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An international festival and sports extravaganza!
In short, our vision for the XVII Olympic Winter Games in Lillehammer was to organise an international festival and sports extravaganza based on genuine values. After 16 spectacular days with tremendous spectator attendance, wonderful winter weather and a successful formal and informal cultural programme, we believe that we achieved our goals. The celebrations in which all of Norway and large parts of the world participated exceeded all expectations.

We are proud that winterland Norway was able to present itself at its best – through our athletes and the tremendous enthusiasm of tens of thousands of cheering spectators.

The international press covered the activities in Lillehammer more than any previous Olympics, and thousands of letters have come from television viewers all around the world thanking LOOC and the Norwegian people for a unique experience. A heartfelt appreciation to all the spectators, the IOC, the LOOC employees and the entire Olympic Family for their genuine support.

This report is a historical document of the XVII Olympic Winter Games in Lillehammer. Twelve years of intense efforts are documented ranging from the application phase to the Closing Ceremony. The background for the original application to host the Games is also included.

The report describes how LOOC was organised and the numerous challenges involved in planning and organising the Olympic arenas, as well as the cultural programme, the environmental measures and the Torch Relay. The report also documents all the opportunities the Winter Games have left in their wake.

The report describes what we did and how we did it, about the development of LOOC design programme and computer systems and topics such as telecommunications, ticketing, protocol, transport, sponsors and the organizing of close to 40 000 Team '94 members and cultural participants.

We hope the report is a source of information and inspiration – and good memories of a genuine international festival and sports extravaganza: Lillehammer '94.

Gerhard Heiberg, President of the Lillehammer Olympic Organizing Committee
Historical background
The ancient Olympic Games

There are many myths associated with the origin of the Olympic Games. One myth tells of the young god Zeus who fought against his father Kronos about control over the universe. According to the story, Zeus won. He became the hero who the Greeks celebrate with a festival near the holy area close to the city Elis in ancient Greece.

The festival lasted five days. All wars were postponed, and peace reigned on all the roads to and from the Olympic valley. This festival became the basis for the Greek calendar.

The time between each festival was called an Olympiad.

The original Olympic Games were arranged every four years. The occasion lasted only one day and included only one event: Dromos, a race across the length of the stadium (197.27 m). Later, other competitions were added: running races, boxing, wrestling, pentathlon, horse racing and chariot racing.

In time, great prestige was associated with the athletic competitions, and participants came from several parts of Greece. Lists of the victors have been found going back to 776 b.c., but the Games are sure to date back even further.

Originally, the winners received only honourary awards for their victories, even though certain successful athletes were honoured with statues inside the temple area. To begin with, the Olympic Games were associated with offers to the temples of Zeus and his wife Hera, and the victors were seen as bearers of godly power that brought a blessing to their home towns. Later, money awards were given to the winners.

The last time these original Games were organised was in the year 393 a.d.. After this date, the Roman Caesar Theodosius forbade the Games because of its heathen character.

Modern Olympic Games

Staging modern Olympic Games was the idea of a Frenchman named Pierre de Coubertin. At an international congress in 1894, he received support for his idea of introducing athletic competitions in the tradition of the ancient Olympic Games. As a result, the first Olympic Summer Games were organised in Athens in 1896. The International Olympic Committee (IOC) was established the same year.
The Greeks were proud of hosting the first modern Olympic Games. 311 participants from 13 countries participated, and the public's interest was tremendous. The city's Olympic stadium - holding 70000 spectators - was full. The event lasted for 10 days, and the following sports were on the programme: track and field, swimming, wrestling, bicycling, fencing, weight lifting, gymnastics, shooting and tennis.

The Greeks wanted Greece to be the permanent site for the Games. Mr. Coubertin, however, won through with his proposal that the Olympics should be held in different cities in order to express international solidarity. Each athlete would represent himself or herself, and the event would be awarded to a city, not a nation. It was important to avoid nationalistic overtones. At the Olympic Games in Paris in the year 1900, women participated for the first time (tennis and golf). This was also the first time Norway was represented.

The Olympic Spirit
Culture has always been a central feature of the Olympic Games. Even though the event is based on athletic competition, the Olympic Idea also encompasses culture, peace and tolerance. In 1906, the Olympic rings were first introduced, and they symbolise the five continents, brotherhood and friendship. The rings' five colours and the white background make up the colours in all the national flags of the world.

It was first in Stockholm in 1912 that the Games were given a content consistent with Coubertin's original intentions. Music, poetry and art all played an important role in the event. Singers from all over Sweden participated in a giant "Olympic choir" - more than 4 400 singers.

Later, the Olympic Games built further on the Stockholm experience, and the event took on greater social significance. In order to understand and accept other nations, it is important to respect each other's cultures. This is the essence of the Olympic Spirit and is emphasised each time an Olympiad is organised. The Opening and Closing ceremonies have become the symbol of this.

IOC
The International Olympic Committee is now 100 years old. The IOC is the highest authority in the Olympic Movement. When the committee was established, there were 15 members. Today, the committee consists of 90 representatives and a permanent administration. The main rule is that there shall be only one member from each country, but exceptions are made for the largest and most active countries. The IOC has always had as a goal to be independent of national and financial interests, and the organisation itself selects its representatives from the member
countries. The IOC decides the programme, time and place for the Games and ensures that participants do not break the rules concerning amateurs and professionals. Each member country has its own, national Olympic committee, which is subordinate to the IOC’s authority.

History has shown that it has not always been easy to keep political conflicts from affecting the Games. But even though the Games have been cancelled a couple of times, and even though political disturbances have characterised some Games, the Olympic Spirit still lives on.

**The Olympic Winter Games**
The first Olympic Winter Games were organised in France in 1924. Norwegian coaches were sceptical to this development, and feared that the Winter Games would be too strong a competitor for other traditional winter events. But when the Norwegian contingent did well at Chamonix, all opposition disappeared. Norway was the best nation and won all four skiing events. In the following years, the Summer and Winter Games were organised during the same year, in periods of four years. In 1924, 16 nations were represented with less than 300 athletes participating; only 14 different events were on the Olympic programme. Now 70 years later, the Games involve more than 1 847 athletes, 67 nations and 61 disciplines.

**The Olympic Winter Games to date:**

<table>
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<tr>
<th>Year</th>
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<th>Competitors</th>
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<td>Lillehammer</td>
<td>1847</td>
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* Including 10 000 m Speed skating which was cancelled because of poor ice conditions.
Norway as an Olympic winter sports nation

The XVII Olympic Winter Games at Lillehammer was organised 42 years after Norway last hosted a Winter Olympics. In 1952, The VI Olympic Winter Games was held in Oslo. The Oslo Games were a gold rush for the Norwegians. On one and the same day, Norwegians won three gold medals in three different disciplines. The Speed skater Ivar Ballangrud is the most successful Norwegian winter Olympian ever with four gold, one silver and two bronze medals. For the women, Sonja Henie became an international legend with her three Olympic gold medals in Figure skating.

On 15 September 1988, the IOC president Juan Antonio Samaranch made the announcement that Lillehammer was awarded the 1994 Winter Olympic Games. This was the culmination of seven years of hard work. Even though there were many doubters, it became clear after these years that Lillehammer had the potential for organising an Olympic Winter Games. The city was strategically located both in relation to sports arenas, cultural facilities and public transport. With the building of arenas in the neighbouring municipalities, Lillehammer would prove that the Winter Games could be held in a relatively limited geographic area. For the Lillehammer tourist industry, the Lillehammer Games was a godsend.

Norway has long winter sports traditions, particularly in the skiing and skating disciplines. Snow and ice have been important elements ever since people first inhabited this country. Consequently, the Olympic Winter Games will always hold a special place in Norwegians’ hearts.

Hjalmar Andersen (right) and Knut Johannesen – “Kuppern and Hjallis”
DE VI. OLYMPISKE VINTERLEKER
14. FEBRUAR OSLO 1952 25. FEBRUAR
Background for Lillehammer’s Olympic application

In 1981, when Falun/Åre (Sweden) were not awarded the 1988 Winter Games by the International Olympic Committee (IOC), the Director of the Norwegian Olympic Committee (NOC) Arne B. Mollén was quoted in the press as saying that Lillehammer was the only Nordic city that had a chance at becoming an organising city for an Olympic Winter Games. Thus, the seed of a Lillehammer Games was planted.

Wolfgang Müller was the first to be inspired by Mr. Mollén’s idea. The day after Mr. Mollén was quoted in the local press, Mr. Müller wrote to him requesting a meeting. The meeting was held on 12 October 1981.

The participants at the meeting concluded that Lillehammer was both an appropriate and suitable site, but that the work for an application should not yet be made public.

Mr. Mollén’s idea was well received, since the region was in an economic slump. The Government believed that the long term outlook for business and jobs in the inland districts was negative. On 21 August 1981, they appointed a committee (the Inland committee) that would look into what could be done to promote business and secure jobs in the inland districts. As its chairman, the committee had former Norwegian Assembly president Odvar Nordli.

The group felt that preparing and organising an Olympic Winter Games was exactly the type of measure that could spur the business community, educational institutions and the national government to invest resources and funds in inland Norway.

On 22 January 1982, Lillehammer’s executive council was informed of the group’s activity in a confidential meeting. The council’s 13 members voted to establish a committee to study the matter. Ole Sjetne was appointed chairman of this committee. The committee presented its findings on 28 January 1983. In its report, the committee pointed out that the district would benefit from an Olympic Winter Games by getting new arenas and facilities, and that the Games would bring increased trade and tourism. The Games would also provide the regional sporting clubs with expertise for...
bring increased trade and tourism. The Games would also provide the regional sporting clubs with expertise for organising national and international competitions.

The report stated that the conditions were right in relation to climate, height above sea level, geography, communications, sanitation facilities, local media and help from the armed forces. The committee also emphasized the tremendous national benefit of projecting Norway as a leading winter sports nation and organiser of an international championship. The stable Norwegian economy and political situation would ensure a successful event, concluded the report.

The report recommended building most of the arenas in Lillehammer, with an alpine facility in Øyer and ice rinks in Hamar and Gjøvik. Storhove was already at this time suggested as a media centre.

On 2 June 1983, the municipal authorities voted 42 to 13 to work actively to bring the Winter Games to Lillehammer. 1992 campaign

Lillehammer-OL 1992 AS was established on 1 October 1983 with Arild Sletten as the director and Ole Sjetne as chairman.

And so the planning began. The total budget in 1992 for launching Lillehammer as a candidate city was NOK 25 million. About NOK 15 million came from private sector sources and about NOK 10 million from the public authorities.

At a reception during the 1984 Winter Games in Sarajevo, Lillehammer was launched as a candidate city for the 1992 Winter Olympic Games. H.M. King Olav attended together with 30 IOC members.

The Olympic company faced the problem that Norway was little known – and Lillehammer practically unknown – for the 92 members of The International Olympic Committee. The Olympic company worked continuously to distribute information about Norway, Lillehammer and the city's qualities as an Olympic organiser.

With an emphasis on openness and hospitality, Lillehammer was promoted as the best Olympic alternative for 1992. Representatives from Lillehammer visited about 70 IOC members in their home countries, and about 50 Norwegian Foreign Service posts were given the responsibility of following-up the IOC members.

Lillehammer representatives also attended 37 international sports events around the world.

The economic foundation was secured through a government guarantee.

In May 1985, Petter Rønningen who had worked from the beginning with Ole Sjetne on this project was appointed as director for the administration of the Olympic work. The
company had by this time five employees and was prepared to compete with Falun/Åre in Sweden, Anchorage in Alaska, Berchtesgaden in the former West Germany, Cortina in Italy, Sofia in Bulgaria and Albertville in France for the 1992 Winter Games.

On 7 November, the Lillehammer municipal board approved the last parts of the plans that would serve as the basis for the Olympic application.

The Olympic application was presented in two languages, English and French, and filled three volumes (500 pages). H.M. King Olav, NOC chairman Jan Gulbrandsen, Prime Minister Kåre Willoch and Lillehammer’s mayor Arild Bakken recommended Lillehammer’s application.

The delegation to the IOC session in Lausanne consisted of 58 persons and was led by chairman of the board Ole Sjetne and director Petter Rønningen. H.R.H. Crown Prince Harald accompanied the delegation to Lausanne. Even though Lillehammer did well, Albertville won the vote on 17 September 1986.

In the final report to the municipality, the Olympic company recommended that director Petter Rønningen should start working on a new application for the Winter Olympics in 1994. It was important to initiate the building of an alpine centre in Hafjell and an ice hockey hall in Lillehammer in order to strengthen a new application.

1994 Campaign

The government’s grant for the new application was NOK 1.8 billion, and the municipal council voted on 9 April 1987 to accept the terms for the government grant and apply again. The deadline for submitting the application was 15 April.

Sigmund Thue was to lead the new management. This time, Lillehammer’s two volume application was 450 pages, and included contributions from H.M. King Olav, the new Prime Minister Gro Harlem Brundtland, President of Norway’s Olympic Committee Jan Gulbrandsen and the new mayor of Lillehammer municipality Audun Tron.

Lillehammer’s application was more complete this time. Construction would soon begin on the alpine centre in Hafjell and the ice rink in Lillehammer. A letter from Prime Minister Gro Harlem Brundtland on 24 April 1987 to each member of the IOC confirmed that Lillehammer’s application had broad national support.

The four applicants for the 1994 Winter Games were Lausanne, Sofia, Østersund/Åre and Lillehammer.
Lillehammer’s Olympic mascot was presented in Calgary. The mascot Håkon, based on a famous Norwegian King who reigned during the Middle Ages, had been designed by the Mexican Javier Ramirez Campuzanos. As the first personified Olympic mascot, Håkon was presented at Lillehammer’s press conference.

Samaranch visited Lillehammer in June 1988. He watched the Olympic Day Run and officially opened the Olympic Academy at Nansenskolen.

Representatives from both the government and the business community played key roles promoting Lillehammer’s candidature for the 1994 Winter Olympic Games. During the promotional campaign, delegations from Lillehammer visited more than 70 IOC members in their home countries, while 68 IOC members visited Lillehammer.

