Finnish Mobile Market – Leader or Follower?

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TeliaSonera

November 1, 2005

Content

- TeliaSonera briefly
- History on the Finnish telecom innovation
- Mobile migration in the Finnish market
- Market development dramatic change
- The role of regulation
- Will Finnish market still lead the game in the future ?
- TeliaSonera will be an active developer

TeliaSonera briefly

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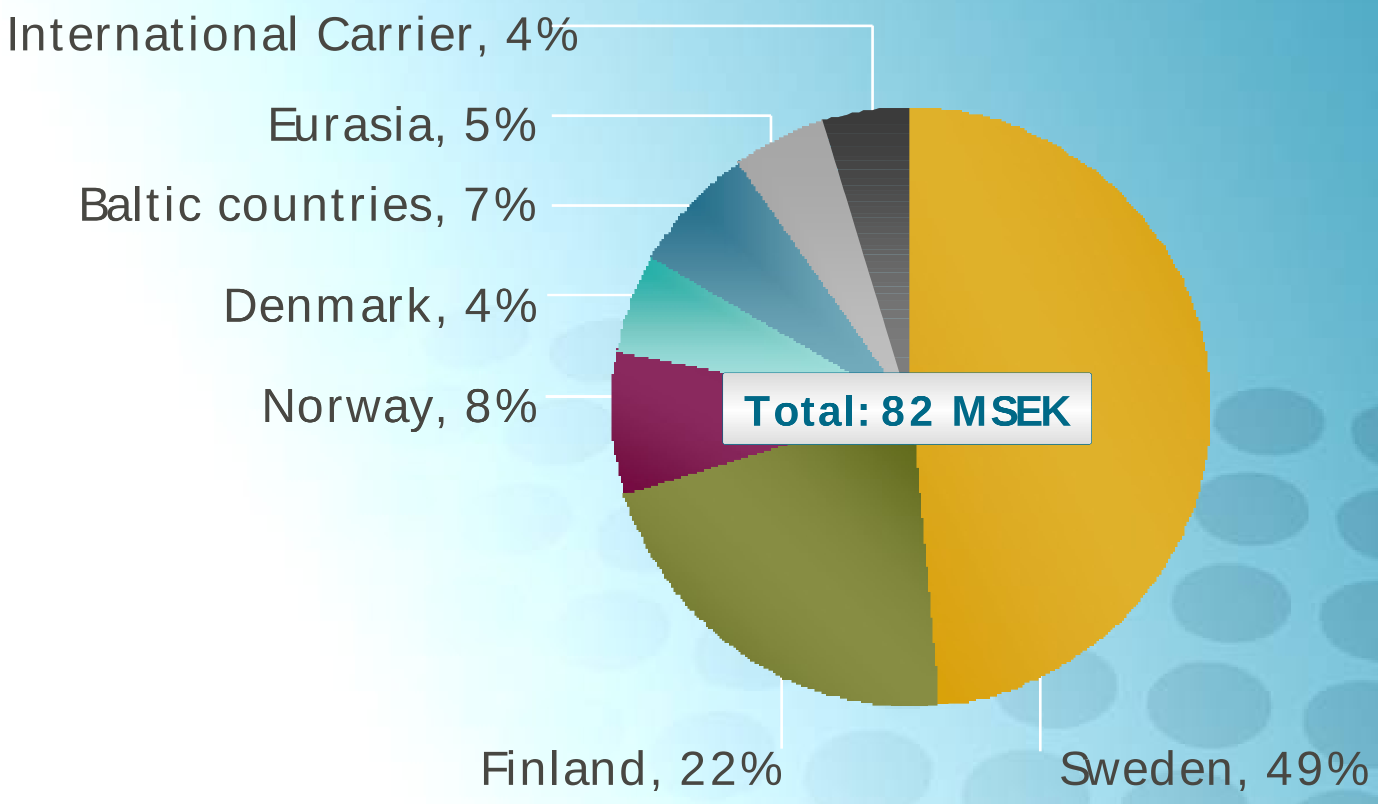
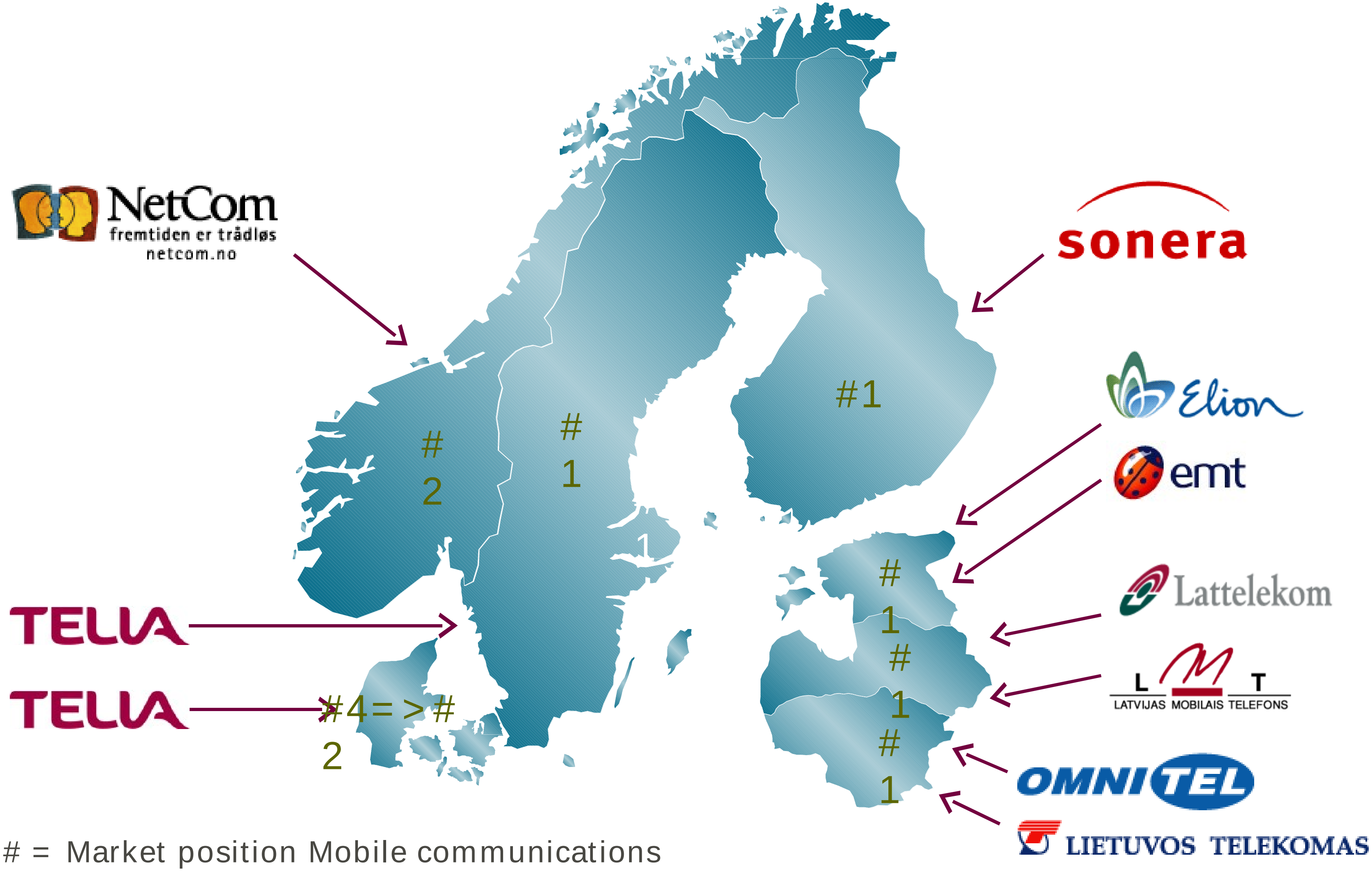
The Nordic and Baltic telecommunications leader

Sales per market

Number of employees: 29,000



Nordic and Baltic countries – Home markets



= Market position Mobile communications

International markets – Mobile communications

Russia

МегаФон

Owner share: 44%

Eurasia

Fintur companies FINTUR HOLDINGS B.V.

