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***Estonia Dairy
Industry
Privatization
Final Report***

**Delivery Order No. 14
Estonia Dairy Industry**

**Project No. 180-0014
Contract No. EUR-0014-I-00-1056-00
Eastern European Enterprise
Restructuring and Privatization
Project**

**U.S. Agency for International
Development
EUR/RME**

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October 18, 1993

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Washington, D.C. 20523

**Re: Contract No. EUR-0014-I-00-1056-00, Delivery Order No.
14 - Estonia Dairy Industry Privatization, Final Report**

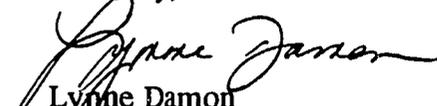
Dear Mr. Burns:

In accordance with Article IV of the referenced delivery order, please find enclosed four copies of the Final Report for this project. This report was prepared by Development Alternatives, Inc. (DAI) a subcontractor to Deloitte & Touche under the above-referenced contract.

The objective of this project was to privatize an agribusiness whose privatization would provide a model for agribusiness throughout Estonia.

If you have any questions or comments pertaining to this project or deliverable, please contact me at (202) 879-5386.

Sincerely,


Lynne Damon
Senior Consultant

Enclosure

**Estonia Food
Industry
Privatization**

**Final Project
Report**

Prepared for the U.S. Agency for International Development by Development Alternatives, Inc. under subcontract to Deloitte Touche Tohmatsu International, contract number IQC EUR 0014-I-00-1056-00

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October 1993



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THE PRIVATIZATION APPROACH AND IMPLEMENTATION

The Vaike-Maarja Model Privatization: Overview

The goal of the Estonia Food Industry Privatization Project was to privatize an agribusiness whose privatization would provide a model for agribusiness throughout Estonia. Replicability of the transaction was one of the most important factors in project approach and implementation. The selection of Vaike-Maarja as the agribusiness to privatize occurred only after Development Alternatives, Inc. (DAI) had conducted thorough analyses of the Estonian dairy subsector.¹ Described below are the steps undertaken by DAI in defining Vaike-Maarja as the model enterprise and effecting a transfer of ownership. The last section of the report highlights lessons learned from the project and discusses other potential interventions for the future, including those aimed at making Vaike-Maarja privatization self-sustaining and those aimed at sector-wide changes.

Rationale for Privatization

In nearly all cases, privatization of state-owned enterprises or parastatals results in increased efficiency and improved service. This is true whether the privatization occurs in a centrally planned economy, such as the former economy in Estonia, or in a mixed economy.² Examples of the benefits in a market-based economy — whether from privatization of food distribution companies common in Africa or from the broad privatization of industry, telecommunications, and services in Great Britain — include increased private investment, improved capital assets and other resources, better service, improved competition in the procurement of inputs, and more competitive price and cost structures — that is, a better relationship of price to cost.

For Estonia, the breakdown of the former central planning system and the move toward development of a market economic system are central to the rationale for privatization. Under central planning, credit, input, and output distribution were vertically integrated. In the agricultural sector, the government controlled prices (for raw milk, for example) and subsidized feed and fuel costs. The central planning system, however, was destroyed by a government mandate to eliminate inefficiencies in the agricultural sector by freeing agricultural units from forced use of state-owned input procurement and output distribution. As a result, new businesses trading in inputs, and new processors handling raw products are already starting to emerge, their decision making based on market economics and profitability.

Privatization at Vaike-Maarja and the other collectives is being driven by a government mandate stipulating that local collective reform commissions have complete authority over privatization of non-land assets of *agro-firmas* and that the privatization process be completed by January 1, 1993. But Vaike-Maarja is also driven to privatize so that it can maintain area employment and ensure continued utilization of all Vaike-Maarja fixed assets and operational assets that are not economically obsolete. Only through

¹ Vaike-Maarja is an *agro-firma* or *kombinaat*; that is, it comprises a collective farm and 30 associated enterprises, principal among them dairy production and processing, potato storage and processing, meat production and processing, and feed manufacturing. The term "collective" used hereafter to refer to Vaike-Maarja connotes the farm and the enterprises, not only the farm.

² Mixed economies include transitional economies such as those in Eastern Europe, including Estonia.

future economic growth and employment generation be ensured for employees of the Vaike-Maarja collective and residents of the town Vaike-Maarja. Privatization is driven by the following factors:

- The economic disintegration of the central planning system;
- The government mandate freeing agricultural units from forced use of state-owned input procurement and output distribution companies;
- Gains in efficiency generated by private ownership and economically based decision making;
- The income that physical assets can generate when operated under private ownership.

Dairy Industry Assessment

Phase I of the Estonia Food Industry project began with a comprehensive analysis of the Estonian dairy industry, which accounts for 75 percent of agribusiness in terms of value added. The analysis was to quantify the contribution of the dairy subsector to the Estonian economy and to delineate the obstacles to dairy subsector reform. In July and August 1992, five DAI staff members prepared the analyses presented in the Phase I report.

The industry assessment confirmed that the viability of the Estonian economy is inextricably tied to the viability of the dairy subsector. Agricultural output, the majority of it dairy output, constitutes approximately 25 percent of Estonian gross domestic product. Until successful agricultural reform is implemented, the sector will suffer from a variety of problems including lack of national policy, scarcity of production inputs and outputs, the political desire for food security, severe dislocations in resource allocation, and the inability of agriculture to provide sufficient income to state and collective farms and private farmers.

Triage

Selecting the enterprise for the privatization prototype was one of the most important tasks of the project because the success of the transaction depended on a commercially viable entity and the replicability of the transaction for other agribusinesses. These two issues — commercial viability and replicability — generated the triage criteria listed below:

- **Commitment to privatization.** The level of commitment of the municipal government and the employees and management of the enterprise to privatization was a determining factor. The process established by the state for restitution of land and privatization of collectives is bottom-up, requiring consensus at the local level. A commitment to privatization from all the participants in the process had to be shown.
- **Trained management and employees.** Because the implementation period of the project was short, the training level of the employees had to be high. Shortcomings in technical capability would have been almost impossible to manage.
- **Potential for foreign investment.** The need for Estonia to generate foreign investment through marketing, technical assistance, or investment and operational joint ventures is

immediate. Some firms and products that are more marketable than others or have products with export opportunities have greater potential for meeting this criterion.

DAI continues, long after the close of the project, to explore possible investment opportunities for Estonia's agricultural sector and the new private enterprises of Vaike-Maarja. We continue to work closely with several enterprises of Estonian Americans interested in agricultural development. One interest for a potential enterprise is expansion of the dairy processing plant into yogurt and ice cream making.

- **Quality standards.** A plant or enterprise must recognize and adhere to standards of product quality. These standards include levels of hygiene sufficient to pass international inspection (or the ability to upgrade to that level) and product consistency.
- **Comparative advantage.** The plant or other units must have a regional comparative advantage for domestic products or a competitive advantage for export products. This advantage means that the product is marketable, has stable domestic or international markets, and can be marketed within existing trade blocks and trade constraints.
- **Regional impact.** The importance and the size of candidate entities in a specific locale ensure greater attention to the project by municipal and other leaders. Because the privatization process is consensual, this commitment is essential.
- **Enterprise viability.** Enterprise viability depends on all the above criteria. In addition, it places importance on the competing uses of the land or other resources, the returns possible in the dairy industry, and the value and condition of the plant and equipment.
- **Replicability.** Replicability of the project for other reform commissions in the dairy industry, other subsectors in agriculture, and other municipalities (in the case of ancillary assets) is desired. The target enterprise should be selected based on its usefulness as a model to the other enterprises in Estonia and for training other reform commissions.

The top candidates for privatization are listed below, followed by an illustration of the scoring process.

- Vaike-Maarja — milk plant and farms
- Tartu Milk Kombinaat — milk plants
- Poltsamaa — milk plant and farms
- Tartu State Farm — farm, input supply association
- Viljandi — milk plant

SELECTION CRITERIA

Ranking: 1 (lowest) to 5 (highest)

	Vaike-Maarja	Poltsamaa	Tartu Milk Kombinaat
1. Management and Employees			
a. Commitment	5	3	2
b. Expertise	3	5	5
c. Receptivity	5	5	3
2. Reform Commission (commitment and receptivity)	5	5	N/A
3. Enterprise Viability			
a. Production	4	3	N/A
b. Processing	4	3	2
4. Quality Control	2	2	2
5. Replicability	5	4	2
6. Regional Impact	5	4	N/A
7. Comparative Advantage	4	3	4
8. Potential for Foreign Investment	3	3	1
Averages	4.09	3.63	2.63

In key areas, the qualifications for Poltsamaa and Vaike-Maarja were similar. In receptivity and commitment of the reform commissions, quality control, potential for foreign investment, and the totals in three rankings of management and employees, the enterprises scored identically. However, Vaike-Maarja's advantages in commercial viability and replicability resulted in its selection as counterpart. The dairy specialists fielded by DAI and Geonomics drew the following conclusions:

- The production and processing facilities were of higher quality at Vaike-Maarja.
- Vaike-Maarja enjoyed a comparative advantage because of several factors, including its central geographical location in the heart of Estonia's most arable region and a history of solid collective management that resulted in higher rates of capital reinvestment.
- Vaike-Maarja's privatization would have a greater impact on the region because it was the dominant employer in the 24,000-acre area, with 1,200 workers and 6,000 total dependents.

- Because of the above advantages, Vaike-Maarja would not only successfully privatize but would also survive commercially after privatization, thereby making the collective an ideal model for replication.

The final point deserves closer attention because it was marked by some disagreement during the process. Initially, the Estonian dairy community complained about the selection of Vaike-Maarja as the model farm for privatization because Vaike-Maarja was one of the most profitable collective farms in Estonia and, therefore, was not a representative candidate. It would be easier for a collective with deep resources to subsidize the costs and ease the dislocations of privatization than it would be for the average collective in Estonia. Instead, a more typical collective should have been chosen so that the privatization would be more applicable to a wider audience. Although this argument makes sense at first glance — indeed, DAI wrestled with this issue in the selection process — a closer look reveals significant flaws.

First and foremost, privatization, which is rooted in free market principles, is in direct contrast to the leanings of a command economy. Many, if not most, of the collective farms in Estonia will not survive in a free market economy. A large degree of consolidation will inevitably occur as the false market environment propped up by state price controls dissipates. Those enterprises that were dependent on state subsidies will collapse as free market practices remove the safety net for failing enterprises. Although Vaike-Maarja was not the typical Estonian dairy farm, it did share many characteristics of other Estonian farms regarding management structure, technical operations, input supply, and marketing and distribution of product.

Second, the primary goal for this project was to successfully privatize a collective farm so that a model would exist and could be instructive to other collective or state farms. The only way this process could take root and flourish was if the model farm were commercially viable and could sustain itself through the transition to a market economy. Because Vaike-Maarja enjoyed a profitable history, which gave it sufficient reserves to weather the severe economic conditions, and because of its access to natural resources, it was an ideal candidate for the prototype farm.

Counterpart Development

Counterpart development was an important component of the project's design, for two reasons. First, the project was originally conceived as a pilot privatization where one of the benefits would be a close working relationship with the DAI-Geonomics team to develop skills in privatization, management, restructuring, and analysis. Second, the mandate from Parliament for privatization to be driven at the local level meant that the reorganization and decision making during the privatization process would be carried out by a local group without skills in these areas; therefore, a close working relationship would be necessary for the project to be implemented successfully.

The project team began development of counterparts at the farm level. These included the collective reform commission and its chairperson, and the municipal privatization committee and its chairperson.³ The valuation of assets, determination of members' work points, allocation of vouchers, restitution of personal property, leasing or purchase of land from the collective, and sale of the enterprises were handled by these two bodies.

³ The municipal privatization committee provides oversight for distribution of state-owned assets. Like the collective reform commission, it is made up of local entrepreneurs.

Development of these counterparts is a significant part of the development benefit derived from the project. DAI staff were invited to all working and public meetings of the commission and the committee. DAI was asked for input when questions of efficiency, equity, procedure, or theory came up. This close working relationship created an easy give and take, which resulted in a positive learning environment. Project staff also met regularly with the members of both the commission and the committee in working sessions. These included meetings with the collective's attorney, who was overseeing the allocation of work points and the distribution of the vouchers. This process was always two-way; the team was asked for input and ideas.

In addition to farm counterparts, which were important to the successful conclusion of this activity, the team also cooperated with counterparts at the Ministry of Agriculture. The most important counterparts were Malle Klassen and Olav Kart of the Ministry's Foreign Relations Department. These counterparts were instrumental in getting the attention of the Ministry and members of Parliament to attend our national seminars as speakers and participants. The counterparts were also responsible for the smooth introduction of the DAI-Geonomics team into the planning and implementation process. The stress caused by the parliamentary deadline and mandate to local processes was immense, but the quality of the counterparts and of our relationship with them was critical in the final successful outcome of the privatization of Vaike-Maarja.

The local counterparts were also responsible for the project team's participation in several county meetings on the valuation and privatization process. One of these meetings was a session for all the collective privatization committees in the surrounding counties, hosted by Rakvere County. We made a one-hour presentation and then participated in a question-and-answer session on the process and implementation of privatization. These opportunities for wider dissemination of our capabilities provided additional development capacity, extending the limited resources we had to work with on the project. We believe that this capacity added significantly to the overall success of the project beyond that of the transfer of ownership.

Enterprise Evaluation

A key aspect of the successful fragmentation and privatization of Vaike-Maarja is the enterprise evaluation carried on by the project team. The team objective in the evaluations was to visit each potential separate enterprise, look at the interactions with the other enterprises in the collective, collect financial data on them sufficient to do a simple pro forma financial statement, and rank those enterprises identified as potentially viable. It is important when considering a privatization by fragmentation to have careful analysis done for each enterprise, because selecting those capable of operating successfully in a newly private market is essential to success.

The evaluation process began with a member of the project team visiting every potential enterprise (33 appeared to be potential stand-alone enterprises) and having an in-depth meeting with the manager and staff of the enterprise. This meeting allowed us to see the operation and to get reliable and consistent operating, scale, and sales data. We were also able to see any potential conflicts that might be a problem for the enterprise. This was also an important time for the team to evaluate the condition and capacity of the physical plant.

When the visits were complete, an enterprise evaluation was prepared including financial information gained from the enterprise and additional data from the collective's accountant. The results and preliminary findings of the evaluations were discussed with Mr. Maasepp and Mr. Liblikmann, the chairperson of the reform commission and the chairperson of the collective, respectively. The team

provided the chairpersons with evaluations on the enterprises and an estimated ranking of their potential for successful privatization. It was agreed at this time that the cheese plant and the dairy production enterprises would be selected as the pilot enterprises for preparation of business plans. The business planning process was also conducted as a counterpart activity because business plans needed to be prepared for each of the 33 enterprises to determine those that had the best chance of survival and as a check against the valuations done by the reform commission. It should be noted that Parliament mandated that business plans be prepared as part of the decision process as well.

Privatization Options — Restitution versus Commercialization

The debate over compensating expropriated property holders in kind — which requires liquidating or disbanding intracollective operating units to disburse the assets contained therein — versus maintaining the commercial structure of the operating units and compensating claimants in the form of equity is one of the most controversial and heated debates at the collective level. It is also the most threatening to the process of agribusiness reform in Estonia.

DAI was a staunch advocate of commercialization and promoted this alternative in several forums. At Vaike-Maarja, the DAI-Geonomics team consistently voiced its opinion at weekly reform commission meetings, at privatization committee meetings, with senior-level management, and with enterprise managers. Furthermore, the team stressed commercialization at the seminars held in Tallinn and Tartu — where it was able to address the national agribusiness community — and at the Ministry of Agriculture. The organized eleventh-hour challenge to the Vaike-Maarja privatization plan gives evidence of the strength and immediacy of this debate.

The failure of this challenge is testimony to the team's ability to convince potential owners of the importance of commercial redeployment of assets and to convince them that the creation of individual shareholder value, in the medium and long terms, outweighs the immediate benefits of ownership of specific assets.

In addition, the business and reform plans that were prepared, resulting from the team's efforts to carve individual enterprises — not assets — from the collective, were based on the assumption that individual businesses could be successfully created from the whole of the collective.

Comparative Advantage Positioning

Comparative advantage was considered in the analysis and evaluation of the enterprises when determining those able to stand alone as separate businesses. Comparative and competitive advantage analyses were prepared based on the pro forma costs of production for the enterprises and the border pricing of products. Comparative advantage should be part of any evaluation of enterprises able to stand on their own. We made sure that the counterparts were closely involved in preparing the comparative analysis so they could see how important it was in assessing viability over the long run. As an example, the team evaluation indicated that the fish enterprise at Vaike-Maarja was not large enough to be suitable as a stand-alone enterprise, its cost of production was too high to be competitive, there was a very small local market, and the border prices of competitive products from Northern Europe were impossible to achieve. This is a clear case of competitive advantage analysis used in the selection of enterprises for valuation and bidding.

Comparative advantage was also a consideration in the business promotion of a distribution network for input supply that DAI carried on. In discussions with the leaders of the farmers' union and three of the largest trading companies (state-owned), the concept of a cooperative of input suppliers was discussed. The idea was that those enterprises such as grain milling, feed manufacturing, and so on that many of the larger collectives were carrying on as enterprises provided the basis for stand-alone enterprises linked by a cooperative to allow effective distribution. Comparative advantage again played a major role in the discussion because of its importance in deciding which fertilizer or feed manufacturers were the most competitive and which products could be supplied by imports at a large enough margin compared with local provision to make quota or duty support of the domestic industry impractical.

Restating Financial Statements

A prerequisite for potential foreign investment in Vaike-Maarja is an accurate and legible set of financial statements. The records that had been kept by the Vaike-Maarja accounting staff revolved around production figures. While profits were recorded at the collective level, they were incongruous with generally accepted accounting principles and failed to break out the profit potential for the independent operating units. For 14 days, DAI fielded an American specialist in Soviet-style accounting to reformat Estonian financial statements into European Community style. The deliverables for this task were balance sheets and income statements for the collective, as well as pro forma balance sheets and income statements for the milk production barns and the dairy processing plant. Pro forma statements had to be created for the two operating units because it was impossible to gather any data that accurately reflected the financial condition of these units as stand-alone entities. The new financial statements were incorporated into the business plans, where they formed the foundation for five-year financial projections for both enterprises.

Voucher Distribution and Valuation

All the transactions of the Vaike-Maarja privatization were financed through the use of vouchers. In November 1992, vouchers were distributed to approximately 2,000 current or previous collective members. Eligibility for voucher recipients had been detailed in the September 1992 monthly report. Vouchers were based upon the number of days an individual had worked at the collective or one of its predecessors. The Vaike-Maarja Collective Farm was valued at EEK 41 million (US\$3.28 million).⁴ Less a set-aside pool of EEK 3 million to cover state claims, the remaining EEK 39 million valuation was divided by a denominator of 5 million total workdays to yield a single voucher value of EEK 7.8 (US\$0.62).⁵ The average disbursement per person was EEK 1,855 (US\$148.40) per year worked.

Transfer of Ownership

Effective February 1, 1993, 27 of the 33 operating units of the Vaike-Maarja Collective Farm were owned and operated by private interests. Of the 27 units, the most commercially viable — defined in terms of expected revenue generation, employment potential, and contribution to the Vaike-Maarja

⁴ All currency translations assume US\$1.00 equals EEK 12.50.

⁵ Numbers do not add to exact amounts because of use of an average currency conversion factor and because of rounding.

region — are the seven milk production barns and the milk processing plant, as identified by the team in July and August 1992.

As detailed in the monthly reports submitted by DAI, auctions for all non-land assets of the Vaike-Maarja Collective Farm were held in late December 1992 and early January 1993. To be an eligible bidder in the auctions, an interested party had to submit a statement of interest in a certain asset on or before December 7, 1992. At that date, a bidding group expressed interest in the milk processing plant; the 67 percent stake held by the Vaike-Maarja Collective Farm was spun off for EEK 504,000 (approximately US\$40,320). The bidding group comprised 30 individuals, including current management and employees of the milk plant and other collective dairy farmers. The members of the bidding group are all members of the local All-Milk Union, which — as it controls the majority stake — elected a Board of Directors and management on February 16, 1993.

All seven milk production units (cow barns) were sold to the highest bidder at the general auction held on January 11, 1993. The average price for the milk production units was EEK 705,631 (US\$56,450), including cattle.

It is important to note that on December 14, 1992, an emergency meeting of the Vaike-Maarja Collective was held, at which a former chairman offered to return to office and manage the collective if the privatization process were curbed. Two days later, a vote was taken in which the anti-reform camp lost by a ratio of 1.3 to 1. This eleventh-hour challenge is testimony to the strength of the debate at the collective level, not just at Vaike-Maarja, but throughout the country.

Business Planning

The creation of business plans for intracollective enterprises served a dual role. In the short run, the business plans served as reform plans for presentation to the reform commission (specifically for the cow barns and the milk processing plant). The reform plans are required to show the commission that the enterprise can stand alone, is economically viable, and has value to the community. For the longer run, the business plans addressed fundamental issues with which new owners, even if involved in enterprise or collective management, previously were not involved, including market definition, production levels, product pricing, financial accounting, employment patterns, and quality standards. All the collective enterprises were organized for vertical operation; operations were integrally linked with input, production, and processing activities at Vaike-Maarja and were linked to other state-owned enterprises. These enterprises will no longer be able to rely on state-controlled credit, procurement, or distribution; they need to begin building alternative business relationships. The business plans provide the new managers with guidance and advice on building successful enterprises in the new market environment.

The business plans included projections of operations for at least five years, including projected revenues and capital expenditures. Engaging enterprise managers in this activity not only educates them in the dynamics of running a business, but also introduces alternative methods of valuation. The worth of a business as an ongoing cash-generating concern, rather than simply the aggregate of assets on hand, was promulgated — a major shift from viewing the importance of an enterprise as an entity capable of meeting production quota.

Seminars and Workshops

During the first week of November 1992, the DAI-Geonomics team presented two full-day seminars. The objective of the seminars was to create a forum in which U.S. dairy experts and Estonian government officials could meet with Estonian agribusiness managers and reform commissions to reach a better understanding of what is required for privatization reform. The seminars were held in Tallinn, the capital and seat of the national government, and in Tartu, the heart of the Estonian agricultural sector. Each session had an average attendance of approximately 250 people. The seminars were structured to elicit response from the audience and, thus, included a morning of lectures followed by an afternoon of individual workshops in which the audience was prompted to participate. The workshops, targeted at audiences of 25 people, covered topics key to agribusiness commercialization, such as financial and strategic planning, marketing, and farm operations. During the morning overview, general issues on agribusiness reform were discussed. Government representatives spoke at both seminars.

Collaboration with Other A.I.D. Programs

Several USAID-funded organizations participated in the seminars, including Volunteers in Overseas Cooperative Assistance (VOCA) and the U.S. Peace Corps. In addition, all the activities and monthly reports of the project were shared with VOCA's local representative in Estonia. Near the end of the project, the Peace Corps placed in Rakvere a young M.B.A., who visited the farm, was given a summary of the activities carried out, and visited the final reform commission meeting before the auction of assets occurred. We encouraged the VOCA representative to develop an enterprise development program for the enterprises that were privatized, because the DAI contract did not provide for continuing enterprise development or support.

WHAT WE LEARNED

Perhaps the clearest result of the seminars presented by DAI and Geonomics was that the Estonian agribusiness community is enthusiastic and needs to learn more about reform. At both seminars, questions revolved around a two general themes:

- **Asset Division and Valuation.** How to divide and transfer ownership when there is not enough money in the countryside of Estonia; and
- **Credit.** Once ownership is transferred, how new owners can run successful businesses without access to credit.

The Vaike-Maarja model provided answers to the first concern, and the national government representatives were called upon to answer the second. The Vaike-Maarja privatization was an example where participation vouchers were extended to all members of the collective in proportion to the number of years they had worked there. It was with these vouchers that the privatization of the collective was financed.

The credit issue is one of the most important issues surrounding the emergence of a private Estonian dairy subsector. The need for credit institutions, in the form of agricultural banks or some other type of institution, is clearly recognized by the government and is being answered. In the example of the Vaike-Maarja privatization, a local credit bank was being set up with the profit that the collective's

now-defunct headquarters made from the asset auctions. While sector-level reform is imperative to the survival of the industry, this grassroots organization is encouraging, nonetheless.

Needs for the Future and Importance of Enterprise Development

DAI's insight into the dynamics of the Estonian privatization process is rooted in a unique understanding of the political, business, and legal environments. As such, there are several major lessons that the team has learned about the agricultural industry at the national, sector, and local levels.

The following problems have been identified as major impediments to Estonia's successful transition to a market economy. They are broadly focused and apply to all industries, yet have direct implications for agribusiness.

- **National: Ministerial Needs, Long-Term Advisor.** The objective of this technical assistance component is to provide ongoing advice at the national level designed to strengthen the capacity of the Ministry of Agriculture or other appropriate government institutions to promulgate sound agribusiness management, financing, and marketing practices. Areas of technical assistance would include those shown below:
 - Transaction Guidelines;
 - Export Guidelines;
 - Quality Standards;
 - Use of Subsidies for Industry Support;
 - Foreign Investment Guidelines;
 - Land Reform Guidelines; and
 - Food Security.
- **Sector.** The following problems have been identified as issues that must be resolved if the Estonian agribusiness sector is going to satisfy its domestic market needs and compete successfully in a world market:
 - **Sector Reform Needed.** The lack of experience at the sector level gives rise to a need for assistance in the following areas:
 - Production Standards,
 - Quality Standards,
 - Finance and Accounting Standards,
 - Credit Development, and
 - Marketing and Distribution Linkages.
 - **Development of a Domestic Agribusiness Market.** Inevitable short-run disruptions because of lack of capital, shortage of inputs and services, and lack of quality production can be managed with appropriate attention to the allocation of scarce

resources. In addition, assistance provided in this area would be linked to the development of cooperative input and supply systems.

- **Local.** From extensive work with the management of the Vaike-Maarja Collective Farm, managers of intracollective units, and private farmers, the following enterprise-level challenges to the development of a competitive agribusiness sector have become apparent:
 - **Markets for Agribusiness Products.** Introduction of realistic relationships between price and quality in the competition for sales of products will provide positive economic pressure to the new enterprises and will ensure that economic and market signals determine comparative advantage.
 - **Modern Agricultural Financial and Management Techniques are Lacking.** Although farm management practices are fundamentally sound in regard to production, there is little understanding of operating a business in a free market. The opportunity for significant impact is large with business plans, financial statements and cash flows, farm level accounting, and the necessary shift from Soviet-style bookkeeping.
 - **Restitution versus Commercialization.** The debate on restitution versus commercialization poses a significant threat to wide-reaching agribusiness reform. Cultural traditions tied to individual farming, fears of unemployment, and distrust and misunderstanding of a free market system prevent many Estonian farmers from embracing the privatization process. From its experience at Vaike-Maarja, DAI successfully worked with both sides — with the reform movement, which is promoting full restitution, and with existing enterprises, for which commercialization of an operation seems realistic — in an attempt to resolve this debate. This is a major issue that has to be addressed up front in planning for the privatization of the remaining farms in Estonia.

Proposed Approach of DAI and Deloitte Touche Tohmatsu International for Follow-On Privatization and Enterprise Development

The general objectives of the Estonia project were to analyze alternatives for privatization, advise the government on the privatization of agribusinesses, and implement a prototype privatization. This was then proposed to be followed up with a mass privatization and enterprise development as Phase III to leverage the work completed in this project. The program would begin with regional seminars on food industry privatization based on DAI's 24-year history in the sector. Seminars would be followed immediately with development of a central administrative and technical unit in Tallinn to provide logistical, government, and A.I.D. interface and a public education and advertising campaign. Next, regional support units would be established as determined by the assessment of the food industry in the different regions. The continuing support would consist of privatization support services; assistance in management, accounting, and analysis; and business strategy and planning. Wholesale services by these implementation units would consist of videotapes, guides, other training materials developed by the team, and hands-on seminars. The retail services would consist of direct technical assistance as demanded by the individual owners and managers of new or privatizing entities.

The purpose of the follow-on activities is to ensure sufficient demand for provision of outside technical services and transfer of capabilities to sustain reforms including management, operations, credit, accounting, and analysis skills. In addition, the privatization implementation will help sustain the

momentum for reforms and smooth the process of transition and entry into the market system. If properly implemented, this approach will help ensure an open, transparent reform process that includes as participants the workers, the management, investors of all types, and the national and local political leadership.

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ANNEX A
LIST OF ASSESSMENT VISITS

APPENDIX I

TEAM VISITS: JULY 1 TO JULY 30, 1992

Ministry of Agriculture

Mr. Aavo Molder (minister)
Mr. Olav Kart
Mr. Meeliste
Ms. Malle Klaassen
(2 staff specialists on input supply and chemicals)

Ms. Inge Barkala
Mr. Renaldo Mandmets
Mr. Elmar Waldmann

Estonian Dairy Association

Mr. Arno Kannike
Mr. Mati Kalamees

Giga Aktsiaselts (JV with Finnish Company)

Mr. Tiit Veeber

Tartu Kombinaat

Mr. Mati Pihlak
Various plant personnel (manager, quality control, engineer)
Rannu Cheese Plant

Tartu County Government

Mr. Ants Verliin
Mr. Juri Kruisealle

School of Agrarian Management

Mr. Juri Jarviste
Mr. Juri Ginter
Mr. Mati Tamm

Land Bank (Tartu)

Mr. Lembit Kitter
Mr. Anton Viigi

Maaleht National Rural Newspaper

Mr. Raul Kilgas

TEAM VISITS: JULY 1 TO JULY 30, 1992 (Cont'd)

Poltsamaa Dairy Plant

Mr. Jaak Oidram

Poltsamaa Municipal Government

Rapla Cooperative Farm

Mr. Mart Viileberg

Tallinn Dairy Plant

Mr. Aare Annus

Tallinn Poultry Factory

Mr. Madis Peegel

Mr. Enn Kadde

Aatmaa Dairy Farm

Mr. Tet Kukk

Kalju Collective Farm

Mr. Andres Vinni

Lennau Collective Farm

Kavastu Private Milk Processing Plant

Emajoe Collective Farm

Reform Commission in Luunja

Ulenurme State Farm

Mr. Toomas U. Saag

Estkompexim (Estonian/ Swiss JV)

Mr. Juri Asari

Vaike-Maarja Collective Farm

Mr. Peeter Albi

Mr. Endel Maesepp

Viljandi Collective Farm

Viljandi Maakond

Mr. Ants Velleste, Agriculture Councilor

Viljandi Teraviljasaduste Kombinaat

Mr. Vello Kala

TEAM VISITS: JULY 1 TO JULY 30, 1992 (Cont'd)

Volunteers in Cooperative Assistance (VOCA)

Ms. Maive Rute

Kose Quark Factory

Private Estonians

Mr. T. Ivask

Baltic News Services

Mr. Alan Martison

Estonian Grain Board

Mr. Yuta Keskula

ANNEX B

BASELINE INFORMATION MATRIX FOR DAIRY EVALUATION

APPENDIX II

Baseline Dairy Evaluation Matrix

CRITERIA	Status As Of Date	Bacteria Count	Fat and Protein Content	Dairy and Milk Shelf Life	Milk Powder Exports	Cheese Exports	Energy Consumption	Asset Valuations	Accounting Standards	Legal Documentation
DAIRY SITES										
Vaike Maarja Cheese Plant										
Vaike Maarja Reform Commission										
Vaike Maarja Collective (farm)										
Vaike Maarja Support Services										
Poltsamaa Cheese Plant										
Poltsamaa Collectives (multiple farms)										
Poltsamaa State Farms (multiple farms)										
Poltsamaa Reform Commission										
Poltsamaa Municipalities Commission										
Tartu Milk Kombinaat (general)										
Cheese Plant										
Fluid Milk Plant										
NDM Plant										
Butter Plant										

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ANNEX C

**SUMMARY CHARACTERISTICS OF ESTONIAN
AGRICULTURE AT PROJECT IMPLEMENTATION**

A Field Report prepared as a briefing paper for the visit of Frank Almaguer, A.I.D. Regional Mission Director for Europe

DEVELOPMENT ALTERNATIVES, INC.
WASHINGTON, D.C.

GEONOMICS INSTITUTE
MIDDLEBURY, VERMONT

VAIKE-MAARJA COLLECTIVE FARM

OVERVIEW: THE FARM

One of the largest collective farms in Estonia, Vaike-Maarja is comprised of 9,630 hectares (approximately 24,000 acres, of which slightly more than half is cultivated) and employs 1,200 people. With dependents, Vaike-Maarja provides employment, housing, schooling and other benefits to half of the region's population of 12,000 people.

Vaike-Maarja is primarily a dairy farm, with most of its revenue generated from milk production and processing. Seven cattle sheds, each with approximately 215 head of cattle, account for the 8,000 tons of milk produced annually. Virtually all of the milk produced is processed at the Collective's cheese factory, which employs 60 people and produces cheese, butter, cream and milk. In 1991, 1,600 metric tons (1,000 kilograms/metric ton) of cheese, 32 metric tons of butter, 1,700 metric tons of cream and 1,300 metric tons of milk were processed. Total Revenues for the activities of the Collective were 93,600M roubles in 1991. Cheese factory products are sold to private and state retail shops, in-plant feeders and a small number of wholesalers.

Other livestock activity at Vaike-Maarja consists of pig and poultry raising, an artificial insemination center, and an abattoir. The slaughter-house has a capacity of 7,000 chickens/day and 70 head of cattle or 200 pigs/day. Most of its production is sold as meat to wholesalers, but canned and smoked meat is also sold for human consumption and for dog food. The slaughter-house, along with the meat processing plant, employs close to 100 people.

Almost all of the remaining resources of the Collective are used to support dairy production. Of the approximately 4,700 hectares of cultivated land, 1,440 are under grain, 245 are under potatoes and 2,470 are under perennial field grass. On the average, 8,000 tons of grass granule, 2,000 tons of hay, and 7,000 tons of silage are produced from field grass per year.

Additional assets include: chalk mine and mineral feed processing plant; feed and grain processing and storage facilities; chicken incubation facility and hen barn; potato storage and processing facility; truck/machinery repair shop; timber mill; and trout hatchery.

CURRENT ISSUES: ESTONIAN AGRICULTURE

Estonian agriculture is undergoing rapid transition from a centrally-planned agricultural production center to a market-driven agricultural niche producer.

- Estonian agriculture suffers from lack of direction, a dearth of sound management practices, and poor leadership at the national level.
- To survive, the sector will need investment capital, increased profits, an understanding of Western agribusiness practices and technical assistance from donors.
- Privatization will allow the state to assess rationally its agricultural assets and determine their most efficient, productive use.
- The privatization of agricultural assets will be a much more complicated process than the nationalization of those same assets which took place immediately after the establishment of Soviet control in 1940.

Significant debate continues at the national, county, and local level, regarding the restoration of agricultural assets.

- The country enjoyed a high level of agricultural output during the period of independence from 1920-1940 (on a level comparable with Norway and Finland); this output was accomplished by a well-motivated and deeply-rooted agrarian society of small land owners.
- Restitution of these lands to individual owners is a stated goal of the present government, yet it is clear that modern agricultural techniques do not lend themselves to the types of agricultural practices prevalent during the period of independence.

The Law on Agricultural Privatization of March 12, 1992 provides for the privatization of agricultural assets (except land), under the authority of local Reform Commissions.

- These commissions have been empowered to approve the privatization plans of state and collective farms, subject to confirmation of the county government in which the assets are located.
- The commissions are also responsible for the compilation and valuation of all agricultural assets.

"Spontaneous" privatization has occurred.

- Certain collectives and state farms have formed joint stock companies.
- Employees and management are shareholders with the right to use assets formerly viewed as common property.
- These legally incorporated companies have only tacit approval of the central government in the privatization process. It is conceivable, however, that these companies will form the basis of emerging private entities within the sector.

Tumultuous change within the sector has resulted in an overall production decrease. For example, local consumption requirements of 450 kg of milk products and 80 kg of meat products have been met in recent years by the importation of animal feed grain from the Soviet Union in the amount of 500,000 tons per annum. In 1991-1992, due to disruptions in the Former Soviet Union and the lack of liquidity in the Estonian banking system, a shortage of feed imports has caused a 50 percent reduction in meat production and a 40 percent reduction in milk production. Production is expected to decline further due to a lack of working capital on most farms. Estonian food security is threatened; underdeployment of agricultural assets is a possibility. A substantial increase in rural unemployment looms.

Without significant capital investment, improved profitability, technological improvements, free market access, and donor participation, Estonia will continue to experience food shortages and economic dislocation.

ESTONIA FOOD INDUSTRY PRIVATIZATION: THE PROJECT

The United States Agency for International Development has committed significant resources to the privatization of the vast assets and human resources of the Vaike-Maarja Collective Farm. AID's contractors have assembled an experienced team--composed of investment bankers, a financial analyst, an attorney, an accountant, agribusiness marketing specialists, a dairy extension agent, a milk processing specialist, economists--to provide the assistance necessary to transform Vaike-Maarja from a collective with centralized management to a series of individual, profitable, entrepreneur-owned businesses. The stated goal of the project are to:

- 1) Establish a stand alone production facility, such as a cow barn, with related land, grazing and storage facilities;
- 2) Establish a stand alone processing facility, such as a cheese, butter, cream processing facility, with related input systems;
- 3) Establish a cooperative input-distribution system for the independent businesses which emerge from the Collective, and which can form the basis of a national dairy cooperative.

Phase I work commenced in July with an assessment of the state and collective farms in Estonia, culminating in the selection of Vaike-Maarja as the project site. This selection was based upon evaluation criteria such as regional impact, receptivity to privatization, activity of the Reform Commission, state of the Collective's facilities, potential for product improvement, and marketing potential abroad.

Phase II work commenced at Vaike-Maarja in August. In coordination with the Ministry of Agriculture and the approval of the local AID representative, management of the farm, the local Reform Commission and the municipal authorities were informed that an AID team would be working at Vaike-Maarja until January 31, 1993, with the above stated three objectives. Specific enterprise selection was achieved in early September, notably a cow barn, a processing plant and the nascent Milk Union as collaborators to achieve the objectives.

The week of October 12 is one of the most intense of the project. Specialists from every field contracted for the project in Vaike-Maarja will be present. By the end of October, business plans, financial statements, capital requirements, processing/production improvements will have been identified and discussed with Collective management and the likely new owners at the enterprises.

During the first week of November (November 3 in Tallinn; November 5 in Tartu), two conferences, "Agribusiness Reform: Challenges of Privatization" will be held. Reform Commission members, staff of the Ministry of Agriculture, private farmers, agribusiness

entrepreneurs, and potential foreign investors have been invited. The goal of the workshops is to introduce the findings and procedures of the Vaike-Maarja project to a national audience, and, using Vaike-Maarja as a model, to quantify the often ambiguous techniques of privatization. The team of consultants presenting the conference will then be available for approximately ten days after the conference for individual consultations throughout the country for those Reform Commissions, management groups or farmers which desire site visits and tailored advice on their privatization approach.



ANNEX D

**ESTONIAN DAIRY SUBSECTOR SITUATION AND PRIVATIZATION
ASSESSMENT**

by
Michael Claudon and Robert Otto

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ESTONIAN DAIRY SECTOR SITUATION AND PRIVATIZATION ASSESSMENT

Michael Claudon, Geonomics Institute
Robert Otto, Development Alternatives, Inc.

