SUCCESSFUL DEPLOYMENT OF SIX SIGMA WITHIN A SMALL TO MEDIUM COMPANY

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Six Sigma is often regarded as a Quality Initiative that is simply the preserve of large multinationals, which have the funds and staff available to allow for successful deployment. However, as Six Sigma is being demystified, many small to medium companies are exploring the possibility of Six Sigma implementation, or are actually in the process of deployment.

In this paper a short presentation is made of problems, questions, demands and beliefs often existing when planning to take (or even taking) the first steps in Six Sigma in small to medium-sized companies. Also answers and solutions to these problems will be presented. Traditionally comprising small or medium companies, the Finnish plastics sector gives us probably an excellent base to make a study of possibilities of Six Sigma in industrial applications.

In addition a case study *"How to successfully adapt Six Sigma methods to a medium-sized company"* based on material supplied by a Finnish company in the plastics sector, *Eimo Ltd*, will be presented. Those results and figures will give an excellent survey on the possibilities for Six Sigma in SMEs.

1. INDUSTRIAL PLASTICS SECTOR IN FINLAND

The industrial plastics sector in Finland is today typically – at least on global scale – mostly small to medium sized. The rate and range of development have radically increased during recent years. A typical industrial company in the plastics sector is today not solely a producer of plastic products, single parts or components, but an active partner with the latest know-how of plastics and production technology. It has the ability to produce world-class quality with high repeatability. The company is in nearly every case, not an individual actor but an important part of the whole business chain.

The development tendency of business transactions has led the plastics sector towards specialization. Companies centralize their business with special customers in special sectors of industry (telecommunications, medical devices, foodstuffs, etc.). They specialise with products of certain kinds of

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sizes and types (today there is a clear tendency towards even micro-sized products) or different sized series (not only with very large but also small series), etc. Concentration on special plastic materials and production technology - e.g. high temperature plastics, multi-component injection moulding, multi-layer films, etc. - are very typical examples of this tendency. Most clearly this tendency can be seen in the plastics sector in the development of products in the electronics and telecommunications fields.

As a reply to these rapidly growing demands, companies must develop themselves continuously by improving their functionality and activity. Continuously increasing demands for more effective processes, better productivity, continuous improvement of quality, and thus improvement of competitiveness in a globalised marketplace are everyday facts of life for the plastics sector both in Finland and world-wide.

1.1 Some Facts and Figures of the Plastics Industry in Finland

Industrial production at plastics branch in Finland started in 1921 when the first Finnish plastic products were produced at Sarvis Ltd. Those products were typically differing items for the textile industry, such as buttons.

Today the Finnish plastics industry is concentrated more and more in producing high-tech plastic products, parts and components to industrial applications in information technology and electronics – especially in telecommunications – in machine technology as well as in medical and food technology. In addition a lot of production is directed also to applications in transportation and in construction technology. A typical plastics company is small or medium-sized.

The total amount of companies in the industry in Finland is today approximately 630. The annual net sales at this sector are 1,5 billion €. About 40 % of the total production is exported. The plastics sector employs some 13.000 people in Finland.

1.2 Muovipoli Ltd. - New Resources for Industrial Companies in the Plastics Sector

Muovipoli Ltd – known also as the Development Centre for the Plastics Industry - has operated as a limited company since autumn 1998. It is owned partly by the Finnish plastics industry, universities and local authorities. Its main operating fields are R&D services, laboratory services and training.

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1.2.1 Properties of Tomorrow for Products of Today

In our activities within the R&D Department of Muovipoli Ltd, we help the companies of the sector in their R&D-projects to face challenges by creating and carrying out more effectively managed R&D-projects. We offer to these companies totally new possibilities to get the most recent high technology know-how and resources to their activities. Our core competence is in plastics and production technology, is quality improvement – especially Six Sigma - and project management. We also give our helping hand to companies needing a partner when taking their first steps in R&D projects.

In our R&D Department we are working very firmly in co-operation with universities and research centres with the latest high-level knowledge. Our main activities have been partly financed by the National Technology Agency of Finland (Tekes) and the European Commission.