GEOCELL

AZERCELL

Kcell

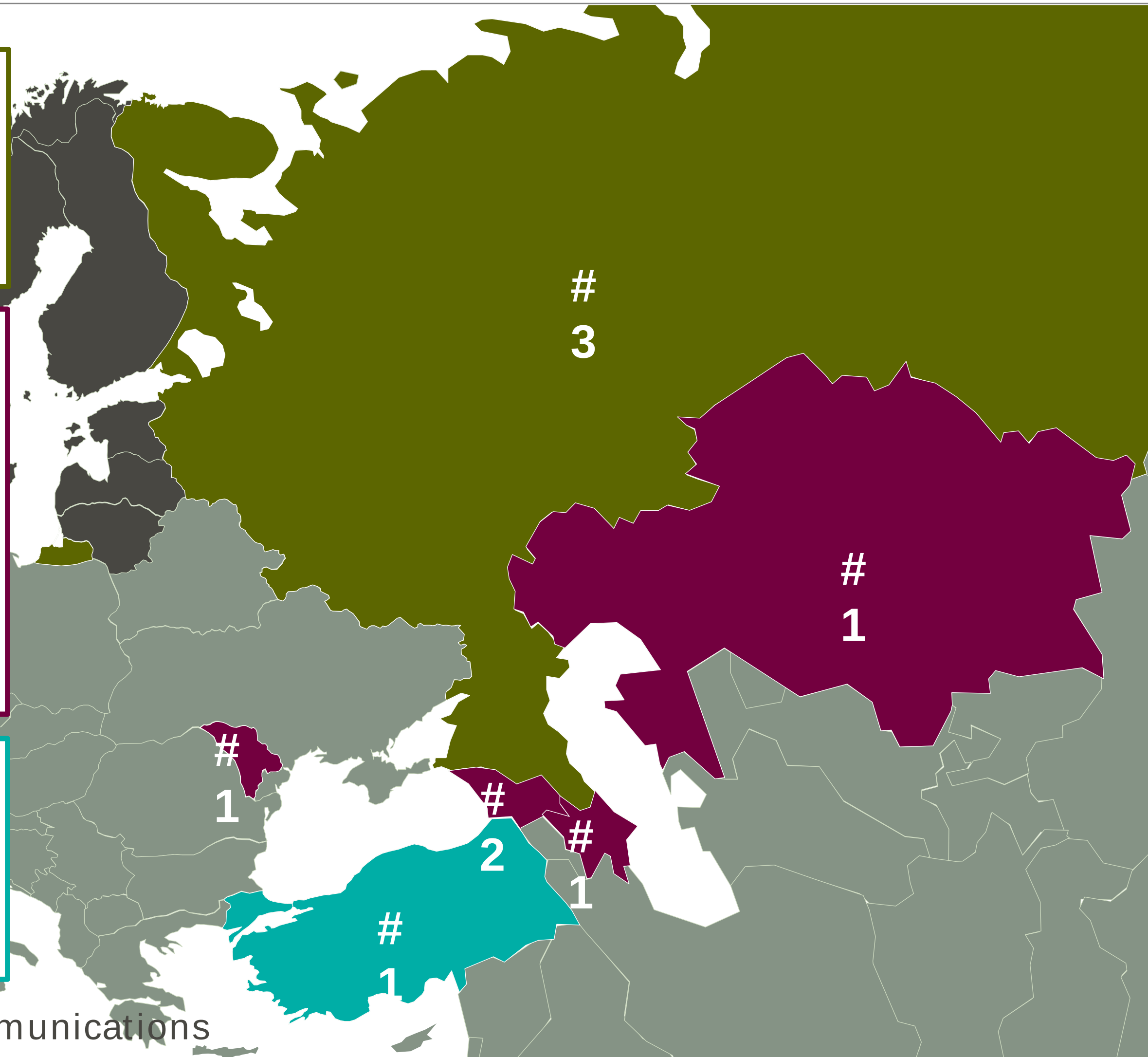
MOLDCELL

Owner share: 74%

Turkey

TURKCELL

Owner share: 37%



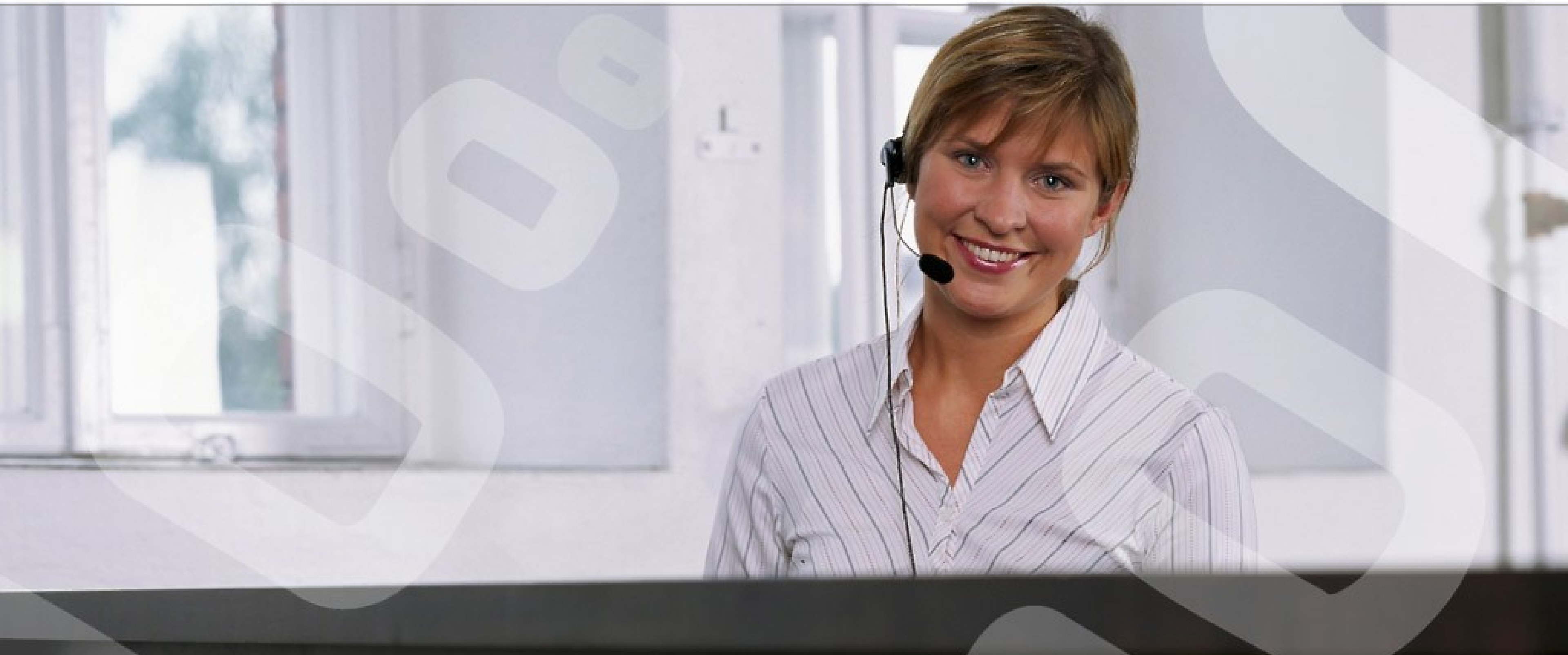
= Market position Mobile communications

TeliaSonera's Vision: Simplicity makes everything possible

Common direction basis for

visionary leadership

- **Business concept**
  - Carrying and packaging
- **Vision 2010**
  - Simplicity and Service – Drivers behind long-term growth
  - Transform TeliaSonera into a genuine service company
- **Wanted position 2005**
  - Benchmark with European service industry
- **Shared values**
  - Show respect
  - Add value
  - Make it happen



TeliaSonera Finland -
history on the Finnish innovation

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TeliaSonera Finland’s roots

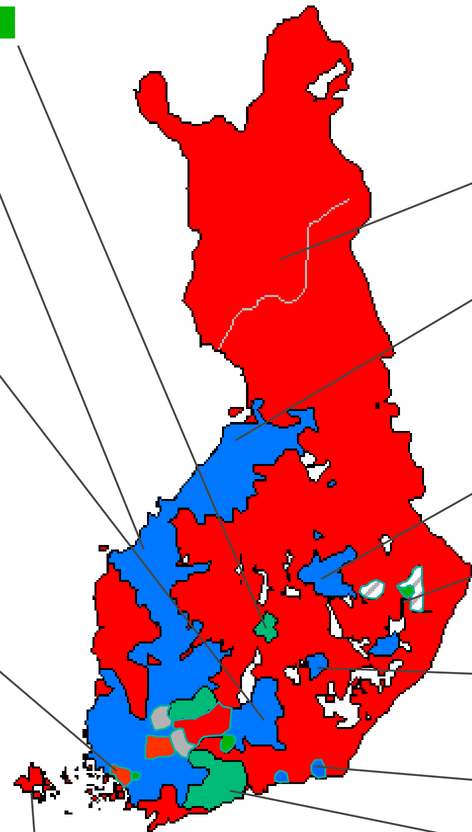
Telegraph line of Finland	Posts and Telecommunications of Finland	Telecom Finland Ltd	Sonera Corporation	Part of the TeliaSonera Group, TeliaSonera Finland Oyj
1855	1981	1994	1998	**2003**

Reasons for the TeliaSonera merger

- Strategic fit
- Larger customer base in the Nordic region and strong market leadership
- Consolidation of Baltic positions
- Strengthened position in growth areas and businesses, such as Russia, Turkey, Eurasia and International Carrier
- Significant synergies
- Strong financial resources and cash flow
- Footprint and customer base to attract the best partners

Technology competition over 100 years in Finland

Sonera's traditional fixed phone are



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Telecom phenomena was born

Milestones in Sonera innovations

1989: • DataNet - LAN Interconnection service - First in Europe

1991: • Sonera Internet service platform
• DataNet Frame Relay service - First in Europe

1993: • ATM pilot service - First in Europe

1994: • DataNet ATM service - First in Europe*

1995: • Sonera Live! (MediaNet) - Internet multimedia service - First in the world*

1996: • SurfManager - Web based interactive network management architecture
• Internet telephony pilot service - First in the world

1998: • DataNet ADSL service
• Sonera IP communicator - First fully IP based telephony network architecture*
First VoIP call

1999: • First IP based Intelligent Network System with WAP and Web integration**

2000: • Public wireless LAN access to the Internet with location information
• First international GPRS/ UMTS roaming and connectivity service: GRX
• Next Generation Internet network and services - First in the world

2002: • Secure mobile access to corporate networks: Mobile Gate service

2004: • The Commercial use of the UMTS network in Finland
• Frost & Sullivan prize for the pioneering in SMS and MMS market

*Data Communications Magazine Hot Product Awards 1995, 1996 and 1999
**The Ovations Award 2000 by tele.com Magazine