Summary

A combination of very high prices for inputs — especially fuel — and outputs, feed shortages, and a very dry season has greatly reduced both current and forecast milk, butter, and cheese output and consumption. Under the worst-case-scenario forecast prepared by the Estonian Dairy Association, 1992 per capita milk and meat consumption will fall to 70% and 26% of recommended consumption levels, respectively.

On June 20, Estonia became the first former Soviet republic to introduce its own national currency, the kroon. Each permanent resident was given three days to exchange up to 1,500 rubles for kroon at a 10:1 (rubles:kroon) rate. Thereafter, the rate fell to 50:1.

Implementation rules for the agricultural privatization law have been enacted, and the associated reform commissions have been established. Farm privatization is proceeding, both within the law and in spite of the law. Parliament has set January 1 as the deadline for restructuring and privatization of all state and collective farms, a goal that appears problematical, given the complex and numerous issues yet to be resolved on collective and state farms, but reflects the Estonians' sense of urgency to get the process started.

As legislation on land ownership has not been enacted, shareholding companies, operating using land, machinery, cows, and buildings leased from the local collective farm are the most common among privatizations accomplished to date.

Privatization of processing enterprises remains under the direct control of the Ministry of Agriculture, and is not bound by the January 1 deadline; or under the care, control, and custody of privatization commissions. There appears to have emerged a national political consensus that dairies, cheese plants, and meat processing facilities will be privatized as producers' cooperatives.

Foreign Trade

The demise of the Soviet Union, therefore, has meant the loss of 40% of Estonian intra-USSR markets. Not only have these markets been lost for the time being, Estonia can no longer rely on the former Soviet Union for imports of cheap fuel, fertilizer, and feed (especially grain). Food prices are rising sharply at the retail level in the face of rising fuel and energy prices and dwindling feed supplies. At the same time, the bulk price for raw milk paid to the farmer has fallen over 30% in the wake of monetary reform.

Neither can Estonia continue to rely on subsidization from the Center (Moscow) to finance its negative balance for trade outside of the former USSR's fifteen republics. As shown in Table 1, in 1990, Estonia ran a 570 million ruble deficit in its non-USSR trade. Imports were dominated by two categories: machinery and equipment (40%) and industrial consumer goods (19%). To the extent that Estonia exported goods outside the former Soviet Union, sales were concentrated in machinery and equipment (25%), industrial consumer goods (26%), processed foodstuffs (21%), and chemical products (19%).

While Estonia regained its sovereignty by the demise of the Soviet Union, freedom has also meant losing the ability to rely on the Center to finance essential imports from non-Soviet sources. Estonia now must confront not only the challenge of achieving domestic economic renewal, economic redevelopment will be constrained by the import capacity of its exports to hard currency markets.

Table 1
Estonian Foreign Trade By Commodity in 1990*

Commodity	Value (mil. rubles)			Distribution (%)	
	Exports	Imports	Balance	Exports	Imports
Machinery & Equipment	27	270	-243	24.8	39.8
Fuels & Metals	2	66	-64	1.8	9.8
Chemical Products	21	23	-2	19.3	3.4
Building Materials	2	12	-10	1.8	1.8
Non-food Raw Materials	6	56	-50	5.5	8.3
Live Animals	0	2	-2	0	0.3
Food Raw Materials	0	46	-46	0	6.8
Processed Foodstuffs	23	64	-41	21.1	9.4
Industrial Consumer Goods	28	131	-103	25.7	19.3
Material Services	0	9	-9	0	1.3
Total	109	679	-570	100	100

*Excludes trade with the republics of the former Soviet Union.

Source: PlanEcon

Agricultural Production and Consumption

Privatization and marketization will eventually propel growing efficiency and competitiveness in Estonian agriculture. For the present, however, loss of Soviet markets and input supplies, the breakup of the state and collective farms, restitution to former owners, combined with an extremely dry and cool growing season are conspiring to dramatically shrink forecast 1992 food production and consumption.

Table 2
Estonian Food Production and Consumption, Selected Commodities, 1970 - 2000

Production	1970	1980	1985	1989	1990	1991	1992*	1995*	2000*
Gross Milk (1,000 tons)	1025	1170	1260	1258	1200	1070	800	750	1000
Milk Yield/Cow (KG)	3315	3658	4045	4230	4164	4200	3600		
Milk per Capita (KG)	751	759	821	807	758	674	500	470	620
Meat per Capita (KG)	100	133			139	74	60		
Grain per Capita (KG)	532	809			744	592	380		
Per capita Consumption (KG)									Target
Milk & milk products	420	453	489	479	487		370		455
Meat & poultry	73	82	89	83	84		42		86
Potatoes	151	122	113	110	103		120		141
Vegetables	80	83	79	81	64		74		130
Bread		96			77		100		94

*Forecast by Estonian Dairy Association, June, 1992.

Sources: Estonian Dairy Association, "The Present State of Agriculture and Prognosis of Food Production in Estonia" (June, 1992); CCCP, "Esti Statistika Aastaraamat," 1990; Ministry of Agriculture of Estonia, "Agrifacts About Estonia, From 1970 till 1989," (Tallinn, 1990).

During the Soviet period, Estonia consistently "marketed" between 40% and 42% of its annual milk and milk products output through the CCCP's system of state orders. In 1988, for

example, 515,000 of a total 1,220,000 tons (42%) of milk and milk products were shipped to the All-Union (CCCP) Milk Fund and sold through the state procurement system. Virtually all of the production entering the state procurement system was exported to other Soviet republics. The remaining output was marketed domestically through internal distribution channels.

While a few collective farms and state milk plants have begun exporting to Scandinavia and Western Europe, the overwhelming majority have simply cut back production in response to the lost markets.

As shown in Table 2, total milk production, output per cow, and per capita milk production are forecast to fall sharply in 1992. Consumption is falling very sharply as well, as Estonia cannot use imported commodities to supplant diminished local supplies.

Shortages of feed, and especially of imported grain, are already forcing slaughtering of cattle and pigs. Hog operations are especially hard hit, with population reductions reported widely at levels hovering around 80%. Cattle and dairy herd numbers are being cut in the 30% to 40% range, as of mid-1992, with the expectation that slaughtering will continue in the face of mounting feed shortages. Barring an unexpected improvement in the situation, herd reductions are expected to continue through 1994.

Monetary Reform and Banking

Currency reform. With its introduction on June 20, the kroon became the only legal tender in Estonia. Between June 20 and June 22, permanent residents were entitled to a one-time exchange of 1,500 rubles for kroon at a rate of 10:1.¹ Thereafter, the ruble/kroon exchange rate fell to 50:1.

The currency reform legislation stipulates that the kroon be tied to the German deutschemark, and that it float within three percentage points of the target rate set by the Bank of Estonia (currently 8 kroon:1 DM).

A stabilization fund of \$10 million in foreign currency reserves and 12 tons of gold that was deposited in Western banks prior to WW II has been established. Additional collateral in the form of Estonia's forests — estimated value \$150 million — is backing a stabilization loan (line of credit). The IMF approved the introduction of the new currency, having deemed the technical preparations for conversion sufficient for the purposes of introducing the new currency. Continued IMF support is conditioned, however, on implementing federal budget, price level, and income policies that promise to bring raging inflation and interest rates averaging 19% to 20% under control.

Capital formation. The Estonian Rural Bank is being reformed into a mortgage bank. Its prime focus will be rural finance and land mortgages. Those institutional changes notwithstanding, the central challenge to indigenous capital formation is that the people have no savings, and the banks have no resources to lend. Absent property legislation enabling Estonians to take title to their land, provision of collateral upon which to base loans will be limited to buildings, machinery, and animals.

Property Law for Estonian Agriculture

Passed into law in March 1992, the agriculture sector reform act is now a reality in Estonia. Implementing regulations have in part been voted out of parliament, and the process is moving forward. In summary, the law is a uniquely Estonian approach to the problems of privatization. It embodies the flexibility that a government of a fairly homogeneous, basically politically

¹ According to "Baltic Business Report," July 1992, 1,401,617 of the 1,554,192 eligible residents participated in the currency conversion.

united and determined population can employ to achieve a difficult common goal — privatization of the agriculture sector of a former republic of the Soviet Union.

The objectives of the law include:

- To create specific owners of property, regardless of whether they are the State, municipalities, stock companies, or private owners. The concept of joint property is introduced versus common property.
- To provide for compensation for nationalized or collectivized property.
- To stimulate the development of new enterprises.
- To turn back to municipalities social functions and social infrastructure.
- To increase efficiency and rural standards of living.

The Estonian government defines the following rights:

- Workers on state and collective farms are the farm's owners with full rights to determine what will be done with the assets of the farm.
- The right of the State to compensation for property that belonged to the State before 1940 as well as buildings constructed since then that were built with State funds or loans.
- Farms are obliged to turn over social assets to the municipalities.
- The right to decide whether property is subject to compulsory privatization within the timetable of the privatization program or whether the period may be extended.

Under the law, a number of outcomes are possible. For example, the farm can be transferred in whole or in part to the workers for their disposition. Workers may decide to start a cooperative with all or part of the farm's assets, partition the farm into individual units to operate as separate and independent enterprises, or sell the assets for salvage and deploy the proceeds as they see fit. Whatever approach is chosen by the workers is considered *prima facie* evidence of the best approach for privatization of that farm.

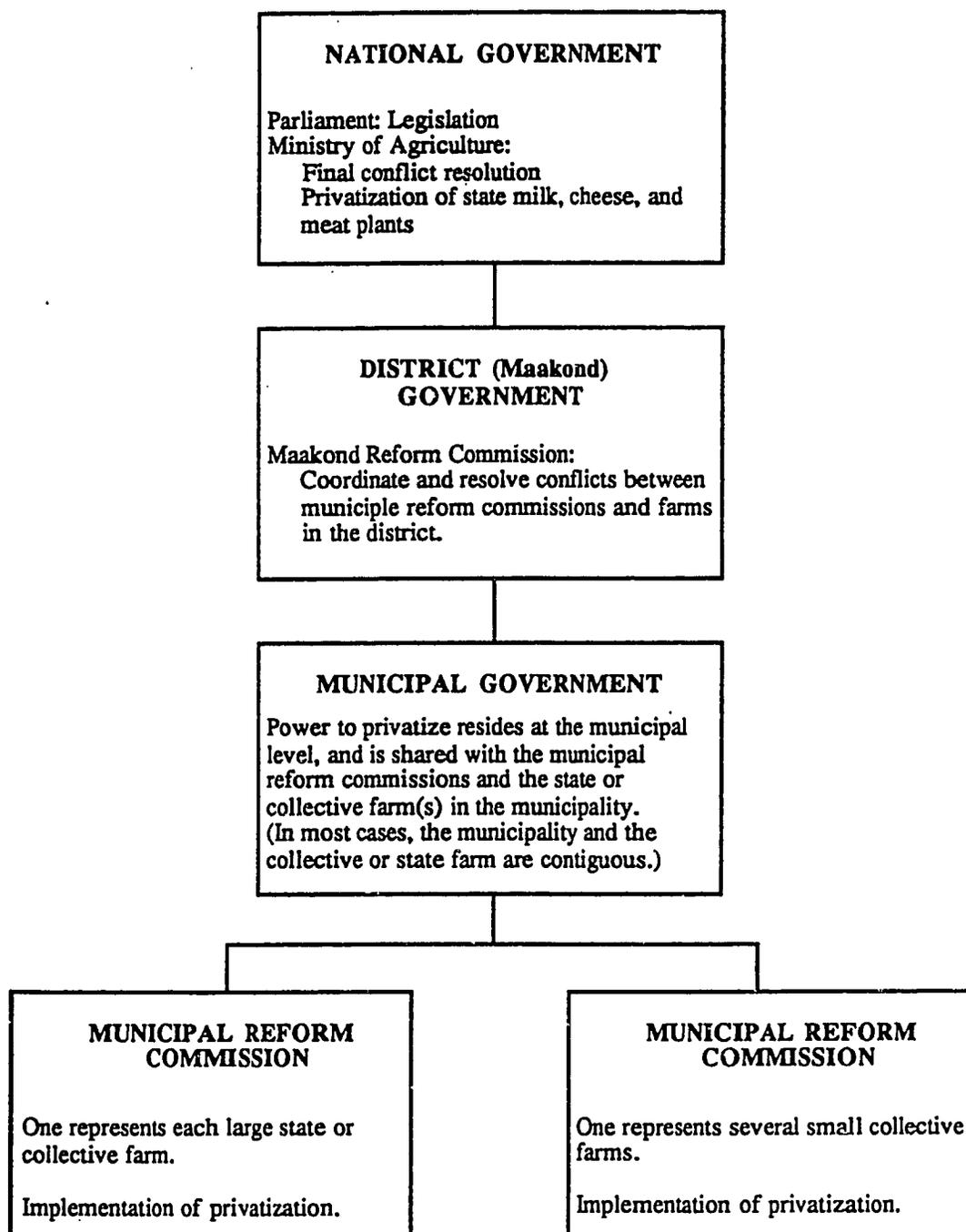
The law provides for a very short period for the distribution of the assets. Not including land and key processing facilities, the reform of the sector is set to occur before January 1, 1993. Some managers and reform commission members are concerned that there is insufficient time to prepare an adequate program. However, the consensus of opinion is clearly that it is time to get on with the process.

Under the law, ownership of the former collective and state farms' social assets transfers to the local (municipal) governments (Figure 1). The latter will assume responsibility for the buildings, specialists, and operations. Note: an absence of funding, or clear funding mechanism, remains as a significant obstacle to achieving these transfers.

Agricultural reform (privatization) commissions. The Government has set up a system of reform commissions to facilitate and oversee the process of collective and state farm privatization. Organized at the collective farm, municipal, and district levels, these commissions have the authority and responsibility to define the future of their farming assets.

The commissions have several functions. These include asset inventory and valuation, consensus gathering re approaches to privatization, adjudication of local conflicts, and execution of the reform plan as directed by the owners of the assets.

Figure 1



While the municipal and district commissions can influence the ultimate course of privatization, exist to coordinate the privatization process, and serve as a vehicle for conflict resolution, the real engine of agricultural privatization is invested in the local (farm-level) reform commissions.² They have the bulk of the responsibility and authority for determining what assets are to be placed in private hands, how decollectivization will be accomplished, and who will receive what in the division.

Typically, the local commission is composed of members from the farm, the municipality that will be affected by the reforms, the county government, affected private farmers, and national representatives. For example, the Emajoe Collective Farm (Luunja) reform commission has 10 people (three collective farmers, three private farmers, three municipal employees, and a representative from national government) with an 11th person joining — in this case an agricultural advisor from the county.

In addition to deciding how the productive assets of the farm are deployed in the new market-led regime, the commissions are also responsible for working out how public assets, like schools, heating plants, and other public facilities are treated. There is the presumption that municipalities are to take all assets given to them, and that they will find the means to finance their operations. In the instance of housing blocks and schools, the decisions seem straightforward.

In the instance of more exotic assets like sports complexes, the decisions of the farm to cede them to the municipality may not be followed. There is little local experience with taxation, and the ability of the community to pay for these services and facilities may be in question. However, there is little evidence at hand that municipalities will turn back newly privatized assets because they are not able to afford them at this time.

Counter-example. Not all farm privatization is proceeding via the reform commission channel. For example, the Tallinn Poultry Farm, which also controlled a 12,000 hectare farm and 5,000 head of cattle, including 1,750 dairy cows, unilaterally privatized the dairy farm in March.

In 1982, the local collective dairy farm was combined with the poultry farm. Last spring, the land and dairy farm buildings were divided into five private farms, and new owners were installed on each on a lease basis.

A/S AATMAA, one of the new joint stock companies, is owned by three people. It operates on 950 hectares, using 50 workers, 25 tractors, 580 dairy cows, 100 heifers, and 200 pigs. Average milk production is 5,000 liters.

The "owners" are leasing everything from the collective poultry farm. They keep their production of milk and calves. Their milk is marketed to the Tallinn Milk Combinat, but they are not being paid.

The former owners of these lands are still alive, and the restitution issue has not been resolved. The lack of clear title, the absence of a farm credit system, and inability to purchase sufficient feed are their major problems.

The reform commissions, especially the farm-level commissions, are without doubt the key

²Farm/commission relations, especially those between the farm director and the local commission, are an extremely important ingredient in choosing the privatization targets. These relations are a substantial source of conflict and social problems. In some cases the director will oppose breaking up the collective (state) farm assets into several independent operations, only to have the local commission insist on such a process, and conversely.

institutional factors in the process of decollectivizing the sector. They are charged with making all of the fundamental decisions surrounding the enactment of the law. They are also charged with execution of the decisions of the community. There will be an appeal process available to farmer workers who are not happy with the division of assets or the commissions' plans for the future of the farm. However, the commissions have the authority to proceed in a rapid and dramatic fashion to basically transform the production segment and the collectivized portion of the processing segment to private ownership.

Restitution to former owners. According to Mati Tamm and Yuri Ginter of the Higher School of Rural Management, and co-authors of the agricultural privatization legislation, nothing will happen in the area of restitution until October 1, at the earliest. Until that time, the disposition of collective and state farmlands upon which Estonians alive during the pre-Soviet period, or their heirs, claim ownership rights, will remain moot.

Land privatization. At the current time, a "privatized" farm can rent land on a long-term basis, but cannot own it outright. The agricultural privatization law places a five-year limit on the time provided to resolve kolkhoz and sovhoz land ownership questions.

The local government has the right to decide which lands may not be restored to previous owners. It also has the authority to dictate that the previous owners must rent land to the local farm or, in exchange for recovering control of that land, grow forage on a contract basis for the farm.

The timing of privatization is seen as crucial. Now is the moment to privatize and reform the healthy farms, before they become financially distressed. These farms are able to privatize themselves, but face psychologically based resistance.

According to the agricultural privatization law and the subsequently enacted implementing rules, shares in newly privatized farms and dairy sector companies can be traded. However, there are too few financial resources among Estonians to support making a market in such shares. The expectation is that the lack of financial resources will result in an extremely thin market and downward pressure on share prices.

The main near-term constraints to privatization are seen as: maintaining employment and production; the slow emergence of a rural credit system; fuel costs and their impact on price setting; the need to develop product, management, and marketing strategies; and the lack of legislation on land ownership.

Farm asset valuation. There is agreement that former owners must be compensated for assets lost through nationalization. Additionally, farm assets are to be divided among managers and workers using length-of-service based shares. However, the valuation of nationalized property and assets remains as an unfinished task.

Local government has the right not to return lands and real estate improvements that have become social assets, viz., museums, schools, etc. However, the land valuation procedure/methodology for purposes of its eventual sale to new owners or setting monetary compensation for prior owners has not been established.

Animal, machinery, and equipment valuation will be based on a 1940 cow-based purchasing power parity formula. In 1940, for example, one dairy cow cost approximately 12 times the price of a plow. That dairy cow now costs approximately 600 kroon. For asset disbursement purposes, therefore, a plow will be valued at 50 kroon. A farm worker "purchases" a plow by exchanging 50 kroon of his shares for the implement.

State vs. collective farm restructuring and privatization. Collective farms have always been collectively owned. Therefore, it is a relatively easy task to privatize into share companies with ownership divided among the workers on a pro rata basis (as is stipulated by the agricultural privatization law). A worker's share will vary positively with the duration of survival, and (possibly) with the level of wages, in much the same way that ownership has been implied during the period of collectivization.

State farms, by contrast, have no such history. The state owned them, and the workers toiled for monetary and in-kind wages. No implied or actual ownership rights were conferred based on years of service, income levels, or levels of responsibility.

Estonian Dairy Association

Dairies and cheese plants are being privatized as shareholding companies. Save for those owned and operated by state and collective farms, milk and cheese plant privatization remains the province of the Ministry of Agriculture. Both the State Property Agency (Ministry of Economy) and staff of the Ministry of Agriculture reported that a national political decision has been made to privatize state processing plants as producers' cooperatives.

The Estonian Dairy Association is a nongovernmental, nonpolitical association of milk processors, cheese plants, and related dairy sector enterprises. Among its members are the Esti Dairy Development Center, a private effort; dairies throughout the country; two cold storage enterprises; Esti Engineering, which develops operating and construction plans for dairies and cheese plants; one collective farm; joint ventures; the technical college in Tallinn; and Tartu University.

The Association's mission is to coordinate training, education, dairy science, and foreign relations among dairy associations. It is also trying to make foreign (market) contacts and develop contracts based on those contacts.

ANNEX E

TECHNICAL EVALUATION OF SELECTED MILK PROCESSING PLANTS

**Technical Evaluation of a Selection of Milk Processing Plants
Estonia Food Industry Privatization Project
July 9-16, 1992**

Jon Rooney, V.P. Plant Operations, Monument Farms, Inc.

Summary Observations:

The milk processing plants of the Tartu region produce several high quality goods, including cheese, keefir, sour cream, butter and quark (a dry, very fine-curd cheese product). The processed fluid milk, however, is of a significantly lower quality.

The capacity of the processing plants is comparable to many plants in the United States. The processing equipment is mainly Soviet-manufactured, while packaging equipment was imported from the U.S., Scandinavia, or East Germany.

Problems:

A decline in trade with Russia has caused shortages of spare parts for the Soviet equipment. Many plant managers are bartering their butter and cheese for parts and other needed equipment available only in Russia.

All of the plants reported decreases in production compared to last year, and all but one or two have excess capacity. In several cases, production has slowed down due to a lack of storage for finished products.

Most of the plants operate at a low level of automation compared to plants in the United States, relying instead on a cheap and abundant Estonian labor supply, comprised mainly of women.

One of the major problems facing the Estonian processing plants is the quality of the raw milk supply. Of the four grades of raw milk available, the highest grade, with no more than 300,000 bacteria per ml., is significantly inferior to the American minimal standard of less than 100,000 bacteria per ml.

As a result, dairies can guarantee their milk for only 24 hours once it leaves the plant. The only method for dealing with these high bacteria counts is sterilization, which severely affects the taste of the milk. More milk is therefore flowing into the manufacture of chesses and other products in which the bad flavor is less noticeable, and the consumption of fluid milk continues to decline.

Assessments:

I feel that the market for fluid milk has much greater potential than is being realized at this time. Very positive results could be achieved in Estonia at relatively little expense. The effect of high quality products on the overall profitability of any business, especially a dairy plant, cannot be overstated. To improve the quality of raw milk the following factors must be addressed:

- poor or improper cooling methods on the farm
- lack of sufficient cleaning chemicals
- improperly installed or poorly maintained equipment.

TRIP LOG:**Tartu Milk Kombinat**

The Kombinat consists of six separate plants. The one visited was the main plant located in the center of the city, which processes the majority of the Kombinat's milk.

Products: fluid milk, keefir, sour cream, quark, Edam-type cheese, and butter

Observations:

The director of the Kombinat, plant manager, quality control manager, and plant engineer are all quite sharp, with a good grasp of current market situations, both domestic and abroad.

The plant currently processes 70 metric tons of milk per day. With the separator and pasteurizer/homogenizer running at 15,000 liters per hour — the plant is not running at full capacity. This has been the case for the past three to four months, mainly due to a lack of raw milk.

Assets:

- Some very good equipment, including Westphalia separator with automatic standardizing system and good bottle filler;
- A fair degree of mechanization;
- Well equipped laboratory, capable of both chemical and bacterial analyses;
- Knowledgeable quality control section.

Drawbacks:

- Majority of equipment is quite old;
- Poor quality storage tanks for raw and pasteurized products. The interiors of the tanks are made of aluminum, which can erode in the presence of milk and cleaning chemicals. U.S. regulations stipulate that only stainless steel be used on milk contact surfaces.

Assessments:

This is a plant capable of processing a rather substantial amount of milk, using some fairly advanced equipment. The people involved in the management and operations of the plant are both hard-working and knowledgeable. However, its facilities are dilapidated and equipment is of bad quality, causing very poor sanitary conditions.

July 11, 1992

Rannu Cheese Plant

Part of the Tartu Milk Kombinat

Products: Edam cheese, butter, processed cheese, whey butter

Observations:

This plant is a good, tight operation and produces a very good product despite its somewhat small size.

The plant produces approximately 100 tons of cheese a month. It works seven days a week and delivers cheese directly to stores daily, except Sunday. Cheese is produced using three 5,500 liter open-top round cheese vats with center agitators and a more modern 12,000 liter round covered vat.

Assets:

- Produces high-quality cheese;
- Produces a variety of products utilizing the by-products of cheese production;
- Has Cheese-making equipment in good condition, although fairly old.

Drawbacks:

- Salt brine tanks in disrepair due to cracking of tiles lining the interiors.

Assessments:

In my opinion, one of the plant's main limiting factors is that its storage capacity (aging and curing rooms) cannot handle much of an increase in production. However, the manager of the plant plans to replace the three smaller cheese vats with larger size vats (12,000 l). Cold storage would then remain as the sole limiting factor.

July 12, 1992

Lennu State Farm

Observations:

This state farm is presently milking approximately 450 cows, with an average production rate of 13.5 liters per cow (6075 liters per day). It ships its milk daily to the Tartu Milk Kombinat.

Facilities:

- One 2-barn building featuring: 400 cow capacity; separate pipeline systems; common storage system with four 800-liter refrigerated tanks; fully operational condition.
- Second, larger facility featuring: 840 cow holding capacity; new, modern design; six semi-modern parlor pits holding 10 cows each; three bulk tanks holding 4,800-5,000 liters each; Modern manure handling system, not presently in operation.
- 12,000 ton grain elevator, large enough to store grain produced on the farm or purchased concentrates.

Assessments:

This farm is of some interest because the director, along with at least three other workers, has expressed a great interest in building a privately-owned processing plant on the farm. The four principles possess a great deal of experience in both milk production and milk processing among them. The farm's pre-existing equipment and facilities give it a significant advantage over smaller farms. I see no reason why this particular farm should not be able to produce milk efficiently.

July 14, 1992

Kalju Collective Farm

Andres Vinni, Director

Observations:

This collective farms possesses many small barns, one of which we visited after talking with Mr. Vinni.

Assets:

The farm is in the process of installing a manure pump, indicating willingness and desire to innovate.

Drawbacks:

The farm has a 20-30 year old milking system that is unable to handle any increase in herd size

Assessments:

The director of the collective is interested in revamping the antiquated and small-capacity skim powder and butter plant on the farm. He already purchased a vacuum drier, although it is not assembled. The building itself is old, but contains an over-sized heat plant which could easily produce enough steam for the production of dry powder. He would also like to build a new facility to house the vacuum pan and butter churn.

There is little equipment that I could evaluate at this time. However, Mr. Vinni seems to be a thoughtful and careful planner who has a way with people, as was confirmed by a second source.

Poltsamaa Processing Plant

Yaak Oidram, Director

Products: Estonian cheese, butter, drinking milk, keefir.

Observations:

This plant is a joint stock company, employing approximately 125 people. Thirty are involved in the actual processing, with the remaining employees working in administration and outside activities (construction, maintenance, shipping, etc.)

The plant processes approximately 96,000 liters of raw milk per day. The milk is shipped to the plant by both state (83%) and collective (17%) farms, using a state-owned shipping company.

The skim milk by-product of butter production is sold to another plant for skim powder production or to farmers for feed.

The cheese is sold throughout Estonia and exported to Scandinavia. The plant produces 1500 kg of cheese per day.

The butter is sold to stores in a bulk size of 10 kg. They do not package any cheese in retail-sized containers.

The plant sells milk only to kindergartens and schools, packaged in 40 liter cans similar to dispenser cans used in the U.S. 30-40 years ago.

Facilities and Equipment:

- Capacity to handle four trucks at once; good unloading and CIP washing system;
- Storage facilities include: four 30,000 liter upright silos, three 50,000-liter silos which are not yet hooked up;
- Processing equipment includes: two very old, 10,000-liter per hour plate heat exchangers, one tube heat exchanger/cream pasteurizer, four old, Russian-made 10,000-liter per hour separators, one batch-type 6-ton butter churn;
- three traditional, horizontal, coverless 4,500 liter cheese vats — all fines are recovered; whey is separated to recover lost fat;
- Small, old, less than clean curing and cold storage facilities;
- Completely manual salt brine tank.

Assessments:

The interior of the plant is old and run down. Overall, however, the plant is cleaner and in better physical shape than most. Especially the raw receiving area was in good condition — almost up to U.S. standards.

I believe the plant could definitely find a market in which to sell more fluid milk, but at the present time they do not have the packaging capacity for this product.

This plant has a relatively high volume of production which needs a good deal of work in certain areas. The main problem spots are automation/mechanization and processing equipment. This equipment is very old and Russian-made, making spare parts difficult to find.

July 15, 1992
Vaike Maarja

Observations:

This is the first complete collective I have seen to date. It possesses 10,000 hectares of land and 1200 employees. It is equipped with its own slaughterhouse and factory for pelletizing forages for cattle feed.

Products: milk, beef, pork, poultry, cheese, butter and skim milk.

Milk Processing Facilities:

The collective farm produces 6,000 liters of milk per cow, far more than the national average of 1,400 liters per cow. The farm has a large barn with capacity for 260 cows in tie-stalls; it is airy, spacious, and very clean. A calf-raising facility is not yet in operation. The milking system has a significant drawback — it consists of a small diameter glass pipeline with many dips and rises, which may cause rancidity or lipolysis of the fat in the milk.

The processing plant is an old building. However, the receiving equipment is in excellent condition with air removers and flow-meters from East Germany. The plant processes 90,000 liters per day, seven days per week. The plant has raw storage capacity of 60,000 liters, necessitating the 7-day work week. The raw milk is processed into cheese, butter, and skim powder, which is exported or used in animal feed.

The plant uses old Russian pasteurizing equipment with a capacity of 15,000 liters per hour. The total daily processing time is 8 hours.

Cheese Making Facilities:

There are two 10,000 liter cheese vats, each vat easily making two batches of cheese a day. The pressing and draining equipment is in excellent condition, with totally automatic cleaning systems for portable cheese molds. There is a well automated washing and wrapping system. Forklifts (the first seen on the trip) are used to move and load cheese onto shipping trucks.

Laboratory:

- Standard tests and equipment.
- Russian infrared fat analyzer.
- No capacity to measure protein in raw milk, a vital element in cheese manufacturing.

Assessments:

This plant, while containing some old equipment, is in extremely good condition. It is very clean and is more fully automated than any other plant visited on the trip. The laboratory facilities were disappointing, but sufficient.

Again, this plant really stands out compared to all others I have seen. It could even give some plants in the United States a run for their money. A substantial amount of money has obviously been invested into the facility, and it has yielded a nice, smoothly running facility.

July 16, 1992
Tallinn Milk Factory

Observations:

This is a very large facility, handling at least twice as much milk as any of the other plants I visited. Three years ago this facility processed almost 700,000 pounds of milk per day. Although the present volume is considerably lower, again the problem is a lack of raw milk, as well as a general slump in the Estonian economy.

Facilities & Equipment:

The layout and equipment in this plant are very similar to that found in American processing plants. Although the processing equipment is mostly Soviet-made, the Swedish and American packaging equipment is modern and in very good condition. This plant possesses by far the highest level of automation I saw in Estonia.

Main Drawback: Poor fluid milk quality.

Assessments:

This is an extremely nice plant, but I feel that the ever-present quality problems hinder the plant from reaching its full potential.

The milk can be guaranteed for only 24 hours, placing a great deal of stress on the distribution system and decreasing consumers' confidence in the product. At one dairy store, customers examined every bottle of fluid milk carefully before making their purchase. In some cases, they rejected bottles handed to them, saying the milk was already sour.

SUMMARY:

Each plant I visited has its own strengths and weaknesses. In some cases, the strengths were represented by employees who possess a great deal of knowledge of the dairy business and who desire to improve their facilities and products. At other plants, the equipment and facilities were the strongest points.

The Tartu Milk Kombinat is an example of a plant with poor equipment and physical conditions, yet it is staffed with people who understand the changes needed to be made. This can represent as great an opportunity for further development as a plant which is in physically superior shape. In the case of the Tartu Milk Kombinat, the project will create more visible and obvious improvements.

The processing plant at the Vaike Maarja collective farm is the best all-around plant of the five visited, in terms of present conditions and quality. Because they produce few

products, the operation is simple and runs smoothly, which generally means a more efficient, economical business. This plant is the most mechanized and automated, with many features common to modern Western cheese plants, and it produces a consistently high-quality product.

I feel that the Vaike Maarja plant would most easily satisfy the needs of this project. It is presently operational and almost completely equipped, requiring relatively little additional input. Again, the simplicity of this plant impressed me. A large product line tends to create new inefficiencies and amplify existing ones, placing more demand on management. A plant utilizing its facilities to produce a limited product line has to be more efficient than the same size plant producing many different products.

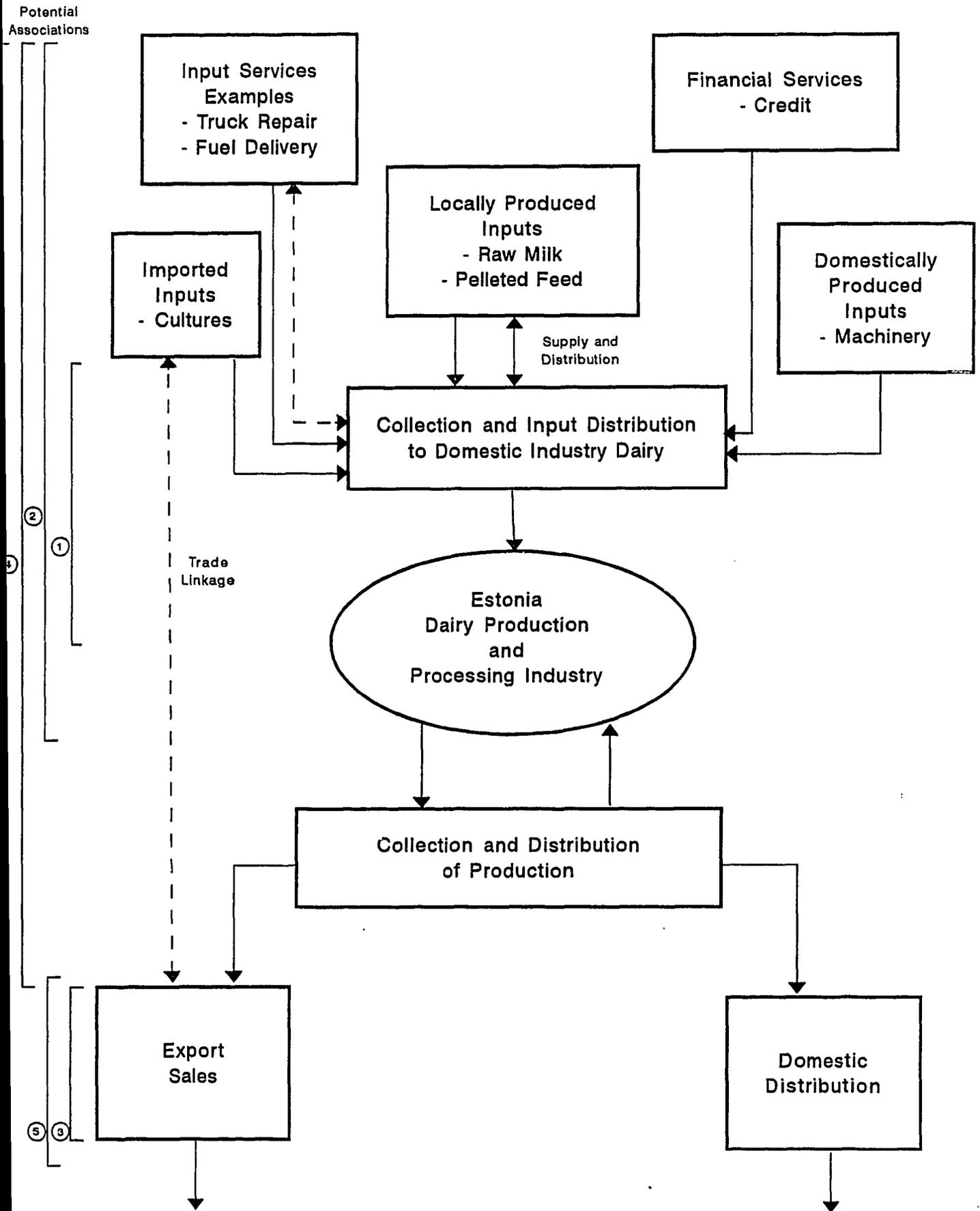
More generally, I feel that the development of a processing facility producing a high-quality "drinking milk" would not only greatly increase the visibility of this privatization project, it would also contribute greatly to increased domestic consumption of dairy products. Of all products in the Estonian dairy industry, "drinking milk" has, without a doubt, the most room for improvement. It is my feeling that some of the lines of people waiting to buy milk were caused more by a desire to purchase the product before it spoiled than by actual shortages of milk. Poor quality is more obvious in this relatively unprocessed product in comparison to cultured products, which have stronger flavor characteristics to mask the objectionable defects

High-quality fluid milk would almost instantly publicize the project. This would increase competition, an extremely beneficial development, as it is my feeling that the processing facilities are too lenient in accepting low-quality fresh dairy products.

ANNEX F

**MODEL OF POTENTIAL INPUT/OUTPUT PRODUCTION AND
DISTRIBUTION ASSOCIATION**

EXAMPLE INPUT/OUTPUT DISTRIBUTION ASSOCIATION



ANNEX G

ESTONIA DAIRY MARKET SUMMARY

by
Rich Magnani

SUMMARY OF THE ESTONIAN DAIRY MARKET

PRODUCTION TRENDS

Estonia is a surplus milk producer (Table 1). However, production has declined since 1989. The major reason is that subsidized feed grains from the former Soviet Union are no longer available. As a consequence, feed grain prices are now essentially at world market prices. For example, average barley prices in 1991 were about US\$30 per metric ton, compared with \$100 per metric ton in 1992. Coupled with a severe cash liquidity crisis, farmers do not have the money to buy feed concentrates.

TABLE 1

ESTONIA MILK PRODUCTION AND CONSUMPTION 000 metric tons (Milk Equivalent)

	<u>1985</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u> <u>(est.)</u>
Domestic Production	1,260	1,258	1,200	1,070	800
Domestic Consumption	735	748	831	770	600
Exports	525	510	369	300	200

(On-farm milk consumption is estimated at 60,000 metric tons.)

Another production problem has been a very dry growing season, which has reduced domestic fodder production and caused farmers to reduce per animal feeding rates. Fuel prices have also increased dramatically, again because of a lack of subsidized imports from the former Soviet Union. The result has been a decrease in numbers of cows (because of stock liquidation) and a decrease in milk yield per cow (Table 2).

TABLE 2

NUMBERS OF COWS AND MILK YIELD

	<u>1985</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u> <u>(est.)</u>
Cow Numbers (000s)	308	301	293	281	264
Milk Yield/Cow (kg/year)	4,090	4,184	4,083	3,810	3,027

Dairy production is concentrated in approximately 385 state and collective farms; 120 are state-owned and 265 are collectives. The trend has shown increases in the number of collective farms, while state farm numbers have declined. The average size of the state farms is 3,821 hectares; collective farms average 3,688 hectares. A typical herd size on the larger farms is 400+ cows. About 35 of the 385 farms are considered major, in terms of size.

