

**Estonian Business School**

**STRATEGY CREATION IN A RESTRUCTURING ENVIRONMENT:  
THE CASE OF AN ESTONIAN FIXED TELECOMMUNICATIONS  
OPERATOR TRANSFERRING TO A COMPETITIVE MARKET IN  
1993-2003**

PhD Thesis  
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Hereby I declare that this doctoral thesis, my original investigation and achievement, submitted for the doctoral degree at Estonian Business School has not been submitted for any degree or examination.

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## CONTENTS

1	INTRODUCTION .....	5
1.1	Abstract .....	5
1.2	Objective of the study .....	5
1.3	Context of the study .....	8
1.4	Why are the study's main questions important? .....	14
2	THEORETICAL VIEWS OF INSTITUTIONS, SENSEMAKING IN ORGANIZATIONS AND STRATEGIC MANAGEMENT .....	16
2.1	Institutional theory .....	16
2.2	Sensemaking in organizations .....	23
2.3	Strategic management	23
3	METHODOLOGY .....	39
3.1	Research design .....	40
3.2	Data collection .....	42
3.3	Data analysis .....	43
4	OVERVIEW OF ETC FROM 1993-2003 .....	45
4.1	General overview of the environment and company .....	45
4.2	1993-1996 in ETC .....	51
4.3	1997-2000 in ETC .....	55
4.4	2001-2003 at ETC .....	63
5	BACKGROUND AND ANALYSIS FOR CHANGES IN ETC .....	70
5.1	Trends and key figures in ETC during the period 1993 to 2003 .....	70
5.2	Building up the infrastructure, 1993-1996 .....	72
5.3	Preparing for competition, 1997-2000 .....	78
5.4	Market pressure, 2001-2003 .....	86
5.5	The technically oriented ETC adopted a customer-centred logic .....	92
5.6	Rapid changes in thinking guaranteed many successful strategic activities to help survive on the market .....	97
5.7	Strategy is simple if there is a need for infrastructure, and not, when there is market pressure .....	102
5.8	The company's strategy was externally imposed by institutional forces .....	105
6	CONCLUSIONS .....	108
6.1	Main findings .....	108
6.1.1	The company's strategy was externally imposed by institutional forces .....	108
6.1.2	The company experienced three different periods of strategy creation .....	109
6.2	Other findings .....	110
7	REFERENCES .....	112
8	APPENDIXES .....	118

8.1	Appendix 1. Case study questions for informants .....	118
8.2	Appendix 2. Implications of the four perspectives on strategy .....	120
8.3	Appendix 3. Dimensions of the ten strategic management schools .....	121
8.4	Appendix 4. List of the study's informants – top managers and managers involved in strategic planning at ETC 1993-2003 .....	124
8.5	Appendix 5. Data from interviews (top managers) .....	129
8.6	Appendix 6. Data from interviews (managers involved with strategic planning) .....	146
8.7	Appendix 7. Digital Access Index value, by access level, 2002 .....	160
8.8	Appendix 8. ETC revenues and Estonian GDP .....	161
8.9	Appendix 9. Estonian Telekom share price developments, 1993-2003 .....	162
8.10	Appendix 10. Data analysis - building up an infrastructure 1993-1996 .....	162
8.11	Appendix 11. Data analysis - preparing for competition 1997–2000 .....	164
8.12	Appendix 12. Data analysis - market pressure 2001–2003 .....	166
8.13	Appendix 13. Sensemaking by ETC managers before and after market liberalization .....	168
8.14	Appendix 14. ETC's organization in 1994 .....	170
8.15	Appendix 15. ETC's organization in 2000 (last year before market liberalization) .....	171
8.16	Appendix 16. ETC's organization in 2003 .....	172
8.17	Appendix 17. ETC's organization in 2004 .....	172
9	SUMMARY IN ESTONIAN .....	173
10	CURRICULUM VITAE .....	176

## **Part 1. INTRODUCTION**

### **1.1 Abstract**

This case study presents an in-depth analysis of the creation of strategy in an environment that is restructuring by focusing on an Estonian fixed telecommunications operator in the period 1993 to 2003. The study is based on institutional, sensemaking and strategic management organizational theories. The study shows how a company's strategy was externally imposed by institutional forces, as institutional forces directed managerial sensemaking; and how a technically oriented company gave way to customer-centred logic. The study explores three periods: the first period characterised by poor infrastructure and an immature telecommunications market; the second period characterised by preparing for competition before liberalization of the telecommunications market; and, the third period characterised by market pressure after the telecommunications market became fully open. Finally, the study shows the key strategic decisions that were made and offers suggestions for other organizations undergoing change across periods that also markedly differ.

### **1.2 Objective of the study**

**Objective:** To analyze a company's strategy creation in a restructuring environment using the case study methodology.

This case study analyses the creation of strategy in an environment that is restructuring ? how the Estonian Telephone Company (ETC) underwent changes between 1993 and 2003 and why the managers of ETC selected the strategic responses they did. The study's focus and main questions arose on the basis of three theories (table 1). Institutional theory suggests the question – “How does institutional change occur?” (Scott, 2001); sensemaking theory suggests – “How is it possible to make sense of an uncertain situation?” (Weick, 1995); and “How can we manage change?” (Brown, Eisenhardt, 1998) emerges from strategic management theory. Table 1 also includes more theoretical questions or problems posed by other authors that are also important in the context of the study. The study's main questions arising from the theories are:

- How did the company undergo change? (Institutional theory);
- Where did the manager's interests stem from and how did their thought processes change? (Sensemaking);
- What kind of strategy was successful and what kind wasn't successful in a restructuring and changing environment? (Strategic management);
- What did the top managers actually do when they responded strategically, and how did they respond to external and internal factors over the 10-year period? (Sensemaking);

- Why did the managers select the strategic responses they did? (Sensemaking);
- Did the managers borrow aspects of order, meaning and legitimacy from earlier institutions? (Institutional);
- How did the company adopt new logic, actors and forms? (Institutional);
- What were the external and internal factors? (Strategic management).

**Table 1. The study’s problems and questions according to theories**

Institutional theory – How institutional change occurs? (Scott, 2001)	Sensemaking theory – How to make sense of an uncertain situation? (Weick, 1995)	Strategic management – How to manage change? (Brown, Eisenhardt, 1998)
<ul style="list-style-type: none"> <li>- to better conceptualize structuration (incl. destructura-tion) processes at the level of the organizational field (Scott, 2001);</li> <li>- how stable structures become destabilized? how institutional change occurs? why organizations select one type of strategic response rather than another? (Scott, 2001);</li> <li>- borrow aspects of order, meaning, and legitimacy from earlier institutions (Stark 1996; Campbell and Pedersen 1996);</li> <li>- shifts in cultural beliefs (Frank, 1999)</li> <li>- changes in political policies, incl. industrial regulations (Carroll, Delacroix, and Goodstein, 1988);</li> <li>- new technologies (Tushman and Anderson, 1986)</li> </ul>	<ul style="list-style-type: none"> <li>- some sensemaking frameworks lead to more effective behaviours than others do, and perceivers usually can appraise effectiveness only in retrospect (Weick, 1995);</li> <li>- to treat oneself as a prototype for sensemaking is to focus on one case intensely in the belief that an understanding of that case tells us a great deal about people in general (Weick, 1995);</li> <li>- “structure the unknown” (Waterman, 1990);</li> <li>- to give meaning, purpose and direction to the organization (Westley, 1990)</li> <li>- understanding that action should not be taken (Feldman, 1989);</li> <li>- decision-making has to be shared with others or acceptable to them (Burns and Stalker, 1961).</li> </ul>	<ul style="list-style-type: none"> <li>- long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for those goals (Chandler, 1962);</li> <li>- the strategic challenge in high-velocity, unpredictable industries is therefore to manage change by reacting when necessary, anticipating wherever possible, and leading change when the circumstances are right (Brown, Eisenhardt, 1998);</li> <li>- we need to ask better questions and generate fewer hypotheses (Mintzberg, 1998)</li> </ul>

Source: Author

This led to the focus of the study ? strategy creation in the organization in a restructuring environment (figure 1). The intersection of those theories and the focus of the study is change and restructuring at the organizational level. More detailed questions of the study for informants are represented in appendix 1.

The author's hypothesis was that the ETC went through three distinct periods over 10 years: 1993–1996 was a period characterised by an immature telecommunications market; 1997–2000 was the period before market liberalization; and 2001–2003 was when competition became a reality. The study explores the micro-level to see what the top managers really did when making strategic decisions and how they responded to external and internal factors. How did the ETC undergo changes in the period from 1993 to 2003 and why did the managers of the ETC select the strategic responses they did (Heil, 2005)?

The hypothesis for the different time periods comes from institutional theory (Scott, 2001). Among the external factors (institutional forces) that have been identified by scholars, those that had an impact on the ETC and initiated institutional change are:

- major changes in political policies, including industrial regulations (Carroll, Delacroix, and Goodstein, 1988);
- economic crises or dislocations (Stark, 1996);
- shifts in cultural beliefs and practices, such as changing conceptions of the natural environment (Frank, 1999);
- social reform movements, such as civil rights (McAdam, 1982);
- the introduction of new technologies, in particular “competence-destroying” technologies (Tushman and Anderson, 1986);
- management innovations, such as total quality management<sup>1</sup> (Cole 1999).

The concept of institutional change seems particularly apt as a model for understanding change processes under way in Eastern Europe at the end of the twentieth century (Stark 1996; Campbell and Pedersen 1996; Weick, 1995).

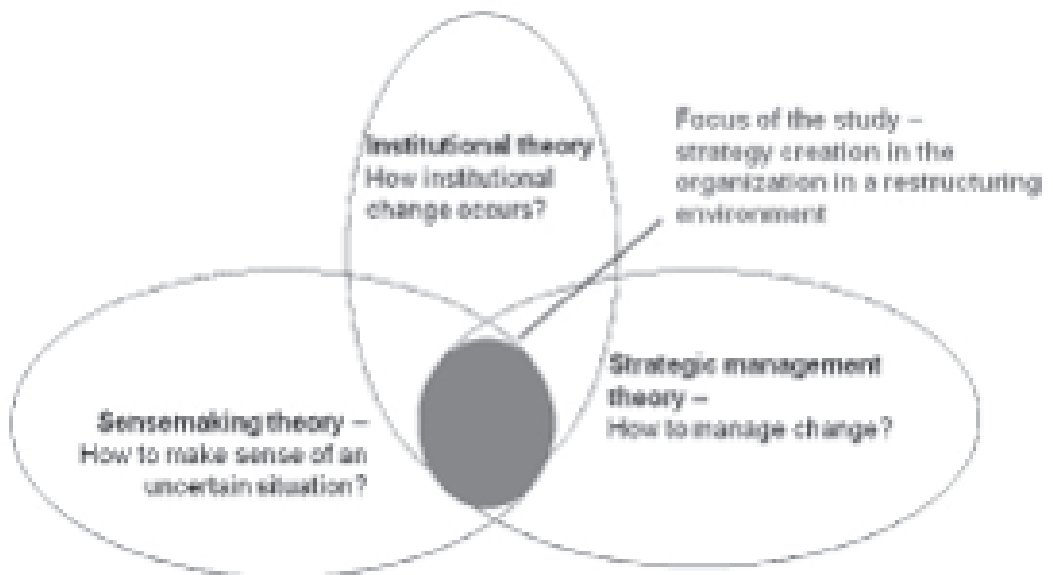
The first part of the study provides an overview of the objective of the research and the main questions that have arisen from the theory, and also the background to the study. The second part covers the theories of institutionalization, sensemaking and strategic management. The third part covers the methodology of the study. The main elements of this chapter deal with the research design, data collection and data analysis. The fourth part provides an overview of the empirics and facts about the ETC from 1993 to 2003 – this period is divided into three parts. The fifth part will analyze the events of the ETC in light of the main questions and theoretical background and the results of interviews and other empirical research. The sixth part provides answers and conclusions to the main questions raised by the author.

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<sup>1</sup> The aim of this paper is to explore and represent the dynamic relationship between total quality management (TQM), corporate strategy and resultant business operations. In particular, the paper seeks to determine the impact of TQM at the strategic level and how business operations are consequently developed and deployed (Denis, 2004).

I hope the study will help provide an understanding of the changing environment where those strategic decisions were made and why such decisions were made. Practical answers may be found from the incumbents in the study, which have been required to transform themselves to meet the demands of a competitive market. The conclusions may also help other organizations that are restructuring. As the author has been working in the company since September 1997, it was easy to obtain contact with the necessary informants as well as to locate the necessary secondary data included in business plans, minutes, regulations and archival records. The author was responsible for strategic planning from 2001 to 2003, as he was head of the strategic planning department.

**Figure 1. Main focus of the study – the creation of strategy in the organization in a restructuring environment**



*Source: Author*

### 1.3 Context of the study

It is evident that telecommunications firms are confronted with significant technological, political<sup>2</sup>, competitive and operational uncertainties. Strategic responses to these uncertainties are likely to be critical in determining the ultimate winners and losers in an evolving industry (Baliga and Santalainen, 1999). The telecommunications

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<sup>2</sup> The assessment: introducing competition into regulated industries. It deals with structure of competitive markets in Great Britain. List of necessary conditions which must be met to make competition work. Transition to competitive markets (Helm, 1997).



sector is affected by two important external factors: market liberalisation (Bruce, 1999) and technological revolution (Äijo, 1999). We suggest that there is a truly turbulent situation when a new way-of-thinking is introduced while both the culture and the industrial wisdom are adrift. Such conditions for change are not so common, and create a situation where it is hard to predict the outcome of the change process. Many East European countries were confronted with such conditions in the early 1990s (Hellegren and Melin, 1993). Robert Grant (1998) commented that the telecommunications sector has gone into hyper-competition. The forces of deregulation, internationalisation and technological innovation (Majumdar, 1998) have dramatically changed the European telecommunications industry. In terms of technology, there is a convergence of telecommunications, IT and the media sector (Curwen, 2001). In terms of liberalization, every incumbent wants to hold his market share and at the same time find new revenue streams. New entrants wish to get their market share from incumbents and also to show their innovativeness<sup>3</sup>. The experts predict that by 2010 traditional narrowband telephone lines will account for only about 30% of transactions, down from 80% now. DSL and cable modem are expected to rise to about 50% of transactions. In Eastern Europe, mobile is expected to become the dominant channel. The main enduring barriers to adoption are seen as consumer worry about security of personal data and the slow speed of data transmission (Hammond, 2001). More has been written about offensive than about defensive strategies – defending against a new market entrant – though much of the thinking would also apply to other competitive assaults (Roberts, 2001). To cope with these forces, incumbent telecommunications operators have had to strategically renew their companies (Stienstra, 2004) – that brings us to the focus of this study – how did the company undergo change and what did the top managers really do when they responded strategically?

In proportion to other industries, the telecommunications industry has been undergoing a phenomenal level of growth in the last few decades<sup>4</sup>. From a level of \$160bn in 1980, the telecoms industry underwent average growth levels of 10% throughout the 1980s. Although the growth moderated to an average of 8.3% in the 1990s, telecommunications is still one of the most dynamically-performing industries in the world, reaching an aggregate level of \$660bn in 1996 (North America 35.2%; EU 28.7%; Asia 24.1%; East Europe 2.9%; others 9.1%). This was well in excess of the average GDP growth worldwide in the 1990s. Growth rates vary enormously in different regions of the world. In the more mature markets, growth has been somewhat more moderate – North America accounted for the greatest proportion of the revenues at 35.2% of the world total, although the telecoms sector grew at the moderate rate of 5% in the 1990s. The most significant growth rates were

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<sup>3</sup> Reputation Building and Performance: An Empirical Analysis of the Top-50 Pure Internet Firms. How a firm build its reputation (Kotha, 2001).

<sup>4</sup> We find institutional reforms and the growth in information networks appear to benefit the world as a whole, but particularly its poorest nations... (Thompson, 2007).

experienced in the Asia-Pacific region, which saw revenues more than double in the first six years of the 90s. With nearly \$160bn in telecoms revenues, it grew at an average rate of 13.7% in the 1990s. At those growth levels, it was set to surpass the EU (European Union) in total revenues in 1999, and the North American share of the market shortly after the turn of the century. The western European telecoms market held its ground, having accounted for 28% of the total revenues worldwide throughout the 1990s, though this was lower than the 35% market share it held at the start of the 1980s. Telecoms in the EU grew at an average rate of 8.5% in the last six years of the 90s. Although this is a relatively high rate for a mature market, there are several reasons for this. There are a number of countries – principally the southern Mediterranean countries – whose markets are still growing at rapid levels as they strive to reach infrastructure penetration levels akin to their other western European neighbours. In addition, most European telecoms markets retained a predominantly monopolistic market structure through the first half of the 90s, which enabled PTOs (Public Telephone Operator) to maintain high service prices and revenue growth. Finally, the introduction of competition into secondary telecoms services such as mobile telephony, Internet access and other data communications services has significantly stimulated demand in the last few years to the benefit of both the incumbent PTO and alternative service providers. Europe's largest telecoms revenue markets correspond closely with the proportional populations of each country (a breakdown of revenues in the EU by country in 1996 (total revenues US\$184bn): Germany 25.6%; France 16.9%; UK 16.2% (Christodoulopoulos, 1996, cited in Mintzberg et al, 1999); Italy 12.4%; Spain 9.0%; Netherlands 4.9%; Sweden 2.8%; Belgium 2.6%; Denmark 2.2%; other 7.5%). Germany represented just over one quarter of telecoms revenues collected in the EU. The two next largest countries, France and the UK, each with a population of approximately 60 m, had a relatively similar level of revenue, though Italy had a much lower proportion of revenue. In their case, the variation in the proportion of revenues came from the specific structure of their respective markets. France outperformed Britain by virtue of the industry's monopolistic status (with higher service prices), while Italy underperformed the other two because its telecoms infrastructure was neither as extensive nor as advanced (Market Tracking International Ltd & Communications International, 1998).

### **Overview of Eastern Europe**

The economic crisis that accompanied the transition to a market-based economy in many of the countries in Eastern Europe has generally subsided in recent years, giving way to moderate levels of economic growth and more stable political regimes. As the governments of the larger countries undertook significant steps to reform the regulatory structure and legal framework of their economies, investor confidence grew as evidenced by the rapid rise in foreign investment much of which has gone towards the regeneration of telecoms networks in these countries. The region's 360 m inhabitants (slightly less than the European Union) still remain poorly provided for in terms of telecoms infrastructure. There is great scope for investment as there are only 56 m telecoms lines in the region. This amounts to an average telephone density of only 24 lines per 100 inhabitants, less than half that in the EU. With 26 m telecoms

lines, Russia still remains the giant within the region with 40% of the population and 46% of the main lines. Generally, the less populous and smaller sized countries have been able to achieve the highest telephone penetration (East European Telecoms Coverage in 1996 (main lines/100 inhabitants): Slovenia 34; Bulgaria 31; Estonia 30; Latvia 30; Croatia 30; Czech Rep. 24; Slovak Rep. 23; Hungary 22; Russia 18; Poland 17; Romania 14). Modernisation of the telecoms networks in Eastern Europe has developed fastest in those countries where Western investment in telecoms is most prominent. In the regional revenue breakdown it is apparent that the smaller countries that have undertaken a greater degree of liberalisation, such as Slovenia, Hungary and the Czech Republic, have generally earned a greater proportion of the region's telecoms revenues than the size of their network justifies. Operators in these countries have restructured themselves to become much more efficient at extracting the full potential from their networks. These more liberal economies have seen telecoms revenues increase by an annual average of well over 15% in the last five years (table 2). Croatia deserves to be mentioned as a country which is also experiencing comparatively strong (Market Tracking International Ltd & Communications International, 1998).

**Table 2. Revenues of Eastern European Operators in 1996**

Country	Operator	Turnover (US\$m)	% Change on Year (in the last 5 years)
Czech Rep.	SPT	1200	17
Estonia	Eesti Telecom	82	14
Hungary	Matáv	1309	12
Latvia	Lattelekom	142	17
Lithuania	Lietuvos Telekomas	133	19
Poland	TPSA	2424	15
Russia	Rostelekom	2036	3
Slovenia	Telekom Slovenje	328	15

*Source: Market Tracking International, 1998*

Only a few countries have effectively undertaken a partial privatisation of their operators. Hungary became the first Eastern European country to yield state control of its telecoms operator when it sold a majority stake in Matáv to MagyarCom, a consortium of Deutsche Telekom and Ameritech International, in December 1995. The Czech Republic has already sold a minority 27% stake in the national operator, SPT Telecom, to the TelSource consortium of PTT Nederland and Swiss Telecom PTT. It is also significant that in each of these cases the shares have been sold to a consortium of foreign telecoms operators, which are looking to undertake long-term investment in the market and partake in the high returns expected in the future. This is in the belief that these emerging markets will consistently generate high growth in

traffic and revenues, as the standard of living and wealth in these countries rise in proportion to Western European levels (table 3).

**Table 3. State of Privatisation in Eastern Europe in 1998**

Country	Operator	Year	Shares (%)	Owners/Comments
Bulgaria	BTC	1998	25%	to be sold to strategic investor
Czech Rep.	SPT	1995	27%	sold to KPN and Swiss PTT
Hungary	MATAV	1993 1995 1998	30% 37% n.a.	67% of shares held by MagyarCom, owned by DT and Ameritech, rest of shares expected to be sold in 1998
Estonia	Eesti Telecom	1992	49%	sold to Telia and Telecom Finland
Latvia	Lattelekom	1994	49%	sold to Telecom Finland, Cable & Wireless and IFC
Poland	TSPA	1998	49%	planned flotation of shares in 1998
Romania	Rom Telecom	1998	35%	30% to be sold to a strategic partner in 1998, with 5% for employees
Russia	Svyazinvest	1997	25%	shares in this association of 86 local operators sold to German banking consortiums
Serbia	Telecom Srbija	1997	49%	Telecom Italia (29%), and OTE (20%)

Source: Market Tracking International, 1998

There have been three or four key foreign telecoms investors in Eastern Europe. Through several strategic investments, Telecom Finland seems well placed to benefit from future opportunities in the Baltic region. Deutsche Telekom continues to dominate investments in central Europe, although its interests range across the region. Meanwhile, Telecom Italia has been looking to challenge DT's role as primary investor in Eastern Europe with a number of attempted investments, some successful and others not. The Greek operator, OTE also figured prominently in telecommunications in the Balkan region. These operators will have plenty of opportunity to further increase their stakes in the region. The partial privatisation of operators in three key markets, Poland, Bulgaria and Romania, took place in 1998. Together, these three countries account for a population of nearly 100 million. The outcome of subsequent competitions determined which of the European operators could achieve a dominant position in the dynamic Eastern European markets. Those that welcomed Western capital and knowledge saw their infrastructure improvements moving faster as privileged foreign investors made the most of their opportunities before competitors were allowed in. Even so, profits were not automatically forthcoming as the level of investments required was such that years passed before investors saw significant levels of return. However, the principal Western operators in Eastern Europe

committed to stay for the long term, confident that the region's telecoms markets would undergo dynamic growth and development (Market Tracking International Ltd & Communications International, 1998).

After Estonia regained its freedom and independence in 1991, a similarly important development occurred in the autumn of 2003 when Estonia and nine other countries were accepted for accession to the EU. The EU has many objectives, one of which is to guarantee unhindered growth for companies (discussion of strategic options for *corporate growth* (Canals, 2001)). When Estonia joined the EU it was among equals – the Estonian telecommunications market had already been completely opened up to competition in 2001. In several areas of life, Estonia has set itself the objective of catching up to Europe. Estonian telecommunication market follows the trends taking place in the developed countries in the world (Pelkmans, 2001), especially in EU (Heil, 2000). In mobile penetration and Internet use, Estonia has already achieved a considerable level by European standards. Estonia's success in developing e-government and the practical implementation of other Internet opportunities have received global acclaim<sup>5</sup>. The environment was extremely uncertain (Gillies, 2002) for the Estonian Telephone Company (ETC) because Estonia regained its independence in 1991, the telecommunications market was fully liberalized at the beginning of 2001 and the technology revolution was and is still one of the main external pressures to all telecommunication companies in the world. The annual growth of the ETC's revenues averaged 30.2% from 1993 to 2000 (table 13).

ETC can look back at a history of more than a hundred years. The first telephone calls were made in Estonia in 1879. ETC began its financial operation under that name on 1 January 1993. It was founded on the basis of a concession agreement with the government of the Republic of Estonia on 16 December 1992. Under this agreement, 51% of ETC's shares belonged to Estonian Telecom and 49% to Baltic Tele AB, formed by the Swedish company, Telia and Telecom Finland. On 30 June 2003, the Estonian Telephone Company Ltd changed its business name to Elion Enterprises Ltd. Elion is the largest telecommunications and IT provider in Estonia today. It is owned by Estonian Telecom Ltd, and as of February 1999, Estonian Telecom shares have been quoted on the Tallinn Stock Exchange, and its GDRs are listed on the London Stock Exchange. The company's shares are divided between shareholders in the following: Republic of Estonia (24.17%); Public investors (12.71%); Baltic Tele AB (60.12%) and Development fund (3.0%) (ETC annual reports, 1994-2003).

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<sup>5</sup> Economic and social theory both led to the suggestion that the diffusion of IT and telecommunications, and the intensification of information activities do not lead deterministically to economic growth. Rather, organisations are faced with pressures to work out changes in the ways they do business or deliver their services, and policymakers must plan for a macro-economic environment that facilitates economic and social changes. A crucial question that emerges in this context is whether organisations in developing countries acquiring information and communication technologies (ICT) should also seek to transfer 'best practice' for doing business. We question the feasibility and desirability of such an approach, and suggest that developing countries should make efforts to develop organisational practices that are locally appropriate (Avgerou, 1998).

## 1.4 Why are the study's main questions important?

Why are the study's main questions important (see chapter 1.2)?

Firstly, W. Richard Scott reminds us in the final chapter of his "Institutions and Organizations" (2001) that important work remains:

- to better conceptualize structuration (including deinstitutionalization) processes as they operate at the level of the organizational field. That central topic has received surprisingly little sustained theoretical or empirical attention from the organizational research community;
- to include not only institutions as a *property* or state of an existing social order, but also institutions as a *process*, including the processes of institutionalization and deinstitutionalization (Tolbert and Zucker, 1996). Scholars increasingly attend not only to how institutions arise and are maintained, but also how they undergo change;
- to extend theoretical and empirical efforts to better understand how stable structures become destabilized, how inertia gives way to innovation, and how institutional change occurs;
- to examine the relation-interaction, conjoint effects and conflicts between regulative, normative, and cultural-cognitive processes;
- to better understand the conditions under which strategic responses by organizations are more or less likely to be contemplated. We also know little about why organizations select one type of strategic response rather than another.

Secondly, Karl E. Weick in his work "Sensemaking in Organizations" (1995) summarized that:

- some sensemaking frameworks lead to more effective behaviours than others do, but the criteria of effectiveness are many and inconsistent, and perceivers usually can appraise effectiveness only in retrospect. The most accurate perceivers may be either those who change their minds readily or those who believe strongly enough to enact their beliefs, and the happiest perceivers may be the least accurate. The ambiguity and complexity of their worlds imply that perceivers may benefit by using multiple sensemaking frameworks to appraise events. Perceivers are more likely to act forcefully and effectively if they see things simply, and multiple frameworks may undermine the political structures of organizations.
- sensemaking may or may not determine whether people respond appropriately to environmental events. Sometimes people act first and then later make sense of the outcomes;
- researchers tend to look either at a few cases deeply or many cases broadly and assume either that people are pretty much alike or quite different from one another. To treat oneself as a prototype for sensemaking is to focus on one case intensely in the belief that understanding that case tells us a great deal about people in general under the assumption that they are all pretty much alike.

Thirdly, Richard Whittington (2001) has asked in his work “What is strategy – and does it matter?”. Rather than taking *strategic management* for granted, we had better ask the question “what is strategy anyway?”, since the answer matters. The *Economist* (1993) made the observation: “the consultants and theorists jostling to advise businesses cannot even agree on the most basic of all questions: what, precisely, is a corporate strategy”. Strategy guru Michael Porter (1996) asks this question in the very title of an important *Harvard Business Review* article. In a recent textbook, Markides (2000) admits: “We simply do not know what strategy is or how to develop a good one”. According to Chandler (1962), strategy is the determination of the basic, long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for those goals. At the same time, Whittington describes different approaches to strategic management that help us to understand the background to strategic management issues. Henry Mintzberg offers an overview of ten strategic schools in his “Strategy Safari” (1998), and concludes that we “need to ask better questions and generate fewer hypotheses – to allow ourselves to be pulled by the given concept. And we need to be more comprehensive – to concern ourselves with process and content, the static and the dynamic, constraint and inspiration, the cognitive and the collective, the planned and the learned, the economic and the political. In other words, in addition to probing its parts, we must give more attention to the whole beast of strategy formation. We shall never find it, never really see it all. But we can certainly see it better.”

## **2 THEORETICAL VIEWS OF INSTITUTIONS, SENSEMAKING IN ORGANIZATIONS AND STRATEGIC MANAGEMENT**

### **2.1 Institutional theory**

In dealing with institutional theory<sup>6</sup> in the current study, we have chosen to focus on institutional change. Institutional theory burst on the organizational scene in the mid-1970s and has generated much interest. It has raised provocative questions about the world of organizations (Scott, 2001):

- Why do organizations of the same type located in widely scattered locales so closely resemble one another?
- Where do interests come from? Do they stem from human nature or are they culturally constructed?
- Why do specific structures and practices diffuse through a field of organizations in ways not predicted by the particular characteristics of the organizations adopting them?
- If institutions work to promote stability and order, how does change occur? If institutions control and consist of individuals, how can individuals hope to alter the systems in which they are embedded?

On the one hand, change poses a problem for institutional theorists, most of whom view institutions as the source of stability and order. If the nature of actors and their modes of acting are constituted and constrained by institutions, how can these actors change the very institutions in which they are embedded? On the other hand, much theory and research on institutions focuses on change: the creation of new institutional forms and associated changes in organizational fields, populations, and individual organizations as these entities respond to pressures to adopt new structures or practices. Much of this attention to change, however, tends to privilege two moments: the formation of new elements and their diffusion across host forms.

If we are defining institutions, then (Scott, 2001):

- Institutions are social structures that have attained a high degree of resilience;
- Institutions are composed of cultured-cognitive, normative, and regulative elements that, together with associated activities and resources, provide stability and meaning to social life;
- Institutions are transmitted by various types of carriers, including symbolic systems, relational systems, routines and artefacts;

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<sup>6</sup> Beginning in the 1940s with the emergence of organizations as a recognized field of study, scholars began to connect institutional arguments to the structure and behavior of organizations. These approaches both built on and departed from the work of earlier institutional theorists. Institutional arguments began to be connected to organizational studies through the work of Merton and his students, particularly Selznick, of Parsons, and of Simon and March (Scott, 2001).



- Institutions operate at multiple levels of jurisdiction, from the world system to localized interpersonal relationships;
- Institutions by definition connote stability, but are subject to change processes, both incremental and discontinuous.

How institutions persist, once created, is an understudied phenomenon. Our current understanding of social structures is that their persistence is not to be taken for granted. It requires continuing effort – both “talking the talk” and “walking the walk” – if structures are not to erode or dissolve. The conventional term for persistence, inertia, seems on reflection to be too passive and non-problematic to be an accurate aid to guide studies of this topic (Scott, 2001).

### **Institutional Change**

Theorists and researchers have been active, particularly during the most recent decade, in attempting to better understand institutional change processes as they interact with organizational change<sup>7</sup> (Baum and Singh 1994; Powell and Jones forthcoming) – how institutions decline, fail and give way to new logic, actors and forms. Of course, the smaller the scope of the system studied, the more likely external factors will be involved.

Many of the “new” institutional forms arising from such politicized intergroup processes are not completely new, but rather novel combinations of earlier institutional components<sup>8</sup>. Existing institutions do not just pose constraints; they “are also enabling to the extent that they provide a repertoire of already existing institutional principles (e.g., models, analogies, conventions, concepts) that actors use to create new solutions in ways that lead to evolutionary change” (Campbell 1997). Fragments of pre-existing institutions are cobbled together by coalitions of actors in an innovative process labelled bricolage (Douglas 1986). Principles are amended and compromises reached to form new settlements; models are

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<sup>7</sup> In their study of institutional practices in the US radio broadcasting industry, Leblebici and colleagues (1991) describe changes occurring between 1920 and 1965. Three stages are identified, differing in terms of who the dominant players were, what served as the medium of exchange, and which institutionalized practices governed these exchanges. The problem posed by the investigators is – “Why do those who occupy the positions of power in the existing institutions willingly change its practices?”. Their analysis suggests that, at least in this industry and during the period under study, change was primarily endogenous, involving innovations introduced by marginal participants that were later adopted by leading members driven to do so by increased competition. These new practices became conventions when used recurrently and subsequently became “institutional practices by acquiring a normative character, when sustained through some form of legitimacy”.

<sup>8</sup> Change, even fundamental change, of the social world is not the passage from one order to another, but rearrangements in the patterns of how multiple orders are interwoven. Organizational innovation in this view is not replacement but recombination. Thus, we examine how actors in the post socialist context are rebuilding organizations and institutions not on the ruins, but with the ruins of communism as they redeploy available resources in response to their immediate practical dilemmas. Such a concept of path dependence does not condemn actors to repetition or retrogression, for it is through adjusting to new uncertainties by improvising on practiced routines that new organizational forms emerge (Stark, 1996; p. 995, emphasis in original).

reconfigured or combined into various hybrid forms; and routines are reassembled to serve modified goals. New institutions borrow aspects of order, meaning and legitimacy from earlier institutions.

The seeds of change are lodged both within and outside of institutions. Internal tensions are created as general rules are applied to specific situations; rules must be adapted and amended so that, over time, rules evolve and erode. Tensions arise within frameworks as regulative, normative, and cultural-cognitive elements move out of alignment. Various collections of actors within the jurisdiction of a given institution can interpret the rules in conflicting ways. External tensions are produced when multiple institutions overlap, providing diverse schemas and recipes for action. Wider environmental conditions – political, economic, and technological – can shift, rendering current institutions vulnerable to precipitous change.

Change processes are best examined by designs that incorporate multiple levels of analysis. Social actions and structures exist in dualistic relation – each constraining and empowering the other, and social structures themselves are nested, groups within organizations or networks of organizations, organizations within fields and fields within broader societal and trans-societal systems. Although every study cannot attend to all levels, analysts should be aware of them and craft designs to include critical actors and structures engaged in maintaining and transforming institutions (Scott, 2001).

### **The Three Pillars of Institutions**

To an institutionalist, knowledge of what has gone before is vital information. The ideas and insights of our predecessors provide the context for current effort and the platform on which we necessarily craft our own contributions. We will now offer an analytical overview to identify and examine more closely the diverse strands that make up contemporary institutional theory (Scott, 2001).

Regulative systems, normative systems, cultural-cognitive systems (table 4) – each of these elements has been identified by one or another social theorist as a vital ingredient of institutions. The three elements form a continuum moving “from the conscious to the unconscious, from the legally enforced to the taken for granted” (Hoffman, 1997). Although rules, norms and cultural beliefs are core ingredients of institutions, the concept must also encompass the associated behaviour and material resources. Although an institutional perspective places heightened attention on the symbolic aspects of social life, we must also attend to the activities that produce and reproduce them. Rules, norms and meanings arise in interaction, and they are preserved and modified by human behaviour (Scott, 2001).

The Regulative Pillar: this involves rule-setting, monitoring and sanctioning activities. In this concept, regulatory processes involve the capacity to establish rules, inspect conformity to them, and, as necessary, manipulate sanctions – rewards or

punishments – in an attempt to influence future behaviour.<sup>9</sup> These processes may operate through diffuse informal mechanisms, involving folk-ways such as shaming or shunning activities, or they may be highly formalized and assigned to specialized actors, such as the police or the courts. A stable system of rules, either formal or informal, backed by surveillance and sanctioning power, is one prevailing view of institutions.

**Table 4. Three Pillars of Institutions**

	Pillar		
	Regulative	Normative	Cultural-Cognitive
Basis of compliance	Expedience	Social obligation	Taken-for-grantedness Shared understanding
Basis of order	Regulative rules	Binding expectations	Constitutive schema
Mechanisms	Coercive	Normative	Mimetic
Logic	Instrumentality	Appropriateness	Orthodoxy
Indicators	Rules Laws Sanctions	Certification Accreditation	Common beliefs Shared logics of action
Basis of legitimacy	Legally sanctioned	Morally governed	Comprehensible Recognizable Culturally supported

Source: Scott, 2001

The Normative Pillar: a second group of theorists sees institutions as resting primarily on a normative pillar (table 4). Emphasis here is placed on normative rules that introduce a prescriptive, evaluative and obligatory dimension into social life. Normative systems include both values and norms. Values are conceptions of the preferred or the desirable, together with the construction of standards to which existing structures or behaviour can be compared and assessed. Norms specify

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<sup>9</sup> Oliver Williamson embraces rational choice assumptions and employs a variance rather than a process approach. He has developed an explanatory framework within which economic agents are expected to devise or select those governance forms that will minimize transaction costs. He leaves to economic historians and sociologists the tasks of accounting for the characteristics of institutional environments – the “background conditions” including property rights, norms, customs and similar frameworks – focusing rather on the “mechanisms of governance”, which he sees as the central focus of the economics of organizations (Williamson, 1994). Designers of organizational governance arrangements must take into account these wider institutional conditions when fashioning their structures, and, over time, their choices feed back to affect environmental conditions, including institutional environments. Studies by Armour and Teece (1978) and by Teece (1981) attempt to empirically evaluate Williamson’s arguments regarding the relationship between a firm’s governance structure and its economic performance. Following Chandler’s (1962) early insights and historical research, Williamson (1975) had argued that firms adopting a multidivisional (M-form) structure would be more capable of separating strategic from operational decision-making, allocating capital among divisions and monitoring divisional performance. Armour and Teece study a sample of diversified firms in the petroleum industry and find that those firms adopting the M-form structure performed better financially. Teece (1981) extends the test to evaluate the performance of pairs of firms matched by size and product line in 20 industries. The performance of the firm first adopting the M-form was compared with that of the matched firm for two time periods. Again, the results confirmed the hypotheses.

how things should be done: they define legitimate means to pursue valued ends. Normative systems define goals or objectives, but also designate appropriate ways to pursue them (e.g. rules specifying how the game is to be played, concepts of fair business practices).<sup>10</sup>

The Cultural-Cognitive Pillar: a third set of institutionalists, principally anthropologists such as Geertz and Douglas, and sociologists such as Berger and Meyer and Zucker, stress the centrality of cultural-cognitive elements of institutions – the shared concepts that constitute the nature of social reality and the frameworks through which meaning is made (table 4). Attention to the cultural-cognitive dimension of institutions is the major distinguishing feature of neoinstitutionalism within sociology.<sup>11</sup>

Three contrasting models of institutions are identified – the regulative, the normative and the cultural-cognitive – although it is not possible to associate any of the disciplines uniquely with any of these proposed models. The models are differentiated such that each identifies a distinctive basis of compliance, mechanism of diffusion, type of logic, cluster of indicators and foundation for legitimacy claims (Scott, 2001).