An 18-member delegation from Lillehammer travelled to Seoul for the IOC session on 15 September which would decide where the 1994 Winter Games would be held. A multi- vision programme promoted Norway as a friendly, hospitable country, and Prime Minister Brundtland concluded her speech saying that Norway had all the necessary resources and organisational experience to host the Games and was ready to accept the challenge.

At 10.53 (Norwegian time) on 15 September, the results of the vote at the IOC session were made public. The IOC president Juan Antonio Samaranch read the result: “The decision is Lillehammer”. Lillehammer Olympic Committee board chairman Ole Sjetne said it was probably the greatest moment in his life.
LOOC was awarded the XVII Olympic Winter Games during the IOC’s session in connection with the Olympic Winter Games in Seoul on 15 September 1988. Directly after the formal announcement, a contract was signed between the IOC, the Municipality of Lillehammer and the Norwegian Olympic Committee. The contract specified the conditions on which the Games were awarded, and that the city would establish an organising committee that would be responsible for planning and staging the Games. In this connection, the Lillehammer Olympic Organising Committee AS (LOOC) was established on 14 November 1988. The articles of incorporation for the organisation were adopted and can be found in Appendix 1. Appendix 2 shows the composition of LOOC’s board of directors and the organisational committee.

There are several different phases involved in preparing to stage an Olympic Winter Games. It is important that the organisation continuously adapts to an organisational structure in line with the tasks involved at each phase. Consequently, LOOC has undergone several organisational changes in preparing for the Games. Appendix 2 shows the executive structure of the organisation during the various phases.

Ole Sjetne became LOOC’s first president. Mr. Sjetne resigned in October 1989 and was replaced by Gerhard Heiberg. H.R.H. Crown Prince Harald was honorary president. Petter Rønningen was employed as Managing Director of LOOC on 1 December 1988. He began on 1 January 1989. The initial planning phase was characterised by close cooperation with the IOC and the international sports federations in order to specify requirements and specifications for the various Olympic facilities and functions.

The guarantee that the Norwegian Parliament gave in 1985 and 1987 to Lillehammer M unicipality specified that the national government would take responsibility for improving and building infrastructure that was the national government’s responsibility, while Lillehammer M unicipality would construct the Olympic arenas and facilities. In line with this, Lillehammer M unicipality in 1989 established the construction company Lillehammer Olympiske Anlegg (LOA). This company would build all of the facilities that Lillehammer M unicipality was responsible for building. M r. Haavind was hired as M anaging Director, but resigned in the winter of 1991. Bjørn Sund was hired as the new M anaging Director.

A regional Post-Olympics Use Committee was also established. And in order to coordinate the national government’s Olympic activities, a so-called coordination-committee for the 1994 Olympics was established. This committee was led by the M inister of Culture. Also represented in this committee were members from other governmental ministries, as well as the county administrators for Hedmark and Oppland counties.

The primary task in 1989 for all companies was to study the localisation and architecture of the various arenas and facilities, and to develop budgets. On 15 December 1989, LOOC adopted a budget draft for the Olympics. This budget served as the basis for Lillehammer M unicipality’s financial application to the national Government in regards to the financial guarantee it gave in 1987. In this budget draft, the localisation of various arenas was changed. These changes required approval by the IOC and certain sports federations. This approval was given.
The Norwegian Parliament’s budget review

The Norwegian Parliament’s first review of the Olympic budget took place on 23 April 1990. During the review in April, the Parliament adopted budgets for a number of arenas. For arenas without approved budgets, more specifications were needed. The final review of the total Olympic budget both in relation to investments and operations took place in connection with the Parliament’s final budget review in the autumn 1990. In connection with the budget review in April, the Parliament decided that LOOC’s organisational structure would be changed into a modified concern model. The purpose of having a concern model was to organise the main activities - Events, Construction and Post-Olympic Use - under one leadership, while at the same time allowing for management, coordination and control of the overall activity. By Autumn 1990, the re-structuring had been completed. From then on, the Olympic organisation consisted of a parent company (Lillehammer OL ‘94 AS) and three subsidiaries: LOOC AS for the event, LOA AS for the construction, and Lillehammer Olympiavest AS (LOV) as a post-Olympic use company. LOV was established as a formal company based on the earlier Post-Olympic Use Committee. While the re-structuring of the Olympic organisation took place, Hamar and Gjøvik Municipalities established a construction company for the planning, building and operation of Olympic facilities in their regions.

The national government owned 51% of Lillehammer OL ‘94 AS, and Lillehammer Municipality and the Norwegian Olympic Committee each owned 24.5%. The company was led by a board consisting of seven members (see Appendix 2). LOOC president Gerhard Heiberg chaired both the main board and the board of the three subsidiaries. The same representation also applied for vice-presidents Audun Tron and Arne Myhrvold. (Mr. Tron was deputy chairman for Gerhard Heiberg).

Henrik Andenæs was hired as Managing Director of Lillehammer OL ‘94 AS.

After the reorganisation, LOOC was not a fully-owned subsidiary of Lillehammer OL ‘94 AS. Lillehammer OL ‘94 AS owned 51%, while Lillehammer Municipality and the Norwegian Olympic Committee each owned 24.5%

LOA, which had been Lillehammer Municipality’s construction company, was after the reorganisation a 100% subsidiary of Lillehammer OL ‘94 AS.

LOV was also adapted to a concern model - 51% owned by Lillehammer OL ‘94 AS, 24.5% owned by Øyer, Lillehammer and Ringebu Municipalities, and 24.5% owned by private investors.

No private investors were interested in investing in LOV, and the company’s articles of incorporation were changed so that the parent company in the Olympic organisation owned 61.9% of the shares and the three municipalities 38.1%.

As a result of the reorganisation, LOOC’s previous organising committee became LOOC’s general assembly.

The Norwegian Assembly specified a total budget for LOOC of NOK 7 billion (1991). In connection with the budget review, the main plan for Lillehammer’s Olympic preparations was adopted. The main plan contained an overview of all the projects and activities involved in the preparations for the Games. It also included the main activities and milestones for all the sports arenas, a project overview for accommodation of athletes and media representatives, as well as a specification of all functions that were required to stage a successful event (Sport, Information, Transportation, Opening and Closing.
Ceremonies, etc). The main plan also contained important milestones for promotional efforts and an overview of the most important public and inter-municipal projects.

The management model involved an extensive delegation of authority from the national government to Lillehammer OL '94 AS (a stock-held company). The relationship was regulated in separate guidelines where the Ministry of Culture’s authority and right to monitor and check was particularly emphasised. The Ministry’s control and review function was adapted to that suitable for a public company, and the primary authority was given to the board of directors in this company.

LOA merged with the parent company
In the autumn 1991, the Olympic work had gone into a new phase where the need for a unified and effective management made it desirable for the management to merge LOA with the parent company. Lillehammer OL ‘94 AS became the name of the merged companies. LOOC and LOV continued with the same company structure. The reorganisation simplified the organisation and eliminated redundant functions. For all the companies, the following functions were placed in Lillehammer OL ‘94 AS: finances, administration, personnel, marketing and information. LOOC could now focus on preparing for the Olympics.

One Olympic company
One and a half years prior to the Games, most of the construction projects had been completed, and so the testing of facilities, equipment and personnel could begin. The work developing a permanent organisation for local and regional post-Olympic operations also began.

In September 1992, the Olympic organisation advocated a further organisational simplification and integration.

As of 1 January 1993, the Olympic organisation was established as one company, under one board and with one managing director. LOOC was merged into Lillehammer OL’94 AS, and Lillehammer OL ‘94 AS changed its name to LOOC. The ownership relationship was as follows: the national government owned 51% and Lillehammer Municipality and the Norwegian Olympic Committee owned 24.5% each.

Henrik Andenæs continued as managing director in the merged company, with Petter Rønningen as deputy managing director.

The general assembly LOOC had while the Olympic organisation was organised in a concern model continued in the new organisation as LOOC’s council.

The purpose of this last reorganisation was as follows: to consolidate all activities in preparation for the Olympics, to improve management efficiency, to create a better coordinated organisation and to increase the motivation within the company.

The primary task of the organisation now was to effectively stage the Lillehammer Games. An arena organisation model was chosen in which a great deal of responsibility and authority was delegated to a Head of Operations and to the arena management, with the other departments functioning as support functions.

The establishment of the final Olympic organisation began with the appointment of the first venue manager on 1 July 1992. After that, both employees and Team ‘94 members were assigned either to an arena, a department staff or to the Main Operations Centre. After thorough preparation and training, the XVII Olympic Winter Games could be held from 12 to 27 February 1994.
**Demobilisation**

Preparations for post-Olympic activities and demobilisation began early in 1993. A plan was developed and Sigmund Thue was appointed Managing Director for this phase. Demobilisation was completed in June 1995.
Finance and Administration
Summary
The Finance and Administration Department was organised in the following manner:
I. Project Management Section
II. Finance Section
III. Administration Division

The following sections had earlier been organised in this department: Documentation, Acquisition and Logistics.

Financial management
Organising a successful Olympic Games depended on maintaining tight control over the use of available funds. Each managerial level had budget responsibility, and the Project Management and Finance Sections played a coordinating function.

The Project Management Section coordinated the budgets and reported if there were any deviations between budgets and use of funds. The Finance Section kept the accounts and managed the liquidity.

Planning/Progress
LOOC wanted there to be a close correlation between tasks, expenses and time used. The Project Management Section was also responsible for coordinating planning and follow-up activities.

Many of the tasks were of such a nature that it was difficult to determine the exact relationship between time used and expenses.

Administration
The Administration Division was responsible for the following:
I. Offices
   - rent
   - structural changes to offices
   - operations

II. Material
   - acquisition of office machines, inventory and equipment
   - operation of machines and equipment
   - administration of consumption material

III. Internal service
   - in-house postal services (postage)
   - messenger service
   - telephone switchboard services

IV. Canteen

V. Postal services during the Winter Olympics
   - postal services at the arenas
Planning and Financial Management

Purpose
The planning and staging of the Winter Games in Lillehammer was an enormous project. Extensive work was put into constructing, furnishing, staffing and planning before the Opening Ceremony on 12 February 1994.

A high degree of complexity characterised the project. In addition to all the building and furnishing work, the project included activities in the following areas: sports, culture, marketing, information, public relations, accommodation, food services, transportation, computers, telecommunications, security, accreditation, material administration, recruitment and training.

The project was given a fixed budget through a grant from parliament.

The timeframe for demobilisation after the Games was fixed and left no room for delays.

All these factors made it necessary to have a well organised project management.

Methodology
The methodology LOOC used for project management was strongly influenced by what was used in the Norwegian offshore industry.

Work Breakdown Structure (WBS):
A work breakdown structure had been developed. This meant that each project was divided into individual tasks in a hierarchical pattern. The tasks at the lowest level of the hierarchy were simple enough to be described. In LOOC, these tasks were called “activities”. The description of each activity comprised three elements:

I A verbal description of the work scope and purpose of the activity
II A budget for the activity
III A timeframe for the activity

A uniform description of the hierarchical structure reflected the coding of each individual activity. In LOOC, the code structure chosen was as follows:

This can be illustrated by the following example:

This system of defining the work scope with a corresponding description of the budget and timeframe provided a good way to manage time and costs. Both the costs and time expended were measured against budgets and plans for each task, and afterwards summed together for each level to find a total.

Government’s chart of accounts
At the same time as LOOC was developing a WBS system, the Ministry of Culture established a code structure adapted to the government’s chart of accounts. This structure had three levels:
An example of this is the following:

The government’s chart of accounts at the sub-subordinate accounts level corresponded with LOOC’s WBS structure at the functional level. This satisfied both LOOC’s and the government’s need to monitor expenses and progress. In addition to the programme for managing expenses and progress during the planning phase, LOOC set up a routine for daily planning at each arena (autumn 1992). This provided a detailed overview of the tasks that would be carried out at each arena each day. Starting and finishing points were defined within one minute’s accuracy.

System choice
IBM became a natural main collaboration partner at an early stage in the planning. It was therefore necessary to select a project management system that ran on IBM machines. The Lillehammer Games were primarily financed through grants by the government. The fixed budget was final and could not be increased. It was important that the system could help monitor costs. One also foresaw the need for changes in project descriptions, subprojects and activities. It was therefore necessary to maintain a certain degree of flexibility in the system.

Based on these criteria, a PC-based system from Metier Artemis (Cost 7000) was selected. This computer program was modified so that it could also deal with scheduling and progress monitoring.

The daily planning function was included via a system based on an ORACLE 7 database.

Reporting
As a consequence of LOOC having a fixed budget, budgets were adjusted by transferring funds from one post to another. An annual audit of the budgets and plans was conducted in which changes from previous years were documented and future plans were reviewed.

LOOC also established a routine for monthly reports.

Audit of budgets and plans
Once a year, a thorough review of all budgets and plans was conducted. The emphasis in this work was put on the budget. Budget audits comprised the basis for the Ministry of Culture’s Parliamentary Proposition No. 1, which was reviewed each year by parliament, and which ended up as an approved total budget for the Winter Games and an annual appropriation which was part of the national budget.

There were fixed procedures for how funds could be transferred to other posts, subordinate posts and sub-subordinate posts in the government’s chart of accounts. Guidelines were also established for how withdrawals from the reserve fund could be made. The guidelines specified that government approval was required for withdrawals from the reserve fund.

Within each of the sub-subordinate posts, LOOC could redistribute funds without government approval or review.
Monthly reports
Each month, a status description was given for each project. The description had the same basis as the WBS: one verbal part, one expense part and one progress part. Emphasis was put on describing deviations from the plans and budgets, reasons for the deviations and measures to get back on the right track.

The last Sunday of each month symbolized a “cut-off date” for the report, and the report itself had to be finished 12 days later. Making a report involved a situation analysis. This analysis was just as important as the final product.

Beginning in the spring 1993, the monthly reports were supplemented with a separate monthly report for the arenas. The main focus in the arena reports was on time and progress schedules. All conditions relating to finances were treated in the other monthly reports.

Obligation reports
In connection with the monthly reports, an overview of all obligations entered into the last month – as well as overall – was an important element in the financial management.