We offer our partner companies

- R&D catalysis, need analysis, planning, evaluation
- new resources, up-graded high-level know-how
- resources and know-how for implementation of R&D projects and programs
- tools for exploitation of research results
- tools for technology transfer and for technology development
- management of R&D-projects
- partnership
- various types of networks at international level: contacts for more effective and expanded international co-operation between companies, university-enterprise co-operation

We carry out annually more than 20 R&D projects in industrial companies of the Finnish plastics sector and even worldwide. Product and process development, quality improvement and project management have been – as our core competitiveness - the main activities in those projects. The total volume in these projects has been rising remarkably. Today the volume is more than 4,2 million €/a.

2. SIX SIGMA AS A QUALITY INITIATIVE IN FINNISH INDUSTRY

Today Six Sigma is considered also in Finland as the most significant Quality Initiative in the industry. Many companies – among them companies like Nokia, ABB, Kemira Pigments, Perlos and Eimo - have been reported to exploit Six Sigma methodology with its statistical tools in their businesses.

In many companies the history of quality is much more than the history of Six Sigma. In every case the road to Six Sigma has been a logically managed journey through many stages. Today those examples

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showing huge success have guided a number of companies at least to exploit the possibilities or even to start taking the first steps in approaching Six Sigma. In that kind of development companies like Nokia have been excellent engines – real Six Sigma promoters for Finnish industry.

In the plastics sector the exemplary actions of Nokia and others have started the rise of Six Sigma methodology towards pre-eminence amongst quality initiatives. Although the work here with is only at the very beginning, huge savings and revenues can already been seen. For example, companies in the injection moulding business, like Perlos Ltd. and Eimo Ltd have been reported as starting their own Six Sigma Programs. Also commercial training programs of Black Belts have been reported as starting.

Also in the Finnish academic field Six Sigma has arisen – together with its applications - as one of the main quality initiatives. For example in a research program financed by the National Technology Agency in Finland (Tekes) and driven by all the main companies in the injection moulding business in Finland, a Six Sigma-based model has been built to activate the Continuous Improvement of Injection Moulding Processes.

3. WHY SHOULD SMALL TO MEDIUM SIZED COMPANIES TURN TO SIX SIGMA?

There is no doubt that Six Sigma is one of the most promising and fastest growing Quality initiatives in the field of quality assurance and improvement. Huge improvements in industrial processes and business activities have been reported worldwide producing millions of dollars saved annually. Also numbers of companies have been reported to have put a lot of effort in starting to implement Six Sigma methodology and Six Sigma tools and in their core businesses. In addition various Green Belt and Black Belt – as well as other Six Sigma training programs have been reported. In all figures the rate and the range of success of Six Sigma seem to be startling.

However, in spite of this triumphal march of Six Sigma, not so much experience of small to medium sized companies has been reported. Almost all the report of this success is more or less originating from very large or multinational companies like General Electric, Motorola, AlliedSignal, Navistar, Johnson & Johnson, American Express , etc.

Therefore one of the main tasks for Six Sigma deployment is how to assure small to medium companies of the superiority of Six Sigma, how to show them all the advantages, how to determine, with which tools

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and techniques, etc. That is how to demystify Six Sigma **NOT** to be a methodology with tools applicable only for large multinationals.

In the following presentation some of the topics of this field of implementation will be presented. The main thresholds which are preventing and/or decelerating Six Sigma deployment in especially small to medium companies will be presented. In addition requirements how to get the best results in deployment of Six Sigma will be presented.

3.1 Requirements for Successful Deployment of Six Sigma in a SME

The typical requirements for successful deployment of Six Sigma in business and processes of small to medium companies are in large part similar to those for large companies. However, some atypical features can be discovered when SMEs are examined. Among them the two absolutes: voice of the customer and the commitment of top management.

3.1.1 Importance of Voice of the Customer

Although one of the most important factors – a base of whole Six Sigma methodology - in all types/sized of companies, still very easily and often forgotten. It can also be very hard to understand, determine or even measure.