### **Institutional Varying Levels**

One of the principal ways in which the several varieties of institutional theory differ is in the level at which they are applied. The levels identified differ greatly in terms of whether the investigator is focusing more on micro or macro phenomena. The key underlying dimension is the scope of the phenomena encompassed, whether measured in terms of space, time or numbers of people affected. It is useful to

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<sup>10</sup> Selznick's approach focuses on internal relationships, especially on informal rather than formal structures, and on the immediate environment of the organization rather than on more general cultural rules or characteristics of the wider organizational field. The carriers of institutionalized values are relational structures, in particular, informal structures and co-optative relationships linking the organization with salient external actors, both individual and collective. Diane Vaughn (1996) weaves together many of the same kinds of arguments to account for the continued use of a flawed design by Morton Thiokol engineers and the fateful decision by NASA officials to launch the Challenger missile. Her richly detailed historical account of the organizational routines, both technical and decision-making, that led up to the disaster depicts the development of a culture within which the "signal of potential danger" was "repeatedly normalized by managers and engineers alike". Although production pressures played an important role, these pressures themselves "became institutionalized, and thus, a taken-for-granted aspect of the worldview that all participants brought to NASA decision-making venues".

<sup>11</sup> The value placed on a commercial organization depends not only on its economic performance, but also on its conformity to cultural-cognitive categories. This generalization is tested by Zuckerman (1999) in an ingenious study of the effects on stock prices of the ratings made by security analysts, a set of intermediary actors who provide information useful to buyers of stocks. He finds that to earn high ratings from such analysts, firms need to attract the attention of those who specialize in the industry category in which its products are marketed. Those firms (whose portfolio of products could not be readily classified) reflecting some confusion over the firm's identity, suffered poorer ratings than would be predicted on the basis of performance indicators, resulting in reduced stock prices. Because they did not conform to the analysts' model of a proper firm in the industry, they were accorded, in Zuckerman's terms, an "illegitimacy discount".

identify six categories: world system, society, organizational field, organizational population, organization and organizational subsystem (table 5) (Scott, 2001). Our current study focuses on organizational level.

**Table 5. Institutional Pillars and Varying Levels – Illustrative Theorists**

Level	Pillar		
	Regulative	Normative	Cultural-Cognitive
World system	North and Thomas 1973	Krasner 1983	Meyer 1994
Societal	Skocpol 1979	Parsons 1953, 1960a	Dobbin 1994b
Organizational field	Campbell and Lindberg 1991	Mezias 1990	DiMaggio 1991
Organizational population	Barnett and Carroll 1993a	Singh, Tucker, and House 1986	Carroll and Hannan 1989
Organization	Williamson 1975, 1985, 1991	Selznick 1949	Clark 1970
Organizational subsystem	Shepsle and Weinsgast 1987	Roy 1952 Burawoy 1979	Zimmerman 1969

Source: Scott, 2001

For institutions, level may be usefully operationalized as the range of the jurisdiction of the institutional form. Given the complexity and variety of social phenomena, any particular set of distinctions will be somewhat arbitrary. Most of these six levels are widely employed and recognizable to social analysts; all are of interest to students of organizations. Perhaps the least familiar, yet the level of most significance to institutional theory, is that of the organizational field.<sup>12</sup>

Williamson (1975, 1985, 1991) has developed his markets and hierarchies framework to explain the emergence of varying types of organizational forms to govern and reduce the costs of economic transactions. Selznick (1949) studied the ways in which procedural requirements became “infused with value” in the examined company. Clark (1970) has examined the distinctive cultural values cultivated by a set of elite colleges and their effects on organizational viability (see table 5).

There are two types of questions: How are institutions created? How are institutions maintained and diffused? Then there is an important, related question: How do institutions lose credibility and undergo change? Before addressing any of these questions, however, we call attention to a distinction between process and variance approaches that cuts across the full range of studies of institutions, thereby affecting

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<sup>12</sup> Meyer and Rowan, DiMaggio and Powell recognized that the models developed and the mechanisms inducing isomorphism among structural features operate most strongly within delimited organizational fields rather than at more diffuse societal levels. These arguments help to account for two notable features of all contemporary organizations. First, there exists a remarkable similarity in the structural features of organizational forms operating within the same organizational field. One university tends to closely resemble another university, and one hospital is much like other hospitals (Scott, 2001).

what questions are asked and what methods are employed. Although it is not restricted to institutional analysis, this distinction is especially evident in current efforts to explain institutional emergence and change (Scott, 2001).

### **Strategic Responses**

Oliver (1991) delineates five general strategies available to individual organizations confronting institutional pressures: acquiescence, compromise, avoidance, defiance and manipulation. The first, *acquiescence* or conformity, is the response that received the lion's share of attention from institutional theorists.<sup>13</sup> As we have seen, it may entail either imitation of other organizations selected as models, or compliance to the perceived demands of cultural, normative or regulative authorities.<sup>14</sup> It may be motivated by anticipation of enhanced legitimacy, fear of negative sanctions or the hope of additional resources. *Compromise* incorporates a family of responses that include balancing, placating, and negotiating institutional demands. It is particularly likely to occur in environments containing conflicting authorities. The strategy of *avoidance* includes concealment efforts and attempts to buffer some parts of the organization from the necessity of conforming to the requirement. Organizations under pressure to adopt particular structures or procedures may opt to respond in a ceremonial manner, making changes in their formal structures to signal conformity, but then buffering internal units, allowing them to operate independent of these pressures. *Defiant* organizations not only resist institutional pressures to conform, but do so in a highly public manner. Defiance is likely to occur when the norms and interests of the focal organizations diverge substantially from those attempting to impose requirements on them. Finally, organizations may respond to institutional pressure by attempts at *manipulation*, "the purposeful and opportunistic attempt to co-opt, influence or control" the environment (Oliver, 1991). Numerous scholars, from Selznick (1949) to Pfeffer and Salancik (1978), have examined the ways in which organizations attempt to defend themselves and improve their bargaining power by developing linkages to important sources of power.

Organizations are affected, even penetrated, by their environments, but they are also capable of responding to these attempts at influence creatively and strategically.

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<sup>13</sup> How organizations learn both from their own experience and from the experience of others. Institutional arguments, emphasizing the effects of rules or norms or constitutive beliefs, shade off into stratification and instrumental arguments, for example, that organizations imitate others whom they perceive to be successful or prestigious (see, e.g., Haveman 1993; Burns and Wholey 1993). Many motives are conducive toward conformity: fads, fashion, status enhancement and vicarious learning. All mimetic behavior does not involve institutional processes (Scott, 2001).

<sup>14</sup> Boeker contrasts the impact of entrepreneurial and environmental effects present at the time of the firm's founding on current firm strategy. He found that the previous functional background of the entrepreneur influenced the selection of the firm's strategy, but this decision was independently influenced by the industry's stage of development at the time the firm was founded. Firm strategies were significantly affected by industry stage in three of the four stages examined. For example, firms founded during the earliest era were more likely to embrace and to continue to pursue first-mover strategies, whereas firms founded during the most recent period studied were more likely to develop and to pursue a niche strategy (Scott, 2001).

By acting in concert with other organizations facing similar pressures, organizations can sometimes counter, curb, circumvent or redefine these demands. And collective action does not preclude individual attempts to reinterpret, manipulate, challenge or defy the authoritative claims made on them. Organizations are creatures of their institutional environments, but most modern organizations are constituted as active players, not passive pawns (Scott, 2001).

## 2.2 Sensemaking in organizations

The second theory or concept we use in the current study is sensemaking in organizations. We look now more specifically inside the leaders' heads. We focus on the sensemaking concept as a change of thinking for creating strategy. The concept of sensemaking is well named because, literally, it means making sense. Active agents construct sensible (Huber & Daft, 1987) events. They "structure the unknown" (Waterman, 1990). How they construct what they construct, why, and with what effects are the central questions for people interested in sensemaking. For example, people use strategy as a framework that "involves procurement, production, synthesis, manipulation and diffusion of information in such a way as to give meaning, purpose and direction to the organization (Westley, 1990). Whereas both Thomas et al. and Sackman mention "action" in conjunction with sensemaking, Feldman (1989) insists, "that sensemaking often does not result in action. It may result in an understanding that action should not be taken or that a better understanding of the event or situation is needed. It may simply result in members of the organization having more and different information about an ambiguous issue" (Weick, 1995).

Sensemaking is about such things as placing items into frameworks, comprehending, redressing surprise, constructing meaning, interacting in pursuit of mutual understanding<sup>15</sup> and patterning. In real-world practice, problems do not present themselves to the practitioners as givens. They must be constructed from the materials of problematic situations, which are puzzling, troubling and uncertain. In order to convert a problematic situation into a problem, a practitioner must do a certain kind of work. He must make sense of an uncertain situation that initially makes no sense (Weick, 1995).

Sensemaking is understood as a process that is:

- grounded in identity construction;
- retrospective;
- enactive of sensible environments;

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<sup>15</sup> That it is a sociological theory is in our view significant, as *the* problems are essentially social problems. Previous work has focused very much on their cognitive psychological aspect, but strategy and *strategic* change are very much social, not individual phenomena. What happens in people's minds is undoubtedly interesting, and Luhmann's theory does not deny *the* existence or importance *of* actors' cognitions and intentions, but it is what happens in organizations that is *of* concern here, and from his perspective that is a product *of* social systems *of* communications, not *of* psychic systems *of* cognitions (Hendry, 2003).

- social;
- ongoing;
- focused on and by extracted cues;
- driven by plausibility rather than accuracy.

These seven characteristics serve as a rough guide for any inquiry into sensemaking in the sense that they suggest what sensemaking is, how it works and where it can fail. This list is more like an observer's manual or a set of raw materials for a disciplined imagination (Weick, 1989) than it is a tacit set of propositions to be refined and tested. For example, in terms of the social aspect, Burns and Stalker (1961) say: "In working organizations decisions are made either in the presence of others or with the knowledge that they will have to be implemented, or understood or approved by others. The set of considerations called into relevance on any decision-making occasion has therefore to be one shared with others or acceptable to them." An ongoing aspect – sensemaking never starts. The reason it never starts is that pure duration never stops. People are always in the middle of things, which become things only when those same people focus on the past from some point beyond it.

The recipe "how can I know what I think until I see what I say?" can be parsed to show how each of the seven properties of sensemaking are built into it.

- Identity: the recipe is a question about who I am as indicated by the discovery of how and what I think.
- Retrospect: to learn what I think, I look back over what I said earlier.
- Enactment: I create the object to be seen and inspected when I say or do something.
- Social:<sup>16</sup> what I say and single out and conclude are determined by who socialized me and how I was socialized, as well as by the audience I anticipate will audit the conclusions I reach.
- Ongoing: my talking is spread across time, competes for attention with other ongoing projects, and is reflected upon after it is finished, which means my interests may already have changed.
- Extracted cues: the "what" that I single out and embellish as the content of the thought is only a small portion of the utterance that becomes salient because of context and personal dispositions.
- Plausibility: I need to know enough about what I think to get on with my projects, but no more, which means sufficiency and plausibility take precedence over accuracy.

Although content is a key resource for sensemaking, the meaning of this content is of even more importance. And that meaning depends on which content gets joined

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<sup>16</sup> Burns and Stalker (1961), focusing on organizations, say: In working organizations decisions are made either in the presence of others or with the knowledge that they will have to be implemented, or understood, or approved by others. The set of considerations called into relevance on any decision-making occasion has therefore to be one shared with others or acceptable to them.



with which content by what connection. Content is embedded in cues, frameworks and connections. These are the raw materials for sensemaking. We have to understand ideologies, third-order controls (consisting of assumptions and definitions that are taken as given), paradigms, theories of action, traditions and stories because their content pervades organizations and colours interpretations. All of these contents are in play all of the time. Moments of meaning occur when any two of them become connected in a meaningful way. Those meanings vary as a function of the content and the connection. Thus there is no such thing as a fixed meaning for the content resources in sensemaking. But simply because the meaning of content shifts there is no reason to ignore content and focus just on the process of connecting. Sensemaking, after all, is about the world. And what is being asserted about that world is found in the labels and categories implied by frameworks. These words express and interpret. These words include and exclude. These words matter (Weick, 1995).

Shotter (1993) likens managing to authoring a conversation and describes the manager's task as,<sup>17</sup> “not one of choosing, but of generating, of generating a clear and adequate formulation of what the problem situation “is”, of creating from a set of incoherent and disorderly events a coherent “structure” within which both current actualities and further possibilities can be given an intelligible “place” – and of doing all this, not alone, but in continual conversation with all the others who are involved....To be justified in their authoring, the good manager must give a sharable linguistic formulation to already shared feelings, arising out of shared circumstances – and that is perhaps best done through the use of metaphors rather than by reference to any already existing theories” (Weick, 1995).

Thayer (1988) pulls these strands together in a remarkable analysis of leadership, the crux of which is the idea that leader is<sup>18</sup> “one who alters or guides the manner in

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<sup>17</sup> Jörgen Ljung asks in his case study (“Kreenholm Holding Ltd in Narva, Estonia: A case study of a company in transition”): How will the changing environment influence an organization established during the former Soviet Union to adapt to the new market situation?; What are the links between the leader's strategic thinking, the process of change and the culture?; How can flexibility in the organizational structure as well as in the manager's way-of-thinking be created? The study covered the events from 1991 to 1999, where more than 100 interviews were carried out. Ljung concludes that in creating a flexible and effective organization, it is very important that the managers understand the changes and are able to change their cognitive structures, because they have to show the direction for the rest of the organization. The managers create meaning in that they define reality for the employees, especially as this is a new unknown situation. Yet for the organization to adjust to the environment, managers at all levels need to change their cognitive structures (Liuhto, 2001).

<sup>18</sup> The study by Bo Hellgren and Leif Melin (Hendry, 1993) was about Scandinavian pulp-and-paper company Holmen AB and the long-term strategic change occurring there between 1968 and 1989. The method used to gain an understanding of the change process was a longitudinal in-depth case study. They conducted retrospective studies of the historical development and also followed the progress of the company in real time during two periods: 1974-75 and 1985-88. They taped 50 interviews and took part in several meetings with each of the CEOs prior to and after their major strategic actions. The Holmen case showed that a leader, at least in certain circumstances, can significantly influence the corporate

which his followers “mind” the world by giving it a compelling “face”. A leader at work is one who gives others a different sense of the meaning of that which they do by recreating it in a different form, a different “face”, in the same way that a pivotal painter or sculptor or poet gives those who follow him (or her) a different way of “seeing” – and therefore saying and doing and knowing in the world. A leader does not tell it “as it is”; he tells it as it might be, giving what “is” thereby a different “face”.... The leader is a sense-giver. The leader always embodies the possibilities of escape from what might otherwise appear to us be incomprehensible, or from what might otherwise appear to us to be a chaotic, indifferent or incorrigible world – one over which we have no ultimate control” (Weick, 1995).

According to Kahane (1991), strategic management is not about establishing “right” or “optimal” solutions, but about understanding complex relationships and an uncertain future. The emphasis then is on challenging the management’s understanding and the tacit knowledge of the organization. Strategic management is, therefore, closely linked to notions of organizational learning. The idea that a few individuals, or small groups, can direct the strategy of the organization with others simply following has been replaced by a concern to develop across the organization a capacity to work together to question, debate and innovate (Peters and Waterman, 1982; Kanter, 1983). The corporate planning department may be less in evidence, but strategy development workshops, top team “away-days”, task forces and so on are becoming more common. There is a recognition that strategy development needs to involve managers widely. Notions of strategic stability have been replaced by an emphasis on strategic change and, correspondingly, the notion of the search for the optimal strategy has been overtaken by a concern for a strategy that will work and that can be implemented. The role of the top manager and the top management team is, therefore, being reappraised; notions of strategic directions are being replaced by principles such as leadership, coaching and team building (Hendry, 1993).

A leader’s vision can be implemented successfully only if key managers can make the vision meaningful. A vision is a top manager’s or top management team’s concrete idea of what the organization should be at some time in the future. A vision is usually different from a straight projection of the present, and therefore, its realization usually requires a change in the way the organization goes about its business. Managers must interpret the vision and translate it into action in a unified way (Maznevski,

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strategy, and thereby also influence the performance of the firm. The case pointed out the importance of strategic thinking on the part of the top leaders in change processes: the growth philosophy, opinions about market leadership, opinions about the necessary size of the company, the beliefs about economies of scale and the size of machines, views on diversification, the control philosophy, the role of formal strategic planning and whether to build or acquire increased capacity. The authors suggest to look more closely at the role of timing in encounters between leaders, organizations and sectors in a strategic change process.

Rush, White, 1993).<sup>19</sup> Organizational learning is synthesized. Individual managers act upon the environment and learn from their actions. Actions on and interpretations of the environment are influenced both by the managers' own schemas and by the organizational schema. When the managers interact with each other, they share experiences and build a common interpretation, thus influencing the organizational schema (Hendry, 1993).

## 2.3 Strategic management

Thirdly, we will now cover the theory or concept of strategic management. Our focus will be on strategy creation in a changing environment.<sup>20</sup>

### **Strategy in rapidly and unpredictably changing industries**

What is strategy? Basically, strategy is about two things: deciding where you want your business to go and figuring out how to get there. Traditional approaches to strategy focus on "where do you want to go?" They emphasize choosing an attractive market and picking a unique strategic positioning, a specific set of competences or a particular vision for the future. Only then, if at all, does "how are you going to get there?" become germane. But traditional approaches to strategy often collapse in the face of rapidly and unpredictably changing industries. They collapse because they overemphasize the degree to which it is possible to predict which industries, competences or strategic positions will be viable and for how long, and they underemphasize the importance and challenge of actually creating and then executing the strategy that is chosen. It is not that traditional strategies are wrong, but rather that they are just insufficient in industries with intense, high-velocity change (Brown, Eisenhardt, 1998).

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<sup>19</sup> Martha L. Maznevski, James C. Rush and Rod E. White study (Hendry, 1993) looks at the process of vision implementation as an organizational learning phenomenon, in which potential for new behaviour is acquired as a result of processing information (changes from 1987 to 1990). In vision implementation, information processing results in changes in managers' perceptions, which in turn lead to new behaviours required for the vision to be realized. The organizational cause map of a small life insurance company (50 employees) from 1987 and 1990 was compared on four dimensions: complexity, relative importance of product and service, addition of a future component, and influence of management and employee quality. All the 12 managers were asked to fill out a SWOT analysis on as many of 16 specific topics as they were able to comment on.

<sup>20</sup> Our interest in the computer industry was pragmatic. To us, the managerial problems were unprecedented. How could executives manage in industries that were so fast-paced and highly competitive? Planning was unrealistic because the marketplace was so volatile. Reacting was not an option because managers were constantly playing catch-up. So, how did managers cope in an industry with slogans like "have lunch or be lunch," "snooze, you lose," and "only the paranoid survive?" In contrast, our interest in science was intellectual. In some ways, we were "science geeks" and found the ideas simply intriguing. But, more importantly, we were searching for new models to replace the mature paradigms that dominate strategy and organizational thinking. Change has reshaped drug discovery in pharmaceuticals, taken Nucor to the top of US steel industry and altered the centrality of Asia to global business. From autos to telecommunication, from Santiago to Stockholm, constant change has become the norm (Brown, Eisenhardt, 1998).

Given this challenge, what strategy is successful in rapidly and unpredictably changing industries? The answer is a strategy that we term competing on the edge. Competing on the edge defines a strategy as the creation of a relentless flow of competitive advantages that, taken together, form a semi coherent strategic direction. The key driver of superior performance is the ability to change. Success is measured by the ability to survive, to change, and ultimately to reinvent the firm constantly over time (Brown, Eisenhardt, 1998).

If the central strategic challenge is managing change, what does it actually mean to manage change? At one level, managing change means reacting to it. For example, it means responding to a competitor's product move with a better product, adjusting to a new government policy by creating a novel service that exploits the change, or meeting unexpected customer demands with an innovative repackaging of existing products. Reaction is a defensive tactic. It is unlikely to create fresh opportunities, but it is clearly a necessary weapon in the arsenal of change. By this we mean creating the change to which others must react. It means launching a new market, raising the industry standard of service, redefining customer expectations, or increasing the pace of industry product cycles. It means being ahead of change or even changing the rules of the game. At the extreme, the best-performing firms consistently lead change in their industries. These firms dominate their markets. In fact, they become the environment for others.<sup>21</sup> Not only do they lead change, but the rhythm and pace of that change within their industries (Brown, Eisenhardt, 1998).

Finally, managing change is complicated because managers cannot focus only on change. Short-term fiscal targets do not disappear just because change is rampant. Rather, managers must balance when and what to change with the demands for building and preserving current revenues and profits. Rather than focus on change per se, firms must manage change in a way that also meets the financial and social performance demands that every manager faces (Brown, Eisenhardt, 1998).

The strategic challenge in high-velocity, unpredictable industries is therefore to manage change by reacting when necessary, anticipating wherever possible and leading change when the circumstances are right<sup>22</sup>. Given this strategic challenge, an approach of competing on the edge makes sense (Brown, Eisenhardt, 1998).

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<sup>21</sup> A field survey of 105 single-business manufacturing firms evaluated the scanning emphases of CEOs and firm performance. The results indicated that for dynamic external environments, relatively more CEO attention to the task sectors of the external environment and to innovation-related internal functions was associated with high performance. In stable external environments, however, simultaneously increased scanning of the general sectors in the external environment and efficiency-related internal functions produced higher performance (Vinay, 2003).

<sup>22</sup> In turbulent markets, managers should flexibly seize opportunities-but flexibility must be disciplined. Smart companies focus on key processes and simple rules. Different types of rules help executives manage different aspects of seizing opportunities (Eisenhardt, 2001).

It is incomplete, however, because it focuses on “where do you want to go?” and neglects the other half of strategy – “how are you going to get there?” In contrast, competing on the edge assumes that industries are rapidly and unpredictably changing, and therefore, that the central strategic challenge is managing change.

#### *Unpredictable*

Competing on the edge is about surprise. It is not about planning an approach and knowing how it will unfold. The future is too uncertain for such pinpoint accuracy. It is more about making some moves, observing what happens and continuing with the ones that seem to work<sup>23</sup>. Although the past and future matter, the focus of attention is today.

#### *Uncontrolled*

It is not about command and precision planning by senior executives. There is simply too much going on in rapidly changing industries for any single group to orchestrate every move. Rather, many people in the firm must make many moves on their own. Competing on the edge is about strategy making centred at the business unit, not at corporate headquarters.

#### *Inefficient*

Competing on the edge is not necessarily efficient in the short term. It is about stumbling into the wrong markets, making mistakes, bouncing back and falling into the right ones. It is about duplication, misfit and error. Sometimes, it is even about adding randomness. Competing on the edge is not about being the most efficient firm or the most profitable firm at any particular time. It is not about creating fit. Rather it is about using change to relentlessly reinvent the business by discovering opportunities for growth and letting profits follow.

#### *Proactive*

Competing on the edge is not about passively watching for the occasional discontinuity or waiting for other firms to move before taking action. It is about being early – about trying to anticipate and, where possible, to lead change.

#### *Continuous*

It is about a rhythm of moves over time, not a set of disjointed actions. It does not comprise a few very large moves, like massive corporate transformations or corporate mega-mergers (Vaara, 2004). Instead, it is about repeated, relentless change that becomes endemic to the firm.

#### *Diverse*

Finally, competing on the edge is about making a variety of moves with varying scale and risk. So the key to successful performance is not a single generic strategy,

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<sup>23</sup> Successful firms link *the* present and future together through rhythmic, time-paced transition processes. We develop *the* ideas of “semistuctures,” “links in time,” and “sequenced steps” to crystallize *the* key properties of these continuously changing organizations and to extend thinking about complexity theory, time-paced evolution, and *the* nature of core capabilities (Brown, 1997).

a particular competence, or one startling move. Rather, it is about creating a robust and diverse strategy. It is about making lots of moves. Some will be brilliant, most will be good, and a few will be failures (Brown, Eisenhardt, 1998).

If a semi-coherent strategic direction is “where you want to go,” the second strategy question is “how do you get there?” The answer lies in creating an organization that can continuously change and then allow a flow of competitive advantages to emerge that form a semi-coherent direction. Three core concepts describe an organization that can change continuously: the edge of chaos, the edge of time and time pacing. The edge of chaos has been described as “a natural state between order and chaos, a grand compromise between structure and surprise.” In more concrete terms, being at the edge of chaos means being only partially structured.

Secondly, the edge of time concept stems from the idea that change requires thinking simultaneously about multiple time horizons. Successful change involves relying partially on past experience, while staying focused on current execution and still looking ahead to the future. This can be conceptualized as balancing on the edge of time – rooted in the present, yet aware of past and future. The third core concept of competing on the edge is time pacing. Time pacing means that change is triggered by the passage of time, rather than by the occurrence of events. Time pacing is about creating an internal rhythm that drives the momentum for change (Brown, Eisenhardt, 1998).

Although a competing on the edge strategy is predictably unpredictable, uncontrolled and at times inefficient, it is also effective in industries that experience relentless change. Competing on the edge is at the very least about reacting responsively to change, anticipating change when possible, and at best, creating and even dictating the pace of change that others are forced to follow. Competing on the edge is about constant change, not just in rare corporate realignments, but rather in unrelenting, day-after-day adjustments to a constantly shifting landscape. What are the rewards for competing on the edge? Like pinball, winning is about survival. But for the best firms, winning is an opportunity to seize the initiative, constantly change and dominate an industry (Brown, Eisenhardt, 1998).

Competing on the edge is not about Silicon Valley fever, the success of Japanese behemoths, or newly nimble European firms. Rather, it is a set of transcendent themes that unites a group of dominant global businesses with diverse strategic issues. It intimately links together the two parts of strategy: “Where do you want to go?” and “How are you going to get there?” Rooted in the logics of complexity thinking, the nature of speed and time-paced evolution, competing on the edge is a strategy and approach to organizing that some managers are mastering. Of course, competing on the edge is complicated and challenging. But it is also a strategy that works... when change is the name of the game (Brown, Eisenhardt, 1998).

## What is strategy?

When people in positions of leadership are asked about what they do to lead their organizations<sup>24</sup>, the answer is more often than not, “Well, it all depends...”. Further questioning about individual actions and tasks usually results in the distinct impression that the work of top-level executives is so varied and situation-specific that it has no order or regularities (Lenz, 1993).

“What is strategy – and does it matter?” asks Richard Whittington (2001). Amazon.com lists forty-seven books available with the title *Strategic Management*. Most are thick tomes, filled with charts, lists and nostrums, promising the reader the fundamentals of corporate strategy. Rather than taking *strategic management* for granted, we better ask the question “what is strategy anyway?”, the answer matters.

According to Chandler (1962), strategy is the determination of the basic, long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of the resources necessary for those goals.

There is not much agreement about strategy. The *Economist* (1993) observes: “the consultants and theorists jostling to advise businesses cannot even agree on the most basic of all questions: what, precisely, is a corporate strategy”. Strategy guru Michael Porter (1996) asks the question “What is Strategy?” in the very title of an important *Harvard Business Review* article. In a recent textbook, Markides (2000) admits: “We simply do not know what strategy is or how to develop a good one”.<sup>25</sup>

## The four approaches to strategy

The four approaches to strategy (classical, evolutionary, processual and systemic) differ fundamentally along two dimensions: the *outcomes* of strategy and the *processes* by which it is made. These differences can be depicted according to the intersection of the axes in appendix 1. The vertical axis measures the degree to which strategy either produces profit-maximizing outcomes or deviates to allow other possibilities to intrude. The horizontal axis considers processes, reflecting how far strategies are the product of deliberate calculation or whether they emerge by accident, muddle or inertia. In short, the two axes reflect different answers to two fundamental questions (Whittington, 2001) :

- what is strategy *for*?
- how is strategy *carried out*?

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<sup>24</sup> Our framework suggests that *the* practice of organizational strategizing requires managers to have an awareness of their discourse and organizational politics, and especially to appreciate *the* links between them (Maitlis, 2003).

<sup>25</sup> Much less has been written about market defence strategy than about market attack. We focused on one aspect of defensive strategy, defending against a new market entrant – though much of the thinking would also apply to other competitive assaults, like a major new product launch. We outline a model for the response of the Australian telecoms incumbent, Telstra, after deregulation. We conclude that market leaders should avoid price wars, understand the points in the consumer decision process that are defensible and use inertial strategies (Roberts, Nelson, Morrison, 2001).

The basic assumptions of the four approaches to strategy can be read off from their positions on the two axes of appendix 2. The Classical and Evolutionary approaches (Salvato, 2003) see profit maximization as the natural outcome of strategy-making; the Systemic and Processual approaches are more pluralistic, envisioning other possible outcomes as well as just profit. The pairings are different with regard to processes. Here, Evolutionary approaches side with the Processualists in seeing strategy as emerging from processes governed by chance, confusion and conservatism. On the other hand, though differing over outcomes, Classical and Systemic theorists do agree that strategy can be deliberate (Whittington, 2001).

Thus, each perspective has its own view of strategy and how it matters for managerial practice. Classicists broadly see strategy as a rational process of long-term planning vital to securing the future. Evolutionists usually regard the future as far too volatile and unpredictable to plan for, and warn that the best strategy is to concentrate on maximizing chances of survival today. Processualists too doubt the value of rational long-term planning, seeing strategy best as an emergent process of learning and adaptation. For both Evolutionary and Processual theorists, then, strategy in the Classical sense of rational planning does not really matter; plans are bound to be overwhelmed by events or undercut by error. Finally, Systemic theorists take a relativist position, arguing that the forms and goals of strategy-making depend particularly on social context, and that strategy should therefore be undertaken with sociological sensitivity. The main characteristics of the four approaches are summed up in table 6 (Whittington, 2001).

**Table 6. The four perspectives on strategy**

	Classical	Processual	Evolutionary	Systemic
<b>Strategy</b>	Formal	Crafted	Efficient	Embedded
<b>Rationale</b>	Profit maximization	Vague	Survival	Local
<b>Focus</b>	Internal (plans)	Internal (politics/cognitions)	External (markets)	External (societies)
<b>Processes</b>	Analytical	Bargaining/learning	Darwinian	Social
<b>Key influences</b>	Economics/military	Psychology	Economics/biology	Sociology
<b>Key authors</b>	Chandler; Ansoff; Porter	Cyert&March; Mintzberg; Pettigrew	Hannan&Freeman; Williamson	Granovetter; Whitley
<b>Emergence</b>	1960s	1970s	1980s	1990s

Source: Whittington, 2001



For the Classical approach, strategic choice is about rational profit-oriented decisions. To guide these decisions, it has developed a powerful array of financial and planning techniques. No doubt these can be helpful, but logic suggests that there must be something more to strategic choice than just plugging in the techniques as everybody else does.

The Processualists take an even stronger position. If the information we use is inherently limited and our judgement is inescapably biased, then to trust heavily in formal analyses is to risk making grand mistakes. Strategies are best crafted in a continuous “middle-up-down” incremental process. In practice, decisions are often not decisive; strategies emerge undecided. The detached and formal analyses of finance and corporate planning can dangerously distract from how strategies really are formulated. The Processual advice then is not to over-invest in rationality and to keep close to the action. This is not to say that finance and planning are useless. As Langley (1991) argued, just the process of getting people together for the ostensible purpose of planning can have positive, if unintended, spin-offs. Systemic theorists add a more cynical view. In the context of Anglo-Saxon big business, we need planning and finance to rationalize our strategic choices because these are what the dominant professional groups and cultural norms demand. The Systemic advice is to use the techniques for the sake of credibility. In organizational politics, the ritual display of formal analysis will reassure superiors and impress subordinates. We plan and calculate to keep up appearances (Whittington, 2001).

### **Strategy and structure**

The message of the Classical and Evolutionary<sup>26</sup> schools is clear: change organizational structures to match changes in organizational strategies. Donaldson's (1987) statistical analysis of the correlation between performance and appropriate structure amongst large American corporations certainly confirmed the financial logic of this argument: diversified firms with multidivisional structures and non-diversified firms with functional structures performed better in terms of profit margin and return on investment growth than their mismatched peers. In the United States at least, fitting structure to strategy pays.

But for the Processualists, this is all too glib: the relationship between strategy and structure is not that simple and, anyway, changing anything is never going to be easy. The Processualist approach to change is more cautious. Following Miller (1982), it may sometimes be best to delay change, putting up with some local inefficiencies, rather than risk unravelling the whole intricately interwoven gestalt of the organization by some ill judged tinkering. If change is to be undertaken, then the Processual

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<sup>26</sup> We advocate studying strategic management from an evolutionary perspective: using dynamic, path-dependent models that allow for possibly random variation and selection within and among organizations. Collectively, the papers draw on various theoretical rationales, illustrating how an evolutionary perspective can help to integrate the diverse and otherwise separate theoretical traditions that meet within the field of strategic management (Barnett, 1996).

advice is usually to be modest in your expectations. Organizations do not change simply by decree. Achieving strategic change is likely to be a patient process of coaching, bargaining and manoeuvre.

Evolutionists are perfectly prepared to accept the difficulties of organizational change, but their conclusion is more brutal. In today's competitive world, there is no time for Processual procrastination. Use markets to compel change and carry it through. If managers will not change, change the managers; if the organization does not adapt, sell it and buy another one (Whittington, 2001).

Top managers spend more time and energy on implementing strategies than choosing them. Strategies that are well chosen will fail because of poor implementation. Getting the organizational structures right for a particular strategy is thus clearly critical to practical success. Structures are not the infinitely plastic supports of the Classical strategist's (Samra-Fredericks, 2003; Watson, 2003) imagination. In practice, organizational structures both enable and constrain particular strategies. Indeed, D.J. Hall and Saias (1980) even invert Chandler's dictum to assert that "strategy follows structure!". Mintzberg (1990), however, finally takes a more balanced view, rejecting any unilateral determination from either direction. He concludes that the relationship between strategy and structure is inextricably reciprocal: "structure follows strategy ... as the left foot follows the right" (Mintzberg, 1998).

### **Strategic change**

For some Processualists, the generic capacity to handle strategic change is now the critical source of competitive advantage (Pettigrew and Whipp, 1991). In today's fast moving environment, more specific sources of advantage rooted in particular technologies or markets for instance, are liable quickly to be superseded. Truly sustainable advantage comes from the internal ability to adapt and learn. But history is littered with managers apparently unable to adapt to new and threatening circumstances, and suffering the penalty of dismissal. Studies of corporate "turnarounds" following periods of organizational decline repeatedly confirm the necessity of hiring new chairmen or chief executives<sup>27</sup> in order to achieve strategic change (MacIntosh, 1999) and recovery (Whittington, 2001). Often the need for change is obvious: The unit is underperforming, or major shifts are occurring in the unit's competitive and technological environment (Kaplan, 2001).

Miller (1982) and Pettigrew (1985) both agree that strategic change is hard, but precisely because of this Miller concludes that, rather than undertaking a continuous

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<sup>27</sup> Building on the strategic flexibility perspective, this paper examines the influences of organizational diversity, ownership structure and board characteristics on strategic responses to industrial decline in firms from the UK textile industry. Using samples of exiting and surviving companies it shows that, in line with the predictions of the strategic flexibility framework, the surviving companies tended to have a higher level of organizational diversity. They also tended to have larger institutional ownership and more diverse boards. These factors are associated with higher investment, financial performance, and growth (Filatotchev, 2003).

process of incremental advances, change should be held back until sufficient pressure has gathered for complete revolution. Organizations often behave like sluggish thermostats. They must delay changing their structure until an important crisis develops. By then, quantum or revolutionary change may be required to re-establish harmony among many aspects of the structure and environment (Miller, 1982).

We define strategic organizational change as a major modification to the set of resources or routines that an organization uses to compete (e.g., Barney, 1986; Boecker, 1997; Nelson and Winter, 1982). From a formulation standpoint, we should be able to focus on how organizations can change rather than whether they can change. We argue that strategic organizational change is influenced by environmental structure, internal conscious awareness and organizational knowledge (Bloodgood, Morrow, 2003).<sup>28</sup>

### **Dimensions of the strategic schools**

Henry Mintzberg, Bruce Ahlstrand and Joseph Lampel draw together diverse strands of strategic thought into ten distinct schools, pointing out, however, that a truly unified theory may not be possible or desirable. Appendix 3 lists all sorts of dimensions of the different strategic management schools (Mintzberg, 1998). For the record, some of this material includes early writers, base disciplines, key words and the like for each school. Other material describes the strategy process as seen by each school: the basic process, central actor, view of the organization and environment, favoured situation and stage and so on. You may want to take a special look at some of the columns, in particular the one that lists the champions of each of the schools – those kinds of people who tend to favour it. For example, people who love order are drawn to the planning school, while people who believe in leadership are hardly fans of the environmental perspective. Birds of the same academic or consulting feather are thus drawn together to form their various networks or “invisible colleges”. Their clashes can, therefore, be seen as battles of personalities. Experience also plays a role here. People who have taught cases for years can hardly be expected to eschew

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<sup>28</sup> Changes in different countries – Deutsche Telekom and British Telecom. Countries differ in the density of their social and institutional environments. Networks of relationships and mutual commitments characterize Germany and Japan. Anglo-Saxon societies are more individualistic and hard-headed. These different contexts have substantial implications for the kinds of change that are feasible. Lehrer and Darbishire (1999) compare long-run changes at Deutsche Telekom and Lufthansa, on the one hand, and British Telecom and British Airways on the other. In the 1960s and early 1970s, the German companies were relatively successful, harnessing their respect for technology and their consensual management styles to the incremental learning required of that slow-moving period. The British companies, meanwhile, were too locked-in to adversarial labour relations and stable financial returns to match the Germans. However, when rapid technological change combined with deregulation and increasing competition from the 1980s onwards, it was British Telecom and British Airways that took the lead. Here the decisive, low commitment and financially oriented management style of the British was initially the most successful in achieving the revolutionary changes required. Deutsche Telekom and Lufthansa caught up with the scale of change only in the 1990s. In other words, the pace and patterns of organizational change vary according to national context. But in neither Germanic nor Anglo-Saxon systems was business able to match organizational change with environmental change perfectly: the British failed to cope with incremental learning, the Germans with radical transformation.

cerebral approaches, while those raised in the consensual society that is Japan will be naturally attracted to decentralized learning (Mintzberg, 1998, 1999).

Pascale (1982, 1984) asks how much strategic thinking do we want anyway, implying that organizations obsessed with the strategy-formation process lose control of it. Approaching this from the perspective of the learning school, Pascale believes organizations should get on with acting. But again, the issue need not be dichotomized. Certainly, we need to think – we are cerebral animals – and even sometimes need to formalize. Yet, as we critiqued the prescriptive schools, we can become too conscious at the expense of our ability to act. Indeed, conscious thought did not fare so well in the cognitive school, although ironically, it was redeemed somewhat in the learning school (through the acknowledgment of insight and inspiration). Perhaps Karl Weick strikes the right balance here with his point that we need to act, but then we also need to make sense of our actions. That is why we reviewed his work in both the learning and cognitive schools (Mintzberg, 1998).

Perhaps we should convert Pascale's point into the following question, which remains largely unaddressed in the literature of strategic management: What is "strategic thinking" anyway? And what forms of it – what "strategic styles" – are most effective? How is thought best coupled with action in strategy making: in other words, how is the specific made to inform the general and the general brought to bear on the specific? When and where? (Mintzberg, 1998).

### **Strategy formation**

It is generally recognized that effective strategy formation processes consist of central planning activities orchestrated at the corporate strategic apex as well as emerging strategic decisions (Papadakis, 1998) influenced by empowered managers within the organization (Hill and Jones, 2000); (Johnson and Scholes, 2002; Mintzberg, 2003). Nonetheless, limited research has been conducted to further enlighten our understanding of the interaction between these two elements of the strategy formation process, particularly in the international business context that permeates the competitive environment not least within the European Union (Andersen, 2004<sup>29</sup>).