Budget development 1990-94
“The Olympic Budget 1988-94” was the official description of the grants from the Norwegian Government to the Lillehammer Games. NOK 6 billion was given to LOOC and NOK 1 billion was given to the various technical departments as shown in the table below.

About NOK 2.4 billion was granted to Olympic-related activities above and beyond the other public budgets. Private groups invested about NOK 2 billion. The overall figure is therefore NOK 11.4 billion.
## Budgets 1990-94

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70.1 Wages
This subpost covered wages, social expenses and any additional perquisites for LOOC employees. Hired personnel were paid from other posts, either 70.2 Operations or 70.3 Event Expenses.

70.2 Operations
This post covered primarily office rent, office operation expenses, inventory and equipment, insurance, consultant services, etc.

70.3 Event Expenses
In contrast to subposts 70.1 Wages and 70.2 Operations, Event Expenses were specified in sub-subposts – 22 in all. The contents of these sub-subposts were as follows:

70.3.011 Cultural Events
The main elements in this post were the following: the Torch Relay, the Informal Cultural Programme, exhibitions, concerts, the Sami Olympic programme and religious events. As of the last review of the budget, this post also covered the Opening and Closing Ceremonies. During the last review of accounts, a separate post was established for the main ceremonies.

70.3.012 Main Ceremonies
This post was used exclusively for the Opening and Closing Ceremonies.

70.3.021 Transport
In a parliamentary resolution for the budget year 1993 (Budget Review #3), transport was put into a separate post. Prior to this, transport was part of post 70.3.02 Logistics, which also covered Accommodation/Food Services and Security/Accreditation. After this change, post 70.3.02 no longer existed.

This post covered all aspects of road traffic, the transportation programme for accredited persons and spectators and the construction and maintenance of parking facilities.

70.3.022 Accommodation/Food Services
Part of this post were: athlete accommodation, operation of the IOC hotel and the operation of the media villages. This post also covered the food services programme for all Olympic arenas, including the planning of permanent and temporary kitchen facilities.

70.3.023 Security/Accreditation
LOOC worked closely with the police on their security programme. LOOC’s largest expense was acquiring advanced equipment such as surveillance cameras, screening equipment, etc. The accreditation programme was based on experience and systems used during earlier Olympic Games. The accreditation cards were a combined access card, work permit and security guarantee for the cardholder.

70.3.031 Information Technology
Up until Budget Review #3, this post was part of the telecommunications post 70.3.03 Technology. This post also included: the results, management and information systems, as well as internal management systems and equipment. The giant-screen video monitors were also covered by this post.

70.3.032 Telecommunications
Telecommunications covered all equipment and all services supplied by TBK (telephones, mobile phones, paging systems, communication equipment, computer communication equipment and cabling), rental of telephone lines and other equipment from Televerket (the Norwegian telephone company), as well as sound equipment and televisions.
70.3.04 Public Relations and Promotion
Up until Parliamentary Resolution no. 1, 1993-1994 (Budget Review #4), this post was called “Information”. After the reorganisation of the Information Department, the post included Design, Public Relations and the Lillehammer Olympic Information Centre (LOI). All other information activities and budgets were covered by post 70.3.13 Press/ Media.

70.3.05 Marketing
This post covered activities associated with collecting revenues from the rights-holders (Broadcasting), sponsors and collaboration partners.

70.3.06 Broadcasting
Post 70.3.06 included costs associated with producing international radio and television signals. This was the responsibility of the Olympic Radio and Television Organisation (ORTO) which consisted of NRK (Norwegian national television) as host broadcaster, and a number of European RTV companies, as well as CTV from Canada (cooperation partner).

70.3.07 Spectator Accommodation
This post covered primarily costs associated with renting the Olympic Village. Operations of the village were covered by post 70.3.022 Accommodation/ Food Services.

70.3.08 Media Accommodation
This post covered all rental of accommodation, as well as some projects organised by LOOC (not rental agreements). As for the Olympic Village, operations at the media villages were covered in post 70.3.022 Accommodation/ Food Services.

70.3.09 Other Event Expenses
This post covered primarily the following elements: clothing, material management and support to the Norwegian Olympic Committee. VAT returns (revenue) were included in this post.

Originally, this post also covered the following areas (which later were put into separate sub-posts): Sport, Volunteers, Health Services, Rent of Arenas, Service in Arena Municipalities, Tickets and Hosting & Protocol.

70.3.10 Sport
Post 7.3.10 covered technical preparations for events, including the cooperation with sports organisations and the management of sports volunteers (Olympic volunteers from sports clubs), as well as equipment at the sports arenas and coordination of national and international agreements.

70.3.11 Volunteers
This post covered recruiting, training, feeding and lodging of volunteers, as well as an agreement with the military concerning the use of military personnel.

70.3.12 Health Services
This post financed the building of the polyclinic at Lillehammer County Hospital and the Anti-doping laboratory at Aker Hospital (Oslo). This budget post also covered necessary technical training of volunteer medical personnel.

70.3.13 Press & Media
Originally, this post included only expenses associated with the Main Press Centre (MPC) and the arena press centres. After the reorganisation (see also post 70.3.04), the following activities were also included in this post: the press spokesperson function, information to the volunteers and information systems.
70.3.14 Rent of arenas
Most of the money in this post was earmarked to cover accrued debt for the Alpine centre in Hafjell. This post also covered the rent of municipal arenas and arenas in Lillehammer, as well as Olympic-related operations at other sports arenas. After Budget Review #4, this post also covered electricity, guard, snow-clearing and cleaning expenses at the arenas.

70.3.15 Services at the arena municipalities
The municipalities’ need for increased capacity in terms of water/sewage, refuse collection, fire/rescue, etc. were covered by this post.

70.3.16 Tickets
This post covered activities associated with the organisation and implementation of marketing activities, as well as ticket sales.

70.3.17 Hosting and Protocol
This post covered activities that had to be completed in order to satisfy the protocol requirements specified in the IOC Charter. Among the important tasks were: greeting passengers at airports, information about arrival/departure times for accredited persons, as well as the hosting and escort services.

70.3.20 Arena equipment
Funds that previously had been divided among several posts for electricity, temporary buildings and flags/festival elements/signs, were after Budget Review #4 brought together under this sub-subordinate post.

80.1 Sports arenas
This entry was the first subpost under post 80 Investments. It was split up into separate sub-subposts, one for each arena. The investment budget showed what the construction costs were for the government at each arena. Financing was obtained from municipal and private investors.

80.1.01 Håkon Hall
Håkon Hall is a multi-purpose hall which during the Lillehammer Games was used as an ice hockey arena. During the Paralympics, the hall was the site for the Opening and Closing Ceremonies, as well as for the Sledge-hockey event.

80.1.02 Birkebeineren Ski Stadium
This arena was the site of the Cross-country and Biathlon events. The arena was built with separate start/entrance areas for the two disciplines. The tracks were also separate.

80.1.03 Gjøvik Olympic Cavern Hall
During the Games, Gjøvik Olympic Cavern Hall was used as a venue for Ice hockey. The hall is the world’s largest public hall built inside a mountain. Gjøvik Municipality was responsible for most of the financing.

80.1.04 Hamar Olympic Amphitheatre
During the Games, Hamar Olympic Amphitheatre was used for Figure skating and Short track.

80.1.05 Hamar Olympic Hall
During the Games, this hall was used to stage the Speed skating events. It was partially financed by the Olympic budget. Hamar OL-anlegg AS (management company) had the primary responsibility for financing the building of the hall.
80.1.07 Hunderfossen Bobsleigh and Luge Track
Emphasis was put on environmental considerations when planning this track. By shaping the track to the contours of the surrounding landscape, the track blends into the landscape. There is also an extensive security system to protect against ammonia leaks.

80.1.09 Kanthaugen Freestyle Arena
Aerials and Moguls are currently the two Olympic events in Freestyle. The facilities for these events were financed from the Olympic budget. Lillehammer Municipality also contributed funds so that the arena also featured a hill for Ballet.

80.1.10 Hafjell Alpine Centre
This centre is a national facility for alpine skiing. During the Lillehammer Games, Hafjell was the site of the Slalom, Giant slalom and Combined slalom events.

The centre was partially financed from the Olympic budget. The municipal company Hafjell Riksanlegg Øyer AS owns 51% of the centre, and a private company Hafjell Invest AS owns 49%.

80.1.11 Kvitfjell Alpine Centre
This arena was the site for Downhill, Super G and Combined downhill during the Lillehammer Games.

The arena was partially financed by the Olympic budget. The municipal company Lillehammer Olympia Vekst AS owns 51% and the private company KS Kvitfjell owns 49%.

80.1.12 Lysgårdsbakkene Ski Jumping Arena
During the Lillehammer Games, this arena was the site for the Ski jumping and Combined ski jumping events and the Opening and Closing Ceremonies.

80.1.13 Opening Arena
Work had to be done to the arena to prepare it for the Opening and Closing Ceremonies. After Parliamentary Resolution no. 1 1991-1992 (Budget Review #2), the funds to cover this work were allocated to this post.

80.2 Grants for rural roads
LOOC contributed to financing the construction and improvement of a number of roads in the Olympic area. This related primarily to road projects in connection with Kvitfjell, a road crossing in Hamar and a street in Lillehammer.

80.4 Cultural Centre
This post was dedicated to various cultural facilities as specified in the following sub-subposts.

80.4.1 Lillehammer Art Museum
A completely new museum (in connection with an existing museum) was built in downtown Lillehammer.

80.4.3 Cultural Centre, Maihaugen
This post covered the construction of a new concert/theatre hall at Maihaugen, as well as a grant to make a permanent historic exhibition The Sandvig Collections, Maihaugen.

80.4.4 Other Cultural Investments
This post covered the decoration of Banken Cultural Centre, as well as the Decoration Programme for the arenas.

80.6 Equipment/Inventory
This post covered the equipment and inventory located out at the various arenas, both in permanent and temporary buildings.
80.7 Other Expenses
This post covered expenses involved in renting property for temporary buildings, the purchase of property for sports arenas, etc.

Post 85 Reserve
This post contained funds which were not earmarked. The funds were used to cover unforeseen additional expenses. The use of the funds in the reserve post required first approval from the Ministry of Culture and then approval by LOOC’s Board of Directors.

Originally, the reserve was 10% of the total budget (NOK 700 million).

Post 86 Post-Olympic Fund
A post-Olympic fund was established. The idea was that the interest from this fund would be used to cover operational losses at the arenas after the Lillehammer Games.

The mechanism for determining the amount in the fund was as follows: 30% of the excess revenues above the budgeted revenue would be put in the post-Olympic fund, as well as whatever was left in Post 85 Reserve.

Revenues
All the budgeted income to LOOC was transferred directly to the government. LOOC was able to keep 70% of the income above the budgeted amount as a part of the company’s reserve post (and subject to the rules for using funds from this post).

The revenues were followed up in the same way as for the expenses, but with a focus on reducing expenses.

Revenues 1990-94

<table>
<thead>
<tr>
<th>Post</th>
<th>Parliamentary Proposition no. 1</th>
<th>Estimate as of 17.10.94</th>
</tr>
</thead>
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<tr>
<td>70 Income from TV-rights</td>
<td>1 319 000</td>
<td>1 461 489</td>
</tr>
<tr>
<td>71 Ticket income</td>
<td>68 000</td>
<td>70 489</td>
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<td>72 Sales income</td>
<td>131 000</td>
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<td>74 Sponsor income</td>
<td>610 000</td>
<td>644 356</td>
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<td>75 Grants from the State football pools</td>
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<td>76 Other income</td>
<td>35 000</td>
<td>incl. i 72</td>
</tr>
<tr>
<td>Total Chapter 3390 Olympic Revenues</td>
<td>2 488 000</td>
<td>2 637 466</td>
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</table>
Conclusions

The system as shown above proved to be a good way of keeping control over expenses.

The intense focus on budgets and costs meant that planning schedules and follow-up on progress came somewhat in the background. In a project such as the Olympic Winter Games, one should early on clearly define the scope of the project and areas of responsibility. One example of this is the development of implementation strategies for the various departments. Understanding the consequences of the strategies will provide the best basis for later work involving the setting of milestones, etc.

Ideally, the management system, procedures and methodology should be determined before any preparations begin. For example, much work should be put in establishing a WBS-structure early on so that one can avoid having to make changes. The WBS layout should also reflect the contract strategy and purchasing policy.

The size of the reserve post should be determined on the basis of how detailed and thorough the budget is. The more detailed the budget is, the less the reserve post can be.

The size of the staff will depend on the choice of a management system. LOOC chose a very detailed structure, with good control over expenses and milestones. This required a great deal of staff, however, and the amount of overtime by LOOC employees indicates that the staff could have been even larger.

Reference List

Parliamentary Proposition no. 1 (1990-1991)
Budget Lillehammer 1994 Rev. 0, Jun. 1990
Budget Lillehammer 1994 Rev. 1, Jan. 1991
Budget Lillehammer 1994 Rev. 4, Jul. 1993
Final Report to Ministry of Culture, 25 August 1994
Main Plan Lillehammer 1994, Rev. 0, Jun. 1990
Main Plan Lillehammer 1994, Rev. 1, Jan. 1991
Main Plan Lillehammer 1994, Rev. 2, Jul. 1991
Main Plan Lillehammer 1994, Rev. 3, Jul. 1992
Monthly Report December 1990
Monthly Report Jan-Dec 1991
Monthly Report Jan-Dec 1992
Monthly Report Jan-Dec 1993
Monthly Report Jan-Apr 1994

Plan of Operations for Finances Technical Staff for the period 1 Sep. 1993 to 31 Aug. 1994
Merkantil Leder Håndbok (Business Manager's Handbook)
General accounting routines
Acquisition of goods and services

External conditions
Government acquisition regulations
In 1989, LOOC was instructed by the Norwegian Parliament to base its acquisition policy on the government’s guidelines.

Parliamentary Proposition No. 1 (1990-1991) instructed LOOC to follow the government’s guidelines concerning the purchase of goods and services. LOOC was also obligated to base sponsor agreements on these guidelines. This meant that sponsors had to provide competitively priced products. This last element was important because of the practice of budgeting sponsors and suppliers separately.