Why is the voice of the customer forgotten anyway? Is it forgotten because people working in industrial projects are often more technology-orientated engineers – not humanists. This is likely! It is much more easier to concentrate on meters, joules, axles, software, etc. than on people. In SMEs especially, the activities are often more concentrated on work on practice, with technology - not on human relations. The needs of customer could be something extremely abstract. However, please keep in mind the old phrase: “There is no rule without exception” i.e. not all SMEs are alike!

Also in SMEs there often is a lack of tools operating with the voice of the customer, e.g. how to measure customer satisfaction, which tools to utilise, etc. It could be a question of money, but also a question of poor attitude.

3.1.2 Commitment of Top Management

As in all businesses the role and commitment of top management cannot ever be underestimated. If the commitment cannot be got from top management – who in a SME is in very many cases one person - the

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deployment will not be a part of the strategic actions of the company and cannot reach critical mass. Therefore the role of management is necessarily emphasised.

Lack of top managerial commitment will also lead the deployment to insufficient resources. Lack of money and people – as well as time – could – and probably will, lead the deployment of Six Sigma to a real pitfall.

3.1.3 Role of the Strategy

The role of strategy is very often underestimated. Six Sigma deployment is sometimes carried out without the slightest connection to the strategy of the company. In the worst cases the strategy is missing totally or not so well known among the employees.

However, deployment should not be a separate project, but a part of strategy of the company. Only this kind of act will produce the best results. All activities – including Six Sigma acts - carried out in the company should be based on its strategy.

3.1.4 Commitment of Employees

The knowledge of strategy is one of the key-factors when examining the role of the commitment of employees. If the employees know the strategy (= goal of the company) and the role of Six Sigma deployment in it, the implementation of Six Sigma stands a good chance of success.

Commitment and the acceptance of employees are amongst the most important factors in successful implementation of the Six Sigma methodology. This gives us tools to assure the most significant and reachable results in our business activities. It is **NOT** valuable to try to implement Six Sigma without the commitment of employees.

3.1.5 Sufficient Resources

Having a top managerial commitment and being acceptably a core part of strategy of the company sufficient resources will – or should be – automatically assured to carry out the Six Sigma deployment.

Sufficient resources are definitely those key-factors which will partly guarantee the maximum revenues and savings. However, resources will not alone solve all the problems – but they are naturally a good start.

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The concept of sufficient resources will include enough

- financial resources, money
- human resources: people, know-how, enthusiasm
- managerial abilities including enthusiasm
- time: possibilities to carry out single acts, projects and whole implementation program

Sufficient resources, how should they be determined? The traditional way is to use cost-based calculations operated by the financial department. To be only interested in costs – i.e. not producing them. You might perhaps be able save some money (=costs), but **NO** REAL SAVINGS AND REVENUES will be reached. In a real Six Sigma World sufficient resources mean costs at sufficient level, but also actions which guarantee us results, savings and success. The relationship of costs and benefits are at a reasonable level.

In SMEs to find enough suitable resources could be a very difficult task. During good economic times (when there are enough financial resources) it could be difficult to find human resources to carry out Six Sigma program or individual projects. It is also found that Six Sigma experts are the most wanted people in most of the responsible tasks too. During recession it is often a question of money – although it should not be.

However, top managerial commitment is - again here - a natural answer. Only this can make sure the sufficiency of resources. And finally: DO NOT CONSIDER FINANCIAL RESOURCES NEEDED IN SIX SIGMA DEPLOYMENT AS COSTS – CONSIDER THEM AS INVESTMENTS.

3.1.6 Implementation Plan

During many (all?) processes a lack of planning has very often been noticed. That means that after the very first enthusiasm there is no planning at all. Processes are more or less managed – instead of based on facts and knowledge – based on luck and chance.

To make sure the implementation would work properly giving those results desired, a proper plan for implementation would be the ultimate request. Again, you can not pass the role of top management!

3.1.7 Effective Documentation

Documentation is one of the key factors in the management of today. We all know that it is – thanks to developments in information technology - quite easy to produce and collect different type of data and produce all kinds of documents from our processes.

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The difficulty is, however, here. Because of the oversupply of information how do we manage these documents, how can we make documentation effectively, what data is the most essential and in what form?