From a planning perspective, strategy is formed through a sequence of rational analytical steps including mission statement, competitive analysis, internal analysis and strategic control (Andrews, 1971; Ansoff, 1988; Cohen and Cyert, 1973; Schendel and Hofer, 1979). This strategic management framework often distinguishes between business and functional strategic levels and thereby implies a certain degree of middle management involvement in the process possibly confined to the engagement of line managers and department heads. Hence, strategic management constitutes

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<sup>29</sup> The analyses reveal that the two strategy-making modes, decentralized strategic emergence driven by middle managers' autonomous initiatives in a decentralized strategic decision structure and the centralized strategic planning process, both seem to have significant performance effects with a high degree of international business activities that operate in turbulent environments (Andersen, 2004).

a normative outline for rational strategy formulation, but provides little explicit consideration of the potential management roles in the strategy formation process. Conversely, strategic emergence has often been ascribed to decision patterns evolving over time as relatively autonomous managers within the organization engage in resource committing activities (Bower, 1970, 1982; Burgelman, 1983, 1988, 1996), and take actions in response to changing market conditions (Mintzberg, 1978, 1994). This emergent perspective is distinct from the chief executive's selective engagement of key employees in incremental decision-making as described by Quinn (1980), and managers selling ideas to the top executives (Dutton and Ashford, 1983; Dutton, 1997). Thus, we define *decentralized strategic emergence* as resource committing decisions made by lower level managers that subsequently can influence the strategic direction of the firm. By providing managers with authority to take decisions in key areas when competitive conditions change, firms should become more responsive and reach better outcomes particularly in rapidly changing environments. We also consider the *strategic planning process* to reflect the organization's emphasis on mission and long-term goals as well as action plans and on-going evaluation of strategic objectives (Andersen, 2004<sup>30</sup>).

The two fundamental strategy perspectives of planning and emergence have often been considered as either/or choices contingent on environmental conditions where strategic emergence was seen as appropriate in turbulent environments and strategic planning to stable and predictable conditions (Mintzberg, 1973, 1983; Fredrickson and Iacquinto, 1989; Powell, 1992). These views continue to influence the thinking among contemporary strategy scholars, for example, as expressed by Volberda and Elfring (2001): "Empirical research by Fredrickson (1984); Fredrickson and Mitchell (1984) and Mintzberg (1973) shows that in turbulent environments planning is ... often insufficient and leads to rigidity". Nonetheless, various studies have described significance to structure, comprehensive analyses and emergent strategic initiatives alike (e.g. Eisenhardt, 1989, 1999; Jelinek and Schoonhoven, 1990). Mintzberg (1978) and Waters (1985) even suggest that the interplay between intended and emergent strategies were at the heart of the complex strategy formation process. Recent studies have consistently found that strategic planning is effective in turbulent environments (Hopkins and Hopkins, 1997; Brew and Hunt, 1999; Andersen, 2000). However, only a few studies have focused on the relationship between the integration of different strategy-making modes and performance (Hart, 1992; Hart and Banbury, 1994; Andersen, 2002). Hence, further investigations of the interaction between planning and emergence in the strategy<sup>31</sup> formation process across industries and international business environments are needed to fill this void (Andersen<sup>32</sup>, 2004).

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<sup>30</sup> Previous studies have argued that planned as well as emergent processes are necessary for effective strategy (Hart, 1992), and Hart and Banbury (1994) reported that the best performing firms were able to integrate different strategy-making modes including planning and emergence. The current study extends these findings by explicating and demonstrating incremental advantages from an integrative strategy process based on central planning and decentralized emergence in turbulent and international environments (Andersen, 2004).

The theory postulates that management has at least two options. There may well be more, but these two are likely to be foremost since they are spread wide across the cases studied. They will be called the Planned Option and Prioritized Option. Management is disposed to one, or the other, or both, by the pertinent experience it has or can buy in, or by organizational readiness for action. If the approach is Experience-based, then management has open to it the Planned Option. It can plan and control implementation by assessing aims and performance criteria, specifying tasks, and resourcing them, and this is likely to win the acceptance from all concerned that is essential to success. But if management lacks the experienced know-how so that the more Planned Option is not a practicable course of action, then the Prioritized Option may be an alternative. Indeed, when putting into practice a decision of a kind which is novel, this Option may be preferable. It depends upon organizational readiness for action. If personnel are receptive, then implementation can be propelled forward despite the lack of know-how. This can be done by prioritizing it above other demands on managerial time and attention, and by ensuring that potential structural impediments are negated. Either Option can be successful, but a combination of both, resting on a dual approach which utilizes both courses of action, has the best chance of full success. It is suggested that this is because the planned element gives stability whilst the prioritized element is more open to new learning. If neither Option is taken the chance of really successful implementation is low (Hickson, 2003).

In summary, the strategic challenge in high-velocity, unpredictable industries is therefore to manage change by reacting when necessary, anticipating wherever possible and leading change when the circumstances are right. Given this strategic challenge, adopting the approach of competing on the edge makes sense (Brown, Eisenhardt, 1998).

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<sup>31</sup> Based on our model, we offer explanations for why past large-sample researchers were not able to verify the role of strategic change in the turnaround process and we reassert the adaptive role that strategic reorientations have in the turnaround attempts of declining firms with weak strategic positions (Barker III, 1997).

<sup>32</sup> These findings confirm that effective organizations engage in more complex strategy formation processes that complement the decentralized post-bureaucratic form with formal mechanisms of rational analyses and operational integration. When managers are authorized to take initiatives as environmental conditions change, they increase the effectiveness of the responsive actions and enhance organizational efficiencies (Andersen, 2004).

### 3 METHODOLOGY

In general, case studies are the preferred strategy when “how” or “why” questions are being posed, and when the focus is on a contemporary phenomenon within some real-life context. Regardless of the type of case study, investigators must exercise great care in designing and doing case studies (Saunders, 2000) to overcome the traditional criticisms of the method. In contrast, “how” and “why” questions are more *explanatory* and likely to lead to the use of case studies, histories and experiments as the preferred research strategies. This is because such questions deal with operational links that need to be traced over time, rather than mere frequencies or incidence. Thus, if you wanted to know how a community successfully overcame the negative impact of the closure of its largest employer – a military base (Bradshaw, 1999) – you would be less likely to rely on a survey or an examination of archival records and might be better off doing a history or a case study. The case study relies on many of the same techniques as a history, but it adds two sources of evidence not usually included in the historian’s repertoire: direct observation of the events being studied and interviews with the people involved in the events. Again, although case studies (Remenyi, 2000) and histories can overlap, the case study’s unique strength is its ability to deal with a full variety of evidence – documents, artefacts, interviews, and observations – beyond what might be available in a conventional historical study. Case studies, like experiments, are generalizable to theoretical propositions and not to populations or universes. In this sense, the case study, like the experiment, does not represent a “sample”, and in doing a case study, the goal will be to expand and generalize theories (analytic generalization) and not to enumerate frequencies (statistical generalization) (Yin, 2001).

For example, the definition of the case study as a research strategy: The essence of a case study, the central tendency among all types of case study, is that it tries to illuminate a decision or set of decisions: why they were taken, how they were implemented, and with what result (Schramm, 1971).

This definition thus cites the topic of “decisions” as the major focus of case studies. Other topics have been similarly cited, including “individuals”, “organizations”, “processes”, “programs”, “institutions”, and even “events”. However, citing the topic is surely insufficient for establishing the necessary definition of case studies. Case studies can be based on any mix of quantitative and qualitative evidence. In addition, case studies need not always include direct, detailed observations as a source of evidence<sup>33</sup>. Case studies have a distinctive place in evaluation research (Cronbach, 1980; Guba & Lincoln, 1981; Patton, 1990). There are at least five different applications.

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<sup>33</sup> Three particularly promising approaches (interactive discussion groups, self-reports, and practitioner-led research) that fit *the* increasingly disparate research paradigms now being used *to* understand strategizing and other management issues. Each of these approaches is based on *the* idea that strategizing research cannot advance significantly without reconceptualizing frequency taken-for-granted assumptions about *the way to do research and the way we engage with organizational participants*. *The* paper focuses in particular on *the* importance of working with organizational members as research partners rather than passive informants. (Balogun, 2003)

The most important is to *explain* the presumed causal links in real-life interventions that are too complex for the survey or experimental strategies. In evaluation language, the explanations would link program implementation with program effects (U.S. General Accounting Office, 1990). A second application is to *describe* an intervention and the real-life context in which it occurred. Third, case studies can *illustrate* certain topics within an evaluation, again in a descriptive mode. Fourth, the case study strategy may be used to *explore* those situations in which the intervention being evaluated has no clear, single set of outcomes. Fifth, the case study may be a *meta evaluation* – a study of an evaluation study (Smith, 1990; Stake, 1986). Case study research is remarkably difficult, even though case studies have traditionally been considered “soft” research, possibly because investigators have not followed systematic procedures (Yin, 2001).<sup>34</sup> Thus, micro studies of strategy as practice contribute to our understanding of the internal complexities of organizational positioning, as much as economic industry analyses contribute to our understanding of external positioning (Jarzabkowski, 2003).

### **Triangulation**

The case study compares information from different types of data sources through a technique called *triangulation* (Stake, 1995). Snow and Anderson (cited in Feagin et al., 1991) asserted that triangulation can occur with data, investigators, theories and even methodologies. Denzin (1989) identified four types of triangulation: data source triangulation, when the researcher looks for when data remains the same in different contexts; investigator triangulation, when several investigators examine the same phenomenon; theory triangulation, when investigators with different view points interpret the same results; and methodological triangulation, when one approach is followed by another, to increase confidence in the interpretation. This study uses multiple forms of triangulation: at first there is theory triangulation, as view points from institutional, sensemaking and strategic management theories. Secondly, data source triangulation, with data coming from in-depth interviews, secondary data and observations. Finally, method triangulation is also used - the data is collected and analyzed using in-depth interviews, observation and secondary data analysis.

## **3.1 Research design**

The research design is a single case study, the main components of which are the study’s theory, questions, facts, the logic linking the data to the questions and the analysis for interpreting the findings. The study’s objective was presented and questions were asked in chapter 1. Detailed questions for informants are presented in appendix 1. As the theories are the basis for the questions, we can see a logical connection between them. The literature is stated in the references section. The

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<sup>34</sup> Gerry Johnson, Leif Melin and Richard Whittington (2003) argue that strategy is now recognized as an organizational phenomenon rather than a macro strategy problem detached from the internal dynamics of the organization. An important contribution of strategy process research is the legitimization of small sample in-depth studies. These in-depth studies are not only valid in themselves, but vital complements to the large-scale, a processual studies typical of traditional strategy performance studies.



unit of analysis is an organization that has been in an extremely changeable environment, and the strategic decisions made by the leaders are the main interest of the study. The study attempts to consolidate those theories and questions with empirical data of the organization. The data analysis is the most important part of the study, as in that stage we can see conclusions from the data we collected and the analysis. The criteria for interpreting the findings are those explained in the data analysis section. The author's target is to carry out the study in such a way that if somebody else repeats the same study the results would be the same, as expressed in table 7. We separate three phases of the study, as research design, data collection and data analysis. Within those phases we have to test the study's tactics.

**Table 7. Case study tactics**

Tests	Case Study Tactic	Phase of research in which tactic occurs
External validity	<ul style="list-style-type: none"> <li>▪ Theories:               <ul style="list-style-type: none"> <li>- institutions and organizations</li> <li>- sensemaking in organizations</li> <li>- strategic management</li> </ul> </li> </ul>	research design
Construct validity	<ul style="list-style-type: none"> <li>▪ Multiple source of evidence</li> <li>▪ Chain of evidence</li> </ul>	data collection
Reliability	<ul style="list-style-type: none"> <li>▪ Case study protocol</li> <li>▪ Case study database</li> </ul>	data collection
Internal validity	<ul style="list-style-type: none"> <li>▪ Research questions based on literature</li> <li>▪ Pattern matching (comparing the data from informants and the secondary data)</li> </ul>	data analysis

Source: Yin, 2001

As the case study's structure has to be able to move from one part of the study to the next, with clear cross-referencing to methodological procedures and to the resulting evidence, a chain of evidence is needed<sup>35</sup>; for example, in case we read the conclusions in a study report and we want to trace the evidentiary process backward (Yin, 2001). Thus, maintaining the chain of evidence is critical for the study's reliability, and we can see the following links:

- The dissertation and conclusions;
- Citations to specific evidentiary sources in the study database;
- The study's database;
- The study's main questions and detailed questions;
- The theory used in the study.

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<sup>35</sup> This result as such means that we should be aware of the problems related to success and failures stories: one's success may be another's failure and the same outcomes may be explained in a variety of ways. This is a methodological challenge for organizational research, especially if and when interview material is used as basis for constructing historical accounts of organizational change processes (Vaara, 1999).

### 3.2 Data collection

Data were collected through interviews and secondary sources, including business plans (10, as updated yearly), annual reports (9, yearly), minutes, regulations, archival records, observations and articles (table 8). The author interviewed two types of informants: the chairman of the board or members of the board (top managers) and those responsible for strategic management or managers involved with strategic planning during that period (appendix 4). The responsibilities of the respondents were divided between customer service, network handling and general management. The 15 interviews conducted were taped and transcribed. Interviews typically lasted 90 minutes. The questions were asked for the periods 1993–1996, 1997–2000 and 2001–2003, as informants accepted those three periods. Open-ended questions were asked first, and finally, the informant was asked to list the major factors and important issues in conjunction with strategy creation issues in order of importance.

As the author has been working in the company since September 1997, it was easy to make contact with informants and locate the relevant secondary data including business plans, minutes, regulations and archival records. The author was responsible for strategic planning from March 2001 till January 2003, when he was head of the strategic planning department. That background gave the author a better understanding of the context. For example, the author’s observation in the study occurred via participation on the management board and in council meetings in that period, as well as via teamwork with colleagues putting together the business plan. Many case study researchers identify themselves as “participant-observers (Glatthorn, 1998).”

**Table 8. The sources of evidence of the study**

	Informants: Top Managers	Informants: Managers	Business Plans	Annual Reports	Minutes	Regulations	Articles
Nr/ amount	8	7	10	9	ca 100	ca 25	ca 30
Main source of the content for the study	Evaluating the questions from the viewpoint of the leaders	Evaluating the questions from the viewpoint of middle managers	Company's visions, strategies and main targets for the future	General feedback from the leaders to the company and to public and the facts of performance	Strategic decisions which have been made by the leaders (ETC's Council and Board)	Strategic decisions and arrangements by the leaders	Feedback and comprehensions from the press and public

Source: Author

The database of the study can be separated into paper form, electronic form and the report (dissertation) itself. During the research, the author used the case study report, which was the concentrate of the whole study and which gave a general overview of the study. On the other hand, the author has divided the data into documents, tabular materials, narratives and study notes. Documents generate the largest amount of the data both in electronic and paper form. Tabular materials are those that have been organized into table form, and are mainly focused on numerical data. Narratives were collected during the interviews, which were taped and partly written out in electronic form by the author. The study notes are all the materials which were written by the author and which were somehow organized, categorized and made available for later access.

### 3.3 Data analysis

The data was analysed by first building the questions according to theories and then comparing those questions with the collected data. As a first step, the literature overview took a great part of the study to build a theoretical framework. Next, collecting the evidence for the questions (appendix 1) was the main focus of the data analysis. Data from informants were put into a matrix where the questions for three time periods were put in rows and the data from the informants were put in the columns (table 9, appendix 5 and 6). The data from the informants were systematized beforehand and saved in the database, as the author wrote the major statements during the interviews.

**Table 9. Matrix for analyzing the collected data from the informants**

Question	Time period	Informant 1	Informant 2	Informant n
Question 1	1993-96			
	1997-00			
	2001-03			
Question n	1993-96			
	1997-00			
	2001-03			

*Source: Author*

In chapter 5, the author has carried out pattern matching and data triangulation, comparing the data from informants and the secondary data, according to table 10. Those findings were strongly representative, since the content of the informants' answers was primarily common for all informants. The author used the information from appendix 5 and 6, as well the secondary data from chapter 4 and the company's business plans. The main focus was to find the facts that support the common understandings. Appendix 10 shows that 6 informants mentioned that choosing strategic partners for building up the infrastructure in the period 1993-1996 was

important at that time. “I” means informant, the number after “I” means the number of the informant in the authors database (app. 5, 6), “aq” means answer to the question and the number after that means the question’s number in appendix 1. In addition, appendix 10 shows evidence from secondary data, such as the annual report and business plan from that period, that also stressed the importance of strategic partners and providing high-quality telecommunication services. All the findings are explained in chapter 5 and the main conclusions are presented in chapter 6 on the basis of the data analysis covered above.

**Table 10. Matrix for analyzing the collected data**

Periods: 1993-1996 1997-2000 2001-2003	Facts and understandings		
	Informants answers	Visions and targets from business plans	Understandings from annual reports
Common findings 1			
Common findings n			

*Source: Author*

The limitations of this study were that it studied a single company acting in the local market, thus restricting its external value. Secondly, the study was conducted in a relatively small company in the telecommunications sector. The third limitation was the level of the informants, as the author only interviewed managers. An alternative could have been to interview more employees for a better understanding of the strategic implementations.

## 4 OVERVIEW OF ETC FROM 1993-2003

### 4.1 General overview of the environment and company

#### Telecommunications in the world

Countries often want to compare their status with others, set targets and measure progress. However, no single indicator is sufficient to measure access to the information society. One solution is the creation of an index using a composite of indicators. The world telecommunications development report 2003 has proposed a number of indicators for measuring access to the information society – the International Telecommunications Union (ITU, 2003) Digital Access Index (DAI). Several organizations have developed indices for ranking countries in relation to their information and communication technologies (ICT) capabilities. However, none is completely satisfactory for measuring access to ICTs. The ITU's Digital Access Index is a new index that measures the overall ability of individuals in a country to access and use new ICTs. The DAI overcomes limitations of earlier indices in terms of its specific focus, wide country coverage and choice of variables. It is composed of a few considered variables in order to include the widest number of countries and enhance transparency. The DAI is built around four fundamental factors that impact a country's ability to access ICTs: infrastructure, affordability, knowledge and quality. A fifth factor, actual usage of ICTs, is important for matching the theory of the index with the reality in a country (table 11).

**Table 11. Digital Access Index (DAI) maximum values<sup>36</sup>**

Indicator	Goal-post	Note
Fixed telephone subscribers per 100 inhabitants	60	Each has one half weight for infrastructure
Mobile subscribers per 100 inhabitants	100	
Adult literacy	100	Literacy has two-third weight and enrolment one-third weight for knowledge
Overall school enrolment (primary, secondary and tertiary)	100	
Internet access price (20 hours per month) as percent of per capita income	100	The inverse of this indicator is used
Broadband subscribers per 100 inhabitants	30	Each has one half weight for Quality
International Internet bandwidth per capita	10 000	
Internet users per 100 inhabitants	85	

Source: [http://www.itu.int/ITU-D/ict/publications/wtdr\\_03/index.html](http://www.itu.int/ITU-D/ict/publications/wtdr_03/index.html)

Each indicator is divided by a “goalpost” – the maximum value established for that indicator. Each indicator is then summed to obtain an overall index score. The DAI has been calculated for 178 economies (appendix 7). They are classified according to high, upper, medium and low ICT access. The DAI allows countries to see how they compare to peers and their relative strengths and weaknesses. It also provides a transparent and globally measurable way of tracking progress towards improving access to ICTs ([http://www.itu.int/ITU-D/ict/publications/wtrdr\\_03/index.html](http://www.itu.int/ITU-D/ict/publications/wtrdr_03/index.html)).

As we can see from appendix 7, the Estonian digital access index is 0,67, which gives Estonia a high position (top of the upper access) among other countries.

Table 12 shows the average market shares between the biggest and second biggest operators in OECD countries in connection with competition where new entrants wish to get their market share and incumbents defend their existing market shares. This is another way to compare telecommunication companies and the degree of competition in the local market.

**Table 12. Average market share between the biggest and second biggest operators in OECD countries (April 2000)**

	Biggest operator	Second biggest operator
Local and long distant calls	90,8%	5,2%
International calls	85,7%	7,3%
Mobile calls	65,8%	22,9%

Source: Knorr, 2002

### **Estonian economy**

In spite of the rapid economic growth of the last 5-6 years, Estonia is still not half as wealthy as Western European countries. Estonians earn about ½ of the European average income, although the economic growth during recent years has been very fast and the differences have been disappearing. Although a tumultuous period of economic reforms is now over, the changes that Estonia is presently going through are far more dramatic than those in developed countries. Privatisation has been completed in Estonia and the rules governing the economy resemble those of Western Europe. Calmer times have brought about more balanced economic development – great crises and upheavals are now history – and quite a moderate increase in prices. The Estonian energy sector is based on oil shale, a resource quite rare elsewhere in the world. Finland and Sweden are Estonia’s most important trade partners. The Estonian economy profits significantly from the business generated by more than 2 million tourists a year, the majority of

<sup>36</sup> The following steps are used to calculate the DAI: A) Each indicator is divided by its goalpost. B) The resulting values are multiplied by their weight and added to obtain a category index. For example, the infrastructure index is calculated as follows: [fixed telephone lines per 100 inhabitants / 60 \* (1/2)] + [mobile subscribers per 100 inhabitants / 100 \* (1/2)]. C) The overall DAI is obtained by multiplying each of the five category indices by 0.2 and adding them up.

whom come from Finland. Economic reforms and swift changes brought about an increase in unemployment in the 1990s, in spite of the fact that lots of people left Estonia during the first years of independence (in the period between the population polls of 1989 and 2000 the population of Estonia decreased by at least 194 thousand people, which is 12% approximately). By now the situation has started to improve – unemployment has decreased to 10% and the number of employed is increasing. Due to a rise in productivity and an occasional shortage of specialists in certain areas, salary rises have been quite marked as well. In general, Estonian governments have been leading a balanced policy thanks to which the state budget has been more or less balanced, during recent years the actual tax revenue has notably exceeded expenditure, therefore the state loan burden is modest. Since June 1992, the official currency in Estonia has been the kroon, which has been pegged to the German mark (1 mark = 8 kroons). Since the introduction of the euro, the kroon has been pegged to the euro (at a rate of approximately 1 euro = 15,645 kroons). The successful monetary reform also meant swift changes in banking and in the financial sector as a whole; still, the local financial sector is small. Banking in Estonia is characterised by the widespread use of IT technologies – the majority of people own debit cards, internet banking has become widespread in no time, not to mention the latest development – m-payments (mobile payments) (Source: <http://www.estonica.org/eng/lugu.html>).

### **Estonian telecommunications market**

The Estonian telecommunications market is relatively active considering the country's GDP and the revenues from telecommunication services – 5.2% of GDP in 1999 (Source: ITU statistics, Estonian Telekom annual report 1999).

The development of the use of computers and the Internet would be inconceivable without the development of the respective infrastructure. The main part of the ICT infrastructure has been developed by the private sector, that is AS Eesti Telefon (ETC), a company with a big market force providing telephone, leased line and interconnection services. In the early 1990s, during the restructuring of the state enterprise providing telephone services, a private company Eesti Telekom was established. Under the Concession Agreement from 1993 to 2001 the company's main telephone services provider, Eesti Telefon (ETC), established a new digital telephone network (72% of all lines were digital in 2001) and satisfied the conditions for providing sophisticated telephone and Internet services across the country. However, building a high-quality telephone network has also raised the prices of telephone services for customers. Therefore, some clients of ETC have given up fixed telephone services in favour of the services of mobile operators, which have lower monthly payments and no additional call set-up charge. As the company had held a monopolistic position for 8 years, it was able to secure its position in the market even after the market was liberalised in 2001. In 2002, ETC succeeded in retaining 89% of the fixed telephone market and more than half of the market in international calls. ETC has also established itself as the market leader for Internet dial-up services and ADSL connections (72% share of the leased line services market).

The main competitors for ETC are Tele2 and Uninet (Karjus, 2003). After the liberalisation of the telecom market for fixed and basic services, new operators have entered the Estonian market. In 2001, 64 operators and 110 companies were added to the existing 47 operators and 146 service providers. The largest increase has been among the data communication service providers – 53 companies received a licence in addition to the existing 44 companies.

According to estimations (2001), the total dial-up market has 65,000 clients with ETC's share being 41,000 clients. Internet connections through DSL-modems are increasingly popular – in September 2002 ETC had 24,100 ADSL clients (over half of them individuals). According to the Emor survey, the main Internet service providers among companies with an Internet connection were Atlas (ET) 59%, Tele2 10%, MicroLink 8%, Uninet 4%, and KPNQwest 3% in 2002.

The mobile operators' market is divided mainly between three operators - EMT (Estonian Mobile Telephone), Radiolinja Eesti and Tele2. Today EMT struggles to maintain half of the market. The main operators have covered the entire country with mobile networks. The mobile phone penetration rate is currently over 60 subscribers per 100 people in Estonia. The continuous development of mobile communication is furthered by new services through mobile phones, such as mobile parking (original solution by EMT), mobile payments and other bank operations, mobile inquiries from databases, reservation/purchase of tickets with mobile phone (M-ticket for public transport in Tartu City and SMS-ticket for public transport in Tallinn, since August 2002), but also Internet connections through GPRS-based (GPRS - General Packet Radio Service) mobile communication. Various alarm systems have been applied using mobile communication technologies. In Estonia, car alarm systems on a MobiKIT basis have become popular. In addition, new technological solutions are also entering the market and it is possible to purchase innovative equipment and services based on the mutual convergence of mobile phones and computers.

In cooperation of EMT and ETC a joint wireless Internet connection service was introduced in December 2002, which allows people to use the Internet without limit nearly anywhere in Estonia for a fixed monthly fee. A fast Internet connection is offered with up to 2 Mbps WiFi (Wireless Fidelity) propagation areas (over 40 such areas in Estonian ports, airports, hotels, etc. with new ones adding constantly) and up to 54 kbps GPRS-based Internet connection within other mobile propagation areas in Estonia. The service is primarily oriented to mobile teleworkers and in order to ensure maximum security of their work the virtual private network (IP-VPN) service is offered as well. There are approximately 35 000 teleworkers in Estonia who need such a service.

For stationary Internet users in rural regions without the necessary cable network for Internet connections, ETC has provided since July 2002, a new fixed wireless access Atlas RDSL, which enables a downloading speed of up to 256 kbps and uploading speed of up to 128 kbps through radio links. The latter is primarily oriented



to home users such as private customers and small business customers. As the service provided by ETC is relatively expensive, local operators and the consortium Valvesilm OÜ, who won the public procurement tender for the internetization of public libraries, are trying to organise the provision of alternative services for lower prices in rural regions (Source: [www.esis.ee](http://www.esis.ee)).

### **Estonian Telephone Company (ETC)**

Elion, known as Eesti Telefon (ETC) at that time, was founded on January 1, 1993. It was an era when international calls were still routed through Moscow and a rotary-dial phone was a cherished status symbol, despite the fact that calls were often disrupted or the lines dead. That is why the Estonian government assigned the company the task of ending the country's telephone shortage, of laying a new comprehensive telecommunications network and opening up international connections. The company inherited an out-dated Soviet copper-pair network and a queue of 146,000 people – almost one in ten Estonians – all patiently waiting for a phone hook-up. Therefore, the company's key goals in its first decade included winding down the waiting list, laying a new telephone network and improving the quality of communication. This was the core of the concession agreement concluded between the Estonian government and AS Eesti Telefon on December 6, 1992. The state-granted monopoly ended on December 29, 2000 (Eesti Telefon, 2002).

The above-mentioned tasks were completed some time ago. The company's total investment in the development of telecommunications exceeds 5.6 billion kroons (1• = 15,6 EEK) and the waiting lists were consigned to the dustbins of history in February 2003. The company has laid hundreds of thousands of new phone lines with connections to Finland, Sweden, Russia, and Latvia, and digitalisation has risen to nearly 80% from 5%.

In 1996, the company launched its Internet search engine and subject catalogue NETI that soon became the most popular web page in Estonia. In 1999, the Atlas brand was launched and turned the company into the market leader in dial-up as well as broadband Internet and data communication solutions. The Internet boom that hit Estonia in the same year sky-rocketed the need for Internet services. So the company started e-mail services at Hot, which in no time at all became a unique communication centre and one of Estonia's most high-ranking web pages. At the beginning of 2000, all voice communication services were grouped under the umbrella brand "et", which helped the company to cope successfully with the challenges of competition.

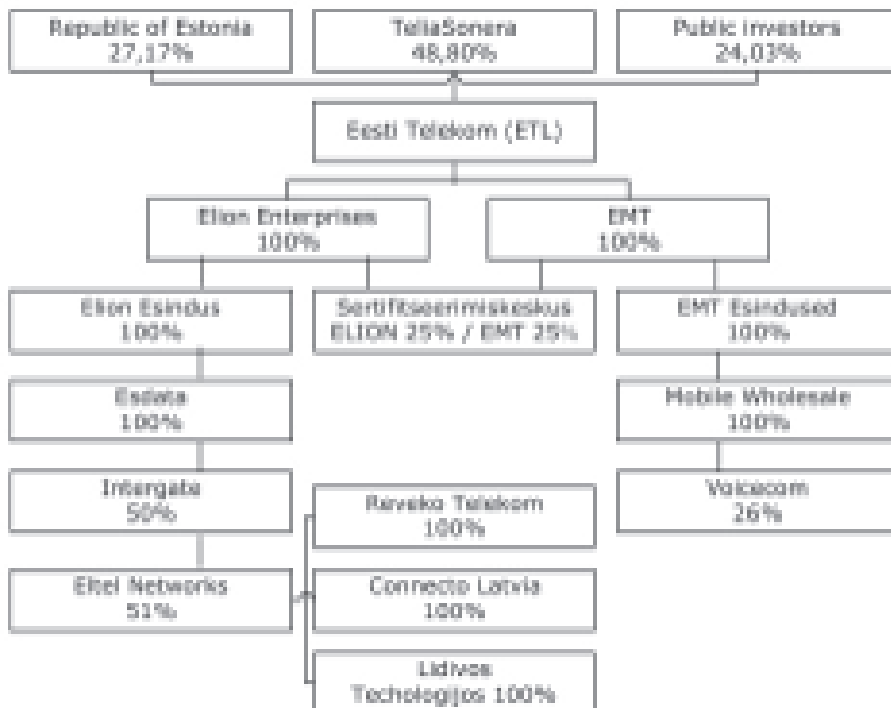
On 1 January 2001, Estonia became the first country in Central and Eastern Europe to liberalise its telecommunications market. The company invested nearly 100 million kroons in the telecommunications network to prepare it for other service providers poised to enter the local market. Most of the new entrants did not consider it feasible to lay their own network, but rather use that of Elion. Despite tough competition, Elion quickly managed to stabilise its market share in voice traffic and increase its

market shares in Internet and data communication. Today, Elion is the market leader in fixed network calls, Internet subscriptions and data communication solutions, and it has made a powerful entry into the IT market.

In 2003, the company decided to change its name, including all the retail outlets of the Hallo chain, to Elion. All the brands used so far (Atlas, *et*, Hot, Hallo) have ceased to exist, except NETI. The name was changed because Elion is no longer a mere telephone services provider. Internet, data communication and IT have become the fastest growing business areas for the company. Elion is not a monopoly any more, neither is it a technology company. Its goal is to become the best service provider driven by the needs of its customers, a worthy partner who through customer relations creates value for everybody involved. Elion's strength lies in understanding the communication and business needs of its customers and in its capacity to create simple solutions.

Elion (formerly ETC) is owned by AS Eesti Telekom (figure 2), listed on the Tallinn and London stock exchanges. Estonian Telekom performance can be expressed by the share price trends compared to the NASDAQ average share price (appendix 9). Appendix 9 shows positive trend for Estonian Telekom.

**Figure 2. Structure of Estonian Telekom (31.12.2003)**



Source: [www.telekom.ee](http://www.telekom.ee)

In 2003, the consolidated net sales of Elion Group were 2.56 billion kroons (1 • = 15,6 EEK), and the consolidated net profit was 318 million kroons. In 2003, Elion invested 224 million kroons in the development of telecommunications. At the end of 2003, Elion Group employed 2014 people. Elioni Enterprises Ltd (figure ) has a 100 per cent stake in AS Elion Esindus that runs its retail outlets. Elion Enterprises Ltd also owns 51 per cent of the network deployment company Eltel Networks AS ([www.eltel.ee](http://www.eltel.ee)), 50 per cent of the e-business (Nicholas, 2001) solutions provider AS Intergate ([www.intergate.ee](http://www.intergate.ee)), 100 per cent of the data communication and Internet services provider AS EsData ([www.esdata.ee](http://www.esdata.ee)), and 25 per cent of AS Sertifitseerimiskeskus ([www.sk.ee](http://www.sk.ee)) responsible for the launch of ID cards in Estonia as well as for the implementation of digital signatures (Estonian Telekom annual report, 2003).

## **4.2 1993-1996 in ETC**

### **Overview**

In 1993 a new structure was developed in the Estonian telecommunications business; many operations and services were reorganised and in 1994 this system was put into operation. In 1994, ETC took as its motto to offer client-centred and economically favourable high quality telecommunication services to Estonian businesses and citizens. At that time, 51% of ETC's shares belonged to Estonian Telecom and 49% to Baltic Tele AB, formed by the Swedish company, Telia and Telecom Finland. There were 4380 employees in 1994. ETC had six regional telephone networks across Estonia and the head office was located in Tallinn (ETC annual report, 1994).

In 1994, the goal was to update the whole telecommunications sector and to initiate a developmental program agreed upon with the government. The focus was to construct new digital exchanges and to establish a base network of optical cables. The network involved all rural communities and larger towns. International communication was brought up to a contemporary standard. The company made its first advances in the pursuit of high quality workmanship for the network. ETC opened up telecommunication gateways to the West. In 1994, the second optical fibre cable was established between Estonia and Finland, thus the company reached the situation where there was no problem to make international calls. As the use of cables in sparsely populated areas was very expensive, in 1994, new local wireless technology network trials were started around Tartu. In co-operation with the government and local governments, ETC intended to continue its investments in rural areas. Also, 120 Alcatel card-operated payphones were installed, and an ISDN service became available in Tallinn. Due to the poor quality of the old cables, ETC replaced many of them in 1994. The sensitivity of the modern technology necessitated the improvement in the quality of the network before introducing a new exchange. In order to better serve clients, company opened nine new up-to-date service facilities in cities. About internal changes there was an increase in the training for its employees, increasing from three to six days per worker per year. Similarly, an increasing number

of its employees had the opportunity to study abroad. A 30% decrease in staff turnover was an indicator of the positive work atmosphere. With the help of the company's partners, the Swedish Telia and Finnish Telecom, the company managed to solve its financial problems.

In 1994, the Estonian economy was on an upswing. Naturally, ETC played a part in the general economic growth and in the integration of Estonia into the European and world economies. At the same time, Estonia's steadfast economic development provided security for the development of ETC. The business concept at ETC was to provide businesses, organizations and private citizens with the high quality telecommunication services that they demand (ETC annual report, 1994).

Major accomplishments in 1994 were:

- RAS 1000 commenced operations in Tartu in July, satisfying the demands of 300 telephone clients. The subscriber's equipment functions with the centre via radio channels and is the seventh of its kind in the world;
- The second optical cable linking between Tallinn and Helsinki was installed;
- Fibre optic cables were set up, linking Tallinn-Paide, Tallinn-Rakvere, Jõhvi-Narva;
- A data communication network, based on the Estonian Telephone TCP/IP protocol, was put into practice;
- An AXE-type digital telephone exchange with a capacity of 15000 numbers was opened in Mustamäe in Tallinn;
- A centralized fault reporting desk system started functioning in all counties. An automatic computer-based fault correction system was established in Tallinn in connection with the centralization;
- Nine new client centres were opened, with new exterior and interior design;
- 120 ALCATEL card-operated payphones were installed;
- ISDN services became available in Tallinn.

In 1995, fibre-optic cables to Sweden, Russia and Latvia were established. ETC had the opportunity to obtain additional revenues as a communication transit country. In 1995, the minute charge was established. The waiting period for receiving a telephone shortened and the people found new ways of using the telephone. The company spent approximately 7.5 million kroons (480 th. •) on in-service training, a 70% increase on 1994. A substantial number of technical workers became surplus on putting the new business plan into operation and on starting to use the current technology. ETC relocated these well-educated and technically competent workers to client services (ETC's 1995 annual report).

Major accomplishments in 1995 were:

- The completion of the construction of the fibre-optic cable between Estonia and Russia, and Estonia and Latvia;
- The availability of digital technology in the counties of Paide, Võru and Viljandi;

- The signing of preliminary contracts between OY LM Eriksson AB, Siemens AS and Nokia;
- Participating in “Tele 95”, the first international telecommunication fair in Estonia;
- The beginning of the installation of micro-chip based card-operated pay phones;
- RAS 1000, a telephone exchange using radio waves, was opened at Valgajärve;
- New client service centres opened in Tartu, Paide and Kärddla and a telephone store in Mustamäe, Tallinn;
- The beginning of the installation of local call charging systems in analogue exchanges – the minute charge was established for customers of analogue exchanges;
- The use of frame-relay technology for residential connections in the public information network.

In 1996, ETC invested 527 m EEK (34 m •) in the development of telecommunications in Estonia. The average number of employees was 3784. An extremely extensive investment programme essentially resulted in an enlarged volume and the ability to provide customers with more high-quality services. ETC also continued to develop infrastructure covering the whole country. The capacity of modern digital exchanges reached approximately 200 000 by the end of the year, digital technology reached every county town in Estonia and many other towns and boroughs. The ratio of phones per 100 inhabitants rose to 30 (it was 23 in 1993, Kaasik-Aaslav, 1999) and the capacity of digital exchanges to 27 percent of total installed capacity. The economic data from 1996 assured good development. The profit was approximately twice as extensive as in 1995. These profits stem from the continuous growth of communications traffic, but also from more effective work. Despite high inflation rates, the costs per main line had remained at the same level as during the first four years of operations. In the advancement of ETC, 1996 will be noted for digital technology reaching the county towns, continuous establishment of optical cable circuits, opening the second international exchange in Tallinn (the capital), implementing fixed mobile phones in cooperation with EMT (sister company providing mobile solutions), opening several modern service centres and marketing new services.

In order to better fulfil the established aims and be more customer-oriented, substantial structural changes were developed and implemented on 1 January 1997. The regional structure was replaced by a functional structure and the separate units – customer service, production and support functions – were formed. One of the crucial issues was the implementation of the new structure.

In 1996 the Government of the Republic of Estonia assessed the activities of ETC as a concessionaire. The auditing firm Coopers & Lybrand, which carried out the audit, reached the conclusion that generally ETC has achieved the objectives established in the agreement signed in 1992. In the new business plan for 1997–

2006, which was concluded and supplied to the Government in 1996, the deadline for satisfying customer demand for primary services throughout the country was set for the first time – by the year 2000 all applicants will be included in the telephone network (ETC’s 1996 annual report).

Major accomplishments in 1996 were:

- Direct dialling for all customers;
- Total digitalization of Paide and Võru;
- Digital technology reached all regional centres;
- New AXE-type exchange put into operation in Nõmme (Tallinn);
- Completion of customer service centres in Kuressaare, Rakvere, Tallinn, Keila and Narva;
- Installation of base network optical cable circuit in western Estonia;
- Induction of the IN-card service;
- Elaboration of new customer-oriented business plan for the years 1997-2006.