Favouring Norwegian businesses
The purchasing policy’s main principle was open and free competition and equal treatment of all potential suppliers. The Church and Education Committee in parliament, however, specified in a report that the Lillehammer Games should provide opportunities for Norwegian industry to develop and promote their products.

Since the public acquisition rules do not favour Norwegian businesses, the Ministry established a Coordination Body for Olympic acquisitions with members from LOOC, LO (trade union), NHO (business association), Industrifondet (industrial fund) and the Ministry of Commerce. The function of this coordinating body was to ensure that information about acquisitions came out to Norwegian businesses as early as possible, so that Norwegian companies would be given an opportunity to bid for contracts. The coordinating body had no authority with respect to LOOC’s final decisions.
In the autumn 1990, the Ministry of Commerce made it clear that LOOC was not restrained by commercial agreements until the EEA agreement went into effect.

There was, however, only one instance when Norwegian industry was given preference: the contract for the Team ‘94 attire. In this case, the Ministry of Commerce instructed LOOC to solicit bids from Norwegian producers only. Only if the purchase could not be made within the given budget could foreign companies bid for the contract.

Post-Olympic market
Parliamentary Proposition No. 1 (1990-1991) also directed LOOC to practice its acquisition policy taking into consideration post-Olympic market considerations.

The reason for this was twofold: to avoid commercial interests in Lillehammer from suffering after the Olympics by having the market flooded with used equipment; and to avoid LOOC running the financial risk of not being able to sell Olympic equipment after the Games.

In-house routines for acquisitions
Organisation
The purchase of goods and services was one of several contractual areas in LOOC. Other areas included: construction/subcontractors, income agreements, accommodation contracts and art commissions/acquisitions.

LOOC’s contract and acquisition handbook was issued in summary form in April 1990; the final version was issued in September 1990.

The goal of LOOC’s acquisition routines was to enter into contracts and select suppliers who would ensure a successful Olympic event.

In addition to the public acquisition regulations, the following in-house routines were developed:

Allocation of responsibility
In order to quality assure the purchasing process and ensure that the regulations were followed, the responsibility for entering into contracts for goods and services was split between:

- One centralised purchasing unit, the Acquisition Department, with responsibility for the formal process, commercial considerations and all the formal communication between LOOC and suppliers.
- One internal buyer with responsibility for describing and evaluating technical aspects during the process.

Delegated purchases
In order to make the routines flexible and to take advantage of capacity and expertise in the Acquisition Department, delegated purchasing authority was implemented.

This functioned as follows: the Acquisition Department entered into general agreements, and the responsibility for specific orders was delegated to the various managers. General purchasing authority was also given to the managers for buying goods and services within specified monetary limits. Some departments were given wider-ranging purchasing authority.

Entering into sponsor agreements
In order to maintain the parliament’s conditions for entering into sponsor agreements, separate routines were established.

The main procedure for purchasing goods and services was the basis for this process; the difference was that the basis on which a supplier was selected was the best overall offer, i.e. the offer of sponsor rights minus the price of deliveries. Since the sponsors would have preferred to deliver a more expensive product than LOOC needed, it was also possible to
reduce the price for sponsor rights and deliveries so that the price for the delivery corresponded to the best acceptable offer or budget for the delivery.

Sponsor agreements were also entered into without corresponding delivery agreements. These types of sponsor agreements gave the sponsor priority for later deliveries, but only if the sponsor’s offer was competitive.

**Competition strategies**

**Rental/purchase**

A main principle in LOOC’s purchasing strategy was to rent instead of purchasing needed equipment. This would not only reduce costs, but it would also avoid having to sell all the equipment after the Games.

As an alternative to straight out purchases, another important strategy was to have re-purchase agreements with the suppliers. Through re-purchase agreements, LOOC left it up to the suppliers themselves to distribute the equipment in the market after the Games in a manner that would not damage the future market for their products. The re-purchase principle also gave LOOC greater freedom in using the equipment for post-Olympic purposes, i.e. purchasing the equipment if this was seen as financially beneficial.

Also in the services sector, one main goal was to hire expertise and capacity from external consultants so that LOOC’s staff could primarily focus on planning, coordinating and developing requirement specifications, as well as following up plans and requirements in relation to suppliers.

Another goal was to emphasize standard, proven solutions, so that one avoided having to specially develop technical solutions beyond that which was absolutely necessary.

**Contract terms/acquisition tools**

Early on, the Acquisition Department established standard contract terms for the purchase of goods and services and the hiring of consultants. Standards for renting various types of offices/property, computer equipment, etc. were developed as needed. Contract terms were targeted towards the Olympics, and became the foundation for both the purely supply agreements and the sponsor agreements – also to a certain extent for the agreements with international sponsors (TOP III programme).

A standard purchasing procedure was also established specifying the need for documentation (in relation to the Parliament’s directives) and standard routines.

**Suppliers**

LOOC’s requirements for deliveries were primarily formulated as overall service and function descriptions, in order to best take advantage of the market’s expertise and implement solutions suggested by the suppliers. In this way, the suppliers were responsible for implementing solutions that worked.

This was particularly important for the main sponsors - Team Birkebeiner and TOP III - since it was in their interest that the solutions they provided received a great deal of attention.

Another goal was to establish contracts in certain key areas with either one large and solid company or a consortium of smaller companies. These units would manage the sub-deliveries, and thus save LOOC the job of coordinating a network of subcontractors.

Strict requirements were also set for suppliers with respect to quality and ability to give financial guarantees for completion of contracts.
Soliciting bids for deliveries
The most common purchase procedure was a “negotiated purchase”.

Soliciting bids for deliveries was usually publicised or made known through various trade organisations. In fields in which there were only a limited number of potential suppliers, direct contact was made.

To help local businesses, a cooperation agreement with the Hedmark/Oppland branch of the Confederation of Norwegian Business and Industry (NHO) was established. NHO’s database was used to find local suppliers. Suppliers based outside of the district could also access the database to find local sub-contractors.

Experiences
External conditions
There was intense media focus on the Winter Games, and by following the guidelines and internal routines it was easy to document both for the media and for bidders that the purchasing process and selection of suppliers had been fair.

LOOC was also an inter-disciplinary and project-oriented organisation. This meant that many technical departments were unfamiliar with government purchasing regulations and a dualistic purchasing model. This set special demands both on the Acquisition Department and the managers responsible for the budgets.

The guidelines that were adopted for contracts with sponsors and suppliers were necessary to ensure optimum sponsor agreements; they also made sure that a sponsors’ eagerness to implement a more costly solution did not increase LOOC’s expenses.

The general impression that LOOC conscientiously followed the Parliament’s guidelines for the purchase of goods and services has been confirmed through positive feedback both from the Coordinating Council and NHO. The Norwegian government’s Office of the Auditor General found little to criticise in their review of LOOC’s acquisition practices.

Norwegian businesses
Norwegian businesses were not given any special preferential treatment, except in the case of the delivery of attire for the Team ’94 members.

Nevertheless, statistics show that Norwegian businesses were quite competitive both in relation to price and quality.

New contact networks have also been established in certain fields, for example, the design and furniture fields. This should prove important for later commissions.

Renting/purchasing
The strategy of renting equipment or obtaining flexible re-purchase agreements with suppliers was used in most major agreements; in most cases the suppliers themselves were responsible for demounting and removing their equipment after the Games.

The result was that the work finding good post-Olympic solutions started early, and it was possible to keep a sufficient amount of equipment at the arenas for post-Olympic purposes. There was little loss of or damage to equipment.

We experienced a great demand for used Olympic equipment, and this meant that the suppliers were able to sell the products at a good price. It was also an advantage that LOOC chose standard products, so that suppliers were able to obtain additional sales of new products.
**Standard contract terms/purchasing tools**

The use of standard contract terms and purchasing tools worked well. This meant that LOOC could present a total set of terms for bidders early on, and this made the evaluation process quicker and more accurate.

The development of standard contracts also eased the follow-up work since the same terms applied to most suppliers. Standard routines made everything more open and simple both for LOOC departments and external bidders.

Since the same standard contract terms also applied for sponsors, it was simple to differentiate between sponsors and their deliveries; this made it easier to identify costs and incomes.

**Routines**

It is time-consuming to build up routines and guidelines in a large and complex organisation such as LOOC. An important lesson is to make routines as short and simple as possible. Extensive and detailed routines can be reserved for use by the Purchasing Department.

The most important positive experience was that the delegation of purchasing authority with specified limits benefited both the departments and the Purchasing Department. Overall, it was not more costly to have an extensive delegation of this type of authority.

**Organisation**

The decision to establish a centralised purchasing function was correct.

Having a centralised function depended on having management support for it to work in such a large organisation, particularly when the organisation chose a dualistic model in which routines were mandatory and not purely managerial.

The use of a dualistic model is well adapted to public administration in which openness and fair treatment are key principles. On the other hand, a dualistic model sometimes gives somewhat ambiguous lines of responsibility.

**Value Added Tax (VAT)**

Taxes and fees often posed a problem when budgeting. A general application concerning exemption from VAT was rejected by the Ministry of Finance on 13 March 1990. In relation to tax and fee regulations, LOOC was treated as an ordinary company. It was necessary to identify the areas of LOOC’s activity that were liable to such taxes. After an extensive review, it was concluded that sponsor and rental activities were liable to taxes, while the other event planning and organisation was not. Consequently, tax expenses for these activities were not included in the budget. The result was that these unexpected taxes had to be covered within the existing budgets and reserves. There was also a VAT increase from 20% to 22% effective 1 January 1993.

Important discussions were held with the tax authorities concerning the rental of temporary housing, i.e. whether it should be seen as taxable rental of goods or tax exempt rental of property. On 19 February 1992, the Ministry of Finance decided that the rental of this housing would not be exempt. This had, however, not been calculated in LOOC’s budget, so the Government recommended that the Olympic budget be increased by an amount equal to the additional tax.

During the preparation period, LOOC was exposed to pressure from rights-holders on the issue of whether they should be exempt from taxes in connection with their work in Norway. They emphasized that such an exemption would channel more resources toward promoting Norway in their broadcasts. LOOC presented their arguments to the Ministry of Finance, but an exemption was not granted.
Because of LOOC’s special activities, several cases arose in which it was not possible to find tax precedence. In such cases, LOOC cooperated closely with the Oppland County Tax Office.

**LOOC contracts – overview**

**Figures for LOOC (post 70) Event Expenses**
The figures are based on entries in LOOC’s acquisition system as of 1 June 1994. The figures have been collected by Østlandsforskning (a Norwegian research institute) and quality controlled by LOOC AS.

**Figures for construction (post 80) Investments**
The figures are based on registrations made by Østlandsforskning as of 1 April 1993, in addition to new entries in LOOC’s acquisition system (about NOK 30 million) as of 1 June 1994. Østlandsforskning has construction figures for each county.

In the review of the figures for construction, some amounts have been moved to LOOC. Figures for LOOC (marked *) are therefore somewhat changed in the overview as of 14 September 1994. In any event, the figures are so large that these changes still have only limited significance.

The contracts with NRK as host-broadcaster and with TBK concerning the supply of telecommunications equipment made up approximately 45% of the sum for Oslo/Akershus.

**Accommodation for media and spectators**, as well as loans to hotels, are included in the figures.

<table>
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<tr>
<th>County</th>
<th>LOOC NOK</th>
<th>Share</th>
<th>Construction NOK</th>
<th>Share</th>
<th>Total NOK</th>
<th>Share</th>
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<td>1302</td>
<td>100</td>
<td>4724</td>
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</table>
Insurance

In close cooperation with insurance agents from Grieg Insurance K/S, Gras Savoye and the official supplier of insurance to the Lillehammer Games, Gjensidige, LOOC’s insurance office evaluated all risk exposure in terms of the existing insurance coverage. The goal was to minimize the risk of unforeseen financial liabilities for LOOC as organizer of the XVII Olympic Winter Games.

Television rights
In order to limit the financial risk of an eventual cancellation of the Lillehammer Games, LOOC was covered for USD 150 million.

Liability insurance
As organizer of the Lillehammer Games in 1994, LOOC had the necessary liability insurance as specified in Norwegian and/or foreign laws. This insurance was expanded to cover liability that LOOC assumed for injuries to third persons, i.e. persons other than those party to contracts with LOOC. During the Olympic Games, LOOC had liability insurance coverage for USD 20 million.

Vehicles
LOOC and ORTO-94 had access to about 1200 motor vehicles. Most of the vehicles were supplied by Volvo, a member of LOOC’s sponsor programme Team Birkebeiner.

Property insurance/loss and theft/transportation
This insurance covered LOOC property such as machines, inventory, personal property and goods. The total value of the insurance was NOK 500 million. The insurance also covered items on loan to the Paralympics 1994 organization.

Personal insurance
LOOC employees and volunteers were covered by collective accident and work insurance. The employees also had retirement insurance and group insurance.

All members of the Olympic Family were covered by travel and accident insurance.

Other insurance
There were also a number of other insurance arrangements. For example:

- Ticket revenues were insured in case of cancellations due to circumstances not under LOOC’s control.
- All the Olympic arenas were insured during the construction period.
- Wear-and-tear and vandalism insurance covered all housing rented by LOOC.

Prior to the Olympic Games, there were no instances of any major insurance claims, with the exception of the need for replacing the refrigerated floor of the ice rink at Håkon Hall during the construction period.

During the Games, LOOC had the following claims:

- The Olympic Family (travel sickness/lost baggage)..............111
- Personal injuries to employees/volunteers..........................29
- Damage to motor vehicles ..................................................408
- Compensation liability.......................................................3

Compared to events similar in size to that of the Lillehammer Games, the loss of property was minimal. Only 0.2 % of the total property was unaccounted for.
Material Administration (MA) was staffed on 27 August 1990 with two persons. Up until the Games, the department had 130 staff members (including Team ’94 members and external consultants). About 100 of these persons were involved in administrative activities, while about 40 worked at LOOC’s main storage facility.

MA reported to the Finance Section manager up until the Games. During the Games, MA reported to the director for facilities and equipment. The Department’s main areas of responsibility consisted of material management, material accounting, storage and transport, as well as functioning as a distribution central for Olympic attire and collection and sale of equipment.