To get best and the most effective results from Six Sigma, documentation should be planned properly and included as an essential part of the implementation plan. As a logical method with advanced tools Six Sigma itself helps its user to find the essential data from the process and to keep also the documentation most in essential topics. The use of special tools for documentation - e.g. PDM – as well as commercial software for handling the data – e.g. MINITAB with statistical tools - will probably make Six Sigma more effective.

3.2 Typical Explanations: Why Not Six Sigma!

Huge amounts of excellent examples of successful implementation of Six Sigma worldwide have been reported. Savings and revenues of billions of dollars have been introduced. There is no doubt for Six Sigma being the best Quality Initiative suitable in all kinds of businesses.

However, plenty of good explanations and reasons are introduced for *"Why we are not implementing Six Sigma at our company!"* Very often these explanations are heard especially among the SMEs. It has been found that certain invisible – but quite high - thresholds exist decelerating, or even preventing totally the deployment of Six Sigma. Those thresholds are always argued with "rational reasons". Here are the "best" and the most typical ones:

- Suitable for large multinationals only!
- Too American!
- Nothing new in it!
- Not applicable to our business, our processes!
- Difficult to understand, terminology too complex!
- Too theoretic!
- Statistics are difficult and not applicable!
- Lack of resources!
- No time!
- Too expensive, too many costs!
- Not accepted by top management!
- Quality system already exists!

These "good reasons" can, in some situations, read like clichés, but they have all been said with full seriousness. Therefore a lot has been done – and there still is a lot to do – to overcome these prejudices

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and make the victory of Six Sigma easier in the SME-sector. A bunch of references, good examples from other SMEs - and if possible, even from ones own country and from same industrial sector – is the best piece of advertisement of Six Sigma and the statistical tools on the road towards more effective business. Also the role of large multinationals originated from one's own country is very essential. For example, in Finland the role of Nokia has been – and will certainly remain – the most important.

4. A CASE STUDY HOW TO SUCCESSFULLY ADAPT SIX SIGMA METHODS TO YOUR OWN ENVIRONMENT – MATERIAL SUPPLIED BY EIMO LTD.

Eimo Ltd is basically a Finnish company from city of Lahti. Today Eimo Ltd is a global plastics systems supplier to the mobile communications industry. It supplies high-volume production of injection moulded precision plastic components. It offers its customers value-added operations: i.e. assembly, painting, marking, and packaging. Also design and manufacture of moulds is a part of its essential core competence.

Here are some facts and figures of Eimo Ltd:

- 1996-2001 av. sales growth **> 70 %**
- 1999 pro forma net sales **178 million €**
- net profit **16 million €**
- personnel **> 1 500**

4.1 From Quality Systems via Continuous Improvement to Partnership and Six Sigma: Logical Strategy Based Quality Management

At Eimo Ltd. a decision was made in 1998 to start to implement Six Sigma as a Quality Initiative in its core business. The decision at Eimo Ltd was based on a long and very logical experience in its quality improvement activities. All decisions have been based on strategic planning at Eimo Ltd. The voice of the customer has always been one of the main features in the decision making process at Eimo Ltd. Today Eimo Ltd can be considered as a Four Sigma company with a huge rate of development towards Six Sigma status.

The quality concept at Eimo Ltd was founded with the customer **IBM** in 1970 – 1994. As the most important result of that era were concepts like joint development and partnership. Quality systems and quality techniques were introduced – as well as the capability approach.

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The next stage in the quality history of Eimo Ltd was co-operation with the customer **General Motors**. This stage during 1991 – 1993 brought with itself a new quality system which forced Eimo Ltd toward continuous improvement. It also introduced tools like *PFMEA* and *SPC* to everyday life of Eimo Ltd. Co-operation with **Nokia** began in 1985. It brought the customer and the supplier into very close co-operation with systematic system and process audits. Complex assemblies and tolerance planning have become as typical features to the production of Eimo Ltd. A Quality system according to *QS 9000* has been introduced – as well as the supplier quality manual. Partnership is one of the key words at Eimo Ltd, also training. Six Sigma methodology has been introduced and the implementation has been started. Co-operation with research centres and universities is also essential to R&D at Eimo Ltd.