Private dairy farms numbered about 7,225 in mid-1992, up from 3,600 in early 1991 and 5,200 in mid-1991. Of course, private farms are much smaller than state or collective farms, at about 26 hectares and 2-10 cows. The proportion of milk produced on private farms is increasing rapidly (Table 3).

TABLE 3
MILK PRODUCTION BY PRIVATE AND STATE OR COLLECTIVE FARMS
(percent)

	<u>1985</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u> (est.)
Private Production	18	15	18	24	38
State/Collective Production	82	85	82	76	62

Collective farms are considered more efficiently operated than state farms. On the collective farms, members are given ownership in fixed assets other than the land. However, production on private farms is considerably higher. Average raw milk yields are about 4,100 kilograms per year on state and collective farms, compared with up to 7,000 kilograms on private farms. One key difference is that collective farms tend to have more young stock, in their first or second lactation. Cows are often moved out of the state farms, necessitating their replacement with younger, lower-yielding stock. Estonian milk yield peaks at about the fourth or fifth lactation. The yield differences can be remedied with improved feeds and animal management.

The key problems related to milk production are:

- Lack of farmer education;
- Poor milking equipment;
- Poor cooling systems; and
- Lack of proper feeds.

These problems result in high bacteria levels, which substantially reduce the time before spoilage occurs. On the other hand, the genetics of the cow herds are good.

Prior to the recent decrease in yield, Estonia yields in 1989 were above others in the former Soviet Union and in Central and Eastern Europe. Table 4 shows some examples of comparative milk yields.

TABLE 4
YIELD PER COW, 1989
(kilogram and year)

Estonia	4,184
Czechoslovakia	3,910
Lithuania	3,674
Latvia	3,604
Poland	3,356
Bulgaria	3,349
Ukraine	2,918
Russia	2,774
Romania	2,081

Consumption Trends

As shown in Table 1, consumption has not decreased as much or as fast as production. The result has been a greater reduction in exports. However, dairy consumption decreased substantially in late 1991 and early 1992 because of an extremely rapid increase in retail prices (Table 5).

TABLE 5
AVERAGE ESTONIA RETAIL DAIRY PRODUCTS PRICES
(rubles)

	1991			1992		
	Jan	Mar	Dec	Jan	Feb	March Thru May
3.5% milk (0.5 liter)	.72	.85	.85	2.53	8.7	11
10% sweet cream (0.5 liter)	1.02	1.12	1.65	8.62	10.32	-
35% sour cream (0.2 liter)	0.74	0.81	1.19	27	61.7	47
Quark (250 gm)	0.7	-	-	6.22	20	25.3
Cheese (kg)	8	9	-	21	19	115-127
Kafir (liter)	-	0.9	1.4	2.9		11.45
Butter (kg)	-	-	-	30	164	131-162

The impact on per capita consumption (in kilograms) has been:

<u>1985</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992 (est.)</u>
821	807	758	674	502

Processors

Dairy processing is dominated by the 11 state-operated dairy processors. Most processors have satellite plants called departments. The total identified number of state-owned processing plants is 38 (Table 6).

TABLE 6

STATE-OWNED DAIRY PROCESSING KOMBINAATS AND SATELLITE PLANTS

<u>Kombinaat and Headquarters Plant</u>	<u>Satellite Plants</u>
Tallin	Kiiu Raagiku
Kose	Keila Laane Nigula Lihula
Tartu	Rannu Noo Elva Vastse-Kuuste Alatskivi
Parnu	Jaagupi Vandra Selja Koonga Tostamaa Volvveti Haademeeste
Valga	Otepaa Torva
Viljandi	Tarvastu
Rakvere	Annikvere Linnuse Vaika Maarja
Paide	Jarva-Jaani
Saaramaa	Vawala
Kohtla-Jarve	Narva
Polva	-
Voru	-

Seven dairy plants are reported as privately owned. We have identified six as spin-offs from the Tartu and Tallin kombinaats. The private plants are Poltsama, Jogeva, Palamuse, Rapla, Vigala, and Emhaste.

Milk Disposition

The primary market outlet for milk is butter, followed by whole milk products and cheese (Table 7). The Russian export numbers refer to milk exports only. Russian exports of processed products are detailed below.

TABLE 7
MILK OUTLETS
000 metric tons (Milk Equivalent)

	<u>1989</u>	<u>1990</u>	<u>1991</u>
Export to Russia	35	28	20
Whole Milk Products ^a	317	342	320
Butter	691	646	584
Cheese	137	108	107
Powder	39	38	32
Other	<u>40</u>	<u>38</u>	<u>26</u>
Total	1,259	1,200	1,070

^aWhole milk products include fluid milk, kefir, sweet and sour creams, and quark.

Milk Production Costs

Average production costs on the 30 largest state farms increased dramatically in 1992, reaching 833 kroon per metric ton, up from 65 rubles in 1991 (Table 8).

TABLE 8
MILK PRODUCTION COSTS

	<u>1991</u> <u>(rubles/kg)</u>	<u>1992</u> <u>(kroon/kg)</u>
Labor	13	63
Feed	29	307
Dprn	2	8
Maintenance	2	73
Transport	2	52
Admin	11	106
Other	<u>7</u>	<u>183</u>
Total	65	833
Prices Paid Producer	30	720-800 (higher grade)

These data suggest that producers are losing money. However, reaction was mixed in field interviews, with some processors and dairy farmers reporting losses and others reporting profits. We conclude that these data are reasonable and that farmers on state-owned dairies are indeed incurring losses. Collective and private production costs were reported to be 10-25 percent lower compared with state-owned dairies. This suggests that more efficient producers are making a profit, of perhaps up to 50 kroon per metric ton, or even 175 kroon per metric ton. However, one private dairy, Aatmaa, reported a loss of 64 kroon per metric ton of raw milk; its average milk yields of 5,000 kilograms exceed the state farm average. Aatmaa reports that its July loss will exceed 64 kroon because of increasing fuel prices.

Another dairy at Vaike Maarja reported yields of 6,000 kilograms and costs of 700 kroon per metric ton, which would make it the most profitable dairy farm visited.

Some of the private processors have been able to offer higher prices than state processors for milk. For example, in late 1991, raw milk supplies were increasingly diverted to nonfat dry milk (NDM) production because export prices were so favorable, reported to be about US\$800 per metric ton. Ravala Ltd., an association of private farmers representing about 20 percent of Estonian milk production, was able to outbid the state dairy plants for raw milk at a time when milk prices still were not liberalized. Ravala does not own processing capacity but, reportedly, had the NDM toll processed by the Tallinn Kombinaat. Finally, the government instituted a subsidy to farmers to divert more raw milk supplies back to domestic production. These subsidies are no longer in force. Part of the problem was caused by severe liquidity problems in Estonian agriculture, as retail prices increased, consumption fell, and retail shops lacked cash to pay dairy processors, who, in turn, were unable to pay dairy farmers.

Processing Costs and Margins

Cheese is the most profitable dairy product, yielding processing margins of up to 30 percent compared with margins of about 5 percent for fluid milk and butter (based on prices in the Tartu area). Tallinn Kombinaat reports margins of 15 percent on non-cheese products, but its plant is far more efficient than the Tartu plant. Reliable processing costs and margins for NDM were not available.

Distribution is simple and direct. Processors sell F.O.B. from their plant and ship direct to the retail shops. As of June 1992, a government agency established limits on wholesale prices for state-owned dairy plants. For example, the Tallinn Kombinaat can charge no more than 1.40 kroon per liter for Tetra-pack milk, although its processing costs are reported as 1.45 kroon. Interestingly, the price ceiling is the same for bottled milk, where the profit margin is about 15 percent, but the plant cannot obtain enough foil to shift all production to bottled milk. The wholesale price control extends to 10 percent cream and kefir. It reported profit margins of about 15 percent on other products not governed by price controls.

TABLE 9

DAIRY PROCESSING COSTS AND MARKET PRICES
(kroon per metric ton)

	<u>Cheese</u>	<u>Butter</u>	<u>Milk(3.5%)</u>
Milk Costs	6,337	10,290	673
Fuel	4,345	292	39
Labor	141	78	10
Maintenance	137	124	13
Transport	335	1,213	67
Other	<u>732</u>	<u>431</u>	<u>55</u>
Total	8,116	12,408	857
Current Wholesale Price (Tartu)	9,300-10,750	13,100	900
Current Retail Price (Tartu)	12,550-15,200	17,000	1,300-1,400
Average Estonia Price (May 1992)	12,700	16,200	1,100

Retail margins are a fixed 10 percent maximum in state-operated retail shops in Tartu and 15 percent in Tallinn, and tend to range between 10 percent and 20 percent in private shops, which are free to set prices. There is also a tax of 18 percent on all retail dairy products. Private shops are constrained to increase margins by the obvious price ceiling imposed by the state shops. Also, many processors want C.O.D. on products delivered to private shops. Obviously, no workable credit system exists.

New Product Opportunities

Yogurt is not produced in Estonia. Yet several processors reported that the imported product, when available, is very popular at premium prices. Yogurt is relatively easy to produce. We believe it provides a solid opportunity. We know of one announced venture — an Estonian-Finnish joint venture — to produce 8-10 tons per day of yogurt in Tallin.

Another area for product opportunity is cheese. We identified only 12 variety of cheeses being produced. Product line extensions for the export market and, perhaps, for the domestic market may have medium-term potential.

Inputs

There are 10 major feed manufacturers or feed mills in Estonia, ranging in capacity from 200 to 600 tons per day. They all have been under the direction of the Estonian Grain Board, which purchases all domestic and imported grain for feed and food milling and distributes to the mills based on need determined by the Board.

The Board considers 6 of the 10 — 2 in Volga, 2 in Tomsalo, and 1 each in Kala and Viljandi — to be in "good" condition. All 10 are operating, but the Board intends to close the 4 that are less efficient, because of reduced activity — current overall operating rates are about 33 percent.

There has been no activity toward the formation of cooperatives or privatization among the feed mills. Part of the reason is that there is no purchase or marketing expertise among the millers. The Board has handled all ingredient purchases and has dictated where the manufactured feeds are distributed.

The level of feed concentrate production has dropped dramatically. In 1989, production was 1.3 million metric tons; for 1992, the Board projects 250,000 metric tons. None is being targeted for dairy; all feed concentrate production is being allocated to hog and poultry industries.

For 1992-1993, the Board projects total feed and food grain import needs at 745,000 metric tons. Domestic production is projected at only 400,000 metric tons. Animal feed needs are projected at 707,000 metric tons. Estonia obviously is far short of feed grain self-sufficiency.

Export Trends and Opportunities

Estonia, like Latvia, Lithuania, and Poland, is a surplus milk producer and, thus, a potential exporter, depending on its relative costs and quality position. One relative indicator is that Estonian yearly productivity per cow is the highest among these countries. Another indicator is that Polish raw milk prices received by producers in 1991 was about US\$86.64 per metric ton compared with Estonian prices of US\$66-68 per metric ton. Trade sources indicate that relative wages are higher in Poland, but energy costs are lower.

The Estonian export focus has been on butter, followed by cheese, condensed milk, and NDM and whole milk powder (Table 10). Russia, Uzbekistan, Azerbaijan, Armenia, Georgia, Tajikistan, Turkmenistan, and Kazakhstan were the dominant markets through 1991, but recent lack of hard currency has resulted in a substantial decline in exports to the former Soviet Union. Exports to other countries are concentrated in NDM; however, there are private NDM exports that are not reported. Total milk powder exports may run as high as 30,000 metric tons.

TABLE 10
MILK PRODUCT EXPORTS

(metric tons and percent of production exported to Russia)

	1989		1990		1991		1992(Jan-Jun)	
	Russia	Other	Russia	Other	Russia	Other	Russia	Other
Butter	12,658 (41%)	15	11,047 (38%)	10	9,635 (36%)	0.5	1,790	177
Cheese	5,745 (34%)	938	4,119 (25%)	329	3,902 (28%)	1	1,303	21
Cond'sed	4,597 (33%)	-	4,084 (31%)	-	1,495 (23%)	-	-	-
Powder	4,763 (32%)	?	4,079 (31%)	?	2,440 (19%)	?	205	?
Other	34,154 (8%)	-	27,424 (7%)	-	14,481 (5%)	-	-	-
Total	61,917 (13%)	954 +	50,753 (11%)	339 +	31,953 (9%)	1.5 +	3,298	198 +

The primary export destinations with hard currency are reported to be the Netherlands, Finland, Sweden, and Denmark. Exports to the European Community (EC) and the European Free Trade Association (EFTA) are surprising, given that the EFTA countries are surplus dairy producers and the European Community is the largest producer of dairy products in the world, has very large surpluses, and has an export subsidy system and a border price system that effectively prevent imports. In fact, the budget for the EC dairy support measures make up the largest share of the EC agriculture budget. EFTA also has a protective import levy structure.

The European Community has offered some aid to Eastern Europe and the former Soviet Union in the form of a triangular trade deal to move dairy surpluses from the Baltics, Hungary, Rumania, Bulgaria, and Romania to dairy-deficit Russia. However, the focus of this effort is on meat products, and only 10,000 metric tons are in dairy products, all of which is allocated to NDM. This volume is too small to have a significant impact in the Estonian dairy market.

The longer-term situation in the European Community should become more favorable for Estonia. A goal of the General Agreement on Tariffs and Trade (GATT) is the elimination of import restrictions on 3 percent of the EC dairy market. We estimate the volume potential at about 3 million metric tons of milk equivalent. This will augur favorably for Estonia as a low-cost milk producer and dairy processor.

Several Estonian processors reported exports of NDM to the Netherlands. Estkompexim, an Estonian-Swiss joint venture, exports NDM and skim milk cheeses to the Netherlands (about 8,000 metric tons of powder in 1991). They reported that six other Estonian firms export NDM. The product moving to the European Community is all re-exported, which explains why the Netherlands, for example, reports no imports from Estonia. At least one major Danish dairy interviewed is seeking NDM supplies from the Baltics for re-export.¹

EFTA, which includes Finland, Norway, and Sweden, is similar to the European Community in maintaining dairy import levies. One opportunity area may be humanitarian aid offered by Finland. Finland now is offering such aid to Lithuania by allowing dairy product imports at reduced levies.

Estonia is unable to establish a competitive cost position in the European Community because of the import levies. For example, the interior EC butter price is currently about US\$4,000 per metric ton. The Estonia production price is US\$1,035 and the import levy is US\$3,750, yielding an import price of Estonian butter of US\$4,785, excluding freight, in the European Community. However, Estonian butter export prospects to outside the EC and EFTA are positive, based on GATT minimum prices of US\$1,350 per metric ton.

Similarly, for NDM, Estonian production costs of about US\$1,450 per metric ton plus the EC import levy of about US\$1,650 per metric ton yield a price of US\$3,100 per metric ton, excluding

¹ The primary use of NDM in the European Community is in animal feeds as a calf replacer. Its use had been subsidized, but, more recently, EC subsidies have decreased. The result has been less use of NDM in the European Community and more for re-export.

freight, compared with the EC interior price of US\$2,650 per metric ton.² Tightness in the EC NDM market may result in a temporary lowering of the levy, but the European Community clearly is not a long-run export destination for Estonia. Greater quality variance and overall lower quality of Estonian product (as with most Eastern European suppliers) will contribute to this constraint.

The situation is better in cheese, where Estonian production costs of US\$705 per metric ton, plus the import levy of US\$3,075-US\$3,780, compare with German production costs of US\$4,400. In addition, Estonian cheese will be discounted at least 10 percent because it probably will be used as an ingredient in food processing rather than as a direct consumer product, because of low regard for cheese products from Eastern Europe and the former Soviet Union.

In the long term, Poland will be a significant export competitor for Estonia, although milk production costs appear to be higher. Poland was a major NDM exporter in 1991 — more than 40 percent of production or 60,000 metric tons — as cheese demand fell and raw milk moved to NDM production. As cheese prices have declined and demand increased, milk supplies have moved back to cheese production and NDM exports have fallen. No near- or longer-term opportunity is likely for Estonian NDM exports to Poland.

The potential for Estonian butter exports to Poland is not good. Poland was a net butter importer through 1990, but was a net exporter in 1990 and 1991 as subsidized prices were eliminated, consumption fell, and the surplus was largely exported. In 1992, imports and exports varied substantially because of seasonal fluctuations. Surpluses are common during spring and summer, and deficits occur during fall and winter.

Poland's cheese markets are not likely outlets for Estonia, given Polish preferences for fresh cheese and lower consumption of hard cheeses. Hard cheeses make up only 35 percent to 40 percent of total cheese production. Imports and exports are small.

Estonian cheeses may have a point of difference in markets outside the European Community and EFTA, based on being softer than harder Danish and Finnish cheeses. However, this quality difference is more relevant at retail markets than at ingredient markets. It is not clear whether Estonian cheese or any other dairy products are of high enough quality to become competitive in retail markets outside Estonia.

² NDM production costs reported by the Danish Embassy in Estonia. This is not consistent with reported production costs of less than US\$800 per metric ton by Ravala Ltd. Danish production costs are reported to be about US\$1,700 per metric tons.

ANNEX H
REVIEW OF ESTONIAN LEGAL ENVIRONMENT

by
Creighton English

10/22/92

EXISTING LEGAL SYSTEM IN ESTONIA

The legal system and its foundations are clearly based upon Soviet Institutions. The system is designed to implement central control over every aspect of individual lives. Market economy legislation is non-existent, such as property legislation, commercial legislation, private employment legislation, business corporation laws, banking legislation and transportation legislation. The system is also unable to effectively administer common municipal services at the local or regional level.

Estonia lawyers are unfamiliar with business transactions of any kind.

Ideally education seminars can be arranged to familiarize the Estonian Management Class and Lawyers on the fundamental elements of market economy business transactions as well as standard documents to implement these transactions. These items must be addressed on a priority basis. Personal interviews with Estonians at every level of society had no knowledge of such basic concepts as Letters of Credit, Shareholders Agreements, profit and loss statements and any other market related business document. The result of this deficit of knowledge will discourage the use of such instruments in Estonian Commerce. Although keen interest was shown when explaining business concepts, a clear resistance was shown.

The source of the resistance was based upon a fear of the market system, (all were curious about bankrupt farms from Finland to Vermont).

An additional source of concern was the concept of documents to transact business. The managers of the enterprises are not now required to conduct business through written communication. Given this practice, it appears it will take several years for Estonians to develop documentation for local trade. Clearly, all levels of enterprise management must be taught in market economy skills.

In addition to an education program for the Estonian Lawyers, education of mid-level business management is also necessary. The Estonians are very reluctant to assume any individual responsibility. Every Estonian municipal, collective or enterprise manager expressed great hope in the eventual privatization of collective farm assets however, all believed this cannot be done until a full implementation plan is developed by the Estonian Parliament.

EXISTING LAWS ON PRIVATE OWNERSHIP AND LAND REFORM:

The Estonian Government has since 1989 begun the process of private ownership. I have been told that approximately 10,000 farms are private farms. These private farms allow the farmer and his workers (usually family members) to own the animals, farm tools and personal items of the farm. The local collective farms continue to "own" (control) the land. The "Private" farmer must pay a social and cultural tax to the collective although a 5 year tax credit was given for income taxes (two types of taxes currently assessed). These private farms are generally small and not regarded as profitable by the collective farm managers. High inflation, lack of available feeds and a summer drought are often blamed for the private farm failures as often as the individual shortcomings of the private farmers. The private farmers generally cannot get the necessary equipment to effectively farm. The collective and state farms "sold" the private farmers the fully depreciated often broken farming tools and machines.

THE BASIS OF PROPERTY LAW WAS PASSED IN 1990 AND BECAME EFFECTIVE IN JANUARY OF 1991.

On June 13, 1991, the Estonian Government clarified this law to specifically define the goals and recipients of the property reform law. Essentially, the owners or heirs of real property which was illegally expropriated in 1940 were given an opportunity to ask for their property back. Amendments to this law have allowed the request to specify whether request is for a specific property

or for a property in another area of Estonia in lieu of the illegally expropriated land. The law also allows compensation in money or "vouchers" of a collective farm in the discretion of the local officials.

As of January 17, 1992 over 95% of the land mass in Estonia was claimed by former owners. Many requested "Land swaps" (Land in another area in lieu of old family properties).

The real property registers from 1940 are being re-registered by the state, a process not yet complete. Also, valuation of the property has not been determined. It appears these two state functions will not be completed before January 1st, 1993. The existing local authorities are not permitted to sell or lease real property during the registration and valuation process.

In October of 1991 by amendment to the land reform law, the Estonian Government granted the local municipalities the mandate to return the land. The law also provides for land which can be compensated and not returned, to wit:

- Land under and surrounding municipal buildings
- Land related to local protection areas
- Municipal resevoirs and waterways
- Agricultural land of municipal enterprises and institutions
- Land reserve for municipal needs

ON MARCH 11, 1992, THE ESTONIAN GOVERNMENT DECREED THAT ALL AGRICULTURAL PROPERTY, OTHER THAN LAND (ALL FARM PROPERTY INCLUDING BUILDINGS, TOOLS, TRACTORS, ANIMALS AND OTHER ITEMS OF PERSONALITY) BE RETURNED TO PRIVATE HANDS BY JANUARY 1, 1993.

The confusion over real property reform and the conflicting claims for land under different entities such as operating Agricultural enterprises, private owners of farms, land claims and land swap claims has apparently resulted in

extensive theft of collective assets. The law on agricultural reform is an attempt to stop this crisis and preserve the assets of the collective farm and state farms for distribution to farm workers.

Another apparent objective to the Agricultural reform law is to ensure the continued production of farm assets and the existing Agricultural enterprises. The existing law however does not make this objective a clear priority over the land reform law and the other privatization acts. The Estonian Government must draft legislation which directs the preservation of agricultural enterprises as a first priority over land return and all other privatization laws.

Remember now that the land reform law requires the implementation of land privatization according to the land reform law. The farm equipment is to be returned to private individuals (farm workers) under the law on Agricultural reform. The result. It appears that the land record law is being used to stall the implementation of both agricultural and land reform. This assessment is based upon open and frank discussions with the municipal land reform and agricultural privatization officials.

No official action will be taken on agricultural reform until the signal from the Tallin Parliament is given which allows implementation of agricultural privatization over land reform. Enterprise managers of agricultural business (cow sheds, cheese plants, wheat farms, etc.) will not accept enterprise ownership until this is resolved. The land reform law provides for an arbitration court which has not yet been created. The enterprise management fears that anything given today will be taken tomorrow.

RECOMMENDATIONS:

Bring the conflict between the land reform and agricultural reform to the attention of the Estonian Government. If both the land reform law and agricultural privatization law were implemented the result would be the preservation of an existing business without the right to use the land. The

belief that a lease can solve the problem ignores the inability of the enterprise management to feel secure in the ownership of the asset. The current perception of privatization envisions the equal (or nearly so) distribution of the agricultural enterprise among current workers. This system, if implemented, has the potential for disaster. The current legal system does not provide for the resolution of standard business disputes or the authority each worker/shareholder will have to make business decisions on behalf of the enterprise.

The Estonian Government should adopt a system for business exchange such as the Uniform Commercial Code. The use of business documents have been limited to simple agreements between the collective and state farm headmen. All enterprise management were responsible for under the Soviet system was the reporting of hours worked, levels of production and other "number crunching" activities. None of the management level agricultural workers were familiar with any business documents or basic business policy. I have prepared a simple form book which should be translated into Estonian and widely distributed if for not other reason than to begin the educational process. I have also found a copy of an Estonian accounting system which lends itself to a market accounting system. This system was only taught to several hundred people. It should be widely distributed. The level of education, literacy and interest in business concepts was very high. Although formal training should be given to both workers and enterprise management in the agricultural section, great strides can be made in advancing market concepts through distribution of business documents and educational aids - perhaps through reading room and library located in each of the collective and state farms.

The Estonian Parliament might also be counseled to prepare an official form for the transfer of assets to the enterprise workers. This document would not only raise the individuals comfort level but also the fear of future adverse tribunal decisions and the authority of distributing entities, but official documentation will also reduce the future conflicts which will arise over asset distribution.

Policy should also be enacted to protect enterprise workers (shareholders and employer/employee agreements).

The judicial tribunals should be organized and empowered to define the extent of its jurisdiction and thereby reduce the fears surrounding the unknown.

ANNEX I

**RESTATED FINANCIAL STATEMENTS AND REPORT ON COLLECTIVE
ACCOUNTING**

by
Dr. Maureen Berry

5

718 South Foley
Champaign, IL 61820

(217) 359-7263

January 26, 1993

Mr. Nicholas Baughan
Development Alternatives, Inc.
7250 Woodmont Ave, Suite 200
Bethesda, MD 20814

FAX: 9-1-(301)-718-7968

Dear Nicholas:

Re Väike-Maarja Project

Attached are pro forma balance sheets and income statements for the Väike-Maarja dairy plant for calendar 1991 and the eight months ended August 31, 1992. It was not possible to obtain cost data for the calendar year 1992, as explained in the notes, nor data that would have formed the basis for cash flow statements. As agreed on site recently, there was to be concentration on the dairy plant only.

As you know, the dairy plant will pass into private ownership as of February 1, 1993, as the result of a single bid, on behalf of a consortium of milk producers, submitted on the deadline of December 7, 1992, for the assessed valuation of EEK 540,000 (this amount may be approximate).

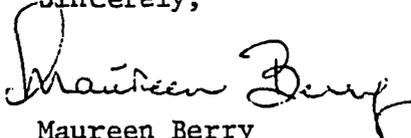
How the assessed valuation was arrived at is not clear. As of December 31, 1992, the following information is available about the dairy plant's assets and liabilities (in EEK):

Trade accounts receivable	3,179,000
Cheese inventory	1,350,000
(90 tons at market value of EEK 15 per ton)	
Fixed assets at book value as of August 31, 1992	<u>285,005</u>
	4,814,005
Less trade accounts payable (less EEK 943,400 owed to milk producers)	<u>82,370</u>
	<u>4,731,635</u>

The purchasers' investment would, presumably, total \$540,000 plus payables owed to them of EEK 943,400, for a total of EEK 1,443,400. That leaves a spread of over EEK 3 million. The cheese appears to be selling well, per note 2 attached, so the inventory should be down at the end of January. The other possibility is that the new owners are included in the accounts receivable, which seems unlikely, or that there is a high bad debt estimate. Or that it was a bargain purchase.

Hope this report will be useful.

Sincerely,



Maureen Berry
Associate Professor of Accountancy

Attachments (5 pages)

1-4
V A I K E - M A A R J A C O L L E C T I V E

DAIRY PLANT

PRO FORMA BALANCE SHEETS

(In Thousands of EEK)

	August 31, <u>1992</u>	December 31, <u>1991</u>	<u>Notes</u>
<u>ASSETS</u>			
<u>Current assets:</u>			
Cash on hand and in banks	-0-	100	1
Short-term trade receivables	718	25	1
Inventories of finished products	<u>1,507</u>	<u>1,082</u>	2
Total current assets:	<u>2,225</u>	<u>1,207</u>	
<u>Property, Plant, and Equipment:</u>			
Plant and equipment	790	807	3
Less accumulated depreciation	<u>505</u>	<u>521</u>	
Net:	<u>285</u>	<u>286</u>	
<u>Other assets:</u>			
Reconciling item	<u>230</u>	<u>-0-</u>	4
<u>Total Assets:</u>	<u>2,740</u>	<u>1,493</u>	
<u>LIABILITIES AND EQUITY</u>			
<u>Short-term liabilities:</u>			
Trade accounts payable	798		5
Taxes payable	<u>103</u>		6
Total short-term liabilities:	<u>901</u>	-0-	
<u>Equity:</u>			
Capital/(Deficit)	(1,277)	(1,277)	7
Revaluation reserve	<u>504</u>	<u>504</u>	8
Subtotal:	(773)	(773)	
<u>Retained earnings:</u>			
Beginning balance:	2,266	-0-	
Add current period profit	<u>346</u>	<u>2,266</u>	9
Ending balance:	<u>2,612</u>	<u>2,266</u>	
Total equity	<u>1,839</u>	<u>1,493</u>	
State	200	200	10
Collective	<u>1,639</u>	<u>1,293</u>	
	<u>1,839</u>	<u>1,493</u>	
<u>Total Liabilities and Equity:</u>	<u>2,740</u>	<u>1,493</u>	

COMPILED FROM INCOMPLETE AND UNAUDITED DATA. THE NOTES CONSTITUTE AN INTEGRAL PART OF THIS COMPILATION.

V Ä I K E - M A A R J A C O L L E C T I V E

DAIRY PLANT

PRO FORMA INCOME STATEMENTS

Ended December 31, 1991:	<u>Cheese</u>	<u>Butter</u>	<u>Whey Butter</u>	<u>Cream</u>	<u>Milk</u>	<u>Total</u>	<u>%</u>
ES: (EEK)	<u>14,963,648</u>	<u>25,164</u>	<u>24,747</u>	<u>9,779,397</u>	<u>864,235</u>	<u>25,657,191</u>	100.0
OF SALES:							
Inventory: Jan 1, 1991	1,313,839					1,313,839	
Production costs	11,515,979	637,959	88,729	10,219,819	19,660	22,482,146	
Inventory: Dec 31, 1991:	(<u>972,681</u>)	(<u>86,211</u>)	(<u>23,147</u>)			(<u>1,082,039</u>)	
of sales:	<u>11,857,137</u>	<u>551,748</u>	<u>65,582</u>	<u>10,219,819</u>	<u>19,660</u>	<u>22,713,946</u>	88.5
Income before tax	<u>3,106,511</u>	(<u>526,584</u>)	(<u>40,835</u>)	(<u>440,422</u>)	<u>844,575</u>	2,943,245	11.5
Enterprise profit tax (23%)						<u>676,946</u>	
Income						<u>2,266,299</u>	8.8
<u>Eight Months Ended</u>							
<u>August 31, 1992:</u>							
ES: (EEK)	<u>4,513,974</u>	<u>2,433,002</u>	<u>19,473</u>	<u>398,349</u>	<u>735,480</u>	<u>8,100,278</u>	100.0
OF SALES:							
Inventory: Jan 1, 1992:	972,681	86,211	23,147			1,082,039	
Production costs	4,408,546	3,188,359	-0-	474,543	4,357	8,075,805	
Inventory: Aug 31, 1992:	(<u>1,425,724</u>)	(<u>63,767</u>)	(<u>17,636</u>)			(<u>1,507,127</u>)	
of sales:	<u>3,955,503</u>	<u>3,210,803</u>	<u>5,511</u>	<u>474,543</u>	<u>4,357</u>	<u>7,650,717</u>	94.4
Income before tax	<u>558,471</u>	(<u>777,801</u>)	<u>13,962</u>	(<u>76,194</u>)	<u>731,123</u>	449,561	5.6
Enterprise profit tax (23%)						<u>103,399</u>	
Income:						<u>346,162</u>	4.3

COMPILED FROM INCOMPLETE AND UNAUDITED DATA. THE NOTES CONSTITUTE AN INTEGRAL PART OF THIS COMPILATION.

V Ä I K E - M A A R J A C O L L E C T I V E

DAIRY PLANT

NOTES TO FINANCIAL STATEMENTS

1. The amounts shown for cash and trade receivables are undocumented estimates provided by the controller. We were also informed that, as of December 31, 1992, dairy plant receivables had increased to EEK 3,179,000 out of a total of EEK 6,200,000 for the collective as a whole.
2. Ending inventories of finished products were calculated as follows:

	1991 costs 12/31/91			1992 costs 8/31/92		
	<u>Tons</u>	<u>per ton</u>	<u>Total</u>	<u>Tons</u>	<u>per ton</u>	<u>Total</u>
Cheese	128.3	7,581.30	972,681	207.1	6,888.35	1,425,724
Butter	3.0	28,736.89	86,211	4.4	14,492.50	63,767
Whey butter	8.4	2,755.56	23,147	6.4	2,755.56*	17,636
Inventory values (EEK):			<u>1,082,039</u>		*1991 costs	<u>1,507,127</u>

The 1991 costs per ton, originally in rubles but divided by 10 to restate to EEK, were provided by the client. The 8 month cost figures for 1992, however, comprising eleven line items totalling EEK 8,075,805, were not broken down by product. Costs by product line had, therefore, to be estimated using known relationships, such as quantities of milk required, and patterns of fixed cost allocations in the prior year.

This analysis suggests that dairy plant costs for the first eight months 1992 may be understated since a pattern of decreased average product line cost in 1992, versus 1991, is counter-intuitive. It is not uncommon, however, for the accrual of certain costs to be deferred until year-end: particularly, as in this case, where interim statements are not issued and there is no formal accounting and reporting for particular segments of the collective. Also, the drop of about 50 percent in average costs for butter may be partially explained by the sharp increase in production: 220.4 tons in partial 1992 versus 22.2 tons for the end year of 1991, so that fixed or semi-fixed costs were spread over a base which increased ten times.

We requested later cost data, such as year-end 1992 or as of November 30. While most willing to cooperate, the client could not put it together for us due to work load pressures. We were, however, informed that the December 31, 1992 inventory of finished products consisted of 90 tons of cheese, reduced from 207.1 tons at the end of August. According to the controller, buyers are coming from St. Petersburg with their own transport and paying EEK 15 per kilo in Estonian currency, so there is no problem selling cheese at the present time. It is now longer possible to sell milk in Tallinn however.

3. The gross amount for fixed assets includes revaluations as further discussed in note 8 below. It will be adjusted again, as of February 1, 1993, to reflect privatization revaluation when the dairy plant comes under private ownership. The amount of this adjustment was not known at the time of our visit.

In accordance with customary Soviet accounting practice, revalued amounts replace historical costs in the accounting records without leaving an audit trail. As a corollary, depreciation charges may continue for many years longer than an asset's estimated useful life, as indicated by the straight-line depreciation rate, because the depreciation base is raised every now and again by a revaluation. This is illustrated by selected data drawn from the dairy plant's inventory of fixed assets as of September 30, 1992:

VÄIKE-MAARJA COLLECTIVE: DAIRY PLANT

NOTES TO THE FINANCIAL STATEMENTS - continued.

Item	Date Acquired	Deprcn Base	Annual Deprcn Rate	Book Value	Percent Depreciated	
					Actual	Normative*
Production building	Dec 1974	174,600	2.50	116,676	33.18	46.88
Boilerhouse	Feb 1968	13,857	2.50	9,606	30.68	61.46
Pavement	Jan 1966	24,861	10.00	8,577	65.50	267.50
External drainage	Dec 1974	19,038	10.00	9,613	49.51	177.50

* Number of years held times annual depreciation rate. The pavement, for example, was acquired 26 years and nine months previously, has a ten percent depreciation rate, and is 65.5 percent depreciated. Because of revaluations, the annual depreciation rate does not serve as a measure of estimated years of service. It follows that book value (depreciation base minus accumulated depreciation) may have little or no relationship to fair market value since the revaluation amounts and depreciation rates are set by the State arbitrarily. (Under U.S. generally accepted accounting principles (GAAP), revaluation of fixed assets is not usually permitted. Depreciation is considered to be a method of allocating historical acquisition costs to the financial periods benefitted and not a measure of changes in asset value over time.)

As of September 30, 1992, about one-third (EEK 258,317/EEK 790,083) of the dairy plant's fixed assets were fully depreciated. The non-fully depreciated assets of EEK 531,77 have a book value of EEK 285,005, reflecting about 44 percent depreciation.

4. The reconciling item amount of EEK 230,000 at August 31, 1992, is the amount needed to balance the total assets with the total liabilities and equity. We discussed this with the controller who felt that the shortfall in assets could be due to an underestimate of the trade receivables.
5. The trade accounts payable amounts represent undocumented estimates by the controller. We were also informed that, as of December 31, 1992, dairy plant trade payables had increased to EEK 1,025,000 out of a total of EEK 5,100,000 for the collective as a whole. Major creditors are milk producers.
6. The taxes payable represents profit tax of EEK 103,399 calculated, as 23 percent, on dairy plant profit of EEK 449,561 for the eight months ended August 31, 1992. In the controller's opinion, the dairy plant's operations for the entire year of 1992 were not profitable and the plant would not, therefore, be subject to an allocation of enterprise profit tax.
7. The negative capital amount (deficit) of EEK 1,277,000 at December 31, 1991, represents the amount needed to balance the total assets with total liabilities and equity.
8. At the end of 1991, the collective's fixed assets were increased by an inflation revaluation adjustment of EEK 53,721,000 (about 265 percent) in accordance with decree nr. 63 of the Ministry of Economy and decree nr. 124, dated November 1, 1991, of the Ministry of Finance. The controller estimated the dairy plant's allocation of the revaluation adjustment to be EEK 540,000.

NOTES TO THE FINANCIAL STATEMENTS - continued.

9. There was no feasible way to determine the amount of retained earnings, if any, attributable to the dairy plant as of January 1, 1991. The calculation of after-tax profits for 1991 and the first 8 months of 1992 are detailed in the attached income statements.

Revenues, which are net of any taxes, were calculated by multiplying quantities sold by average sales prices (in EEK):

	Tons	1991	Tons	1992
	<u>Sold</u>	<u>Prices</u>	<u>Sold</u>	<u>Prices</u>
Cheese	1,564.0	9,567.55	561.0	8,046.30
Butter	19.2	1,310.60	219.0	11,109.60
Whey butter	23.8	1,039.80	2.0	9,796.50
Cream	1,684.0	5,934.10	73.6	3,412.35
3.5% milk	1,276.0	677.30	1,012.5	726.40

Cost calculations are described in note 2 above. Reservations were expressed about the reliability of the year-to-date costs at August 31, 1992. As mentioned in note 6 above, the controller felt that the dairy plant was not profitable in 1992.

10. The amount of EEK 200,000 shown as the State's equity in the dairy plant is an amount calculated by the client at the time of the privatization valuation referred to in note 3 above.

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ANNEX J

VAIKE-MAARJA PRIVATIZATION READINESS: AN ASSESSMENT

by
John MacKillop

October 17, 1992

INTRODUCTION FOR 7 DAIRY ENTERPRISES. 10/8/92 J. MAC KILLOP

Assumptions: 1991 currency values; 75 roubles = \$1.00; \$1.00 = 11.6 Kroon.

The data does not contain expense categories for veterinarian, breeding, and concentrate. Apparently, the farm expenses are inclusive for expense items that are somewhat fixed in place on the farm or in storage on the farm. In other words, breeding fees, veterinarian, and concentrate are collective farm expenses and the distribution is accounted for on a collective farm basis not on the individual operations. Where that data exists is not readily accessible. The private farms may indicate the cost per cow and that could be run back into the 7 dairy enterprises, a possibility.

I should note that concentrate, as I define it, is a combination of feed grains mixed to obtain a desirable protein and energy level needed to balance the dairy ration. I have inferred that concentrate to the V.M. farmers can mean grains, ground grass, or a mixture of grains and grasses referred to as grass flour or fodder flour. Whether the cost of the concentrate is indeed included in the expense data is uncertain.

I would state that I have reasonable confidence in the individual farm data because the gross dairy cost per 100 KG for the collective for 1991 was 73.65 r. This figure has been confirmed from several sources.