Before and during the Olympics, MA for the Games was divided into three main areas:
1. Material Accounting Department
2. Storage and Distribution Department
3. Group for documentation and archive

Documentation and archive remained organisationally subordinate to the Finance Section manager after the post-Olympic re-organisation.

**Material accounting and material management**

Material accounting involved computer registration of all LOOC property and placement traceability and totals for each arena. The computer system was operative on 1 March 1992. The system had been developed by Informatikk AS and was built on an AS400 platform. Thus, LOOC had a system that was compatible with the other LOOC systems. The system was called “Movex” and was an integrated programme that via modules covered production management, purchasing, storage management, invoicing, sales, etc. The computer system was also used for planning the post-Olympic collection of equipment, as well as for equipment sales. The computer system was used by the Purchasing Department and MA so that all equipment could be traced back to the original order and supplier. A bar code system compatible to LOOC’s computer system was developed featuring about 10 000 different items with a total value of NOK 450 million. In this manner, property could be electronically located in the entire region, at more than 50 sports and service arenas. The items were also registered according to building, floor and room. In addition to functioning as LOOC’s moveable personal property register, the system also kept an overview of all internal movement of material.

MA of LOOC’s property also covered the following: the transfer of property to and from suppliers and rights-holders, marking, registration, storage location, transfers, follow-up of transfers, reporting of status and deviations and insurance issues. The responsibility for following up these activities was given to the Material Accounting Department, which consisted of 10 persons at the most.

**Storage and transport**

LOOC and MA established and ran all LOOC storage units. This meant about 10 000 m² of indoor central storage units in Lillehammer and scores of arena storage facilities. In all, this comprised 20 000 m². The storage units were critical for supplying the arenas prior to, during and after the Games, as
well as collecting the material from the arenas afterward. In
addition to LOOC’s needs, the storage facilities also served
sponsors and suppliers. The range of material covered
everything from inexpensive consumption material to valuable
art and advanced technology. The main storage facilities, the
distribution central for Team ’94 attire and goods transport
service had a staff of 75 employees. The main storage facility
also had status as a service arena. In the period of time just
before the Olympics, 40 to 60 material transfers were sent
daily between the various arenas. The accounting and
following up of this material was maintained at the central
storage facility.

The transport fleet consisted of ten delivery trucks that
served the arenas’ transport needs. A local transport company
took care of other larger and planned transfers of equipment.
The coordination and organisation of LOOC’s goods transport
service occurred at a separate transport office and in
cooperation with a forwarding agent.

MA established and ran a distribution central for Team ’94
attire. About 10 000 Team ’94 members were supplied with
attire and accessories before the Games. The central’s
responsibility included calling in the Team ’94 members,
distributing about 200 000 accessories and maintaining
security at the premises.

During the Games
The logistics of collecting equipment from suppliers and the
Olympic Family was closely managed in order to have a clear
overview of who owned the equipment. The Material
Accounting Department administrated the activity. Extensive
security measures were instituted at the arenas immediately
after the Olympic events. Equipment was either collected at
the arenas by the suppliers or transported to LOOC’s main
storage facility. After the Olympics, some equipment was sold
or transferred to post-Olympic companies. Other equipment
was sold over-the-counter from the main storage facility – this
included the remainder of the Team ’94 attire. Sales totalled
NOK 6 million in June. Other material was sold at auctions in
June and August.

This entire process was closely monitored in cooperation
with a committee appointed by LOOC’s board of directors. All
changes and deviations in the material accounts were reported
to the management and insurance company.

Evaluation and summary
In the early phases, the MA function was not an integral part
of LOOC’s overall activities. Some departments felt that they
could establish their own MA functions. Later, the MA
function became an integrated part of the entire organisation.

The technology functions (computer and
telecommunications) chose to use their own material accounts
systems, but used MA’s transport and storage capacity.

In the original concept, close proximity between MA and
the Acquisition Department was emphasized. Parts of MA’s
planning were based on LOOC’s purchasing plans and were
supposed to be guiding for MA’s planning. In reality, these
plans were not sufficiently operational, and the planning
therefore had to take place based on other reference figures,
for example, figures from the Winter Games in Albertville.

The number of ad hoc tasks for the MA function increased
dramatically just before the Games, but since the figures from
Albertville were used as a basis for expected load, the
organisation was able to handle the increased capacity.

The amount budgeted for the MA function was to a certain
extent a fixed sum. As the plans became more detailed, the
funds were re-distributed between the various MA functions,
but the total sum was never exceeded.
**Documentation/archive**

The documentation services in LOOC were organised as a separate group in the department for material administration. The group was led by a group manager. The group consisted of a central archive and library with ten employees, including a group manager/librarian and an archive manager. The group’s task was to make sure that all documentation was organised and registered according to standard archive principles.

**Library**

The library was staffed by a librarian and a documentation assistant. The registered document collection totalled about 2,500 documents. The library also offered reference services based on contacts with institutions in Norway and abroad, and had access to national and international databases. The library was also responsible for press clippings.

During the Games, the library ran the documentation centre in the Main Press Centre. Ten persons staffed the documentation centre which was open from 07.00 to 01.00 hours. In addition to the library’s own collection of information material, the library was also a channel for all information relating to the Games (e.g. video of all television broadcasts).

**Archive**

Eight persons staffed the archive service. The archive consisted of LOOC’s case archives, certain decentralised archives and archives for the two Olympic companies Lillehammer Olympiske Anlegg AS and Lillehammer OL ’94 AS.

Early on, the Ministry of Culture decided that the archive would become part of the Norwegian National Archives after the Games. The service therefore had to follow national archive guidelines.

In the autumn 1991, the Olympic companies developed a joint archive key for topics. LOOC’s main archive participated in the development of the registration system SAKS/400 which is a computer-based case and archive system. SAKS/400 satisfied the national archive’s requirements.

The documentation group also developed a demobilisation plan for the main archive and the various sub-archives. The work was conducted in accordance with the national archive’s guidelines for transfers of archive material. Six months after the Games, the archive was ready for packing and was formally approved by the national archive office in Hamar.

In all, 5,125 cases and about 95,000 journal numbers were registered in the archive system.

After the Games, each case was evaluated in relation to the security instructions.

About 20% of the cases were graded “Confidential” in accordance with the Law on Confidentiality § 5a. To a large extent, this consisted of correspondence referring to contracts and agreements.

The archive material from the application period 1992 and 1994 was transferred to Lillehammer Municipality. In all, this material fills up 15 metres of shelves.
After the awarding of the XVII Olympic Winter Games on 12 September 1988, LOOC took over the application company’s administration offices in downtown Lillehammer (Storgt. 95). The offices consisted of 250 m², featuring seven offices, a lobby, a conference and lunch room and a restroom.

When recruiting began in the summer 1989, the existing offices proved too small. An agreement was entered into with Mølven Eiendom AS (real estate company) concerning the rent of 7 000 m² of property (Elvegt. 19, Lillehammer). A temporary agreement was also entered into concerning the rent of 650 m² of modern office space from the Norwegian National Road Authorities for the period 1 Jul. 1989 to 21 Dec. 1989.

Planning
LOOC’s office operations were planned as five sub-projects:

Offices
- rent
- building of offices
- operation of offices

Material
- consumption material
- machines, inventory and various office equipment
- operation of machines

In-house services
- postage
- messenger
- telephone

Canteen

Postal services during the Lillehammer Games
- investment
- operations

The planning of LOOC’s administration building was based on the following requirements and needs:
- about 400 employees, plus 10% hired consultants
- close to downtown Lillehammer
- average Norwegian work-environment standard
- designed for access by disabled persons
- 30% offices and 70% open-landscape work stations
- flexibility with respect to room divisions and structural changes to offices

Machines, inventory and equipment had to be of normal office standard.

The employees paid only for the raw material costs of the food available at the canteen. The costs involved in running the canteen were covered by LOOC.

An agreement was made with Norway Post concerning collecting and delivering post, and the use of postal services.

It was necessary to adjust the plans for office space in Oslo as a result of the following: an increase in staff (490 employees and close to 30% consultants), demands from sponsors, new projects and a desire to have offices in Oslo. After the changes, the total rented office space was 13 300 m².

Below is an overview showing the amount of office space LOOC had in Lillehammer and Oslo during the entire period up until the end of the Games.

<table>
<thead>
<tr>
<th>Lessor</th>
<th>Rented from</th>
<th>Returned</th>
<th>Office space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mesna Kraft</td>
<td>01.07.89</td>
<td>01.06.94</td>
<td>147 m²</td>
</tr>
<tr>
<td>Bryggeriet AS</td>
<td>01.12.89</td>
<td>01.07.94</td>
<td>3000 &quot;</td>
</tr>
<tr>
<td>Bryggeriet AS</td>
<td>01.06.90</td>
<td>31.12.91</td>
<td>320 &quot;</td>
</tr>
<tr>
<td>Bryggeriet AS</td>
<td>01.06.90</td>
<td>31.12.91</td>
<td>175 &quot;</td>
</tr>
<tr>
<td>Bryggeriet A/S</td>
<td>01.07.90</td>
<td>30.06.94</td>
<td>1276 &quot;</td>
</tr>
<tr>
<td>Sameiet Elvegt.17</td>
<td>15.07.90</td>
<td>01.05.94</td>
<td>407 &quot;</td>
</tr>
<tr>
<td>Rydjord Eiendom</td>
<td>01.08.90</td>
<td>31.07.95</td>
<td>1100 &quot;</td>
</tr>
<tr>
<td>Bryggeriet AS</td>
<td>01.09.90</td>
<td>31.03.94</td>
<td>332 &quot;</td>
</tr>
</tbody>
</table>
LOOC’s headquarters were located in downtown Lillehammer.
LOOC also rented 1 000 m² of office space from the following companies and organisations:

- LO (trade union), The Norwegian Paralympic Committee and Team Birkebeiner Business Development Programme.

The following activities were also planned and organised by the Administration Department:

- Text coordination (later taken over by the Information Technology Section – user support and electronic word processing).
- Travel services (later taken over by the Marketing Section in collaboration with the sponsors SAS and NSB).
- Archive (later transferred to Material Administration/Documentation).
- English and French translation services (later transferred to the Information Department).

**Building phase**

The first building phase was completed by Moelven Eiendom on 5 December 1989. LOOC moved immediately into the 2 500 m² offices, 450 m² canteen and 450 m² in the basement (storage and computer room).

Temporary agreements were made for the purchase and delivery of inventory, office equipment and office supplies. Administrative routines were established, and later developed for both external and in-house services.

The Administration Department’s final concept was based on the following:

- to manage the office area and follow-up rental agreements
- to acquire inventory, machines, equipment and all other necessary office supplies
- to administrate the lending of company vehicles: nine cars, eight station wagons, two delivery trucks and one mini bus
- to administrate the use of 34 cellular phones
- to sell/distribute official Olympic products
- to supply office administrative services relating to inventory and office equipment
- to man the reception, switchboard and conference rooms
- to run the staff canteen
- to collect and distribute mail
- to make copies and perform other documentation tasks
- to plan the move and rebuilding of offices prior to the Olympics
- to select a supplier of office equipment. To plan and establish routines for distributing and storing office equipment at the arenas.
- to coordinate the cooperation agreements with Norway Post
- to bring internal mail to and from the arenas
- to assist the venue managers with administrative chores

**Conclusion**

In line with the gradual reduction of staff after the Games, the Administration Department between 12 March 1994 and 31 August 1994 gradually moved out of the rented offices.

In addition to maintaining ordinary operations during the demobilisation period, the department had to see to it that the offices were returned to the condition specified in the rental agreements.
During the period of time that the Olympic organisation was organised in a concern model – from September 1990 to October 1991 – the managerial control was performed by a separate unit “Planning and control” in the concern company Lillehammer OL ‘94 AS. This company reported directly to the company’s managing director.

The Legal and Information Sections were both part of the concern company and reported to the managing director.

In autumn 1991, the first step was taken to simplify the organisation in preparation for the staging of the Lillehammer Games. The construction company (LOA) was merged in the concern company, and the post-Olympic use company (LOV) began planning operation of the arenas after the Olympics.

From this time on, the managements in the concern company Lillehammer OL ‘94 AS and the Lillehammer Olympic Organizing Committee AS (LOOC) functioned as one organisation, but with two directors (Lillehammer-OL/ LOOC).

As part of this organisational change, both the Ministry of Culture and the board recommended establishing a separate, independent controller unit. The unit would assist the managing director in the overall management, in order to guarantee a successful Winter Games.

The primary task of the unit was specified in a separate set of guidelines which were approved by the board and the Ministry of Culture. The unit's main tasks were:

- To ensure that authority, instructions, guidelines, control measures and decisions made by the Norwegian parliament, the Ministry of Culture, the board and the managing director were implemented and followed.

In spring 1992, the department was changed from Controller to Staff/Controller, in which the manager was responsible for coordinating public affairs and legal issues for the managing director.

The advantage of this type of organisation was that the managing director was given increased capacity to cover a very large area.

The controller function was relatively new in Norway. It took some time for the controller function to find a correct balance between conducting independent reviews and offering advice.

The organisational form is highly recommended for future organisers and larger companies.

- To see to it that the overall success criteria were laid down with defined conditions (content) and measurable milestones.
- To be a resource and driving force on issues involving several different departments:
  - Finances
  - Quality assurance (also technical responsibility)
  - Environment (also technical responsibility)
LOA, the construction company, had a quality control manager who quality assured the work being done by architects and subcontractors. This function was established in 1990.

In the middle of 1990, a quality control function was established in LOOC, having the main responsibility for quality assuring event-related activities, e.g. technical functions, marketing, acquisition, food services, accommodation, culture, sport, ticketing and security.

In September 1990, in connection with the introduction of a concern model, a quality assurance function was also established in the parent company Lillehammer OL '94 AS.

Organisation
This function has had several reporting paths in the organisation, but in general has been organised as a staff function directly under the director.

To begin with, the quality assurance function in the various Olympic companies did not work together in an organised manner. Later, a quality assurance forum was established and consisted of the two quality assurance chiefs and representatives for the other organisational areas. These representatives had different educational backgrounds and functions, but were given training in order to function as quality coordinators in their own organisation. In this manner, a decentralized quality control function was established with responsibility placed in the respective departments.