4.2 Implementing Six Sigma at Eimo Ltd

Six Sigma deployment started at Eimo Ltd in 1999 by the commitment of the top management tiers and the proffering to them of tailor-made Champion training. In this start-up the role of customers of Eimo Ltd was essential.

The Champion training was followed by Black Belt training of a group of key persons and by starting the first Six Sigma development projects. The goal of this first stage was to increase and develop capability in processes and to create a firm foundation for totally new ways to operate in daily life at Eimo Ltd. Also first steps towards the implementation plan of Eimo Ltd were taken.

4.2.1 Introducing the Targets for Six Sigma at Eimo Ltd

Six Sigma deployment at Eimo Ltd has ambitious, but realistic targets. The most important one is as follows: to be a Six Sigma company after 3 years!

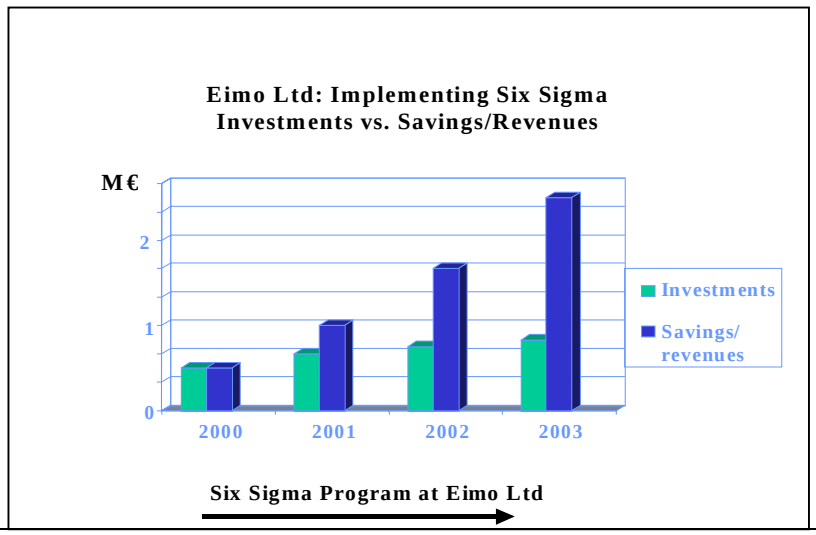

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Figure 1. ***Investments and savings/revenues at Eimo Ltd during Six Sigma implementation in 2000 – 2003 (Published with permission of Eimo Ltd).***

As stated in figure 1, the investments (not costs) in Six Sigma implementation at Eimo Ltd are estimated to be some 2,8 million € during 2000 – 2003. As a main financial target it is expected to achieve savings of 5,7 million €. That means a net benefit of 2,9 million € during the following 3 years.

The goal for Six Sigma is that it will help to raise all stable mass production processes of Eimo Ltd at Six Sigma level by the end of 2002.

The amount of Black Belt experts is expected to increase. At least 10 Black Belts will be trained by 2001, including at least 2 Master Black Belts. This training is planned to be continuous.

As the final goal it is aimed Eimo Ltd to be regarded as a Six Sigma Company no later than in 2003.

4.2.2 Six Sigma Program at Eimo Ltd in 2000

The Six Sigma Program at Eimo Ltd is enjoying a good start. It aims at developing and raising finally the whole business at Eimo Ltd to the Six Sigma level. However this final goal will be reached step-by-step. This raise will be reached by 30 – 50 productive projects during the next 2 – 3 years. A goal for each project to produce net savings or revenues of 50.000 – 75.000 € was set. Special attention will be paid on creating a model with which different types of projects and savings/revenues derived from them can be calculated. During Year 2000 the goal is a minimum of 12 projects.

Together with the development via projects mentioned above the second Black Belt Training Course was started during spring 2000 aiming to produce 15 new Six Sigma experts completing their degrees. Also the training of Master Black Belts will be started in 2000.

The success of whole Six Sigma Program at Eimo Ltd, as well as individual activities, will be measured by means of investments made and net profits reached.