Income/Expense data is enclosed. Actual production per dairy operation is accurate. The total milk production and its value for all operations is also accurate. The farm "chiefs" have a good idea of production, and the range is not greatly variable. I have used the 1991 price per KG of 82.68 r to represent milk income. Note that the individual farms do not register any income from the sale of cull cows nor bull calves. Replacement heifers are part of the "Calves and Fattening" operation and the transaction from the replacement operation to the milking herd is accounted as a "transfer" on the dairy operation, but with no accounting within "Calves and Fattening". There were 494 cows culled (33% culling rate) and 530 heifers entering the milking herd. Normally one would expect the value of a heifer to be twice the value of a cull cow, but there are no "values" in r or K as such. Therefore, I have not to date completed an analysis of the cost of purchasing replacements. It is unlikely that the sale of cull cows and bull calves would offset the purchase of replacements at the 33% cull rate and the 35% first calf heifer entering the herd rate.

The heifer raising enterprise can easily be established as a separate enterprise from the dairy operation. Although to date I have not found any hard costs associated with raising a heifer to 24 months, my suggestion would be to establish a price for replacement heifers at cost including labor plus a 10% margin. At

this point we can see how the market would react to heifers at that price and some dairy operations may elect to raise there own. Those dairy operations which elect to continue with purchasing replacement heifers are advised to develop contracts for that arrangement.

My observation is that the state of readiness for the replacement operation that I have seen is quite good. Heifers grow well, are calving at 24 months of age, and the committment of the manager is very impressive. The weaknesses of the management are calfhood respiratory diseases and facility ventilation, both of which are closely related. The investment in retrofitting the barn with a ventilation system would be quite low, considering the return on the investment with its impact on lower respiratory disease incidence. My estimate is that \$6,500 would purchase fans with thermostats and raw materials for the construction of air inlets and wiring.

Some personnel at the dairy operations have indicated a desire to acquire land and field machinery/equipment to produce their own forage supplies. Other potential owners are aware that either for reasons of lack of capital (vouchers) or inexperience in forage production are interested in continuing with a system that assures a constant supply of quality forage via a contract with a forage production unit which could either be a dairy with excess feed or a forage production operation. Again it is advised that the producers enter a contractual agreement specifying amount of feed, minimum quality, and delivery. To locate initial price in the market, I would suggest defining forage production costs and adding a 10% margin.

INCOME/EXPENSE - 7 DAIRY OPERATIONS 10/9/92 J. MAC KILLOP

For purposes of analysis of the net incomes of the individual dairy operations I have taken the expense data from Table II and used the uniform milk price of 82.68 r/100 KG. This excludes all sales from the farm except milk at a uniform quality payment.

FARM	NET INCOME r/100 KG	EXP % INC
MYYRIKU	(48.63)	158.88
KAARMA	13.98	83.12
ANTU	(26.64)	132.23
EBAVERE	41.15	50.25
EIPRI	(06.26)	107.61
RAEKYLA	35.81	43.33
KOONU	22.38	73.00

There is a wide variation in the net incomes of the seven dairy operations, ranging from a loss of 48.63r per 100 KG to a net of 41.15r per 100 KG. First, recognize that Antu is scheduled for liquidation and the cows will not be available for privatization on the Antu site. This does not exclude that an individual may acquire Antu, but they will likely have to assemble a cow herd elsewhere. It will be of interest to me to see the fate of Antu. It is indeed an old facility, but may be available to a turnkey operator at a very low investment (vouchers).

In addition the financial data from Myyriku is perplexing. The operation is under-going expansion and some of the costs of expansion have more than likely be accounted for in the 1991 expenses. From all appearances the Myyriku operation should perform as well as Ebavere or Kaarma.

Labor is one of three major expenses. The dairy operations for the most part are not over-staffed. Typically, the dairy will have one milker per 50 cows, one mechanic per 100 cows, a herdsman, a tractor driver, and the farm "chief". The cost of this labor is very sensitive to the milk production per cow. Consequently those farms that have achieved the highest yield per cow are controlling labor costs, note the comparison between Eipri and Ebavere. It is apparent that dairy operations that are closer to Vaike Maarja have access to a larger and more skilled labor pool and this has resulted in the "coveted good workers".

Fodder costs are another major cost in the production of milk. The quality of fodder has the greatest impact on milk yield. Although Ebavere has access to limited land adjacent to the dairy site, the farm "chief" is aggressive in demanding that the feed be cut early.

As unlikely as that sounds, it is my best estimate why Ebavere's feed costs per 100 KG are the lowest. The "chief" is an exceptional manager.

Note in the analysis that Raekyla is also one of the leaders in profit potential. This is an interesting operation. It is located on the outside of the Vaike Maarja perimeter which results in an acknowledged poor labor pool and a later harvested forage. Yet the dairy operation has performed remarkably well. I attribute this performance to the quality of the management. To compensate for the lower quality of labor the "chief" and herdsman play a greater role in the milking and care of the herd. The forage quality is compensated for by extremely well managed pastures. The intensive grazing system, which could be improved further, provides the herd with feed that surpasses any of the conventionally harvested forages I have seen.

TABLE II

KOONU - 250 cows; 1,250,00 KG Milk				
EXPENSE	COST	%	r/COW	r/100KG
Salary	100412.69	13.5	401.65	8.03
Fodder	334328.13	45.1	1337.31	27.75
Insurance	187324.00	25.3	749.30	14.99
Misc.	119085.96	16.1	476.34	9.53
Total	741150.78		2964.60	60.30
RAEKYLA - 250 cows; 1,250,000 KG Milk				
Salary	96135.29	16.4	384.54	7.69
Fodder	216841.68	37.0	867.37	17.35
Insurance	179344.00	30.6	717.38	14.35
Misc.	93552.31	16.0	374.21	7.48
Total	585873.28		2343.49	46.87
EIPRI - 200 cows; 800,000 KG Milk				
Salary	103411.14	14.5	517.06	12.93
Fodder	297735.90	41.8	1488.68	37.22
Insurance	192916.00	27.1	964.50	24.12
Misc.	117373.76	16.5	586.87	14.67
Total	711436.80		3557.18	88.94
EBAVERE - 200 cows; 1,300,000 KG Milk				
Salary	75586.87	14.0	377.93	5.81
Fodder	218361.64	40.4	1091.81	16.80
Insurance	141032.00	26.1	705.16	10.85
Misc.	104933.46	19.4	524.67	8.07
Total	539913.97		2699.57	41.53
A'NTU (scheduled for liquidation) - 160 cows; 880,000 KG Milk				
Salary	151901.76	15.8	949.39	17.26
Fodder	360297.36	37.6	2251.86	40.94
Insurance	283382.00	29.5	1771.14	32.20
Misc.	166456.43	17.3	1040.35	18.92
Total	962037.55		6012.73	109.32

EXPENSE	TOTAL	%	r/COW	r/KG
KAARMA - 440 Cows; 2,640,000 KG Milk				
Salary	253461.37	14.0	576.05	9.60
Fodder	810588.29	44.7	1842.25	30.70
Insurance	472848.00	26.1	1074.65	17.91
Misc.	277045.50	15.3	629.65	10.49
Total	1813943.03		4122.60	68.70
MYYRIKU (in process of expansion) - 220 Cows; 1,000,000 KG Milk				
Salary	187481.62	14.3	852.19	18.75
Fodder	473962.39	36.1	2154.37	47.40
Insurance	349757.00	26.6	1589.80	34.98
Misc.	301832.80	23.0	1371.96	30.18
Total	1313033.69		5968.33	131.31

HERD MANAGEMENT ASSESSMENT

The dairy herd management of the seven dairy operations that form the Vaike Maarja collective is extremely good. The farm "chiefs" are credited with the achievement of very admirable management goals by any standard. For example:

1. production per cow 5,285 KG
2. age at first calving 25 months
3. calving interval 12.6 months.
4. cull rate 33%
5. first calf heifer entry rate 35%
6. % AI service 100% on cow herd
7. breedings per conception 2.6
8. all cows in all herds on monthly production records

All of the above criteria are linked to the profit potential of a dairy herd. The privatization readiness as reflected by dairy herd management is extremely good and promising.

QUALITY ASSESSMENT

The quality of the milk at the farm gate is questionable. According to the plant manager in Vaike Maarja and the manager of a fluid plant in Rakvere, the major contributor to the poor shelf life, 36 hours, of fluid milk is the farm. Processors and consumers recognize the value of quality; and premium payments are added to the price received by the farm based upon quality. One private farmer, who sells fluid milk from his farm, receives 1.50K or about .20K above his competitors because the market is willing to pay the premium for quality.

There are two primary sources of poor quality that can be management sensitive and can be overcome in the short term. First, the somatic cell counts of the cows are the initial contributor to higher than desirable bacteria counts. The specific bacteria that is the culprit is, according to the chief veterinarian at Vaike Maarja, a staph. species, probably closely related to staph. aureus.

The staph. species of mastitis does not respond well to antibiotic therapy relative to eradication. Antibiotics can reduce the population in udder tissue and thereby eliminate inflammation, but not eliminate the bacteria. Milking procedures are the best approach to containment of the species which is highly contagious between cows. The vehicle of transmission is generally dirty udder towels and milking machines, both of which are very evident on the Vaike Maarja farms.

An udder health program which would improve milk quality would be as follows:

1. single service clean towels for each cow
2. dry wipe clean cows and avoid water at teat ends
3. milk mastitis cows last
4. use antibiotics at drying off
5. improve the rubber quality of the inflations
6. CMT all cows and segregate high score cows

Resources at this time do not permit the farms to acquire iodine based teat dips for pre- and post-dipping of teats. Resources are also too limited to purchase antibiotics for dry cow therapy. If such management tools were available, cow side milk quality would make a quantum leap, when applied in addition to the prescribed udder health program.

High standardized plate counts can be tracked to the farm and identified with poor quality rubber as a milk contact surface and basic cleaning of the milking system. The rubber which is found in gaskets linking sections of pipeline, the milk hoses, and the milking machine inflations is of very poor quality. The rubber is cracked and pitted, a situation which provides an excellent opportunity for bacterial growth. Simple visual inspection can yield an abnormally high buildup of milk residue and debris.

Milk Quality (cont.)

Western rubber products can easily be found to replace the poor quality now in use, if resources permit, they should be acquired.

For an assessment of the cleaning of the milking system see Jon Rooney's report.

Although milk quality could improve with the replacement of the glass pipeline with stainless steel and vacuum pulsation with electronic, the farm can produce a consistent marketable product with management modification and access to improved input supplies, such as teat dips, rubber inflations, cleaning agents, and sanitizers. In conclusion the contribution of milk quality to privatization readiness is questionable but can be improved in the short run through improved management.

The investment for a 200 cow dairy barn to install a stainless steel pipeline is estimated to be in the vicinity of \$25,000. This would include two double-sloping stainless steel pipelines operating off two 10 hp motors, two air injectors, and cleaning systems.

CONCLUSION J. MAC KILLOP 10-12-92

The general state of privatization readiness of the dairy operations in Vaike Maarja is very good. The dairy herds are well managed and have exercised cost control in the key areas of labor and feed. The quality issue can be overcome through the adoption of improved milking techniques and the acquisition of dairy herd chemicals.

Key areas where herd management could be modified and/or improved to generate greater returns would be to pay milkers on a per hour basis and utilize pasture via intensive grazing systems. In addition there is the quality issue which has already been described in detail. Each of these key areas should be monitored by project members to assure their success.

Another related issue to the readiness of the dairy farms which will also require further monitoring is the mechanics of conducting business under privatization. This will include general farm accounting and the conduct of farm transactions, including entering into contractual agreements. In addition there is the management of resource acquisition and product sale. It is the management of resources that I have the greatest concern. Vaike Maarja managers have to learn to compute least cost inputs in the market place and acquire a better understanding of the concept of ownership and the value ownership plays in the conduct of business.

My outlook of Vaike Maarja is optimistic at the farm gate. Monitoring the new operators' performance is critical, not only to increase the chances of success, but also to assist the operator in building confidence.

A general statement is warranted relative to national agricultural policy. Estonia cannot conduct a dairy economy without a national farm and food security policy. Estonia's future trading partners have agricultural policies designed to assure the domestic production and supply of an adequate food supply. It would be in the best interest of Estonia to explore the options of domestic and international policies.

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ANNEX K

REVIEW OF CHEESE PLANT TECHNICAL ASSISTANCE NEEDS

by
Jon Rooney

Cheese Plant- Vaikke Maarja

The main problems facing the processing plant are as follows.

- 1) Total reliance on cheese and butter in a world which has a general over-abundance of these products. This basically insures a somewhat smaller return and a generally lower price paid to farmers, which results in fewer producers shipping milk to this plant.
- 2) Quality of raw product is quite variable, which severely affects the final product and may have resulted in the cancellation of a large contract with Sweden. With the highest grade of milk containing up to 300,000 bacteria/ml., it is virtually impossible to put out a consistent product, thereby reducing the opportunity to export on a regular basis and at a good price.
- 3) General economic conditions in Estonia are such that money is in generally short supply, depressing local and national sales.

POSSIBLE SOLUTIONS

Short-Term:

- 1) Reduce labor- Begin with small reduction and establish benchmarks for worker productivity; i.e. kg of cheese/ man-hour.
 - 2) Marketing of cheese and butter- A great deal of effort needs to be put into finding good markets at a good price. This is as important as the issue of quality.
 - 3) QUALITY- Improve quality and consistency of cheese through tighter production controls and improvement of raw supply (see Appendix A)
- 9/1

LONG-TERM:

- 1) Diversify product line to include fresh, high quality fluid milk and possibly yogurt. (note, another plant fairly close by is planning to begin yogurt production shortly).
(see appendix B)
Overall goal should be to market as much milk as possible locally at as high a price as possible and be able to market any excess milk elsewhere.

- 2) Continue to monitor labor levels, with an eye for possible labor savings , using the benchmark figure kg/manhour.

APPENDIX A

Main Factors Causing Problems in Raw Milk

- 1) High Bacteria Counts
- 2) High Somatic Cell Counts
 - 1) Steps for controlling bacterial quality at farms
 - A) Make sure that pipelines having gaskets (i.e. glass pipelines) are checked regularly for gaskets that are not getting cleaned or are leaking. When at all possible eliminate glass pipelines and purchase stainless steel which may be welded, thereby eliminating possible hiding places for crud.
 - B) Use proper strength solution and water at a minimum of 72 Celcius in sufficient quantity to be circulated several times, rather than circulatee once and dumped. Temperature should not drop below 54 Celcius
 - C) Change rubber hoses on milker units regularly,

especially milk contact lines.

D) If possible, change to freon-type bulk tanks which cool much more quickly and lower than ice-water tanks. Temperature should be maintained between 2 and 5 degrees Celcius.

2) How to reduce high somatic cell counts due to equipment

A) Check Vacuum Regulators- Vacuum needs to be maintained between 11.5 and 13 inches of Mercury

B) Check for leaks in vacuum system which cause a fluctuating vacuum level resulting in increased mastitis

APPENDIX B

Addition of fluid-packaging capability at V.M.

EQUIPMENT NEEDED:

- 1) Surge tank to feed filler.
- 2) Packaging machine could be: paper
pouch
glass
- 3) 1 or 2 Product pumps
- 4) Containers - Glass (high initial cost)
Plastic film (pouch) low per unit
cost not an appealing package
- 5) Misc. cases, conveyor, etc.....

Costs of investment:

The cost of the packaging machine will represent the majority of the initial cost, hence, depending on which type of machine is purchased, the total estimated cost may vary greatly.

A new system will most likely cost anywhere from 100,000 to 300,000 \$US

A packaging system consisting of used equipment would most likely cost from 50,000 to 150,000 \$US.

NOTE: There is definitely good, used equipment available and in this instance, that would be my recommendation.

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ANNEX L

**VAIKE-MAARJA STRATEGIC PLAN:
MILK FARM AND MILK PROCESSING PLANT**

Vaike-Maarja Strategic Plan

Milk Farm and Milk Processing Plant

April 1993

PRIVATIZED VAIKE-MAARJA MILK FARM STRATEGIC PLAN

BASIC BUSINESS PLAN

The Vaike-Maarja "cow sheds" were an integral part of the Collective. They secured their labor from the Collective's members, received most of their feed from the Collective's farms, transferred their milk to the Collective's milk processing plant, and received administrative and technical services from the Collective's Administration Center.

The basic business concept for the "cow sheds" in a privatized economy is to transform each into a privately owned milk farm. As such, each new farm manager will be responsible for the sale of its milk and the purchase of all necessary supplies. In actual practice, in the near term the farms will probably continue their relationships with the Collective for certain supplies. They may sell their milk elsewhere, however, as the Collective farm has been paying somewhat lower prices than other buyers. Over time, it will probably purchase input services from a variety of new companies.

Our analysis of 1991-2 Vaike-Maarja milk production and processing operations indicate that neither the farms nor the cheese processing plant is very profitable. National milk production costs and prevailing cheese prices in Tallinn retail shops confirm this analysis, indicating that the entire milk processing sector is marginally profitable at best with the exception of export dried milk. This analysis needs to be verified as additional Krooni data become available. If it is correct, we expect the situation will change as Estonia moves towards a market economy, probably resulting in both an increase in farm gate milk prices and in the price of processed milk products.

As a private company, a new farm will have to make two dramatic changes in operation to assure long term survival. First, it will have to be managed from a profit orientation rather than the production volume basis which was the case. Second, it will have to produce high quality milk (i.e. low bacteria and somatic cell counts) if it is to be acceptable in the market.

The following pages present a five year strategic plan for a "typical" privatized Vaike-Maarja farm. It consists of a 200 cow operation with attendant barns, equipment and pasture land. It purchases all other input requirements from outside suppliers. It should be noted that the financial projections are based on early February 1993 costs and raw milk prices.

COMPANY MISSION

The mission of the farm is to produce and sell high quality fluid raw milk, provide its workers a good working environment, and earn an acceptable financial return for its owners.

STRATEGIC PLAN PERIOD GOALS

The goals for the 1993-1997 strategic planning period are to:

1. Increase average cow productivity to 6,000 kg per cow. The pre-drought 1991 average for Vaike-Maarja farms was 5,300 kg with a range of 4,000-6,500 kg.
2. Reduce bacteria cell count levels to 100,000. Current levels for the best milk approximate 300,000.
3. Reduce somatic cell count levels to 750,000.
4. Eliminate antibiotic contamination.
4. Achieve profit and cash flow levels sufficient to fund needed improvements and provide an acceptable return to the owners.

INDUSTRY ANALYSIS

Estonia has been a surplus milk producer. However, production has declined since 1989 due to the loss of subsidized feed grains from the Former Soviet Union (FSU) and the 1992 drought. As a result cow numbers, milk yields and total production have declined significantly since 1989, and especially in the past two years.

During this same period, the FSU experienced serious economic difficulties and drastically reduced its import of Estonian milk products. Concurrently, the economy of Estonia deteriorated, leading to a decline in domestic consumption of milk products.

In the foreseeable future, Estonia's dairy sector will rely more heavily on internal demand. In export markets, Estonia will face strong competition from other East Europe countries for FSU markets, and subsidized European Community competition in other free markets. Resulting milk production requirements will be well below those of the late 1980s — early 1990s levels.

Estonia's economy will continue experiencing serious difficulty for several years. We look for a modest increase in domestic consumption of milk products, but remaining well below historical highs due to limited personal income and a modest strengthening of prices as a market economy evolves and the raw milk supply situation tightens.

Over the next few years Western nations will purchase a modest level of Estonian milk products. Export sales will be dominated by dried milk powder purchased for animal feed (calf milk replacer) in the developed nations, food aid to the FSU, and ingredient cheeses used in food processing (for example, pizza). Estonia cheeses and other processed dairy foods will improve in quality but not yet up to world quality standards. We also expect there will be some level of barter trade between Estonia and the FSU involving dairy product exports.

Assuming a return to normal weather in 1993, milk yield has reached its low point and will begin a recovery in the summer of 1993. As milk yield per cow recovers the required number of cows

TABLE 1

VAIKE-MAARJA MILK PRODUCTION COSTS, 1991

<u>Cow Shed</u>		<u>Rubles/100 kg</u>
Ebavarre		41.51
Raekyla		46.87
Koonu		60.30
National Average	est.	65.00
Kaarma		68.70
Eipri		88.94
A'ntu		109.32
Maariku		131.31 *

* Believed to include expansion and remodelling capital improvement costs.

Sources: Controller's Department, Development Alternatives, Inc.

will decline by about 10 percent from the current estimate of 264,000 to approximately 234,000 in 1993, then experience an upturn which by the end of the decade should take total cow numbers back to near 1990 levels.

Modest levels of excess milk supply are likely to continue over the next one to two years as the milk production sector adjusts to a free market economy. Prices will rise somewhat reflecting export dried milk demand. Inefficient State and Collective dairy operations will go out of business.

Historical and projected supply-demand data for Estonia's dairy sector are summarized in Table 2.

TABLE 2
SELECTED DAIRY SECTOR DATA

	1989	1990	1991	1992	1993	1995	1997
				Est.	***Projected***		
Milk Production — 000 tons	1,258	1,200	1,070	800	795	940	1,123
Domestic Consumption — Milk Equivalent							
- Per Capital kg	478	529	488	379	375	400	450
- Total — 000 tons	748	831	770	600	595	640	725
Exports — Milk Equivalent	510	369	300	200	200	300	400
Milk Yield — kg/cow	4,189	4,053	3,810	3,027	3,400	3,800	4,000
Cow Numbers — 000	301	293	281	264	234	247	281

Sources: U.S.D.A. and Experience Inc.

Based on national dairy production cost numbers, it appears that two Vaike-Maarja milk farms are well positioned to survive the expected decline in national cow numbers and State or Collective farm liquidations. Two others have a good chance to survive if they can achieve a modest reduction in expenses. Three are facing serious difficulty unless significant changes are made. See Table 2. It should be noted that the cost per kilogram of milk produced is closely correlated with yields, which are a direct function of management skill. The Vaike-Maarja cow sheds, being located in close proximity to each other, are capable of achieving similar yields, given similar management skills.

TARGET MARKET

It is envisioned that the privatized Vaike-Maarja milk farms will continue to sell most of their milk to the Vaike-Maarja cheese processing plant. At its envisioned level of operations, the Vaike-Maarja cheese plant will need more milk than the Vaike-Maarja farms can supply. Other processors will enter the market for the farms' output as the more successful privatized dairy processing plants in other cities emerge, requiring them to extend their milk supply lines.

COMPETITION

In the near term the Vaike-Maarja farms will face little competition from other milk farms in supplying the Vaike-Maarja processing plant. Over the coming five years two major events could change this situation significantly.

- The Vaike-Maarja cheese plant could close, in which case the privatized Vaike-Maarja farms would sell their raw milk to more distant plants thereby increasing transportation costs and reducing the price paid to Vaike-Maarja area farmers.
- Farms which become more efficient than the Vaike-Maarja farms could compete on the basis of lower costs no matter where they sell their milk.

OPERATIONS PLAN

The strategic goal of farm management is to institute a series of operating improvements which will reduce the cost and raise the value and volume of milk produced. This will be required to raise the quality of raw milk sold and therefore the relative price received. It will also eliminate antibiotic contaminated milk, currently averaging about 10% of milk plant receipts, which we are recommending the processing plant reject without payment.

Many of the following recommended actions are operational in nature. They are included here to emphasize their importance in achieving the strategic goal.

- As Part Of Privatization
 - Staff the farms per the following schedule:
 - 1 farm manager (chief)
 - 1 herd person for every 75 cows
 - 1 milker for every 50 cows
 - 1 tractor driver and/or mechanic
 - 1 vacation replacement worker
 - This will require a reduction at some of the existing farms.
 - Change basis of incentive compensation system from volume of milk produced to farm profit.
- As Soon As Possible In Year 1
 - Improve cow sanitation practices through use of iodine based teat dips, use of single service clean towels for each cow, dry wipe clean cows and avoid water a teat ends, California Mastitis Test all cows and segregate high score cows, treat mastitis with antibiotics at drying off, milk mastitis cows last.
 - Improve milk handling sanitation by washing milk equipment and lines twice daily using 30 gallons of water at 72 degrees Celsius and proper amount of soap and sanitizing chemicals.

- Maintain milking vacuum of 400-500 toona (approximately 11.5-13.0 inches of mercury).
- Check pipeline gaskets regularly for proper cleaning and change when cracked or leaking.
- Change milking inflations quarterly (once every 800 milkings) using higher quality milking inflations.
- Change milking unit rubber hoses annually.
- Adopt intensive pasturing as currently practiced at the Ebavere and Raekyla farms, enabling higher nutritive value of pasture grass and allowing early start or later finish of pasture feeding.

The improved sanitation practices will cost an estimated FEEK 10-12,000 for a 200 cow unit. Their full impact should be achieved in one lactation, eliminating antibiotic contaminated milk.

Intensive pasturing will contribute to increased milk production and reduced feed costs.

- As Soon As Possible In Year 2

Change haying practices by ensiling the first cutting and drying the second cutting. This allows an earlier first cut with no need to dry thereby increasing the quality of the second cut. This will reduce feed costs. Moisture content of the first cutting should not be a problem as hay can be ensiled at 65 percent moisture (1-2 good drying days).

- As Soon As Possible Thereafter

- Replace ice water refrigeration system with commercial refrigeration bulk tank system. Maintain milk temperature a two to four degrees Celsius. Estimated cost of a used system — US\$ 3,000 for 200 cow farm producing 5,500 kilogram milk per cow. Result — Increased quality and price of milk. Reduced transportation cost to processing plant as pick up now required only every other day instead of daily.
- Improve feed ration by adding oilseed meal, corn and high nutrition value grass (e.g. trefoil). Assumes these ingredients are available at lower cost per unit of milk produced than existing "concentrate," Result — increased milk production, decreased feed costs.
- Replace glass pipeline with stainless steel. Estimated cost, 200 cow barn — US\$ 7,000. Result — increased quality and price of milk.

FINANCIAL PROJECTIONS

Financial projections are shown for a 200 cow farm. We have assumed the average staffing pattern and early February 1993 cost experience to reflect introduction of the major improvements recommended above.

Projections are in Constant 1992 Krooni

These projections should be used with caution as several uncertainties arise in the transitions from Ruble to Krooni based expense accounting, and from the Collective to private ownership system. Perhaps the greatest uncertainties are in the areas of:

- Farm gate milk prices. We have assumed the price of raw milk at Vaike-Maarja will increase over three years to the level currently paid by plants drying mill for export, that is, EEK 1.40 per kilogram.
- Feed energy costs, which have increased significantly over the past few months. They are somewhat dependent on Russia's export prices and supply, which is determined at least in part by political factors.
- Replacing the Collective "Social Insurance" levy (used to finance Collective overhead and social programs) with some form of state and or municipal tax.

There may also be changes in the relative cost of other inputs and services provided by the Collective which may in the future be furnished by private entities, e.g. veterinary services.

COW SHED FINANCIAL PROJECTIONS
 1993-1997
 (1992 Krooni)

REVENUE	<u>1993</u>	<u>1994</u>	<u>1995-1997</u>
Milk	850,000	1,012,680	1,044,560
Cull/Calf Sales	<u>213,750</u>	<u>213,750</u>	<u>213,750</u>
	1,063,750	1,226,430	1,258,310
 EXPENSES			
Labor	122,550	122,550	122,550
Fodder	278,370	264,450	251,230
Other	<u>308,000</u>	<u>308,000</u>	<u>308,000</u>
	708,920	695,000	681,780
 PROFIT BEFORE TAX, INTEREST AND DEPRECIATION			
Total	<u>354,830</u>	<u>531,430</u>	<u>576,530</u>
Per kg/milk	0.355	0.483	0.515
Milk production (kg)	1,000,000	1,100,000	1,120,000
Milk sold (kg)	940,000	1,040,000	1,060,000

ASSUMPTIONS

1. Milk produced per cow increases as normal climatic conditions return in 1993 and fodder and or haylage management practices improve. One full growing season is required before these changes have a significant impact. Per cow production is as follows:

1993	5,000 kg
1994	5,500 kg
1995 and beyond	5,600 kg

300 kilograms of each cow's production is consumed by her calf. Further increases in production require an improved fodder ration.

2. Average 1993 milk price is EEK 1.20 per kilogram. Subsequent increases to EEK 1.30 (1994), and 1.35 (1995-1997) reflect the price paid by plants buying to produce dried milk for export and improved quality resulting from improved sanitation practices and installation of freon bulk tank refrigerated storage in 1995.
3. Other income derived from the sale of 67 cull cows at EEK 3,000 per cow and 165 calves at EEK 200 per calf. Source: A VAIKE-MAARJA private farmer.
4. Labor as follows:
 - One manager at EEK 4,000 per month;
 - Four milkers at EEK 1,200 per month;
 - Three herdspeople at EEK 1,000 per month;
 - One driver or mechanic at EEK 1,000 per month; and
 - One vacation replacement worker at EEK 900 per month.
5. 1993 fodder costs of EEK 12.00 per cow per day annual average; reduced 5 percent in 1994 and 1995 due to improved pasture and haylage management practices.
6. Other costs increased 5 percent annually for increased fuel costs; plus EEK 50,000 annually to cover the cost of an improved cow and equipment sanitation program (EEK 12,000) and veterinary services (EEK 38,000).
5. Projections do not include any costs related to land, buildings, capital equipment, capital or depreciation.

PRIVATIZED VAIKE-MAARJA MILK PROCESSING PLANT STRATEGIC PLAN

BASIC BUSINESS PLAN

The Vaike-Maarja cheese processing plant was an integral part of the Collective. It served as the outlet for the Collective's milk output, sold its products through the Collective's Commercial Department, was financed by the Collective's resources, and received administrative support from the Collective's Administration Center.

The basic business concept for the cheese plant in a privatized economy is to transform it into a privately owned milk products processing and marketing organization. As such, the plant's management will be responsible for its own milk procurement, product marketing, and financing. In actual practice, in the near term the plant will probably continue its relationship with the Collective for certain services. More importantly, it will probably continue to purchase the bulk of its manufacturing milk from the privatized Vaike-Maarja cow sheds.

The plant's principal market has been the Soviet Union. With the break-up and economic decline of the Soviet Union, the principal market must become Estonia. Export volumes for the foreseeable future will include cheese purchased for use as food ingredient (for example, pizza), food aid purchases for the FSU by other nations, and some exports as a result of barter trade with FSU republics. Over the longer term, revived FSU economies will again purchase Estonian dairy products. When and in what volume are unanswerable questions.

Our analysis of production costs indicates the cheese plant is competitive with other cheese processors. However, the Vaike-Maarja plant's raw milk cost has been significantly lower than those of other milk processors. For example, in mid October, the Vaike-Maarja plant was reselling raw milk to a Tallinn fluid processor for EEK 1.20 per liter milk that it was purchasing from area farmers in the open market at EEK 0.85 per liter. This price dislocation undoubtedly resulted from an imperfect market clearing system, and is rapidly being eliminated.

Even with this favorable raw material price, however, the Vaike-Maarja cheese plant was only marginally profitable, at least in 1992. It appears this was not an isolated case. National cheese production costs, wholesale cheese prices in Tartu, and retail cheese prices in Tallinn all indicate the entire cheese processing industry is marginally profitable, the one exception being export dried milk.

As a private company, the cheese plant will have to make five major changes in operation to assure long term survival.

- It will have to broaden its product line to become competitive across a range of price categories;
- It will have to achieve a significantly higher standard of cheese quality, primarily through the procurement of better raw milk;
- It will have to reduce its per unit cost of production;

- It will have to establish a purchasing preference with retail shop owners and managers and ultimately with consumers; and
- It will have to be managed from a profit orientation rather than the production volume basis which is currently the case.

Even with these changes we are not certain the Vaike-Maarja plant will survive unless the relative price of its products increase relative to the cost of raw milk. Projected financial results based on current raw milk and cheese prices will not support the level of upgrading necessary to remain in business over the long term.

There is an interest in securing foreign investment in the new privatized company. The opportunity for a foreign investor is the supply of raw milk to manufacture dried milk for export as animal feed and or cheese for export primarily to revitalized FSU economies. A prerequisite for both scenarios is assurance of continued raw milk supplies, which must be improved from the present level of quality. It should also be expected that a foreign investor will want to implement significant improvements in the processing facility, perhaps even replacing the existing plant.

The following pages present a five year strategic plan for a privatized Vaike-Maarja cheese plant. It assumes that management will be able to solve its near term working capital problem.

COMPANY MISSION

The mission of the Vaike-Maarja milk processing plant is to produce and sell high quality processed milk products, provide its workers a good working environment, and earn an acceptable financial return for its owners.

STRATEGIC PLAN PERIOD GOALS

The goals for the 1993-97 strategic planning period are to:

1. Increase cheese volume to 3,000 tons by 1997. This represents maximum plant capacity but less than 10 percent of total Estonia cheese demand.
2. Introduce three new higher priced cheese products which, by 1997, account for 20 percent of total cheese sales.
3. Eliminate quality problems by purchasing increasingly higher quality milk.
4. Achieve a return on investment of 25 percent.

INDUSTRY ANALYSIS

Estonia's cheese industry has relied heavily on sales to the Former Soviet Union (FSU). In 1989, sales to the FSU accounted for 40 percent of total industry volume. The FSU's economic and political collapse have reduced its purchases to almost nothing in 1992. Major volumes of Estonian cheese exports to FSU markets will come only through food aid purchases and shipments by other countries and barter trades with the FSU.

Integrally tied to the FSU, Estonia's own economy experienced a concurrent deterioration. One major result was a 30 percent decline in domestic consumption of processed milk products.

The Vaike-Maarja cheese plant has been hit especially hard by these developments. The Cooperative entered the domestic cheese market only in 1988 with a quota of 500 tons. The balance of its output was sold to distributors, ostensibly for resale to the Soviet Union. While a small portion of that product may have been sold into the domestic market, it is clear that the bulk of Vaike-Maarja's production was going to the Soviet Union. Even with the reduced volumes of 1991, an estimated 1,000 tons of Pandivere cheese were shipped to the Soviet Union. In 1992 export destined sales totalled less than 200 tons.

Direct domestic sales showed a significant volume increase in 1992. Through September domestic sales are running at an annualized rate of approximately 710 tons, up 42 percent from the assumed 500 ton levels of recent years. However, with export volume down substantially total 1992 volume is projected at 950 - 1050 tons, well below the 1,519 tons of 1991 and the plant's capacity of 3,000 tons.

At milk costs, cheese prices and cheese volumes prevailing in October 1992, it is difficult to imagine the industry were profitable. Rather, we suspect that most cheese producers, and for that matter other dairy product producers, lost money and remained open only because they were State or Collective Farm businesses. The one exception to this appears to be the manufacture of dried milk powder which is enjoying a relatively high priced export market. By February 1993, prices appeared to have improved sufficiently to allow modest profitability.

For the foreseeable future, Estonia's dairy processing sector must build from domestic demand. This is not to say that export markets will not return to their former levels. They may, but timing and volume uncertainties make reliance on an export turn around highly risky. We look for relatively slow growth in both domestic and export market volume tied to an expected gradual recovery of the Estonian and other former FSU markets. As a result, processed milk products requirements for the balance of this decade are projected to be well below those of the late 1980s — early 1990s levels.

Estonia's economy will continue to experience serious difficulty for the 1993-1997 period of this strategic plan. We look for a modest increase in domestic consumption of milk products, with total volume remaining below historical highs due to limited personal income and a modest strengthening of prices as a market economy evolves and the raw milk supply situation tightens. At the same time, there will continue to be a niche market for higher priced specialty cheeses which provide their manufacturers with premium margins.

Over the next few years Western nations will purchase a modest level of Estonian milk products as food aid to the FSU. Those purchases could be minimal by the mid 1990s. Export sales are likely to be dominated by dried milk powder for use as an animal feed (calf milk replacer) in developed nations

and partial recovery of exports to the FSU. Estonian dairy products will be of higher quality but not yet up to world quality standards; facing strong competition in all markets from heavily subsidized European Community exports, the Estonian dairy sector may secure an insignificant volume of sales to more quality conscious markets.

Modest excess milk supply is likely to continue over the next one to two years as the milk production sector adjusts to a free market economy. Prices will increase somewhat reflecting export dried milk demand. As the dairy sector privatizes we look for some realignment of milk and processed dairy foods which increases the value of processed products relative to raw milk.

Historical and projected supply or demand data for Estonia's dairy sector are summarized in Table 1.

TABLE 1
SELECTED DAIRY SECTOR DATA

	1989	1990	1991	1992	1993	1995	1997
				Est.	***Projected***		
Milk Production – 000 tons	1,258	1,200	1,070	800	795	940	1,123
Domestic Consumption – Milk Equivalent							
- Per Capital kg	478	529	488	379	375	400	450
- Total – 000 tons	748	831	770	600	595	640	725
Exports – Milk Equivalent	510	369	300	200	200	300	400
Milk Yield – kg/cow	4,189	4,053	3,810	3,027	3,400	3,800	4,000
Cow Numbers – 000	301	293	281	264	234	247	281

Sources: U.S.D.A. and Experience Inc.

Based on national cheese processing cost estimates, it appears the Vaike- Maarja plant is cost competitive. The national average estimate approximates EEK 8,000 per ton of cheese while that of Vaike-Maarja approximates EEK 6,000 per ton. In spite of the uncertainties of this comparison - especially the lack of cost allocation information in a multi-product plant – the general conclusion appears warranted. Pandivere's lower cost appears to result primarily from a lower cost of raw milk. This advantage will be eliminated as Vaike-Maarja farmers are free to sell their milk elsewhere.

TARGET MARKET

Pandivere cheese will continue to be marketed at the low end of the cheese price range, perhaps the lowest in the market. This positioning should maximize market penetration. New cheeses should be

developed targeted at niche markets on the higher end of the price scale. This will position Vaike-Maarja across the market and increase margins.

The Vaike-Maarja cheese plant will sell its products throughout Estonia. The emphasis for direct sales will be retail shops. Additional direct sales may be made to major food service outlets (e.g. large hotels) and existing wholesalers. As the Estonian distribution system develops, sales may be reoriented to wholesalers. The export opportunity to Sweden should be pursued but, generally, export sales should be developed in conjunction with export brokers.

We also recommend that the cheese plant discontinue the direct consumer sales program which the Collective's Commercial Department initiated at the Tallinn Farmer's Market and drop the attempt to establish its own retail shops.

COMPETITION

We have identified approximately 11 cheeses produced in Estonia in 20 separate plants. The Government's "open borders" policy has allowed imported cheeses to enter the market.

The Vaike-Maarja Collective marketing staff believed that their cheese, priced at EEK 11.00-12.00 (mid October 1992) was the lowest priced product in the market. At the allowed 15 percent retail mark-up (in State owned shops) and 18 percent value added tax the resulting retail price would be EEK 14.92-16.28. The low price position appears to be correct based on a limited survey of Tallinn retail outlets which found prices were mostly above EEK 15.00 to a high of EEK 18.70 (Atleet). Pandivere cheese was not found in any of the shops visited. This same situation appeared to be true in February 1993, although at higher prices.

Vaike-Maarja's collective staff expressed great concern about the quality of Pandivere, citing intermittent problems of gassing and mold. While such problems may or may not exist among the competing cheeses, the Marketing Staff was correct in stating that poor quality Pandivere in the market today will hurt future sales.

CURRENT MARKETING AND SALES STRATEGY

The Vaike-Maarja Collective's milk products marketing program had a five point strategy:

1. Increase domestic cheese sales by taking the low price position.
2. Sell into all levels of the market - wholesalers, retail shops and directly to consumers.
3. Sell other Collective products along with Pandivere, specifically butter, cream and potatoes.
4. Buy fluid milk from area producers for resale to a Tallinn fluid milk processor at profitable spread on an opportunistic basis.
5. Sell directly into the export market.