Through the many re-organisations, the function was finally organised under the staff director/controller in September 1991.

Goal, definitions
It was necessary to create a common understanding about what quality assurance was, and how we would work with this in an Olympic context. Quality assurance was defined as follows:

- All of the systematic procedures and measures which prevent errors and problems from occurring and ensure adequate quality.

The definition of quality was:
- When a product or service meets the defined requirements of external or in-house customers.

Through the quality policy, guidelines were issued on how to quality assure daily activities.

Quality policy:
- Quality assurance is a part of our work methodology and a tool for increasing efficiency.
- Correct quality of one’s own work is everyone’s responsibility. All managers have a particular responsibility for the quality of work in their own department.
- Inter-disciplinary contact between departments should be prioritized in order to achieve an overall quality assurance of all activities and decisions.
- Quality assurance is an integral part of LOOC’s strategy for organisational development.
- Quality reviews and an openness concerning errors and problem areas should be viewed as desirable and natural in order to prevent systematic errors.
- Quality assurance should not result in an excessive need for documentation; however, this increases the awareness in relation to the use of defined management routines.
Implementation

The quality assurance requirement was specified in all contracts, both for planning, construction and acquisitions.

The quality assurance requirements were related to the quality standards in the NS-ISO 9000 series.

About 150 quality reviews were made for contractors, subcontractors, potential suppliers of goods, systems and equipment, as well as sponsors, licensees and food services and accommodation companies. In these reviews, the ability to plan, follow-up and implement decisions was emphasised. The reviews also functioned to communicate particular principles that were the basis for the Olympic project, i.e. correct deliveries and the functionality of equipment and systems, as well as design aspects.

Within the organisation itself, information and training was given for practical quality assurance work and project management.

Collaboration with the Human Resources and Organisation Department was important. Tools were obtained for use in documentation control and system documentation.

As part of the quality assurance work, tests at all the arenas were held in the spring and autumn 1993. The purpose was to ensure that:

- there was a proper flow of information.
- the Team '94 members who had been selected as leaders of groups had clearly defined areas of responsibility and could perform their assigned tasks.
- all central functions were filled in all parts of the arena organisation.
Controller – finances

In connection with the reorganisation of Lillehammer OL ’94 AS and LOOC in October 1991 (effective 1 January 1992), the Staff/Controller unit was established. This consisted of a controller/finances function which would assist in monitoring overall economic management and control.

The controller/finances function reported directly to the director of staff/controller.

Goal

Instructions for the controller unit were presented and approved by the board on 29 November 1991. With this as a starting point, the role of controller/finances was given the following tasks:

- To monitor the overall economic management and control.
- To make sure that powers of attorney, instructions and guidelines were implemented and followed.
- To monitor the quality of economic management, decisions and results.
- To function as a resource on economic issues.

Beginning in January 1993, special emphasis was put on the following work areas:

- Acquisition routines and follow-up of deviations.
- Liquidity management.
- Acquisition plan – a significant management tool for management. Follow-up on quality.
- Control of property. Make sure that routines for treating property worked satisfactorily.
- Following up contracts. Ensuring that routines for following up contract obligations worked properly.
- Reporting, including projections and description of facts – and quality assuring these.

Implementation

The economic controller’s work assignments included:

- Review of functions such as acquisition, project management and marketing.
- Developing guidelines for contracts, as well as powers of attorney for Lillehammer-OL.
- Evaluating the administration’s follow-up of parliamentary acts, based on the parliament’s acts.
- Assisting in the development of routines for purchasing, renting and borrowing of goods and services.
- Start-up tasks involving establishing routines for ensuring proper financial management, and seeing to it that these procedures were followed.
- Follow up of board resolutions.
- Contact with the authorised accountants and following up their recommendations.

Summary

Good management and financial control was the key to staying within the Olympic budget and a requirement specified by the Norwegian parliament. It is important that such a unit is established early on at a time when guidelines and routines are being formed. Another important point is that the function is independent and neutral. Significant tasks included reviewing routines, and following up board resolutions, decisions by the Ministry of Culture and comments from external auditors. The function must also offer support concerning financial conditions affecting the organisation.
In 1989, when the Norwegian parliament discussed the government grant application for Lillehammer ’94, it was made clear that they wished that the Winter Games would be an “environmental showcase”.

Åkersvika
The conflict with environmental conservationists in 1990 concerning the placement of the Hamar Olympic Hall, and the alternative solution that was later adopted, led to LOOC desiring to make clear the Games’ environmental profile.

One desired to work closely with national and municipal authorities in the environmental sector. The close cooperation with the environmental organisations – through Project Environmentally Friendly Olympics – was significant.

Environmental goals
Autumn 1990, the following main goals were developed:
- To increase environmental awareness.
- To maintain regional social considerations.
- To promote sustainable development and growth.
- To ensure environmentally friendly arenas.
- To demand environmental quality at every stage of the event.

The third dimension
Through these main goals, Lillehammer ’94 wanted to give the Olympic Movement a third dimension – environment – in addition to sport and culture.

Norwegian laws were the basis for LOOC’s environmental approach. The policy documents developed included:
- Architecture/ visual profile
- Energy economization
- Management, operation, maintenance
- Waste disposal

Organisation
After the conflicts at Åkersvika in 1990, environmental issues were the responsibility of the planning and control department in the parent company Lillehammer OL ‘94.

Spring 1990, a separate environmental coordinator was employed and included as part of LOOC. Beginning in September 1991, environment became part of the controller function, in addition to finances and quality assurance. The controller department, which was a staff function directly under the managing director, was led by a director. The section chief for environment reported to the director of the controller department who presented these issues to the company’s board.

From autumn 1991, an internal environmental committee was established in which various departments were represented. The various representatives promoted environmental issues in their own departments.

The external consultant group for environment was also a supporter of the Games’ green profile. The consultant group represented research groups in the areas of ecology and environmental technology.

Budget
LOOC’s leadership decided that the environmental profile for Lillehammer ’94 would be instituted within the limits of existing budgets.

Good environmental solutions depend on environmentally aware attitudes and a willingness to act. A team spirit is also important for such work, and this was true both internally and in terms of external consultants.

Environmental projects
The environmental profile for Lillehammer ’94 has been linked to 21 projects in the following areas:
Management and training.
Green office.
Food services and accommodation.
Sponsors and suppliers.
Equipment, landscape, energy economisation, environmental audits.
Transport and waste.
Eureka project – environmental monitoring.

**Target groups**
Environmental protection before, during and after the Lillehammer Games would be achieved in cooperation with:
- Visitors and spectators in the Olympic Region.
- Sponsors and suppliers of goods and services.
- International business contacts.
- Public authorities and government departments.
- Employees and athletes.

The “Green office project” in LOOC was a conscious signal to take the environment seriously. This was an important first step to take before environmental demands were required of others.

**Conclusion**
Lillehammer ’94 has shown that in order to succeed in environmental work, the following conditions are essential:
- Environmental responsibility must be anchored in the organisation from the top leaders and throughout the entire organisation.
- Environmental goals and requirements must be defined and followed up.
- Cooperation with environmental organisations and public authorities is important.
- Careful selection of environmentally inclined sponsors.
In connection with the reorganisation of Lillehammer OL '94 AS and LOOC in October 1991 (effective 1 January 1992), a separate department for public affairs was established under the managing director. This was required in order to achieve the overall goals for the Lillehammer Games.

**Organisation**
The department for public affairs was a staff function led by a director who reported directly to the managing director. The staff also consisted of two project leaders (one working only half time) and a secretary. The director met in LOOC’s board and in the leader group as needed. The department also participated in other committees and project groups.

**Goals**
The basic goals were the overall goals and strategy documents for the Lillehammer Games, with particular emphasis on the following points:

- To ensure that the entire nation actively participated.
- To provide an honest and open communication between the various members of the Olympic Family both in and outside the Olympic system.
- To coordinate contact with the arena municipalities (in addition to activities in the main capital Oslo), regional authorities, Norwegian parliament, various governmental ministries and special interest organisations.
- To promote activities in the travel and service fields.
- To contribute to cooperation project in various fields.
- To contribute to further developing the expertise gained in connection with the Games for post-Olympic use.
- To coordinate LOOC’s contact with Olympic-related groups and the outside world.
- To make sure that children and youth played an active role before and during the Olympics.
- To coordinate research and college-related activities with LOOC.
- To cooperate with women’s organisation in order to include this dimension in the Olympic activities.

**Implementation**
The department worked particularly with coordinating LOOC’s relationship to the arena municipalities and the two county-municipalities. Regular meetings were held in which other LOOC departments also participated. This forum also discussed problems, and the department for public affairs followed up this work. The department also participated in several cooperation projects between these municipalities and LOOC, for example, motivational campaigns and an Olympic development plan. The department also assisted in negotiations involving price policy and use of municipal infrastructure.

Contact between LOOC and the country’s capital Oslo also became necessary. The reason for this was that the city was the gateway to the Games, and a number of cultural events would be held in the capital’s cultural institutions. Public affairs was central in Oslo’s Olympic committee and part-organiser of various promotional activities and development projects. The department also played an important coordinating role in connection with activities in Oslo during the Games, e.g. coordination of transport, parking etc.

In terms of children and youth, one should mention the departments’ involvement in the project “Children and youth in Lillehammer during the Games” - a cooperation project between Lillehammer Municipality, Norwegian Athletic College, Bodø Teacher’s College and LOOC. This programme offered children in the municipality a daytime activity schedule during the 16 Olympic days in February.
In connection with the Olympic holiday children in southern Norway had during the Winter Games, the department worked to gain an understanding for this in the population, as well as coordinating the use of school buses.

Regular meetings and visits to Lillehammer were organised for members of parliament, ministries, public institutions and various special interest organisations. This was done to ensure good communication between LOOC and its contacts.

The department for public affairs dealt with a number of overall questions on behalf of LOOC. Extensive work was put in achieving a smoke-free event and a restrictive alcohol policy. Other areas of emphasis: price policy and improving service and motivation in the region. These efforts were all in accordance with LOOC’s success criteria.

Close contact was also established between the department for public affairs and the various organisations working with post-Olympic issues. The department worked actively to realize ideas for post-Olympic use of arenas and expertise.

The department was active on women’s issues and participated in various reference groups and committees.

There were joint projects between the Central Staff’s public affairs department and the Public Relations department, for example in the area of coordinating all promotional activities.

Lectures and arranging conferences were also part of the department’s daily responsibility. By placing the department directly under the Managing Director, it was also natural that the department performed some administrative tasks.

**Summary and conclusion**

An event as large as the Olympic Winter Games requires extensive support from the country’s citizens, public authorities and various organisations. In order to achieve the overall national goals concerning taking care of the Olympic investments after the Games, it was necessary to establish a department for public affairs. This department ensured close cooperation between the arena municipalities, national authorities and LOOC.
The legal staff was led by a legal chief who reported to the managing director. The staff consisted of two lawyers and a secretary. Two lawyers working in the marketing department also reported to the legal chief. The staff hired external lawyers to assist on certain cases.

The staff functioned as a legal advisor for the concern company (LOA, LOOC and LOV) and for Paralympics. The legal chief was secretary for LOOC AS’s board. He was part of LOOC’s leader group.

**Tasks and goals for the legal staff**

**Tasks:**
- Assist in preparing standard contracts.
- Assist in negotiations and preparing other types of contracts.
- Hire external lawyers and be a middle-man between these lawyers and the Olympic organisation.
- Offer legal help/council to all parts of the Olympic organisation.
- Develop board protocols, general assembly protocols, company reports, etc.
- Develop ethical rules for the board and leadership.
- The legal chief functioned as board chairman in Kvitfjell Alpinanlegg AS from June 1991 to September 1993, and afterwards as a board member.

**Goal:**
- To follow all laws and regulations, as well as the guidelines specified by the parliament.
- To establish a system for developing and signing contracts. (Contracts were not made public until negotiations were completed.)
- To enter into agreements that helped achieve the Olympic organisation’s goals in a post-Olympic context.
- To solve conflicts with external parties in a favourable manner.
- To hire external lawyers who could quickly and effectively give support if needed.
- To take precautions against possible financial claims from external persons and companies.
- To work to see that contract obligations were met.
- To protect the Olympic organisation’s trademarks, emblems and designs against infringement.

**Establishment**

The legal staff was established spring 1991. The organisation was already then well established and much legal work had already taken place in the Acquisition Department. In the beginning, it was necessary to differentiate the department from the acquisition department's activities. The legal staff marketed itself in-house towards the other departments by emphasising the benefits of using in-house lawyers:
- Close and easily accessible.
- Good general background about the organisation
- Relative low cost and no internal invoicing

It was important to bring departments who would be affected by a contract or agreement into the planning phase.

The hiring of external lawyers helped out the staff's own personnel.

The parliament’s special law regarding the protection of the Olympic trademarks eliminated any doubt regarding LOOC’s rights to use these. This was a great help in this area.

The legal chief emphasised the special ethical standards for those participating in the preparations for the Winter Games, both those employed in LOOC and those operating on boards.
and councils. If there was any question of a conflict of interest, then that person was advised to abstain from participating in the decision.

**Experience**

An in-house legal function should be established as early as possible, and it should keep in close contact with the administrative leadership.

One should avoid developing standard contracts or entering into contracts which have been written without consulting a lawyer. This applies even if the agreement seems relatively uncomplicated. General information to the public that may have legal consequences (such as ticket and accommodation brochures) should also be reviewed by legal expertise before being distributed.

Legal assistance prior to entering into a contract is much less expensive than hiring an expert after a conflict or ambiguity arises.
**Organisational structure**

**Background**

Lillehammer was awarded the XVII Olympic Winter Games in September 1988. Immediately afterwards, a contract was signed between the International Olympic Committee (IOC) and Lillehammer Municipality/Norwegian Olympic Committee (NOC).

The agreement with the IOC specified that a committee should be established for organising the Games. The organising committee would be 51% owned by the state, 24.5% by the NOC and 24.5% by Lillehammer Municipality. The board was obligated to report to the IOC. In accordance with the terms of the contract, the Lillehammer Olympic Organizing Committee AS (LOOC) was established in November the same year.