A comprehensive follow-up of effectiveness of single acts and projects as well as the whole implementation program at Eimo Ltd will be arranged by the author. In this follow-up the role of universities and research centres is very important.

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4.3 Remarkable Results from the very Beginning

The deployment of Six Sigma has showed remarkable results from the very beginning. Various core production processes at Eimo Ltd. have already been improved and developed with Six Sigma methodology using DMAIC-process and statistical tools with suitable software.

The following financial indicators were determined and followed to verify success in the implementation phase:

- yield
- productivity
- profit
- capacity
- utilisation rate
- decrease in need of investments
- customer satisfaction

The goal for these improvement operations have been set to assure adequate achievements, i.e. savings or revenues of 50.000 – 75.000 € for each project/process. These goals have seemed – at least in this stage of deployment process – to be quite reasonable.

4.3.1 A Survey of Results Gathered from Implementation Phase

Various Six Sigma projects have already been carried out during the implementation phase with a goal to improve the efficiency of core processes at Eimo Ltd. All projects (processes) developed with Six Sigma methodology and tools showed remarkable improvement in all financial indicators mentioned above. All goals set were exceeded.

In table 1 the progress in terms of growth in productivity – as well as savings obtained – in four different industrial production processes at Eimo Ltd were introduced. As it can be clearly seen in the table 1, all indicators in processes showed remarkable improvement. All goals were reached with extremely high rate.

Table 1. ***Savings and revenues measured in changes in productivity in 4 different production processes during implementation of Six Sigma (published with permission of Eimo Ltd).***

Project/process developed	Change		
	Yield %	Productivity parts/h	Profit M€/a
* Process 1	90 → 98	400 → 550	> 0,10

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* Process 2	97,5 → 99	400 → 500	> 0,05
* Process 3	86 → 96	400 → 460	> 0,10
* Process 4	85 → 95	166 → 187	> 0,10

In figure 2 the influence of Six Sigma can be observed very easily. The effect of Six Sigma is introduced by total yield measured in a test cell during the first stages of Six Sigma at Eimo Ltd. In the test cell total yield increased from 90 % to 95 % during the implementation.

The figure also shows the importance of well-organised training and implementation. The trend was during the whole ascending period. The long term target of yield of 96 % was reached almost immediately after training was completed.

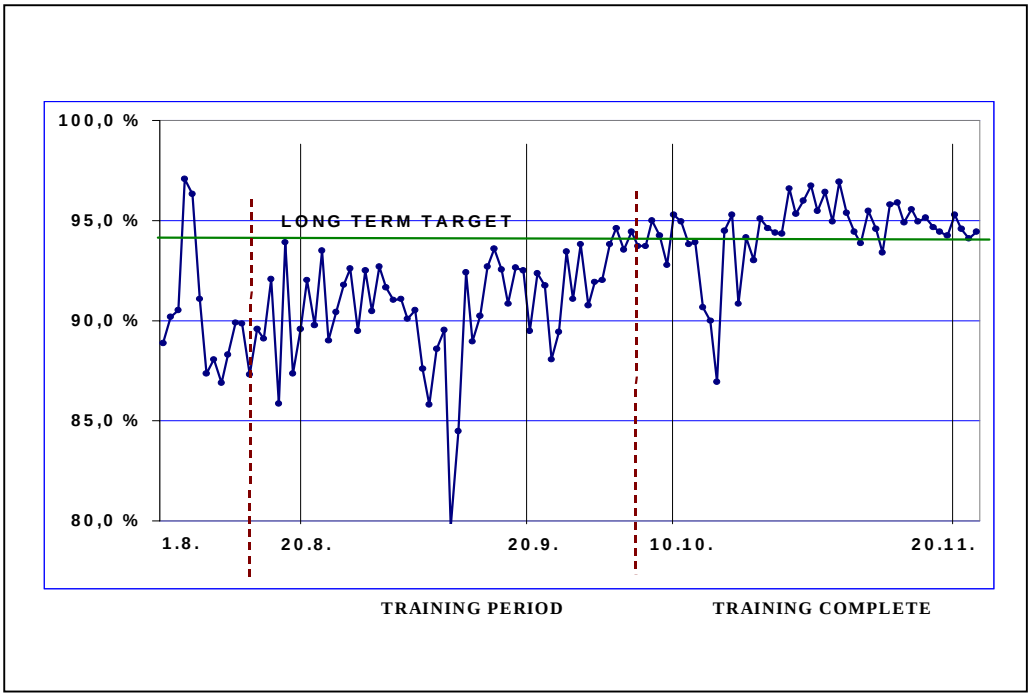

Figure 2. ***Importance of training and well-organised implementation. Total yield measured in the test cell at Eimo Ltd. Test period of 4 months. (published with permission of Eimo Ltd)***