### **Business plans in 1993-1996**

The business plans for 1993–1996 contained just voice revenues. There was no vision concerning the data and internet revenues or about competition from 2001. The volume of customers and other key figures were steadily increased, and compared to the latest results the revenues were underestimated. Business plans were made for 10 years. The main targets and the contents of the business plans from that period are described in table 13.

**Table 13. Contents of the business plans of ETC in 1993-1996**

Business Plans	Main target/business idea of ETC	Content of the business plan
1994-2003	The main target of ETC is to manage the public and remunerative communication network in Estonia, which would meet the customers requirements, and to foster Estonian economic development for catching up the average level of telecommunication development in Europe;	analysis of environment (macro, customer base, competitors, customer requirements, price structure); owners and the state; business idea and targets; conception of network; marketing strategy (general, production, price, promotion, products, customers); tariffs, price structure, revenues and costs (for 3 and 10 years); business areas; organization and resources (structure, quality policy).
1995-2004	The business idea of ETC is to provide high-quality telecommunication services to businesses, institutions and private persons in Estonia in a profitable and customer-oriented way.	analysis of environment; business idea and mission; marketing and sales; network plan and investments (for 3 and 10 years); products and services; service quality; tariffs; financial items; organization and staffing.
1996-2005	Business idea is to satisfy companies, organizations and private persons needs for high	business environment; business idea and mission; general goals; general strategy; front office; back office;

	quality telecommunication services in a customer-oriented and profitable way.	support office; personnel development and organization; financial figures (for 3 and 10 year).
1997-2006	Business idea is the same as previous year. Mission has changed from the technical orientation to the provision of services in customer oriented way: The mission of ETC is to provide telecommunication services to everybody everywhere in Estonia.	environment; business idea and mission; goals and strategies; products and services; production, network; organisation, management, personnel.

Source: ETC's business plans created in 1993-1996

### 4.3 1997-2000 in ETC

#### Overview

In 1997, ETC invested 667 million kroons (43 mln •) in telecommunications development. On average, the company employed 3590 people. In 1997, the company paid most attention to the development of communication in the countryside, especially to the improvement of telephone connections on small islands and in under populated parishes. During 1997, all villages that had had no telephones up to now were provided with telecommunications, and in addition, telephones were installed on all small islands of Estonia. The business plan for 1998–2007 primarily focuses on the analysis of the market situation and determination of specific assignments in various fields of activities. When there were created new services and products, the objective was to offer complex solutions considering the telecommunication needs of clients, which in its turn required a better segmentation and organization of production. As the company prepared itself for competition, more correct forecasts and prompt responses to changes in the market needed become more important. ETC had set the objective of satisfying a major share of the demand with regard to basic services by 2001. Proceeding from its business idea and objectives, ETC paid equal attention to the vertical and horizontal management of the organization. Since 1 January 1997, the company operated on the basis of the new structural scheme, where the existing regional units had been replaced with sales, product, resource and support units.

ETC fulfilled and surpassed all scheduled quantitative indicators and adhered to the concession agreement signed with the government and business plans subject to annual coordination. In 1997, the turnover of the firm reached 1.26 billion EEK (80 m •) and net profit after taxes was 217 million EEK (14 m •). By the end of 1997, 470 000 main lines were in operation, 38 per cent of which were digital. The density of lines per one hundred inhabitants was 32. In a five-year period, the company invested 2.3 billion EEK (147 m •) in the development of telecommunications networks. While preparing for competition the company aspired to improve the quality of these services. The quality of products, services and efficiency, and its preparation for competition were the main key words in the further economic success

of ETC. The CEO of the company also mentioned in the annual report that the general development of the telecommunication field will make an impact on the activities, trends and internal transformations of the company.

Taking into consideration special wishes of customers and the need to know them better, the company started the segmentation of its clients in 1996, which resulted in the division of clients into three major groups – other operators, large customers (based on turnover, comprehensive or specific features of the services used) and private customers (small and medium customers). At the beginning of 1997, three subdivisions of ETC were established to correspond with these groups – Telenetworks, Corporate Customer Services and Teleservices (ETC's 1997 annual report).

Major accomplishments in 1997 were:

- Introduction of the new billing system;
- Opening the monitoring centre of network control;
- Commissioning the first ATM (Asynchronous Transfer Mode) connection in Estonia;
- TV programmes broadcast through optical fibre;
- Construction of modern service centres;
- Construction of a basic network cable circuit in eastern Estonia;
- Replacement of coin-operated payphones with card-operated payphones;
- Providing small islands with telephones;
- Provision of telephone communication in all villages;
- Opening 2Mb/s data communication channels between Estonia and Canada;
- ETC and the eight companies in Estonia offering Internet service concluded a cooperation agreement to develop and expand joint activities related to Internet services.

In its development plan for 1999-2008, ETC paid more attention than previous years to analysing market conditions and setting specific objectives in various fields. It aimed to develop new services and products to provide complex solutions that take into account customers needs. To achieve this it was necessary to define and organise production in a better way. ETC planned to raise the company's efficiency in all its spheres of activity, as well as fulfil all obligations under the concession agreement. The plans foresee meeting most of the demand for primary services by 2001, and, because of that objective, more attention was paid to the development of rural communication until 2000. The initiated radio communication solutions programme, RAS 1000, was first of all meant to provide telephone communication in sparsely populated areas where the traditional cable network was too expensive.

In 1998, all customer service units were joined into one Teleservices Unit, and the Telenetworks Unit was reorganised. To improve support functions a common Procurement and Property Unit was established in March 1999 on the basis of the Real Estate Unit and the Logistics Unit. At the end of 1998, the CEO stated that the



“comparison of the structure of ETC with other telecommunication companies in the world shows that we have a modern organisation”.

Telephone services had traditionally been the company’s core business. In 1998, data communication and especially the Internet had also become important services offered by the company. In 1998, ETC developed a product family named ATLAS. Successful marketing and further development of that product were one of the key tasks.

ETC did not adopt the principle of segmentation overnight. At first the company tried to sell everything to everybody – the needs of large customers and small private customers were satisfied at the same service centre. As a result of that policy, products oriented to the whole market very often did not find their target groups and the marketing process itself was unstable. The sales and customer service organisation was not flexible enough and the company was often criticised and fairly so. At that point, ETC started to work on targeted marketing. First of all, a special Major Customers Division was established to provide services to large business customers and public administration agencies. Their task was to specify the needs of their clients and to meet those needs. The division was successful in its work because the staff knew the needs of their customers in detail and had managed to maintain everyday personal contact with them. In the middle of 1998, ETC made a number of more radical steps toward targeted marketing. A special unit was formed to offer services to business customers, private customers, and private customers in Tallinn. All these sales units were established in order to better understand the wishes and needs of these target groups, to differentiate them from other groups and to meet them in a better way. The phase of targeted marketing, however, had not ended for ETC. A more detailed segmentation was ahead, inside the segments. New criteria included geographic location, purchasing power, purchasing habits, fields of activity, etc. ETC continued active research of customer demand and demand in the telecommunications market in 1998. These research activities could conditionally be divided into three categories – general basic research (studies of the basic needs of ETC business customers and studies of the Baltic IT and Internet market), customer research related to target markets and target products (leased lines connections, data communication and Internet products, etc.) and research into market demand in specific geographic areas (business areas in Tallinn, business areas in Harju county, etc.). Analysis of research results enabled ETC to adjust its business plans and marketing strategies in a general way on the basis of target groups in target markets and taking into account the future and development potential of the networks.

The year 1998 was a year of extensive reorganisation for the Telenetworks unit. Improvements made to the data communication service was one of the keywords. By that time, ETC owned the country’s quickest 8 Mb/s connection to Canada through Teleglobe channels. ETC also offered international Internet services to other Internet companies operating in Estonia. ETC and the eight companies in Estonia offering Internet services concluded a cooperation agreement at the end of 1998 to develop and expand joint activities related to Internet services. At the end of 1998, Internet service providers were inter-connected with 100 Mb/s links. In 1998, a

tender for suppliers of SDH and ATM equipment and TV encoders/decoders was organised. The choice of the right suppliers was critical for future development. The winners of the tender for 1998–2000 were Siemens for SDH and Cisco Systems for ATM equipment.

As of December 1998, ETC employed 3000 full-time and 51 part-time employees. There was also a further decrease in the number of staff, related to the replacement of outdated technology and a more efficient organisation of the work process. Overall productivity had increased – in 1993 there were 75 main lines per fulltime employee, at the end of 1998 the corresponding figure was 156. The number of top and middle-level specialists grew by 13%, while that of top managers was reduced by 16%. The number of officials, skilled and manual workers, and unskilled workmen decreased by 17%, 30% and 27%, respectively. The number of specialists grew mainly through the creation of new jobs for the sales, marketing, information technology and finance staff.

At the end of the 1998, ETC had one subsidiary, AS Teabeliin, offering electronic yellow pages services. AS Teabeliin was established in 1996, and ETC owned 60% of its shares. AS Estpak Data, the other former subsidiary, was merged with ETC on 1 January 1998 (ETC's 1998 annual report).

Major accomplishments in 1998 were:

- since December it is also possible to make a call to a public payphone;
- in addition to traditional contractual dial-up packages, every customer may have access to the Internet without concluding agreement, just by dialling the respective number (Internet 900) of a dial-up centre;
- in the middle of the year, a special unit was formed to offer services to business customers and private customers in Tallinn;
- the most outstanding event of the year was the launching of ATLAS, the new data communication trademark, to the market in December;
- The NETI campaign launched in October proved convincingly that ETC owns the best Internet search engine in Estonia;
- The winners of the tender for suppliers of SDH and ATM equipment and TV encoders were Siemens and Cisco Systems;
- In June, a digital exchange in Lasnamäe (in Tallinn) was opened (60000 subscribers and 330 interfaces at 2 Mb/s);
- ETC has continued to follow the activity plan compiled by the government and to meet the requirements of the concession agreement, as confirmed by a government-commissioned audit.

In spring 1999, with the public listing of Estonian Telekom Ltd. stock on the Tallinn and London stockmarkets, ETC became a 100%-owned Estonian Telekom subsidiary. Estonian Telekom is 49% owned by Finland's Sonera and Sweden's Telia, while the Estonian state holds 27.3% and 23.7% of the company is in the hands of public investors.

For several years, ETC has offered data communications and Internet services in a free market place and done so very successfully. ETC has shown it is increasingly

able to keep step with global telecommunications trends. Voice communications are more and more often carried over mobile communications networks and it will not be long before data communications and Internet use in the fixed network exceed the share of voice services. It was with the aim of offering improved data communications and Internet access products that the Atlas group of products was launched in 1999. Since January 2000, integrated solutions under the “et” trademark have been offered to clients. ETC also plans to continue developing Internet content products and, to further increase the selection and competitiveness of Internet access services and content products, an IP Services unit has been formed within the company.

The next service to be introduced was Home-ISDN. This offers clients a complete communications solution from constructing a communications network in the home and acquiring a computer, telephone, fax or other terminal to installing and hooking up the equipment — with its Internet capacity — to the telephone network. In addition, ETC has begun to offer digital telephone owners a call display service known as “Who’s calling?“, which shows the number of who is calling with either an additional device or a system telephone.

In 1997, ETC began intensive development of a cost accounting system that would enable a fair and objective calculation of the net service and product costs. In 1999, this reached a point where the cost accounting system was comparable with those of the world’s leading telecommunications companies. The legitimacy of the ETC cost accounting system was indirectly confirmed by PriceWaterhouseCoopers in 1999, when the auditors investigated whether ETC had met its obligations under the concession agreement with the Estonian state, which stipulates that the primary services must correspond to real costs. In its report, PriceWaterhouseCoopers concluded that ETC had fulfilled the objectives of the concession agreement. To conclusively show that the ETC cost accounting system was in line with internationally recognised standards, under the Competition Act and the Telecommunications Act, ETC has to end all cross subsidising and bring prices in line with the cost of providing the service by the opening of the terrestrial communications market to competition on 1 January 2001.

Along with the modernisation of the telephone network, ETC analysed why calls are sometimes interrupted and wrong connections made. The results showed that interruptions were often caused by old rotary dial telephones, so ETC offered customers the chance to buy new, high-quality Siemens telephones for 100 kroons. The offer was taken up by 10,000 customers.

The most popular Internet access product was the Atlas Starter dial-up package, which delivers a rapid and simple high quality Internet connection through the regular telephone network, the ISDN line or the EMT mobile network. It includes an e-mail address and the opportunity of setting up one’s own home page on the Internet. ETC also offers Atlas Status, a symmetric fixed Internet connection with six different connection speeds, targeted at business clients. In March 2000, ETC put that service within reach of domestic clients with the launch of Atlas ADSL, a new asymmetric fixed connection that made the ADSL fixed Internet connection tens of times more affordable.

ETC owns Estonia's best Internet search engine NETI, which holds over half the country's 1 million public WWW-pages and is visited more than 1.8 million times a week. NETI is also the largest thematic Internet catalogue in Estonia that systematically and makes available all known Estonian WWW pages with easy access. NETI's catalogue of information pages is updated daily. Through Estonia's two leading Internet banking systems — Hansabank's Internet Bank and Union Bank's U-Net — ETC began offering clients the opportunity to view their call itemisation on-line.

ETC has made the transition to differentiated marketing, which considers the distinctive features of target groups and their different needs and desires. Private and business customers are segmented so they can be offered flexible communications products and solutions. With corporate clients, ETC places the greatest importance on the personal approach, offering unique integrated solutions and taking into consideration the client's needs. This personal service for large companies and corporations enables ETC to offer communications solutions tailored for each client. Small and medium sized enterprise (SME) clients have also been offered integrated solutions on the principle of "here are the keys", which delivers a complete and ready to use system. In addition to connection lines, an SME can also order the construction and maintenance of a computer network.

ETC also bought a majority stake in "Hallo" — one of the largest retail phone companies in Estonia — to expand its sales channels for telecommunications products (ETC's 1999 annual report).

#### Important events in 1999:

- ETC became a 100%-owned Estonian Telekom subsidiary;
- In May, ETC began to implement a new call price calculation structure to bring the prices into correspondence with cost price based on real expenses;
- In October, ETC implemented a web-based email environment which permitted one to read and send email with all known Internet browsers from any computer connected to the Internet;
- In November, ETC became the first to offer the VoIP or Voice over IP Internet telephone service, making it possible to create voice communication with the help of a multimedia computer without disconnecting the Internet connection on the same line;
- In November, ETC acquired a majority holding in Telefonipood Ltd., one of Estonia's largest telephone store chains;
- In December, ETC began to offer customers the opportunity to view their call itemisation and a detailed list of telephone calls through Internet Bank services;

By the end of 2000, ETC's monopoly rights were gone, but Estonia's largest telecommunications company still had special obligations under a new agreement with the state. It must promote the development of Estonia's telecommunications market and ensure at the same time that the market is totally liberalised. Under an agreement signed with the state on 29 December, ETC had, by 28 February 2003, to

install telephones for all clients who applied for one before the agreement was signed. Also, by 1 January 2004, ETC has to guarantee clients can keep their phone number if they change service provider. The company has also to provide access to its telecommunications network for other communications services providers.

In eight years, at the end of 2000, the company had invested some 5 billion EEK (320 m •) in developing a high quality telecommunications network that is being used by the competition to offer their own services. ETC had made great efforts to stay competitive. As the CEO declared, “The situation today requires even faster company development and an innovative approach, especially in the face of international telecommunication trends”. By the end of 2000, and several years before it was expected to happen worldwide, the number of mobile phone users in Estonia exceeded the number of fixed-line users. The mobile network is increasingly used for voice communications. At the same time, the share of data communications and Internet use on the fixed network was planned to exceed the share of voice services. That required new application ideas to be introduced, a field that ETC had a proven record in. For example, the explosion in the number of ADSL connections (Estonia leads several advanced European countries in ADSL penetration), the introduction of Internet telephone services (Voice over IP) and flexible Internet-based voice communications solutions for business customers were launched first in Estonia. Over the next three years, ETC gave 30 million kroons (1.9 m •) to the look@world project launched by top Estonian companies. The project aimed to facilitate Internet access, improve quality of life for Estonians and extend the country’s competitive reach in Europe. Through the project, ETC established high-quality Internet access for as many people as possible, developed content services for everyday use and an Internet infrastructure. The company also supported and participated in Internet training programmes (ETC’s 2000 annual report).

#### Important events in 2000:

- In January, the number of Internet dial-up clients exceeded 29 000 and the Atlas trademark has become the market leader in dial-up services in Estonia with a market share of 40%;
- In February, the number of visitors to NETI, owned by ETC, and considered Estonia’s best Internet search system, reached 20 million;
- In March, the company started providing the Atlas Asymmetric Digital Subscriber Line (ASDL) Internet connection, offering home users an affordable fixed Internet connection that is ten times faster than the dial-up service;
- In May, ETC and EMT (the sister company in the mobile area), Estonia’s two largest communications operators, along with Estonian Union Bank and Hansabank, Estonia’s two largest banks started to develop the Public Key Infrastructure (PKI);
- In October, long distance and international tariffs were reduced and cross subsidising of local call minutes by other services was reduced; the subscription and monthly fees for business customers were also reduced;
- In December, ETC took full ownership of Telefonipood Ltd.;
- In December, Network interconnection agreements with new fixed telephone operators were signed;

- In December, a new concession agreement between ETC and the Estonian state was signed.

### **Business plans in the period 1997–2000**

The business plans for 1997–2000 still contained mainly voice revenues. The first visions of revenues from data and IT services emerged at this time. Compared to the results for 2003, those revenues were underestimated by approximately 500%, especially revenues for IT services and Internet. Revenues from main lines and voice connections were overestimated by approximately 100 m EEK, and voice revenues were slightly underestimated; revenues from other operators were also underestimated. Monthly fee tariffs from main lines were estimated quite accurately according to real activities. The company started to make business plans for 4 years and then for 3. The business ideas at ETC and the contents of the business plans from that period are described in table 14.

**Table 14. Contents of ETC business plans for 1997–2000**

Business Plans	Business idea at ETC	Content of the business plan
1998-2007	Offer high-quality telecommunication services in a customer-oriented and profitable way.	Business environment; Mission and business idea; Strategic goals; Strategic activities; Areas of activity (telephone service, data communication incl. internet, building activities, sales of goods, telegraph, IN services, call centre, billing); Sales channels, Advertising and PR; Production; Organization and management
1999-2008	Same as in previous plan	Same as in previous plan, plus Quality policy.
2000-2004	same as in previous years	Macroeconomic environment (e.g. Political e.; Telecommunications e.; Regulation and the EU; Mission and business idea; Strategic goals; Key factors of success; Operators and service providers; Lease of resources; End-users; Fields of activity incl. Internet; New fields of activity; Production; Organization and management; Quality policy; Financial indicators
2001-2003	Mission of ETC in 2003 – a preferred and reliable partner that creates welfare and competitive advantage for people while offering them customer-oriented and innovative communication and IT solutions.	Vision 2003 incl. balanced scorecard, analysis of environment; Strategy and goals; Economic results of ETC; Teleservices incl. marketing and business areas strategies; IP services; Telecommunication networks incl. interconnection; Procurement and property; Telefonipood Ltd; Teabelliin Ltd; (daughter companies); Headquarters;

Source: ETC business plans created in 1997-2000

## 4.4 2001–2003 at ETC

### Overview of events

At the start of 2001, Estonia became the first country in Central and Eastern Europe to open its telecommunications market to full competition and so the first half of the year was overshadowed by a price battle between newcomer firms. In this battle, ETC lost some market share, but thanks to a flexible tariff policy (Kato, 1994/1995), it rebounded and stabilized in the mid-year. Market liberalization considerably changed the regulatory framework, and for a while imposed unfair market conditions on ETC as the incumbent operator. In line with amendments to the Telecommunications Act passed by the Estonian Parliament in February, specific interconnection tariffs for 2001 were calculated as a percentage of domestic rates. That forced the company to provide interconnection services below cost price. That constraint was lifted at year-end, as telecommunications operators and the Communication Board tried to find a satisfactory solution for all parties. ETC's worst expectations were to lose 15% of the market, at the end of 2001, the competitors had secured 9% of voice traffic.

To cut costs, ETC sold some unneeded real estate and turned a number of functions over to its subsidiaries. For example, retail services were given to *AS Telefonipood*, and *AS Connecto* took care of network maintenance and deployment. Staff efficiency had nearly doubled – from 216 main lines per employee in 2000 to 321 in 2001. ETC had run at a good pace in developing networks and services and the firm was poised to catch up with the best in Western Europe. Estonia's ADSL penetration ranked fifth in Europe at the end of 2001, network digitalization had risen to 72 per cent and broadband speed had increased dozens of times. Worldwide the fixed telephone business was hard pressed in its search for growth. The company's approach was to develop customer orientation on the one hand, and new service areas on the other. To increase their returns many-fold there was the need to focus even more on integrated data communication, the Internet and telecommunications solutions, on Applied Service Provision and IT applications. The most convincing example of the advantages of fixed networks were the 7-fold increase in the number of ETC's ADSL connections in 2001. When a number of the world's leading telecommunication companies were highly leveraged and suffering losses, the company's strong cash flow and profit were proof the company could pass the toughest survival tests.

The opening up of the Estonian telecommunications market to competition at the beginning of 2001 is clearly reflected in the economic performance of the ETC Group. Consolidated net sales from ETC and its subsidiaries rose to 2,772 billion kroons in 2001 from 2,666 billion kroons in 2000 – only a 4% increase as sales growth lost momentum. ETC was the largest contributor to total Group turnover (96%). As in 2000, call revenues of 1,552 billion kroons plus customer and subscription fees of 384 million kroons made up the largest part of net sales. Despite stabilizing net sales, market liberalization brought major changes to the revenue structure in 2001. Revenues from local calls remained practically flat, up 1%, while payphone use continued its decline over several years and generated 29% less revenue. The most drastic revenue drop, 46%, was in international calls and was a direct result of

tough competition. That was offset by rapid revenue growth from data communication services (around 2.3 times), the successful sale of dedicated Internet lines and a 17% revenue rise on interconnection between ETC and mobile operators. Market liberalization opened up new sources of revenue, one of the most important being the interconnection between ETC and other fixed network operators. In 2001, the total revenues for the ETC Group was 2,872 billion kroons, up 7% on 2000's 2,69 billion kroons. In addition to net sales, group revenue from other sources was also up. The most significant other revenue driver was the construction of fixed assets for the firm's own use (under the line "capitalised self-constructed assets"), a completely new revenue item thanks to the spin-off of AS Connecto at the beginning of 2001. This new fully owned subsidiary deals with the building and maintaining of telecommunications networks. In 2000, network deployment and development was booked as investment expenditure by the parent company, but was then turned over to AS Connecto. The work was outsourced from ETC.

The effect of competition can also be seen in the 49 million kroons net profit made by the ETC Group, a mere 12% of the previous year's 417 million kroons. The underlying reason for this is slowing profit growth plus increasing interconnection share costs stemming from telecommunications legislation. The write-off of fixed assets also bit into profits. Stripping that out, the ETC Group's profit would have been 149 million kroons, a figure comparable to the net profit of 140 million kroons in 1999.

Despite tough competition, ETC increased profit margins and helped make the parent company, Estonian Telekom, the number two European telecommunications provider, second only to Greek Telecom. ETC's profits rose nearly six fold in 2000. Both subsidiaries – AS Connecto, in network deployment, and AS Telefonipood, in charge of the Hallo retail chain – made an effort, boosting revenue and profitability. It was through Connecto in the previous year that ETC crossed the border and acquired a business in Latvia. SIA Connecto Latvia laid networks, including fibre-optics and copperpair for Lattelkom, the country's largest telecommunications service provider.

Key goals in ETC's first 10 years included winding down waiting lists to get a telephone hook-up, laying a new telephone network and digitalising the old analogue system. High-quality voice services had to be put in place, prices had to be balanced and – over the last two years – market share had to be stabilized in the face of full competition. The result is thousands of new telephone lines with connections to Finland, Sweden, Russia and Latvia. Digitalisation has risen to nearly 77% from 5% and queues of people waiting for a phone hook-up became a thing of the past in February 2003. As for the challenges in the next decade, the chairman of the management board sees hints of them in 2002 – meeting the growing volumes of data traffic and Internet use; to develop IT solutions for home offices and telecommuting; introducing a digital signature (ETC's 2001 annual report).

Selected highlights from 2001:

- In February, ETC reduced tariffs on international calls by up to 45%;
- In April, ETC unified rates on local and domestic calls by introducing a



single tariff for calls within ETC's network and to other Estonian fixed networks;

- In April, ETC sells its stake in the directory services firm AS Teabelliin;
- In May, to boost efficiency and concentrate on its core business, ETC transferred its over-the-counter services to its Hallo chain of stores. This doubles the number of ETC's customer service centres;
- In June, ETC lowered the base tariffs on most international calls and the minute rate on calls from its fixed network to mobile network by up to 39%;
- In June, the number of links automatically collected in the NETI search system exceeds one million. This means the number of web pages on Estonian servers reaches a million;
- In June, ETC launched its Point-of-Presence in London. This new broadband between Tallinn and London boosted the capacity of the company's international dedicated connections by one third, to about 150 megabits/second;
- In September, for dial-up Internet subscribers, ETC launched Atlas Weekend, a package without any minute rate;
- In November, ETC launched Atlas RealTime, the first web-hosting service in Estonia that makes it possible to simultaneously show large amounts of video and audio material to viewers over the Internet;
- In December, ETC opened the Atlas Telehotel, where clients can have their equipment run and maintained.

In 2002, the number of ETC's ADSL Internet subscribers increased by 67%, helping Estonia become number 16 in the world and 10 in Europe for ADSL penetration per 100 inhabitants. There was success in the launch of new, faster ADSL packages to better meet customer needs, so that by year-end, dedicated lines were widely seen as a necessity. Another important trend in 2002 was ETC and EMT's (sister company in mobile area) building of wireless Internet access that could be used anywhere in Estonia for a flat monthly fee and for unlimited time. To meet the rocketing number of Internet subscribers, ETC increased its external Internet broadband capacity three-fold in the previous year, and for the first time exceeded capacity for calls. Anticipating the future rise in demand, ETC moved early on to avoid Internet bottlenecks by connecting all the centres in the country using a fibre-optic network and laying a technologically innovative trunk network. ETC started 2002 by launching price packages in a major rethink of fixed telephony. For the first time subscribers could choose a tariff scheme that suits them. They can now opt for a higher monthly charge with discounted minute rates or a smaller fee with higher per-minute charges. The move left rates several times cheaper than those offered by the mobile operators that are battling against ETC for the same customers.

In addition to telephone and over the counter services at its Hallo retail outlets, ETC's e-services have gained popularity and accounted for one-third of all customer contacts. ETC is responsible to the community. It launched a number of new services and supported the Look@World project that helped bring the Internet to institutions and individuals who could not afford it otherwise. In the previous year, donations to

Look@World helped provide Internet training for 100 000 people. They promoted the creation of e-School, e-Library and other services, and provided national ID card readers at Public Internet Access points to boost the use of digital signatures (ETC's 2002 annual report).

Selected highlights in 2002:

- In January, Estonia's national ID card could be used to access ETC's e-services;
- In February, ETC expanded outside Estonia for the first time when its AS Connecto subsidiary buys all the shares of Latvia's SIA Link. The firm is renamed SIA Connecto Latvia;
- In February, ETC decided to sell a minority stake (49%) in its AS Connecto, a unit that provides telecommunications system design, installation, deployment and maintenance services;
- In April, ETC started its first international Virtual Private Network (VPN), linking the Estonian offices of Pipelife Ltd. to Sweden, Finland and Norway;
- In April, ETC more than doubled the speed of international Internet lines, to 360 megabits/second, to meet the soaring number of new subscribers;
- In September, ETC connected all administrative towns across Estonia using a single fibre-optic network, a major step to laying a nationwide base network;
- In October, ETC's joint venture, Sertifitseerimiskeskus Ltd, started to distribute DigiDoc software, so documents could legally be digitally signed using Estonia's national ID card;
- In November, ETC turned Internet broadband into a household good by selling ADSL self-installation kits in supermarkets. The move makes broadband internet less expensive and much easier to connect to;
- In December, ETC cut the cost of calling to fixed line networks in nine countries outside Estonia by up to 37%. Different tariffs apply if the customer called to a fixed or mobile phone.

One notable step taken in 2003 was that ETC was renamed Elion Enterprises Ltd. (Elion), during which several existing trademarks – *et*, Hot, Atlas – were replaced with the common trademark Elion. One important reason for this reorganisation was the desire to develop away from being a technology-based company and towards becoming a customer service company. The company strives to achieve the situation where the customer does not feel lost in a maze of technical terms and technologies. Elion seeks to offer customers integrated telecommunications solutions that are specifically suited to their needs.

The launching of the Elion trademark was not just a name change, as the company's CEO commented: "it was required by the company's new business strategy. With the change in strategy, we laid down a new vision – to be the preferred company, offering simple and reliable communication solutions for home and office. We are changing from an infrastructure builder to a service company guided by the customer's wishes to offer the best service. And that not only in comparison with

other IT and telecommunications companies, but also in comparison with other Estonian service companies.”

In co-operation with sister company, AS EMT (mobile services), Elion continued to create new affordable and comfortable joint voice communications services, such as reduced rates for making calls between table-top and mobile telephones within a company. Elion has generated other discounts for both private customers and corporate clients. In order for Home Package users to be able to communicate freely with friends and relatives, they can choose Friend Numbers free of charge. When a Friend Number is dialled, the caller must only pay for the first nine minutes of the call, and even those nine minutes are offered at a 35% discount. As of the tenth minute the call is free – regardless of how long one talks with one’s friend, the customer pays no more than 2.46 kroons for one call. A similar discount can also be enjoyed by corporate clients – calls to two freely selected countries are 20% cheaper. Additional convenience is offered by the fact that Elion customers can retain their previous phone number free of charge when they move.

The fall in the volume of voice communication in the fixed line network is compensated by the continued rapid growth of the Internet, IT and data communications sector. In 2000, Internet, data communications and IT generated only 2% of the turnover of Elion. By the end of 2003, the proportion of the turnover of Elion generated by this sector was already 30%. In 2006, the company hopes to earn over half of its turnover from Internet, data communications and IT services.

The number of permanent Internet connections is growing at an increasingly rapid tempo: by the end of 2003 the number of connections had risen to nearly 51,000, an annual increase of about 65%. In terms of the prevalence of DSL (*Digital Subscriber Line*) permanent Internet connections, Estonia is first among the new member states of the European Union thanks to Elion’s popular solutions – in spring 2003 the international analytical company Point-Topic announced that it considered Estonia the clear leader in Eastern Europe. According to DSL Forum, however, Estonia is in the top ten in the world in terms of DSL connections per telephone line. The increased number of permanent connections has supported new entertainment options. At the end of 2003, Elion began to offer a new Internet content service called ITV, which permits people to watch their favourite programmes at high quality through the Internet, and at any time they wish. ITV is an Estonia-based television portal that focuses on local film and video production and offers a high-quality digital picture to users of a permanent connection, who can also send the picture from their computer to their television or video projector.

The most popular Estonian web environment, the NETI search engine, continues to function successfully. Every day about 180,000 people made over 400,000 queries through NETI. The Elion e-café (the former ‘Hot’), however, has become the most popular e-mail and web page environment in Estonia.

The year 2003 demonstrated that Elion had vigorously entered the IT market and is becoming an information technology company. The company won a series of public procurement competitions in this area: for instance, Elion equipped Tallinn schools with more than 1300 computers and other equipment and a super-high-speed data communications connection for three years; Elion rented over 300 new computer-equipped workspaces to the Tax Board; equipped Tallinn schools with laptop computers, and playschools and hobby schools with desktop computers. Elion provided the Land Board with a virtual private network that connected the board's head office and 14 county offices with computer networks. The company created one larger private network for Eesti Loto in order to connect lottery terminals – this connected the Eesti Loto head office and roughly 330 lottery terminals across Estonia.

In addition, Elion developed into a co-operation partner for small and medium-sized companies, selling telephones and computers with additional equipment, installing all devices, LAN and Internet connections, continually maintaining and developing the entire solution and offering customer support. In order to offer small-scale customers suitable IT solutions, Elion added several products to its product portfolio. For instance, offering virus protection and a personal firewall in co-operation with the F-Secure Corporation, Elion launched a remote work service that permits those who work at home or people who travel with laptop computers to access their company's computer network through the Internet. In 2003, the portfolio of IT products was supplemented with a hard disk encryption service.

In the context of Estonia's Internet expansion project Look@World, Elion began to offer ID card start-up sets that facilitate the use of digital signatures and e-services using an ID card. The ID card start-up set gave new impetus to the use of ID cards and digital signing, which up till then had been impeded mainly by the poor availability of card readers and the complexity of installing the necessary software (Estonian Telekom 2003 annual report).

Selected highlights in 2003:

- In August 2003, ETC was renamed Elion Ettevõtte AS (Elion), during which the Elion trademark replaced the existing *et*, Hot, Hallo and Atlas trademarks;
- In February 2003, Elion fulfilled the state's requirement to satisfy telephone applications that had arisen before the termination of the Concession Agreement on 29 December 2000. With that event a Soviet concept, the telephone waiting list, disappeared into history;
- Valdo Kalm moved from the position of CEO of Elion Ettevõtte AS to the position of CEO of AS EMT (sister company – mobile). From 1 February 2004, his place was taken by Valdur Laid, who had previously been the company's financial director;
- Elion sold a 49% holding in its subsidiary AS Connecto to Finnish network construction company ELTEL Networks Corporation;
- Elion built a wireless WiFi area at all 29 Neste A24 gas stations, thus increasing the number of Elion wireless Internet coverage areas more than

two-fold. Estonia holds the foremost position among the new member states of the EU in terms of density of WiFi coverage;

- The Tallinn Education Authority and Elion concluded a framework agreement for equipping computer labs in Tallinn's schools with state-of-the-art computers along with other technology and super-high-speed data communication connections for three years. The volume of the public procurement contract was over 63 million kroons.

### Business plans for 2001–2003

The expected revenues in the business plans for 2001–2003 were more or less comparable with the actual results in 2003. There was quite rapid growth in revenues from Internet and IT services, and a rapid decrease in international calls revenues. Elion started to make business plans for 3 years focusing on the next year. The visions of ETC and the contents of the business plans from that period are described in table 15.

**Table 15. Contents of the business plans of ETC in 2001-2003**

Business Plans	Vision of ETC	Content of the business plan
2002-2004	The strongest telecommunication operator in the Baltic's.	Vision 2004 incl. Business environment; Strategy and goals incl. financial goals; Teleservices incl. business areas; Telenetwork incl. business areas; IT Services; Property and procurement; Telefonipood Ltd.; Connecto Ltd.(subsidiaries); Business areas investments of ETC Group.
2003-2005	We are the best telecommunication and IT-company in Estonia with high-quality service and products and the best in the Baltic's on the basis of key indicators. ETC's home market lies mainly in Estonia, but the company is also ready to provide solutions to our customers in neighbouring countries. We are innovative, customer-oriented and one of the most reputable companies in Estonia, who guarantees the customers' long-term satisfaction using a modern way of thinking and technological solutions.	Vision 2005; Strategies and targets; Business areas; Subsidiaries; Financial Statements.
Elion 2004-06	Elion is the preferred service provider in the area of home and business communication solutions in Estonia.	Environment for Elion's operations; Elion incl. mission, vision, value, strategy; Sales and marketing incl. customer segments; Business development incl. business areas; Network development strategy; Subsidiaries; Financial statements.

Source: ETC business plans created in 2001-2003

## 5 BACKGROUND AND ANALYSIS FOR CHANGES IN ETC

This chapter will provide an overview and explain the changes in ETC in period of 1993–2003. We will also analyse the three periods separately according to the methodology described in chapter 3. We are looking for common understandings between the facts in the secondary data and the understandings of the informants. What was really going on?

### 5.1 Trends and key figures in ETC during the period 1993 to 2003

As we can see from table 16, the revenues of ETC increased rapidly until 1999, which can be explained by of the growth of the Estonian economy in the same period – there is a strong correlation between Estonian GDP and the revenues of the company<sup>37</sup> (appendix 8). As the Estonian telecommunications market was opened at the beginning of 2001, we can see that ETC's revenues decreased in 2002 and 2003, although ETC Group revenues increased overall in that period. Operational expenses increased quite proportionally compared to revenues, staying on average at the level of 64%, which means the EBITDA level was 36% on average. As ETC's investment obligations to build up the infrastructure lasted until the beginning of 2003, we see the highest levels of investments in 2000 and 2001, which also means that average investment was 516 m EEK per year for the company.

**Table 16. Key financial figures for ETC**

ETC (m EEK)	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Revenues	438	615	840	1 176	1 557	2 166	2 457	2 690	2 872	2 627	2 585
Growth in revenues (%)		40.2	36.7	40.0	32.5	39.1	13.4	9.5	6.8	-8.5	-1.6
Op. expenses	373	388	514	714	898	1 261	1 406	1 527	1 996	1 667	1 714
Depreciation	124	115	185	253	362	554	653	692	817	654	539
Net profit	-56	49	132	195	179	263	140	418	49	287	320
Investments	233	536	399	523	667	664	714	863	506	339	228

Source: ETC annual reports from 1993 to 2003; Author's calculations

<sup>37</sup> In this paper we investigate how *telecommunications infrastructure* affects economic growth. We use evidence from 21 OECD countries over a 20-year period to examine the impacts that *telecommunications* developments may have had. We jointly estimate a micromodel for *telecommunication* investment with a macro production function. We find evidence of a significant positive causal link, especially when a critical mass of *telecommunications infrastructure* is present. Interestingly, the critical mass appears to be at a level of *telecommunications infrastructure* that is near universal service (Röller, 2001).

As we see from table 17, changes have been quite rapid for the company, for example, the number of employees has decreased from 4770 to 1354. If we compare those other numbers in table 17 and 18 with the digital access index values provided by the ITU (International Telecommunication Union) according to appendix 7, then we see that Estonia is at the top of the upper access group globally.

**Table 17. Key figures for ETC**

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Penetration (per 100 inhabitants in Estonia):											
Fixed telephone	23.2	25.3	28.0	30.0	32.2	34.5	35.3	35.9	34.9	34	33
Mobile phone	0.5	0.9	2	4	10	17	27	40	52	65	77
Main lines (th.)	350	379	412	439	469	493	515	521	502	465	449
Main lines per employee (ETC)	78	84	102	119	131	154	186	216	321	328	332
Nr of employees (ETC)	4770	4373	4380	3784	3590	3305	2772	2531	1789	1420	1354
Fix line digitalization rate (%)	5%	11%	21%	28%	38%	48%	56%	71%	72%	77%	79%
Queue for a fix. telephone (th. customers)	146	137	120	108	97	77	59	39	24	13	0

Source: ETC annual reports from 1993 to 2003; Author's analyse

From table 18 we also see the rapid growth of broadband internet (DSL subscribers) and the company's leading position on the competitive market.

**Table 18. Market shares of ETC**

	1999	2000	2001	2002	2003
Market share of voice services: (minutes)					
all calls		100%	91%	89%	87%
domestic calls		100%	90%	88%	87%
Calls to mobile networks		100%	75%	75%	76%
International calls		100%	70%	70%	67%
Market share of internet:					
dial-up	40%	53%	72%	80%	85%
Broadband	n.a.	78%	76%	65%	63%
DSL subscribers (th)		2.6	17.2	31	50
DSL penetration (per 100 inhabitants)			1.20	2.35	3.60

Source: ETC annual reports from 1999 to 2003; Author's analyse

In table 19 we see the price strategy of the company comparing long distant calls (inside Estonia) and local calls. As can we see, when the competition was opened up for the fixed voice call market at the beginning of 2001, the company made the prices for long distance and local calls the same. The company has been moved toward price equalization from 1996, because of the need to provide services according to cost price. International call prices already fell rapidly before the 2001, as in a free market there cannot be any cross-subsidizing.