LOOC was an organisation that would - within 5 years - plan and stage the Games and then be dissolved. In other words, the organisation had a limited lifetime and was geared to one clear purpose. The organisation gradually took on the character of being a non-profit organisation, in that the staging of test and training events and the Games itself completely depended on the efforts of volunteers.

Early on in the planning phase (1988/1989), there were from 2 to 3 managers for each director.

During the application phase, the Norwegian parliament had committed itself to financing various projects if Lillehammer was awarded the Winter Games, e.g. improving roads, railways and telecommunications systems. Since Lillehammer Municipality committed itself to building arenas and other facilities, the construction company Lillehammer Olympiske Anlegg (LOA) was established.

A Post-Olympic Use Committee (EBUK) was established and worked to ensure post-Olympic use of facilities and expertise. In the autumn 1989, this committee was incorporated as Lillehammer Olympia Vekst AS (LOV).

Based on the question “What is our task?”, the organisation was divided into various departments in a relatively flat organisational form. The primary goal during this phase was to establish a plan to clearly identify what needed to be done.

A project organisation is characterised by the following:

- the type of task
- the type of organisation
- the bringing together of persons from different fields who had not previously worked together

The illustration below shows many of the formal and informal relationships the organisation had to deal with. It expresses the number of interests and relationships that LOOC had to take into consideration when planning and staging the Games.
LOOC Organisational Plan 1989

LOOC 31 members
Lillehammer Olympic Organizing Committee

Board 11 members

Managing Director
Petter Rønningen

Staff

Sports
  Sports Manager

Culture
  Cultural Manager

Arenas
  Technical Manager

Marketing
  Marketing Manager

Information
  Information Manager

Technology
  Technology Manager

Logistics
  Logistics Manager

Finances
  Deputy Director

Health Services
  Medical Chief

Administration
  Administration Manager
Figure 3

LOOC 1990

LOOC 31 members
Lillehammer Olympic
Organizing Committee

Board, 11 members

Managing Director
Petter Rønning

Planning and control

- Events
- Project Management

Events
- Sport
- Culture
- Health Services

Events Support
- Marketing
- Logistics
- Technology

Information
- In-house and external information
- Hosting & Protocol
- Radio, TV and Press Centres

Finances and Administration
- Finances
- Purchasing contracts and MA
- Personnel and training
- Office administration
Autumn 1990 – Early phase
A flat organisational structure proved too rigid to deal with the challenges the organisation faced. Organisational changes meant that more functions were grouped in the same section led by one director. The organisation was still a function-oriented organisation, however.

LOOC had to fulfil a number of reporting requirements to parliament, and had to make sure that a minimum of time and resources were spent on establishing systems and routines – both in regards to the various departments and in general. Since the organisation expanded quickly, it was also important that new employees could quickly become familiar with administrative procedures. The organisation emphasised swiftness, clarity, regularity, reliability and effectiveness.

Projects were prioritised in the following order:
- work allocation (through specialisation)
- responsibility and authority
- unified reporting (only one superior)
- hierarchic principle

In autumn 1990, the Norwegian Parliament decided that the three companies that had been established in connection with the Lillehammer Games – LOV (Lillehammer Olympia Vekst AS), LOA (Lillehammer Olympiske Anlegg AS), LOOC (Lillehammer Olympic Organising Committee AS) – should be grouped into one concern – Lillehammer OL ’94 AS. The three companies continued as separate companies, but had one board of directors. The concern management reported to governmental ministries and municipalities/counties. LOOCC’s board, however, had the formal contact with the IOC. The joint functions were the responsibility of the concern staff, and the “largest user” principle was made the basis for organising other staff/support functions.

Autumn 1990 – Early phase
Redundant functions were eliminated and several joint functions were established.

The organisation was still built on a hierarchical model:
- leaders with hierarchical authority
- staff with functional authority
- common functions and split authority

Autumn 1991 – planning
LOA’s board was dissolved and the unit became part of LOOC. Shared functions were grouped under a concern leader, so that the three departments were more specialised in relation to their tasks. LOOC’s board maintained formal reporting responsibility to the IOC. LOV’s connection to Lillehammer OL ’94 was weakened, as the post-Olympic company’s activities were expanded to also include the other arena municipalities in addition to Lillehammer. See figure 4.

Turn-of-the-year 1992/1993 – planning
In December 1992, LOV was formally separated from Lillehammer OL ’94 and was given responsibility for operating the arenas prior to and during the Games. A new company,
Olympia Utvikling (Olympic development) was established to capitalise on the development potential in the region as a result of the Lillehammer Games.

LOOC’s board was dissolved and all the activity in the new LOOC AS was concentrated toward planning and staging the Games. The organisational changes concretised the responsibilities in relation to the completion of test and training events and the Olympics itself. The new organisational units - the arenas - were established in the summer 1992. The rest of the organisation directed its activity and resources toward the arenas and the Olympic Games. This was the first step in the work of adapting the organisation to a matrix organisation in which both the planning and implementation of tasks were preserved.

No test-Olympics was held; instead, a number of test and training events were organised by separate events committees. Various departments participated actively in order to test their functions and volunteers. Prior to most of the test events, simulations were conducted at the various arenas to ensure that procedures, routines and tasks were clearly defined and understood. Resources were expended at the arenas and events, while the tasks in the basis organisation was reduced during this period. After completion of the events spring 1993, an evaluation was made for each event separately and as a whole. This served as the basis for adjustments and improvements.

In autumn 1993, a number of test events were held (at each arena and for support functions) in order to ensure that procedures, guidelines and communication for normal and crisis situations functioned as expected.

January/February 1994 – staging the Olympics

The organisational model was a matrix in which the arenas were the primary units and the departments were support functions for the arenas.
March - August 1994 - demobilisation

Functions that would continue after the Games, included sales, reporting, filing etc. The organisation was based on a very flat management structure. Experience from earlier Olympic organisers showed that the demobilisation period should be as short as possible. The planning of this started therefore already in August 1993. Demobilisation activities and inventory security were prioritised. See Figure 6.

The staff was planned reduced as follows:

- 31 March: 228 employees finished
- 30 April: 182 employees finished
- 31 May: 144 employees finished
- 30 June: 110 employees finished
- 31 July: 63 employees finished
- 31 August: 61 employees finished

![Figure 6: Demobilisation Organisation](image_url)
Responsibility and roles
The **Personnel and Organisation Section** had a strategic, dynamic and administrative role in implementing measures in all strategic areas. The responsibility for recruiting, work allocation and development of expertise was delegated to the various departments. The section also had project responsibility for attire prior to and during the Games – from the **design** phase up until the point of **distribution**.

Personnel Policy
The personnel policy was defined as an overall maintenance of all elements that effected people in the organisation. These elements were:
- goals, strategies
- organisation
- systems, procedures
- expertise
- organisational culture
- leadership

The framework for our work had to be known beforehand by all the employees.

Goals, strategies:
Everyone received information about our goals and strategies in relation to:
- the Olympic Games
- the organisation
- their own work area
- their own job

Organisation:
The goal was to have a practical organisational structure.

Systems, procedures:
Systems and procedures were established to ensure result-oriented efforts and to contribute to steering the development.

Expertise:
The goal of the recruitment policy was to hire functional employees. Training was therefore linked to the tasks that would be performed and helped clearly define each individual’s responsibility, role(s) and tasks.

Organisational culture:
The five basic values – enjoyment, spontaneity, a spirit of community, participation and fair play – comprised the foundation for what characterised interactions within the organisation.

Leadership:
Accountability was decentralised and the management could practice this policy based on LOOC’s management principles.

Development of expertise
The background for the policy was that with LOOC’s stringent financial budget there was a strong need to
- take advantage of the expertise already in the organisation
- to adapt existing expertise to new tasks.

Goal
The goal was to develop, initiate and follow up measures in the following areas:
- organisation
- organisational culture
- management
- expertise
- event training
- in-house information
Strategies
The strategic areas and goals were:

Organisation:
To participate in the organisational development work with a focus on establishing systems and allocating of responsibility, roles and authority.

Implementation strategies were developed for each organisational unit and a functional description was prepared for each individual position. This was made in order to ensure a smooth transition first to the Olympics organisation and later to the post-Olympics organisation.

Organisational culture:
To have initiated and implemented measures for achieving an organisational culture characterised by genuine values, financial restraint and environmental awareness.

Enjoyment, spontaneity, a spirit of community, participation and fair play were also to characterise the organisation. Each organisational unit went thoroughly through the values in order to find out what should be emphasised in their work.

Theme evenings were organised for all the employees aimed at giving each person an understanding of and inspiration for their work in the organisation. Social gatherings, outings and excursions to the arenas were also emphasised.

Leadership:
To make the leaders aware of what management was in our organisation. Regular meetings were held for the managers in order to ensure a unified leadership. Each organisational unit held leader gatherings in order to find out how the leadership in each unit would be practised. Further, a leader forum where all leaders were invited was established and where leadership issues were discussed.

A separate leadership training programme for those in leading positions during the Olympics was developed and implemented the last 6 months of 1993.

Expertise:
- To build up expertise through test events and training.
- To ensure the development of expertise primarily in terms of project management and project work.
- To have initiated and organised media training sessions.
- To have coordinated other measures and “ad hoc” training.

Two courses on project work were offered to all employees.

Organisational training:
Together with the Team ’94 Section, language courses were offered to all employees. A separate programme for management training, as mentioned above, was developed and attended autumn 1993 by all employees in leading positions during the Olympics.

Simulations for each arena were held prior to the test events spring/autumn 1993. Simulations of operations at the Main Operations Centre (MOC) were also held for each arena and sponsors December 1993. The main goal was to drill communications and decision routines and to test contingency plans. There was also a programme to ensure cooperation internally at each arena, and throughout the organisation.

In-house information:
To have actively contributed to establishing properly functioning channels of information within and outside the organisation. General meetings for all the employees were held regularly. The main goal was to provide information
about the status of the Olympic preparations, as well as to discuss future challenges. In the last half of 1993, all general meetings were used to inspire and motivate the employees.

An in-house magazine “Olympiaposten” was printed regularly and memos to all employees were sent via LOOC’s computer network.

**Target groups**
Training has been directed toward one or more of the following three target groups:
- All LOOC employees.
- Special groups of employees at certain management levels, organisational units and/or with specialist expertise.
- Individuals.

**Fundamental principles**
All use and development of expertise has been:
- Result-oriented and defined in actual needs (“Need to” not “nice to”).
- Guaranteed results by following up all goals and milestones.
- Practically oriented, i.e. learning by doing.
- Based on the fundamental values: enjoyment, spontaneity, a spirit of community, participation, fair play and LOOC’s ethical guidelines.
- Characterised by fiscal restraint.
- Primarily related to internal expertise and resources.
- Characterised by our environmental goals and a contribution to increased environmental awareness.

**Staffing, recruitment and demobilisation policy**
The above-mentioned policies had to be developed before a policy for all the employees could be established. Important elements in this were:

**Staffing policy**
A staffing policy was established. Its goal was to ensure qualitatively and quantitatively adequate staffing at any point in time during the life of the organisation.
- that staff planning was conducted as effectively as possible through a continuous review process
- that the prevailing staffing policy/planning always would be in accordance with staffing plans in approved budgets
- that expertise in the entire organisation was evaluated and that the individual employee’s growth potential was emphasised
- that critical key positions were defined so that they could at any time be replaced
- that, as far as possible, to obtain a geographic distribution in the recruitment of employees
- that with a choice between two candidates, within or outside the region, the local candidate would be preferred
- that all positions were publicised internally. External publication of positions was done when needed. Advertisements were considered in each individual case according to expected cost-benefit.
- that in certain cases – regardless of position – headhunting firms were used.
- that the organisation would be competitive in the markets we recruited from, but not have the effect of pressing up wage levels in Oppland County.
The purpose of all this was to obtain a staff that suited the organisation and a staff planning function that was determined by activities/needs and budgets. The staffing budget was – as with the other budgets in the organisation – revised five times. The changes were made both in terms of the quantitative and the qualitative need for employees. The organisation established a position and wage system consisting of nine levels. All positions were placed in levels based on the complexity, responsibility and personal demands on the employee.

Recruitment policy

The recruitment policy was defined as all measures that were initiated from the time a need for a new employee arose until a person started in that position. The process was to be professional in the sense that it would be characterised by ethical and organised behaviour.

The practice of this policy was to take place in accordance with the staffing policy and existing guidelines for hiring.

- a position analysis and requirement specification were always completed (see form)
- for each position there had to be more than one applicant
- when selecting employees, emphasis should be placed on:
  - skilfullness
  - work capacity/ effectiveness
  - result oriented
  - willingness to cooperate and be flexible
  - initiative
  - responsibility
  - loyalty
- able to function in the position immediately
- employment was to take place on the basis of an interview and references
- approval of employment

The various stages in the recruitment process can be summarized as follows:

1. Notify the personnel/organisation section of the need in accordance with a staffing budget
2. Preparation of a position/requirement specification by the manager
3. Prepare a job vacancy advertisement based on the evaluation made by the personnel consultant
4. Decision concerning medium for advertisement in cooperation with manager and personnel consultant
5. Registration of applicant and confirmation of having received application in the personnel/organisation section
6. Evaluation of applicants by manager and personnel consultant
7. Contacting likely candidates for first interview
8. Interview of candidates, and selection of candidates for second interview with manager and personnel consultant
9. Contacting candidates to make appointment for final interview
10. Interview of final candidates and final evaluation made by manager and personnel consultant
11. Reference control made by manager and/or personnel consultant
12. Wage proposal for position made by manager.
   The personnel consultant had to submit their comments before the hiring could be approved by the director and personnel manager
13. Offer
14. Accept
15. Return of applications to the other applicants

As the Olympics approached, consultancy agreements were preferred instead of hiring for full-time positions.
Only occasionally were special hiring techniques used in addition to interviews. In particularly hectic periods, external recruiting agencies were used to help out in all or parts of the process.