A good example of the efficiency of Six Sigma as a superior method for development in an independent process could be seen in figure 3. The efficiency is measured as the total process yield of the process. The

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influence is again remarkable here – a trend ascending continually, total yield showing improving values from 92 % to 98 %.

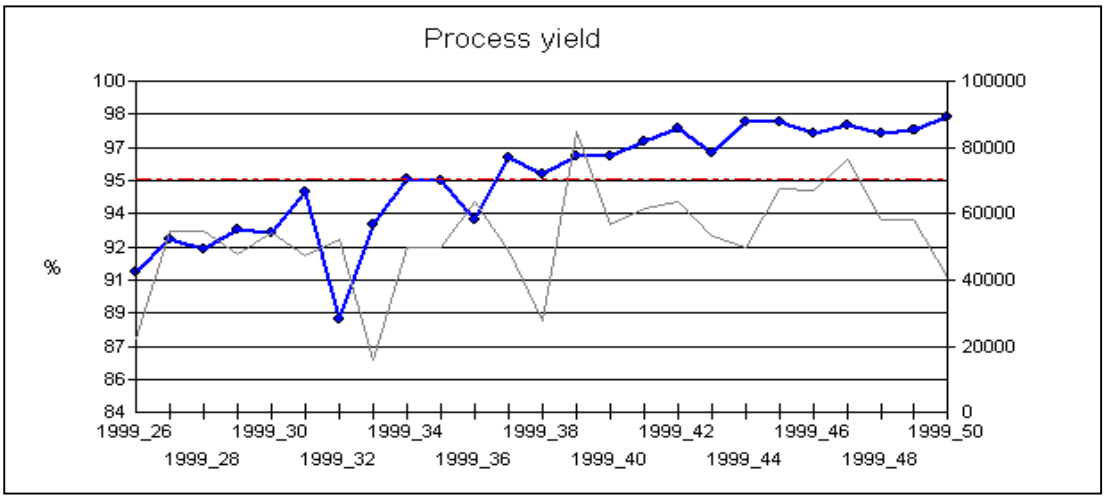

Figure 3. ***Influence of Six Sigma implementation in an industrial production process at Eimo Ltd measured in absolute and relative yield. Test period of 6 months. (published with permission of Eimo Ltd)***

Same kind of results can be found when examining the influence of Six Sigma in terms of defects. In figure 4 quality of production is determined in relative defect amounts. The trends of improvement and the results are comparable to those earlier presented ones. The amounts of defects showed a descending trend, the relative amounts decreased to one fourth. The objective was reached after 3,5 months.