Finnish market is still leading mobile migration

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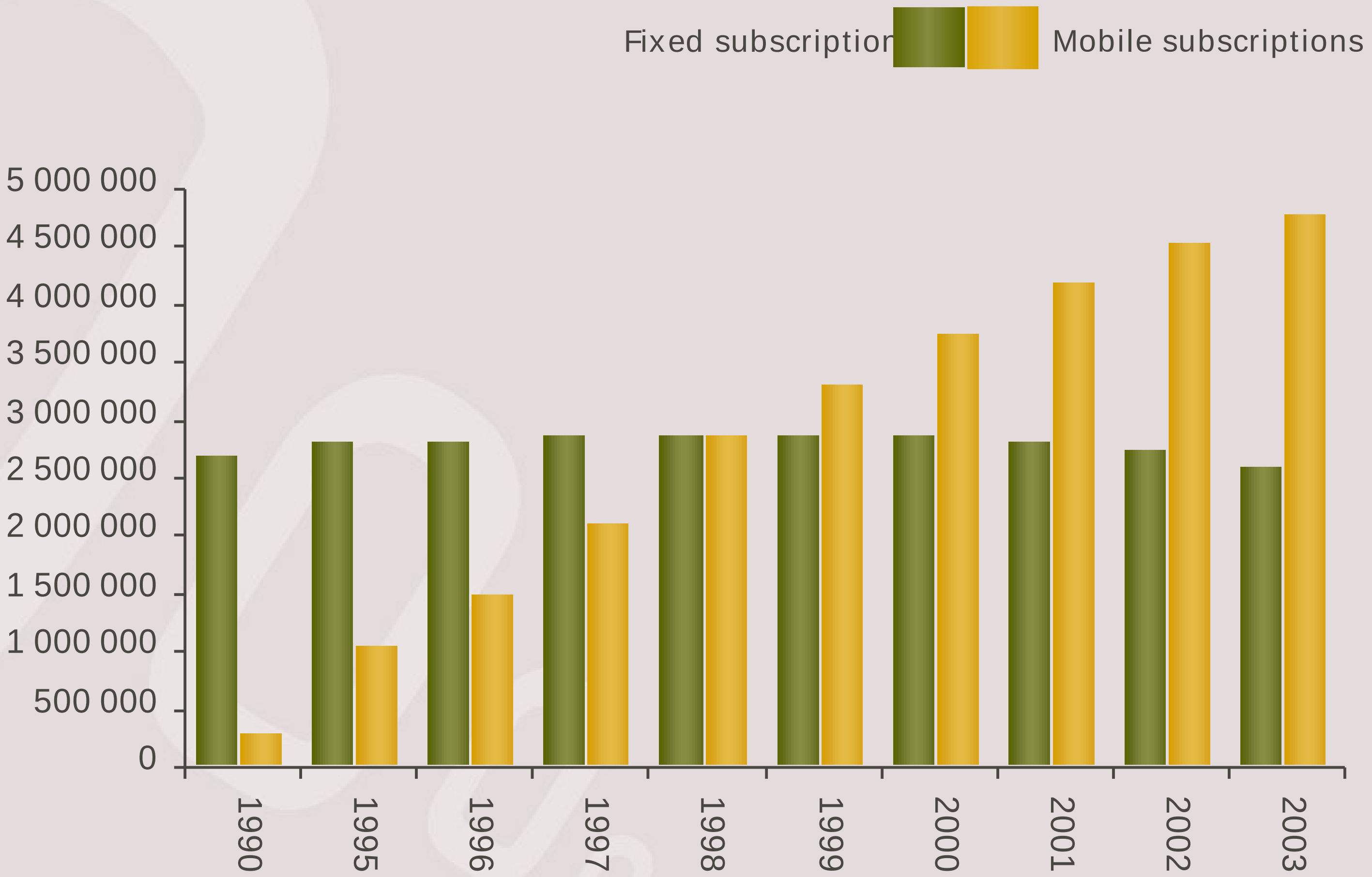
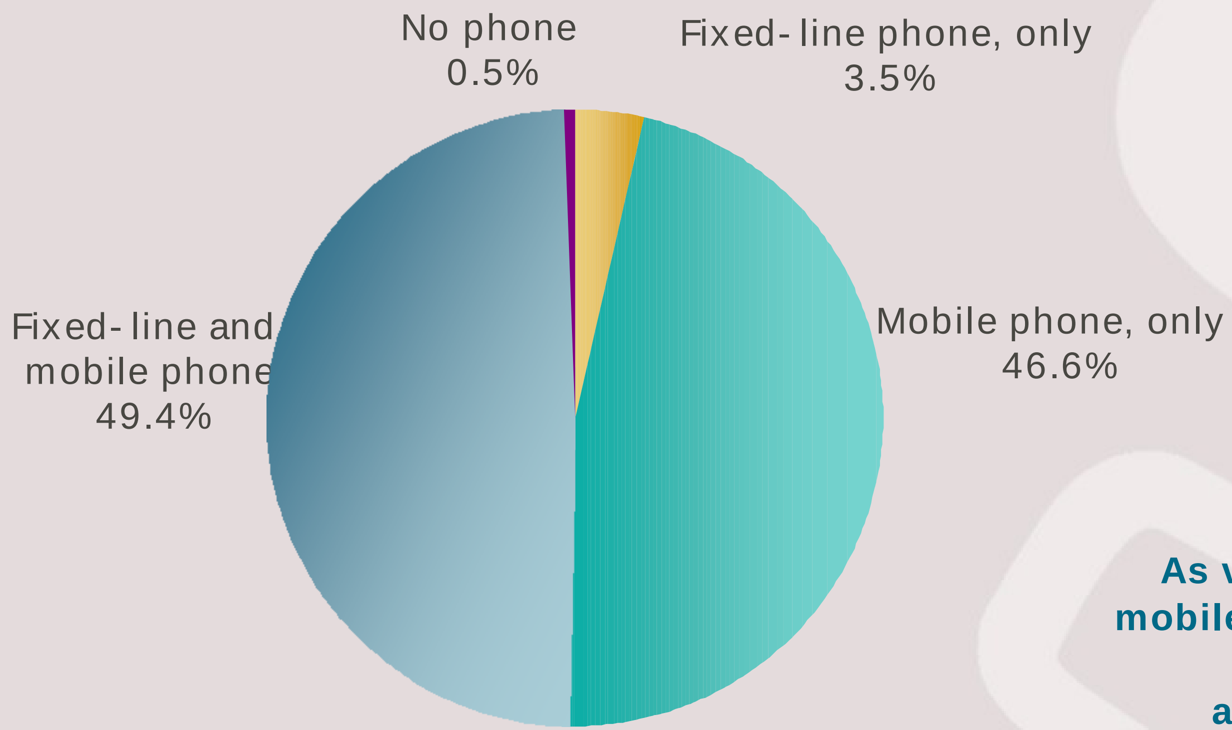
Voice has migrated to mobile phones



Source: Statistics Finland, September 2004, Telecommunications statistics (1990-2001), MTC

Almost half of Finns use the mobile phone, only



As voice is transferring to mobile networks, fixed networks are turning into data networks.

Source: Statistics Finland, consumer barometer 8/2005

15% of European households were mobile-only a year ago – and the number keeps rising

Tabel 3 - Fixed and mobile subscriptions by households - 2003/2004

% of households	Fixed and/or mobile		Fixed +Mobile		Mobile only		Fixed Only		None at all	
	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004
TOTAL EU	**97**	**97**	**65**	**66**	**12**	**15**	**20**	**16**	**3**	**3**
Belgium	93	94	54	55	18	22	22	16	7	6
Danmark	99	100	67	73	8	9	25	18	1	0
Deutschland	98	96	62	61	4	7	32	28	2	4
Ellada	99	99	79	79	8	11	12	9	1	1
Espana	97	97	66	67	13	16	18	14	3	3
France	97	98	50	55	16	17	31	27	3	2
Ireland	98	99	70	74	12	15	16	10	2	2
Italia	97	97	70	68	13	17	14	12	3	3
Luxembourg	100	100	82	85	3	6	15	9	0	0
Nederland	100	100	77	85	7	9	16	5	0	0
Österreich	91	96	52	53	20	26	19	17	9	4
Portugal	90	90	48	45	28	33	14	12	10	10
Finland	98	98	58	56	29	33	11	8	2	2
Sverige	99	99	80	83	4	5	15	10	1	1
United Kingdom	99	99	75	76	6	7	18	16	1	1

This is shown here to show the trend – others are following Finland

Source: TELECOMS SERVICES INDICATORS 2004, prepared by Ipsos for the European Commission, September 2004

Market development changed in 2002

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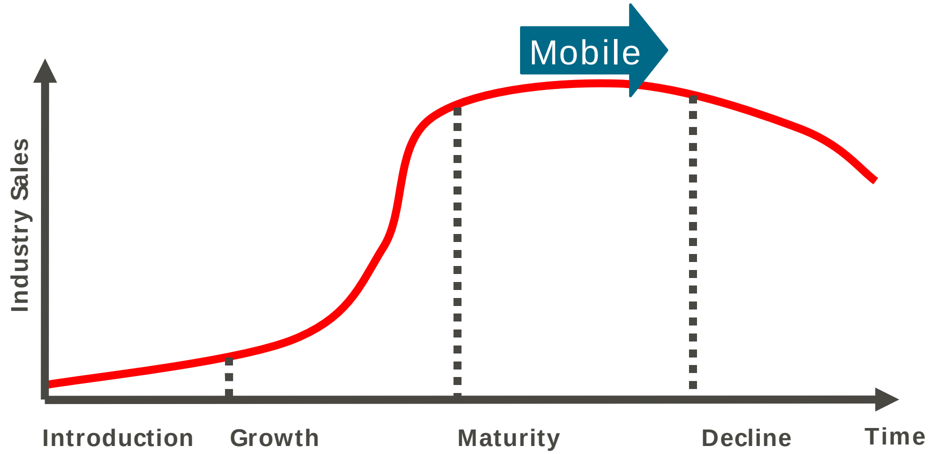
Mobile Industry Has Reached Maturity