**Table 19. Tariffs for local and long distance calls at ETC (EEK)**

Time of changing the tariffs	ETC long distance call tariffs (inside Estonia) at normal time		ETC local call tariffs at normal time	
	1 min tariffs	+ CSC*	1 min tariffs	+ CSC*
Nov 1992	0.45		0.03	
Jan 1994	0.8		0.08	
Oct 1994	1.20		0.12	
March 1996	1.50		0.18	
May 1997	1.40		0.24	
March 1998	1.36		0.32	
May 1999	1.06	0.48	0.16	0.48
Oct 2000	0.68	0.48	0.24	0.48
April 2001	0.34	0.48	0.34	0.48

\* CSC - Call Setup Charge

Source:ETC internal documents for tariffs from 1993 to 2001; Author's analysis

## 5.2 Building up the infrastructure, 1993–1996

According to the data analysis (table 20; appendix 5, 6 and 10) we can conclude that the period from 1993 to 1996 at ETC was the time of building up infrastructure and adopting the western organization model.

**Table 20. Analysis of data for 1993–1996**



Analysis of 1993-1996	Fact	Common findings
<b>Annual reports</b>		
1994	<p>"Our goal to update the whole telecommunications sector and to initiate a development program has begun to bear fruit – the planned program is in place."; "Digitalization continues all over Estonia at a rapid</p> <p>An increasing number of its employees have had the opportunity to study abroad.</p>	<p>Planned program</p> <p>Digitalization</p> <p>To provide high-quality service for customers</p>
1995	<p>"In 1995 the construction of fibre-optic cables, needed for international output was completed, and the Estonian internal network for international communication was begun".</p> <p>"At the same time, minute charging enables us to better follow and analyze the work of the total network".</p>	
1996	<p>"An extremely extensive investment program enabled us to essentially enlarge volume and provide customers with more high-quality services".</p> <p>"One of the crucial issues we are facing this year (1997) will be to effectively implement the new structure. We have to safeguard the effective functioning of the firm as a unity, which will also guarantee better and higher quality for the customer".</p>	
<b>Business Plans:</b>		
1994-2003	<p>To be an operator of primary services.</p> <p>Quality has to be according to customers' requirements. Network quality should be at the average European level.</p>	<p>Network quality</p> <p>Equal to an European average</p>
1995-2004	<p>To guarantee ETC's business in the long run, special attention shall be paid to priority customers (such as business customers) and their satisfaction. In marketing and offering ETC's services, the needs and varying resources of different client groups (segments) are taken into consideration.</p> <p>ETC shall have to develop into a true telecommunications professional, the quality of the services of which, by the end of the planning period, shall be equal to the European average.</p>	

<b>Analysis of 1993-1996</b>	<b>Fact</b>	<b>Common findings</b>
1996-2005	Quality of products/services should meet the average European level.	
	To be prepare for competition; To change from technical orientation to customer orientation; Organization should be customer oriented (front-back-support office).	
1997-2006	The deadline for satisfying the customer demand has been set for the first time - by 2000 all applicants will be included in the telephone network.	
	Bring new products and services to the market. This includes developing existing products and introducing new ones. ETC promotes the use of new products and services as part of a modern lifestyle.	
<b>Other second. Data</b>	Swedish and Finnish managers were in the leading positions in the management board, but only in the earlier periods (appendix 4).	
<b>Informants</b>		
12	"We followed the general telecoms business model."	Network building
14	"That which happened in Europe happened soon in Estonia as well."	
17	"Strategy was to adopt the western company model."	To assure the concession agreement
19	"Compared to other telcos, we needed to catch up."	
19	"Foreign experts were specialists in a narrow area, and thus we had to see the bigger picture on our own."	To adopt the western model
110	"Network was weak compared to Europe. We needed the base of production to provide services."	
111	"It was self-evident, if there were telephone queues, then technological thinking was right. We didn't need smart strategies. Key decisions were made before 1993, then a quick start was most important."	
15	"When ETC was created in 1993, then the main targets were – tempo, modernization and tempo."	
15	"Strategic owners understood that we (local people) can manage on our own."	
113	"It was healthy, when local people were more involved with strategic planning."	

Analysis of 1993-1996	Fact	Common findings
I 15	"Strategic owners started to trust us, because we already had the solutions, which weren't even in use in their system (for example automatic billing in 1995)."	
I 12	"Concession agreement worked, and thanks to that we had the opportunity to plan and build a quality network. The value was in the local people."	
Most of the I-s	"Network building was the strategy to connect to the world, to eliminate the telephone queues and to assure the concession agreement (agreed with Estonian government)."	

Source: Author's analyse; ETC annual reports and business plans from 1993 to 1996

Most of the informants agreed, that there was an authoritarian style at the period 1993–1996. At that time, the top managers were from abroad and as the local managers described it:

*„The top management heard what the local managers said, but acted as they wanted”*

Many informants remember the same phrases from the top manager:

*“You don't ask the frogs, when you should drain the swamp”*

*“Today you are sitting here three together, there will not be so many of you next time”*

As one manager compares that period with his experience:

*“Even a sense of humour was missing”*

*“Information was power. The business plan was confidential even inside the company”*

*„The headquarters had all the power”*

On the other side, one informant guessed, that:

*„Maybe such a style worked better at that time”*

Another informant put it as follows:

*“It was a cultural change from a soviet culture to capitalism. Some have come along and some haven't”*

Thus, we can agree with informants, the strategy was simple – just build a new network or renovate the existing one. The top management had their own business plans in an empty market, plans for the main lines and the agreement with the government. The government expected Estonia to be covered by a quality infrastructure and the telephone queues to be eliminated. Most of the other opinions in the company were “unnecessary”. As the managers put it:

*“We didn’t need any smart strategies”*  
*“Network building was the strategy”*  
*“Fortunately, the concession agreement worked well, and thanks to that it was possible to plan and build the network”*  
*„The concession agreement was the motivating power”*  
*“It was the company’s formative period”*  
*„The strategy was to execute the concession agreement in the optimum way”*

Probably, one important aspect according to strategic thinking and the performance of the managers was the fulfilment of the concession agreement including its budget with the government. Why the managers didn’t need any “smart strategies”, was described by one informant:

*„The budget was fulfilled easily”*

The business plan was mainly used for predicting the volumes of the new mainlines, as fulfilling the concession agreement was the government’s main interest, and as the informants put it:

*“As the government asked for a business plan, so the company’s council also asked for one“*  
*„It was all about the network – marketing was nothing”*  
*„The network planning unit was the most powerful”*

However, big decisions were made at that time, for example the selection of the main partners, and the structure of the network. What to do was quite clear and organizational changes were essential for the managers then, as the managers put it (see table 20):

*„The key decisions were made before 1993 – then a quick start was most important”*  
*“We followed the general telecoms business model”*  
*“The strategy was to adopt the western company model”*  
*“Whatever happened in Europe soon happened in Estonia as well“*  
*“The strategy was to implement western thinking”*

At the same time, the strategic owners understood that local people could manage on their own, and thus the local managers had the chance to direct the development, as described by one local manager:

*“It was healthy, when local people were more involved with the strategic planning”*  
*„The strategic owners started to trust us, because we had already found solutions, which weren’t even in use in their system (billing system)”*

However, when the foreign top managers seemed to be too authoritarian or just “too far” from the local managers, the foreign experts seemed to be too “narrow-minded” in their specific area, as one manager put it:

*„The foreign experts were specialists in a narrow area, and thus we had to see the bigger picture on our own”*

Most of the informants agreed that the strategic thinking was to build the network and to guarantee the fulfilment of the concession agreement. But at least in the business plan for 1996 to 2005 there was also a vision for being prepared for competition (at the beginning of 2001) and to change the company from being technically oriented to being customer oriented. As the managers explained:

*„The word “strategy” was used, but was it the same way in their heads ...?”*

*“Strategic thinking has developed in an evolutionary manner”*

*„It is all about people”*

*„The business plan was made somewhere in the headquarters”*

*“In 1996, we started to talk about the customer”*

As the owners had different interests, there wasn't always agreement between them, for example in connection with investments, as one informant put it:

*“One of the owner's didn't like investing in the countryside, but the other one wanted the investments in the country as well”*

*„The government wanted a modern network, the strategic owners just saw an empty market”*

In summary we saw that 1993–1996 was when the company reformed itself and built up its infrastructure (ch. 4.2; 5.2; table 20; appendix 10). From table 17 we see that there was a rapid decrease in employees (approx. 25%). The company started at the beginning of 1993 with a telephone queue of 146 000 customers and a main line digitalization rate of 5%. After four years those figures were respectively 108 000 and 28%. Thus, the company's effectiveness increased very rapidly, because of a willingness to be more effective and to serve customers, which wasn't the aim in the Soviet era.

Table 20 and appendix 10 illustrates that organizational changes were essential and self-evident to reach the average European level in the telecommunications sector and to guarantee a high quality infrastructure and customer service. In chapter 2.1 we asked – if institutions work to promote stability and order, how does change occur? And we answered in the same chapter that there are external factors that initiate institutional change, and in the case of ETC we saw major changes in political policies (Carroll, Delacroix, and Goodstein, 1988) and introduction of new technologies (Tushman and Anderson, 1986).

Thus, as Estonia regained its independence, from 1991 it was self-evident for most of the managers that they had to make radical changes to return to a “normal” situation, as they described it:

*„The strategy was to adopt the western company model”*

*„The strategy was to implement western thinking”*

What top managers really did, when they acted strategically? According to the previous analyse and appendix 10, we can conclude that, if infrastructure is poor and telecommunication market is immature, then it's essential to:

- Choose strategic partner(s) to build up an infrastructure;
- Agree and fulfil concession agreement between government and strategic partner(s) to plan and build an infrastructure for long run;
- Copy organization's strategy from owners, competitors and earlier institutions (for example: to catch the western company model; to have certain number of employees according to main lines).

That change was self-evident for the country and the organization, which had experienced capitalism in the first period of independence (1918-1940). It may be that that kind of change is not so self-evident in countries where such experiences are missing. The basis for such common understandings in the company were:

- the agreement between the company and government (a concession agreement for 8 years);
- common understanding among the critical mass of society about the market economy.

### **5.3 Preparing for competition, 1997–2000**

According to the data analysis (table 21; appendix 5, 6 and 11) we can conclude that the period from 1997 to 2000 in ETC was when they prepared for competition.

If the previous period (1993–1996) concentrated on infrastructure and eliminating the telephone queues, then the period of 1997–2000 concentrated on the qualitative side. The questions in the air were about how we should prepare for a competitive environment and how we have to change? As one manager put it:

*“We have to change continuously. It will not end happily when you end up being changed by another”*

The media disliked monopolies. ETC was relatively often mentioned in the news as a monopolistic company, and many were of the opinion that ETC would not cope in a competitive environment. The top management wanted to change and was able to bring about the changes, as one top manager commented in an annual report:

*“Today, however, the telecommunications industry has grown so rapidly that a monopolistic organisation on the market will undoubtedly slow further sector development. Therefore, I firmly support opening the telecommunications market to competition”*

In chapter 2.2 we covered the ideas of Karl Weick, who summarized his sensemaking principles: “sensemaking may or may not determine whether people respond appropriately to environmental events. Sometimes people act first and then later make sense of the outcomes”. Managers described sensemaking as follows:

*„Change happens, when you start to think another way”*

*“If you believe in something, then you can do it”*

*“Strategic thinking has developed in an evolutionary manner”*

**Table 21. Analysis of the data for 1997–2000**

Analysis of 1997-2000	Fact	Common findings
Annual reports		
1997	<p>To make the arrangement of work more client-oriented, several structural changes were planned to be introduced in 1998.</p> <p>Quality of both products and services, efficiency, and preparation for competition are the main key words for the future economic success of ETC.</p>	<p>Preparation for competition</p> <p>Ability to change</p>
1998	<p>A comparison of the structure of ETC with other telecommunication companies in the world shows that we have a modern organisation.</p> <p>Keywords: efficiency and service quality.</p> <p>Satisfaction of our customers is the key to our success.</p>	<p>Structural changes to be more customer-oriented</p>
1999	<p>In 1999, the company was restructured to be best positioned to meet the coming competition when the terrestrial telecommunications market is deregulated in January 2001.</p> <p>In fact in 1993, only 39% of those who wanted a telephone actually had one. By 2000, that number was 93%.</p> <p>Today, however, the telecommunications industry has grown so rapidly that a monopolistic organisation on the market will undoubtedly slow further sector development. Therefore, I firmly support opening the telecommunications market to competition.</p> <p>Keeping on top of the latest developments also demands that the company possesses a greater ability to change and develop as an organisation, above all this means a change in attitude and way of thinking.</p>	
2000	<p>A favourable economic environment and Estonian society's ability to innovate has pushed the country's telecommunications market to develop very quickly and dynamically.</p> <p>Without question, market liberalisation (2001) has given our customers greater opportunities to choose the services that suit them best. I hope ETC's clients and partners still find their way to us.</p>	

Analysis of 1997-2000	Fact	Common findings
<b>Business Plans:</b>		
1998-2007	Increase the effectiveness of ETC in all spheres of activity (ETC is benchmarking itself with the best in the world).  To win the trust of the customers the key factors are projecting ETC as an enterprise marked by modern technology and improved customer service processes.	Effectiveness  Customer service
1999-2008	To be prepared for competition at the end of 2000 (80% of customers are satisfied with ETC product's and  To focus on the Internet. To define ETC's core and support processes to make the company's activities more traceable and manageable.	
2000-2004	To strengthen ETC's ability to compete, it must concentrate on important customer segments. To take a stake in new prospective fields of activities.	
2001-2003	ETC must create a new image. Satisfy the needs of customers while offering the largest selection of services and solutions i.e. package offers in the sector.	
<b>Infor-</b> <b>mants</b>		
1 2	If we obtained the connections (network), then we moved towards products and then customers.	To prepare for competition: customer segmentation, rebalancing tariffs
1 3	Few and active people inside the company prepared the strategic materials.	
1 4	We have to change continuously; it will not end happily if you end up being changed by another.	
1 8	Bottom-up opinions were accepted.	
1 10	If you believe in something, then you can do it.	Fulfil the concession agreement
1 10	Ideas were in the minds of certain people and these were implemented thanks to their pressure.	
1 10	You can't be a weathercock when you manage strategically.	
1 11	Sometimes planning was too theoretical.	Business planning work group
1 11	Change happens when you start to think another way.	
1 11	The document is not as important as the process of thinking about which direction we will go.	
1 1	Understandings changed continuously and came rapidly.	



Analysis of 1997-2000	Fact	Common findings
I 13	Earlier, we talked about building the network, today we talk about the customer.	
I 12	Targets were more realistic.	
I 8	Structures were connected with people (managers) (it meant sometimes also, that the idea suffered).	
Most I-s	Strategic plans formed mainly due to the business planning work group.	
Most I-s	The strategy was to prepare for competition incl. customer segmentation and rebalancing the tariffs.	
Most I-s	The strategy was still to invest in network development and fulfil the concession agreement.	

Source: Authr's analysis; ETC annual reports and business plans from 1997 to 2000

*„The value is in the planning process, people started to think about the question of where we are going”*

One thing for the management was to invest continuously in the infrastructure and fulfil the concession agreement, but on the other hand there was also a strong need to prepare for the competition, as many informants put it:

*„The strategy was to prepare for the competition, including customer segmentation, rebalancing the tariffs, etc”*

*„The strategy was still to invest in network development and fulfil the concession agreement”*

As Brown and Eisenhardt (1998) described (ch. 2.3) that, competing on the edge assumes that industries are rapidly and unpredictably changing and, therefore, that the central strategic challenge is managing change. One manager described the changing environment:

*“Understandings changed continuously and were perceived rapidly”*

But on the other hand, the top manager has to have a vision even in a rapidly changing environment, as one top manager put it:

*“You can't be a weathercock when you manage strategically”*

In 1998, the CEO formed a business planning workgroup at ETC. The workgroup included representatives from different units and the main task was compile the business plan for the company. As the managers described it:

*„A few active people inside the company prepared the strategic materials”*

*“Strategic plans were formulated mainly due to business planning workgroup”*

*“Bottom-up opinions were accepted”*

After four intensive years of building the infrastructure and approximately four years before transferring to a competitive market, the top management started to talk more about customers, as the informants put it:

*“If we obtained the connections (network), then we moved towards products and then customers”*

*“Earlier, we talked about building up the network; today we talk about the customer”*

As we saw from chapter 2.3, the strategic management can be seen from a classical or evolutionary perspective. ETC’s top managers leaned more towards the evolutionary perspective. Evolutionists usually regard the future as far too volatile and unpredictable to plan for, and warn that the best strategy is to concentrate on maximizing the chances of survival today. As the top managers put it:

*“Sometimes planning was too theoretical”*

*„The document (business plan) is not as important as the process of thinking about which direction we will go”*

As we see from table 13,14 and 15, the business plans at ETC were made for 10 years until 1998. In 1999 the business plans started to be made for 5 years and from 2000, for 3 years. As the informants explained – at the beginning the business plans were put together for the government to show how we planned to satisfy the targets of the concession agreement. Somewhere in 1998, when the business planning workgroup also started to put the business plans together, the focus moved from the needs of government to the needs of the company. If we compare the data of the business plans, and the planned and actual results, then we see that the first years of planned results were more realistic than the remaining 5 or 10 years. As one manager put it:

*“Targets started to be more realistic”*

As usual, everything is about people. During the period when the strategies and structures were being changed, the “human factor” also had a strong impact on ETC. As the managers described it:

*„The ideas were in the minds of certain people and these ideas were implemented thanks to their pressure”*

*„The structures were connected to people (managers), and this sometimes also meant that the idea suffered“*

From the other perspective, one informant described the meaning of “strategy” and the “human factor” in terms of the strategic planning being quite weak – it was rather evolutionary (see ch. 2.3):

*“Strategy happens while the processes of thinking, formulating, saying and acting are moving in the same direction. It takes time”*

ETC’s management has implemented many major changes in period 1997–2000 (ch. 4.3; table 21):

- restructuring the company from regional to functional units;
- launching ATLAS, a new data communication trademark, to the market;
- with the public listing of Estonian Telekom Ltd. stock on the Tallinn and London markets, ETC became a subsidiary 100%-owned by Estonian Telekom;
- ETC began to implement a new call price calculation structure to bring prices in line with the cost price based on real expenses;
- ETC acquired a majority holding in Telefonipood Ltd., one of Estonia's largest telephone store chains;
- a new concession agreement between ETC and the Estonian state was signed, specifying the needs of the government to eliminate telephone queues in Estonia and to open the market.

### **Restructuring the company from regional to functional units**

Until 1996, ETC followed a regional structure. There were six regional units, all together 10 units and seven headquarter divisions. After the restructuring, separate units were formed for corporate customers, other customers (teleservices), research and development, telenetworks, real estate, all together 12 units and three headquarter divisions. Why were such changes made and was the strategy and structure connected in some way? As described by an informant:

*„The strategy and structure are connected. One of the reasons was technological development. An analogue exchange can be managed better in decentralized way (regional way), because if something went wrong with the exchange, then a technician went to repair it. But, digital equipment can be managed centrally from one place (as we were continuously replacing analogue equipment with digital). The second reason was efficiency. If you manage separate premises, procurement and other assets, like cars, regionally then you are not so efficient if you manage those assets centrally. And thirdly, the customer – if we wanted to serve our larger customers over Estonia then we needed a central management to handle one point of customer contact. We needed to focus on our core business – to our customers. In my opinion, there hasn't been such a big change since then. There was one important question, to merge the fixed and mobile side (ETC and EMT, under Estonian Telekom), but then the owners intervened strongly and decided not to merge those daughter companies”*

As we saw in chapter 2.3, the current case described the situation at ETC quite well: if change is to be undertaken, then Processual advice is usually to be modest in your expectations. Organizations do not change simply by decree. Achieving strategic change is likely to be a patient process of coaching, bargaining and manoeuvring. Evolutionists are perfectly prepared to accept the difficulties of organizational change, but their conclusion is more brutal. In today's competitive world, there is no time for Processual procrastination. Use markets to compel change and carry it through. If the managers will not change, change the managers; if the organization does not adapt, sell it and buy another one (Whittington, 2001).

In connection to the restructuring, the next change in the top management (top manager of teleservices in 1998) came a year later, as one top manager put it:

*„The right people should be in the right positions – strategy is in the head”  
“Certain types of managers fit certain types of positions at a certain time”*

In 1999, ETC acquired a majority holding in Telefonipood Ltd., one of Estonia’s largest telephone store chains. This step was made to strengthen ETC’s counter service, as the managers saw that ETC’s counter service didn’t fit the current needs of the market and as ETC wanted to be customer-oriented company with its own telecommunication department store (table 21). As top manager put it:

*„The attitude was different at Telefonipood, we can’t reorganize our counter service so quickly. The positions of the shops were different. The thinking was more business-oriented. We didn’t handle the goods as needed in a department store. There were clear additional values for us. Of course there were risks as well”*

### **Planning to buy a new internet company**

The “IT or e-bubble” burst in 2000. Before that, from 1998 to 2000, there was strong belief in the e-world in developed countries. Large telecommunications and IT companies bought different types of smaller IT and e-companies, as there was a lot of confidence in this sector. At the same time “3G” technology was a strong argument for doing business, and governments sold licenses to use “3G” and certain frequencies in their countries. Billions of euros were paid for 3G licenses and millions of euros were paid for smaller companies. The common understanding was, if you don’t consolidate your business, you won’t be on the market in the near future. ETC didn’t make any big deals, but there was one case that could have happened and the deal was quite close, as one informant described:

*“We reached a situation where we had an agreement with one internet company to buy them. The company had 25 employees, revenues were marginal compared to ETC and no profits, as in that time e-companies didn’t made any profit. The price was 100 million EEK (6.5 m euros). At last, I asked myself, does it makes sense to buy this company. It seemed that it didn’t. I asked the same question to my colleague. As he rethought, he reached the conclusion as well that it didn’t make sense. Thus, we didn’t buy the company”*

In chapter 2.2 we covered the concept of sensemaking, which illustrates this case. The manager must make sense of an uncertain situation that initially makes no sense (Weick, 1995). Feldman (1989) insists: “that sensemaking often does not result in action. It may result in an understanding that action should not be taken or that a better understanding of the event or situation is needed. It may simply result in members of the organization having more and different information about an ambiguous issue” (Weick, 1995).

In summary, we can conclude that the period 1997–2000 was when ETC prepared for competition and the strategic leaders were able to change and carry out changes to transfer to a competitive market (ch. 4.3; 5.3; table 22; appendix 11). The number of employees decreased from 3784 to 2531, revenues increased from 1176 to 2690 m EEK (table 16 and 17).

The management at ETC has implemented many major changes between 1997 and 2000 (ch. 4.3; table 21; appendix 11):

- restructuring the company from regional to functional units;
- ETC began to implement a new call price calculation structure to bring the prices in line with cost price based on real expenses;
- ETC acquired a majority holding in Telefonipood Ltd., one of Estonia's largest telephone store chains;
- with the public listing of Estonian Telekom Ltd. stock on the Tallinn and London markets, ETC became a subsidiary 100%-owned by Estonian Telekom.

The manager must make sense of an uncertain situation that initially makes no sense (Weick, 1995). As the managers described the period 1997–2000:

*„The strategy was to prepare for competition, including customer segmentation, rebalancing the tariffs, etc”*

*„The strategy was still to invest in network development and satisfy the concession agreement”*

*„The ideas were in the minds of certain people and these ideas were implemented thanks to their pressure”*

What top managers really did, when they acted strategically? According to the previous analyse and appendix 11, we can conclude that, if telecommunication market will be opened, then it's essential for an incumbent company to:

- Make structural changes and change managers to serve better customers, especially business customers (for example: restructuring from regional to functional units; new units for business customers);
- Develop new internet and content services (for example: Internet search engine (NETI), voice over IP, ID-card identification infrastructure, internet broadband services);
- Rebalance prices in correspondence with cost prices;
- Buy majority holding from competitor for new subsidiary and new culture (for example: telephone store chain for desk service);
- Put together strategic planning team, as the source of new way of thinking (strategy and tactics);
- Create the key employees concept to protect employees churn.

The basis of these kinds of changes and developments were:

- the agreement between the company and government (the concession agreement for 8 years, until 2001);

- the willingness of the managers and the government to compare itself with developed countries and with companies operating on the world level (public listing of Estonian Telekom stock on the Tallinn and London bourses; ETC's top manager: *"The strategy was to adopt the western company model"*).

#### 5.4 Market pressure, 2001–2003

According to the data analysis (table 22; appendix 5, 6 and 12) we can conclude that the period from 2001 to 2003 at ETC was a time of market pressure and focusing on the present.

The Estonian telecommunications market was liberalised from January 2001. As new entrants wished to win market share, ETC took a defensive position in the voice market (the data and internet market had been open all the time). One keyword was "customer". Most of the informants put it as follows:

*„The strategy was to be customer-oriented and to retain market share”  
“It will ensure higher revenues, when we are on a higher level and near our customers”*

According to Kahane (1991), strategic management is not about establishing "right" or "optimal" solutions, but about understanding complex relationships and an uncertain future (ch. 2.2). Some months before 2001, the future was quite uncertain for ETC's management, as one manager put it:

*"We were afraid of January 2001 and what would happen"*

From autos to telecommunications, from Santiago to Stockholm, constant change has become the norm. To us, the managerial problems were unprecedented. How could executives manage in industries that were so fast-paced and highly competitive (Brown, Eisenhardt, 1998, in ch. 2.3)? The situation at ETC was described by one manager as follows:

*"Life is becoming more complex. Competition will be stronger. We have to prioritise"*

The relationship with the owners (council) lacked a common understanding of the strategic issues at that time, but relations with the council were amenable. Oliver (1991) describes *acquiescence* or conformity, which may be motivated by the anticipation of enhanced legitimacy, fear of negative sanctions or hope of additional resources (ch. 2.1). One informant put it as follows:

*"It is hard to manage strategically, when the representatives of the owners don't have a broader view. Until 2003, it was quite hard to discuss strategic issues in the council, as the members of the council had relatively low positions in their company (Sonera, Telia)"*

At the same time, the managers considered it important to talk about the vision inside the company. One manager put it as follows:

**Table 22. Analysis of the data for 2001–2003**

Analysis of 2001–2003	Fact	Common findings
<b>Annual reports</b>		
2001	<p>Our worst expectations were that we would lose 15% of the market and were happy when, at year end, our flexible pricing policy meant our competitors had only secured 9% of voice traffic.</p> <p>Our vision is of ETC as a telecommunications and IT firm focused on sales and services.</p>	<p>Launching the new image</p> <p>Market defence</p>
2002	<p>We disappointed those who did not expect us to cope with change after a decade of being a monopoly operator.</p> <p>ETC has changed with its customers.</p> <p>In 2003, ETC will stay focused on the Internet, on data communication services and IT solutions.</p>	<p>Data communication and IT solutions</p>
2003	<p>The launching of the Elion trademark was not just a name change; it was required by the company's new business strategy. With the change in strategy, we laid down a new vision – to be the preferred company, offering simple and reliable communication solutions for home and office.</p> <p>In mobile penetration and Internet use, we have already achieved a considerable level by European standards. Estonia's success in developing e-government and the implementation of other Internet solutions have received global acclaim.</p> <p>One of the most important developments of 2003 was that the Estonian Telekom Group shifted from a technology-based to a customer-based orientation.</p> <p>The rapid development of the telecommunications sector demands that Elion keeps up with both the latest technology and customers' changing needs.</p>	
<b>Business Plans:</b>		
2002–2004	<p>ETC subunits (i.e. profit centres) have an integral strategic goal and vision, and as a result ETC profit centres are divided up by business areas.</p> <p>Estonia has probably joined the EU.</p>	<p>To provide quality services</p> <p>Customers</p>

Analysis of 2001-2003	Fact	Common findings
2003-2005	ETC main strategy: ETC is a customer-oriented sales and service company, contributing to the principle of the mutual benefit of its customers in Estonia, developing and providing telecommunication and IT solutions.	
2004-2006	<p>Elion's goal is to change from being a technology company to become a customer-needs-driven best service provider. We would like the Estonian people to choose our services first.</p> <p>Strategy: Our in-depth understanding of customer needs, the provision of quality services and up-to-date solutions enables us to retain our leading position on the home market.</p>	
<b>Infor-</b>		
mants		
1 3	There was no long-run strategy, rather one year at a time.	To ensure market share
1 2	To be on higher level near our customers will ensure higher revenues.	Key person concept
1 2	The value is in the planning process; people started to think about the question of where we are going.	Strategy – one year at a time
1 6	Today strategies come from bottom-up; the word "strategic planning" is used more widely.	Strategy – one year at a time
1 7	When it's harder to stay on the market then you have to be more convinced that every employee understands the vision.	Value is in planning (not a plan)
1 14	Life is becoming more complex; competition will be stronger. we have to prioritise.	Value is in planning (not a plan)
1 15	Experiences and knowledge are having an impact on our decisions – nothing happens just so.	Value is in planning (not a plan)
1 10	Experiences are important to find solutions in a new situation.	Value is in planning (not a plan)
1 11	It is hard to manage strategically, when the representatives of the owners don't have a broader view.	Value is in planning (not a plan)
1 13	Information moves horizontally as well.	Value is in planning (not a plan)
1 7	Earlier, there was quite a strong functional framework.	Value is in planning (not a plan)



Analysis of 2001-2003	Fact	Common findings
Most I-s	The key person concept helped to form the strategic directions.	
Most I-s	The strategy was to be customer-oriented and to retain market share.	

Source: Author's analysis; ETC annual reports and business plans from 2001 to 2003

*“When it's harder to stay on the market then you have to be more convinced that every employee understands the vision”*

There was a sceptical view as well according to the strategy, as one informant put it: *“Format dominated over the content. Content developed in an evolutionary manner”*

Estonian Telekom and the ETC management put together the key people concept in 2000. The aims of the concept were to motivate key people to stay at ETC after the market was liberalised, to share the strategic information and to focus on core activities. Many informants found it was a useful tool and they put it as follows:

*„The key person concept helped to form strategic directions”*

The new situation for ETC (after the market was liberalised) pushed the managers to find new solutions and ways to survive. The strategy wasn't anymore just to build up the infrastructure. *“We argue that strategic organizational change is influenced by environmental structure, internal conscious awareness and organizational knowledge”* (Bloodgood, Morrow, 2003, in ch. 2.3). Managers look into the past quite often, because they use their experiences in new situations. ETC's managers described this as follows:

*“Experiences and knowledge are having an impact on our decisions – nothing happens just so. Experiences are important to find solutions in new situations. If I found with my colleagues a new and good solution, then I knew that it wouldn't happen just so, but it would happen because we have had some experiences before and that day was the moment when we came to that good new solution”*

*“We have to think of that kind of solution ourselves”*

ETC management started to implement different management principles in addition to other projects: process management (1997); profit centres (1998); activity based costing (1999); process management reengineering (2000); business areas (2001); balanced scorecard (2001); benchmarking (2003 - among fixed telecommunications companies in the world, 23 participants); ISO 9001:2000 (2003). Thus, it all had an impact on the general management principles and, for example, information sharing, as the informants described the last period (2001-2003):

*“Information moved horizontally as well. Earlier, there were quite strong functional frameworks”*

Strategic management wasn't just the “headquarters' business” anymore in the last period (2001–2003). The members of the business planning workgroup involved other employees in strategic issues. The manager of each concrete business area was directly involved with business planning, as the informants described it:

*“Strategies came from the bottom-up”*

*„The word “strategic planning” was used more widely”*

It was not about command and precision planning by senior executives. There was simply too much going on in such rapidly changing industries for any single group to orchestrate every move. Rather, many people in the firm must make many moves on their own. Competing on the edge is about strategy formulation centred at the business unit, not at corporate headquarters (Brown, Eisenhardt, 1998, in ch. 2.3). We looked in chapter 2.3 at different aspects of strategic management – the classical versus the evolutionary view. We can see, that at ETC there was no classical strategic management – plans and rules – but rather an evolutionary approach, which means that the managers focused on the present. Given this challenge, what strategy is successful in rapidly and unpredictably changing industries? The key driver of superior performance is the ability to change. Success is measured by the ability to survive, to change, and ultimately to reinvent the firm constantly over time (Brown, Eisenhardt, 1998, in ch. 2.3). One top manager at ETC described it as follows:

*„The owners have been satisfied with ETC because of the economic results. The company's stock price depends upon the company's economic results, developments in the Estonian macroeconomic environment and world trends”*

Rather than focus on change per se, firms must manage change in a way that also meets the financial and social performance demands that every manager faces (Brown, Eisenhardt, 1998). One top manager described how the top management of the mother company (TeliaSonera) recognized ETC's management in 2004 (ETC's solution for pre-selection was unique in the telecommunications sector. According to telecommunications law that requirement came into force from January 2004 in Estonia):

*“You are innovative and fast thinking. If you want to change something in your company, you just do it and you don't start to find objections – we have never done it that way or we tried it some years ago, but it didn't work”*

It is not about planning an approach and knowing how it will unfold. The future is too uncertain for such pinpoint accuracy. It is more about making some moves, observing what happens and continuing with what seems to work. Although the past and future matter, the focus of attention is on today (Brown, Eisenhardt, 1998, in ch. 2.3).

In summary, we can conclude that the period 2001–2003 was a time of market pressure and focusing on the present (ch. 4.4; 5.4; table 22; appendix 12). The

number of employees decreased from 2531 to 1354, yearly revenues decreased from 2690 to 2585 m EEK (table 16 and 17).

ETC's management has implemented many major changes between 2001 and 2003 (ch. 4.4; table 22, appendix 12):

- to boost efficiency and concentrate on its core business, ETC transferred its over-the-counter services to its Hallo chain of stores (subsidiary Telefonipood);
- the management decided to sell a minority stake (49%) in AS Connecto (subsidiary) – a unit that provides telecommunications system design, installation, deployment and maintenance services;
- ETC turned Internet broadband into a household good by selling ADSL self-installation kits in supermarkets (that was the first of that kind of solution in the market in Estonia);
- In August 2003, ETC was renamed Elion Ettevõtte AS (Elion), during which the Elion trademark replaced the existing *et*, Hot, Hallo and Atlas trademarks;
- Elion fulfilled the state's requirement to satisfy telephone applications that had arisen before the termination of the Concession Agreement on 29 December 2000. With that event a Soviet concept, the 'telephone waiting list' disappeared into history;
- Elion rose to fourth position from zero among IT companies in Estonia (2003).

The key driver of superior performance is the ability to change. Success is measured by the ability to survive, to change and ultimately to reinvent the firm constantly over time (Brown, Eisenhardt, 1998, in ch. 2.3). One top manager at ETC described it as follows:

*„The owners have been satisfied with ETC, because of the economic results”*

The owners of ETC told the top manager:

*“You are innovative and fast thinking. If you want to change something in your company, you just do it and you don't start to find objections – we have never done it in that way or we tried it some years ago, but it didn't work”*

It is not about planning an approach and knowing how it will unfold. The future is too uncertain for such pinpoint accuracy. It is more about making some moves, observing what happens and continuing with what seems to work. Although the past and future matter, the focus of attention is today (Brown, Eisenhardt, 1998, in ch. 2.3). As one informant put it:

*„There was no long-run strategy, rather one year at a time”*

What top managers really did, when they acted strategically? According to the previous analyse and appendix 12, we can conclude that, if telecommunication market is opened, then it's essential for incumbent to:

- Launch the new image, new brand (for example Elion, which consolidates several old ones);

- Outsource non-core activities (for example: network building);
- Develop new customer-centric services (for example: self-installation kits for internet, IT services, DigiDoc, vpn, Telehotel);
- Change managers;
- Assure the market share.

The basis of these changes and developments were:

- the market pressure, the time of concession agreement was over and the market was liberalised from 2001;
- the managers experience in managing the changes (from 1992, when they signed the concession agreement);
- the willingness of the managers to compare the company with competitors (targets for market shares) and with companies operating on the world level (public listing on the Tallinn and London bourses; international benchmarking survey; Owners of ETC: “*You are innovative and fast thinking*”).

The managers at ETC focused on the present between 2001 and 2003. Broadband internet growth was higher than expected, market share in the voice market decreased less than expected, IT services growth was lower than expected in the last years (comparing business plans with planned and actual results). When the management put together a three-year business plan, they focused first of all on the first year and so did the members of the Council.

## **5.5 The technically oriented ETC adopted a customer-centred logic**

The author will now use the following sections to answer the study’s main questions. Those chapters analyse two time periods – before and after market liberalization – to illustrate the changes at ETC more clearly.

The first main question was asked in chapter 1: How did ETC adopt new logic, actors and forms? What were the external and internal factors?

The current study showed how external and internal factors influenced the managers’ thinking and attitudes and how the managers adopted new logic, actors and forms. The study showed how the higher institutional level, the public sector and EU legislation, directly impacted the organization’s direction and strategy. In order to transfer to a competitive market in a restructuring environment, organizational changes were essential and self-evident for the managers so they could reach the average European level in the telecommunications sector. As ETC started to renovate the network from 1993, it was a very technically oriented company. Every year that ETC came closer to market liberalization, its management started to focus on its customers. As table 23 shows below, the technically oriented ETC gave way to a customer-centred logic. Those changes were self-evident for the country and the organization (app. 5, 6), which has

been independent and could draw on experiences from the period of the first republic (1918-1940). That kind of change may not be so self-evident in countries, where such experience is missing, as in many of the other former Soviet Republics. The current study has shown that the customer-oriented path as well technological change had a strong impact on the organizational structure<sup>38</sup>.

**Table 23. How ETC adopted new logic, actors and forms**

	Before the market liberalization (from 1993)	The time of competition (2003 and before)
<b>Internal factors:</b>		
<b>Logic</b>		
Focus	Building up an infrastructure and network to provide services	Company under market pressure – customers
Culture	Hierarchical and autocratic	Horizontal and autonomous
<b>Actors</b>		
Management	19 top managers (1994)	- 7 top managers (2000) – all new managers compared to 1994 - 8 top managers (2003) - 11 top managers (2004) – 8 new managers compared to 2000
Shareholders	Estonian Government majority (51%) and strategic partners (Telia, Telecom Finland) (49%)	Estonian Government (27%); Public Investors (24%); Baltic Tele (TeliaSonera) (49%)
<b>Forms</b>		
No of employees	4380 – mainly technical staff	1400 – mainly service and technical staff
New Brand and company's name	Estonian Telephone Co. – from 1993	Eilon – from 2003
Structure	Regional structure.	Functional structure.
Daughter companies	1 (100% owned)	2 (100% owned) and 3 related companies
Business areas	Voice calls, network operators, data	Voice calls, network operators, data, internet, IT
Revenues and profit	Rapid growth (table 15)	Stable and decreased (table 15)

<sup>38</sup> While it is too early to state that the transformation process has been successful in terms of moving the organizations (Estonian Telekom; Estonian Gas; Estonina Energy) fully into market space, there is no doubt that in the short-term that transformational processes have been underway, the firms are well on their way toward developing an orientation that is appropriate for functioning in a market economy (Santalainen, 2003).