Price Leader Position. While cheese prices have increased recently due to an apparent shortage, this will not continue indefinitely. Adopting the low price position appeared to be achieving its goal of creating sales volume. 1992 annualized direct sales were running at 710 tons versus the assumed Soviet era quota level of approximately 500 tons. The advantage of this pricing strategy is that it is appropriate for the difficult times facing consumers for the foreseeable future. It appeals to those who buy the lowest priced cheese they can obtain. It should be noted however, that in taking the price leader role, Pandivere has established itself in that position with the consumer. It will be difficult, if not impossible, for Pandivere to ever be anything other than the low priced cheese in the Estonian market.

Broad Distribution Chain Effort. The Vaike-Maarja Collective had two people on the road most of the week selling cheese directly to wholesalers and retail shops. Most of the sales were picked up at the plant by the seller. In addition, several employees sold directly to consumers at the Tallinn Farmers Market one day a week. These employees, who took the day off from their regular assignment, received a commission. Some were earning almost as much in these four days as the regular salesmen are earning in a month. In addition, Vaike-Maarja sought to establish a retail store interest in Tallinn. An initial effort to acquire an equity position in an existing retail shop did not materialize, so efforts turned to establishing a wholly owned retail store which would sell Pandivere cheese and other products.

Complementary Products. There was also an attempt to become more important to retail shops by offering them products other than cheese. This includes Vaike-Maarja butter, heavy cream and potatoes. Sales of these products were relatively limited.

Fluid Milk. The fluid milk purchase and resale strategy was initially adopted in 1991 and has proven profitable whenever there is an undue price and or supply dislocation. It is based on Vaike-Maarja's sourcing and transport ability. Mid October volume was running at 24 tons per day. The October 1992 price spread will decrease significantly but this opportunity is clearly a source of profitability.

Export Sales. Prior to the break up of the FSU, all sales outside Estonia were made by export oriented "marketing houses". In 1992 Vaike-Maarja sought to reach export markets through direct contacts. Two direct export sales were made. The largest, approximately 156 tons, was made in March-April to an organization in Petrograd. Payment has not been received. The second was a 10 ton trial shipment to a private buyer in Sweden. The buyer declared approximately 35 percent of the product as below standard and therefore discounted the agreed upon price. FSU food aid shipment to be financed by the Dutch and the German government did not materialize.

RECOMMENDED MARKETING AND SALES STRATEGY

We recommend the privatized plant adopt a somewhat different marketing strategy. The basic element of the new strategy is to establish a long term preference for Pandivere cheeses with Estonian consumers, retailers and wholesalers by providing a high level of product quality and relatively low value for the basic product, differentiated higher value products, and a high level of service to wholesalers and retailers. It is only through such a consumer oriented strategy that the privatized Vaike-Maarja plant will survive. Specific actions to implement this overall strategy include:

1. Implement the product quality program recommended in the Operations Strategy section below.

2. Continue Pandivere as the low price cheese ("price-value leader") in the market.
3. Establish an aggressive new product development effort concentrated on higher value niche market cheeses.
4. Focus direct sales efforts on retail shops. Establish and maintain continuing sales to these shops through purchase incentives, regular sales calls and scheduled delivery service.
5. Use purchase incentives to stimulate retail shop purchases and sales.
6. Establish fluid milk purchase-resale to Tallinn and other fluid milk processors as a long term opportunity based on milk quality and price.
7. Sell into export markets only through brokers.
8. Expand production of sour cream butter and heavy cream only if they are profitable.

The goal of this strategy should be to sell out the plant's entire capacity by 1997, if not sooner. While this is an aggressive growth goal it is achievable. The plant's maximum capacity is 3,000 tons annually. This represents less than 10 percent of the total Estonia cheese market. In difficult economic times effective implementation of the price-value leader strategy should easily secure this level of sales.

Specific actions to implement the strategy are discussed below.

Improved Quality. An improved quality product is basic to the cheese plant's survival in a consumer oriented (market) economy. If Pandivere and other products are of inconsistent quality, retail shop owners and consumers will abandon it at the first opportunity they have. Further, if a reputation for inconsistent and or low quality cheese becomes widely held, wholesalers and export buyers will refrain from purchasing Pandivere and other company products. Even FSU food aid buyers might avoid purchase of cheeses which have spoiled on previous shipments. The Operations Strategy below lays out an action program that will achieve a consistent and higher level of quality within six months. Off quality or unduly old cheese should be sold only to local "melters" and or dairy farmers; it must not enter the consumer market.

Price-Value Leader. Given Pandivere's current lack of distribution and volume and the expected economic situation, the price-value leader strategy should be continued provided it is tied to a consistent and higher level of quality. This will position Pandivere as the price-value leader with consumers, assuring strong continuing volume as a good quality, basic food item.

Higher Value New Cheeses. Recognizing that the price-value leader position means a lower level of profit margin, the company must begin an aggressive new product development effort focused on cheeses. There was considerable support for this among Collective management, however that support was directed toward yogurt and packaged fluid milk. Addition of these products will require investment in new capital equipment. Given the current milk-processed milk products price structure, funds are not available even to make needed improvements in cheese operations much less for new products. In addition, the processing of other products such as yogurt would require plant personnel to learn new technology. There is a huge cheese market in which Pandivere hardly participates and which should be receptive to an aggressive and well structured sales effort.

The new company should adopt an umbrella brand name for its higher value products which distinguishes them from the Pandivere price-value leader image. The products will have a different target market; they need different brand images.

Availability of complementary products should be tied to purchase of Pandivere cheese to the extent possible. However care must be taken that shop owners are not aggravated by this policy. Placement of complementary products might be handled as an incentive as discussed below. If the complimentary products are profitable retail shop items they will also help assure wider distribution of Pandivere.

Focused Distribution Strategy. The price-value strategy will be successful only to the extent that Pandivere achieves widespread availability. In our visits to retail stores and discussions with consumers we rarely found an awareness of Pandivere. This is the key issue facing Pandivere's marketing and sales management team and deserves the majority of its attention.

Widespread availability of Pandivere cheese is not going to be achieved by controlling a retail outlet or a Farmers Market presence in Tallinn, or in every other city in Estonia, for that matter. It is going to be achieved only through the placement of Pandivere in every retail shop possible.

Current organization of consumer products marketing in Estonia makes it difficult to develop a consumer loyalty which will demand that retail shops carry Pandivere. In this market, it is the retail shop owners who decide what products will be carried. Hence, Pandivere's marketing strategy must provide an incentive for retailers to carry the product. Since Pandivere is virtually unknown, retail shop owners see its volume and profit potential as very limited. Therefore, the heart of the strategy must be to make Pandivere a profitable item for the retailer.

Immediate emphasis should be placed on securing widespread distribution in the major cities. Starting with Tallinn, specific city areas should be targeted for a blitz campaign designed to saturate the area with Pandivere. Company salesmen should receive a base salary and commission (or bonus) based on their success. Collective employees who sold in the Tallinn Farmers Market might be hired on a sales commission scheme to cover specific city areas, locating every retail cheese outlet and converting it to a regular buyer of Pandivere. Following successful introduction, defined sales routes should be established to assure continuing contact with retail shops. Pandivere's delivery trucks should be on a fixed schedule, e.g. every Monday each truck follows a specified route and calls upon specified shops. Farmers Market sales should be turned over to people who want to have their own business of buying and selling cheeses.

The importance of this issues cannot be over emphasized. Unless the cheese plant achieves a significantly higher volume of sales in the very near future, it is not going to survive. Quality and low cost production mean nothing if the product isn't sold in sufficient volume to maintain operations. The marketing group should focus its immediate efforts on this distribution goal. Everything else (except the Sweden export opportunity) is a diversion.

Purchase Incentives. As previously stated, Pandivere does not enjoy broad brand loyalty or consumption. As such, there is little or no incentive for retail shops to purchase, much less promote the sale of Pandivere. Indeed, providing retail shop owners the incentive to push Pandivere sales is an important part of establishing the consumer franchise. The marketing group should develop novel ways to motivate retail shop owners to carry and promote sales of Pandivere. Some ideas for consideration are:

- An introductory offer which incorporates a rebate to shop owners on purchases within a stated period. Example: EEK 0.25 rebate for every kilogram purchased over the next two weeks.
- Inclusion of a coupon with a box of cheese which provides a stated rebate on the shop's next purchase.
- A special purchase deal on another Vaike-Maarja plant product or other complementary product.
- Cooperative arrangements with producers of other products offering a rebate or a give away premium for minimum volume purchases of both products.

In addition to motivating retail store purchases, these incentives will also motivate the shop owners to push Pandivere sales to their customers. Rebates are suggested instead of a lower posted price so that retail shop owners know what the regular price is and expect to pay it except during special promotions.

The use of these incentives should be limited to introductory and other special offers within limited geographic areas and quite limited in length. This will discourage competitors from meeting Pandivere's competitive action with a similar rebate program. It will also limit the financial impact to the company.

The implementation of an incentive should also receive point of purchase promotional material which the consumer will see. These might include an identification tag to identify Pandivere in the display case, a special banner announcing the introduction of the product, and or wrapping paper or bag imprinted with the Pandivere brand name.

In addition to their use on an introductory basis, these incentives should also be used to promote sales for special occasions, e.g. Christmas. As consumer marketing support systems develop, variations can introduced directly to the consumer.

Solidify Fluid Milk Opportunity. Purchase and resale of fluid raw milk provides both immediate and long term advantages to a privatized cheese plant. In the immediate term it provides a source of much needed profit. For the long term, it solidifies the plant's access to a large supply of nearby milk — an advantage which is the plant's principal strategic strength.

The wide spread experienced in Fall 1993 will narrow very quickly as the market economy develops and price information becomes more widely known. Plant management should reduce its spread in order to discourage competitors from establishing direct from farmer purchase arrangements. This will secure continuing access to the area's large supply of nearby milk, an asset that will become even more important if the plant's raw milk suppliers improve the quality of their milk more quickly than do other milk producers.

To remain ahead of possible competitive moves, plant management must be alert to milk production, use and price trends in the various regional markets. Armed with this information the purchase — resale price spread should be adjusted to maintain a competitive position to alternative sourcing options for the Tallinn fluid milk plant and other buyers.

Export Through Brokers. Export market development and sales execution is a difficult business. Given the inconsistent quality of Pandivere and the economic difficulties being experienced in its traditional FSU markets, it is also fraught with unexpected problems which can result in economic losses. Vaike-Maarja's difficulties with recent direct export sales to Sweden and Petrograd provide ample testimony to this.

Given the difficulties of export marketing, and the primary importance of developing the domestic market, the privatized plant should leave near term development of export sales (expecting the current interest from Sweden) to experienced export brokers. As the company progresses — in quality, new products, and financial stability — there may be justification to undertake direct export marketing.

Review Complementary Products. We agree with the concept of complementary products. However, the current offerings of sour cream and heavy cream may not be profitable lines for the cheese plant. If this correct, their volume should be minimized.

OPERATIONS PLAN

The principal strategic operations goal is to improve the quality of cheeses produced to a point where there are no discount sales due to gassing, antibiotic contamination, or other quality problems. This can only be achieved through a major improvement in the quality of raw milk received. Such improvement requires that the plant encourage and work with its raw milk suppliers to institute a series of operating improvements which will raise the value (and reduce the unit cost) of milk produced. Within weeks after privatization the company should take the following steps:

- Publish a three year program which establishes and rewards increasingly higher raw milk quality standards, i.e. lower bacteria and somatic cell counts. This timetable should include implementation of the near term actions laid out in the cow shed privatization program by mid 1993, and installation of freon bulk tank refrigeration by the end of 1995.
- Announce the intent to reject all antibiotic contaminated milk effective July 1, 1993.
- Provide a program of assistance to milk producers to achieve these quality requirements by: hiring a field person who will conduct regular inspections of cows and facilities, providing recommendations and assistance in making necessary changes; and stocking a supply of sanitation chemicals, rubber gaskets, inflations, wipe cloths, etc. for sale to the cow shed operations.

Concurrently, a secondary goal should be vigorously pursued to reduce processing costs. Raw milk quality improvement will reduce per unit costs by reducing price discounts due to poor cheese quality. At the same time other costs, no matter how small, must be attacked. Unfortunately, the principal category which appears to offer some opportunity is salaries. Current management has recently reduced the staff compliment to 45 employees. Additional reductions might be possible.

A third concurrent effort should be undertaken to clean up the plant and its surrounding area. Emphasis should be placed on actions which will improve quality assurance and low cost items which will improve plant appearance. A better looking plant is a necessity when foreign buyers or potential partners visit the plant.

MANAGEMENT AND ORGANIZATION

Figure 1 illustrates the current organization structure of the cheese plant. Note that several functions are in the Collective Headquarters with the plant serving only the production and transportation functions.

FIGURE 1
CURRENT VAIKE-MAARJA CHEESE PLANT ORGANIZATION

As an independent private company, the cheese company should perform all key functions itself. Figure 2 illustrates the recommended organization.

FIGURE 2
RECOMMENDED CHEESE PLANT ORGANIZATION

Key changes, and the rationale behind them, include:

1. Establishment of the President position. This recognizes that the current General Manager function is really that of managing production. Accordingly, we have also changed the General Manager's title to Operations Director.
2. Establishment of separate departments for marketing and sales, and administration, and the direct reporting relationship of the quality control function to the President.

Given the central importance of market development to the company's viability, the President should have or develop a knowledge of marketing and sales.

LONG TERM DEVELOPMENT PLAN

The company's long term strategic strength is its access to a large supply of nearby milk. This assures the company of a low cost manufacturing position relative to competition and therefore the financial ability to become a leader in product development and marketing. The five year strategic plan presented above envisions the establishment of a market oriented company which has diversified its product line, reached its full production capacity, and is financially stable. As this goal is being accomplished, the company's top management team should address expansion of its production volume and product capability.

At some future date, the company should have a significantly broader product line, a 15 - 20 percent share of the Estonian processed milk products markets, and significant volume from export sales, most of which will be into the FSU. Accomplishing this will be more quickly achieved if it has a foreign partner which has invested in the company to gain an advantageous position for capitalizing on the large FSU market potential. The foreign partner will have contributed equity and some level of technology which make a significant contribution to the company's product diversification and volume expansion program.

FINANCIAL PROJECTIONS

The projections should be viewed as an indicator of trends. They should be used with caution as several uncertainties arise in the transitions from Ruble to Krooni based expense accounting, from the Collective to private ownership system, and in projecting sales. Perhaps the greatest uncertainties are in the areas of:

- Maintaining a price for Pandivere cheese which is 33 percent above the cost of milk required to produce the cheese.
- Energy costs, which have increased significantly over the past year. This is highly dependent on Russia's export prices and supply, which is determined at least in part by political factors.

- Whether or not the "Social Insurance" levy (used to finance Collective overhead and social programs) will be replaced with a higher tax levy, which is some form of state and or municipal tax.
- Sales projections which are based on what is considered a reasonable goal without the benefit of historical data.
- The level of finance charges which may be needed to cover working capital loans.

As with all basic food processing operations, the central profit generating problem facing the new company is the high level of variable cost in its products. This emphasizes the central importance of eliminating discounted sales (poor quality cheese) and minimizing per unit fixed costs through high volume.

CHEESE PLANT FINANCIAL PROJECTIONS
1993-1997
(1992 000 Kroon)

REVENUE	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>
Cheese	14,550	19,550	26,355	34,290	43,800
Butter	910	1,160	1,575	2,015	2,560
Whey/Skim Milk	138	175	225	280	345
Fluid Milk	<u>3,150</u>	<u>3,210</u>	<u>3,240</u>	<u>3,330</u>	<u>3,330</u>
	18,748	24,095	31,395	39,915	50,035
EXPENSES					
Milk	13,056	16,320	25,600	30,849	30,849
Labor	444	444	605	605	765
Variable costs	663	848	1,081	1,346	1,659
Fixed costs	125	125	125	125	125
Depreciation	<u>195</u>	<u>195</u>	<u>195</u>	<u>195</u>	<u>195</u>
	14,483	17,932	22,411	27,871	33,593
BEFORE TAX, INTEREST DEPRECIATION					
Total	<u>4,265</u>	<u>6,163</u>	<u>8,984</u>	<u>12,044</u>	<u>16,442</u>
Per kg/cheese	3,554	4,028	4,584	4,936	5,481
Cheese production tons	1,200	1,530	1,960	2,440	3,000

CHEESE PLANT ASSUMPTIONS

1. SALES (Tons)	1993	1994	1995	1996	1997
Pandivere	1,150	1,380	1,660	2,400	2,400
New Cheese 1	50	100	150	200	250
New Cheese 2	0	0	100	150	200
New Cheese 3	0	0	50	150	150
Fluid Milk	1,200	1,530	1,960	2,440	3,000
Butter	65	80	105	130	160
Whey/Skim Milk	11,000	14,000	18,000	22,400	27,600
Fluid Milk	3,000	3,000	3,000	3,000	3,000
	14,483	17,932	22,411	27,871	33,593
2. PRICES (EEK/KG)					
Pandivere	19.00	20.00	21.50	22.00	22.50
New Cheese 1	22.00	23.00	24.50	25.00	25.00
New Cheese 2	0	23.00	24.50	25.00	25.50
New Cheese 3	0	0	24.50	25.00	25.50
Butter	21.00	22.00	23.50	24.00	24.50
Whey/Skim Milk	0.0125	0.0125	0.0125	0.0125	0.125
Milk Purchases	1.20	1.30	1.35	1.35	1.35
Milk Sales to Tallinn Dairy	1.30	1.40	1.45	1.45	1.45

* NOTE: Cheese prices include impact of off-grade product sales.

3. CONVERSION FACTOR

10.3 kg of milk yields 1 kilogram of cheese and 9.2 kilogram whey and or skim milk.

4. LABOR

Based on January-August 1992 actual costs of EEK 356,00 for 5-day operation. Includes social securities and health insurance. Reduced 30 percent to reflect recommend reduction in staff complement.

1993	1.5
1994	1.5
1995	2.0
1996	2.5
1997	3.0

Add assumed fixed labor costs for new staff as follows:

President/General Manager	54,000 annual salary
Marketing Manager (Chairman)	54,000
Salesperson 2	40,000
Field Person	18,000
Senior Accounting Clerk	12,000
Junior Accounting Clerk	8,000
General Clerk (2)	12,000
Two Month Bonus	66,000
33% Social Security and Health Insurance	<u>65,340</u>
	329,340

CHEESE PLANT ASSUMPTIONS (continued)

5. VARIABLE COSTS

Based on January to August 1992 actuals, adjusted for increased volume (versus projected 960 tons in 1992) by the following multiples:

1993	25%
1994	160%
1995	204%
1996	254%
1997	313%

Projected 1992 expenses as follows:

Repair	46,416	
Auxiliary Materials	51,102	
Internal Transportation	46,226	
Milk Transportation	103,808	
Miscellaneous	110,148	
Sales Department Supplies	<u>12,000</u>	(new account)
	369,700	

Add fuel cost at EEK 200,000 in 1993 increasing 5 percent annually.

6. FIXED COSTS

Based on January to August 1992 actuals. Projected 1992 expenses as follows:

Uniforms/Tools	4,206	
Maintenance	18,117	
Insurance	18,000	(new account; of fixed asset book value)
Accounting Supplies	12,000	(new account)
Sales Department Travel		
- Per diem, 2 people 250 days	10,000	
- Hotel, 2 people 150 days	30,000	
- Fuel, 3 cars	<u>42,000</u>	
	134,323	

7. Excludes costs related to land, buildings, capital equipment and capital.

M-1

ANNEX M
VAIKE-MAARJA STRATEGIC PLAN
FOR MILK PROCESSING PLANT

(in Estonian)

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**VÄIKE-MAARJA
STRATEEGILINE
PROGRAMM
PIIMAVABRIKU**

April 1993

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VÄIKE-MAARJA ERASTATUD PIIMAVABRIKU STRATEEGILINE PROGRAMM

PÕHILINE ÄRIKAVA

Väike-Maarja juustuvabrik oli kollektiivi lahutamatu osa. Ta töötas kollektiivis toodetud piima müügipunktina, müüs oma tooteid kollektiivi kommertsosakonna kaudu, teda finantseeriti kollektiivi ressursidest ja ta sai administratiivset toetust kollektiivi administratiivkeskusest.

Eramajanduse tingimustes on juustuvabriku põhilise ärikava sihiks saada eraomandina piimasaaduste töötlemis- ja turustamis-organisatsiooniks. Vabriku juhtkond vastutaks piima varumise, toodete turustamise ja ettevõtte finantseerimise eest. Tõenäoselt aga säilitab vabrik lähemate aastate jooksul suhted kollektiiviga teatud teenuste hankimiseks. Tähtsam on see, et kollektiivmajand tõenäoliselt jätkab piima ostmist Väike-Maarja erastatud lehmalaudadelt.

Vabriku toodete peamine turg on seni olnud Nõukogude Liidus. Nõukogude Liidu lagunemise ja majanduslanguse tõttu peab toodete peamiseks turuks saama Eesti. Lähemas tulevikus koosnevad piimasaaduste eksporditehingud toiduainetööstustes kasutatava juustu müügist (näit. pizzade valmistamiseks), toiduabi ostudest välisriikide poolt endisele Nõukogude Liidule ning mõnedest saadetistest Nõukogude Liidu endistesse vabariikidesse vahetuskaubanduse alusel. Kaugemas tulevikus hakkab endise Nõukogude Liidu vabariikide majandusolukord paranema ja nad hakkavad uuesti ostma Eesti piimasaadusi. Millal ja kui palju -- nendele küsimustele ei saa praegu vastata.

Meie omahinna-analüüs näitab, et juustuvabrik on suuteline konkureerima teiste juustutootjatega. Väike-Maarja vabriku toorpiima sisseostuhind on olnud tunduvalt madalam teiste piimasaadustevabrikute omast. Näiteks -- oktoobri keskel müüs Väike-Maarja vabrik kohalikel talumeestelt avaturul ostetud toorpiima (hind EEK 85/liiter) edasi Tallinna vedelpiima töötlejale hinnaga EEK 120/liiter. Hinnavahe tulenes teatud määral turgu puudutava andmevahetuse puudusest, praegu aga parendatakse andmevahetust üsna kiirelt.

Hoolimata tooraine soodsast hinnast oli Väike-Maarja juustuvabriku tulukus 1992.a. üsna väike. Ta polnud selles aga üksi. Juustuomahind üleriiklikult, juustu hulgihinnad Tartus ja juustu jaehinnad Tallinnas kõik näitavad, et kogu juustutööstus töötab nõrkade tulemitega, väljaarvatud see osa, mis tegeleb eksporditava piimapulbriga.

Eraettevõttena peab juustuvabrik rakendama viis suuremat operatsioonilist muudatust, et tagada endale elujõulisust.

- Vabrik peab laiendama toodetavate kaubasortide valikut, et saada konkurentsivõimeliseks mitmes hinnaklassis.
- Vabrik peab tootma tunduvalt kvaliteetsemat juustu, peamiselt parema toorpiima varumise teel.
- Vabrik peab vähendama omahinda ühiku pealt.
- Vabrik peab rajama eelistatud vahekorra jaekaupluste omanike/juhatajatega ja pikapeale ka tarbijatega.
- Vabrikut peab juhtima tulusaamise eesmärgil ja mitte toodangunormide alusel, nagu seda praegu tehakse.

Kui need muudatused läbi viiaksegi, ei või kindel olla, kas Väike-Maarja vabrik suudab edasi töötada, kui tema toodete müügihinnad ei tõuse toorpiima sisseostuhinna suhtes. Praeguste toorpiima- ja juustuhindade taustal ei jõuta projekteeritud käibetuludega kinni maksta pikemaks ajaks vajalike uuendusi ja parandusi.

Tahetakse hankida äsja erastatud ettevõttele väliskapitalimahutusi. Välisinvesteeri- jaid võib ahvatleda odava toorpiima varud, millega toodetakse loomasöödana eksporditavat piimapulbrit ja juustu, mida eksporditakse peamiselt endise Nõukogude Liidu majanduslikult kosuvaile vabariikidele. Selleks tuleb aga tagada jätkuvat toorpiima tarnet, mille kvaliteeti peab praeguselt tasemelt tõstma, kui saadusi ekspordida tahetakse. Välisinvesteeri- ja tahaks eeldatavasti rakendada vabrikus suuremaid uuendusi, kui mitte tervet vabrikut ümber ehitada.

Järgmistel lehekülgedel esitatakse viie-aastane strateegiline programm Väike-Maarja erastatud juustuvabrikule. Selle esitamisega eeldatakse, et vabriku juhtkond suudab lahendada käibekapitali probleemid, mis mõjutavad vabriku tööd lähemas tulevikus.

ETTEVÖTTE EESMÄRK

Väike-Maarja piimavabriku eesmärgiks on toota ja müüa kõrge kvaliteediga piimasaadusi, tagada oma töötajatele head töötingimused ja teenida omanikele rahuldavat tulu.

STRATEEGILISE PROGRAMMIPERIOODI EESMÄRGID

1993-1997.a. strateegilise programmiperioodi eesmärkideks on:

1. Suurendada juustu tootmist 3.000 tonnini 1997. aastaks. See kujutab endast vabriku täisvõimsust, kuid vähem kui 10 protsenti Eesti juustu nõudlusest.
2. Turule tuua kolm uut ja kallimat juustusorti, mis moodustaksid 1997. aastaks 20 protsenti kogu läbimüügist.
3. Elimineerida kvaliteediga seotud probleemid järjest kõrgema kvaliteediga piima sisseostmise teel.
4. Saavutada 25%-line rentaablustase.

TÖÖSTUSHARU ANALÜÜS

Eesti juustutööstus on seni suurel määral sõltunud müügist endisele Nõukogude Liidule. 1989. aastal moodustasid müügid endisele Nõukogude Liidule 40% tööstuse kogutoodangust. Endise Nõukogude Liidu majandusliku ja poliitilise lagunemise tõttu lõppesid selle ostud peaaegu täielikult 1992. aastaks. Edaspidi toimub suurem osa Eesti juustueksportidist endise Nõukogude Liidu vabariikidele ainult teiste riikide poolt majandatud toiduabi ostude ning saadetiste näol ja endise Nõukogude Liiduga vahetuskaubanduse kujul.

Kuna Eesti majandus oli oluliselt seotud endise Nõukogude Liidu omaga, toimus selleski samaegselt langus. Üheks märgatavaks tulemuseks oli piimasaaduste tarbimise 30-protsendiline langus.

Need arengud on mõjunud eriti halvasti Väike-Maarja juustuvabrikule. Kooperatiiv hakkas osalema kodumaisel juustuturul alles 1988.a. 500-tonnise normiga. Ülejäänud

toode müüdi jaotajaile, kes pidid selle edasi müüma Nõukogude Liidule. Kuigi väike osa sellest tootest müüdi tõenäoselt ära koduturul, on selge, et suurem osa Väike-Maarja tooteist veeti Nõukogude Liitu. Arvestades isegi 1991.a. väiksema toodangumahuga, veeti arvestuste kohaselt tuhat tonni Pandivere juustu Nõukogude Liitu. 1992.a. oli eksporditava juustu müük vähem kui 200 tonni.

Kodumaine otsemüügimaht suurenes tunduvalt 1992.a. Septembri lõpuni müüdud juustuga arvestades, ulatus kodumaine müük -- aasta peale ümber arvestatult -- umbes 710 tonnini, ehk 42% rohkem viimastel aastatel toodetud normikohasest 500 tonnist. Kuna ekspordivõimalused on tunduvalt vähenenud, projekteeritakse, et 1992.a. juustutoodangu kogumaht ulatub ainult 950 - 1.050 tonnini, mis on tunduvalt vähem 1991.a. toodetud 1.519 tonnist ja jääb puudu ka vabriku aastavõimsusest, mis on 3.000 tonni.

Arvestades oktoobris 1992 esinevaid piima sisseostuhindu, juustu müügihindu ja juustutoodangu kogumahtu, on raske ette kujutada, kuidas tööstus oleks võinud olla tulukas. Meie arvestuste kohaselt töötased peaaegu kõik juustutootjad kui ka teiste piimasaaduste tootjad kahjumiga -- ning suutsid edasi töötada ainult sellepärast, et nad kuulusid kolhoosi või sovhoosi tiiva alla. Ainsaks erandiks paistis olema piimapulbri tootmine, mida toetab suhteliselt suure kasumiga eksporditurg. Veebruaris 1993 olid turuhinnad küllalt kõrgele tõusnud, et teeniti tagasihoidlikku kasumit.

Lähimas tulevikus peab Eesti piimasaaduste töötlemise sektor rajama oma töö kodumaise nõudluse rahuldamisele. Sellega ei öelda, et eksporditurg ei tõuse kunagi endisele tasemele. Taastuda võib ta küll, kuid ebakindel ajastamine ja toodangumaht ei luba lootma jääda ekspordikäibele, kuna see on seotud liiga suurte riskidega. Ennustame nii kodu- kui ka eksporditurgude suhteliselt aeglast kasvu, sõltudes Eesti ja teiste endise Nõukogude Liidu vabariikide majandusolude eeldatavasti aeglasest kosumisest. Selle tulemusena on nõudlus piimasaaduste järele käesoleva kümnendi lõpuni eeldatavasti palju väiksem kui nõudlus 1980. aastate lõpul ja 1990. aastate algul.

Käesoleva strateegilise programmi vältel -- 1993 - 1997 aastani -- jätkub Eestis rakse majandusolukord. Eeldame piimatoodete kodumaise tarbimise väikest tõusu, mis siiski jääb tunduvalt maha endisest nõudlusest, kuna inimeste sissetulek on väike ja hinnad tõusevad, niikaua kui arendatakse turumajandussüsteemi ja nõudlus toorpiima järgi suureneb. Samas aga püsib turuniss hinnakamatele spetsiaal-juustudele, mis tootjaile on kõige tulukamad.

Järgmiste aastate jooksul ostavad Lääneriigid tagasihoidlikus koguses Eesti piimasaadusi osana toiduabist endisele Nõukogude Liidule. Need ostud võivad tunduvalt väheneda 1990-date aastate keskpaiku. Ekspordimüügid koosnevad tõenäoselt peamiselt piimapulbrist, mida arenenud riigid ostavad loomasöödaks (piima-aseaineks vasikatele) ning ekspordisuhete osalisest taastamisest endise Nõukogude Liiduga. Eesti piimasaaduste kvaliteet tõuseb, kuid ei jõua veel maailmatasemeni. Seistes kõikides turgudes vastamisi tugeva konkurentsiga tõhusalt subsideeritud Euroopa Ühisturu eksportidelt, saavutab Eesti piimasaaduste tootmisektor väga väikese osa müügitheinguist kõrget kvaliteeti nõudvate turgudega.

Eeldatavasti jätkatakse piima tagasihoidlikku ületootmist veel aasta või kaks, kuni piimatootmisektor kohaneb vabaturumajanduse tingimustele. Hinnad võivad veidi tõusta, peegeldades nõudlust eksporditava piimapulbri järgi. Piimatööstuse järkjärgulise erastamise käigus eeldame piima ja piimasaaduste ümberhindamist, mis tõstaks töödeldud saaduste väärtust ja müügihinda toorpiima suhtes.

Senised ja projekteeritud pakkumise-nõudluse andmed Eesti piimanduses võetakse kokku tabelis nr. 1.

Tabel nr. 1. Piimanduse kohta valitud informatsioon.

	1989	1990	1991	1992	1993	1995	1997
				arv.	*** projekteeritud ***		
Piimatoodang (000 tonni)	1.258	1.200	1.070	800	795	940	1.123
Kodumaine tarbimine -- piima ekvivalent							
• kapitaal-kilogrammi pealt	478	529	488	379	375	400	450
• kokku (000 tonni)	748	831	770	600	595	640	725
Ekspord — piima ekvivalent	510	369	300	200	200	300	400
Jõudlus — kg/lehma pealt	4.189	4.053	3.810	3.027	3.400	3.800	4.000
Lehmade arv (000)	301	293	281	264	234	247	281

Allikad: Ühendriikide Põllumajandusministeerium (U.S.D.A.) ja Experience, Inc.

Lähtudes üleriiklike juustuomahinna arvestustest, võib eeldada, et Väike-Maarja vabrik on oma müügihindadega konkureerimisvõimeline. Üleriiklikku keskmist omahinda arvestatakse olevat umbes 8.000 EEK juustutonnilt, kuna Väike-Maarja keskmine on umbes 6.000 EEK juustutonnilt. Hoolimata antud võrdluse ebamäärasusest -- eriti kuna puuduvad andmed kulude jaotamise kohta mitut kaupa tootvas vabrikus -- peaks üldine järeldus olema õige. Ilmselt tuleneb Pandivere madalam omahind eelkõige kasutatava toorpiima suhteliselt madalast sisseostuhinnast. Mainitud omahinnavahe kaob siis, kui Väike-Maarja farmeritel on vabad käed oma piima müüa ka teistele ostjatele.

SIHTTURG

Pandivere juustu turustatakse ühe odavaima juustuna, võibolla isegi kõige odavamana kogu turul. Soodne hind peaks tagama ka võimalikult suurt läbimüüki. Tuleb arendada uusi juustusorte ja neid suunama kitsamale tarbijaringkonnale, kes seda ostaks isegi võimalikult kõrgema hinnaga. See lubaks Väike-Maarja toodetel esineda igale tarbijaringkonnale suunatud turul -- odavaimast kallimateni -- ning suurendaks vabriku tulusid.

Väike-Maarja juustuvabrik müüb oma tooteid üle terve Eesti. Otsemüümisel tegeldakse peamiselt jaekauplustega. Otsemüügivõimalusi leiduks ka suhetes toitlustusega seotud suuremate asutustega (näit. suurte hotellidega) ja olemasolevate hulgimüügipunktidega. Eesti jaotussüsteemi arenedes võib müüki suunata üha rohkem hulgimüügipunktidele. Ekspordivõimalust Rootsi võib uurida sõltumatult, kuid üldiselt tuleks ekspordimüüki korraldada koostöös ekspordivahendajatega.

Soovitame, et juustuvabrik lõpetaks kollektiivi kommertsosakonna poolt Tallinna turule rajatud otsemüügi tarbijaile ning lõpetaks samuti püüdlused rajada omaenda jaekauplused.

KONKURENTS

Oleme identifitseerinud umbes 11 Eestis toodetud juustusorti kahekümne eri vabriku tooteina. Valitsuse "avatud piiride" poliitika tõttu on ka importjuustud ilmunud Eesti turule.

Väike-Maarja kollektiivi turustusosakonna hinnangul oli nende juust, hinnaga EEK 11 - 12 (kesk-oktoobris, 1992), kogu turu odavaim juust. Kui juurde arvestada 15%-lise jahinna-kõrgenduse (riigikauplustes) pluss 18%-lise käibemaksu, oleks jahhind EEK

14.92 - 16.28. Nõustume sooviga säilitada madalat juustuhinda, lähtudes piiratud uuringust Tallinna jaekauplustest, kus juustuhinnad kõikusid madalaimast EEK 15 maksimaalhinnani EEK 18.70 (Atleet). Pandivere juustu ei leitud üheski Tallinnas külastatud kaupluses. Sama olukord kehtis veebruaris 1993, kuigi müügihinnad olid endistest kõrgemad.

Väike-Maarja kollektiivmajandi töötajad väljendasid suurt muret Pandivere juustu kvaliteedi üle, märkides, et pahatihti leitakse juustu juures gaasi ja hallitust. Kuna mainitud probleemid võivad tõepoolest esineda konkureerivate juustude juures, oli turustamisosakonna väide õige, et halva kvaliteediga Pandivere juustu müümine praegusel turul kahjustab selle müüki tulevikus.

PRAEGUNE TURUSTAMIS- JA MÜÜGISTRATEEGIA

Väike-Maarja kollektiivi piimasaaduste turustamisprogrammi strateegia koosnes viiest punktist:

1. Suurendada juustu läbimüüki kodumaal, pakkudes soodsaimat juustuhinda.
2. Müüa turu igale harule -- hulгимүүjatele, jaekauplustele ja otse tarbijaile.
3. Müüa lisaks Pandivere juustule kollektiivi teisi tooteid, nimelt võid, koort ja kartuleid.
4. Kasumi teenimise eesmärgil osta vedelpiima kohalike tootjailt edasimüügiks Tallinna vedelpiimatöötajale, kui olukord on selleks soodne.
5. Müüa otse eksporditurule.

Soodsaima hinna pakkumine. Kuigi juustuhinnad on viimasel ajal tõusnud juustu ilmse defitsiidi tõttu, ei jää ta pikemat aega defitsiitkaubaks. Kuna vabrik püüdis pakkuda oma tooteid teistest soodsama hinnaga, hakkaski ta 1992.a. saavutama sellega ettenähtud eesmärgi, s.t. suurendada läbimüüki. Aasta peale arvestatud otsemüük ulatus 710 tonnini, võrreldes Nõukogude ajastu normiga, mis oli umbes 500 tonni. Taoline hinnastrateegia on sobiv, kuna tarbijad näevad lähemas tulevikus raskeid aegu. Madal hind on ahvatlev neile, kes peavad ostma võimalikult odavat juustu. Peab aga märkima, et Pandivere on rajanud omale vastava kuulsuse tarbijate hulgas. Pandiverele

osutub raskeks, kui mitte võimatuks, saada maine poolest millekski muuks kui Eesti turu odavaimaks juustuks.

Jaotamine mitmele harule. Väike-Maarja kollektiivmajandil oli kaks töötajat, kes reisisid peaaegu kogu nädal ning müüsid juustu otse hulgi- ja jaekauplustele. Müüja ise tõi vabrikust müüdud kauba. Sellele lisaks müüsid mõned töötajad kord nädalas juustu otse tarbijatele Tallinna turul. Turul töötajatele, kes lahkusid seks päevaks oma tavalistelt töödelt, maksti vahendustasu. Mõned teenisid nelja turupäeva jooksul peaaegu sama palju, kui tavaline kaubaagent terve kuu jooksul. Väike-Maarja taotles jaekaupluse rajamist Tallinna. Kuna esialgne taotlus saada partneriks olemasoleva jaekaupluse juurde kukkus läbi, siis püüti rajada täielikult omaenda jaekauplust, mis pidi müüma Pandivere juustu ja teisi tooteid.

Lisatoodete müümine. Samuti püüti paremini läbi lüüa jaekaupluste juures, pakkudes sinna peale juustu ka teisi tooteid, sealhulgas Väike-Maarja võid, koort ja kartuleid. Nende toodete läbimüük oli suhteliselt väike.

Vedelpiim. Vedelpiima ostmise ja edasimüümise alustati 1991.a. Tehing osutus tulukaks igal ajal, kui esines erakorraline hindade või varude võnkumine. Tehing oli võimalik, kuna Väike-Maarjal oli võimalik toorpiima kergelt saada ja transportida. Oktoobri keskel ulatus käive 24 tonnini päevas. Kuigi oktoobris 1992 esinenud sisseostu- ja müügihinnavahe väheneb tunduvalt, kujutab endast selle võimaluse ärakasutamine vabrikule kindlat tuluallikat.