- Mass market, customers knowledgeable and price sensitive
- Well-diffused technical knowhow: quest for technological improvements
- Trend to commoditization
- Attempts to differentiate by branding, quality and bundling
- **Emergence of overcapacity**, deskilling of production
- **Shakeout, price competition increases**
- **CSF:** Cost efficiency through capital intensity, **scale efficiency**, low input costs, high quality

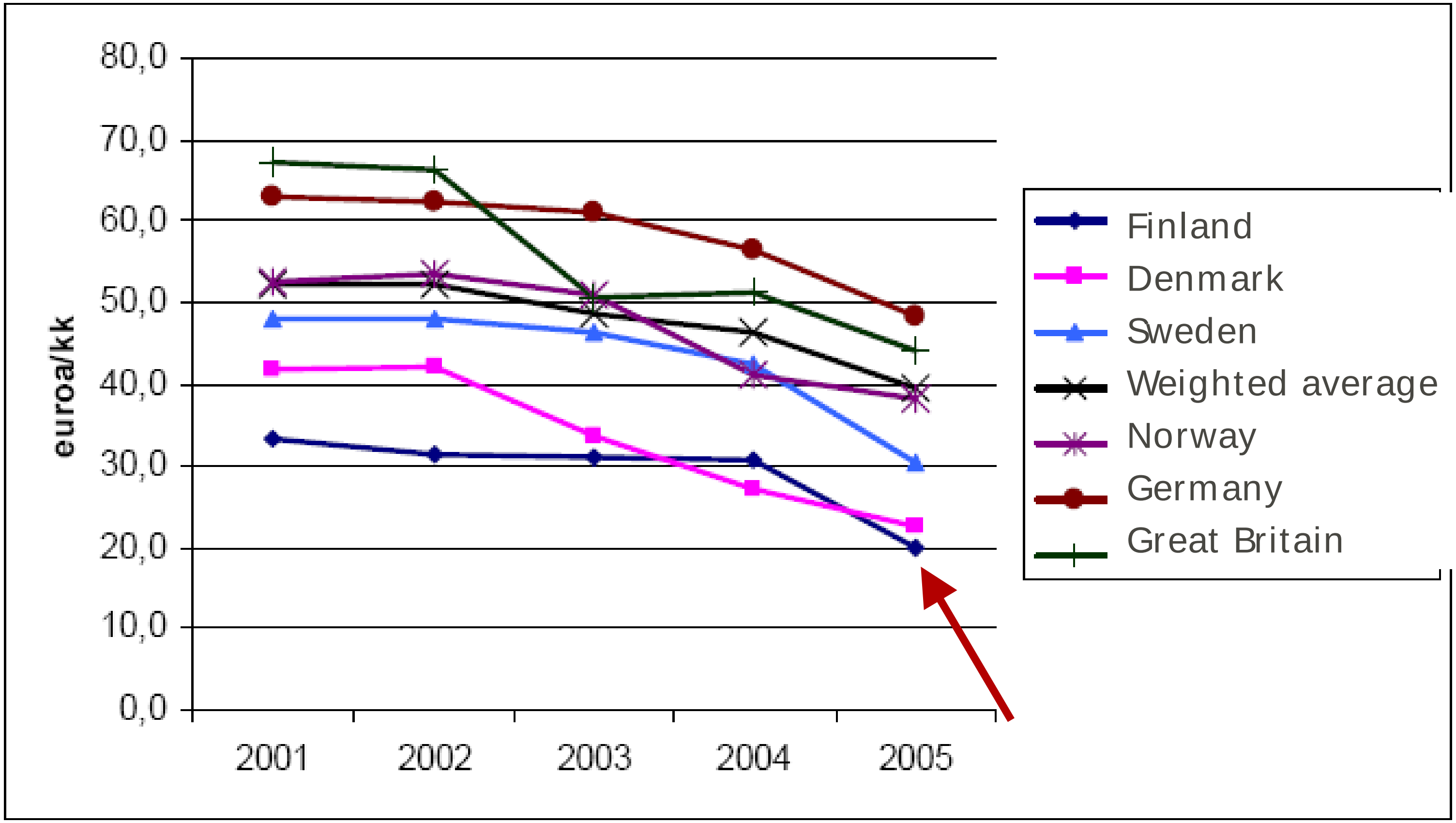
- Demand obsolescence
- Little product or process innovation
- Product commodities the norm.
- Differentiation difficult or unprofitable
- **Chronic overcapacity**
- Re-emergence of specialty channels
- **Price wars, exits**
- **CSF**: Low overheads, buyer selection, signalling commitment, **rationalizing capacity**

Source: Robert M. Grant, Contemporary Strategy Analysis

- All the market signs suggest that mobile business is finally reaching the mature development phase
- Symptoms of the maturity include overcapacity in the market and excessive price competition
- Consolidation and exits from the market are natural reactions to the development

Price erosion has been drastic

Mobile price basket development 2001- 2005 in some countries



The Nordic mobile price level is Europe's lowest. The prices are also declining fastest in the Nordic countries, Finland leading this year.

Source: MinTC 2005

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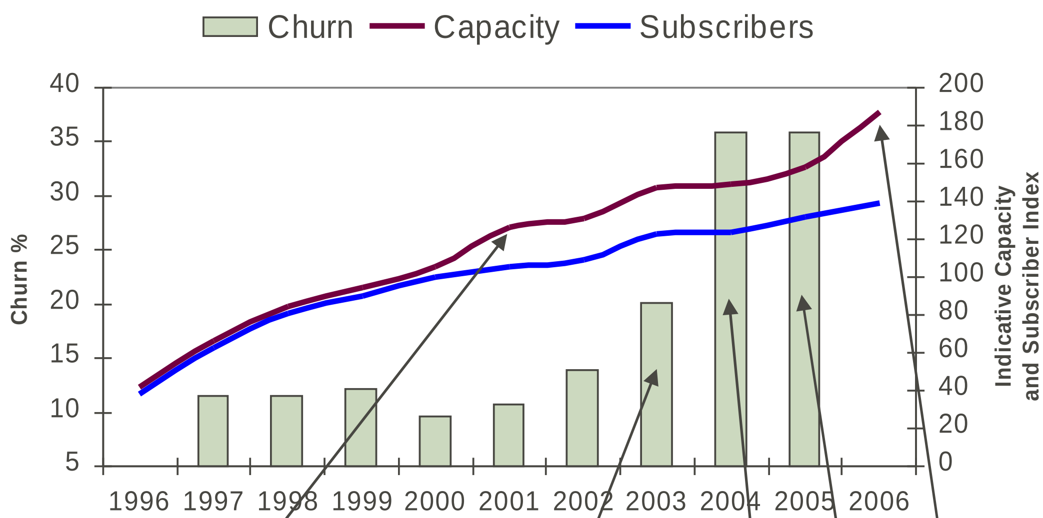
Third Network Laid the Foundation for Market Instability



1. Third mobile network introduced when subscriber growth had already slowed down; overcapacity was created

2. Mobile number portability introduction lowered the barriers of entry in

3. Low price SOs gained momentum despite unsustainable business models. Chronic overcapacity and competition over successful SOs drove down the wholesale prices end eroded end- user prices further

4. To defend against eroding market positions, established operators were forced to follow in pricing thus accelerating churn and price erosion

5. UMTS deployment is about to increase the overcapacity further

The change in Finland since 2004 has been dramatic…

Figure 4: European mobile service revenue growth year on year by major market

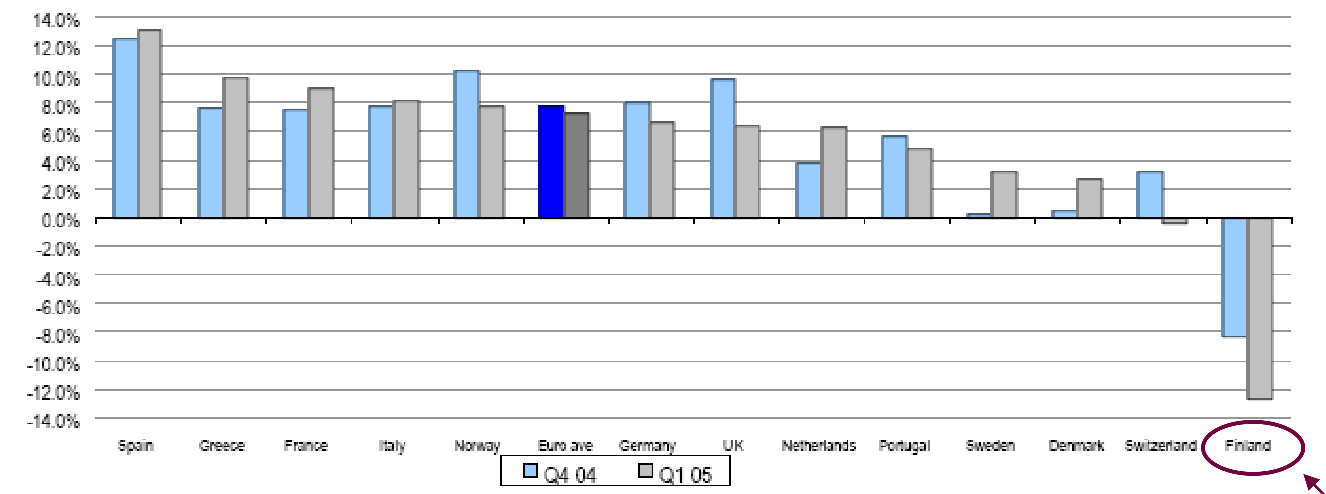
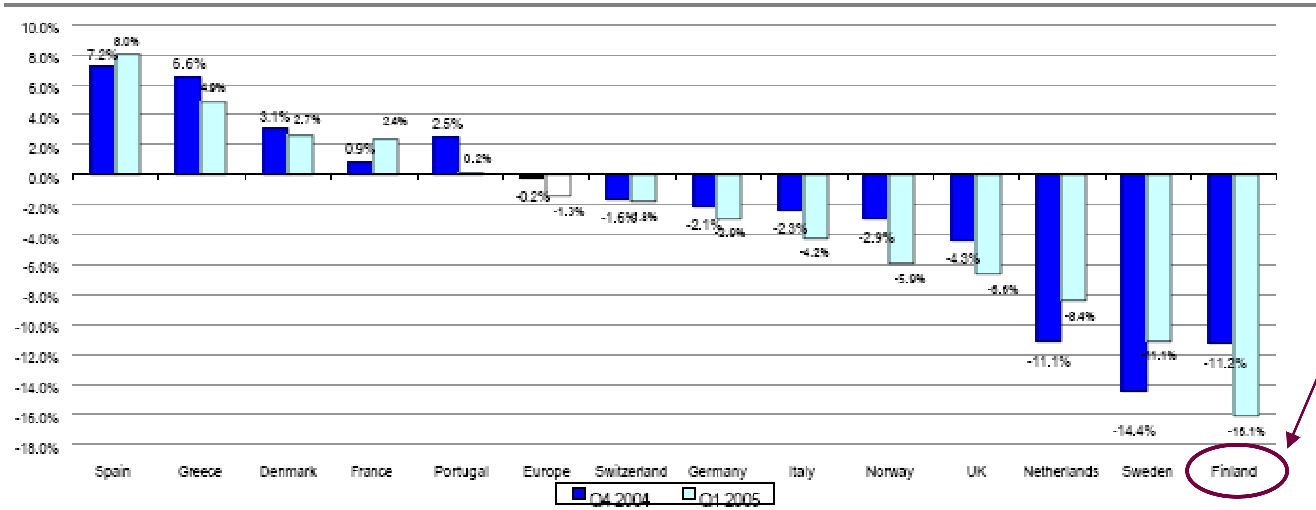