<b>External factors</b>		
Public sector and legislation	Concession Agreement with government from 1993 (for 8 years). Communication act.	Communication board. Competition board. Electronic communication act. Competition act. Market liberalization from 2001.
Technology	New digital exchanges and a base network of optical cables for voice services and other future services.	ADSL for Internet services; WiFi for wireless internet services; VoIP for internet calls.
Customers	Customer applications as input for network development.	Customers satisfaction as input for service development.
Competitors	Mobile companies; Data and Internet companies.	Mobile companies; Data and Internet companies; Cable companies; IT companies. (altogether 110 companies)

*Source: Author's analysis; ETC annual reports from 1993 to 2003*

### **Logic**

ETC's focus was to build up the infrastructure within an early timespan. As most of the informants put it: "Network building was the strategy to achieve the connections with the world, eliminate telephone queues and satisfy the concession agreement". After market liberalization the company's focus changed to its customers. As most informants described: "The strategy was to be customer-oriented and to retain market share" (appendix 5 and 6). Customers had the possibility to choose another service provider, so the most critical issue was to be near the customer and keep them at ETC. The largest investments were made before market liberalization (table 16), amounting to over 800 million kroons by 2000, as the infrastructure needed a lot of renewal. To retain customers, service competence and good customer's relations were needed.

The culture was hierarchical and autocratic at the beginning, as most of the informants agreed that there was an authoritarian style between 1993 and 1996. Informants described it as follows: "The top management heard what the local managers said, but acted as they wanted". Many informants remember the same phrase from the top manager: "You don't ask the frogs, when to drain the swamp". The second period was already more horizontal and autonomous, as the informants described it: "Information moved horizontally as well. Earlier, there were quite strong functional frameworks"; and "The strategies came from bottom-up" (app. 5 and 6). The more complex market situation, since market liberalization, needed a more horizontal and autonomous management style.

### **Actors**

The members of the management have changed rapidly (app. 14-17). There were 19 top managers in 1994, but in 2000 all those managers were changed and altogether 7 top managers were in place. In 2004 there were 11 top managers and 8 of them were new managers compared to the structure in 2000. As the informants described the

changes connected with managers: “Everything is about people”; “Change happens when you start to think another way”; and, “The right people should be in the right positions – strategy is in the head. Certain types of managers fit into certain types of positions at a certain time”. Thus, the top managers considered putting the right people in the right place of great importance. As the internal and external environment changed rapidly, there were also rapid changes among the members of the management.

The strategic shareholders, however, have been the same throughout the decade – TeliaSonera. The government has decreased its share with the public listing of Estonian Telekom stock on the Tallinn and London bourses in 1999. In the beginning, ETC needed the strategic partners to obtain knowledge and investments in the telecommunications infrastructure. Afterwards, changes focused on making the company more transparent and decreasing the government’s shareholding.

### **Forms**

The number of employees has decreased from 4770 to 1354, the digitalization rate grew from 5% to 79% and the number of main lines grew from 350000 to 449000 between 1993 and 2003. Informants described the changes among employees as follows: “It was a cultural change from a soviet culture to capitalism. Some came along and some didn’t.” New technology, efficiency programs and a customer-oriented strategy led to the staff changing from being mainly technical staff to including more service staff.

ETC’s brand was launched on 1 January 1993. This was an era when international calls were still being routed through Moscow. That is why the Estonian government assigned the company the task of ending the country’s telephone shortage, of laying a new comprehensive telecommunications network and opening up international connections. In 2003, the company decided to change its name to Elion. The name was changed because Elion was no longer a mere telephone services provider. The Internet, data communication and IT had become the fastest growing business areas for the company. Elion is not a monopoly any more, neither is it a technology company. Its goal is to become the best service provider driven by the needs of its customers.

### **Structure**

The current study has shown that core business and strategy impacted the organizational structure. One of the biggest structural changes was from a regional to a functional structure in 1997. The main arguments for the need for that change were based in new technology and the customer focus, but also greater flexibility in management and the possibility to make faster decisions. Those arguments were seen by the top managers, as the implementation was top-down. As one top manager explained it: “One of the reasons was technology development. An analogue exchange can be managed better in a decentralized (regional) way, because if something happened with the exchange, then a technician went to repair it. But, digital equipment can be managed centrally from one place (as we were continuously replacing analogue

equipment with digital)“. Many middle managers didn't see the benefits of that change, as their position was weakened. Many meetings were held to manage that change to explain the need for it and to find how to go further with the new principles. The role of the functional management was increased in the later era (2003 and 2004) (app. 14-17).

### **Subsidiaries**

In 1999, ETC acquired a majority holding in Telefonipood Ltd., one of Estonia's largest telephone store chain's. This step was made to strengthen ETC's counter service, since the managers saw that the counter service didn't fit the current needs of market, and as ETC wanted to be a customer-oriented company with its own telecommunications store (table 21). As one top manager put it: "The attitude was different at Telefonipood, we haven't been able to reorganize our counter service so quickly." The shops took a different attitude. The thinking was more business-oriented. We didn't handle the goods as needed in the store. There were clear additional values for us. Of course there were risks as well." On the other hand, ETC created one subsidiary on the basis of one of their functional units, which built and maintained the network – AS Connecto. In 2003, Elion sold a 49% holding in its subsidiary AS Connecto to the Finnish network construction company ELTEL Networks Corporation to focus on its main strategy – to be the best service provider.

The business areas have changed according to market and customer demand, as well as technological and legal conditions. Voice calls were the main product, but later the internet and IT services became the largest growth areas.

### **External factors. Public sector**

This study has shown how strongly the company's strategy was related to changes in the political environment. Estonia regained its independence in 1991. It was self-evident for most of the managers that they needed to make radical changes to recover a "normal" situation, as the company's managers described the strategy: "to adopt the western company model"; "to implement western thinking". Political change at the state level had the most important impact to the company's strategy, as it made it possible to think in terms of the market and the customer. The core of a concession agreement between the Estonian government and ETC included winding down the telephone waiting list, laying a new telephone network and improving the quality of communication. As one manager put it: "Fortunately, the concession agreement worked well and thanks to that it was possible to plan and build the network". Changes in legislation moved things toward the principles of the EU. After market liberalization, the communication board and competition board had a major role to play in creating a competitive environment in the Estonian telecommunications market in addition to the legislation. As one top manager commented: "Today, however, the telecommunications industry has grown so rapidly that a monopolistic organisation on the market will undoubtedly slow further sector development. Therefore, I firmly support opening the telecommunications market to competition".



## **Technology**

ETC's goal was to update the whole telecommunications sector and to initiate a developmental program agreed upon with the government. The focus was to construct new digital exchanges and to establish a base network of optical cables. One manager commented: "The network was weak compared to Europe. We needed a base for production to provide services". Those targets were mainly achieved in the last phase, as one of the manager's commented: "In mobile penetration and Internet use, we have already achieved a considerable level by European standards. Estonia's success in developing e-government and the implementation of other Internet solutions have received global acclaim".

Customers impacted ETC's strategy and activities in different ways. In the early phases, customer applications were an input for network development, but after market liberalization, customer satisfaction was the input for service development. As one informant put it for the early phase: "It was self-evident, if there were telephone queues, then technological thinking was the right approach. We didn't need smart strategies". But later, as stated in the business plan: "Elion's goal is to change from being a technology company to become a customer-needs-driven best service provider. We would like the Estonian people to choose first and foremost our services".

## **Competitors**

Although the main focus of attention was building the network agreed upon under the concession agreement in the early phase, the top managers also paid attention to competitors, as stated in the business plan: "To guarantee ETC's business in the long run, special attention shall be paid to priority customers (such as business customers) and their satisfaction". Later, in the competitive phase, one informant commented in regard to competitors as follows: "Life is becoming more complex, competition will be stronger, and thus we have to prioritise". It wasn't easy for the managers to enter the open market, as one manager put it: "We were afraid of January 2001 – what will happen".

## **5.6 Rapid changes in thinking guaranteed many successful strategic activities to help survive on the market**

The second main question asked in the first chapter was: Where did the interests come from and how did they change the thinking at ETC?

The current study showed that rapid changes in thinking guaranteed many successful strategic activities to help the company survive on the market. The thinking changed rapidly at different levels. The Estonian economy was changing, and so the expectations from government were quite high. The strategic owners and business partners saw an empty market to do business in. The managers and key people saw

a chance for self development and thus, altogether that made those rapid changes at ETC from 1993 to 2003 possible (table 16, 17). Table 24 below shows where interests came from and how this changed the thinking of the top managers at ETC.

**Table 24. Where did the interests come from and how did they change the thinking**

Before market liberalization (1993 - ...)	The time of competition (2001 - ...)
<b>Owners interests</b>	
Business partner's interests: mainly for international calls, towns, efficiency and empty market – profitability. Government's interest: to cover the whole Estonia with new base network, to get international connections quickly and to eliminate telephone queues, and also the fulfillment of the concession agreement.	Strategic partners interests: efficiency and revenue growth - profitability.  Government's interest: efficient telecommunication market according EU legislation.
<b>Top management's interests</b>	
To control the strategic activities and resources. Freedom to make decisions. To go onto new markets. To understand the final result. Self-determination and challenges.	The right people for key positions. Clear strategic targets and directions from owners. To hold chosen direction. Telekom share price. To get people involved.
<b>Interests of "key people"</b>	
To be trustworthy. Self-development. Rapid environmental development.	To get people involved. To provide own solutions.
<b>Managers' values</b>	
"Sauna" talks were important – lobbying for making key decisions. Time of learning. Have to change yourself continuously, otherwise you will be changed. Certain manager's profile matches the situation at a certain time – so called manager's time. Change happens when people start to think in another way.	Best way to communicate is to talk to employees. Unconcerned attitude is the worst, hate is better. Be yourself. Bigger picture has to be in front of me. Experience is needed for finding solutions today. If I believe in something, if I have faith, then it will happen – soft sides are important.
<b>Management style</b>	
Autocratic – headquarters made the main decisions. Results according to plan. Time of personas. Started to talk about teamwork.	Autonomous – bottom up ideas were accepted. Key person concept.

<b>Conflicts</b>	
<p>Between partners in early phase – who gets a bigger share.</p> <p>Between owners – not to build telephone services in the country side (partner) versus to cover all of Estonia (government).</p> <p>Between managers – restructuring the company from regional to functional units.</p> <p>With media – ETC, as monopoly.</p> <p>With owners – growth strategy.</p> <p>Between managers – to sell IT activities.</p>	<p>With Communication Board – pricing.</p> <p>With competitors – pricing.</p> <p>With owners – not to integrate fixed and mobile companies.</p> <p>Between managers – to provide internet for apartment houses.</p>
<b>Meaning of the customer</b>	
<p>Customer was in the queue.</p> <p>To provide a quality service for the customer.</p> <p>Customer is also a human (later).</p>	<p>Customers feedback was an input for decisions.</p>
<b>Meaning of the strategy</b>	
<p>Confidential 10-year plan with government. It was so self-evident what to do. No need for “smart” strategy’s. When there were telephone queues, then technological thinking was the right approach.</p> <p>Strategy is in the head.</p> <p>Strategy is in the head of certain people, to implement it, it needs bigger team.</p> <p>Developed in an evolutionary manner.</p> <p>Word “strategy” wasn’t clear.</p> <p>Investments just to build network.</p>	<p>To be competitive and respond to competitors actions – needs of the company;</p> <p>One year at a time - more complicated.</p> <p>Strategy happens, when thinking, formulating, saying and acting are moving in the same direction.</p> <p>To earn money from the business.</p> <p>Business plan didn’t go to drawer – it was the action plan.</p> <p>Formulation dominated.</p>
<b>Strategy formulation</b>	
<p>Top-down.</p> <p>From headquarters within a narrow team (96).</p> <p>Owner understood that management can manage itself.</p> <p>The process of when it can be seen that people are starting to think about which way we will go.</p> <p>Business planning workgroup from 1996.</p> <p>Business plan changed from government’s paper to company’s paper (2000)</p>	<p>Bottom-up – consolidation.</p> <p>From business planning workgroup.</p> <p>Discussions between units.</p>
<b>Risks</b>	
<p>Failing to satisfy the concession agreement.</p> <p>Economic including currency risk.</p> <p>To over invest in the “e-bubble”.</p>	<p>Losing market share. Losing a lawsuit with the public sector (Communication and Competition Board); Wrong technology (adsl or cable). Losing core competencies (key persons).</p>

<b>Management innovations</b>	
High technical competence (billing system better than in mother company Telia). Development of technology in the world. Customer segmentation. Cost price model	Process management. Customer Relationship Management. Business areas and segments. Balanced scorecard for targeting. Key person concept. Service quality. Benchmarking.

*Source: Author's analysis*

### **Owners' interests**

Before the creation of ETC, the government's interests were to create new base network that covered all of Estonia, to create international connections quickly and to eliminate the telephone queues. As one informant described at that time, when Estonia had just regained its independence: "speed and tempo were the main issues". But discussions with partners weren't easy, as most of the partners were mainly interested in international calls and services for towns. Thus, a concession agreement was agreed with the main partners (Telia, Sonera), who accepted the Estonian Government's principles. Although, strategic partners understood the government's interests, their own interests were efficiency and revenue growth. Investments to rural areas for example, were hot topics between owners, but finally the concession agreement worked well and was fulfilled. Efficiency and revenue growth were still the focus for the strategic partners in the period of competition. The government's interest, however, had moved to guarantee an efficient telecommunications market according EU legislation.

### **Top management's interests**

At different times the top managers stressed different things, which were important for them. During the early period, it was important to control strategic activities and resources and have the freedom to make decisions, for example, so as to choose strategic technology partners. Before the market liberalization the top manager's idea was to enter new markets, such as Belarus, Russia, Latvia, but it wasn't a good idea for the owners. Self-determination and challenges have been important for most of the managers. At the time of competition, the question arose about people, to ensure that the right people were in key positions and to get people involved, since under the market pressure of that period it wasn't enough just to control resources anymore. Clear strategic targets and directions from the owners and to hold to a chosen direction were important, as the keyword was efficiency. As ETC's mother company, Estonian Telekom, was on the stock exchange, the share price was taken into focus.

### **The interests of "key people"**

Most of the key people had been working at ETC for over 5 and 10 years, and being trustworthy and providing their own solutions has been important for them. Also, self-development and the rapid development of the environment has been considerable, and when the involvement of people has been important for the top managers, the same has been so for these key people.

### **Managers' values**

In the early phase “sauna” talks were important in the sense of lobbying and making key decisions. Also, the managers valued the early phase as a time of learning, as one manager put it: “Everybody learned from each other”. Later, the continuous change had an impact on the managers so that they became stressed: “I have to change myself continuously, otherwise I will be changed”; and “Change happens when people start to think another way”. One of the top managers emphasised that: “At a certain time a certain manager’s profile matches the situation – it is that manager’s time”. This could be especially seen when ETC moved from being a technical company’s to customer-oriented company. When market pressure became stronger, then the softer values emerged, as one top manager described: “If you believe in something, if you have faith, then it will happen – soft sides are important”. Other phrases from managers included: “The best way to communicate is to talk to employees.”; “Experience is needed to find solutions for today.”; “The bigger picture has to be in front of me.”; “Be yourself.”; and “An unconcerned attitude is the worst, hate is better”.

### **Management style**

At the beginning of the creation of ETC, providing customers with a quality service was a big change. As modern technology was taken into use, and customer-based and profit-focused thinking rose to the first place, many employees left the company. A hierarchical style worked relatively well, as the managers put it: “The headquarters made the main decisions – it was an autocratic style”; “It was a time of personas. If some managers had a vision how to develop a certain area and it fitted together with the CEO, then such a structure was formed”. On entering the competitive market, the top management understood that customers satisfaction was the key to survival, thus a hierarchical management structure was no longer sufficient to get feedback from the market and to change the thinking of key people. Strategic work groups and bottom up ideas were accepted. Relatively autonomous managers had the authority to make decisions according to the customers’ needs. The top management implemented the key person concept to keep them connected with ETC. The customer satisfaction index and other similar market and customer surveys were used as inputs for strategic decisions. The management had to find new business areas, as the telecommunications trends in Estonia were the same as elsewhere in the world – fixed voice revenues were decreasing, which was the main revenue source in the past. Data, internet and IT services were created to balance the decrease in voice revenues and to satisfy a customer need – to offer an integrated solution from one provider.

### **The meaning of the customer**

The current study has shown that the meaning of the customer changed as the company entered the competitive market. Customers were now a source of feedback for strategic decisions on a competitive market rather than just to the recipient of a quality service in a monopoly market (table 23). If we look back at the Soviet era, before 1991, the word “customer” wasn’t in use. Then “citizen” or “consumer” were the most used

words. And the policy was to keep a deficit in most economic fields, even when providing telephone services. Resources were available for building up the infrastructure for the telephone lines, but the central decision makers in Moscow didn't allow it. Calling directly abroad was only permitted for those who owned telephone lines, as again the policy was to keep the borders closed. Thus, for ETC it was a starting point to provide a service according to the concession agreement and with resources and knowledge from strategic partners. The government saw an opportunity to build up a modern infrastructure, and the strategic partners (Telia, Sonera) saw an empty market. For the government a quick start was the most important thing.

### **5.7 Strategy is simple if there is a need for infrastructure, and not, when there is market pressure**

What kind of strategy was successful for ETC in a restructuring and changing environment? And what wasn't? - was also asked in the first chapter.

True strategy, according to the author, is like an environment where the thinking, formulating, communicating and acting of top managers are all moving in the same direction. In that sense, the first and only strategy for ETC was to choose a strategic partner and satisfy the concession agreement. The next strategies missed one or more components from the previous definition. The strategy for a service company missed the common understanding or thinking and thus missed the common acting. At the same time, many strategic activities were put into practice that were successful not only in Estonian market terms but also world market terms (table 25). The interviewees confirmed that the top managers were thinking, saying and acting in such a way, and also that the strategy was formulated in organizational documents (app. 5; table 23 and 24).

**Table 25. Strategic activities in a restructuring and changing environment**

Before the market liberalization	The time of competition
<b>New brand to change the image</b>	
"Estonian Telephone Co" from 1993	"Elion" from 2003
<b>Concession agreement as an anchor for holding the main direction</b>	
To fulfil the concession agreement - needs of the government from 1993 until 2001	Concession agreement was fulfilled. Government supporting open telecommunication market.
<b>Resources for handling corporate customers</b>	
Sales unit for corporate customers was created in 1997	Handling corporate customers is integrated within the sales unit.
<b>Segmentation for talking about customers</b>	
Unit for serving small and medium sized business customers was created in 1998	Marketing unit was created, the main responsibility of which was to manage business and private customers markets.

<b>Profit centres helped to understand costs</b>	
Internal transactions between units were in place for creating profitable thinking from 1998-2001	Cost price model is actively in use to guarantee the demands of legislation and to understand the cost prices of products
<b>Focus on efficiency</b>	
Steady pressure from owners to cut costs (table 16); nr of employees decreased from 4770 to 2531 between the years of 1993-00	Steady pressure on costs and EBITDA continued (table 16 and 17)
<b>Business areas for understanding the profitability of products</b>	
Main product was telephone calls. Internet and other new products were implemented from 1997.	Business area managers responsibility formulated in 2001 to manage product profitability
<b>New services to meet customer needs</b>	
Every year new products were brought to market, incl. internet and IT products	Consolidating different product portfolios
<b>Continuous change was inevitable</b>	
As informants put it: if you don't change you will be changed by others.	Added pressure from competitors.
<b>Outsourcing to concentrate on customer service</b>	
Sold off activities handling cars. Merging with Halo, as ETC's subsidiary – telecoms and IT department store – counter services.	Sold off network building (subsidiary at the beginning - Connecto) Sold off stake in the directory services company AS Teibeliin.
<b>Focus on legislation</b>	
Director of regulatory and legal affairs was appointed as a member of the board in 2000	Several cases to solve from Communication and Competition board and from competitors.
<b>Right people in the right positions</b>	
Key person concept from 2000	Informant: Everything is about people
<b>Do not go with the "bubble"</b>	
ETC didn't go with the e-bubble and 3G (mobile technology) bubble (for example mother company Sonera lost approximately 1 bn euros for buying licenses abroad)	Stable growth with new business areas – Internet and IT services
<b>Indistinctness of targets after market liberalization</b>	
To reach the average level of telecommunication development in Europe and to eliminate the telephone queue – it had to fulfil the concession agreement	Preferred service provider in the area of home and business communication solutions; to balance the decrease of voice revenues with data, internet and IT revenues; to become the best service company – but there were no common and agreed strategy to fulfil those targets

Source: Author's analysis

The study showed that a simple and clear strategy helped to achieve the expected result. In the case of ETC the strategy before market liberalization was to fulfil the concession agreement. Fulfilment of the concession agreement gave the managers and employees clear and measurable targets to follow. ETC implemented radical organizational changes as well as changes in thinking, for example, the number of employees decreased from 4770 to 1354, the digitalization rate grew from 5% to 79% and the number of main lines grew from 350000 to 449000 between 1993 and 2003.

The current study has shown that the top manager needs around him/her key people to implement change. Most of the top managers emphasised the importance of finding the right person for the right position at the right time. When the top manager feels the direction of the company and strategy, then important decisions have to be made about who will implement the strategy. ETC went through a critical breakpoint in structural changes from a regional to a functional management structure. During that change the top manager also changed, as did other middle managers, as the time was right for new more customer-oriented managers. Changing top managers has never been an easy task. It demands quite a lot of preliminary discussions and decisions to reach the final result. The informants testified that in such a situation they had “butterflies in their stomach”, but the decision is so important for further strategic progress.

Strategy formation and development involved managers in the widest sense and changed the company from a centrally managed company to a decentralized one in connection with transferring to the competitive environment (from 2001). As the managers described the different periods:

*“The business plan was made somewhere at headquarters (1993-1996)”*

*“The word “strategy” was used, but was it in the heads in the same way (1993-1996)?”*

*“It was healthy when local people were more involved in the strategic planning (1993-1996)”*

*„There was value in the planning process; people started to think about the question of where we are going (1997-2000)”*

*„The strategic plans were formed mainly due to the work of the business planning group (1997-2000)”*

*“Bottom-up opinions were accepted (1997-2000)”.*

*“Strategies came from bottom-up (2001-2003)”*

*„The word “strategic planning” was used more widely (2001-2003)”*

*„The key person concept helped to form the strategic directions (2001-2003)”*

The current study has shown that the company transferred to a competitive market in a changing environment, and strategy formation changed from planned to emergent. As the managers of ETC described the different periods:



*“Network building was the strategy (1993-1996)”*

*“Fortunately, the concession agreement worked well, and thanks to that it was*

*possible to plan and build the network (1993-1996)”*

*“As the government asked for a business plan (for 10 years), so the company’s council asked for the plan as well (1993-1996)”*

*“Few active people inside the company prepared the strategic materials (1997-2000)”*

*“Sometimes planning was too theoretical (1997-2000)”*

*“The document (business plan) is not as important as the process of thinking which direction we will move in (1997-2000)”*

*„The strategy was to be customer-oriented and to retain market share (2001-2003)”*

*“We were afraid of January 2001 – what will happen (2001-2003)”*

*“There was no long-run strategy, rather one year at a time (2001-2003)”*

The changing environment required an emergent style of strategy formulation to get new ideas and solutions from company’s managers and other employees quickly in order to respond to competitors actions. The top managers’ task is to create an environment that will give the most adequate solutions for being proactive on the market, and to react when necessary. In a turbulent environment, the future is too unpredictable to plan more than a year, although the main direction is necessary. ETC had no clear strategy after the market was liberalized, but it did have a main direction – to be the best service company (alternatives are cost oriented, as to give the best price and product oriented, to create the most innovative products).

The current study has shown that the top management changed the organization continuously in order to survive under external pressure, which was brought endorsement from the owners (table 24). Multiple changes were implemented: structural changes from regional to functional management; network building unit removal and creation of the subsidiary Connecto Ltd, which was sold in 2003 (approx. 500 employees); infrastructure rebuilding from 5% digitalization rate to 79%; buying the telecommunication retail chain “Hallo!” as a subsidiary and counter service unit until today; changing from a technology company to a service company; balancing the decrease in voice revenues with internet and IT business areas; changing the image and brand from Estonian Telephone Co to the new brand “Elion”; handling external pressure with legislation requirements of pre-selection and telephone number portability. After such changes, ETC (Elion) has good economic results compared with other telecommunication companies, which is also mentioned by the owners.

## **5.8 The company’s strategy was externally imposed by institutional forces**

In the second chapter, we covered institutional changes according to institutional theory. And in the first and fourth chapter we read about the environment of the

telecommunications market including ETC's particular context. We can summarize that ETC's strategy was externally imposed by the following institutional forces:

- the end of the Soviet era in 1991 – movement from socialistic to capitalist environment;
- privatization of Estonian Telekom at the end of 1992;
- telecommunications market liberalization in 2001;
- introduction of new technology within 10 years (digitalization, internet, voice over IP).

Appendix 13 shows the sensemaking of ETC's managers before and after market liberalization. Sensemaking means to make sense of an uncertain situation and give meaning and direction to the company (Weick, 1995). We look inside the company and study how the company underwent change (Scott, 2001) and how the thinking changed. Appendix 13 covers the informants' answers, which were collected to the author's database. The author picked out all the answers that were relevant to sensemaking. As the informants were asked to answer 16 questions and separately for each of three periods, then the answers in appendix 13 are from the first (1993-1996) and the last (2001-2003) period to show more clearly the change in sensemaking. Additionally, the author grouped those findings so that the answers that were mentioned more frequently were at the top. The earlier period shows the importance of infrastructure and technology, as altogether that was mentioned 24 times by the informants. Before the market liberalization the following sensemaking took place at ETC:

- importance of infrastructure and technology (24);
- authoritarian thinking (8);
- coordination from the headquarters (7);
- to be like developed countries (6);
- quick start was important (2).

What does this mean? We see from table 20, that the main target of ETC, according to the business plan from 1994, was to manage the communication network in Estonia and to foster Estonian economic development to catch up with the average level of telecommunications development in Europe. It was a time when there were still many customers in the queue for a telephone service. And thus, the most important strategy then was to fulfil the concession agreement, which was agreed with the government, and to build up a modern infrastructure. Another dominant vision was to catch up with the average level of telecommunication development, and the quick start in 1993 was also important. On the other hand, we see from appendix 13, that the company had an authoritarian style, which also meant things were coordinated from headquarters.

After the market liberalization the following sensemaking factors were grouped:

- risk and conflict handling (27);
- customer-oriented thinking (14);
- more information available in the organization (10);

- effectiveness thinking (9);
- continuous change management (8);
- market defence thinking (6);
- to get new revenues (5).

We see quite a big change in sensemaking at ETC within 10 years. Infrastructure issues don't dominate anymore, rather the complex environment is dominated by customer-oriented thinking. As one informant describes it: "life is becoming more complex". We see from appendix 13 that after the market liberalization there are many questions and risks mentioned by informants compared to before. The authoritarian style seemed become more democratic, as we see many comments about the availability of information and no more comments about headquarters dominating. The democratic style is also common in the strategic partners' culture. Also effectiveness thinking has emerged with questions of how to compensate for revenue decreases in traditional telephone services and how to obtain new revenues from IT and data services. If we remember the changes among top managers in table 23, then it seems obvious that continuous change is repeated many times by the informants. From that table we see that the number of employees has decreased dramatically from 4300 to 1400 within 10 years. As ETC was previously a monopoly, market defence thinking is also dominant, as the informants' comments indicate – to retain market share.

We can summarize that the end of the Soviet era provided the opportunity to start building a modern network and eliminate the queue for a telephone service. The privatization of the company brought the experience and culture of strategic partners and western thinking. The market liberalization turned the focus of the company toward its customers and effectiveness. And new technologies from developed countries changed the revenue structure and raised new questions about how to get new revenues. Thus, the managers' sensemaking was imposed by institutional forces. As sensemaking means to give meaning and direction to the company, the company's strategy was imposed by institutional forces (figure 2). Also we can conclude that the company's:

- technological thinking became customer-oriented effectiveness thinking;
- authoritarian and headquarters-centred style became an environment in the company where information was more available and the environment more complex;
- clear vision to develop as a telecommunication company in Europe became the understanding that continuous change is important.

## 6 CONCLUSIONS

This case study presented an in-depth company analysis of strategy creation in a restructuring and changing environment. The objective of the current study was to analyze how the company's (Estonian Telephone Company) strategy was created and what strategy made sense to the managers transferring to a competitive market. The question in the current study was - what, why and how changed the strategy in a restructuring environment? The study was based on the organizational theory's of institutions, sensemaking and strategic management by focusing on an Estonian fixed telecommunications operator transferring to a competitive market in the period from 1993 to 2003. The study consolidated those theories and empirical data from the company. At the intersection of those theories was where strategy creation occurred in a restructuring environment. In addition to secondary data, 15 interviews were carried out with top managers.

The study described the main events of every year in the company from 1993 to 2003, what and how was done. In 1993, ETC started to catch up with companies in developed countries. In 2003, according to the International Telecommunication Union's world telecommunication report, the Estonian digital access index had reached the high upper access level among other developed countries (appendix 7). The average share price trend for Estonian Telekom was higher than the average share price trend for NASDAQ Telecom after market liberalization from 2001 in Estonia (appendix 9). The study's findings highlighted a positive case study in connection with strategic management in a changing environment, as the performance of the company satisfied different stakeholders. The study presents the trends and provides a general analysis of the company. It dealt with a full variety of evidence – documents, artefacts, interviews, and observations, which provide us an overview of strategy creation in a restructuring company. Finally, the author answers the main questions of the study in this chapter. According to the study's objective, the research problem and the main questions, we covered the issues and provided an overview of how ETC underwent change and why the managers at ETC selected the strategic responses they did. The study consolidated organizational theories and the concepts of institutions, sensemaking and strategic management. The intersection of those theories was “strategy creation in a restructuring company”.

### 6.1 Main findings

#### 6.1.1 The company's strategy was externally imposed by institutional forces

How did the company undergo change? In the second chapter, we covered the institutional changes according to institutional theory. And in the first and fourth chapter we read about the environment of the telecommunications market including ETC's particular context. We can summarize that ETC, as organization, was externally imposed by the following institutional forces:

- the end of the Soviet era in 1991 – movement from a socialist to a capitalist environment;
- the privatization of Estonian Telekom at the end of 1992;
- the liberalization of the telecommunications market in 2001;
- the introduction of new technology within 10 years (digitalization, internet, voice over IP).

As the managers' sensemaking was imposed by institutional forces, we can also conclude that the company's (according to appendix 13):

- technological thinking became customer-oriented and effectiveness thinking;
- authoritarian and headquarters-centred style became an environment in the company where information was more available and a more complex environment;
- clear vision to become a developed telecommunications company in Europe changed to understanding that continuous change is important.

By sensemaking we mean: to give meaning and direction to the company, meaning that the company's strategy was imposed by institutional forces (figure 2).

### **6.1.2 The company experienced three different periods of strategy creation**

What did the top managers really do when they acted strategically?

6.1.2.1 Building up the infrastructure between 1993 and 1996 – if the infrastructure is poor and the telecommunications market is immature, then it's essential to (according to appendix 10):

- Choose strategic partner(s) to build up the infrastructure;
- Agree upon and fulfil the concession agreement between the government and strategic partner(s) to plan and build the infrastructure for the long term;
- Copy the organizational strategy from owners, competitors and earlier institutions (for example: to adopt the western company model; to have a certain number of employees according to the main lines).

6.1.2.2 Preparing for competition between 1997 and 2000 – if the telecommunications market is going to be opened, then it's essential for an incumbent company to (according to appendix 11) :

- Make structural changes and change the managers to better serve customers, especially business customers (for example: restructuring from a regional to functional units; new units for business customers);
- Develop new internet and content services (for example: Internet search engine (NETI), voice over IP, ID-card identification infrastructure, broadband services);
- Rebalance prices in line with cost prices;
- Buy majority holding from competitor for new subsidiary and new culture (for example: telephone store chain for counter service);

- Put together strategic planning team, as the source of a new way of thinking (strategy and tactics);
- Create a key employee concept to protect employee turnover.

6.1.2.3 Market pressure between 2001 and 2003 – if the telecommunications market is open, then it's essential for the incumbent to (according to appendix 12):

- Launch a new image, new brand (for example Elion, which consolidates several old ones);
- Outsource non-core activities (for example: network building);
- Develop new customer-centric services (for example: self-installation kits for internet, IT services, DigiDoc, vpn, Telehotel);
- Change managers;
- Retain market share.

The current study showed that rapid changes in thinking guaranteed many successful strategic activities to help the company survive on market. The thinking changed rapidly on different levels. The Estonian economy was changing and thus the expectations from the government were quite high. The strategic owners and business partners saw an empty market to do business in. The managers and key personnel saw a, opportunity for self development and thus, altogether that made those rapid changes at ETC from 1993 to 2003 possible (table 16, 17).

## 6.2 Other findings

- The organization's strategy was copied from the owners, competitors and earlier institutions (appendixes 5, 6);
- Strategy is simple if there is a need for infrastructure, and not, when there is market pressure (appendixes 5, 6);
- The top managers' values were changed to match the strategic partners' values (appendixes 5, 6, table 24);
- Members of the management have changed rapidly (table 23);
- Customer feedback and the company's profitability started to function as an input for decisions after market liberalization (table 24);
- When the company transferred to a competitive market in a changing environment, the approach to strategy formation changed from planned to emergent (table 24);
- When the company transferred to a competitive market in a changing environment, the approach to strategy formation changed from a centralized to a decentralized approach (table 23);
- Transferring to a competitive market in a changing environment, organizational changes were essential and self-evident in order to reach the average European level in the telecommunications sector (appendixes 5,6, table 20);
- The meaning of the customer changed in the company as it transferred to a competitive market. Customers were now the source of feedback for stra

- tegic decisions on the competitive market instead of simple end users to be provided a quality service on a monopolistic market (appendixes 5, 6);
- The top management changed the organization continuously in order to survive under external pressure, which has brought the endorsement of the owners (appendixes 14-17);
  - The core business and strategy impacted the organizational structure (appendixes 14-17);
  - The top manager needs key people around him/her to implement changes (appendix 5).

To better conceptualize the restructuring and deinstitutionalization processes at the level of the organization, further research ideas include:

- The study of ETC's competitors strategies and how they view Elion;
- how other companies, including from elsewhere in Eastern Europe, managed the transfer from a monopoly to a market environment?

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## 8 APPENDIXES

### 8.1 Appendix 1. Case study questions for informants

Questions to the informants	1993- 1996	1997- 2000	2001- 2003
Can we separate the three time periods (1993-2003)?			
What is strategy?			
1. What was the strategy during that period? Was there a strategy at all?			
2. Why did strategic leaders choose the strategy they did?			
3. How were the company's strategy and strategic goals formed? What or who were the major factors (inputs)?			
4. What kind of formal and informal structures were involved with strategy making? What was the role of that function during these periods?			
5. What was intended to be achieved by strategic management?			
6. What were the values and beliefs connected with the company's strategic management?			
7. What were the company's major strategic goals?			
8. How were the company's strategies and strategic goals implemented and personnel informed? Why in this way?			
9. How was the company's structure connected to strategy and strategic goals? Did the strategic goals impact the company's structure? How?			
10. What were the criteria for making investment decisions? Where were the company's major resources allocated? Why?			
11. Did the strategic planning help achieve the company's goals? How?			
12. What impact did the CEO have in strategic management? How was the impact expressed? What was vital for the CEO?			
13. What was your role in strategic management? How was your role used or			

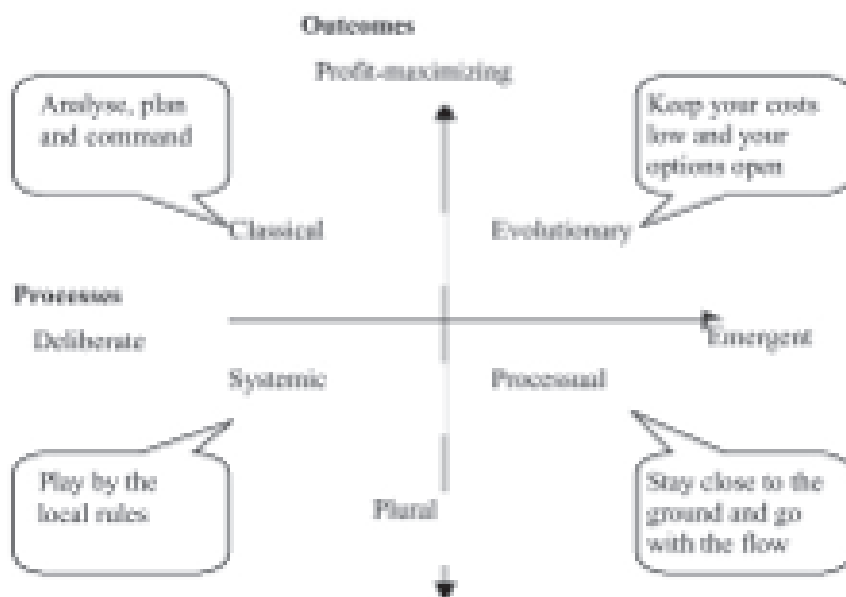
Questions to the informants	1993-1996	1997-2000	2001-2003
how did you use it? What was vital /important to you?			
14. What kind of important strategic decisions were made? What was done? Why?			
15. How were the strategic changes implemented? Why that way?			
16. Did the company fulfil its targets? How and why?			

Case study questions asked from informants (in Estonian):

Küsimused	1993-1996	1997-2000	2001-2003
Kas me osame eristada kolme ajaperioodi (1993-2003)?			
Mis on strateegia?			
1. Mis oli ettevõtte strateegia sellel ajaperioodil? Kas sel ajal oli ettevõtetel ikka strateegia?			
2. Miks valisid strateegilised juhid just sellise strateegia?			
3. Kuidas kujunesid ettevõtte strateegia ja strateegilised eesmärgid? Mis või kes olid peamised mõjurid (sisendid)?			
4. Millised formaalsed ja mitteformaalsed struktuurid olid seotud strateegilise juhtimisega/strateegia loomisega? Mis oli selle funktsiooni roll sel ajaperioodil?			
5. Mida sooviti ettevõtte strateegilise juhtimise abil saavutada?			
6. Millised olid tõekapdamised/väärtused ja veendumused, mis olid seotud ettevõtte strateegilise juhtimisega?			
7. Millised olid ettevõtte peamised strateegilised eesmärgid?			
8. Kuidas juurutati ja tehti organisatsiooni töötajatele teatavaks strateegia ja strateegilised eesmärgid? Miks sel viisil?			
9. Kuidas oli ettevõtte struktuur seotud ettevõtte strateegiaga ja strateegiliste eesmärkidega? Kas strateegilised eesmärgid mõjutasid ettevõtte struktuuri? Kuidas?			
10. Mis oli kriteeriumiks strateegiliste investeerimisotsuste tegemisel? Kuhu suunati ettevõtte ressursid peamiselt? Miks?			

11. Kas ettevõtte strateegiline planeerimine aitas saavutada ettevõtte strateegilisi eesmärke? Kuidas?			
12. Milline mõju oli peadirektoril strateegilises juhtimises? Kuidas see väljendus? Mis oli oluline peadirektorile?			
13. Milline oli sinu roll strateegilises juhtimises? Kuidas seda rolli kasutati või kuidas sa seda rolli kasutasid? Mis oli sulle oluline?			
14. Milliseid olulisi strateegilisi otsuseid tehti? Mida olulist tehti ka ära? Miks?			
15. Kuidas strateegilised muutused juurutati? Miks sedamoodi?			
16. Kas ettevõtte saavutas oma eesmärgid? Kuidas ja miks?			