Ekspordimüük. Enne Nõukogude Liidu lagunemist tehti kõik müügitehingud väljaspool Eestit ekspordituru jaoks rajatud "turustamiskeskuste" kaudu. 1992.a. püüdis Väike-Maarja rajada otseste kontaktide kaudu ekspordisuhteid. Viidi läbi kaks ekspordimüüki. Suurema raames, millega toimetati kohale umbes 156 tonni, viidi märtsis-aprillis ühele St. Peterburgis asuvale organisatsioonile. Selle eest seni makstud ei ole. Teine müük koosnes 10-tonnisest proovisaadetisest eraostjale Rootsis. Ostja hinnangul oli umbes 35% kaubast allpool kvaliteedinormi ja seetõttu maksis kokkulepitud hinnast ainult vastava osa. Endisele Nõukogude Liidule mõeldud toiduabisaadetis, mille pidi finantseerima Hollandi ja Saksamaa valitsus, ei teostunud.

SOOVITATAV TURUSTAMIS- JA MÜÜGISTRATEEGIA

Soovitame, et erastatud vabrik rajaks omale uue turustamis-strateegia. Uue strateegia põhielemendiks oleks Eesti tarbijate, jaemüüjate ja hulgimüüjate meelitamine Pandivere juustused eelistama sellega, et valmistatakse kõrge kvaliteediga toodet

suhteliselt soodsa hinna eest, pakutakse sealjuures ka kõrgema väärtusega tooteid ja teenindatakse vastutulelikult hulgi- ja jaemüüjaid. Ainult seesugune, tarbija soovidele keskenduv strateegia tagab privatiseeritud Väike-Maarja vabrikule elujõu. Selle üldstrateegia rakendamiseks soovitame järgmiste üksikasjaliste punktide läbiviimist:

1. Rakendada toodete kvaliteeti tagav programm, nagu kirjeldatud allpool "Tööstrateegia" all.
2. Jätkata Pandivere juustu tootmist ning säilitada selle kuulsust soodsaima juustuna hinna ja väärtuse poolest.
3. Rajada agressiivse uute toodete väljaarendamise programmi, mis keskenduks kitsamatele tarbijaringkondadele suunatud kallimate juustude tootmisele.
4. Suunata müügi otse jaekauplustele. Rajada ärisuhteid ja jätkata oma toodete müüki nendele kauplustele, andes neile vabriku toodete ostmise eest ergutusauhindu ja -esemeid, käies korrapäraselt külas ja toimetades kauplusesse kavapäraselt oma tooteid.
5. Rakendada ergutusaktsioone, mis aitaksid veenda jaekauplusi meie tooteid ostma ja müüki propageerima.
6. Rajada pikemaajalised vedelpiima ostu ja edasimüümise suhted Tallinna ja teiste vedelpiima töötajatega, pakkudes sealjuures parima kvaliteedi ja soodsaima hinnaga piima.
7. Müüa eksporditurule ainult vahendajate kaudu.
8. Suurendada hapukoore, või ja koore tootmist ainult siis, kui see osutub tulukaks.

Käesoleva strateegia eesmärgiks on aastas läbi müüa vabriku täistoodangu 1997. aastaks, kui mitte varem. Niivõrd suure kasvu taotlemine on suurejooneline, aga sellegipoolest saavutatav. Täisvõimsusega töötav vabrik suudab toota 3.000 tonni aastas, varustades sellega vähem kui 10% Eesti juustu turust. Raskes majandusolukorras peaks strateegia, mille kohaselt Väike-Maarja tooted jäävad soodsaimaks hinna ja väärtuse poolest, kergelt tagama vajalikku läbimüüki.

Järgnevad üksikasjalikud sammud strateegia rakendamiseks.

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Kvaliteedi tõstmine. Kõrgema kvaliteediga toode on võtmetähtsusega element, kui tahetakse tagada juustuvabriku ellujäämist tarbija soove arvestavas (turu)majandussüsteemis. Kui Pandivere juust ja teised tooted ei ole järjekindlalt kvaliteetsed, jätavad jaekaupluste omanikud ja tarbijad need ostmata, kui neil vähegi valikut on. Kui juustu kohta levib kuulsus, et see ei ole järjekindlalt kvaliteetne või on üldiselt madala kvaliteediga, siis hoiduvad hulгимүүjad ja ekspordivahendajad neid kaupu ostmast. Isegi endise Nõukogude Liidule toiduabi saatjad ei osta teist korda juustu, mis on mõnes eelnevas saadetises halvaks läinud. Järgnev tööstrateegia kirjeldab programmi, millega saavutada püsiv ja kõrge kvaliteeditase kuue kuu jooksul. Madalama kvaliteediga või vananenud juustu peaks müüdma ainult kohalikele "sulatajaile" või piimafarmeritele, poeletile ei tohi see ilmuda.

Olla soodsaim hinna ja väärtuse poolest. Arvesse võttes Pandivere piiratud jaotuspiirkonda ja suhteliselt piiratud läbimüüki ning eeldatavat majanduslikku olukorda, peaks jätkama selle müümist soodsaima juustuna hinna ja väärtuse poolest, tingimusel, et selle kuulsusele lisandub kindel ja kõrgem kvaliteeditase. Siis saavutaks Pandivere kuulsuse soodsaima juustuna hinna ja väärtuse poolest ning tagaks endale jätkuvalt suurt läbimüüki kvaliteetse, põhilise toiduainena.

Uued kallimad juustud. Kuna Pandivere tahab säilitada oma kuulsuse soodsaima juustuna, teenib mainitud juust aga suhteliselt väikest tulu iga müüdud ühiku pealt. Sellepärast peab ettevõtte alustama agressiivselt uute kaupade -- peamiselt juustude -- arendamist ja tootmist. Kuigi kollektiivmajandi juhtkond põhimõtteliselt toetas mainitud kava, suunasid nad oma lootused joogurtile ja pakendis vedelpiimale. Nende kaupade tootmine nõuaks aga investeringut uutesse kapitaalsetadesse. Arvesse võttes praegust piima ja piimasaaduste hinnastruktuuri, puudub kapital, millega teha vajalikke parandusi juustugi tootmisseadmes, rääkimata uute kaupade tootmisseadmete rajamisest. Uute kaupade, näiteks joogurti tootmine nõuaks samas ka personali tutvumist uue tehnoloogiaga. Praegu tuleks aga ära kasutada hiigelsuurt turuosa, milles Pandivere vaevalt osaleb ja kus võiks edukalt ja agressiivselt turustada toodetavat Pandivere juustu.

Uus ettevõtte peab valima oma kallimatele kaupadele üldise kaubamargi, millega eraldada nende maine Pandivere odava ja soodsaima juustu kuulsusest. Need kaubad suunatakse teisele sihtrühmale, järelikult vajab uute juustude kaubamark ka teistsugust mainet.

Lisakaupade müüki peaks võimalikult palju seostama Pandivere juustu ostmisega. Tuleb aga ettevaatlikult toimida, et vastav aktsioon kaupluseomanikku ei häiriks.

Lisakaupade pakkumist võib arvestada ergutusaktsioonide hulka, nagu allpool kirjeldatud. Kui lisakaubad osutuvad jaekauplustes tulukaiks, siis tagavad need ka Pandivere enese laiemat levikut.

Sihiga jaotamisstrateegia. Strateegia, mille alusel pakutakse Pandivere juustu soodsaima juustuna hinna ja väärtuse poolest, osutub edukaks ainult siis, kui Pandivere juustu laialdaselt turustatakse. Pandivere nime tunti harva, kui käisime jaekauplustes või küsisime tarbijatelt. Pandivere kuulsuse levitamine kujutab endast tähtsat eesmärki turustamist ja müüki koordineerivale rühmale. Just sellele küsimusele peaksid vastavad isikud keskendama oma tähelepanu.

Pandivere juustu ei saa võimalikult laialt levitada, kui rajatakse jaemüügipunkti või müüakse seda Tallinna või Eesti teiste linnade turuplatsidel. Levikut ja kuulsust saavutatakse ainult siis, kui Pandivere juustu leidub üle terve maa võimalikult igas jaekaupluses.

Eestis praeguse tarbijatoodete turustamis-süsteemi raames ei ole võimalik meelitada tarbijaid Pandivere juustusid eelistama niivõrd, et ostjad nõuaksid Pandivere juustu müümist jaekauplustes. Praeguse turusüsteemi raames otsustavad jaekaupluse omanikud, milliseid kaupu müüakse. Järelikult peab Pandivere turustamis-strateegia rakendama jaekauplejate suhtes ergutusaktsioone, et nad müüksid vabriku kaupasad. Kuna Pandivere nime üldiselt hästi ei tunta, siis arvavad ka jaekaupluste omanikud, et läbimüük ei osutu suureks ja tuluteenimisvõimalusi on vähe. Järelikult tuleb jaekaupluseomanikku veenda, et Pandivere juustu müümine talle tulu toob.

Esiteks tuleb juustu laialt jaotada suuremates linnades. Alates Tallinnast, peab suunama intensiivset reklaami üksikutesse linnaosadesse, eesmärgiga igasse võimalikku müügipunkti sisse viia Pandivere juustu. Ettevõtte kaubaagendid peaksid saama põhipalgale lisaks vahendustasu (või preemia) vastavalt edule. Kollektiivi töötajatele, kes müüsid Tallinna turul juustu, tuleks maksta samuti vahendustulu ning suunata teatud linnaosadesse külastama igat jaemüügipunkti ja veenma jaekaupmehi Pandivere juustu regulaarse tellimise ja müügi tulukusest. Kui Pandivere juustu turustatakse juba laiemalt, tuleb rajada kindlad müügi-marsruudid, millega tagada jätkuvaid kontakte jaekauplustega. Igal Pandivere kaubaveoautol peab olema kindel kava, näit. esmaspäeval läbib iga auto ettenähtud marsruudi ja külastab teatud kauplusi. Müügitegevus avaturgudel peaks üle antama inimestele, kes tahavad vabakutseliselt osta ja müüa juustusid.

Eelmainitud küsimused on olulise tähtsusega. Kui juustuvabrik ei suuda lähemas tulevikus oma läbimüüki tunduvalt suurendada, siis ei suuda ta praeguse aja üle elada.

Kvaliteet ja madal omahind ei tähenda midagi, kui kauba läbimüügist ei piisa vabriku edaspidise töö majandamiseks. Turustamisrühm peab suunama oma jõud jaotamise laiendamise eesmärgile. Kõik muu on kõrvaline, väljaarvatud Rootsi ekspordivõimaluse arendamine.

Ergutusaktsioonid. Nagu varem öeldud, ei ole Pandivere juustu nimi üldtuntud ega tarbimine laialdane. Seetõttu on jaekauplustel vähe või üldse mitte huvi Pandivere juustu ostmise ega selle müügi propageerimise vastu. Tuleb rakendada jaekaupluste omanike suhtes ergutusaktsioone, et nad ise propageeriks Pandivere juustu müüki. Aktsioonid aitaksid meelitada ka tarbijaid Pandivere juustu eelistama. Turustamisrühm peab arendama jaekaupluste omanike huvidele vastavaid ergutusprogramme, et nad heameelega ostaksid Pandivere juustu ja propageeriks selle müüki. Mõned ettepanekud oleksid järgmised:

- Sissejuhatav pakkumine, mille alusel kaupluse omanikule antakse hinnaalandus vastavalt müüdud juustude arvule teatud aja jooksul. Näiteks: 0,25 EEK suurune hinnaalandus iga müüdud kilogrammi eest järgmise kahe nädala jooksul.
- Kupongi lisamine juustu kasti, mille tagastamisega antakse kauplusele hinnaalanduse, kui ta vabrikult järgmise juustupartii ostab.
- Hinnaalandus mõne muu Väike-Maarja vabriku toote või lisakauba ostmise eest.
- Koostöölepingud muude kaupade tootjatega, mille alusel pakutakse hinnaalandust või makstakse kauplusele teatud preemia, kui see ostab teatud miinimumpartii mõlemast kaubast.

Taoline programm ergutaks jaekauplusi vabriku kaupasid ostma, samuti annaksid mainitud ergutusaktsioonid kaupluste omanikele motivatsiooni propageerida Pandivere müüki oma klientidele. Soovitame püsiva sisseostuhinna vähendamise asemel vahetevaheliste hinnaalandusprogrammide pakkumist, kuna siis harjuvad jaekaupluse omanikud määratud sisseostuhinnaga ja on nõus seda maksma, väljaarvatud eriliste reklaamiaktsioonide puhul.

Ergutusaktsioonid peaksid toimuma ainult sissejuhatavate ja teiste eriprogrammide puhul teatud piirkondades ja ainult lühikeseks ajaks. Siis ei saa konkurendid hakata matkima Pandivere aktsiooni samasuguse hinnaalandus-programmiga. Samas osutub see meie vabrikule vähem kulukaks.

Ergutusprogrammide rakendamisega tuleb müügipunktidesse saata reklaamimaterjali, mis ostjale silma torkab. Reklaamimaterjalide hulka võiks kuuluda silt, millega Pandivere juustu vitriinis eristatakse; eriline vimpel, mis teatab kauba sissetoomisest; Pandivere kaubamarki või nime kandev pakkimispaber või turukott.

Neid reklaamiesemeid ei tuleks kasutada mitte ainult kauba sissetoomise puhul, vaid ka kauba müügi propageerimiseks erilistel puhkudel, näit. jõulude ajal. Turustamis-süsteemi arenedes võib reklaamivariatsioone esitada otse tarbijale.

Vedelpiima müüjate ja töötlejate suhete kindlustamine. Toore vedelpiima ostmine ja edasimüük pakub nii praegu kui ka pikemas tulevikus soodustusi erastatud juustuvabrikule. Praegusel ajal kujutab see tehing endast hädavajalikku tuluallikat. Kaugemas tulevikus kindlustab suhete jätkamine piimatootjatega vabriku juurdepääsu samas piirkonnas asuvale piimatootmisallikale -- eelis, milles seisneb vabriku suurim strateegiline jõud.

Sügisel 1992 kogetud sisseostu/edasimüügi hinnavahe väheneb kiirelt, kui turumajandus areneb ja andmed turuhindade kohta laiemalt levivad. Vabrikujuhid peavad sisseostu/edasimüügi hinnavahet vähendama, vältimaks seda, et konkurendid hakkaksid piima soodsama hinna eest otse talumehe käest ostma. See talitusviis kindlustaks jätkuvat juurdepääsu selle piirkonna küllaldastele piimavarudele, mis osutub üha kasvava tähtsusega eeliseks, eriti siis, kui need, kes vabrikut toorpiimaga tarnivad, tõstavad oma piima kvaliteeti teistest piimatootjatest kiiremini.

Vältimaks konkurentide ettejäudmist, peab vabriku juhtkond olema teadlik piimatootmise, -kasutamise ja -hindade muutustest mitmel piirkondlikul turul. Sellest informatsioonist lähtudes peavad nad kohandama sisseostu/edasimüügi hinnavahet, et jääda konkureerivale positsioonile teiste piimapakkujate ees Tallinna vedelpiima vabriku ja teiste ostjate suhtes.

Eksporditehingud vahendajate kaudu. Ekspordituru arendamine ja müügitehingute läbiviimine on suurte raskustega seotud. Arvestades Pandivere ebajärjekindla kvaliteedi ja endises Nõukogude Liidus esinevate majandusraskustega, võivad esile kerkida etteaimamatud probleemid, mis viiksid majanduslike kaotusteni. Väike-Maarja raskused hiljutiste ekspordimüügitehingutega Rootsi ja St. Peterburgi on selgeiks näiteiks mainitud probleemidest.

Arvesse võttes eksporditurustamise raskusi ja koduturu arendamise esitähtsust, peaks erastatud vabrik andma lähema aja jooksul käimasolevate ekspordimüügitehingute

arendamise üle (väljaarvatud praegune tehinguvõimalus Rootsiga) kogunud ekspordivahendajatele. Kui ettevõtte toodete kvaliteet tõuseb, uued kaubad pannakse turule ja majandusolukord stabiliseerub, võib tulevikus vahest õigustada otse eksporditurustamise ettevõtmist.

Olemasolevate lisakaupade müügi tulukuse hindamine. Lisakaupade müümise põhimõttega oleme nõus. Siiski on kahtlane, kas praegu toodetavad lisakaubad -- hapukoor ja koor -- oleksid juustuvabrikule tuiukad. Kui see osutub õigeks, peaks nende tootemahtu minimiseerima.

TÖÖPROGRAMM

Strateegilise tööprogrammi peamiseks eesmärgiks on juustude kvaliteeti parendamine, nii et ei peaks enam arvestama hinnaalandustega gaaside tekke, antibiootikumitega saastamise või muude kvaliteediga seotud probleemide pärast. Toodete kvaliteet pareneb ainult siis, kui tõuseb tunduvalt sisseveetava toorpiima kvaliteet. Vastav parendamine nõuab, et vabrik osutab koostööd oma toorpiima tarnijatele operatsiooniliste muudatuste rakendamisel, mis tõstaksid toodetud piima kvaliteeti ja vähendaksid samas ka omahinda. Mõne nädala jooksul pärast erastamist peaks ettevõtte astuma järgmisi samme:

- Avaldama kolme-aasta programmi, mis rajab ja premeerib järjest kõrgemaid kvaliteedinorme toorpiimale, s.t. minimaalse bakterite ja soomaatiliste rakkude sisaldusega toorpiimale. Programm peab rakendama lehmalaudade erastamisprogrammis ettenähtud lähemaajalisi samme 1993.a. keskepaigaks ning arvestama freoonkülmuti sisseseadmisega enne 1995.a. lõppu.
- Teatama kavatsusest tagasi lükata kõik antibiootikumidega saastatud piima alates 1. juulist 1993.
- Rajama piimatootjatele programm, mis aitaks neil vastu tulla kvaliteedinõuetele. Selleks peab palkama inspektori, kes viib läbi perioodilisi inspeksioone lehmade ja rajatiste juures ning annab juhtnõore ja osutab abi vajalike muudatuste tegemisel. Sealjuures tuleb varuda ka keemilisi desinfektsioonivahendeid, kummist tihendeid, nisakannusid, pühkimisrätikuid jne., mida lehmalaudad vajaduse korral osta võivad.

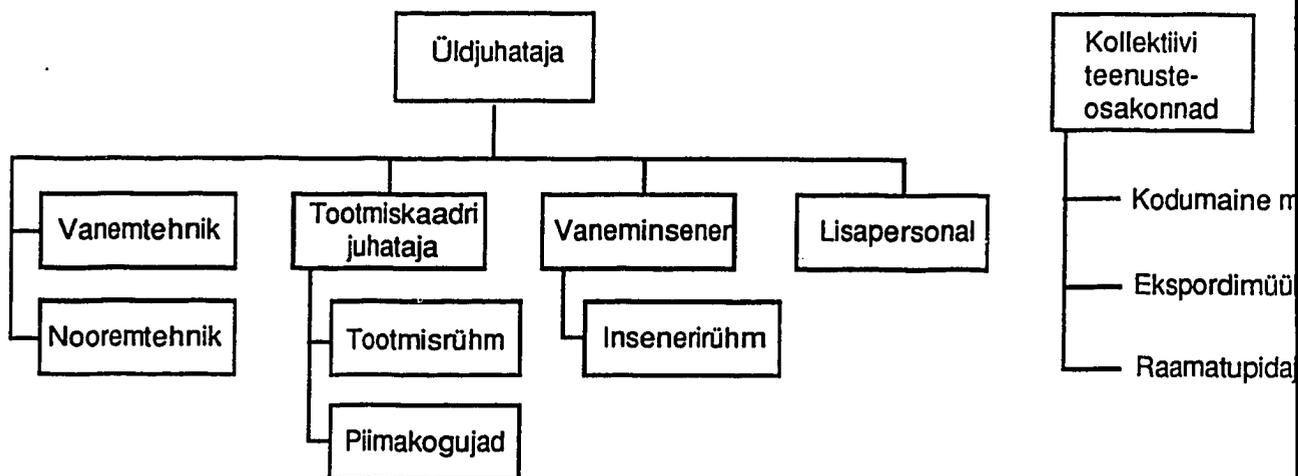
Samal ajal tuleb energiliselt sihtida ka teisele eesmärgile -- omahinna vähendamisele. Toorpiima kvaliteedi parendamine vähendab omahinda sellega, et välditakse hinnaalandusi, mis tulenevad halva kvaliteediga juustu väljasaatmisest. Samas peab arvesse võtma ka kõiki muid kulusid, ka kõige väiksemaid. Kulusid saab kahjuks kergelt kärpida palkade hulgast. Praegune juhtkond on vähendanud isikkoosseisu 45-le töölisele. Töötajate arvu võidaks veelgi vähendada.

Kolmas ülitähtis eesmärk on vabriku ja selle ümbritseva piirkonna korrastamine. Rõhu asetame kvaliteeti kindlustavatele muudatustele ja kergematele parandustele, mis annaksid vabrikule nägusama välimuse. Vabrik peab olema korras, kui välismaa ostjad või võimalikud partnerid vabrikut külastavad.

JUHTKOND JA STRUKTUUR

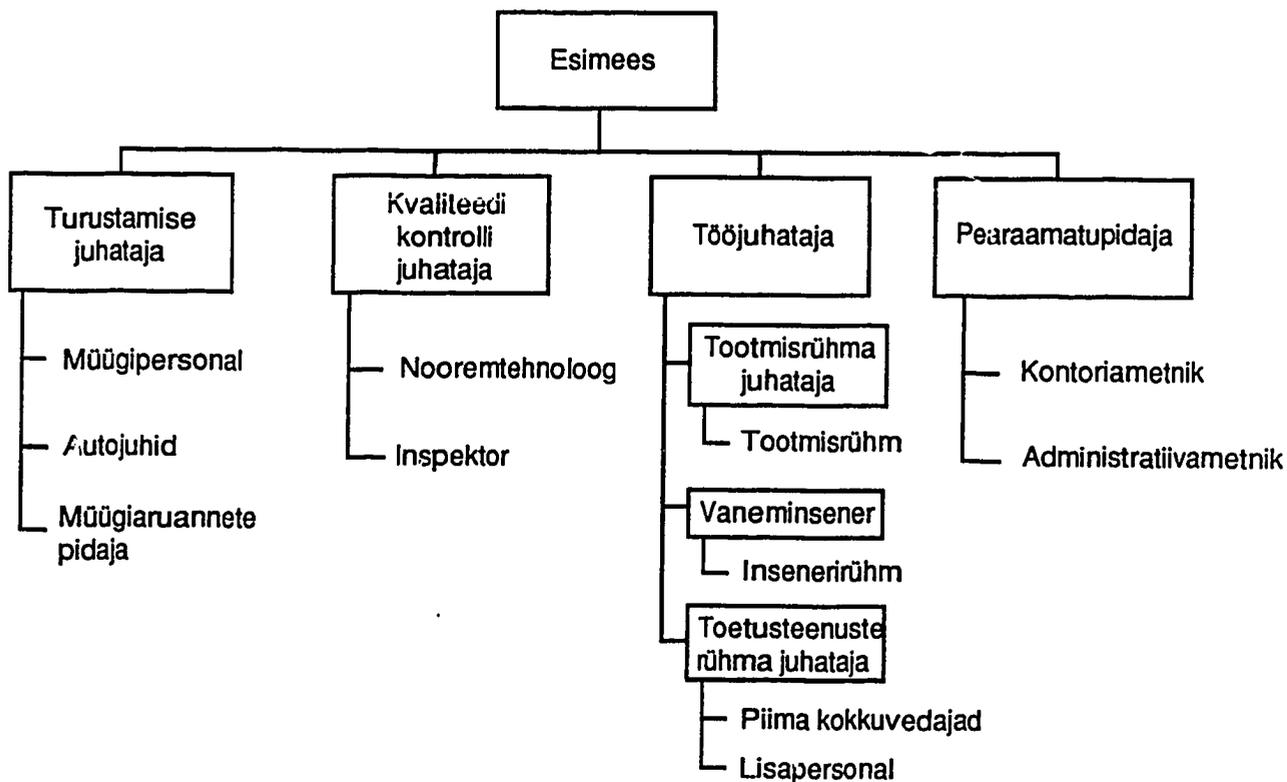
Joonis nr. 1 näitab juustuvabriku praegust organisatsioonilist struktuuri. Kollektiivi peastaap hoolitseb mitme funktsiooni eest, kuna vabrik töötab ainult tootmise ja transportimise alal.

Joonis nr. 1. Väike-Maaria juustuvabriku praegune struktuur.



Iseseisva erettevõttena peab juustuvabrik ise tegema kõik võtmetähtsusega tööd. Joonis nr. 2 näitab soovitatav struktuuri.

Joonis nr. 2. Juustuvabriku soovitatav struktuur.



Suuremate muudatuste ja nende põhjenduste hulka kuuluvad:

1. Esimehe ameti loomine. Sellega näidatakse, et praeguse üldjuhataja töö hõlmab tegelikult tootmise juhtimist. Oleme vastavalt muutnud üldjuhataja tiitli tööjuhatajaks.
2. Rajatakse eriosakonnad turustamise ja müügi ning administratiivtööde jaoks, kvaliteedi kontrollimise osakond allub vahetult esimehele.

Arvesse võttes turu arendamise võtmetähtsust ettevõtte elujõulisusele, peaks esimehe amet kuuluma inimesele, kel on kogemusi või kes suudab hankida kogemusi turustamise ja müümise alal.

PIKAAJALINE ARENGUKAVA

Ettevõtte pikaajaline strateegiline jõud seisneb tema juurdepääsus suurtele ning samas piirkonnas saadavaile piimavarudele. See kindlustab, et ettevõtte omahinnad jäävad konkurentidega võrreldes madalaks, mis omakorda tagab talle majandusliku eelise juhtiva positsiooni saavutamiseks oma kaupade arendamises ja turustamises. Eelnevalt ära toodud viie-aasta strateegiline programm näeb ette turu nõuetega arvestava ettevõtte rajamist, mis pakub üha uusi tootesorte, saavutab oma täie tootejõulisuse ja seisab majanduslikult kindlal pinnal. Kui need eesmärgid on saavutatud, peavad ettevõtte tipp-juhid kaaluma toodanguvõimsuse suurendamist ja toodete valiku veelgi suuremat laiendamist.

Näeme ette, et kunagi tulevikus toodab ettevõtte tunduvalt suuremat kaubavalikut, omab 15 kuni 20 protsenti Eesti piimasaaduste turust ja märkimisväärse osa ekspordimüügist, millest enamus suundub endisse Nõukogude Liitu. Seda kõike suudab vabrik kiiremini saavutada, kui tal on välismaine partner, kes mahutab ettevõttesse kapitali, eesmärgiga ise leida soodsa positsiooni, kust ta saab ära kasutada neid võimalusi, mida pakub endise Nõukogude Liidu suur turg. Välispartneri panus koosneb kapitalimahutustest ja mõningaist tehnikaseadmeist, mis aitavad märkimisväärselt kaasa ettevõtte kaupadevaliku laiendamisele ja läbimüügi suurendamisele.

RAHANDUSLIK PROJEKT

Projekt on mõeldud voolude näitajana. Andmeisse tuleb praegu suhtuda ettevaatlikult, kuna võib esineda mitmeid ootamatuid tegureid rublalt kroonile rajatud kulude

arvutlemissüsteemile ülemineku puhul, kollektiivomandisüsteemilt eraomandisüsteemile ülemineku tõttu, samuti ka läbimüügi ennustamisel. Suurimaiks küsimärkideks osutuvad tõenäoselt:

- Pandivere juustu müügihind, mis peaks olema 33% kõrgem juustu tootmiseks kokkuostetud piima hinnast.
- Energiakulud, mis on tunduvalt tõusnud viimase aasta jooksul. Need sõltuvad suurel määral Venemaa ekspordihindadest ja varudest, mis omakorda sõltuvad poliitilistest teguritest.
- Kas asendatakse "sotsiaalkindlustuse" (millega majandatakse kollektiivi üldkulud ja sotsiaal-programmid) mingisuguse kõrgema lõivuga, s.t. mingi riigi- või munitsipaalmaksuga.
- Läbimüügi prognoosid, mis põhinevad arvestuste kohaselt realistlikel eesmärkidel, arvestamata varasema statistikaga.
- Käibekapitali laenude pealt tehtavate maksude suurus.

Nagu kõikide põhiliste toiduainetetöötlemise operatsioonidega, on uue ettevõtte tulukuse keskseimaks probleemiks suured variatsioonid toodete omahindades. Sellega rõhutame, kui tähtis on vältida hinnaalandustega müüke (halva kvaliteediga juustu tõttu) ja vähendada käibekulutusi suure läbimüügi saavutamise teel.

JUUSTUVABRIKU RAHANDUSLIK PROJEKT**1993-1997**

(1992.a. 000 kroonides)

	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>
TULUD					
Juustust	14.550	19.550	26.355	34.290	43.800
Võist	910	1.160	1.575	2.015	2.560
Vadakust/lõssist	138	175	225	280	345
Vedelpiimast	<u>3.150</u>	<u>3.210</u>	<u>3.240</u>	<u>3.330</u>	<u>3.330</u>
	18.748	24.095	31.395	39.915	50.035
KULUD					
Piim	13.056	16.320	20.405	25.600	30.849
Palgad	444	444	605	605	765
Muutuvad kulud	663	848	1.081	1.346	1.659
Fikseeritud kulud	125	125	125	125	125
Amortisatsioon	<u>195</u>	<u>195</u>	<u>195</u>	<u>195</u>	<u>195</u>
	14.483	17.932	22.411	27.871	33.593
TULU (mitte arvestades tulumaksu, Intressi ja amortisatsiooni)					
Kokku	<u>4.265</u>	<u>6.163</u>	<u>8.984</u>	<u>12.044</u>	<u>16.442</u>
Pro kilogramm juustu	3,554	4,028	4,584	4,936	5,481
Juustutoodang (tonnides)	1.200	1.530	1.960	2.440	3.000

PROGNOOSID JUUSTUVABRIKULE

	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>
1. LÄBIMÜÜK (tonnides)					
Pandivere	1.150	1.380	1.660	1.990	2.400
Uus juust nr. 1	50	100	150	200	250
Uus juust nr. 2	0	50	100	150	200
Uus juust nr. 3	0	0	50	100	150
Juustuläbimüük kokku	1.200	1.530	1.960	2.440	3.000
Või	65	80	105	130	160
Vadak/lõss	11.000	14.000	18.000	22.400	27.600
Vedelpiim	3.000	3.000	3.000	3.000	3.000
2. HINNAD (EEK/kg)					
Pandivere	19,00	20,00	21,50	22,00	22,50
Uus juust nr. 1	22,00	23,00	24,50	25,00	25,50
Uus juust nr. 2	—	23,00	24,50	25,00	25,50
Uus juust nr. 3	—	—	24,50	25,00	25,50
Või	21,00	22,00	23,50	24,00	24,50
Vadak/lõss	0,0125	0,0125	0,0125	0,0125	0,0125
Vedelpiim					
Piimasisseost	1,20	1,30	1,35	1,35	1,35
Piimamüük Tallinna Piimatalitusele	1,30	1,40	1,45	1,45	1,45

*NBI: Juustuhindadesse on arvestatud puuduliku kvaliteediga toodete odavmüük.

PROGNOOSID JUUSTUVABRIKULE (järg)

3. ARVESTUSVALEM

10,3 piimakilogrammist toodetakse 1 kg juustu ja 9,2 kg vadakut/lõssi.

4. TÖÖKULUD

Tulenevad 1992.a. jaanuarist augustini väljamakstud summadest, s.t. EEK 356.000 viiepäevaste töönaelade eest. Sisse on arvestatud sotsiaal- ja tervishoiukindlustuse maksud. Vähendatud 30% võrra näitamaks isikkosseisu soovitud kohast vähendamist. Eeldatakse järgmisi nihkeid:

1993	1,5
1994	1,5
1995	2,0
1996	2,5
1997	3,0

Sellele lisame eeldatavad fikseeritud töökulud uuele isikkosseisule:

Esimees/üldjuhataja	54.000 aastapalk
Turustamise juhataja	54.000
Müügipersonal (2)	40.000
Välisinspektor	18.000
Vanemraamatupidaja	12.000
Nooremraamatupidaja	8.000
Üldametnik (2)	12.000
Kahe kuu preemia	66.000
33% sotsiaal- ja tervishoiukindlustus	<u>65.340</u>
	329.340

5. MUUTUVAD KULUD

Tulenevad 1992.a. jaanuarist augustini tehtud kulutustest. Võtavad arvesse üha suurenevat läbimüüki (suhtarvudena 1992. aastaks projekteeritud 960 tonnile) järgmiselt:

1993	125%
1994	160%
1995	204%
1996	254%
1997	313%

1.5

1992. aastaks projekteeritud kulud:

Remont	46.416
Lisamaterjalide ost	51.102
Sisetransport	46.226
Piimavedu	103.808
Mitmesugust	110.148
Müügiosakonna tarbed	<u>12.000</u> (uus konto)
	369.700

Sia lisada (1993.a.) kütusekulud EEK 200.000, tõuseb 5% iga aastaga.

6. FIKSEERITUD KULUD

Tulenevad 1992.a. jaanuarist augustini tehtud kulutustest. 1992.a. kulud projekteeritakse järgmiselt:

Vormid/tööriistad	4.206
Ülalpidamiskulud	18.117
Kindlustus	18.000 (uus konto; 3% põhivahendite märgitud väärtusest)
Raamatupidamistarbed	12.000 (uus konto)
Müügiosakonna reisikulud	
- Päävarahad, 2 isikut, 250 päeva	10.000
- Hotell, 2 isikut, 150 päeva	30.000
- Kütus, 3 autot	<u>42.000</u>
	134.323

7. Juurde ei ole arvestatud maa, hoonete, kapitaalsete ja kapitaliga seotud kulusid.

N-1

ANNEX N

VAIKE-MAARJA STRATEGIC PLAN FOR MILK FARM

(in Estonian)

**VÄIKE-MAARJA
STRATEGILINE
PROGRAMM
PIIMAFARMI**

April 1993

VÄIKE-MAARJA ERASTATUD PIIMAFARMI STRATEEGILINE PROGRAMM

PÕHILINE ÄRIKAVA

Väike-Maarja lehmalaudad olid kollektiivi lahutamatu osa, kuna lautade tööjõud koosnes kollektiivi liikmeist, valdav osa söödast saadi kollektiivi farmidelt, piima viidi kollektiivi piimavabrikusse ja Kollektiivi Administratiivkeskuses hoolitseti lehmalautade administratiivsete ja tehniliste teenuste eest.

Lehmalautade põhilise ärikava kohaselt muudetakse iga laut eramajanduse süsteemi raames era-piimafarmiks. Iga uus talujuhataja vastutab oma farmis toodetud piima müümise ja kõikide vajalike seadmete ostmise eest. Tõenäoselt aga säilitavad farmid lähemas tulevikus suhted kollektiiviga teatud tarvete hankimiseks. Siiski võivad farmid müüa oma piima ka mujale, kuna kollektiivmajand maksis veidi madalamat hinda, kui teised ostjad. Aja möödudes hakkab kollektiiv tõenäoselt ostma vajalikke teenuseid mitmelt uelt ettevõttelt.

Meie analüüs Väike-Maarja 1991-1992.a. piimatootmise ja -töötlemise operatsioonidest näitab, et nii farmide kui ka juustuvabriku tulem on nõrk. Üleriiklik piimatootmise omahind ja praegused juustuhinnad Tallinna jaekauplustes kinnitavad meie analüüsi järeldusi, mille kohaselt kogu piimatööstus ei ole eriti tulukas, väljaarvatud see osa, mis tegeleb eksporditava piimapulbriga. Mainitud analüüsi tulemusi peab uuesti kontrollima kroonimajanduse kohta avaldatava lisainformatsiooni taustal. Kui analüüs osutub õigeks, eeldame olukorra muutumist Eesti liikudes vabaturumajanduse suunas. Selle tulemusena eeldatavasti tõusevad otse talumehelt ostetava piima hinnad ja ka töödeldud piimasaaduste müügihinnad.

Eraettevõttena peab uus farm rakendama kaks suuremat operatsioonilist muudatust, et kindlustada pikemaajalist ellujäämist. Esiteks tuleb farmi juhtida tulusaamise eesmärgil ja mitte toodangunormide alusel, nagu omal ajal tehti. Teiseks peab farm tootma kvaliteetset piima (s.t. minimaalse bakterite ja soomaatiliste rakkude sisaldusega) vastavalt turu nõuetele.

Järgmistel lehekülgedel on ära toodud viie-aastane strateegiline programm Väike-Maarja "keskmisele" erastatud farmile. Kirjeldatud talu koosneb kahesajast lehmast vastavate lautade, seadmete ja karjamaadega. Kõik muud vajalikud seadmed ostetakse tarnijailt väljaspool kollektiivi. Peab märkima, et rahandusliku projekti kavandamisel lähtuti kuludest ja toorpiima sisseostuhindadest veebruari algul 1993.

ETTEVÖTTE EESMÄRK

Farmi eesmärgiks on toota ja müüa kõrge kvaliteediga vedelat toorpiima, tagada oma töötajatele head töötingimused ja teenida omanikele rahuldavat tulu.

STRATEEGILISE PROGRAMMIPERIOODI EESMÄRGID

1993-1997.a. strateegilise programmiperioodi eesmärkideks on:

1. Suurendada keskmine jõudlus 6.000 kg-le lehma pealt. Väike-Maarja farmide keskmine jõudlus enne 1991.a. põuda oli 5.300 kg, s.t. 4.000 kuni 6.500 kg.
2. Vähendada bakterite ja soomaatiliste rakkude sisalduvust 100.000-le. Praegune tase parimalgi piimal on 300.000 piires.
3. Vähendada soomaatiliste rakkude sisalduvust 750.000-le.
4. Eemaldada antibiootikumid piimast täielikult.
5. Saavutada tulu ja raharingluse taseme, millest piisaks vajalike uuenduste läbiviimiseks ja tagaks omanikele rahuldavat tulu.

TÖÖSTUSHARU ANALÜÜS

Eesti on tootunud rohkem piima, kui ta ise vajab. Alates 1989. aastast on tootmine aga langenud endisest Nõukogude Liidust tuleva subsideeritud sööda sissevoolu lõppemise tõttu, samuti 1992.a. põua tagajärjel. Nii on lehmade arv, jõudlus ja kogutoodang tunduvalt vähenenud pärast 1989. aastat ja eriti viimase kahe aasta jooksul.

Sama perioodi vältel langes endine Nõukogude Liit suurtesse majandusraskustesse ja vähendas märgatavalt Eesti piimasaaduste importimist. Samal ajal halvenes ka Eesti majandusolukord, mille tõttu langes piimasaaduste tarbimine ka kodumaal.

Lähemas tulevikus sõltub Eesti piimatööstus üha rohkem kodumaisest nõudlusest. Eksporditurgudel seisab Eesti vastamisi tugeva konkurentsiga teistelt Ida-Euroopa maadelt endise Nõukogude Liidu turgude eest, muudel vabaturgudel konkureerib subsideeritud Euroopa Ühisturg. Järelikult langeb nõudlus piimasaaduste järele, kui seda võrrelda 1980.-date aastate lõpu ja 1990.-date aastate algusega.