Figure 14: European industry ARPU change year on year by major market

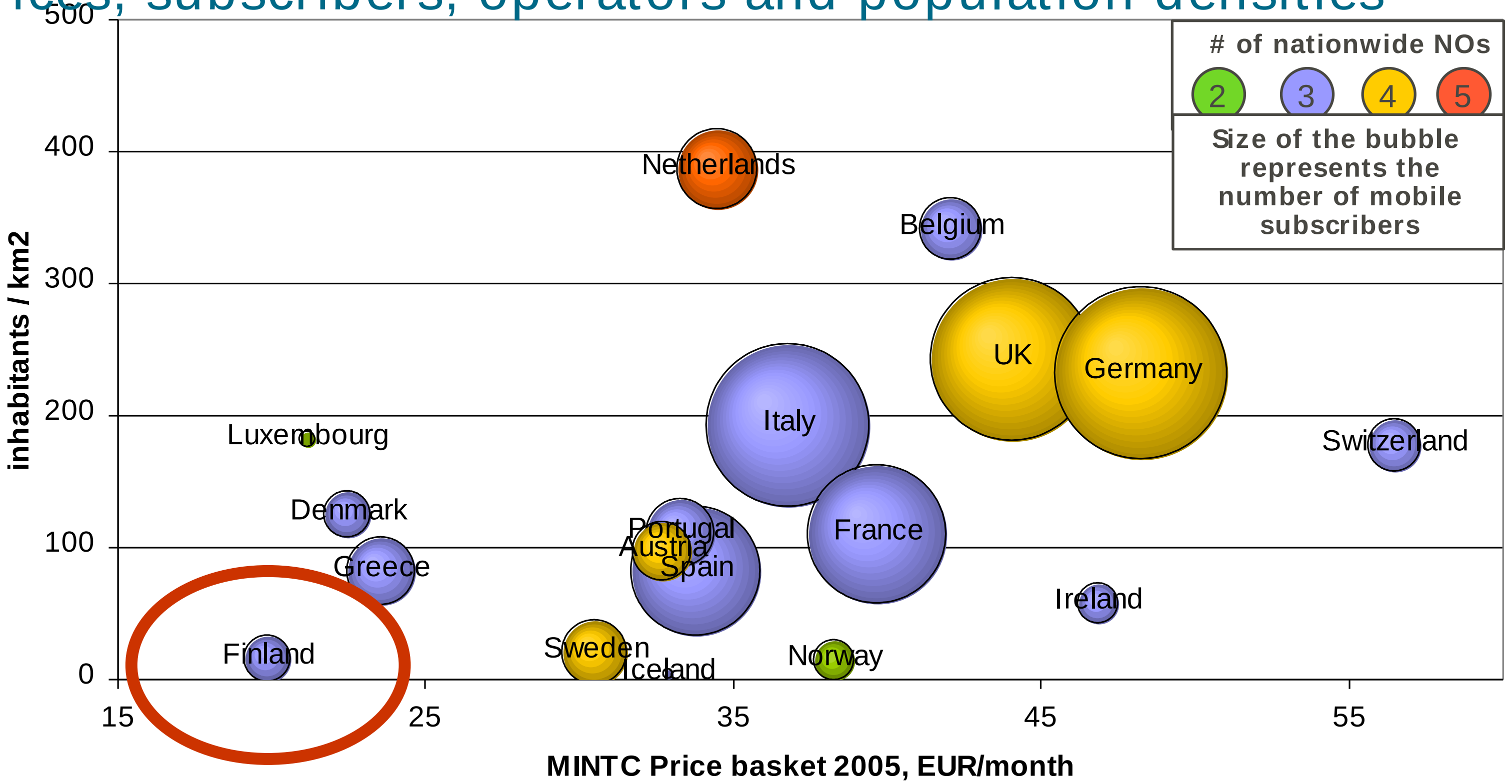


Source: Company data, CSFB research

… but the same development is likely to take place in other countries as well with the advent of VoIP.

Finnish Mobile Market Has Unique Characteristics

Prices, subscribers, operators and population densities



- Finnish mobile prices are very low in the European comparison despite unfavourable geographical conditions and small customer base

Source: Ministry of Transport and Communications publication 51/2005; Analysys; TeliaSonera analysis

Mobile phone numbers ported in Finland

- **A total of almost 2.5 million numbers have been ported by the end of June 2005**
- **Number of phone numbers that have been ported in 2005:**
  - 563,924 in January- March
  - 365,601 in April- June
- **At the end of June 2005:**
  - Phone numbers ported once 1,215,066
  - Phone numbers ported twice 441,961
  - Phone numbers ported three times 91,341
  - Phone numbers ported four times 15,534
  - Phone numbers ported five times 3,294

These numbers witness that there has been an intense war for market shares.

Source: FiCom / Suomen Numerot (Finland's Numbers), Numpac Oy 2005

The Consolidation Has Already Started in Finland

ACN Communications Finland Oy has ceased to operate as a mobile provider in Finland. As a result, all ACN mobile subscriptions have been terminated, effective January 31st 2005.

19.8.2005 Tele2 announced that it has decided to discontinue its operations in Finland

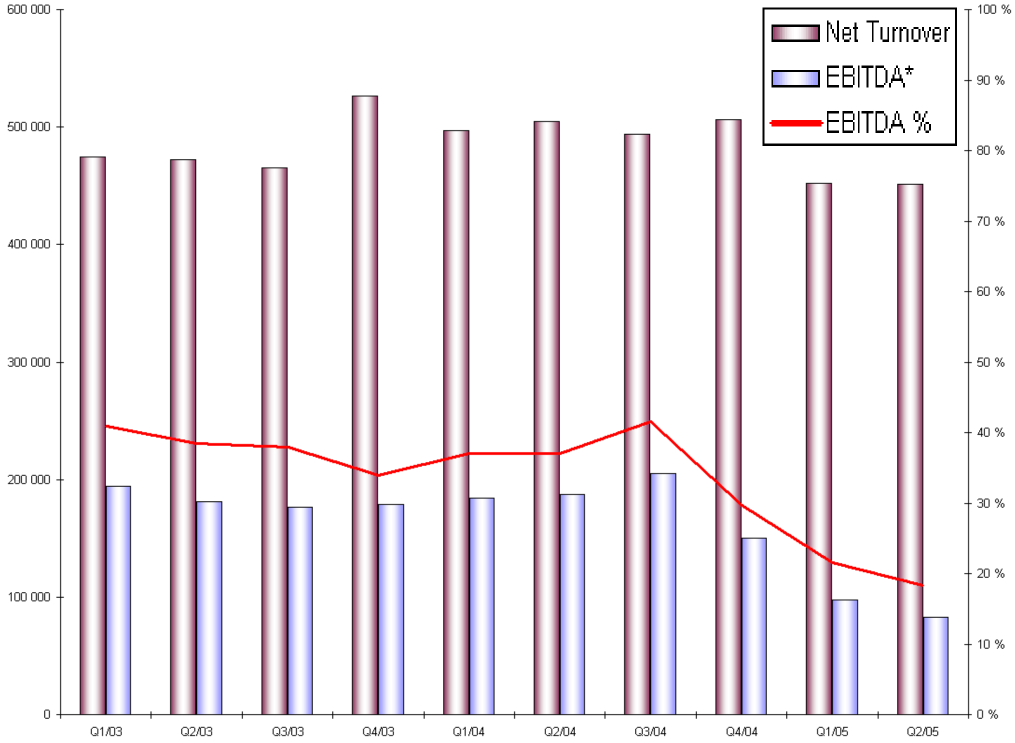
Lars-Johan Jarnheimer, CEO of Tele2 19.8.2005:
"Given the current market environment, we see better opportunities elsewhere. It is of course unfortunate that we need to end our operations in Finland, which began in 2000."