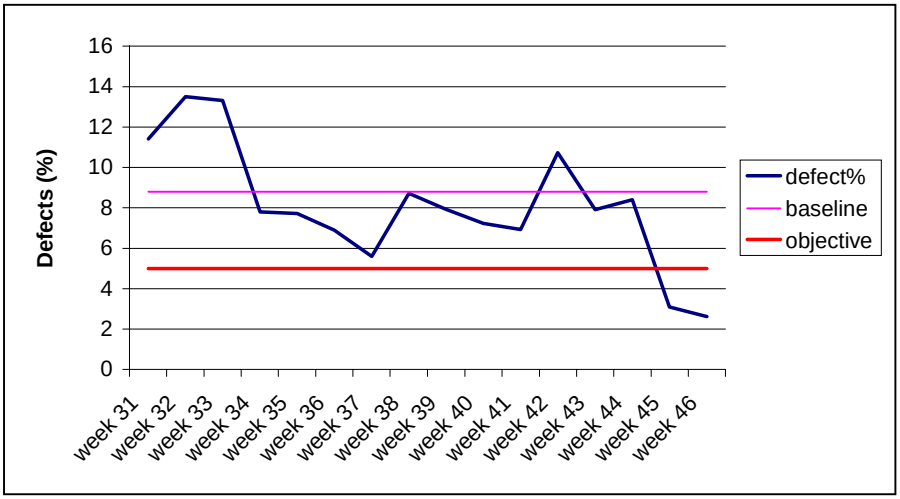

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Figure 4. ***History of defects in a Six Sigma process during test period of 4 months at Eimo Ltd. (published with permission of Eimo Ltd.)***

4.4 Some Future Trends for Eimo Ltd

Because of the great success enjoyed, there is no doubting Six Sigma methodology is now and will henceforth be the number one Quality Initiative at Eimo Ltd. However, Eimo Ltd is like many other companies dealing with Six Sigma, only the first steps have been taken.

Therefore a lot of effort will be invested in Six Sigma. As stated in figure 1, the financial investments are over 2 million € during 2001 – 2003. The goal for following years is to get Six Sigma to work even better. That means more projects (30 – 50 projects during the following two years), more new people involved and more training (e.g. a training program for newly-employed experts). That means also developing and improving the Six Sigma operating model for Eimo Ltd. There will be also a quite extensive follow-up to make sure that all operations and projects – as well as the whole program - will reach their financial and operative goals.

Although Eimo Ltd is – at least in a Finnish scale – in the forefront of the adoption of Six Sigma, there is still a lot to research, study and learn. A long road lies ahead, but Eimo Ltd. certainly is on the correct path - toward zero defects and the final goal - Six Sigma standards.

5. THE SUMMARY

In spite of the fact that many excellent references report savings and revenues of millions of dollars, the superiority of Six Sigma has always been accepted amongst small to medium-sized companies. It is often regarded as a Quality Initiative for large multinationals only. However, today many small to medium companies are exploring the possibility of Six Sigma implementation, or are actually in the process of deployment.

However, it is not so easy for a SME to start the implementation process. Various types of thresholds must be crossed before starting the deployment process in a SME. In this paper those problems, questions, demands and beliefs typical for many SMEs were introduced. Also answers and advice to solve these problems were presented. The significance of the voice of the customer and the commitment of top management as well as many other key-points were introduced to activate and help the deployment of Six Sigma.

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Being a medium-sized company already on the road towards Six Sigma, Eimo Ltd offers through its results and figures an excellent survey of possibilities. Without this kind of experience and example on quality improvement, exploitation of Quality Initiatives like Six Sigma could not be possible. Hopefully the positive example of Eimo Ltd, encourages other companies to take more steps without too much hesitation towards Six Sigma.

There is no doubt that Six Sigma is the number one quality initiative of today. It offers logical methods and tools to carry out huge improvements and development in the core processes of industrial companies. It is applicable for large multinationals, but it offers also to many small to medium companies possibilities to find totally new approaches to quality improvement, and thus a better ability for international competitiveness.

It is sometimes said that “There is nothing new in Six Sigma, so why bother?”. Those people are absolutely right! There are no new tools or tricks in Six Sigma with which you can easily – almost by doing nothing – turn your processes around on a sixpence.

But what, then, is Six Sigma? Six Sigma offers companies a totally new, scientific way to approach quality. It changes the way of thinking from quality systems or quality assurance to quality improvement. It forces companies to increase knowledge of their products and processes and in that way increase their competitiveness. It offers a bunch of very good and applicable tools presented in a new way. The use of these tools together with the growth in process know-how make it possible to increase the efficiency of processes and to reach the level of zero defects. Six Sigma is not a bed of roses, it is hard work, but it is surely worth deployment.

And finally: We must keep in our minds that in deployment of Six Sigma there is inevitably a huge change. That means changes in methods, tools, ways of working, etc. In every deployment process there are people involved, and people resist change. How can we address this fundamental issue? How can we overcome this resistance? Please consider this as the most important challenge for the Six Sigma deployments of tomorrow.

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