## 8.2 Appendix 2. Implications of the four perspectives on strategy





### 8.3 Appendix 3. Dimensions of the ten strategic management schools

A metaphorical beast for each school	DESIGN Spider	PLANNING Squirrel	POSITIONING Water Buffalo	ENTREPRENEURIAL Wolf	COGNITIVE Owl
<b>ROOT DIMENSIONS of the SCHOOL</b>					
Sources	Selznik 1957, Andrews 1965	Ansoff 1965	Pardue work mid 1970s; Porter 1980 and 1985	Schumpeter 1950, Cole 1959	Simon 1947, 1957; March and Simon 1958
Base Discipline	none	some links to engineering, systems theory	Economics, military history	None	Psychology (cognitive)
Champions	case study teachers, leadership aficionados	"professional" managers, MBAs, staff experts, consultants	as in planning school, and military writers	popular business press, small business people everywhere	apostles of information systems, philosophical purists
Intended Message	fit	formalize	analyze	Envision	frame
Realized Message	think	program	calculate	centralize	worry or imagine
Homilies	"Look before you leap"	"A stitch in time saves nine"	"Nothin' but the facts, ma'am"	"Take us to your leader"	"I'll see it when I believe it"
Key Words	congruence/fit, competence, competitive advantage, SWOT	programming, budgeting, scheduling, scenarios	generic strategy, strategic group, competitive analysis, portfolio	bold stroke, vision, insight	map, frame, concept, schema, perception, interpretation
<b>CONTENT and PROCESS DIMENSIONS of the SCHOOL</b>					
Strategy	planned perspective, unique	plans decomposed into substrategies and programs	planned generic positions, ploys	personal, unique perspective, as niche	mental perspective
Basic Process	cerebral, simple, informal, judgemental	formal, decomposed, deliberate	analytical, systematic, deliberate	visionary, intuitive, largely deliberate	mental, emergent
Change	occasional, quantum	periodic, incremental	piecemeal, frequent	occasional, opportunistic, revolutionary	infrequent
Central Actor(s)	chief executive	planners	analysts	Leader	mind

<b>Organization</b>	ordered, acquiescent	structured, decomposed, acquiescent	source of competitive advantage, other-wise incidental	malleable, simple	incidental
<b>Leadership</b>	dominant, judgemental	responsive to procedures	responsive to analysis	dominant, intuitive	source of cognition
<b>Environment</b>	expedient	acquiescent	competitively demanding but economically analyzable	maneuverable, full of niches	either overwhelming or else constructed
<b>CONTEXTUAL DIMENSIONS of the SCHOOL.</b>					
<b>Situation</b>	delineable and stable	simple and stable, ideally controllable	simple, stable, mature	dynamic but simple	incomprehensible
<b>Form of Organization</b>	machine	large machine	large machine, preferably in mass production, "global"	entrepreneurial (simple, centralized)	any
<b>Stage</b>	reconception	strategic programming	assessment	startup, turnaround	original conception, inertia

### Appendix 3 (continued)

#### Dimensions of the ten strategic management schools

A metaphorical beast for each school	LEARNING Monkey	POWER Lion	CULTURAL Peacock	ENVIRONMENTAL Ostrich	CONFIGURATION Chameleon
<b>ROOT DIMENSIONS of the SCHOOL.</b>					
<b>Sources</b>	Lindblom 1959; Cyert and March '63; Weick '69; Quinn 1980	Allison 1971; Pfeffer and Salancik 1978; Astley 1984	Rhettman and Normann late 1960s.	Hannan and Freeman 1977	Chandler 1962, McGill group (Mintzberg, Miller, Miles)
<b>Base Discipline</b>	none	political science	anthropology	biology, political sociology	History
<b>Champions</b>	people inclined to experimentation, ambiguity	people who like power, politics, conspiracy	people inclined to the social, the spiritual	population ecologists, positivists in general	jumpers and integrators in general, change agents
<b>Intended Message</b>	learn	grab	coalesce	Cope	integrate, transform

<b>Realized Message</b>	play	hoard	perpetuate	Capitulate	lump, revolutionize
<b>Homilies</b>	"If at first you don't succeed, try, try again"	"Look out for number one"	"An apple never falls far from the tree"	"It all depends"	"To everything there is a season. ..."
<b>Key Words</b>	incrementalism, emergent strategy, sense making, champion	bargaining, conflict, coalition, political game, network	values, beliefs, myths, culture, ideology, symbolism	adaptation, evolution, selection, complexity, niche	configuration, archetype, period, stage, life cycle, transformation, revolution

**CONTENT and PROCESS DIMENSIONS of the SCHOOL.**

<b>Strategy</b>	patterns, unique	political and cooperative, pat-terms-& positions	collective perspective, unique	specific positions, generic	any to the left, in context
<b>Basic Process</b>	emergent, informal, messy	conflictive, aggressive, messy	ideological, constrained, collective, deliberate	passive, imposed, emergent	integrative, episodic, sequenced, any to the left, in context
<b>Change</b>	continual, incremental or piecemeal	frequent, piecemeal	infrequent	rare and quantum, piecemeal	occasional, revolutionary
<b>Central Actor(s)</b>	learners	anyone with power	collectivity	"environment"	any to the, in context
<b>Organization</b>	eclectic, flexible	conflictive, disjointed, uncontrollable	normative, cohesive	acquiescent, simple	any to the left, periodic changeful
<b>Leadership</b>	responsive to learning	weak (micro), unspecified (macro)	symbolic	Powerless	periodic change agent, any to the left
<b>Environment</b>	elaborate, unpredictable	contentious, negotiable	incidental	Exigent	any to the left

**CONTEXTUAL DIMENSIONS of the SCHOOL**

<b>Situation</b>	complex, dynamic, novel	divisive, malevolent, controllable	ideally passive, can become exigent	pat, competitive, delineated	any to the left
<b>Form of Organization</b>	adhoeracy, professional	professional, machine adhoeracy	missionary, stagnant machine	Machine	any to the left
<b>Stage</b>	evolving, change	political challenges, flux	reinforcement, inertia	maturity, death	transformation, any to the left

#### 8.4 Appendix 4. List of the study's informants – top managers and managers involved in strategic planning at ETC 1993-2003

Year and name of the informant	Position or area of responsibility
<b>Top managers</b>	
<b>1993</b>	
<b>Toomas Sõmera<sup>1</sup></b>	<b>Chairman of the Council</b>
Kalevi Kallio	Chief Executive Officer
Aulis Krongvist	Finance, CFO
Jaak Ratassepp	Personnel, HR Manager
Tii Lillipuu	Marketing and Information
Jaak Ulmann	Operation and Maintenance
Per-Ake Sjöblom	Network Planning
Heinar Leisnann	Engineering Premises
Olavi Nyfors	Materials
Anne Leisner	Data Processing
<b>Jaan Männik</b>	<b>Tallinn Region</b>
Tõnu Susi	North Region
<b>Rein Mets</b>	<b>West Region</b>
Jaak Üprus	South Region
Matti Hale	Southwest Region
Alekslav Matsievski	Vironian Region
Tii Pajus	Trunknetwork
Ants Litvinov	Operator Services
<b>1994</b>	
<b>Toomas Sõmera</b>	<b>Chairman of the Council</b>
Guy Sundqvist	Chief Executive Officer
Heinar Leisnann	Deputy CEO
Jarmo Iisakka	Finance, CFO
Jaak Ratassepp	Personnel, HR Manager
Tii Lillipuu	Marketing and Information
Jaak Ulmann	Operation and Maintenance
Per-Ake Sjöblom	Network Planning
Olavi Nyfors	Materials
Anne Leisner	Data Processing
Enn Vemik	Engineering Premises
<b>Jaan Männik</b>	<b>Tallinn Region</b>
Tõnu Susi	North Region

<sup>1</sup> bold names are the informants of the study

<b>Year and name of the informant</b>	<b>Position or area of responsibility</b>
<b>Rein Mets</b>	<b>West Region</b>
Jaak Üprus	South Region
<b>Matti Raie</b>	<b>Southwest Region</b>
Jaroslav Matsievski	Virumaa Region
Tii Pajas	Trunknetwork
Ants Litvinov	Operator Services
<b>1995</b>	
<b>Toomas Sõmera</b>	<b>Chairman of the Council</b>
Guy Sandqvist	Chief Executive Officer
Heinar Leismann	Deputy CEO
Jarmo Isakka	Finance, CFO
Jaak Ratasvepp	Personnel, HR Manager
Margus Hunt	Marketing and Information
Eva Granholm	Network Division
Jaak Ulman	Network Carrier Services Division
Teeet Soomurm	Materials
Anne Leisner	Data Processing
Era Varrik	Engineering Premises
<b>Rein Mets</b>	<b>Tallinn Region</b>
<b>Rein Toomsalu</b>	<b>North Region</b>
Peeter Malkon	West Region
Jaak Üprus	South Region
<b>Matti Raie</b>	<b>Southwest Region</b>
Jaroslav Matsievski	Virumaa Region
Tii Pajas	Trunknetwork
Ants Litvinov	Operator Services
Tõnu Sasi	Teleengineering
<b>1996</b>	
<b>Toomas Sõmera</b>	<b>Chairman of the Council</b>
Guy Sandqvist	Chief Executive Officer
Heinar Leismann	Deputy CEO
Jorma Kilpellinen	Finance, CFO
Jaak Ratasvepp	Personnel, HR Manager
Margus Hunt	Marketing and Information
Eva Granholm	Network Division
Jaak Ulman	Network Carrier Services Division

<b>Year and name of the informant</b>	<b>Position or area of responsibility</b>
Teeet Soomann	Materials
Anne Leisner	Data Processing
Rein Mets	Tallinn Region
Rein Toomsalu	North Region
Peter Mallon	West Region
Jaak Üprus	South Region
Matti Rait	Southwest Region
Jaroslav Matsievski	Virumaa Region
Ants Litvinov	Operator Services
Tõnu Susi	Teleengineering
<b>1997</b>	
<b>Jaak Männik</b>	<b>Chairman of the Supervisory Board, CEO</b>
Heinar Leismann	Deputy CEO, Member of the Board
Jorina Kumpulainen	Finance Division, Director, Member of the Board
Toomas Tirs	Personnel Division, Director
Erno Kivikoo	Information and PR Division, Director
Jaak Üprus	Member of the Board, Teleservices – Director
Valdo Kalm	Member of the Board, Big Customer Services - Director
Ants Litvinov	Operator Services – Director
<b>Andres Käärik</b>	<b>Research and Development – Director</b>
Anne Leisner	Billing – Director
Irina Morazova	Telenetworks – Director
Tõnu Susi	Teleengineering – Director
Teeet Rannat	Information Systems – Director
Martin Kõiv	Real Estates – Director
Teeet Soomann	Logistics – Director
<b>1998</b>	
<b>Jaak Männik</b>	<b>Chairman of the Board, Chief Executive Officer</b>
Jorina Kumpulainen	Member of the Board, Finance Division – Director
Toomas Tirs	Personnel Division – Director
Erno Kivikoo	Information and PR Division – Director
Valdo Kalm	Member of the Board, Teleservices – Director
<b>Andres Käärik</b>	<b>Member of the Board, Research and Development – Director</b>
Irina Morazova	Member of the Board, Telenetworks – Director
Teeet Rannat	Information Systems – Director

<b>Year and name of the informant</b>	<b>Position or area of responsibility</b>
Martin Kõiv	Real Estates – Director
Teeet Soonum	Logistics – Director
<b>1999</b>	
Jaan Männik	Chairman of the Board, Chief Executive Officer
Satu Koskinen	Member of the Board, Chief Financial Officer
Piret Mürk	PR Division – Director
Rein Astrik	Regulatory and Legal Affairs – Director
Valdo Kalm	Member of the Board, Teleservices – Director
Andres Käärrik	Member of the Board, IP Services – Director
Irina Morazova	Member of the Board, Telenetworks – Director
Teeet Soonum	Procurement and Property – Director
<b>2000</b>	
Valdo Kalm	Chairman of the Management Board, Chief Executive Officer
Satu Koskinen	Member of the Management Board, Chief Financial Officer
Piret Mürk	PR Division – Director
Rein Astrik	Member of the Management Board, Regulatory and Legal Affairs - Director
Ahto Orav	Member of the Management Board, Teleservices – Director
Andres Käärrik	Member of the Management Board, IP Services – Director
Irina Morazova	Member of the Management Board, Telenetworks – Director
Teeet Soonum	Procurement and Property – Director
<b>2001</b>	
Valdo Kalm	Chairman of the Management Board, Chief Executive Officer
Satu Koskinen	Member of the Management Board, Chief Financial Officer
Piret Mürk	PR Department – Director
Ahto Orav	Member of the Management Board, Teleservices – Director
Andres Käärrik	Member of the Management Board, IT Services – Director
Rein Astrik	Member of the Management Board, Regulatory and Legal Affairs - Director
Agar Jõgi	Member of the Management Board, Chief Information Officer

<b>Year and name of the informant</b>	<b>Position or area of responsibility</b>
<b>Irina Morazova</b>	<b>Member of the Management Board, Telenetworks – Director</b>
<b>Teeet Soorurm</b>	<b>Procurement and Property – Director</b>
<b>2002</b>	
<b>Valdo Kalm</b>	<b>Management Board Chairman, Chief Executive Officer</b>
<b>Valdur Laid</b>	<b>Management Board Member, Chief Financial Officer</b>
<b>Piret Mürk</b>	<b>PR and Communications Department – Director</b>
<b>Rein Astrik</b>	<b>Management Board Member, Regulatory and Legal Affairs – Director</b>
<b>Agur Õgi</b>	<b>Management Board Member, Chief Information Officer</b>
<b>Irene Metsis</b>	<b>Human Resources Department – Director</b>
<b>Ahto Orav</b>	<b>Management Board Member, Teleservices – Director</b>
<b>Andres Käärrik</b>	<b>Management Board Member, IT Services – Director</b>
<b>Irina Morazova</b>	<b>Management Board Member – Telenetworks – Director</b>
<b>Teeet Soorurm</b>	<b>Administrative Department – Director</b>
<b>2003</b>	
<b>Valdo Kalm</b>	<b>Management Board Member, Chief Executive Officer</b>
<b>Valdur Laid</b>	<b>Management Board Member, Chief Financial Officer</b>
<b>Piret Mürk</b>	<b>PR and Communications Department – Director</b>
<b>Rein Astrik</b>	<b>Management Board Member, Regulatory and Legal Affairs – Director</b>
<b>Agur Õgi</b>	<b>Management Board Member, Chief Information Officer</b>
<b>Irene Metsis</b>	<b>Human Resources Department – Director</b>
<b>Teeet Soorurm</b>	<b>Administrative Department – Director</b>
<b>Ahto Orav</b>	<b>Management Board Member, Teleservices – Director</b>
<b>Irina Morazova</b>	<b>Management Board Member, Telenetworks – Director</b>
<b>Managers involved with strategic planning (informants)</b>	
<b>Olav Harjo</b>	<b>business strategy manager (headquarter) – from 2003; director of product development and administration divisjon (teleservices unit) – from 1998-2002; in ETC from 1994</b>
<b>Jüri Kraft</b>	<b>director of access network divisjon (telenetworks unit); in ETC from 1977</b>
<b>Taiyo Prankel</b>	<b>director of IT and data divisjon (telenetworks unit); in ETC from 1993</b>
<b>Pasi Pulliainen</b>	<b>manager of business planning department (headquarter); in ETC from 1997 to 2000</b>
<b>Sven Heil</b>	<b>manager of business planning department (headquarter); in ETC from 2001 to 2002</b>
<b>Rain Rebane</b>	<b>director of business planning divisjon (telenetworks unit); in ETC from 1985</b>



## 8.5

### Appendix 5. Data from interviews (top managers)

Questions	Time periods	Informant 3	Informant 4	Informant 5	Informant 10	Informant 11	Informant 12	Informant 13
Can we separate the three time periods?		Yes	yes		Yes	first period until 1999, second until 2002, third from 2003	Yes	Yes
What is strategy?		good strategy is as owner thinking – he/she will think, say and act in the same way.	long-run directions and targets and to behave according to them.		long-run direction of acting: broader and more complex vision what you want to achieve and you see the connections	interactive process; not just done in management board, but discussions with owners, strategy is direction.	long-run vision how to reach the target or position;	target, which is understood where we are going; final result should be understood, what we will be expected to achieve
Q 1	1993-96	network building; eliminating the queue for telephone service; concession agreement was motivating force	ETC was controlled through concession agreement; what happened in Europe happened soon in Estonia as well; network.	we needed partner who manage the whole network in Estonia (intern. and local connections; concession agreement; network; pressure from government to eliminate	network building and quality; creating the infrastructure; finding effectiveness	network building	lots of tactics; mainlines plan; concession agreement; network planning.	the word "strategy" was used; was it in the heads in the same way?; digitalization; connections to the world; eliminating queues

Questions	Time periods	Informant 3	Informant 4	Informant 5	Informant 10	Informant 11	Informant 12	Informant 13
	1997-00	preparing for competition (rebalancing the prices; from products to customer). From regional to functional and	the principles weren't so clearly formulated additionally to concession agreement. Rebalancing	investments in the county centres; customer segmentation;	network; preparing for competition; customers and segmentation;	preparing for competition (we are afraid); Strategy is in the head of people, certain people fit at	effectiveness; product-oriented; 96 progresses about mobile and data were weak (10 times less)	started to think about business and money (what is investment?)
	2001-03	focus on customer, to survive in competition environment; cost cutting;	to adapt with regulations; customer service.		customer strategies incl. marketing, sales; effectiveness incl. staff cuts, process management	the best servicing; customer-focus	customer-oriented; market shares;	to earn money
Q 2	1993-96	concession agreement; understandings were so.		other developed world	network was weak compared to Europe; we needed a production base to provide services	it was self-evident; when there were telephone queues, then technologies I thinking was right;	to get infrastructure; owners and our own vision.	

Questions	Time periods 1997-00	Informant 3 to change the focus from products to customers.	Informant 4 according to European regulations	Informant 5 Evolutionary	Informant 10 we knew about market opening from 2001, we started early enough (95) segmentation; functional management guaranteed more	Informant 11 competition period	Informant 12 focus on core business; owners vision; front-office, back-office and support office	Informant 13
Q 3	1993-96	from product to customer; there was no long-run strategy, rather one year at a time.	owners experience; our people's competence; experiences from other countries.	10 year business plan; owners understood that we can manage on our own; we needed foreign experience, and we	prices went down, revenues were decreasing, we needed to retain profitability	competition period	competition; our own awareness.	discussions within few people at headquarters; it was healthy, when local people were more involved

Questions	Time periods	Informant 3	Informant 4	Informant 5	Informant 10	Informant 11	Informant 12	Informant 13
	1997-00	few and active people inside the company prepared the strategic materials; top management was rather along side.		in case of problems we could use professionals from owner's company	more sophisticated periods, app. 25 people who were involved with strategic planning - bigger group; ideas were in mind of certain people and	business plan is management's vision; business planning working team and management should have been in strong contact, sometimes planning was too	Business planning working team (it was encouraging - all learned from each other); key people; direct contacts with abroad; management board was in rather appropriate	those people were involved who dealt with the issues; management was more clear; headquarters delegated the trust; business planning working team;
	2001-03	top management was involved in cooperation with active persons.	market, competitors.		key person concept inside the company; strategizing was unconscious in early periods (95) and more conscious later	it should be an interactive process; basic strategies don't change overnight;	communication board influenced planning; planning by business areas, later by business segments; key persons and their ideas; more linked strategic management	management board is more active, targeting key people.

Questions	Time periods	Informant 3	Informant 4	Informant 3	Informant 10	Informant 11	Informant 12	Informant 13
Q 4	1993-96	Headquarters, CEO, investment council (inside company)		external competence for financial management	management and council; business plan was made somewhere at		Telekom (mother company), government and communication board;	Headquarter
	1997-00	business planning team – to make a business plan – connection with real activities was quite weak.	cooperation with middle level and top level managers, working teams, meetings outside offices.	discussions in the “forest” between council and management board;	business planning work team from 96 where people from bigger units participated; board decided and prepared	council; management ; business planning working team;	Telekom; management board; working team;	Council – financial figures: revenues, costs, profit; business planning working team; company units,
	2001-03	management board, business plan and budget was more connected.			headquarters consolidated the ideas from business units; board decided, then council; courage to invest into broadband services.			management board

Questions	Time periods	Informant 3	Informant 4	Informant 5	Informant 10	Informant 11	Informant 12	Informant 13
Q 5	1995-96	government asked for the business plan and so did the council				we didn't need smart strategies – network building		budget fulfilled easily
	1997-00		effectiveness ; company's growth; the owners wishes weren't clear.		in bigger companies you need a bigger picture in front of you, action plans	preparing for competition	from owners – growth trend (financial figures, main lines);	economic results, investments
	2001-05	we need to talk the language understood by customers (IT, data).	effectiveness ;		Buying Haldol Chain was right thing	if there are no drastic changes you need more specific instruments (strategies)	to survive; how to compete revenues, what business are we driving?	
Q 6	1995-96	business plan for government; sharing the resources.			authoritarian ; maybe it worked better at that time.		network is all about – marketing is nothing;	
	1997-00	form was dominating	we have to change continuously , it will not end happily when we will be changed by		if you believe in something, then you can do it, you have to get people invested;	don't be somebody other than you are; change happens, when people start to think		if we talked about building earlier, then now we talk about the customer, about the

Questions	Time periods	Informant 3	Informant 4	Informant 5	Informant 10	Informant 11	Informant 12	Informant 13
	2001-03	communication to employees, but still the form was dominating.	self-evident that changes occur with management.		all is about person – how he/she develops – how complex he/she can think; experiences are important to find solutions in new situations.	if there are different opinions, then business plan doesn't solve the problem; general strategy may restrict innovations.	customer-oriented; now marketing – network is nothing; and there are conflicts (network versus marketing); business plan is now as an action plan.	customer can give his/her money to somebody else as well
Q 7	1993-96	network building		network, internet, connections; we choose the technologies we wanted (Ericsson, Siemens,	investments; mainlines; deadlines.	network; mainlines	main lines, quality report (technical), investments; price increasing plan.	technological development
	1997-00	preparing for competition; products and services	preparing for the competition	digital exchanges for country centres, customer segmentation	mainlines; network quality; revenues – costs; EBITDA.		product development; main lines; internet;	organizational development; effectiveness; and

Questions	Time periods	Informant 3	Informant 4	Informant 5	Informant 10	Informant 11	Informant 12	Informant 13
	2001-03	customers; cost cutting	customer service		revenues; market shares; profitability.	economic results; customer service; quality (process management, management principles)	retain market share; internet connections; IT services;	customer; organizational changes (upward through spiral)
Q 8	1993-96	business plan was confidential; investment plans; information was power.			top-down; through the regional managers,		through regional managers; quality days by headquarters ; meetings.	meetings; communication days;
	1997-00	through active people who were involved with strategic planning.	information sharing outside the officers, explaining the changes.	top management (30 people); 2-day meetings outside, discussions	selling the ideas; talking (about customer); communication days.	communication days; leader has to talk; key person;	business plan was confidential; once a quarter communication days;	



Questions	Time periods	Informant 3	Informant 4	Informant 5	Informant 10	Informant 11	Informant 12	Informant 13
	2001-03	form dominating			key person through whom communicate ion days.	if we choose the strategy, and it doesn't work, then in drastic way we need to change people.	communication days more operative and smaller, more systematic	electronic channels; life is faster; from eye to eye contacts are less; less people in regions; information moves horizontally as well
Q 9	1993-96	was connected			network side was big; there was no front office		regions; customer part brought out.	
	1997-00	from regional structure to functional; ambitions of managers; different units started to merge; power games; proposals from active people.	if the management principles changed then the structure was changed as well		increase of customer and marketing functions (front office); start (96) with corporate customer unit; decrease of hq., network and support office people.	from regional to functional management - one reason technological, digital exchange can be better managed centrally; if manage property centrally it is more efficient; to handle	functional structure; marketing; sales; experience from strategic owners.	strategy impact the structure; technology impact the structure.

Questions	Time periods	Informant 3	Informant 4	Informant 5	Informant 10	Informant 11	Informant 12	Informant 13
	2001-03				over viewing the number of employees; effectiveness according to strategy.	what is the focus – the impact on structure.	business areas; marketing started to say what to do.	
Q 10	1993-96	network	creating the infrastructure according to concession agreement.	basic network everywhere.	network	network	network; support functions (logistics, vehicles, buildings).	
	1997-00	network, products and services	new services such as internet, data		building up the front office.	cost efficiency; cost	network; IT	
	2001-03	minimum investments	decrease of investments, to invest only in profitable areas/project		CRM; automation		customer; desk-service; call centre; delivery	
Q 11	1993-96	network planning						

Questions	Time periods	Informant 3	Informant 4	Informant 5	Informant 10	Informant 11	Informant 12	Informant 13
	1997-00		business plan helped because the document showed the directions of the thoughts.		bigger companies need a bigger picture	weakness of the document (business plan) is that it is one-sided; change happens, when man	all the plans weren't realized, but without the plans we couldn't do the things we did.	technology directed us as well; vendors;
	2001-03	it helped, but sometimes many things didn't occur as planned					we live according to strategic plans	
Q 12	1993-96	"you don't ask the frogs when to drain the swamp"		management board put the business planning materials together	authoritarian ; maybe it worked better at that time.		direct; very big; direct instructions	authoritarian ;
	1997-00	acceptive, directive, resentful	All the CEOs made sure, that company would be competitive in long-run		to deal with substantive issues, in certain direction - costs and customers.	right people in right positions; strategy is in the head;	after that period - reflective decision making; CEOs impact decreased; he made hard	big changes; positive period

Questions	Time periods	Informant 3	Informant 4	Informant 5	Informant 10	Informant 11	Informant 12	Informant 13
	2001-03	evolutionary			customers and costs; market; competitors; effectiveness; process management	working with people and processes.		more customer focus
Q 13	1993-96			quick start, rebuilding all Eastern (not just international calls), international connections.				
	1997-00	self-determination in all periods, belief that successful company has a vision.	if you act aggressively, then it may arouse the opposite behaviour – so better to act in a more balanced way		you can't be weathercock when you manage strategically; soft side is important: belief, convictions;	the document is not important, but the process of thinking in which direction we move; in short-term you need to		I am trusted to act

Questions	Time periods	Informant 3	Informant 4	Informant 5	Informant 10	Informant 11	Informant 12	Informant 13
	2001-05					certain leader profile match in certain period; who is around me? worst case, if owners are unconcerned ; and also its hard to manage strategically, when the representativ es of owners don't have a broader view.	maybe we have done better in organization al development . IT business, network management – maybe.	
Q 14	1995-96			one of the owners didn't want to invest in the countryside, but the government vice versa wanted investments in the		key decisions before 1993 – then the quick start was most important; we needed international experience	concession agreement – it worked, and thanks to that network planning, right partners (Siemens, Ericsson, Nokia).	

Questions	Time periods 1997-00	Informant 3 there was also some wrong decisions in different periods	Informant 4	Informant 5 decrease of personnel; cost cutting	Informant 10 non core business outsourcing: vehicles, warehouse, network building (Connecto); regulative side; optimal digitalizatio	Informant 11 we have had local managers, because strategic owners saw we can manage (that wasn't so in Latvia and Lithuania)	Informant 12 RAS (radio telephones) was needed, economically negative today; rebalancing prices	Informant 13 about RAS – them was needed a quick solution for telephone queues
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Questions	Time periods	Informant 3	Informant 4	Informant 5	Informant 10	Informant 11	Informant 12	Informant 13
	2001-05	outsourcing network building and maintenance; people were good and they have had an opportunity to act and think. We didn't outsource the installation and technical personnel for example, as did our owners.	rebalancing, changes in our people's minds, cost accounting		start with broadband services; we got positive signals from strategic owners; we moved in the right direction; buying the Halted chain (tele department store)	brand of "Eliot"; pre-selection, we were fast; we have been innovative; We didn't go along with "IT bubble", we didn't buy internet firms (for example 25 employees - price 100m SEK) (thinking was on that time - if you don't buy, you are nobody (3G license))	broadband internet; brand "Eliot"; buying the chain "Halted"; outsourcing the network building and maintenance (Connecto).	modern network; network building and maintenance is outsourced
Q 15	1995-96	centrally; concession agreement was the motivating					3 month preparing time to carry through the changes	

Questions	Time periods	Informant 3	Informant 4	Informant 5	Informant 10	Informant 11	Informant 12	Informant 13
	1997-00		in cooperation with middle level	there was disagreements, for example about staff		Before merger of Telia-Sonera (until 2002) there was rather "no" strategy (ideas to go abroad, etc.), the directions	Prepar preparing for structural changes from 1997	
	2001-03	changes weren't enough quick, what is the motivating power today?			communication days, through key people		lots of things implementing in a rush	
Q 16	1993-96							
	1997-00							



Questions	Time periods	Informant 3	Informant 4	Informant 5	Informant 10	Informant 11	Informant 12	Informant 13
	2001-03	Those targets which were agreed with owners were achieved and have been introduced more successfully than elsewhere; rebalancing; pre-selection; portability;	we have achieved our targets, for example in Latvia disengagement is with government	concession agreement was good, special rights for 8 years and those targets were achieved	yes, we succeeded in retaining the market shares and revenue basis, not profit has increased; we can't wait for the growth of revenues; today cash machine.	"Elion" brand; pre-selection; we are in a good position: stock market (objective figure); economic results; modern technology; growth of internet. we can fall asleep;	we have fulfilled owners' expectations; we are the service company incl. brand, service quality, internet market share; modern infrastructure; benchmarking shows it as well	we still exist; our share price is not low; in Latvia and Lithuania there are still foreign leaders.

8.6 Appendix 6. Data from interviews (managers involved with strategic planning)

	Informant 1	Informant 2	Informant 6	Informant 7	Informant 8	Informant 9	Informant 14	Informant 15
Can we separate the three time periods? What is strategy?	Yes  the way to reach the vision	yes  vision, where to develop the company and in which way	yes  agreed direction where we will go and what we will do	Yes  business activity area in long-run	yes  directions of long-run moving; business is ensured by resources and sales	Yes  purposeful activity, in short term as well as in long term	yes  targets, goals; where the company must develop	yes  choosing the business directions
Q 1	1993-96  network building; eliminating queues; foreign managers thinking were more stable as they already had experience	to eliminate the telephone queue; network rebuilding;	network building; investment plan; main lines; business plan for 10 years wasn't very realistic;	technological; to adopt the western company model	To get customers; digitalization; company's formation period	technical development; eliminating the telephone queues; 96 started to talk about customer	international connections; digitalization;	to use monopoly rights – to invest in technology – basis for the future; period of foreign managers

	Informant 1	Informant 2	Informant 6	Informant 7	Informant 8	Informant 9	Informant 14	Informant 15
1997-00	pricing; calculations to comm. board; network; customers and products; business plan was changing from "report to government" to "the company plan".	investments in network; preparing for competition; cost accounting; pricing; rebalancing; new services - internet, RAS (1000).	network building; preparing for competition incl. rebalancing, segmentation, cost price; business plans expressed strategies in every period.	functions had their own strategies	network building continued; preparing for competition; creating the sales unit (front-office)	customer service; products; 97.- front office, back office, support office; service centres.	preparing for competition; network building; to be innovative.	network building; technological development led the company
2001-00	Customers	customer service;	to be market leader in tele sector; to get revenues from internet and data instead of voice calls.	merging technology and customer aspects inside the company	customer-oriented; service company; network strategy - cost based; effectiveness; segmentation	IT and internet (from 2000); segmentation	to be successful in competition; to keep the market shares; optimize the costs; broadband services; internet	to assure the market share; to find new revenues

	Informant 1	Informant 2	Informant 6	Informant 7	Informant 8	Informant 9	Informant 14	Informant 15
Q 2	1993-96	concession agreement – agreement between private and state interests	general telecoms business model; telephone connections, calls; concession agreement	government wanted modern network; strategic owners saw an empty market		foreign impact	compared to other telcos we needed to catch up	
	1997-00	to defend market shares; external pressure caused the rapid change;	if we get connections, then we moved toward products; and then customers	preparing for competition according to the agreement	preparing for competition	according to other telcos	new services came from partners (dial services, as ETC moved copper connections	
	2001-03		service provider – products – network provider; higher level near to customer has higher revenues.	market pressure; market shares wasn't 100% anymore	competition	experience from others		

Q 3	1993-96	Informant 1	Informant 2	Informant 6	Informant 7	Informant 8	Informant 9	Informant 14	Informant 15
		<p>CEO appointed who will lead business planning, it depended on people, young and ambitious managers who had a vision and who formed the strategy</p>	<p>business planning work team; owners' visions wasn't clear; cooperation with vendors, experience from world,</p>	<p>government pressure – money has to be put back into infrastructure; app. 10 active persons who communicated actively inside and outside the company</p>	<p>leading positions had foreign managers, strategic thinking from them, but soon the local managers' role increased, as they studied abroad (Nokia)</p>	<p>management board in cooperation with business planning work team</p>	<p>management talk about competition</p>	<p>vendors' ideas how to go on; owners' experts, seminars, conferences; we underestimated digital communication</p>	<p>strategic owners started to trust us, because we already had the solutions, which wasn't in use in their system (1995); managed the strategic ideas; management invited the experts inside company; cost price reflected all our costs.</p>

	Informant 1	Informant 2	Informant 6	Informant 7	Informant 8	Informant 9	Informant 14	Informant 15
		management board has become more involved in strategic planning.	market and technological pressure; app. 10 persons	according to managers/directors		changes in organizational structures twice a year (negative impact)	100 M internet users were reached faster than 100 M mobile users in the world	CEO involved different people
Q 4	1993-96	power was in HQ	investment council inside the company	regional managers	regional directors; HQ managers; CEO led;	management: regional managers, HQ managers.		HQ, CEO
	1997-00	business planning work team; management board viewed results and then to council	business planning work team;	Outsourcing network building was right thing (Connectok)	management board; work team			when we had a profit-centred approach then we learned about costs and profit; from regional to functional units
	2001-03	management board	HQ consolidated the information from the units	management board and unit managers				

	Informant 1	Informant 2	Informant 6	Informant 7	Informant 8	Informant 9	Informant 14	Informant 15
Q 5	1993-96 agreement with government	assuring sustainability; natural part of enterprise				to give to people the possibility to call		
	1997-00 to defend the positions; good transition to competitive							
	2001-03	what should be done when growth is decreasing	to assure the market shares, revenues, profit		earn the money; to assure the position on market; to survive in competition			
Q 6	1993-96	top-down	top-down; all have what had to be done	culture from soviet to capitalism; some have come along and some haven't		management board heard what you said, but acted as they wanted; "today you are sitting here three together, there will		

		Informant 1	Informant 2	Informant 6	Informant 7	Informant 8	Informant 9	Informant 1-4	Informant 15
	1997-00	undersounds changed continuously, and it came rapidly;		uncertainty about competition; before that we can manage according to budget;		bottom-up opinions were accepted		business plan gave the directions, but numbers became quickly out of date	all things are connected; you have to have a broader view to manage the "small things" in the right
	2001-03	it is already connected with development of society, how technicians understood services	There is value in the planning process, people started to think about where we are going	it wasn't possible to go on with top-down management (I from 00); today strategies comes from bottom-up; words "strategic management" is used more widely	when its harder to stay on market then you have to be more convinced that every employee understands the vision			life is becoming more complex; competition will be stronger; we have to choose our priorities	experiences and knowledge are impacting our decisions - nothing happens just so
Q 7	1995-96		fulfill the concession agreement;			main lines; customer satisfaction; service centres; optical network	main lines; queues;		



	Informant 1	Informant 2	Informant 6	Informant 7	Informant 8	Informant 9	Informant 14	Informant 15
	1997-00	fulfil concession agreement			network building	profit; eliminating the queue agreements with customers		
	2001-03	stop the revenue decrease; defend positions; find new products			internet; second, voice	internet, IT		
Q 8	1993-96	meetings; talks about plans (not strategy)	simple strategy – growth of main lines;	meeting in regions;	Meetings	top-down	by projects	take the money and build
	1997-00	meeting with employees face to face;	more complicated situation wasn't very clear – to go to competitive market;	changes were done quite smoothly	Meetings	more by e-mail	cooperation with people who were involved with that area	word "strategy"; business plan was confidential
		earlier, the business plan was confidential; later it started to be communicated a more						

		Informant 1	Informant 2	Informant 6	Informant 7	Informant 8	Informant 9	Informant 14	Informant 15
	2001-00		electronic channels, but still people want more direct contact and explanations	more complicated ; with brand "Elior" we originate from customers not from technology	there are less-direct contacts; information is more available; structural changes were very rapid	info flows are better	internal journals	key persons days; meetings	there is enough information available;
Q 9	1993-00			network planning unit was most powerful			regional structure helped to put strategy into practice	strategy was to implement western thinking; planning	
	1997-00	for example outsourcing trends elsewhere and thus Connecto in our case; structures were quite a lot connected with people;	Connecto - outsourcing from regional structure to centralized structure.	preparing the customer unit activities (creating the front-office, back-office and support office)	Connecto;	structures were connected with people (managers) (then idea will suffice);	structure wasn't so right anymore	structure has changed according to effectiveness and customer-oriented approach	technology required more central management

	Informant 1	Informant 2	Informant 6	Informant 7	Informant 8	Informant 9	Informant 14	Informant 15
2001-03		structures are more stable; process management 1.	first strategy and then structure – products, business units, customer segments	cooperation within company and units is better, earlier, there were quite strong functional frameworks				Today's structure basically same from 1997
Q 10	1993-96	network	telephone connections					Network
	1997-00	business side started to dominate; investments in managers, to hold them inside company;	decisions according to business					Network
2001-03			broadband, IT	marketing and selling is many fold bigger than earlier		according to profitability; Internet; IT		
Q 11	1993-96					There were numbers that were necessary to fulfil		

	Informant 1	Informant 2	Informant 6	Informant 7	Informant 8	Informant 9	Informant 14	Informant 15
	1997-00 for example pricing plans were achieved	we learned from other telcos and that has given us experience to design better solutions.		Key people meeting was important;				
	2001-03			targets today are more realistic and thus positive		today the needs for customer service;		
Q12	1993-96		value was on local people				quite a weak understanding about environment	even sense of humour was missing.
	1997-00	formed the business planning work team; management board was under pressure from Telia, Sonera and	directive; forward thinking	to be between council and organisation to put into practice the decisions; to show that our way is right way	CEO-a have been nr 1.		targets were more realistic, teams were putting the targets into practice	trusting other employees and competence; to filter owners expectations ;

	Informant 1	Informant 2	Informant 6	Informant 7	Informant 8	Informant 9	Informant 14	Informant 15
		more involved	reflecting the thoughts from bottom to organization ; current results were important	management board's task is to explain the targets				
Q 13	2001-03							
	1993-96							
	1997-00	I have learned a lot		I feel bad when things don't go as needed			to be a participant within the big changes, to provide solutions	
	2001-03		long-run					trust must be deserved as well
Q 14	1993-96	creating the infrastructure					choosing the right partners on network	

