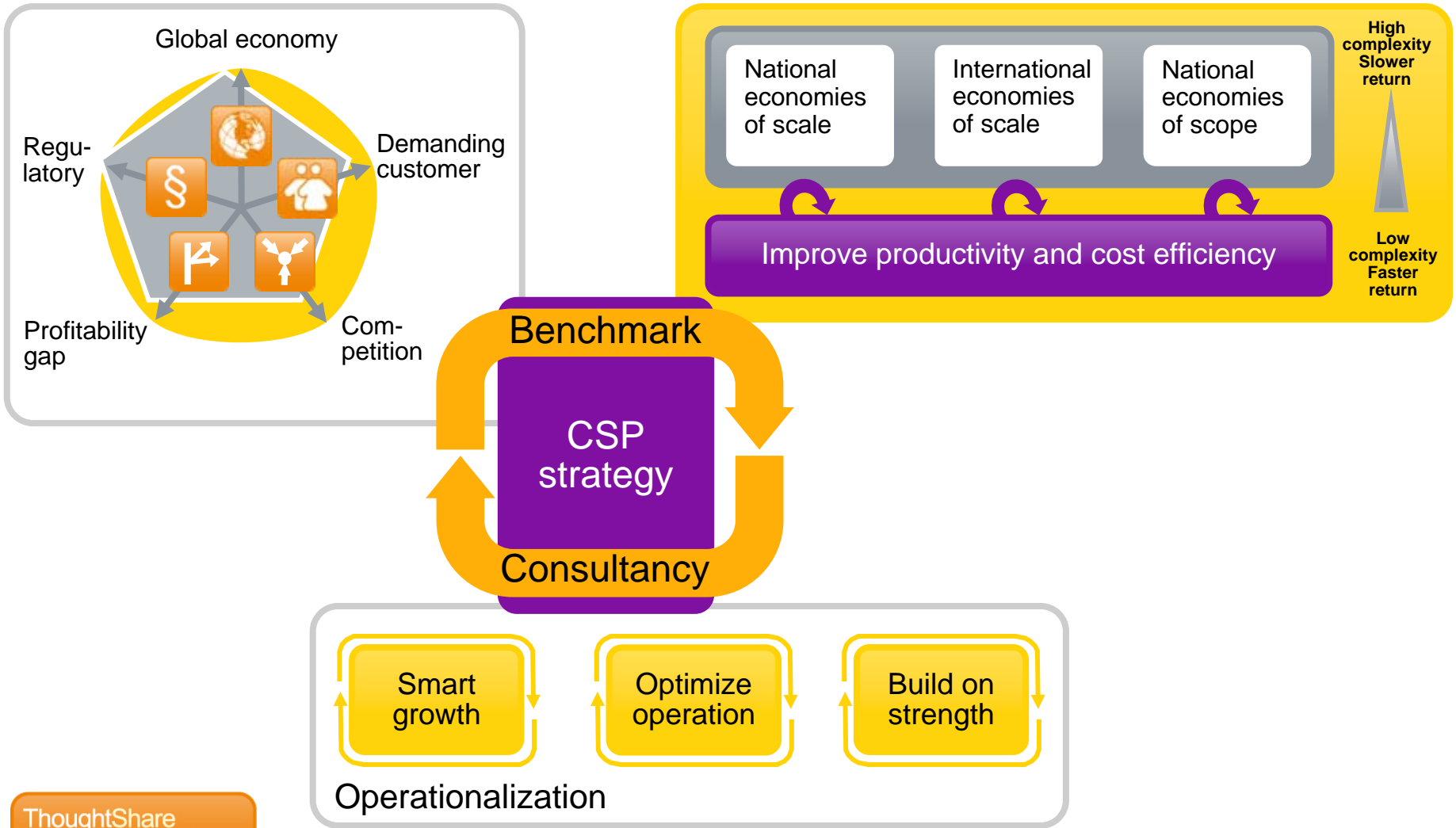


WCDMA 900 MHz triples the cell area in rural areas

Higher spectral efficiency also for smaller bandwidth



Tailoring your strategy for success



Faster – Stronger – Higher

The quest for efficiency medals



- Untapped potential for efficiency improvements
- Clear benefits from higher level of centralization, automation, and market differentiation
- Additional gains from leveraging your strength and smart growth
- Nokia Siemens Networks helps to develop your individual strategy by identifying your current position and your potential in your competitive landscape
- Together we can define and implement your most effective improvement programs
- Let's work together to achieve the innovations required to face upcoming efficiency challenges



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Thank you.