Elisa announced in July that it would make a public tender offer for all Saunalahti shares. The tender offer period began on 23 August 2005.

Many other smaller players that launched visibly on 2002-2003 have exited or scaled down operations. No small service provider is competing aggressively.

...

Ongoing Development Leads to Industry Crisis



- The excessive mobile price war has had a serious impact on TeliaSonera profitability
- Similar development trend can be seen in the results of all mobile operators in Finland
- When the trend continues, it endangers, e.g.
  - Service quality maintenance
  - Future technology investments
  - Service development

The role of regulation

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Interconnection, mobile termination

- SMP status determined for Sonera, Elisa (formerly Radiolinja) and Finnet. Sonera and the other operators have appealed the decision.

- Interconnect prices shall be cost- based.

  Asymmetric interconnection fees – less

  efficient network operators can bill more

  than efficient operators from each other

Some critique on the Finnish regulation (1/2)

- SMP process requires resourcing
- Ficora acts too efficiently
  - Implementation in EU level
    - Companies are set in an unequal position
- The obligations have little effect
  - The companies have assessed their position already based on competition rules
  - Price ceilings mean return to the past

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Some critique on the Finnish regulation (2/2)

- Regulation discussion circulates around price, while:
  - 1) Termination price is second lowest after Cyprus
  - 2) We have Europe's lowest end user prices
- The authorities may stifle innovativeness
  - Uncertainty on law interpretation slows down the development
- Risks on already-made investments grow (there are many up-front long-term investments)
- The threat on regulation moderates future investments
- Ficora should focus not just on the price affordability, but also on how to secure industry viability
- The national competition policy faces a real challenge
  - Ficora is an important, but not the only builder of the game

Finnish market can still lead the game

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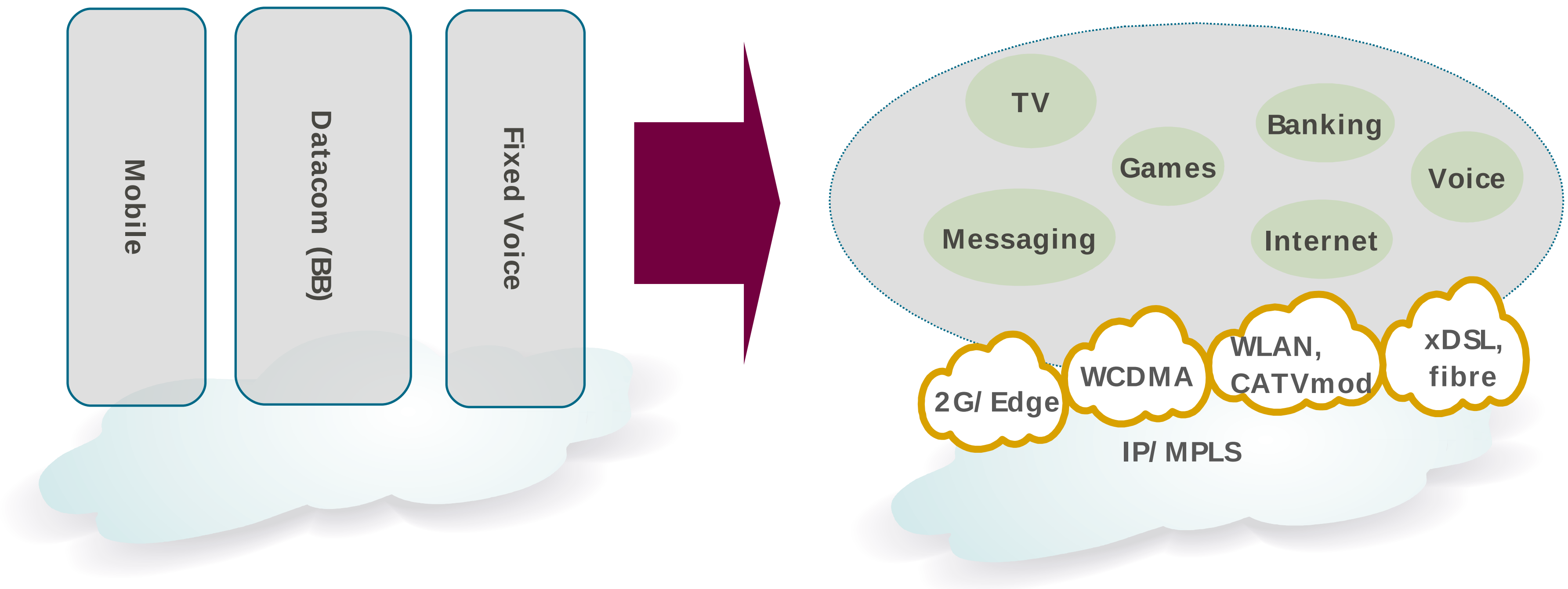
Developing networks enable convergence of services

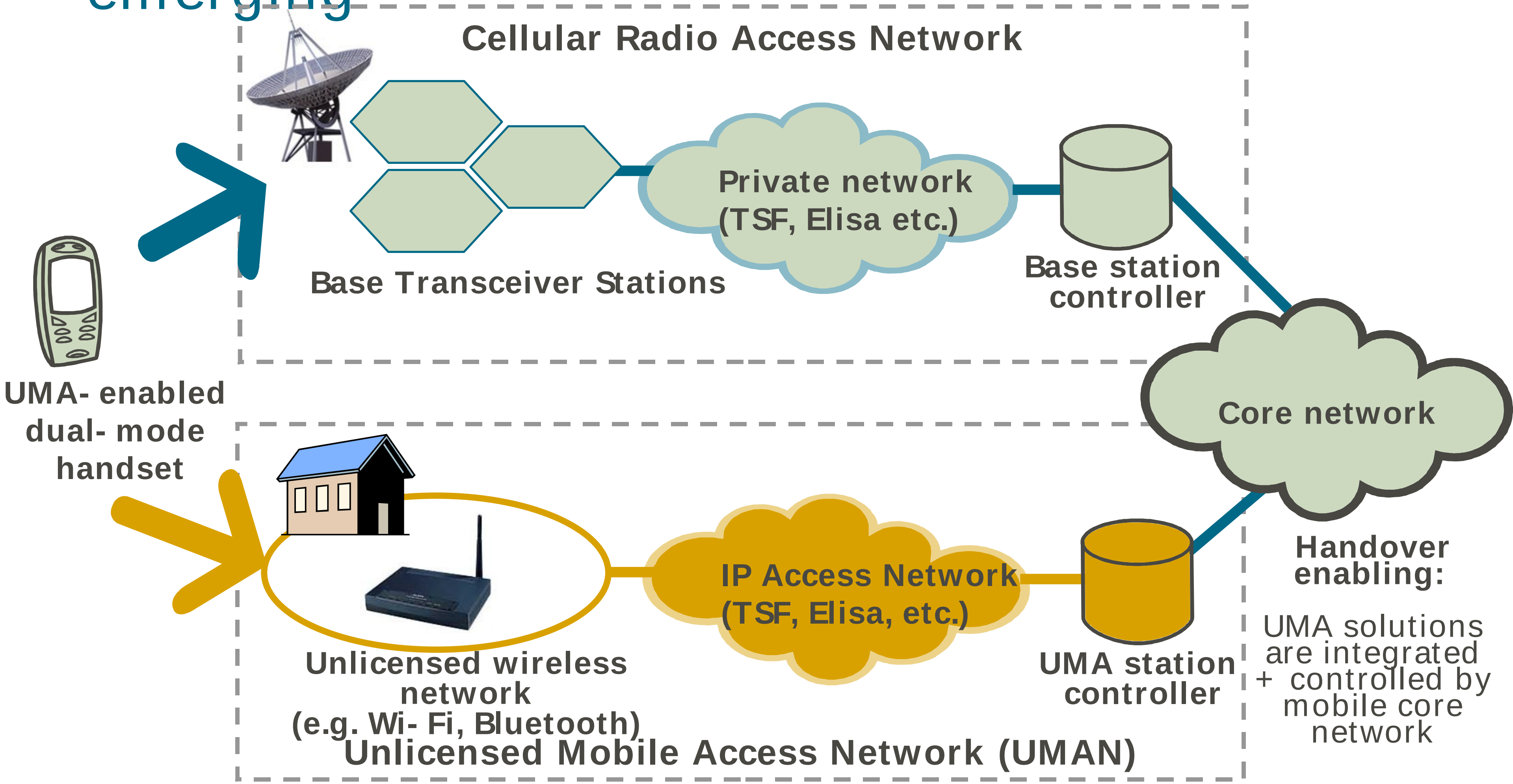
Old world required separate physical accesses for each type of service

New world will allow all types of applications to communicate over any one of several physical accesses. Voice is no doubt the most important application.