	Informant 1	Informant 2	Informant 6	Informant 7	Informant 8	Informant 9	Informant 14	Informant 15
1997-00	several decisions which changed the company from tech-centred to service-centred; pricing decisions	customer service; dial-up; broadband;	depreciation norms; rebalancing			to bring infrastructure to that level in such a short time		digitalization of Tatum; we earned well with internet dial-up service; dsl products were implemented
2001-03		customer service; brand "Elicom"; pre-selection;	pre-selection;	process management has smoothed the operative management	today the sales unit is ok, when it was created then we should have been more rational	with Hallet chain, focus went rather onto profitability than customer		broadband internet (adsl); brand "Elicom"; why didn't we buy a cable company?
Q 13								
1995-96								
1997-00	regular implementation; continuous and flexible;	there is always the possibility to communicate more with						

	Informant 1	Informant 2	Informant 6	Informant 7	Informant 8	Informant 9	Informant 14	Informant 15
			tempo has decreased because of more complicated environment					
Q 16	1993-03							
	1997-09							
	2001-03	general targets were achieved	there is no other telco who has done so well (TeliaSoner a revenues decreasing, ours increasing, good market shares and profit)	we exist; we haven't collapsed, we have achieved our targets	we achieved, because we are still profitable	we moved in the right direction and we have done well (no queues, internet)	targets from 1993 have been achieved in 2003;	yes, compared with others

## 8.7

### Appendix 7. Digital Access Index value, by access level, 2002

HIGH ACCESS	UPPER ACCESS	MIDDLE ACCESS	LOW ACCESS
Sweden 0.85	Ireland 0.69	Belarus 0.49	Zimbabwe 0.29
Denmark 0.83	Cyprus 0.68	Lebanon 0.48	Honduras 0.29
Iceland 0.82	Estonia 0.67	Thailand 0.48	Syria 0.28
Korea (Rep.) 0.82	Spain 0.67	Romania 0.48	Papua New Guinea 0.26
Norway 0.79	Malta 0.67	Turkey 0.48	Vanuatu 0.24
Netherlands 0.79	Czech Republic 0.66	TFYR Macedonia 0.48	Pakistan 0.24
Hong Kong, China 0.79	Greece 0.66	Panama 0.47	Azerbaijan 0.24
Finland 0.79	Portugal 0.65	Venezuela 0.47	S. Tomé & Príncipe : 0.23
Taiwan, China 0.79	United Arab Emirates 0.64	Belize 0.47	Tajikistan 0.21
Canada 0.78	Macao, China 0.64	St. Vincent 0.46	Equatorial Guinea 0.20
United States 0.78	Hungary 0.63	Bosnia 0.46	Kenya 0.19
United Kingdom 0.77	Bahamas 0.62	Suriname 0.46	Nicaragua 0.19
Switzerland 0.76	St. Kitts and Nevis 0.60	South Africa 0.45	Lesotho 0.19
Singapore 0.75	Poland 0.59	Colombia 0.45	Nepal 0.19
Japan 0.75	Slovak Republic 0.59	Jordan 0.45	Bangladesh 0.18
Luxembourg 0.75	Croatia 0.59	Serbia & Montenegro 0.45	Yemen 0.18
Austria 0.75	Bahrain 0.58	Saudi Arabia 0.44	Togo 0.18
Germany 0.74	Chile 0.58	Peru 0.44	Solomon Islands 0.17
Australia 0.74	Antigua & Barbuda 0.57	China 0.43	Uganda 0.17
Belgium 0.74	Barbados 0.57	Fiji 0.43	Zambia 0.17
New Zealand 0.72	Malaysia 0.57	Botswana 0.43	Myanmar 0.17
Italy 0.72	Lithuania 0.56	Iran (I.R.) 0.43	Congo 0.17
France 0.72	Qatar 0.55	Ukraine 0.43	Cameroon 0.16
Slovenia 0.72	Brunei Darussalam 0.55	Guyana 0.43	Cambodia 0.16
Israel 0.70	Latvia 0.54	Philippines 0.43	Lao P.D.R. 0.15
	Uruguay 0.54	Oman 0.43	Ghana 0.15
	Seychelles 0.54	Maldives 0.43	Malawi 0.15
	Dominica 0.54	Libya 0.42	Tanzania 0.15
	Argentina 0.53	Dominican Rep. 0.42	Haiti 0.15
	Trinidad & Tobago 0.53	Tunisia 0.41	Nigeria 0.15
	Bulgaria 0.53	Ecuador 0.41	Djibouti 0.15
	Jamaica 0.53	Kazakhstan 0.41	Rwanda 0.15
	Costa Rica 0.52	Egypt 0.40	Madagascar 0.15
	St. Lucia 0.52	Cape Verde 0.39	Mauritania 0.14
	Kuwait 0.51	Albania 0.39	Senegal 0.14
		Paraguay 0.39	Gambia 0.13
		Namibia 0.39	Bhutan 0.13
		Guatemala 0.38	Sudan 0.13
		El Salvador 0.38	

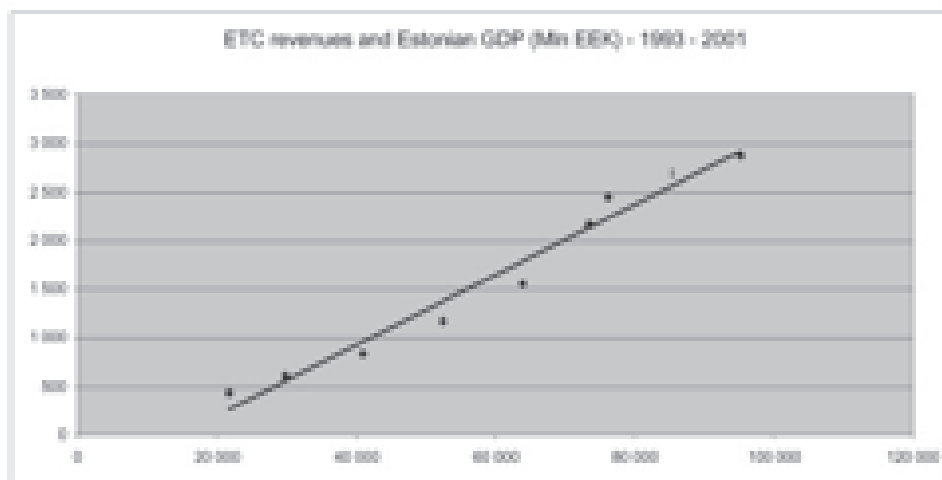


HIGH ACCESS	UPPER ACCESS	MIDDLE ACCESS	LOW ACCESS
	Grenada 0.51	Palestine 0.38	Comoros 0.13
	Mauritius 0.50	Sri Lanka 0.38	Côte d'Ivoire 0.13
	Russia 0.50	Bolivia 0.38	Eritrea 0.13
	Mexico 0.50	Cuba 0.38	D.R. Congo 0.12
	Brazil 0.50	Samoa 0.37	Benin 0.12
		Algeria 0.37	Mozambique 0.12
		Turkmenistan 0.37	Angola 0.11
		Georgia 0.37	Burundi 0.10
		Swaziland 0.37	Guinea 0.10
		Moldova 0.37	Sierra Leone 0.10
		Mongolia 0.35	Central African Rep. 0.10
		Indonesia 0.34	Ethiopia 0.10
		Gabon 0.34	Guinea-Bissau 0.10
		Morocco 0.33	Chad 0.10
		India 0.32	Mali 0.09
		Kyrgyzstan 0.32	Burkina Faso 0.08
		Uzbekistan 0.31	Niger 0.04
		Viet Nam 0.31	
		Armenia 0.30	

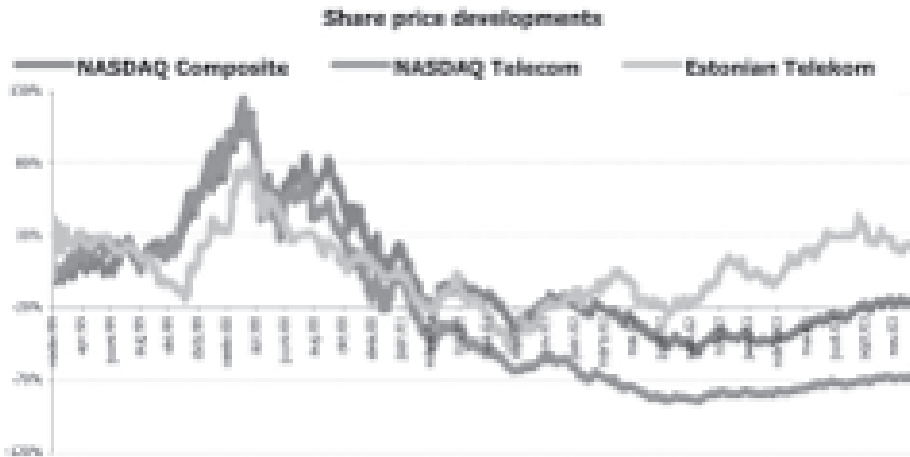
Note: On a scale of 0 to 1 where 1 = highest access. DAI values are shown to hundredths of a decimal point. Countries with the same DAI value are ranked by thousandths of a decimal point.

Source: ITU.

## 8.8 Appendix 8. ETC revenues and Estonian GDP



### 8.9 Appendix 9. Estonian Telekom share price developments, 1993-2003



### 8.10 Appendix 10. Data analysis - building up an infrastructure 1993-1996

Evidence	Informants (top managers) (Informant's (I) answers to the question (a) or x according to table 2)	Informants (managers involved with strategic planning)	Annual reports	Business Plans
<b>Building up an infrastructure 1993-1996 – if the infrastructure is poor and the telecommunications market is not mature, then it is essential to:</b>				
Choose strategic partner(s) to build up the infrastructure	I5a)1; I11a)14;	I1a)1; I7a)3; I14a)3; I15a)1;	"With the help of our partners, Swedish Telia and Finnish Telecom, we have also managed to solve our financial problems." (1994)	The business idea at ETC is to provide high-quality telecommunication services to businesses, institutions and private people in Estonia in a profitable and customer-oriented way. (1995-2004)

<p>Agree and fulfil concession agreement between government and strategic partner(s) to plan and build an infrastructure for the long term.</p>	<p>I3aq1; I4aq1; I12aq14;</p>	<p>I1aq2; I2aq7; I6aq1;</p>	<p>“We have succeeded in abiding with the development plan and the strategic directions agreed upon with the government.” (1994)</p>	<p>The main target at ETC is to manage the public and remunerative communication network in Estonia, to satisfy customer needs, and to foster Estonian</p>
<p>Copy strategy from the owners, competitors and earlier institutions (e.g. to adopt a western company model; to have a certain number of employees</p>	<p>I4aq1; I5aq3; I10aq2</p>	<p>I2aq2, 11; I6aq8; I7aq1; I7aq3; I8aq2; I9aq3; I14aq9;</p>	<p>“An increasing number of its employees have had the opportunity to study abroad.” (1994)</p>	

*Source: Author's analysis*

### 8.11 Appendix 11. Data analysis - preparing for competition 1997–2000

Evidence  Finding	Informants (top managers) (Informant's (I) answer to the question (sq) nr x – according to table 1)	Informants (managers involved with strategic planning)	Annual reports	Business Plans
<b>Preparing for competition 1997–2000 – if the telecommunications market is going to be, then it is essential for an incumbent company to:</b>				
Make structural changes and change managers to better serve customers, especially business customers (e.g. restructuring from regional to functional units; new units for business customers)	I13sq9; I12sq15; I11sq1; I10sq2, 9; I4sq6; I3sq1;	I15sq4; I9sq1; I8sq1; I7sq4; I2sq9;	“One of the crucial issues we are facing this year (1997) will be to effectively implement the new structure. We have to safeguard the effective functioning of the firm as a unit, which will also guarantee higher quality for the customer”. (1996); ... several structural changes will be	ETC is a preferred and reliable partner that creates welfare and competitive advantage for people while offering them customer-oriented and innovative communication and IT solutions. (2001-2003)
Develop new internet and content services (e.g. Internet search engine, voice over IP, ID-card identification infrastructure, internet broadband services)	-	I15sq14; I14sq2; I2sq1; I1sq2;	The hot, or web-based e-mail environment was introduced, (1999); Netifon, the voice communications service based on Voice over Internet Protocol (VoIP) technology, was launched on the market. (2000)	
Rebalance prices in line with the actual cost of the services	I12sq14; I4sq1; I3sq1, 16;	I15sq3; I6sq1; I2sq1; I1sq1;	Long distance and international tariffs were reduced, and cross-subsidising of local call minutes by other services was also reduced. (2000)	Offer high-quality telecommunications services in a customer-oriented and profitable way (1998-2007)

Buy majority holding from competitor for new subsidiary and new culture (e.g. telephone retail chain for counter service)	112a14; 110a5;		The company took a majority stake in AS Telefonipood (the Hello! chain of telephone retail stores) (1999)	-
Put together strategic planning team, as a source of a new way of thinking (strategy and tactics)	113a3; 112a3; 111a3; 110a3; 13a4;	16a4; 12a4; 11a4;	-	-
Create the key employee concept to protect employee turnover	111a8; 110a8; 113a3;	114a8; 17a11; 11a10;	-	-

*Source: Author's analysis*

## 8.12 Appendix 12. Data analysis - market pressure 2001–2003

Evidence	Informants (top managers) (Informant's (I) answer to the question (aq) nr x – according to table 1)	Informants (managers involved with strategic planning)	Annual reports	Business Plans
<b>Market pressure 2001–2003 – if telecommunication market is open, then it is essential for the incumbent etc:</b>				
Launch a new image, a new brand (e.g. Elion, which consolidated several old brands)	I11aq14; I12aq14;	I2aq14; I6aq8; I15aq14;	The launching of the Elion trademark was not just a name change; it was required by the company's new business strategy. With the change in strategy, we laid down a new vision – to be the preferred company, offering simple and	Elion is the preferred service provider in the area of home and business communication solutions in Estonia. (2004-2006)
Develop new customer-centred services (e.g. DIY installation)	I3aq5; I10aq4; I11aq14; I12aq7,14;	I2aq7,14; I6aq1; I9aq10; I14aq2,3; I15aq14;	In 2003 ETC will focus on the Internet, on data communication services and IT solutions. (2002)	
Change managers	I3aq9; I4aq6; I10aq6; I11aq1,6,8,12,13; I13aq9;	I1aq3; I7aq9; I8aq9; I9aq3; I14aq9;	At the end of 2000 ETC had 8 top managers (appendix 11), and at the beginning of 2004 ETC had 11 top managers (appendix 13). Comparing the two periods (within 3 years), 8 new top managers have been employed. Compared to 1994, all top managers have changed (appendix 10).	-

<p>Outsource non-core activities (e.g. network building, vehicle maintenance)</p>	<p>I3aq14; II0aq14; II2aq14; II3aq14;</p>	<p>I1aq9; I2aq9; I7aq4;</p>	<p>On June 2003, a 49% minority share in AS Connecto was sold to Etel Networks Corporation. (2003)</p>	<p>ETC is a customer-oriented sales and service company, contributing to its customers in Estonia on the basis of a mutually beneficial principle, developing and providing telecommunications and IT solutions. (2003-2005)</p>
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Source: Author's analysis

### 8.13 Appendix 13. Sensemaking<sup>39</sup> by ETC managers before and after market liberalization

Before market liberalization 1993-1996	After market liberalization 2001-2003
<p><b>Importance of infrastructure and technology (24)</b> To eliminate the queue for telephone services (I3aq1; I5aq1; I13aq1; I11aq2; I1aq1; I2aq1; I9aq1); To get infrastructure (I12aq2; I8aq1; I2aq14); We needed a production base to provide services (I10aq2; I15aq1); Network is all about (I12aq6); Connections to the world (I13aq1); International connections (I5aq7; I14aq1); Main lines (I12aq7; I11aq7; I10aq7; I6aq1; I8aq7; I9aq7); Right partners for network planning was important (I12aq14; I14aq14);</p> <p><b>Authoritarian thinking (8)</b> Top-down management through regional managers (I10aq8; I8aq3; I2aq6; I6aq6; I9aq8); Authoritarian values (I10aq6); Information was power (I3aq8); Management board heard what you said, but acted as they wanted (I9aq6);</p> <p><b>Coordination from headquarters (7)</b> Power was in headquarters (I2aq3);</p>	<p><b>Risks and conflicts handling (27)</b> Strategic planning risks (9): general strategy may restrict innovativeness (I11aq6); there was no long-run strategy, rather one year at a time (I5aq2); "life" is becoming more complex (I14aq6); why didn't we buy a cable company? (I5aq14); we didn't go along with "IT bubble" and fortunately didn't buy internet firms (I11aq14); how to compensate for voice revenues? (I12aq5; I8aq1; I15aq1); stop the revenue decrease (I2aq7);</p> <p>Risks and conflicts inside the company (6) : network department versus marketing and customer side units (I12aq6; I7aq1); many things didn't occur as planned (I2aq11); lots of things implemented in a rush (I12aq13); to be convinced that every employee understands the vision (I7aq6); tempo has decreased because of more complicated environment (I6aq15);</p> <p>Market risks (3): competition (I8aq2; I14aq6); customer can give his/her money to somebody else as well today (I13aq6);</p> <p>Conflicts with owners (2): it's hard to manage strategically, when the representatives of owners don't have a broader view (I11aq13); foreign experts were too narrow minded (I9aq3);</p> <p>Regulation risks (1): to adapt to regulations (I4aq1);</p> <p><b>Customer-oriented thinking (14)</b> Focus on customers (I3aq1; I1aq1; I7aq2); Customer service (I8aq1; I2aq1; I8aq1; I9aq11); Customer strategies (I10aq1); To be the best service company (I11aq1); From product to customer (I3aq2); Business segments (I12aq1; I9aq1); To talk the language understood by customers (I3aq5);</p>

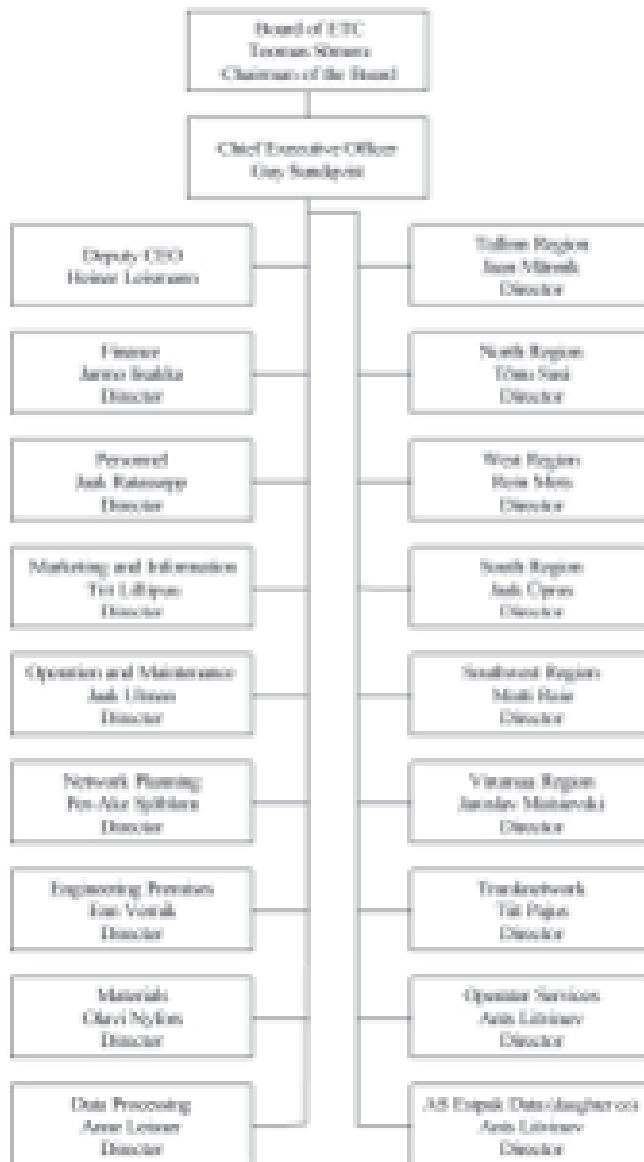
<sup>39</sup> Sensemaking – to make sense of an uncertain situation and give meaning and direction to the company (Weick, 1995).



<p>Management board put the business plan together (15aq12; 114aq9); Business plan was confidential (13aq8); Quality days coordinated by headquarters (112aq8; 113aq8);</p> <p><b>To be as developed countries (6)</b> What happened in Europe will happen soon in Estonia as well (14aq1); To choose strategy that was used in developed countries (15aq2); To adopt the western company model (17aq1; 114aq9); To adopt a general telecom business model (12aq2); Compared to other telecos we needed to catch up (19aq2);</p> <p><b>Quick start was important (2)</b> Quick start was important (15aq13; 111aq14);</p> <p><b>Conflict between owners (1)</b> One of the strategic owner didn't want to invest in the countryside, but government demanded it (13aq14);</p> <p><b>Other</b></p> <p>Strategic thinking has developed in an evolutionary manner (110aq3);</p> <p>To get customers (18aq1);</p> <p>Finding effectiveness (110aq1).</p>	<p>Near to customers are higher revenues (12aq2);</p> <p><b>More information available in the organization (10)</b> Information moves horizontally as well (113aq8); Information is more available (17aq8; 19aq8; 115aq8); Strategy comes from bottom-up (16aq6); Communication days more operative by nature (110aq8; 112aq8); Experience from other countries (19aq2); Meetings (114aq8); Cooperation within units is better (17aq9);</p> <p><b>Effectiveness thinking (9)</b> Cost cutting (13aq1); Effectiveness incl. staff cuts, process management (110aq1); To earn money (113aq1); To retain profitability (110aq2; 16aq10; 19aq10); Effectiveness (14aq5; 18aq1); If there are no drastic changes you need more specific and strategic instruments (111aq5);</p> <p><b>Continuous change management (8)</b> Organizational changes were upward through a spiral (113aq7); Changes occur with management (14aq6); If the strategy doesn't work, then we need to change the people (111aq8); The profile of certain leaders matches certain periods (111aq13); Great changes in our people's minds (14aq14); Experience is important for finding new solutions (110aq6); Organization's structural changes were twice a year (19aq3); There is value in the planning process (12aq6);</p> <p><b>Market defence thinking (6)</b> retain market shares (112aq7; 110aq7; 114aq1; 115aq1; 16aq5; 18aq5);</p> <p><b>To get new revenues (5)</b> to get revenues from IT services and internet connections (112aq7; 19aq7; 18aq7; 16aq10; 12aq10);</p> <p><b>Targets set by owners were achieved (14)</b> (13,4,5,10,11,12, 1, 2, 6, 7, 8, 9, 14, 15 aq16); To be market leader (16aq1); Targets are more realistic (17aq11);</p>
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Source: Author's analysis

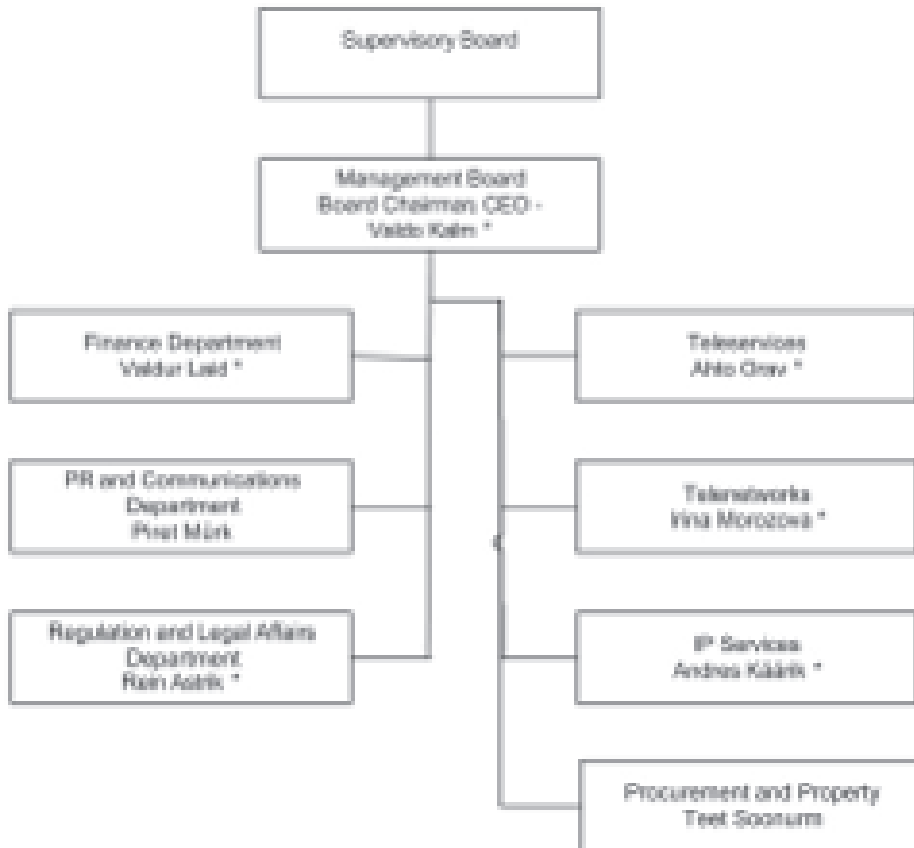
### 8.14 Appendix 14. ETC's organization in 1994



Source: ETC annual report, 1994

### 8.15

#### Appendix 15. ETC's organization in 2000 (last year before market liberalization)

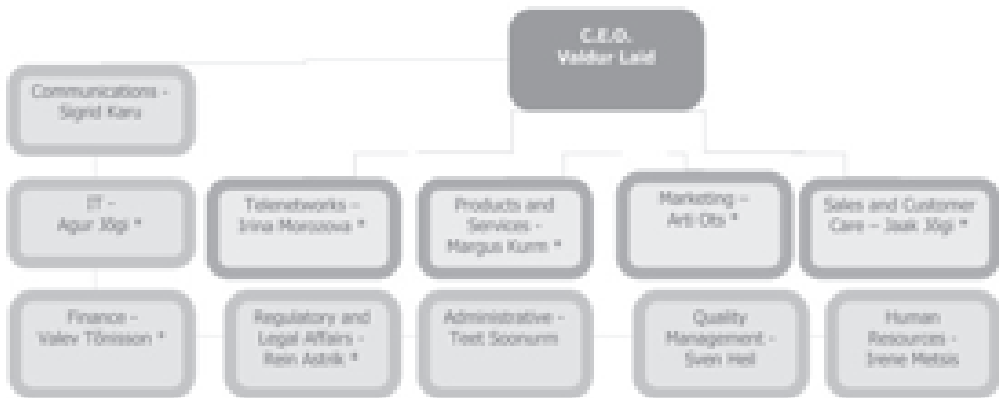
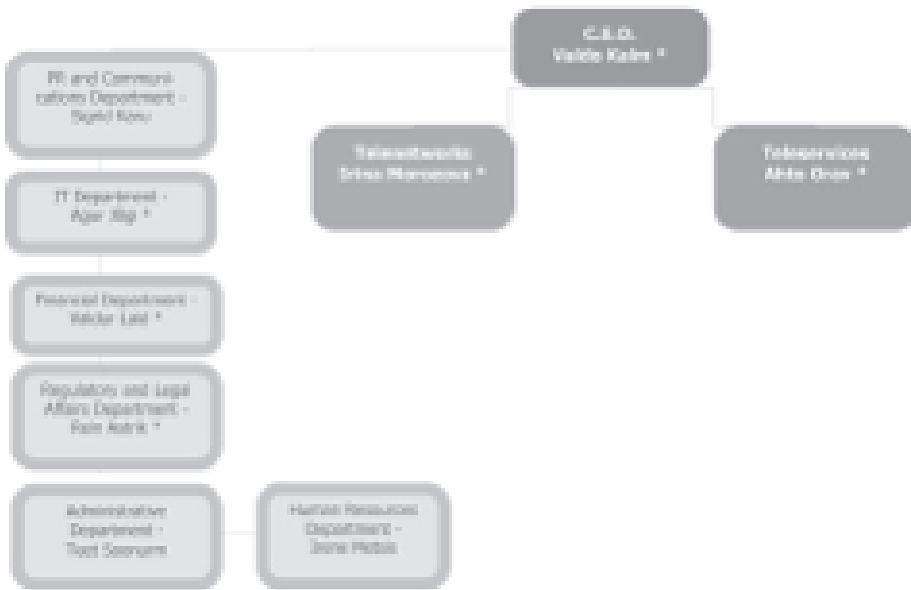


\* members of the board

Source: ETC annual report, 2000

8.16

Appendix 16. ETC's organization in 2003



## 9 SUMMARY IN ESTONIAN

Käesolev doktoritöö käsitles süvaanalüüsina (*case study*) ettevõtte strateegia kujundamist muutuv keskkonnas. Töö eesmärk oli analüüsida ettevõtte (Eesti Telefon) strateegia kujunemist ja juhtide mõtteviisi strateegia kujundamisel üleminekul konkurentsiga turule. Mis, miks ja kuidas muutus ettevõtte strateegia muutuv keskkonnas? – olid töö läbivateks küsimusteks. Uurimus põhineb institutsionaalse (*institutional*), mõtteviisi kujunemise (*sensemaking*) ja strateegilise juhtimise (*strategic management*) teooriatele, keskendudes Eesti telekommunikatsiooni ettevõtte muutustele aastatel 1993–2003. Uurimus sidus kokku antud teoreetilised lähtekohad ja ettevõtte empiirilised andmed. Samuti viidi läbi intervjuud 15 ettevõtte tippjuhiga.

Doktoritöös käsitleti ettevõtte olulisi tegevusi aastatel 1993–2003, mida ja kuidas tehti. Aastal 1993 alustas Eesti Telefon arenenud maade telekommunikatsiooni ettevõtete arengu kinnipüüdmist. 2003-ndal aastal oli rahvusvahelise telekommunikatsiooni liidu aruande kohaselt Eesti digitaalse juurdepääsu indeks saavutanud kõrge taseme teiste arenenud maade hulgas. Eesti Telekomide keskmine aktsia hinna trend oli kõrgem kui keskmine *NASDAQ Telecom* aktsiahinna trend peale turu liberaliseerimist Eestis alates 2001 aastast. Töö tulemused näitasid strateegilise ja muutuste juhtimise positiivse arengut, kuna ettevõtte tulemused rahuldasiid kõiki osapooli. Uurimuses on esile toodud trendid ja ettevõtte koondanalüüs. Töös võttis autor aluseks mitmed erinevad tõendeid – dokumendid, aruanded, intervjuud juhtidega ja vaatlused, mis andis tervikvaate strateegia kujunemisest restruktureerivas ettevõttes. Lähtudes töö eesmärkidest, uurimuse probleemist ja peamistest küsimustest, leidis antud analüüs vastused ja järeldused, kuidas Eesti Telefon läbis muutused ja miks ettevõtte juhid valisid ühe või teise strateegilise suuna.

### **Ettevõtte strateegia oli mõjutatud välistest institutsionaalsetest jõududest**

Kuidas ettevõtte läbis muutuse aastatel 1993–2003? Teises peatükis käsitlesime institutsionaalseid muutusi tulenevalt institutsionaalsest teooriast. Esimeses ja neljandas peatükis võisime lugeda põhjalikumalt telekommunikatsiooni turu keskkonnast maailmas ja Eestis. Kokkuvõtvalt võime öelda, et Eesti Telefon kui organisatsioon oli mõjutatud järgnevatest institutsionaalsetest jõududest:

- nõukogude aja lõpp 1991 aastal – liikumine sotsialistlikust keskkonnast kapitalismi;
- Eesti Telefoni erastamine 1992 aasta lõpus;
- telekommunikatsiooni turu liberaliseerimine (turu avamine konkurentsile) 2001 aastal;
- uute tehnoloogiate juurutamine (digitaliseerimine, internet, kõneteenus üle interneti).

Lisaks sellele, et juhtide mõtteviis oli mõjutatud institutsionaalsetest jõududest, võis analüüsimisest järeldada, et ettevõtte:

- tehnoloogiline mõtlemine muutus kliendikeskseks ja efektiivsusele orienteerituks;
- autoritaarne ja peakontorikeskne juhtimise stiil muutus keskkonnaks, kus info oli rohkem kättesaadav, aga ka keskkond keerukam;
- selge visioon saada arenenud telekommunikatsiooni ettevõtteks Euroopas muutus arusaamiseks, et pidev muutumine on oluline.

Ettevõtte juhtide mõtteviis oli välimiselt mõjutatud institutsionaalsetest jõududest ja sellest tulenevalt oli ka ettevõtte strateegia mõjutatud institutsionaalsetest jõududest.

### **Ettevõtte strateegia kujunemisel võis eristada kolme erinevat perioodi**

Mida tippjuhid tegelikult tegid, kui nad käitusid strateegiliselt?

Infrastruktuuri ülesehitus aastatel 1993-1996 – kui infrastruktuur on nõrk ja telekommunikatsiooni turg on väljakujunemata, siis on oluline:

- valida strateegiline partner või partnerid, et ehitada välja infrastruktuur;
- sõlmida kontsessioonileping valitsuse ja strateegiliste partnerite vahel ning täita võetud kohustused, et ehitada välja kaasaegne infrastruktuur pikas perspektiivis;
- võtta üle strateegiaid omanikelt, konkurentidelt ja teistelt organisatsioonidelt.

Konkurentsiks ettevalmistumine aastatel 1997-2000 – kui telekommunikatsiooni turg avatakse konkurentsile, siis on oluline monopoolsel ettevõttel:

- teha ettevõtte siseseid muutusi ja vahetada välja juhte klientide paremaks teenindamiseks;
- arendada ja juurutada uusi teenuseid (internet, kõneteenus üle interneti);
- rebalansseerida hinnad vastavalt omahinnale;
- osta peamine osalus konkurendilt uue kultuuri ja mõtteviisi juurutamiseks (letiteenindus);
- moodustada strateegilise planeerimise töögrupp, et näha ette uusi suundi;
- luua võtmeisikute kontseptsioon, et hoida nende lahkumist.

Turu surve aastatel 2001-2003 – kui telekommunikatsiooni turg on konkurentsile avatud, siis on oluline endisele monopolsel ettevõttele:

- luua uus imago ja bränd (Eesti Telefonist Elioniks);
- osta põhitegevusega mitte seotud tegevusi väljast (võrgu ehitus);
- juurutada uusi teenuseid (telehotell, automaatselt installeeruvad kliendiseadmed);
- vahetada välja juhte;
- hoida turuosa.

Käesolev töö näitas, et tippjuhtkonna kiire mõtteviis garanteeris mitmed edukad strateegilised tegevused, et ettevõtte jääks konkurentsivõimeliseks turul. Mõtteviis muutus kiiresti erinevatel juhtimistasanditel. Vabariigi valitsus soovis kaasaegset

infrastruktuuri, strateegilised partnerid nägid tühja turgu, ettevõtte juhid nägid eneseteostuse võimalusi, ja kõik see kokku lõi võimaluse kiireteks ja radikaalseteks muutusteks muutavas keskkonnas.

### **Teised järeldused**

- ettevõtte strateegiat kopeeriti omanikelt, konkurentidelt ja teistelt organisatsioonidelt;
- strateegia oli lihtne, kui oli vajadus infrastruktuuri järele ning muutus keerukaks turu avanedes;
- tippjuhtide väärtused muutusid strateegiliste partnerite väärtustele sarnasemaks;
- juhtkonna liikmed vahetusid kiiresti;
- klientide tagasiside ja ettevõtte kasumlikkus sai juhtimisotsuste aluseks peale turu avanemist;
- strateegia kujunemine muutus planeerimisest evolutsiooniliseks;
- strateegia kujunemine muutus tsentraalselt juhitud lähenemisviisist detsentraliseerituks;
- muutuste elluviimine oli tippjuhtidele iseenesest mõistetav, et jõuda Euroopa arenenud riigi telekommunikatsiooni ettevõtte tasemele;
- tippjuht vajab enda ümber võtmeisikuid, kellega muudatusi elluviia;

Selleks, et veel paremini mõista restruktureerimise protsesse organisatsiooni tasemel, oleksid võimalikud uurimised järgnevad:

- Elioni konkurentide strateegiline juhtimine ja nende nägemus Elioni tegevustest;
- Kuidas teised Ida-Euroopa telekommunikatsiooni ettevõtted on juhtinud üleminekut konkurentsiga turule ning millised on positsioonid konkurentidega.

## 10 CURRICULUM VITAE

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**Degree** : Master of Business Administration

**Education:** 2008 – 2009 doctorate student (management studies) at the Estonian Business School

1998 – 2007 doctorate student (management studies) at the Tallinn University of Technology

1995 – 1997 – master student at Tallinn University of Technology

1990 – 1995 Tallinn University of Technology

**Employment:** January 2003 – to present  
Elion Enterprises, Business Quality Director

March 2001 - December 2003  
Estonian Telephone Co, Strategy and Business Planning Manager

September 1997 – February 2001  
Estonian Telephone Co, Business Customers Sales Department Manager

January 1996 – September 1997  
Tallinn City Government, Head Economist

January 1993 – December 1995  
Tallinn City Government, Land Taxation Pricing Specialist

**Hobby:** Sailing; Sport.



### **Personal research articles:**

1. Heil, S. (2009) Strategy Creation in a Restructuring Environment. The Case of an Estonian Fixed Telecommunications Operator Transferring to a competitive market in 1993-2003. *EBS Review*, 3.
2. Heil, S. (2005) Strategy Formation in Changing Environment. Case of Estonian fix telecommunication operator in 1993-2003. XI conference on the management of business organisations. Tallinn University of Technology. 22.04.2005. Tallinn, 14-20. ISBN 9985-59-525-4
3. Heil, S. (2000) Development of the telecommunication market in Estonia. Effectiveness of the Economic Policy of the Republic of Estonia and the European Union. Reports-articles of the VIII scientific and educational conference. Tartu, 29.06-1.07.2000. ISBN 9985-844-08-4

### **Seminar:**

Heil, S. (2005) Strategy Creation in a Restructuring Environment. Spring-seminar of the Estonian Economic Association. Tartu University. 2.-3.04.2005, Kääriku.

### **Other conferences and seminars, connected with Estonian Telephone Co and Elion.**

Heil, S. (2003) Kuidas tõsta organisatsiooni tulemuslikkust protsessijuhtimise kaudu (Eesti Telefoni näitel)? II kvaliteedijuhtimisseminar. Protsessijuhtimine – tõhus vahend kliendikesksuse ja organisatsiooni tulemuslikkuse parendamiseks. 14 mai 2003. Tallinn.

Heil, S. (2004) BSC - saad, mida mõõdad (Elioni näitel). BSC 2 aastat hiljem – kuidas viia tasakaalus tulemiskaart töötahjateni? September 2004. Tallinn.

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Heil, S. (2004) Kuidas saame teada, et täidame kliendile antud lubadusi (Elioni näitel)? Konverents aasta teenindustegu. 9 november 2004. Tallinn.

Heil, S. (2004) Customer-oriented process management in Elion. Latvian Quality Management Conference. 25 november 2004. Riia.

## **Newspaper:**

Heil, S. (2004) Edukas protsessijuhtimine tagab klientide rahulolu. Alusta protsesside määramisest ja nende eest vastutajate selgitamisest (Elioni näitel). Äripäev, 29. November. Juhtimine, 9, 15-16.

<sup>1</sup> The aim of this paper is to explore and represent the dynamic relationship between total quality management (TQM), corporate strategy and resultant business operations. In particular, the paper seeks to determine the impact of TQM at the strategic level and how business operations are consequently developed and deployed (Denis, 2004).

<sup>2</sup> **The assessment: introducing competition into regulated industries. It deals with structure of competitive markets in Great Britain. List of necessary conditions which must be met to make competition work. Transition to competitive markets (Helm, 1997).**