Eestis valitseb raske majanduslik olukord veel mitu aastat. Eeldame piimasaaduste kodumaise tarbimise väikest tõusu, mis siiski jääb tunduvalt maha endisest nõudlusest, kuna inimeste sissetulek on väike ja hinnad tõusevad, niikaua kui arendatakse turumajandussüsteemi areneb ja nõudlus toorpiima järgi suureneb.

Järgmiste aastate jooksul ostavad Lääneriigid tagasihoidlikus koguses Eesti piimasaadusi osana toiduabist endisele Nõukogude Liidule. Ekspordimüügid koosnevad peamiselt piimapulbrist, mida arenenud riigid ostavad loomasöödaks (piima-aseaineks vasikatele), toiduabist endisele Nõukogude Liidule ning toiduainetööstustele müüdavast juustust (näit. pizzade valmistamiseks). Eesti juustude ja muude piimasaaduste kvaliteet tõuseb, kuid ei jõua veel maailmatasemeni. Eeldatavasti toimub ka piimasaaduste eksportimist Eesti ja endise Nõukogude Liidu vahelise vahetuskaubanduse kujul.

Eeldades, et ilmastik on 1993.a. taas tavaline, võib oletada, et piimatoodang on praegu madalseisus ning hakkab 1993.a. suvel kosuma. Kui piimatoodang lehma pealt tõuseb endisele tasemele, siis on vaja lehmade arvu umbes kümne protsendi võrra vähendada, s.t. kuna praeguste arvestuste kohaselt on olemas 264.000 lehma, langeb arv 1993. aastaks 234.000 lehmani ning hakkab siis jälle tõusma, kuni kümnendi lõpuks jõuab lehmade koguarv peaaegu 1990.a. tasemeni.

Eeldatavasti jätkatakse piima tagasihoidlikku ületootmist veel aasta või kaks, kuni piimatootmissektor kohaneb vabaturumajanduse tingimustele. Hinnad tõusevad natuke, peegeldades nõudlust eksporditava piimapulbri järgi. Ebaefektiivselt töötavad piimandus-kolhoosid ja -sovhoosid on sunnitud tegevuse lõpetama.

Senised ja projekteeritud pakkumise-nõudluse andmed Eesti piimanduses võetakse kokku tabelis nr. 1.

Tabel nr. 1. Piimanduse kohta valitud informatsioon.

	1989	1990	1991	1992	1993	1995	1997
				arv.	*** projekteeritud ***		
Piimatoodang (000 tonni)	1.258	1.200	1.070	800	795	940	1.123
Kodumaine tarbimine -- piima ekvivalent							
• kapitaal-kilogrammi pealt	478	529	488	379	375	400	450
• kokku (000 tonni)	748	831	770	600	595	640	725
Eksport — piima ekvivalent	510	369	300	200	200	300	400
Jõudlus — kg/lehma pealt	4.189	4.053	3.810	3.027	3.400	3.800	4.000
Lehmade arv (000)	301	293	281	264	234	247	281

Allikad: Ühendriikide Põllumajandusministeerium (U.S.D.A.) ja Experience, Inc.

Lähtudes üleriiklikest piimasaaduste omahindadest, selgub, et kahel Väike-Maarja piimafarmil on head väljavaated eeldatava lehmade arvu languse ja terve riigi kolhooside/sovhooside farmide likvideerimise üle elada. Veel kahel on samuti head väljavaated, sel tingimusel, et kulutusi natukene kärbitakse. Kolmel aga seisavad ees suured raskused, kui nende juures ei tehta tõsisid muudatusi. (vt. tabel nr. 2) Peab märkima, et omahind piima-kilogrammi pealt on tihedalt seotud toodangumahuga, mis sõltub otseselt juhatamisoskusest. Kuna Väike-Maarja lehmalaudad asuvad üksteise lähedal, peaksid nad kõik suutma sama palju toota kui neid juhendatakse võrdse oskuslikkusega.

Tabel nr. 2. Väike-Maarja lehmalautade piimaomahind 1991.a.

<u>Lehmalaut</u>	<u>Rubla/100 kilogrammi</u>
Ebavere	41,51
Raekyla	46,87
Koonu	60,30
üleriiklik, keskmiselt	arvestatavalt 65,00
Kaarma	68,70
Eipri	88,94
Antu	109,32
Maasiku	*131,31

*Eelduste kohaselt on sellesse arvestatud kapitaalremondi ja juurdeehitamise kulud.

Allikas: *Pearaamatupidaja osakond, Development Alternatives, Inc.*

SIHTTURG

Eelduste kohaselt müüvad Väike-Maarja erastatud piimafarmid suurema osa oma piimast jätkuvalt Väike-Maarja juustuvabrikule. Eeldatava võimsusega töötades hakkab Väike-Maarja juustuvabrik vajama rohkem piima, kui Väike-Maarja farmid suudavad toota. Eestis rajatakse ka teised uued vabrikud, mis võivad samuti taotleda farmide piimatoodangu ostmist. Ka teistesse linnadesse hakkavad tekkima edukad erastatud piimasaaduste töötlemise vabrikud, kel osutub vajalikuks laiendada oma toormetarnevõrku. Selle olukorra tekkides peavad farmid suurendama oma piimatoodanguvõimsust.

KONKURENTS

Lähemal ajal ei suuda teised piimafarmid märkimisväärselt konkureerida Väike-Maarja farmidega piima tarnimises Väike-Maarja juustuvabrikule. Järgmise viie aasta jooksul võib aga juhtuda kaks asja, mis olukorda tunduvalt muudaksid.

- Väike-Maarja juustuvabrik võib lakata töötamast. Sel juhul võiksid Väike-Maarja erastatud farmid müüa oma toorpiima kaugemal asuvatele vabrikutele. Seetõttu aga tõuseksid piimaveokulud ja väheneks Väike-Maarja piirkonna farmeritele makstav tulu.

- Võivad tekkida farmid, mis töötavad Väike-Maarja farmidest efektiivsemalt ning mis konkureerivad madalama müügihinnaga, ükskõik kellele nad oma piima müüvad.

TÖÖPLAAN

Farmi juhatamise strateegiliseks eesmärgiks on operatsiooniliste uuenduste rakendamine, millega vähendatakse omahinda ja tõstetakse toodetud piima kvaliteeti ja toodangumahtu. Sellega tõstetakse müütava toorpiima kvaliteeti ja selle eest nõutavat hinda. Samuti tahetakse eemaldada antibiootikumidega saastatud piim, mis praegu moodustab umbes 10% piimavabrikusse sisseveetud piimast. Soovitame, et vabrik lükkaks saastatud piima tagasi selle eest tasumata.

Järgmised soovitused puudutavad operatsioone. Need loetletakse siin, et sellega rõhutada nende tähtsust strateegiliste eesmärkide saavutamisel.

- Erastamise juures
 - Talude isikkoosseis moodustada järgmiselt:
 - 1 farmi juhataja (direktor)
 - 1 karjahoidja pro 75 lehma
 - 1 lüpsja pro 50 lehma
 - 1 lauda/söödaseadmete ülalpidaja (mehhaanik) pro 200 lehma
 - 1 traktorist/mehhaanik
 - 1 tööliste asetäitja puhkuste aegadel
 See nõuab mõnede olemasolevate farmide isikkosseisu vähendamist.
 - Muuta ergutustasusüsteemi alus, nii et see ei sõltuks enam piimatoodangumahust, vaid farmi tulukusest.
- Niipea kui võimalik esimesel aastal
 - Parendada sanitaarolusid järgmiste seadmete ja protseduuride kasutuselevõtmisega: kasutada joodi sisaldavat nisapuhastusainet, kasutada mitteamalhoitavaid puhtaid rätikuid iga lehma juures, pühkida kuiva rätikuga puhtad lehmad ja hoiduda vee kogunemisest nisa otstele; teha igale lehmale (mastiidi diagnoosimiseks) "California Mastitis Test" ning eraldada põletikus

lehmad; ravida mastiiti antibiootikumidega kuivatamise ajal; lüpssta mastiiti põdevad lehmad viimasena.

- Parendada piima käsitlemise hügieeni lüpsiseadmete ja torude pesemisega kaks korda päevas, kasutades 113 liitrit vett temperatuuriga 72° C, koos nõutud seebi ja keemiliste desinfektsioonivahenditega õigetes kogustes.
- Hoida lüpsivaakuumseadme surve 400-500 toona piires (s.t. 29.21 - 33.02 sm. piires ehk *11.5 - 13 inches mercury*).
- Kontrollida korrapäraselt kanali tihendusrõngaste puhtust ning rõngad asendada, kui esinevad praod või lekked.
- Asendada nisakannud kord veerandaastas (ehk pärast 800 lüpsi), kasutades kvaliteetsemaid kummist nisakannusid.
- Asendada lüpsiseadme kummivoolikud kord aastas.
- Alustada intensiiv-karjatamist, nagu tehakse praegu Ebavere ja Raekyla farmides. See tagab kõrgema toiteväärtusega karjaheina, loomi võib karjamaale lasta varem ning karjatamist lõpetada hiljem.

Hügieenilised uuendused maksavad eeldatavasti EEK 10.000 - 12.000 kahe saja lehmaga ühiku pealt. Ühe laktatsiooni vältel peaks mainitud muudatuste mõju end juba täielikult avaldama, kuna need väldivad antibiootikumidega saastatud piima tootmist.

Intensiiv-karjatamine aitab suurendada piimatoodangut ja vähendada söödakulusid.

- Niipea kui võimalik teisel aastal

Muuta heinateokava järgmiselt: esimene lõikussaak pannakse silosse ja teine lõikussaak kuivatatakse. Sellega saab esimene lõikus teha varem ning seda ei ole tarvis kuivatada; järelikult tõuseb teise lõikussaagi kvaliteet. Söödakulud langevad. Esimese lõikussaagi niiskusesisaldus ei peaks probleeme tekitama, kuna heina võib silos hoida 65%-se niiskusesisaldusega (s.t. 1-2 head kuivamispäeva).

- Niipea kui võimalik seejärel
 - Asendada jääveega töötav külmutusseade kommertskülmutusseadmega (*bulk tank system*). Hoida piima temperatuur 2 - 4° C. Pruugitud süsteemi arvestatav kulu -- US\$ 3.000 kahesaja lehmaga farmile, kus toodetakse 5.500 kg piima lehma pealt. Tulemusena tõuseb piima kvaliteet ja müügihind ning väheneb veokulu vabrikusse, kuna nüüd transporditakse piima ülepäeviti iga päeva asemel.
 - Parendada söödaratsiooni õliseemnejahu, maisi ja kõrge toiteväärtusega heinte (näit. ristikkeina) lisamisega. Eeldatavasti on need ained odavamalt saadaval kui praegu kasutatav "kontsentraat". Tulemusena suureneb piimasaak, söödakulud langevad.
 - Asendada klaastorustik roostevaba terasega. Arvestatav kulu 200 lehmaga laudale - US\$ 7.000. Tulemusena tõuseb piima kvaliteet ja müügihind.

RAHANDUSLIK PROJEKT

Rahanduslik projekt kavandati 200 lehmaga farmile. Eeldatakse isikkoosseisu keskmist suurust ja kulusid vastavalt veebruari algul 1993 saadud kogemustele. Arvude juures võetakse arvesse ülalpool soovitatud kapitaaluuenduste kulusid. Projektis kasutatav rahaühik on 1992.a. kroon.

Käesoleva projekti andmesse peab suhtuma ettevaatlikult, kuna võib esineda mitmeid ootamatuid tegureid rubladelt kroonidele rajatud kulude arvutlemissüsteemile ülemineku puhul, samuti kollektiivomandisüsteemist eraomandisüsteemile ülemineku tõttu. Tõenäoselt esinevad suurimad ootamatud tegurid järgmistes valdkondades:

- Otse talumehelt ostetava piima hinnad. Arvestame, et Väike-Maarja toorpiima müügihind tõuseb kolme aasta jooksul tasemele, mida maksavad eksporditavat piimapulbrit tootvad vabrikud (s.t. EEK 1.40/kg).
- Söödakulud, mis on viimaste kude jooksul tunduvalt suurenenud. Need sõltuvad mõnel määral Venemaa ekspordihindadest ja varudest, mis omakorda sõltuvad osaliselt poliitilistest teguritest.

- Kollektiivide "sotsiaalkindlustuse" maksude (millega finantseeritakse kollektiivi üldkulud ja sotsiaal-programmid) asendamine mingisuguse riigi- või munitsipaalmaksuga.

Tulevikus võib esineda ka teisi muudatusi muude tarvete ja teenuste -- näit. veterinaarteenuste -- hindades, mille eest praegu hoolitseb kollektiiv, kuid mis tulevikus varutakse eraettevõttele.

LEHMALAUDA RAHANDUSLIK PROJEKT
1993-1997
 (1992.a. kroonides)

	<u>1993</u>	<u>1994</u>	<u>1995-97</u>
TULUD			
Piimast	850.000	1.012.680	1.044.560
Praakloomade/vasikate müügist	<u>213.750</u>	<u>213.750</u>	<u>213.750</u>
	1.063.750	1.226.430	1.258.310
KULUD			
Palgad	122.550	122.550	122.550
Kuivsööt	278.370	264.450	251.230
Muud kulud	<u>308.000</u>	<u>308.000</u>	<u>308.000</u>
	708.920	695.000	681.780
TULU (mitte arvestades tulumaksu, intressi ja amortisatsiooni)			
Kokku	<u>354.830</u>	<u>531.430</u>	<u>576.530</u>
Pro kilogramm piima	0.355	0.483	0.514
Piimatoodang (kilogrammides)	1.000.000	1.100.000	1.120.000
Piima müük (kilogrammides)	940.000	1.040.000	1.060.000

PROGNOOSID

1. Piimatoodang lehma pealt suureneb, kui ilmastik 1993.a. taas normaliseerub ja kuivsööda ning heinasalvestuse korraldamine paraneb. Alles terve hooaja möödudes võib märkimisväärselt tunda vastavate muudatuste mõju. Toodang iga lehma pealt on järgmine:

1993	5.000 kg
1994	5.500 kg
1995 ja edaspidi	5.600 kg

Iga lehma piimatoodangust tarbib vasikas 300 kilogrammi.

Kui tahetakse toodangut veelgi suurendada, tuleb söödaratsiooni parendada.

2. 1993.a. keskmiseks piimahinnaks arvestatakse EEK 1.20/kg. Järgnevad hinnatõusud -- EEK 1.30 (1994) ja EEK 1.35 (1995-1997) peegeldavad eksporditavat piimapulbrit tootvate vabrikute poolt makstavat hinda ning kvaliteedi tõusu, mis tuleneb paremast hügieenist ja freonkülmuti piimahoidla sisseseadmisest 1995.a.
3. Muud tulud tulevad 67 praaklooma müügist, müügihinnaga EEK 3.000 lehma pealt ja 165 vasikat, müügihinnaga EEK 200 vasika pealt. Andmete allikas: Väike-Maarja erafarmer.
4. Tööjõu kuupalgad: 1 tööjuhataja @ EEK 4.000; 4 lüpsjat @ EEK 1.200; 3 karjahoidjat @ EEK 1.000; 1 autojuht/mehhaanik @ EEK 1.000; 1 tööliste asetäitja puhkuste aegadel @ EEK 900.
5. 1993.a. kuivsööda kulud, mis olid keskmiselt EEK 12.00/päev iga lehma pealt aastas, langevad 5% 1994. ja 1995.a. parendatud karjatamise ja heinasalvestuse korraldamise tõttu.
6. Muud kulud suurenevad, sealhulgas aastas 5%-line kütusehinna tõus, ning EEK 50.000 EEK aastas parendatud lehmade ja seadmete hügieeniprogrammi kulude (EEK 12.000) ja veterinaarteenuste eest (EEK 38.000).
7. Projektides ei arvestata maa, hoonete, kapitaalseadmete, kapitali või amortisatsiooniga seotud kuludega.

ANNEX O

**INVITATION TO THE "AGRIBUSINESS REFORM: WORKSHOPS AND
PRIVATIZATION" CONFERENCES**

(in English and Estonian)

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Ameerika Ühendriikide Rahvusvahelise Arengu Agentuur,
Arengualternatiivide Korporatsioon,
Geonoomika Instituut
ja
Deloitte and Touche
pakuvad seminaril:

REFORM PÖLLUMAJANDUSES

KUIDAS PRIVATISEERIDA AGROFIRMASID

TALLINNAS, 3. novembril, 10.00 ... 17.00

EESTI NÄITUSED, Pirita tee 28

TARTUS, 5. novembril, 10.00 ... 17.00

ELVI, Kreutzwaldi 1

seminari sponsoriks on

EESTI PÖLLUMAJANDUSMINISTEERIUM

Seminariid on mõeldud põllumajandusreformi komisjonide liikmetele. Teemad, tulevad käsitlemisele kogu tööpäeva tihedalt täitva seminaril käigus, pakuvad kolhooside, ettevõtete ning agrofirma reformiks vajalikku informatsiooni.

Arutusele tulevate teemade hulgas on

- Ettevõtte planeerimine
- Finantsmajandus
- Ettevõtte raamatupidamine
- Turu-uuringud
- Juriidilised küsimused ja juhtimisstruktuur

Teemade käsitlemisel fagatakse tõlge eesti keelde.

The U.S. Agency for International Development,
Development Alternatives, Inc.,
Geonomics Institute,
and
Deloitte and Touche
present

AGRIBUSINESS REFORM:

WORKSHOPS AND PRIVATIZATION

..... TALLINN - November 3 ... 10:00 AM - 5:00 PM

ESTONIAN FAIRS, Pirita tee 28

..... TARTU - November 5 ... 10:00 AM - 5:00 PM

ESTONIAN RESEARCH INSTITUTE of ANIMAL BREEDING
and VETERINARY SCIENCE, 1 Kreutzwaldi str.

sponsored by:

ESTONIAN MINISTRY OF AGRICULTURE

The workshops are specially designed for Agricultural Reform Committee members. The subjects covered during the intensive day long meeting provide information that will assist in the preparation of collective and farm enterprises for operations in the emerging market economy. Subjects covered will include

- Business Planning
- Financial Management Systems
- Financial Accounting Practices
- Market Analysis
- Legal and Administrative Structures

Simultaneous Translation between Estonian or English provided at each Session and Workshop.

ANNEX P

**AGENDA FOR THE NATIONAL CONFERENCES "AGRIBUSINESS
REFORM: WORKSHOPS AND PRIVATIZATION"**

**ESTONIA FOOD INDUSTRY PRIVATIZATION
NATIONAL CONFERENCES, NOVEMBER 1992**

Seminar I: Tallinn, Estonia, November 3, 1992, 10:00 a.m.- 5:30 p.m.

- 9:00-10:00 Registration & Coffee
- 10:00-11:30 Opening Plenary Session--Michael Claudon, Chair
- 10:00 Welcome--Michael Claudon, Geonomics Institute
- 10:05 Welcoming Remarks--Rein Nigul, Chancellor, Estonian Ministry of Agriculture
- 10:10 Seminar Overview--Robert Otto, Development Alternatives, Inc.
- 10:15 "The Anatomy of an Agricultural Market," Michael Claudon
- 11:00 "Agricultural Privatization: A View from Parliament," Dr. Ivar Raig, Member of Parliament; Chairman of the Agriculture and Economy Commission, Parliament of Estonia
- 11:20 Afternoon Workshop Vignettes by the four Workshop Captains
- 11:30-1:00 Lunch
- 1:00 Workshops, Session 1
- 1) Financial Management, Daniel Hogan and Nicholas Baughan, Development Alternatives, Inc.
 - 2) Business Planning, Doyle Peterson, Development Alternatives, Inc.
 - 3) Operations Management, John MacKillop, Geonomics Institute
 - 4) Marketing, Richard Magnani, Development Alternatives, Inc. and Michael Claudon
- 3:00 Workshops, Session 2 (Repeat of the four workshops)
- 4:00 Closing Q&A Plenary Session--Michael Claudon, Chair

Seminar 2: Tartu, Estonia, November 5, 1992, 10:00 a.m.- 5:30 p.m.

- 9:00-10:00 Registration & Coffee
- 10:00-11:30 Opening Plenary Session--Michael Claudon, Chair
- 10:00 Welcome--Michael Claudon
- 10:05 Welcoming Remarks--Olev Kart, Chairman, Department of Science, Estonian Ministry of Agriculture
- 10:10 Seminar Overview--Daniel Hogan
- 10:15 "The Anatomy of an Agricultural Market," Michael Claudon
- 11:20 Afternoon Workshop Vignettes
- 11:30-1:00 Lunch
- 1:00 Workshops, (Repeat of the four workshops presented in Tallinn)
- 3:00 Closing Q&A Plenary Session--Michael Claudon, Chair

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ANNEX Q
CONFERENCE WELCOMING REMARKS

by
Michael Claudon

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Michael Claudon, Geonomics Institute, Welcoming Remarks:

On behalf of the U.S. government's U.S. Agency for International Development, and of the U.S. companies Development Alternatives, Inc., Geonomics, and Deloitte & Touche, it is my pleasure to welcome you to today's seminar. Thank you for travelling long distances to listen to our ideas and to share your thoughts and experiences with us.

Before beginning, we wish to offer our sincere thank you to the Estonian Ministry of Agriculture, which is sponsoring and facilitating this project. Thank you as well to the people of Estonia's countryside for your hospitality and patient answers to our many, many questions.

Lastly a very special thank you to the managers and people of the Collective Farm Vaike Maarja, and to Vaike Maarja's Reform Commission. We hope they have benefitted as much from us as we have from our work with them.

Our Focus today is how to succeed in the business of food production, processing, and marketing in Estonia, following the reforms and transition to private, profit-seeking ownership, management, and operations.

Our goal is to provide you with essential tools for planning and operating commercially viable farms and food companies. This seminar will help the reform commissions evaluate collective farms' privatization proposals, and will help the members of collectives prepare and defend the privatization and business plans they must present to the reform commissions.

Our approach is practical. It is based on the real situation in Estonia, as well as universal principals and experience of market economies around the world.

ANNEX R

THE ANATOMY OF AN AGRICULTURAL MARKET

Presentation by Michael Claudon at National Conference

THE ANATOMY OF AN AGRICULTURAL MARKET
Michael Claudon
Geonomics Institute

Question: What challenges, opportunities, and threats will Estonia's private farms and food businesses face following the reforms?

The answer to this question is critical to Estonia's private farms, agricultural service and processing companies, and food marketing companies as they prepare for a future as privately owned, profit-seeking enterprises.

My goal this morning is to give you a very simple and practical framework for operating private agribusinesses in a market economy. It will help you understand what the structure of an agricultural market is, and how the pieces fit together. It will also help you better understand the challenges and opportunities awaiting you as the owners and operators of your own profit-oriented businesses.

Following my introductory presentation this morning, this afternoon's workshops will give you a chance to focus on the individual pieces of this market.

This morning's framework and this afternoon's workshops draw on the universal experience of economies in Scandinavia, Europe, and North America. Our presentations also draw on the team members' agribusiness experience working in 45 countries, as well as their own agricultural and farming experience in the United States.

My remarks this morning are not just theory. What I will share with you today, my family and I have personally experienced as the owners and operators of a small, privately owned family farm. I come from a tiny village of 700 people in the state of Vermont, which is far up in the northeast corner of America. For 15 years we operated a 45 hectare sheep farm of 150 sheep. We produced 300 or more lambs per year. We have personally lived with, and experienced the very real things I am about to share with you.

Post-reform Challenges.

Just like private companies around the world, after the reforms, you will face two major challenges or changes in your everyday business lives. Meeting these two challenges will determine whether your business survives or not.

1. **Manage your business for profit, not for production.**
You must strive to operate your business at the highest possible level of efficiency and at the lowest possible operating cost.
2. **Competition among profit-oriented businesses, not central administration, will determine what and how much is produced.** Competition among buyers will decide who gets those products.
In other words, competition will decide which businesses survive, and which do not. As with private companies all over the world, Estonian companies will have to meet the test of the market, or they will fail.

For any business to succeed, its buyers must be willing and able to pay a price that exceeds production cost. A profit must be earned if the business is to grow and remain financially healthy. Companies fail when cost exceeds price over long periods of time. They cannot pay their workers, or their input suppliers. They also cannot pay themselves!

Competition is at the very the core of the success or failure of companies. Consider the example of an Estonian farm shown on the chart we gave you as you came in, which is also now on the screen¹. First, your farm's products must compete with those coming from other existing farms. If other farms can supply their products to the market at a lower cost or deliver better quality products than your farm can, you will not meet the test of the market.

In the past, your farm depended on the Ministry of Agriculture, the Estonian Grain Board, and the Association of Agribusiness Supplies to provide your needed inputs at low, subsidized prices. After the reforms (referring to the top box in Figure 1) all of these inputs will be sold in markets by private companies seeking their own profits. The tractor and machinery dealer will try to get the highest price he can. You want to buy your equipment for the lowest possible price.

If you are a tiny farm, you will have very little bargaining power against these suppliers of your inputs. The higher prices you pay for your inputs means lower profits. **If farms are too small, they will be at the mercy of suppliers, and be vulnerable to failure due to high operating costs.**

One specific strategy, which Mr. Magnani will discuss in detail later, is to form producers' cooperatives. In this way, groups of small farmers can band together and bargain with input suppliers as a single, larger unit. By cooperating, individual farms, or individual cheese plants can increase their bargaining power against suppliers. The important result is that co-ops can lead to higher profits by lowering your cost of buying inputs.

The last three items in the inputs list will be new to you, and will be dealt with in the workshops. One of your most important "partners" in business is your banker. As Mr. Peterson will discuss in detail later, your bank can provide the necessary financing for operations, particularly for starting a new farm, or a processing or agricultural service business. You will need credit to buy seed, fuel, and feed, so that you can operate until your products go to market and you are paid for selling them. You will need capital to expand, to build a new barn, or to buy new animals or a new tractor. Insufficient financing can kill a business, and especially a new small business.

In this connection, establishing a system of agricultural banks to meet the particular needs of the agricultural community is absolutely essential to the future survival of privately owned Estonian farms and food businesses.

Secondly, as the owner of your own business, you will need a good lawyer to represent you and to be your advocate when you sign a contract to sell your milk, purchase inputs, or hire someone to build a new processing plant, manure handling system, or barn.

Finally, you will need insurance to protect you against disasters. Insurance can help you rebuild if a fire destroys your barn and kills your animals. Insurance can pay your medical bills. Insurance can protect you against the losses of crop failures.

Competition comes from at least two other sources as well. New farms (or new food processing businesses) can enter your market and compete to take your customers away from you. If too many farms (or processing plants or veterinary services) enter your market, they will soon destroy the business for everybody.

¹Exhibit 1 was provided as a hand-out in Estonian, and presented to the audience via overhead projection.

Entry of new farms is not nearly as much of a threat to your profitability as is the threat of substitute products. It is almost for certain that within five years yogurt will either be produced in Estonia or imported from Scandinavia or Europe. Yogurt will threaten the profitability of Estonia's quark and kefir producers, since buyers will be tempted to buy yogurt instead of traditional cultured dairy products.

We have repeatedly heard the complaint from farmers and processors that you are only producing for Estonia's warehouses, while Estonians are buying up Dutch, Finnish, and even Irish butter that is increasingly available in your stores. Estonians are voting with their kroons for foreign butter, causing you to lose sales.

Why is this happening? The answer lies at the very bottom of our framework. **"Buyers" is what the game of market competition is all about.** You must somehow convince enough people to consistently buy your product at a price that is high enough to pay all your expenses, and then leave something for your own profit. Without these buyers, you fail.

You must know your buyer and what he and she needs. You must create buyer loyalty — people who go into the store looking for and asking for your brand of cheese or sausage. Where are the buyers? What will they buy? How much will they pay? These are questions you need to try to answer every day.

All the other farms or food businesses or makers of substitute products are competing against you for the very same buyers.

You basically have two strategies for drawing buyers to you. The first is to charge a cheap price. But how can you charge a cheap price and still earn the profit you must make to survive?

You can charge a cheap price by having low costs. You can achieve low production costs by producing a product of very low quality, or by becoming an extremely large and very efficient business.

Low-quality products might sell once because they are cheap. But save for the markets in Russia, where quality standards are lower than in the West, customers will not come back to buy your product again if they have any sort of better quality substitute available. As hard as it might be to hear this, higher quality for approximately the same or a slightly higher price is precisely why the foreign butter is selling so well in Estonia's markets. People are attracted to higher quality, to the highest possible quality they can afford.

Becoming extremely large and efficient might be possible later, but is highly unlikely to be possible in the nearest future. However, it is highly unusual for small countries to be able to support businesses large enough to be able to compete on the basis of low production costs and high production quality.

The alternative strategy to win and keep customers is to compete on the basis of quality and distinction. Develop an identifiable brand name, like Saku beer, and market your product as distinctive, as different than what the competition is offering. Your cheese tastes better, is packaged more interestingly, is somehow memorable to your customer.

The Need to Make a Profit. In competing for buyers, however, you cannot forget, that profit is the lifeblood of your company. Earning a profit is not only ethical, it is necessary to your commercial success. This afternoon, all four workshops will share one truth: You need profits to provide the financial resources you need to grow. Profit is the reward you receive for the risk you are taking as the owner of your business. Profit can act as insurance (if

some part of it is kept in reserve) as insurance against bad weather or a falling market for your goods.

A Company's Internal Resources. You are not alone in competing against suppliers, substitutes, and potential new competition for customers and to make a profit. Your company has internal resources which can be developed and used to ensure your commercial success. I will only list them now, as they will be discussed in detail this afternoon.

Here's the list:

- 1) **Leadership** — The CEO must know the company's mission, how to achieve it, and how to stay focussed on the company's main business.
- 2) **Management** — The CEO must delegate both responsibility and authority to make decisions.
- 3) **Labor** — Dedicated, motivated workers can be your greatest asset. They can make or ruin your farm's or company's commercial health.
- 4) **Financial Management** — Controlling expenses, managing cash flow, and careful budgeting are all essential to being commercially successful.
- 5) **Technology** — The latest, fanciest, and largest technology is only justified if it can pay for itself through the extra profit it can generate.
- 6) **Risk** — Successful entrepreneurs know how and when to take chances.
- 7) **Company Reputation** — Quality products, honest ethical dealing with suppliers and customers are the keys to long term commercial survival and success.

What is the Right Size? Everywhere we have been in Estonia, we have heard the debate between privatization and restitution. Determining the right size for a business unit is extremely difficult. We can offer two conclusions on size.

First, commercial agriculture in Estonia will fail if you choose to return to the 1939 farm model of a few hectares of land and a few cows, pigs, sheep, and chickens. These tiny businesses simply cannot generate enough sales revenue to provide the family with enough income to survive. They will be at the mercy of input suppliers, be highly inefficient and unable to compete on the basis of cost with products from larger scale, commercial farms. They will be extremely vulnerable to poor harvests or to falling market prices for their products. Unless highly subsidized by the federal government, a return to the 1939 model dooms Estonia's countryside to extreme and worsening poverty.

Business units can also be too large to be efficient. But, beyond the tiny sub-commercial size, the scale of operations is not the key issue. Central to the survival of Estonia's new private farms is that they make economic decisions—decisions based on what they imply for operating cost, contribution to profit, and commercial survival.

Indeed, we have met the managers of the Collective Farm Yerva, and heard that they do not wish to be forced to break up what they see as a solid business unit, just in the interests of privatization. We would agree. There is no absolute need to divide these assets, as long as the individual departments of a new collective-wide joint stock company are operated on the basis of business principals. Each of them must be managed for profit, not for production. As long as this condition is met, and as long as the entire joint stock company is able to compete and

reward its stockholders for their contribution to the company's overall success, why break them up? We agree. There would be no need.

So I end where I began. Your challenge is to establish business units that make business sense. You must manage them for profit not production. You must prepare yourselves to produce goods consumers want and will buy, not goods you can get some state agency to take off your hands. Most important of all, every day you must work to maximize your efficiency, to make good business decisions, to achieve the highest possible quality and distinction, and to get your customers to come back to you again and again. Efficiency and customer loyalty are the routes to profitability. Profitability is the route to commercial survival.

Thank you. We look forward this afternoon to dealing with each of these topics in detail, and in small group discussion.

Questions/Observations — From the Estonian Audience:

In both Tallinn and Tartu, the questions during the workshops and concluding plenary sessions centered around six issues: valuation, vouchers, credit, getting paid, and achieving quality.

Asset Division and Valuation.

"How do we divide up and transfer ownership of assets when there is no money in the countryside of Estonia?"

Answers:

In the absence of a credit/financing system, and given that the potential new owners have no financial assets of their own, a division process based on some sort of voucher system appears to be the only practical solution.

The reform commissions are trying to place relative monetary values on various assets through one scheme or another. Current market value or expected revenue/income generation probably provides a better means of valuation than does any approach related to historical values of individual assets.

- 1) Animals can be valued by some formula related to their slaughter value, or to the cash value of the milk or offspring they can reasonably be expected to produce.
- 2) The value of physical assets, buildings, machinery, and the like, can be divided into logical business units, and their cash flow generating capacity can be estimated. The value will then be set on the business, and relate to its ability to generate revenue, rather than to individual buildings or pieces of machinery.

Credit.

Particularly in the much poorer south of Estonia, there is great concern with the likelihood that people will be handed ownership of business units (particularly farms), but lack access to capital and financing.

The question was phrased in many variants, but essentially lamented, "There is no money in the countryside. There are no banks or credit agencies. How are we to start and operate our own farms if we do not have any money or credit?"

It is easy to glibly answer that Estonia needs to place a premium on rural (and agricultural) development through a national system of initially subsidized credit. However, during my meeting with Ivar Raig, parliamentarian and chairman of Parliament's Agriculture and Economy Commission (Committee), following the seminars, he was extremely pessimistic. "Parliament simply is not and cannot develop a special set of government-funded lending institutions for Estonia's farmers. It will not happen in the foreseeable future. If there are to be banks in the countryside, the collective and state farms, and the processing enterprises will have to establish their own banks."

Herein lies an area of critical need in the countryside which may warrant attention in any future technical assistance work delivered in Estonia by the DAI-Geonomics team.

Getting Paid.

"Farmers are not getting paid. How do we develop a system related to the transaction process for receipt of milk by the dairy processing plant and the subsequent payment for the milk to the private farmer?"

At the farm level, potential private owners are extremely insecure about the the conduct of business in a private market. That insecurity can be greatly reduced by establishing an orderly system of conducting transactions for the receipt and payment of milk. The result of such an effort is that potential private farm owners and milk handlers will work with a uniform set of guidelines and information upon which to conduct transactions. This will provide order to the transaction process and assist in alleviating fears of the market economy.

ANNEX S
THE ANATOMY OF AN AGRICULTURAL MARKET

(Charts in English and Estonian)

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EXHIBIT 1

Geonomics Institute

Development Alternatives, Inc.

The Anatomy of an Agricultural Market

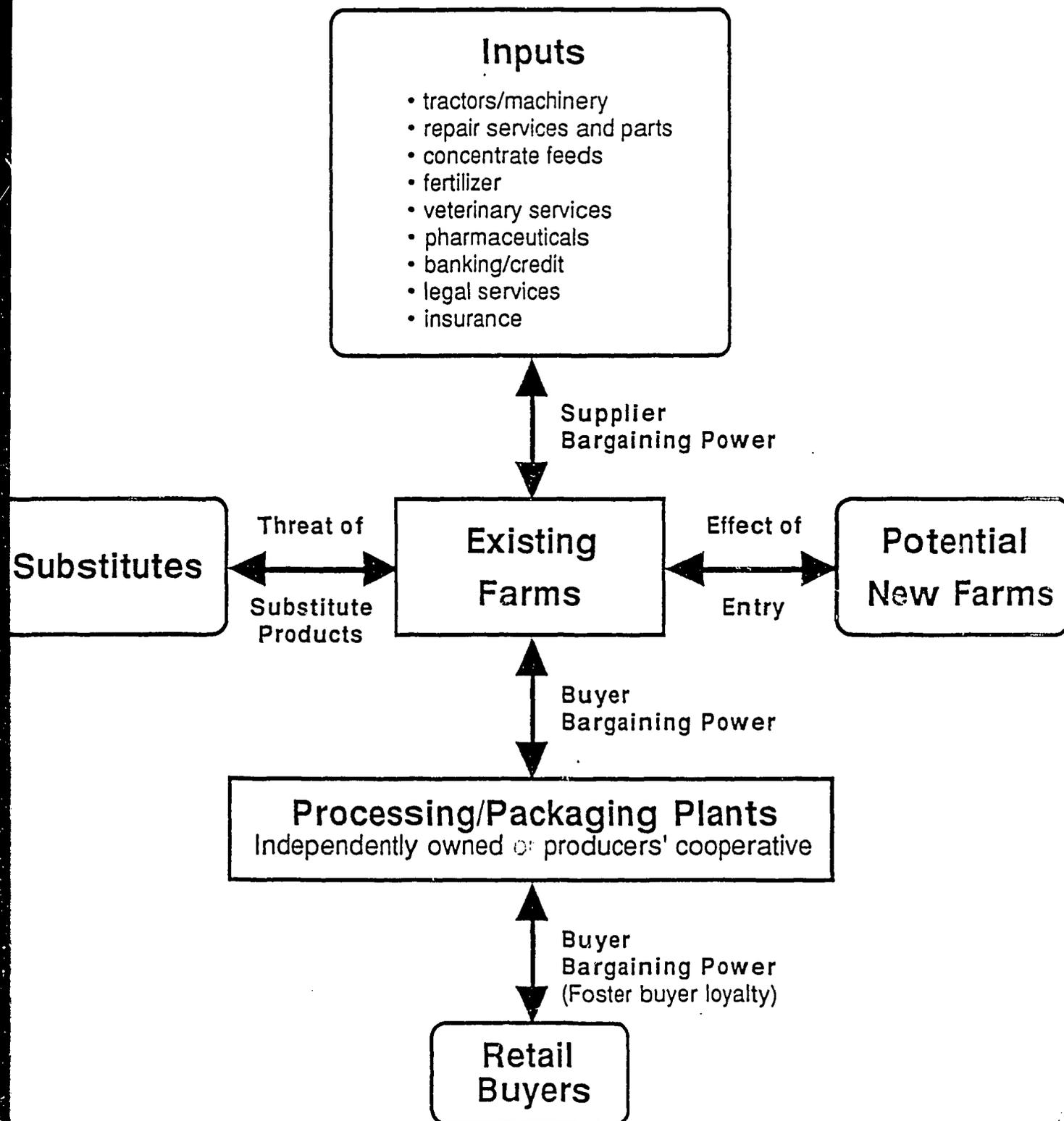


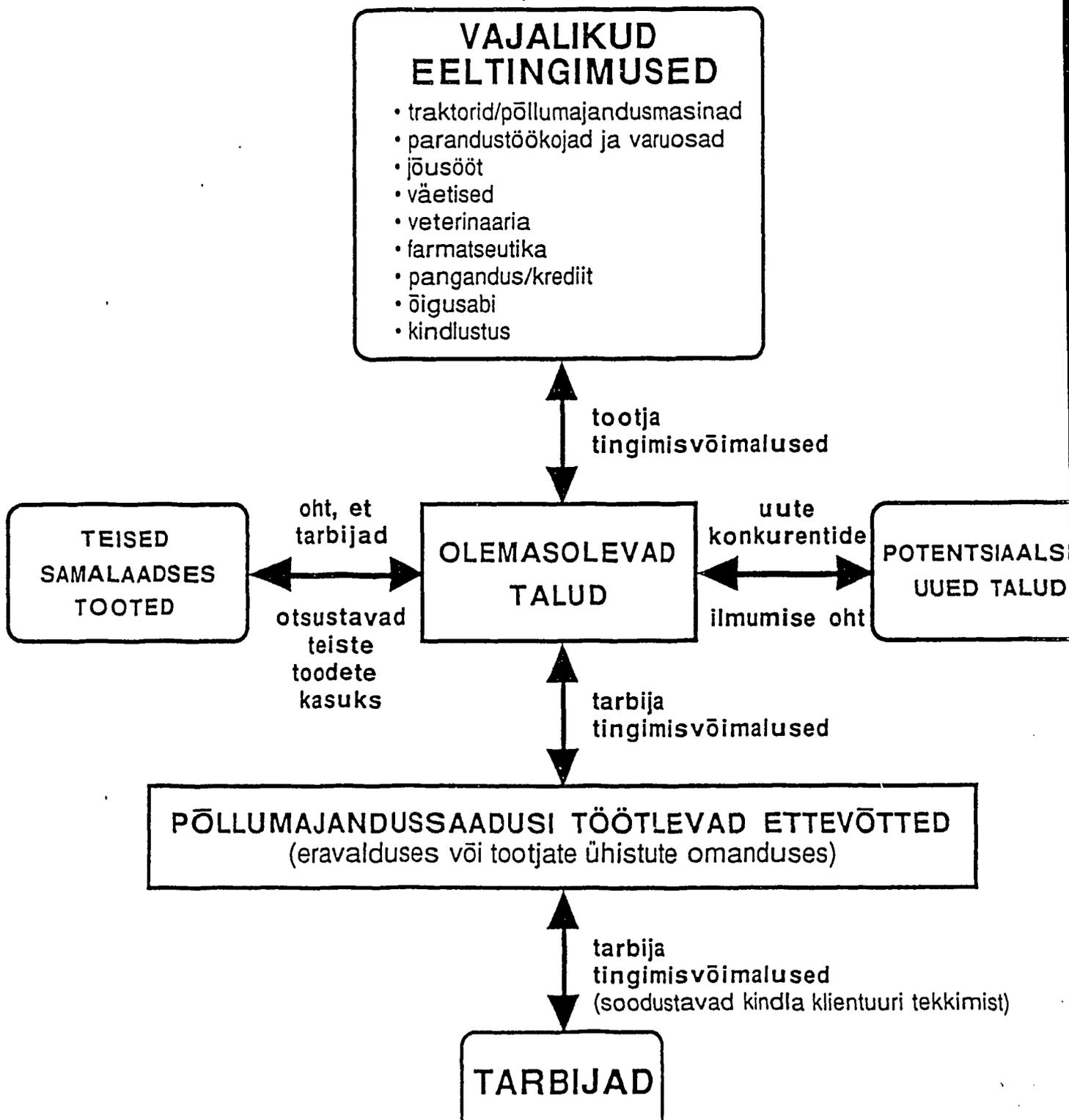
EXHIBIT 2

Geonomics Institute

Development Alternatives, Inc.