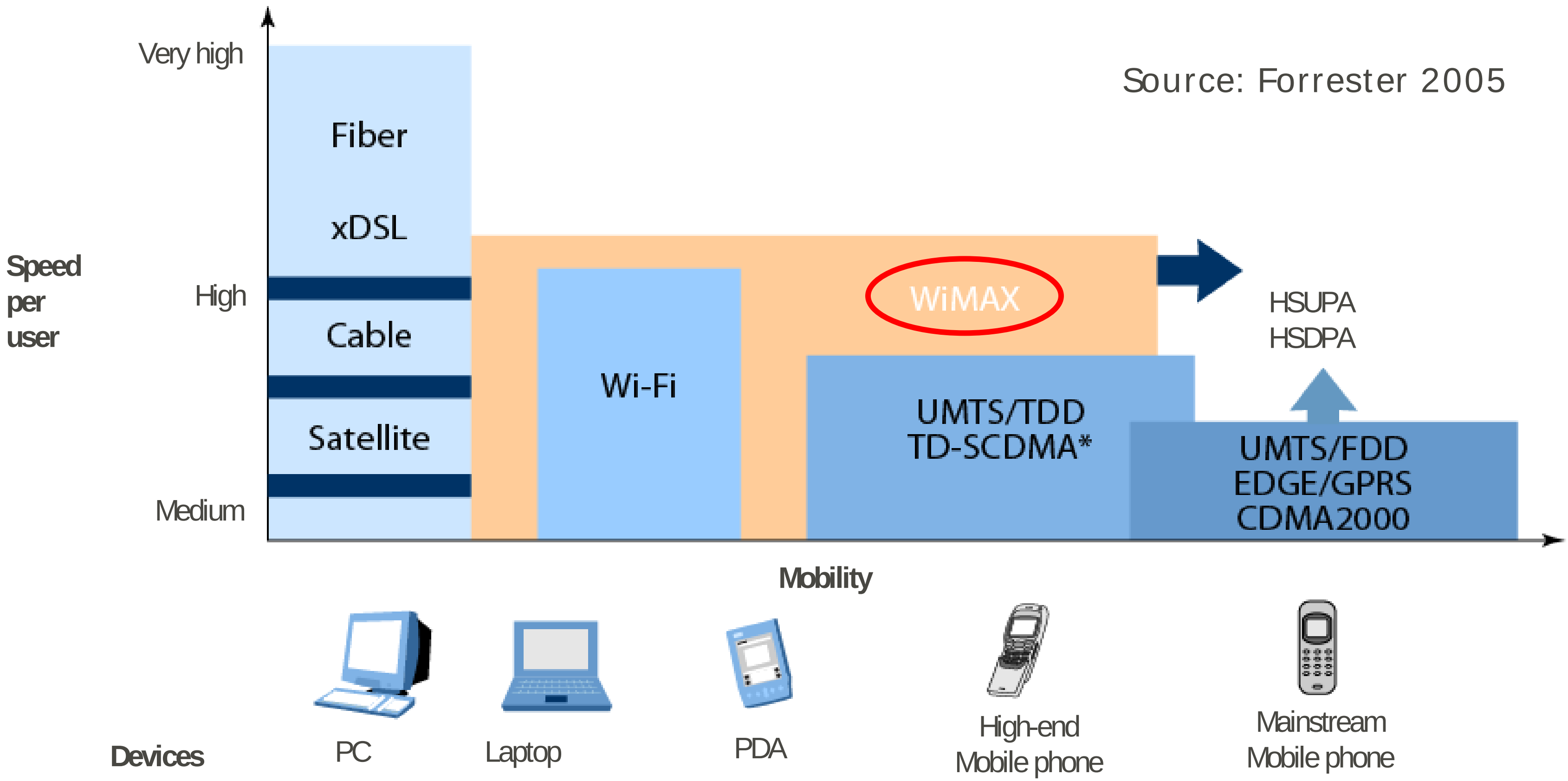


We are migrating from the traditional telecom world to IP-based world, in which voice is one application among the others

The UMA convergence solution is already emerging



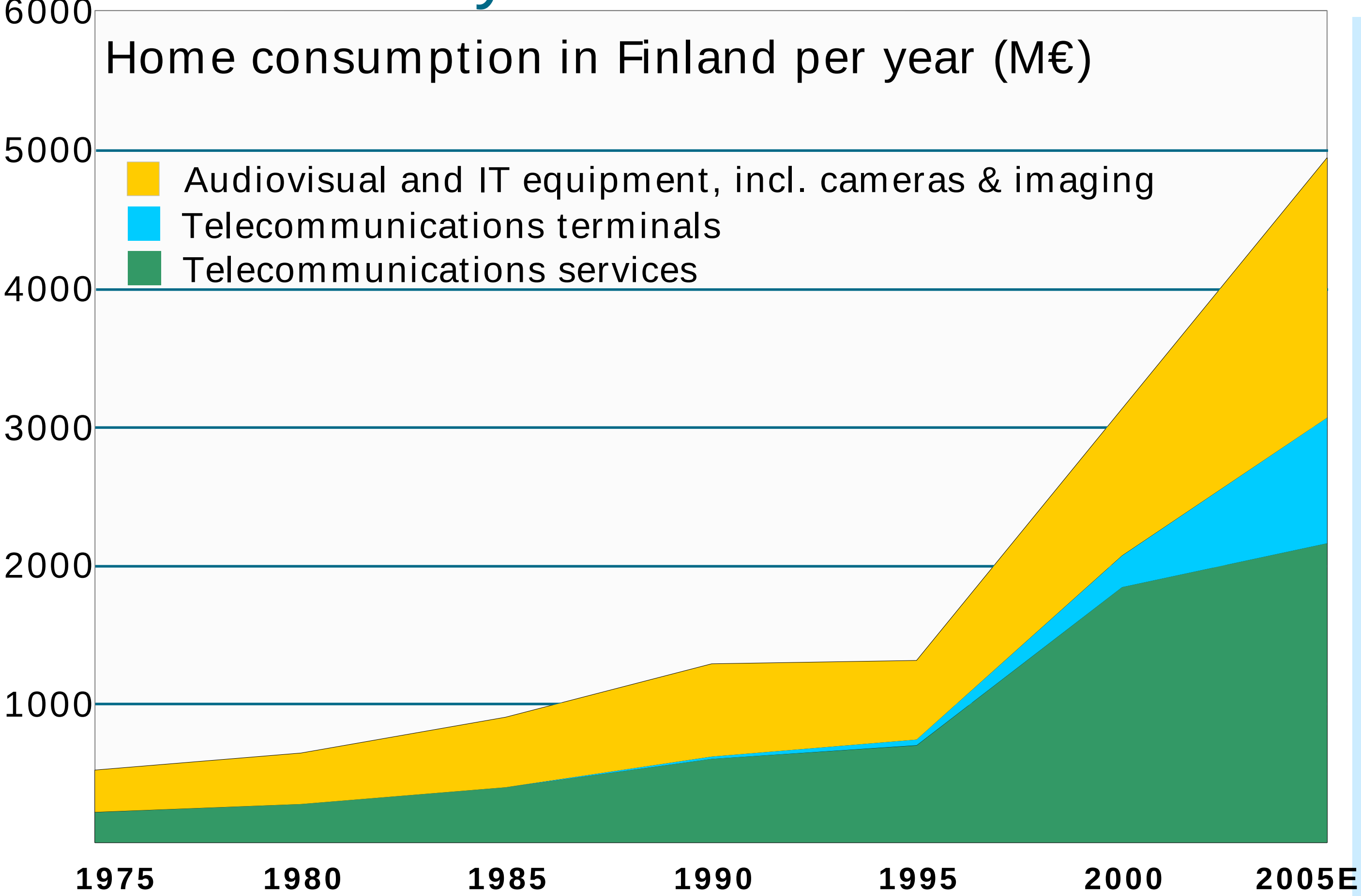
Different access technologies complement each other and will coexist



Location	Home office	Hotspots	Hot zones	Global coverage
Scenarios	"Fixed"	"Park and connect"	"Always on"	"On the move"

* Time-division synchronous code-division multiple access

The home consumption is changing structurally



Sources: Finnish Statistics, internal TSF forecast for 2005

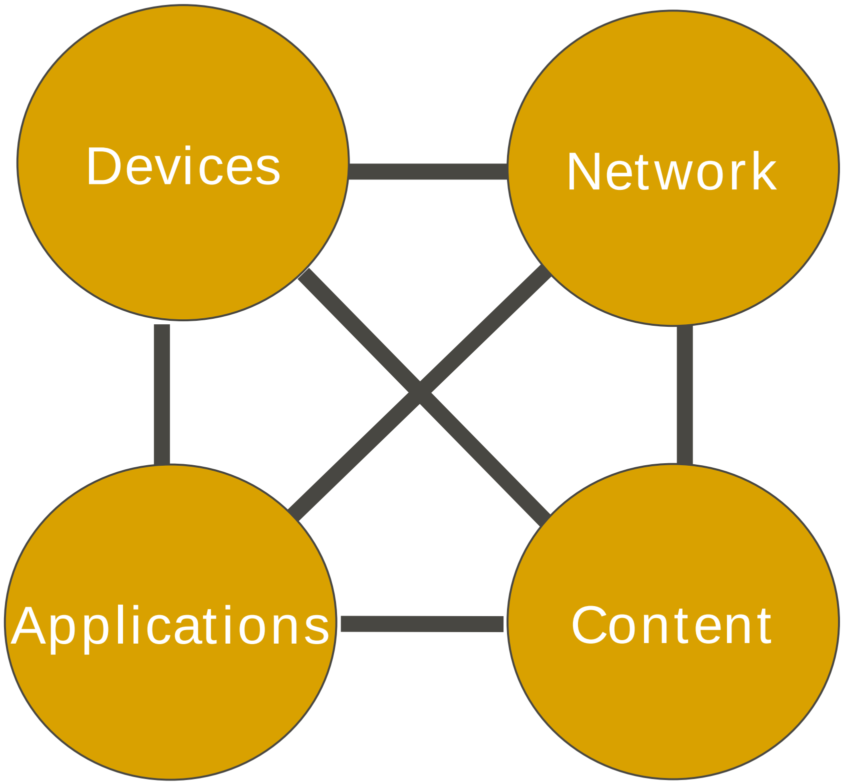
In the end of 2005

- Home networking and communications is already 15 %all home consumption (excluding costs of the house)
- 40%of homes have a broadband connection
- 25 %owns a home theatre
- 1/3 owns a broad-screen TV
- 2/3 owns a computer

The growth will be in applications

- Finnair aims to be a ”Digital Airline by 2006”, all other processes except piloting will be automated
  - Already 59% of all regular route traffic passengers use **e-tickets**
  - Already 22% of international passengers used **self-service check-in** on April
- IBX grows organically 30-40% a year. The company is a leading North European **BPN service operator** in electronic purchasing logicstics processes
- The electricity meter **remote reading** is becoming a billion-scale business to Europe
- **E-banking** strides forward: increasingly all banking services are used via the net
- Already 42 % of all 15-79 aged Finns have done **e-shopping**

Successful service implementation requires all parts of the ICT ecosystem to work together



- The quality of the service is determined by the end-to-end user experience
- Only when all four parts are well-developed and work together, can we have successful services
- iPOD - the first consumer end-to-end service concept

Vision of 2010 Consumer - well equipped and connected

- **Biggest changes in consumers' everyday life will be seen in the level of available tools**
  - 50%will use smartphone
  - 67%will use Internet
  - 55%will use broadband Internet connections
  - 100%will have digital TV
  - 40-50%will own digital camera
  - 80%will have a computer
  - 50-60%will have DVD player

- **Demand for connectivity, possibility to move, invisibility of technology, easy and tailored services and usability, information safety**

Source: TeliaSonera Finland, Product Development

"As people and homes become more and more connected, each individual and household creates a unique information ecology."