(The Anatomy of an Agricultural Market)

PÕLLUMAJANDUSSAADUSTE TURU ANATOOMIA



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ANNEX T
FINANCIAL MANAGEMENT WORKSHOP PRESENTATION

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DEVELOPMENT ALTERNATIVES, INC. GEONOMICS INSTITUTE
Washington, DC, USA **Middlebury, VT, USA**

**AGRIBUSINESS REFORM:
WORKSHOPS ON PRIVATIZATION**

FINANCIAL MANAGEMENT WORKSHOP

Tallinn: November 3, 1992

Tartu: November 5, 1992

Daniel Hogan, DAI
Nicholas Baughan, DAI

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WORKSHOP OBJECTIVE:

To Provide Assistance in Achieving Financial Success for Newly-Privatized Agribusinesses

FINANCIAL SUCCESS:

- Profits
- Strong Balance Sheet
- Adequate Compensation for Owners
- Creation of Value that is Transferable

FINANCIAL SUCCESS

=

STRONG CONTROL OF SOURCES & USES OF CAPITAL

STRONG CONTROL

=

USE OF APPROPRIATE FINANCIAL TOOLS

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TOOLS TO ACHIEVE FINANCIAL SUCCESS:

- Balance Sheet

- Profit & Loss Statement (Income Statement)

- Cash Flow Statement

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BALANCE SHEET

ASSETS = LIABILITIES + EQUITY

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BALANCE SHEET

ASSETS

- Current Assets:

Cash

Accounts Receivable

Inventory

- Fixed Assets

Property

Plant

Equipment

BALANCE SHEET

LIABILITIES

- Current Liabilities

Accounts Payable

Short-term Debt

- Long-term Liabilities

Long-term Debt

BALANCE SHEET

EQUITY

- Equity

Capital

Reserves

Retained Earnings

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PROFIT & LOSS STATEMENT

- Net Sales

-

- Expenses

Raw Materials

Fuel and Energy

Labor

Insurance

Taxes (social)

=

- Operating Profit

-

- Taxes on Profit

=

- Net Profit

CASH FLOW STATEMENT

- Cash from Operations

+

- Cash from Investment Activities

+

- Cash from Financing Activities

=

- NET INCREASE/DECREASE IN CASH

CASH FLOW STATEMENT

Cash from Operations

- Net Income

Add:

**Depreciation Expense
Decr. Accounts Receivable
Incr. Short-term Debt**

Subtract:

**Increase in Inventory
Increase in Raw Materials**

= CASH PROVIDED BY OPERATIONS

CASH FLOW STATEMENT

Cash from Investment Activities

- Cash from Operations

Add:

Investment Income

Sale of Fixed Assets

Subtract:

Acquisition Fixed Assets

= CASH FROM INVESTMENT ACTIVITIES

CASH FLOW STATEMENT

Cash from Financing Activities

- Cash from Investment Activity

Add:

Increase in Capital

Increase in Debt

= NET INCREASE/DECREASE IN CASH

APPLICATION OF FINANCIAL TOOLS

- **Financial Ratios**

- **Cash Flow Analysis**

- **Shareholder Value**

FINANCIAL RATIOS

Balance Sheet

- **Current Ratio**
- **Debt/Capital**

Profit & Loss Statement

- **Operating Profit Margin**
- **Net Profit Margin**

CASH FLOW ANALYSIS

**Used to Quantify
Sources & Uses of Funds**

SHAREHOLDER VALUE

- **Historical**
- **Sales**
- **Profitability**
- **Cash Flow**

INVESTMENT DECISION MAKING

- Risk Factors

- Sources & Uses of Capital

RISK FACTORS

- **Regulatory Climate**
- **Legal Structure**
- **Reliability of Financial Data**
- **Market Infrastructure**
- **Foreign Exchange**
- **Raw Material Supply**
- **Availability of Credit**
- **Management**
- **Technology**
- **Product Quality**

SOURCES & USES OF CAPITAL

Sources:

- **Investment Funds**
- **Agribusiness Partners**
- **Agribusiness Investors**
- **Joint Ventures**
- **Commercial Credit**

Uses:

- **Capital Improvements/Acquisitions**
- **Technology Upgrades**
- **Equipment**
- **Investments**
- **Transition Costs**

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ANNEX U

BUSINESS AND STRATEGIC PLANNING WORKSHOP PRESENTATION

DEVELOPMENT ALTERNATIVES, INC. GEONOMICS INSTITUTE
Washington, DC, USA **Middlebury, VT, USA**

**AGRIBUSINESS REFORM:
WORKSHOPS ON PRIVATIZATION**

BUSINESS AND STRATEGIC PLANNING WORKSHOP

Tallinn: November 3, 1992

Tartu: November 5, 1992

Doyle Peterson, DAI

DOMESTIC MARKETS

- **VERY IMPORTANT DUE TO DECLINE IN EXPORT DEMAND.**
- **SIGNIFICANT MARKET FOR VM GIVEN LARGE FSU CHEESE EXPORTS.**
- **DOMESTIC DEMAND HAS DECLINED. AS ECONOMY IMPROVES, DEMAND WILL INCREASE, BUT LESS THAN HIGH OF 1990. EVOLUTION OF MARKET ECONOMY AND TIGHTER MILK SUPPLIES WILL LIMIT DEMAND GROWTH.**
- **DOMESTIC MARKETS CAN BE IMPROVED BY AGGRESSIVE TARGET MARKETING TO RETAIL SHOPS.**

1992

EXPORT MARKETS

- SURPLUS PRODUCTION FORCES ESTONIA TO EXPORT, BUT LOSS OF FSU "ADMINISTRATIVELY DETERMINED" MARKET HAS CAUSED INDUSTRY TO CONTRACT.
- NEAR TERM: FSU MARKETS BASED ON WESTERN FOOD AID AND BARTER.
- FSU MARKET REMAINS VERY IMPORTANT DUE TO FEWER QUALITY RESTRICTIONS. WESTERN MARKETS LIMITED BY QUALITY PROBLEMS.
- KEY EXPORT IS NDM FOR ANIMAL FEED.
- PRIMARY EXPORT COMPETITION WILL BE EASTERN EUROPE:

ESTONIA HAS RAW MILK YIELD ADVANTAGE:

KG/YEAR

ESTONIA	4184
LATVIA	3604
LITHUANIA	3674
POLAND	3356
UKRAINE	2918

- NO POTENTIAL FOR EXPORTS TO EC DUE TO IMPORT LEVIES AND QUALITY.

MILK PRODUCT EXPORTSMT

1989

1990

1991

1992 (6 mo.)

	RUSSIA	OTHER	RUSSIA	OTHER	RUSSIA	OTHER	RUSSIA	OTHER
	12658	15	11047	10	9635	1	1790	177
e	5745	938	4119	329	3902	1	1303	21
sensed	4597	-	4084	-	1495	-	-	-
er	4763	?	4097	?	2440	?	205	?
	34154	-	27424	-	14481	-	-	-
	61917	954+	50753	339+	31953	2+	3298	198+

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MARKETING COOPERATIVES

● **DOMESTIC OPPORTUNITIES:**

- **DISTRIBUTION CO-OP WHERE PRODUCTS WAREHOUSED CENTRALLY**
- **TRANSPORT COSTS REDUCED BY FULL TRAVELOAD SHIPMENTS**
- **CENTRALIZED ORDERING NETWORK MATCHING PRODUCT INVENTORIES TO BUYERS**

● **EXPORT OPPORTUNITIES:**

- **COMBINE PRODUCTION INTO LARGER QUANTITIES AND SCREEN FOR QUALITY TO SELL THROUGH EXPORT BROKERS**
- **ORGANIZATIONS**
 - **ESTKOMPEXIM**
 - **POVEL**
 - **ESTIMPEX**
 - **PYLVA - PIM**
 - **RAVALA, LTD**

INPUT COOPERATIVES

- **INPUTS ARE PARTICULARLY VULNERABLE FOR PRIVATIZED FARMS AND PROCESSING PLANTS TRYING TO REDUCE COSTS AND INCREASE EFFICIENCY.**
- **ORGANIZE LOCAL CO-OPS TO PURCHASE FOR SEVERAL FARMS AND PROCESS FROM PRIVATE IMPORTS OR ORGANIZE CO-OPS LOCALLY AND AT NATIONAL LEVEL.**
- **FOOD SUPPLIED BY NINE MILLS OPERATING AT 40% OF CAPACITY. GOOD OPPORTUNITY TO INCREASE EFFICIENCY BY CLOSING FOUR OLDER MILLS.**
- **NO ATTEMPT AT COOPERATION AMONG FEED MILLS. LACK PURCHASING MARKETING EXPERTISE. ESTONIAN GRAIN BOARD HANDLES ALL PURCHASING AND DISTRIBUTION.**
- **OTHER INPUTS (BESIDES FUEL AND BUILDING SUPPLIES) SUPPLIED BY ASSOCIATION OF AGRICULTURAL SUPPLIERS. EXISTING WAREHOUSES IN 15 REGIONS OFFER STARTING POINT FOR CO-OP TO SERVE A NUMBER OF PRIVATE DAIRY FARMS.**

COOPERATIVES

- **INSUFFICIENT TO PRIVATIZE WITHOUT SUFFICIENT ACCESS TO INPUT AND PRODUCT MARKETS.**
- **COOPERATIVE INPUT AND MARKETING ASSOCIATION CAN PROVIDE GROWTH VEHICLE FOR FARMS AND PROCESSORS.**
- **IN 1990, USSR SUPPLIED 90% OF OPERATING RESOURCES FOR STATE AND COLLECTIVE FARMS AT BELOW MARKET PRICES. PRESENTLY FSU CANNOT SUPPLY THAT QUANTITY.**
- **IN 1988, USSR ACCOUNTED FOR 42% OF MILK PRODUCTS DEMAND. NOW FSU LACKS FINANCES SO DEMAND HAS DECREASED.**
- **GOAL IS TO PROMOTE DIALOGUE AMONG FARMS AND PROCESSING FACILITIES AND INPUT SUPPLIERS AND EXPORT MARKETING COMPANIES.**
- **SEVERAL OF THE PRINCIPAL STATE PRIVATELY OPERATED COMPANIES ARE INTERESTED IN EXPLORING MARKETS.**

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STRATEGIC GOALS - VM CHEESE PLANT

- **IMPROVE CHEESE QUALITY THROUGH BETTER MILK QUALITY.**
- **BUILD STRONG BRAND NAME ASSOCIATION WITH DOMESTIC CONSUMERS.**
- **INCREASE VOLUME FROM 1500 TONS TO 3000 BY 1997.**
- **BROADEN PRODUCT LINE.**
- **INCREASE SALES OF COMPLEMENTARY PRODUCTS.**
- **REDUCE PER UNIT COSTS TO GET ROI OF 25%.**
- **MANAGE FOR PROFIT RATHER THAN VOLUME.**

1995

TARGET MARKETS - VM CHEESE PLANT

- **DIRECT SALES TO RETAIL SHOPS. WHOLESALERS FOR RESTAURANTS, HOTELS, AND EXPORT COMPANIES.**
- **AVOID DIRECT CONSUMER SALES AND DO NOT ESTABLISH OWN RETAIL SHOP.**

MARKET STRATEGY - VM CHEESE PLANT

- **EXPAND DOMESTIC MARKETS BASED ON LOW PRICE POSITION - POSITION WILL IMPROVE WITH COST REDUCTION.**
- **FOCUS ON RETAIL SHOPS AND ESTABLISH INCENTIVES:**
 - **INTRODUCTORY REBATE OFFERS**
 - **COUPONS FOR FUTURE PURCHASE DISCOUNTS**
 - **SPECIAL DEALS ON OTHER VM PRODUCTS WITH CHEESE ORDERS**
 - **POS MATERIALS**
 - **REGULAR SALE CALLS**
 - **ON TIME SCHEDULED DELIVERIES**
- **PUSH COMPLIMENTARY PRODUCTS TIE IN WITH CHEESE.**
- **ESTABLISH NEW PRODUCT DEVELOPMENT EFFORT TO BROADEN PRODUCT LINE.**
- **CONTINUE RESALE OF RAW MILK TO OTHER PROCESSORS.**
- **SELL EXPORT ONLY THROUGH BROKERS - EXPORT MARKET DEVELOPMENT AND SALES EXECUTION ARE DIFFICULT.**

OPERATIONS PLAN - VM CHEESE PLANT

- **PRINCIPAL GOAL IS TO IMPROVE QUALITY BY IMPROVING RAW MILK QUALITY.**
 - **ESTABLISH 3 YEAR PROGRAM TO REWARD HIGHER QUALITY MILK (BACTERIAL & SOMATIC CELL)**
 - **ANNOUNCE INTENT TO REJECT ANTIBIOTIC CONTAMINATED MILK BY JULY 1993**
- **PROVIDE ASSISTANCE TO RAW MILK SUPPLIERS.**
 - * **FIELD INSPECTORS FOR COWS AND FACILITIES**
 - * **SELL SUPPLIES (CHEMICALS, WIPE CLOTHES)**
- **REDUCE EMPLOYEES TO CUT COSTS.**
- **IMPROVE PHYSICAL PLANT; ESPECIALLY IMPORTANT FOR FOREIGN BUYERS AND PARTNERS.**

10!

ORGANIZATION PLAN - VM CHEESE PLANT

- **ESTABLISH POSITION OF PRESIDENT; NEED MARKETING/SALES BACKGROUND.**
- **HAVE SEPARATE DEPARTMENTS FOR:**
 - **MARKETING/SALES**
 - **OPERATIONS (PLANT MANAGER)**
 - **ACCOUNTING**
 - **QUALITY CONTROL**
- **UNTIL VOLUME INCREASES. PRESIDENT CAN HANDLE MARKETING/SALES.**

1975

INDUSTRY ANALYSTS - DAIRY FARMS

- **POOR FODDER PRODUCTION AND ELIMINATION OF SUBSIDIZED FEED FROM FSU HAD DECREASED MILK YIELD AND COW HERDS.**
- **MILK YIELD WILL RECOVER AND COW HERDS WILL DECLINE THEN STEADILY INCREASE AS SECTOR ADJUSTS TO MARKET ECONOMY. (SEE CHART)**
- **IN VM, TWO FARMS WITH LOW COSTS WILL SURVIVE. TWO OTHERS NEED MODEST COST REDUCTIONS AND THREE NEED DRASTIC CUTS.**

**TOTAL MILK COSTS
RUBLES/KG**

EBAVERE	42
RAEKYLA	47
KOENN	60
KAARMIS	69
EIPRE	89
ANTU	109
MYYRIKU	131

ESTONIA AVERAGE	65

TABLE I - SELECTED DAIRY SECTOR

	1989	1990	1991	1992 EST.	1993	1995 PROJECTED	1997
Milk Production 000MT	1258	1200	1070	800	795	940	1123
Domestic Consumption - Milk Equivalent Per Capita kg Total 000MT	478 748	529 831	488 770	379 600	375 595	400 640	450 725
Exports - Milk Equivalent	510	369	300	200	200	300	400
Milk Yield - Tow	4184	4053	3810	3027	3400	3500	4000
Numbers -	301	293	281	264	234	247	298

Source: U.S.D.A. and Experience Inc.

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STRATEGIC GOALS - VM DAIRY FARMS

- **IMPROVE RAW MILK QUALITY.**
 - **REDUCE BACTERIA COUNT FROM 300,000 TO 10,000**
 - **ELIMINATE SOMATIC CELL COUNT**
- **MANAGE FOR PROFIT RATHER THAN VOLUME.**
- **INCREASE MILK OUTPUT FROM 5,300 KG TO 7000 KG.**
- **ACHIEVE ROI OF 25%.**
- **CONTINUE TO SELL TO VM CHEESE PLANT.**

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OPERATIONS PLAN - VM DAIRY FARMS

- **STAFFING:**
 - **1 FARM MANAGER**
 - **1 HERDER**
 - **1 MILKER/50 COWS**
 - **1 MECHANIC/200 COWS**
 - **1 TRACTOR DRIVER AND FEEDER/200 COWS**
- **CHANGE COMPENSATION SYSTEM TO FARM PROFIT VS. VOLUME.**
- **IN YEAR 1 IMPROVE SANITATION: 10,000 - 12,000 K/200 COW UNIT.**
- **IN YEAR 2 CHANGE HAYING PRACTICES TO REDUCE FEED COSTS.**
- **REPLACE ICE WATER REFRIGERATION WITH CLOSED-LOPE SYSTEMS. INCREASE PRICE 4 CENTS/LITER AND CUT TRANSPORTATION COSTS.**
- **IMPROVE FEED RATIONS WITH CORN, PROTEIN MEAL TO REDUCE USE OF CONCENTRATES.**
- **REPLACE GLASS PIPING WITH STAINLESS STEEL. USD 25,000/200 COW UNITS. INCREASE PRICE 2 CENTS/LITER.**

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TECHNICAL ASSISTANCE

VM MILK FARM

- TRAIN STAFF IN MILK QUALITY IMPROVEMENT TECHNIQUES.
- TRAIN FARM MANAGERS IN MARKET ECONOMY CONCEPTS.

VM CHEESE PLANT

- ASSESS OPERATIONS AND RECOMMEND IMPROVEMENTS.
- PRODUCT DEVELOPMENT.
- FIELD PERSON TRAINING.
- PLANT MANAGER TRAINING.
- ESTABLISH PRIVATE ENTERPRISE MANAGEMENT ACCOUNTING SYSTEMS.
- ESTABLISH MARKET AND SALES PROGRAM AND MANAGEMENT SYSTEMS.

REGIONAL EXTENSION

- ORGANIZE EXTENSION SERVICE WITHIN VM FARMING DISTRICT AS PART OF VM AGRICULTURAL SCHOOL.

NATIONAL LEVEL

- DEVELOP NATIONAL FOOD POLICY.
- EXAMINE PRODUCTION AND FINANCIAL FEASIBILITY OF NEW FEED INGREDIENTS.
- EXAMINE FEASIBILITY OF OILSEED PROCESSING FOR FEED AND VEGETABLE OIL.

ANNEX V

AGRICULTURAL MARKETING WORKSHOP PRESENTATION

**AGRIBUSINESS REFORM:
WORKSHOPS ON PRIVATIZATION**

MARKETING WORKSHOP

TALLINN: November 3, 1992

TARTU: November 5, 1992

Richard Magnani, DAI

MARKET ANALYSIS

- SUBSIDIZED INPUTS AND FSU EXPORTS PROVIDED PROFIT**
- MUST LOWER COSTS AND MAINTAIN PRICES**
- IMPROVE EFFICIENCY**
 - REDUCE LABOR COSTS**
 - REDUCE INPUT COSTS**
- ANALYZE MARKET**
 - WHO**
 - WHAT PRODUCTS**
 - WHAT PRICE**
- CUSTOMER IS KEY**
 - CONSISTENT AND HIGH QUALITY**
 - ADEQUATE VOLUME**
 - REGULAR SUPPLY**
 - COMPETITIVE PRICE**

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PRICE SETTING

- HIGH PRICE--LOSE CUSTOMERS**
- LOW PRICE--LOSE PROFIT**
- PRICE BASED ON PRODUCTION COST**
- PRICE TO SELL ALL PRODUCT**
 - LOWER UNIT COSTS**
 - LOWER INVENTORY**

DOMESTIC MARKETS

- CRITICAL AS EXPORTS DECLINED**
- DOMESTIC DEMAND HAS DECLINED, BUT WILL IMPROVE**
- MILK SUPPLIES WILL LIMIT GROWTH**
- NEED AGGRESSIVE RETAIL MARKETING**

EXPORT MARKETS

- **SURPLUS PRODUCTION DRIVES EXPORTS**
- **LOSS OF FSU MARKET**
- **FSU MARKET NOW BASED ON FOOD AID AND BARTER**
- **WESTERN MARKETS LIMITED BY QUALITY; NOT FSU**
- **PRIMARY COMPETITION IS EASTERN EUROPE:**

KG/YEAR

ESTONIA	4184
LATVIA	3604
LITHUANIA	3674
POLAND	3356
UKRAINE	2918

- **NO POTENTIAL FOR EC EXPORTS**

COOPERATIVES

- **ACCESS TO INPUT AND PRODUCT MARKETS**
- **USSR SUPPLIED INPUTS AT BELOW MARKET PRICES**
- **USSR WAS PRIMARY BUYER**

COOPERATIVES

- **PROVIDE GROWTH VEHICLE**
- **VOLUNTARY ASSOCIATIONS TO IMPROVE BUYING AND/OR SELLING**
- **COMBINE PURCHASES TO LOWER COSTS**
- **COMBINE PRODUCTION TO INCREASE REVENUE**
- **GOAL IS TO PROMOTE DISCUSSION**
- **SEVERAL COMPANIES ARE INTERESTED**

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INPUT COOPERATIVES

- REDUCE COSTS AND INCREASE EFFICIENCY**
- LOCAL AND/OR NATIONAL CO-OPS**
- FEED SUPPLIED BY NINE MILLS.**
 - NATIONAL CO-OP COULD INCREASE EFFICIENCY**
 - LOCAL CO-OP FEED MILL COULD SERVE AREA FARMERS**
 - OTHER INPUTS FROM ASSOCIATION OF AG SUPPLIERS**
 - FIFTEEN WAREHOUSES OFFER STARTING POINT FOR CO-OP**

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MARKETING COOPERATIVES

- DOMESTIC:

- DISTRIBUTION CO-OP

- CENTRALIZED ORDERING

- EXPORT:

**- COMBINE PRODUCTION AND SELL THROUGH
BROKERS**

- ORGANIZATIONS

ESTOKOMPEXIM

POVEL

ESTIMPEX

PYLVA-PIIM

RAVALA, LTD.

STRATEGIC GOALS--CHEESE PLANT

- IMPROVE QUALITY THROUGH BETTER MILK**
- BUILD STRONG BRAND NAME**
- INCREASE VOLUME**
- BROADEN PRODUCT LINE**
- INCREASE SALES OF OTHER PRODUCTS**
- REDUCE PER UNIT COSTS--ROI = 25%**
- MANAGE FOR PROFIT RATHER THAN VOLUME**

TARGET MARKETS—CHEESE PLANT

— DIRECT SALES TO:

**RETAIL SHOPS
WHOLESALERS
EXPORT COMPANIES**

— AVOID DIRECT CONSUMER SALES

MARKET STRATEGY

- INCREASE DOMESTIC SALES**
 - LOWER PRICE/LOWER COSTS**
 - DEVELOP MORE PRODUCTS**
 - PUSH OTHER PRODUCTS**
 - ESTABLISH INCENTIVES FOR RETAILERS**
 - * DISCOUNTS**
 - * DISPLAY MATERIALS**
- EXPORT SALES ONLY THROUGH BROKERS**

ANNEX W
FARM OPERATIONS WORKSHOP PRESENTATION

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DEVELOPMENT ALTERNATIVES, INC.
Washington, DC, USA

GEONOMICS INSTITUTE
Middlebury, VT, USA

**AGRIBUSINESS REFORM:
WORKSHOPS ON PRIVATIZATION**

FARM OPERATIONS

Tallinn: November 3, 1992

Tartu: November 5, 1992

John MacKillop, Geonomics Institute

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OPERATIONS MANAGEMENT

- I. Goals of the private production enterprise**
- II. Production potential of Estonian dairy enterprises**
- III. Profit potential of Estonian enterprises**
- IV. Product marketability**

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I. GOALS OF PRIVATE DAIRY ENTERPRISE

A. Non-economic reward of dairy farming

- 1. Being one's own boss**
- 2. Working outside**
- 3. Working with cattle**
- 4. Working with family**
- 5. Making challenging decisions**
- 6. Good standard of living**

B. Economic reward

- 1. If one is to be in business, one has to be in business for the purpose of generating profit**
- 2. Define net income and earnings**
 - a. caution against asset accumulation at expense of cash flow**

II. PRODUCTION POTENTIAL OF ESTONIAN DAIRY ENTERPRISE

A. Management factors that are closely related to profit

- 1. Production per cow**
- 2. Calving interval**
- 3. Breedings per conception**
- 4. % of herd bred AI**
- 5. Culling rate**
- 6. Average age at first calving**
- 7. Udder health**

B. Performance of Estonian dairy management is very good

- 1. Minimum production levels must be attained to cover fixed costs**
- 2. Open discussion to decision making; e.g., if replacements are available and culling rate is low, how does management respond, sell replacements or cull heavier?**

III. PROFIT POTENTIAL

- A. Production does not guarantee profit**
- B. Management must identify five key expenses:**
 - 1. Feed**
 - 2. Labor**
 - 3. Interest on debt**
 - 4. Repairs**
 - 5. Fuel**
- C. Discussion of managing feed and labor costs**
 - 1. Feed costs will account for 40-50% of all costs**
 - a. harvest forage earlier, emphasizing quality not production quantity**
 - b. search for product substitutes for corn and soybean**
 - c. evaluate feed cost as milk:feed ratio**

III. PROFIT POTENTIAL (Cont'd)

2. **Labor is a competitive resource and will account for 15-20% of total costs**
 - a. **management must define labor needs and job descriptions**
 - b. **technology is a substitute for labor intensity**
 - i. **financial management decision**
 - ii. **ex: milking parlor investment**
 - c. **measure labor cost as labor cost per 100 kg and labor efficiency as kg of milk sold per worker**

IV. PRODUCT MARKETABILITY

A. Are you producing a product of desirable quality that the market is seeking?

1. With a 24-36 hour shelf life, the answer is no

B. Managing the quality problem on the farm is the producer's responsibility:

1. Cow side problem

a. high somatic cell counts

i. improve milking technique

ii. improve udder health management

b. antibiotic residues

2. Milking system cleaning equipment

a. hot water (71 °C)

b. proper chemical cleansing agents

IV. PRODUCT MARKETABILITY (Cont'd)

c. improve quality of rubber contact surfaces

3. Milking cooling management

a. milk should be held at temperature no greater than 4.4
'C

C. Improving quality on the farm is the area where investment will generate the greatest return

1. ex: investment in stainless steel piping and freon cooled bulk tank

ANNEX X

VAIKE-MAARJA BUSINESS AND STRATEGIC PLAN

A presentation of team recommendations to collective management and the reform commission on November 9, 1992

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DEVELOPMENT ALTERNATIVES, INC.
Washington, DC, USA

GEONOMICS INSTITUTE
Middlebury, VT, USA

**AGRIBUSINESS REFORM:
VAIKE-MAARJA BUSINESS AND
STRATEGIC PLAN**

Vaika-Maarja: November 9, 1992

Funding Provided by:

**The United States Agency
for International Development**

Maureen Berry, Geonomics
John Mac Killop, Geonomics
Jon Rooney, Geonomics
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Daniel Hogan, DAI
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Joseph Pietrus, DAI
Richard Magnani, DAI
Doyle Peterson, DAI

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DELIVERABLES:

1. **Business Plan: Privatized Milk Processing Plant**
2. **Business Plan: Privatized Dairy Farm**

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BUSINESS PLAN OBJECTIVES:

1. Internal Use

- **Understanding the Business**
- **Setting Goals and Objectives to Promote Growth**
- **Establishing Performance Standards**
- **Educating Key Personnel**

2. External Use

- **Obtaining Capital**
- **Developing Reform Plan**

OUTLINE OF BUSINESS PLAN

1. **Description of Business**
2. **Company Mission Statement**
3. **Strategic Plan Goals**
4. **Industry Analysis**
5. **Target Market**
6. **Competition**
7. **Current Marketing and Sales Strategy**
8. **Recommended Marketing and Sales Strategy**
9. **Operations Plan**
10. **Management and Organization**
11. **Long-term Development Plan**
12. **Financials**

DESCRIPTION OF BUSINESS:

- **Incorporation Date, Legal Structure**

- **Products And Services Provided**

- **Location**

- **Comparative Advantages**

- **Customer Base**

- **Number of Employees**

- **Profitability Forecast**

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COMPANY MISSION STATEMENT:

- **Commitment to Highest Quality Products**

- **Commitment of Employees**

- **Commitment to Profitability**

STRATEGIC PLAN GOALS:

- **Establish Timeframe**
- **Establish Production Volume**
- **Establish Product Mix**
- **Establish Quality Standards**
- **Establish Profitability Target**
- **Establish Marketing Objectives**

INDUSTRY ANALYSIS:

- **Estonian Economy**

- **Markets**
 - **Foreign**
 - **Domestic**

- **Supply**

- **Demand**

- **Costs**

- **Pricing**

- **Competition**

V/S

TARGET MARKET:

- **Market Niche**

- **Market Penetration**

- **Distribution**

- **Pricing**

COMPETITION:

- **Identify Competitors**

- **Product Quality**

- **Sensitivity Analysis (Pricing)**

CURRENT MARKETING AND SALES STRATEGY:

- **Marketing Program**
 - **Price Sensitivity**
 - **Wholesalers, Retailers, Direct**
 - **Brand Identification**
 - **Spot Purchases and Sales**
 - **Exports**

**RECOMMENDED MARKETING
AND SALES STRATEGY:**

- **Establish Long-term Commitment to Consumers**
 - **Improve Product Quality**
 - **Price-Value Leader**
 - **New Product Development**
 - **Purchase Incentives**
- **Develop Purchase-Resale Opportunities**
- **Develop Exports through Brokers**
- **Discontinue Unprofitable Production**

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OPERATIONS PLAN:

- **Improve Product Quality**
- **Improve Raw Materials Supply**
- **Reduce Processing Costs**

MANAGEMENT AND ORGANIZATION:

- **Establish Independence from Collective Farm Headquarters**

- **Establish Corporate Structure**
 - **Office of the President**

 - **Office of the Operations Manager**

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ANNEX Y

**OPPORTUNITIES FOR DEVELOPMENT OF COOPERATIVE
ASSOCIATIONS FOR PRODUCT DISTRIBUTION**

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OPPORTUNITIES FOR COOPERATIVE ASSOCIATIONS IN ESTONIAN DAIRY INDUSTRY

Two concerns frequently expressed by Estonian dairy processors relate to availability of inputs and market outlets for dairy products, with a greater emphasis on product markets. The role of dairy farm and processing facility privatization by itself will be insufficient to foster growth in the industry. Privatized farms and processing facilities operating in the current Estonian market environment will be isolated from input and product markets — both export and domestic. It will be necessary to promote the creation of cooperative organizations to become the vehicle for fledgling private companies to grow.

On the input side, this will allow economic procurement by means of aggregating purchases. This function has been performed by state-run organizations, which will eventually be broken up or privatized. Two important organizations are the Estonian Grain Board, which imports feed grains and is the primary supplier of feed to dairy farms through nine feed mills, and the Association of Agribusiness Supplies, which supplies essentially all other inputs except fuel and building supplies.

The nine feed mills operated by the Grain Board have a total capacity of about 1 million metric tons. Current operating rates have been approximately 40 percent. The number of mills can be probably be reduced to five, with a gain in efficiency by closing the older mills and expanding the remaining mills as feed demand increases. Kalev Koots, the Deputy General Director, agreed with the concept of a feed cooperative and expressed interest in discussing these issues further.

The Association of Agribusiness Supplies provides collective farms with inputs other than feed and fuel. It has agents and warehouses in 15 regions, with an average of 40 people staffing each warehouse. Jaan Paavel agreed that forming input supply cooperatives were essential and that further discussions with collective farm directors were necessary.

On the product marketing side, economies are also apparent. In domestic markets, the use of central warehouses could reduce distribution costs or, where combined warehousing is not economical, a market communications network could more efficiently match buyers with sellers. In export channels, inconsistent product availability and quality have inhibited exports. Export buyers want ensured supply and consistent quality. Although quality is not a direct function of a marketing cooperative, supply assurance can be improved.

Also, some dairy processors have done their own export marketing, with mixed results. For example, the Director of Marketing at the Vaike-Maarja collective arranged a 500-metric ton cheese order with a Swedish firm. After a 10-ton trial shipment, the Swedes rejected 40 percent of the order because of poor quality and canceled the rest of the order. Notwithstanding the quality considerations, this underscores the problems of improper export marketing.

The key dairy products exporter is Estkompexim. It has been an important exporter of nonfat dry milk (NDM), although recent price increases of 15-20 percent have curtailed export opportunities. It also been exporting cheese to Holland, where it is repackaged and re-exported to the Middle East and South Africa. Poor packaging limits the opportunity for value to be added in Estonia.

Juri Asari, Estkompexim's Foreign Trade Director, reported that variations in Estonian product quality will limit major export growth except to Russia. Russian quality control requirements are far below those of Western buyers. This comment was repeated by all the exporters interviewed. Asari

expressed concern about jeopardizing his competitive position by encouraging marketing cooperatives that may deal directly with Western buyers. However, he recognizes that he may be able to get a piece of the business, and is willing to participate in further discussions — particularly if competitors are not included.

Poval is a government-sponsored export company that has 28 collective shareholders, but it operates as a private company. It believes that Western food aid to Russia will be the export growth driver in the next 3-5 years. The Swedes, in particular, are active, with one company offering to buy 10,000 tons of butter and 1,500 tons of cheese for Russia. Because of its association with the government, Poval is an important candidate to include in cooperative discussions.

Estimpex is a government import-export organization that handles about \$US 65 million in goods per year, but few agricultural inputs or dairy products. Pruiit Moran, the deputy General Director, reported that the organization would welcome participation in further discussions. Obviously, its trading contacts may be valuable.

Pylva-Pim is a joint stock company of about 100 shareholders. It has a Dutch partner, L&B International, that is Pylva-Pim's primary dairy products buyer for the export market. Pylva-Pim receives inputs such as chemicals, packaging materials, and equipment from its Dutch partner. It is understandably cautious about participating in open discussions about cooperative marketing. However, because it has not been able to produce enough NDM to satisfy its Dutch partner, it has imported from Russia. It should remain open to opportunities to expand sourcing.

The Estonian Dairy Association works with 18 dairy processors as a policy-making group. It has been working with the Viljandi and Paide collectives to organize a cooperative, with the ultimate goal of uniting 60 percent of the processors. This group would be an essential contributor to further discussions.

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ANNEX Z

**PRESS RELEASE ON VAIKE-MAARJA:
SUCCESSFUL COMPLETION OF PRIVATIZATION PROJECT**

2/18

PRESS RELEASE

For Immediate Release

Contact: Doyle Peterson
301/718-8216

FIRST SUCCESSFUL PRIVATIZATION OF AGRO-ENTERPRISE IN ESTONIA IS COMPLETED

Washington, DC, January 25, 1993 -- The consortium of Deloitte & Touche, Washington, DC, Development Alternatives, Inc. (DAI), Bethesda, MD, and Geonomics Institute, Middlebury, VT, announces the first successful privatization of an agro-enterprise in Estonia. Effective February 1, 1993 all productive dairy assets of Estonia's Vaike-Maarja Collective Farm will be transferred to private ownership. On December 7, 1992, the Collective spun off its 67% stake in the Vaike-Maarja Milk Processing Plant, and on January 11, 1993, all six of the Vaike-Maarja Milk Production Facilities were successfully auctioned to private bidders. Of the remaining 23 operating units of the Collective, all but three were acquired by private interests.

DAI and Geonomics, as subcontractors to Deloitte & Touche on The Estonia Food Privatization Project, served as advisors to the Estonian Ministry of Agriculture and the Vaike-Maarja Collective Farm in this transaction. The project, which began in July 1992, is funded by the United States Agency for International Development. It has focused on the dairy sector, the largest single component of Estonia's agricultural industry.

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The privatization of the Vaike-Maarja Collective Farm will serve as a prototype transaction that may be replicated. Estonia has 385 state and/or collective farms. The transfer of ownership was effected using vouchers that were distributed to the approximately 2,000 previous or current members of the Collective. DAI's and Geonomic's role in this project included providing triage analysis to determine commercially-viable intra-Collective enterprises; valuating intra-Collective assets to be sold; formulating a reform plan for presentation to the local reform commission; providing business plans and post-privatization strategic planning for the milk production and milk processing facilities; and, preparing European Community financial statements.

Additionally, DAI and Geonomics presented workshops in Tallinn and Tartu on agro-enterprise reform and privatization for the benefit of reform commission members and future agro-enterprise owners. The goal of the workshops was to provide participants with the skills to privatize state and collective farms; to provide participants with tools to operate successfully in a market economy; and to establish a forum in which the Estonian dairy sector, the Government of Estonia, and US dairy specialists could discuss the prevailing issues of agro-enterprise privatization.

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