TeliaSonera Finland will be an active developer

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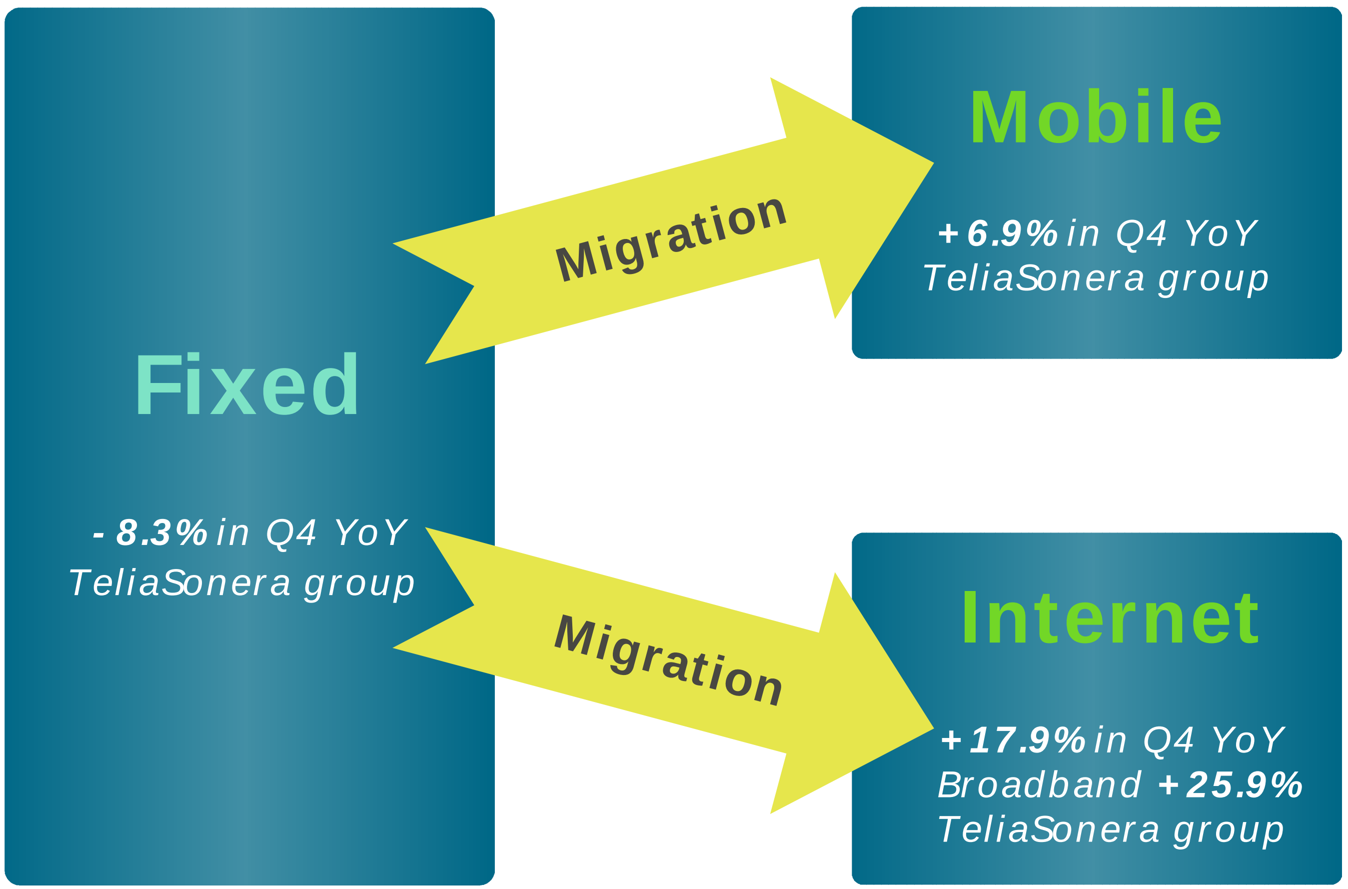
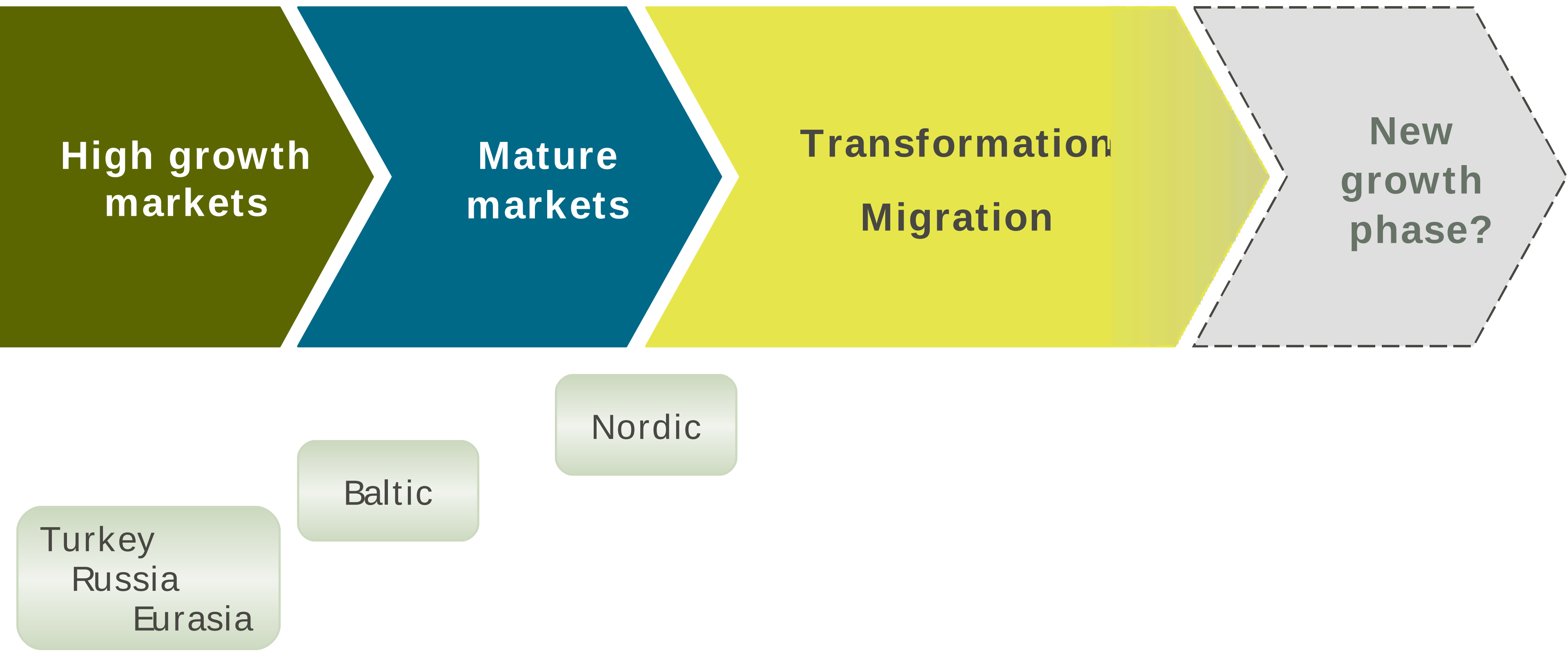
Migration trend



Take the **lead**
in the **migration**

TeliaSonera – Markets in different stages



TeliaSonera Finland Growth Focus Areas

@company

- Growth via enlarging current core in managed services
- End- to- end management of communications infra including end- user devices
- Attractive, competitive offering based on cost- efficient production

Communication

- Demand for communications increasing
- Developing a premium concept to drive the advanced usage
- Creating new incentives for increasing usage (voice and data)

@home

- Active player in local broadband markets
- Opportunities open up in home environment as customers upgrade home electronics
- Offering home networking, security and maintenance etc.

Growth focus areas

Managed services | **Mobile data** | **Triple play**

The summary

- Finland was the mobile technology forerunner in the 90's
- During this decade we have been the champions in new competition and busines models.
  - This has lead both to
    1) commoditisation of mobile and
    2) strong fixed- to mobile migration
  - Currently, banks, airlines and other service companies are increasingly deploying mobile solutions to their customers
  - Fierce price competition and regulation is threatning the industry
- Now, Finland needs to regain forerunnership to secure the future success of the Finnish ICT sector by deploying fast the new technologies and applications

The Nordic and Baltic telecommunications leader

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