The selection of candidates took place based on:
- personal characteristics
- attitudes
- values
- motivation

When hiring people for work groups (teams), special attention was paid to selecting different types of personalities in order to ensure a good “chemistry” and a well functioning group. This was particularly important as many challenging tasks had to be completed under tremendous time constraints and media pressure.

Flexibility was also included as an element in the work contracts.

**Demobilisation policy**

The goal of the organisation was to establish a demobilisation programme that
- provided optimal conditions for the employees with respect to their starting in a new job after the employment contract’s termination
- prepared the employees mentally for the situation that came about after the Winter Games
- provided as much stability as possible for the organisation during the planning of the Olympics

In order to achieve this goal, “Project Demobilisation” was established. Work on this project started autumn 1992, and the project contained the following elements:
- mapping of desires/ needs of the various employees autumn 1992
- mapping of the expertise found in the organisation. A joint project with the Norwegian College of Business (NHH) and the Norwegian School of Management (BI) to investigate what expertise was gained in connection with the preparations for the Games. This study took place in three phases, autumn 1992, autumn 1993, and during the Olympics itself.
- learning from the experience other organisations had had concerning employee reduction schemes.
- developing a media strategy aimed at securing press articles about LOOC employees’ expertise.
- working with sponsors to get LOOC employees hired in those companies.
- taking advantage of the contact network among members of the board, leadership and other key persons for marketing employees’ expertise.
- establishing flexible transition arrangements for employees who were offered positions prior to the Winter Games.
developing a standard position description containing information about the organisation's employee requirements, in addition to a specification of each employee's tasks and responsibility
• developing a presentation catalog over the various departments' function and expertise
• preparing a constructive career analysis programme
• establishing a centre where employees could develop CV's, applications and have access to newspapers, etc.
• advising in relation to CV's, applications, career analysis etc., as well as the opportunity for each employee to participate in Thomas Person Profile Analysis (TPPA)
• organising meetings with topics such as Olympia Utvikling's “Starting a business”, two meetings with a temporary agency and one with Lillehammer Unemployment Office.

**Policy on wages and working conditions**

The overall policy on wages and working conditions was to implement measures to ensure that LOOC attracted and kept employees with the needed expertise until after the Games. Measures that gave the employees a positive impression of LOOC as an employer were also important.

**Wage policy:**

LOOC had a flexible wage system adapted to markets with needed expertise. Wage and other terms were competitive on a national scale, at the same time as they did not push up wages in the Olympic Region.

In 1990, the Employee's Union (LOEA) was established in LOOC on the part of the members who would negotiate with the management on wage and work conditions.

Yearly wage negotiations with LOEA were held. Changes and adjustments to positions and wage levels were regularly made.

The wage system was divided into nine levels where levels one to five were management positions, and thereby not covered by the laws concerning overtime work.

An agreement was entered into with LOEA regarding the payment of a project bonus to employees who remained until the end of their contracts. The size of the project bonus depended on how long the employee had worked in the organisation and the person's wage.

In connection with overtime beyond two hours, employees were given compensation for dinner.

Persons on levels one to three had a company car.

Persons on levels one to four had free telephone and newspapers.

LOOC provided free parking places for the employees at work.
Work hours:
Until autumn 1993, LOOC maintained ordinary work hours between 08.00 and 16.00. After the organisation became arena-based and level 1 Team ‘94 members began actively taking part in the planning work, there was a need for more flexible work-hour arrangements, since meetings often had to be held during the evenings and on weekends. Beginning in November 1993 – after negotiations between LOOC management and the Employee Federation – new work hours came into effect.
- a core time between 10.00 and 15.00 was established, but beyond this employees could adjust their work hours as desired as long as an average work week of 37.5 hours was kept.
- shift arrangements could be agreed to, but this had to be agreed to in writing for each day work was to take place outside of the normal hours. Additional compensation for work hours on weekends or after 16.00 on weekdays was given.

Compensation for travel, room and board and moving costs:
LOOC’s policy was to follow the same rules as for public employees in relation to compensation for travel, accommodation during travel and moving costs to Lillehammer.

Sickness pay:
The policy was that full wages would be paid to an ill employee for up to one year.

Personal insurance:
The level of personal insurance was based on what is otherwise normal in the business community. The collective pension was at a level that was common for employees in public organisations.
- Pension, group insurance, accident, and occupational and travel insurance were obtained for the employees.

Housing policy:
Each employee was responsible for finding their own housing while they were employed at LOOC.
- Dormitory rooms were available for shorter periods of time. These rooms could be rented for up to three months, so that there was time to find permanent housing.
- Some employees received housing as part of their employment contract. Apartments and houses were rented for these persons. LOOC did not, however, sub-let houses or apartments to employees.
- LOOC helped find vacant accommodation for employees. LOOC advertised for apartments for employees, and would then communicate any response to interested employees.
- For many who were without housing just before or during the Games, contracts were entered into for simple lodgings and dormitory rooms that LOOC rented to “homeless” employees.
- Employees paid market price for the housing they rented from LOOC; LOOC did not, however, raise prices during the Olympics.
**Nursery school policy:**
Because of the limited amount of nursery schools in Lillehammer, LOOC made agreements with four private nursery schools. Parents themselves paid the normal price for this service based on the average price at the various nursery schools. LOOC gave a 50% discount for additional children.

The vacant places were awarded based on social criteria that specified that objective needs should be emphasised.

**Company doctor/other health services:**
The policy was to make sure that employees were not absent more than necessary in case of illness.

LOOC contributed to increasing the relatively small capacity for health service in Lillehammer by entering into an agreement with Lillehammer Municipality regarding the establishment of a new medical office. LOOC employees and family were prioritised at this office. This meant that employees were treated quickly and this helped reduce the frequency of absence, i.e. between 1 and 2 per cent.

The last half year before the Games - as well as after the Games - a contact network was established to ensure that employees could have immediate access to professional help such as family counsellors, psychologists, priests, psychiatrists and other medical expertise if needed.

The employees paid part of the price for the services themselves.

**The policy for welfare and motivational measures:**
The policy was increased job satisfaction and motivation for the individual employee through various gatherings, gifts and exclusive offers.

New employees received a welcome pack consisting of college sweaters, t-shirts, a mug, pins and five roses. Other gifts included yearly Christmas gifts and sponsor pins.

Employees were also able to purchase official Olympic products at reduced prices.

Emphasis was put on team spirit and creating a good work environment by organising Christmas, spring, summer and autumn parties, as well as other celebrations. Several of the celebrations were for both employees and family members. Many of these celebrations were organised by the “Social and welfare committee”.

At most of the organised events, employees paid only a small participation fee.

Employees were able to travel to Albertville during the Winter Games in February 1992. Employees who were not there on business were offered a partially subsidised one-week stay.

LOOC contributed financially to the many company sports teams. These activities helped increase job satisfaction and team spirit.

Through agreements with various sponsors, discount cards were obtained for NSB, Statoil and AVIS.

**Olympic tickets for employees:**
In terms of ticket policy, employees were seen as a separate customer group. Employees were given two tickets to the Opening Ceremony and one to the Closing Ceremony. In addition, employees were given one ticket at the normal price for each three months they had been employed. Tickets to the most popular events could hardly meet the orders. Those who “lost” the drawing were able to choose tickets for other events.
Personnel function during the Games

A personnel manager was hired for each arena organisation. This person reported administratively to the arena leader and to the Personnel/Organisation section. The number of employees in the personnel function at the arenas depended on the size of the arena. In order to ensure the greatest possible equality in work, a detailed description was made of the function for personnel managers and the leadership at the personnel centres. In January 1993, a personnel forum was established to offer those with responsibility for the personnel function a forum for exchanging experience and contributing to increased expertise and motivation. Through the forum, one also tried to achieve optimal staffing, resource use and a consistent practising of the personnel policy.

All Team '94 members were to be treated equally during the Games. A personnel policy was designed that gave guidelines for all Team '94 members. Gifts and diplomas were given to everyone.
Olympic attire before and during the Games

The goal was to design a universal outfit for all the employees before the Games – 500 employees.

The outfit would:

- create identity and a spirit of community for all employees
- help provide the Winter Games in Lillehammer with the desired visual, high-quality profile.

The concept consisted of a winter outfit based on a snow jacket and pants, a sweater, a parka and a formal dress jacket.

Design of the products began autumn 1991. The license products were the basis for the design of the winter outfit and parka. The products were adapted for LOOC’s use and needs.

A separate design was made for the formal dress jacket.

The employees were able to buy the clothes at a 50 per cent discount.

The winter outfit and parka were manufactured by licensees. Bids were solicited for the manufacture of the formal dress jacket.
Olympic attire during the Games
The goal was to obtain the same attire for all Team ‘94 members – 11 800 persons.
The attire would help:
• contribute to realising The XVII Olympic Winter Games’ vision.
• contribute to providing the Lillehammer Games with the desired visual, high-quality profile with an emphasis on Norwegian tradition and distinctiveness based on the Games’ design programme.
• create an identity and spirit of community among all the employees, both volunteers and full-time employees and as a motivational factor.
• identify who the Team ‘94 members were in relation to athletes and spectators.

The basis for the design of the product was:
Function:
The clothes had to function optimally for all users in different situations. Various weather conditions had to be taken into account (temperature, wind, rain and snow).
The same for all Team ‘94 members:
There was to be no basic differences in the attire between the volunteers and the employees. Everyone was a Team ‘94 member.
The same for both sexes:
Where possible and natural, the same attire was to be used for both sexes (unisex design and sizes). The clothing was designed for both young and old people.

Specialisation:
In addition to the basic overall attire for everyone, special clothes were developed for Team '94 members with special functions.

Emblems:
All products should bear Lillehammer '94's emblem. The emblem was fixed on clothing in such a way that it could not be removed.

Environment:
Natural materials were used wherever possible. This was also the case for office equipment and accessories.

Team '94 members were able to keep their Olympic outfits after the Games.

The attire concept was divided into two packages:
1) A basic pack that all Team '94 members received, consisting of a snow jacket and pants, woollen sweater, a long-neck sweater, boots, cap, gloves, shirt, pants and a belt.
2) An accessory pack that varied depending on the function of the Team '94 member. The elements were pull-on trousers, pull-on mittens, a vest, bracelet, back-pack, belt-pack, suit/jacket, skirt, tie and bow tie.

The project “Olympic attire” was divided into several phases:
Design competition, design of concept, development of tender documents, selection and choice of manufacturer, production, distribution and service centre during the Games.

The design competition began autumn 1991. Based on the results of this competition, three designers were selected to develop a design for the Olympic attire.

In October 1992 on request from the Ministries of Culture and Trade, LOOC organised a limited bid round for Norwegian companies.

The background for this was a desire to obtain as much possible manufacturing as possible in Norway in connection with the delivery.

Because of the complexity of the document, one chose to draw up a contract after negotiations instead of having a bidding round.

The evaluation criteria for choice of supplier:
- Ability to supply, performance guarantee
- Quality
- Price
- Domestic production

Nine suppliers were chosen with specialist expertise in each area.

Contracts with the suppliers were completed in February 1993 and production started in March 1993.

The entire order was delivered to LOOC’s storage in November and December 1993. Due to the complexity and uncertainty with respect to the number of different sizes, a 5 to 15 per cent extra inventory of outfits was ordered.

The Olympic attire was distributed to Team '94 members starting 7 January 1994 and continued until 12 February 1994. Team '94 members were called in on specific days to pick up their attire.

The remaining inventory of clothes was sold to LOOC-accredited persons just before and after the Games.

The project was finished in April 1994.
The overall policy for the organisation during the Olympics was decided in the summer of 1991. The policy was primarily based on experience from Calgary, but also from other Winter Games.

The basic principles of the policy were:
- that decisions could be made quickly and as close as possible to where the problem arose, i.e. an operative organisation with delegated responsibility for decision-making
- that the organisation coordinated all functions, so that overall consequences of decisions were taken into consideration
- short lines of reporting from the leaders at the arena to the highest decision-maker
- that problems would be solved as effectively as possible at the lowest possible level
- that responsibility and authority were clearly defined

The basis for building a separate organisation for the Olympics was the already established planning organisation.

The main principles

As a step in preparing for the Games, various departments in the planning organisation developed strategies for the Olympics. These were based in LOOC’s vision, overall goal, values and success criteria. The strategies described the departments’ contribution to achieving the overall goals, milestones and activities. This strategy worked as a steering instrument.

Early in 1992, an interdisciplinary group was established for each athletic arena, which, in anticipation of the establishment of the arena organisation, was to develop the first operational plan “Rev. 0” for each arena. The operational plans were later revised when needed. Revisions were conducted by the arena leadership.

The arena leaders and assistant arena leaders were appointed in June 1992.

In addition to these activities, a programme was developed for ensuring that all levels of the organisation and employees were prepared to:
1) perform tasks that had to be done during the Games
2) handle unforeseen events

This programme included:
- goal oriented recruitment and staffing both of employees in LOOC and of volunteer Team ’94 members
- training
- basic training for all Olympic Team ‘94 members
- language training
- specialist training by the various departments
- arena training by the arena management
- development and revision of operational plans, including corresponding contingency plans both for arenas and departmental staffs. Each arena, department and main

IOC President Juan Antonio Samaranch meets the MOC staff.
operations centre developed their own contingency plans. This work was based on the most likely foreseeable events, e.g. a delay caused by poor weather.

- **Test and training events** at the various arenas
- Olympic test events, both for each arena and for all arenas. The simulations were based on both foreseeable and emergency situations. The simulations were done at each arena and at the Main Operations Centre (MOC).

Simulations were also conducted in which MOC was tested in relation to arenas and other management groups and external partners.

- Management training of the arena management at the respective arenas. The purpose of this training was to prepare the organisation for the transition from being a purely planning organisation to actually staging the Olympics. The management training was based on the changes that would take place and on teamwork. Leadership was also a part of the programme.

As part of the quality control in both the preparation phase and the operative phase, monthly follow-up meetings were held with the section chiefs for the various departments and the arena leadership in which progress, problems and revisions were discussed.

**Organisation**

**LOOC’s leadership at the highest level**

In order to complete the event with the vision, goals, success criteria and other guidelines that were set out, an effective organisation with clear lines of accountability and short lines of communication was necessary. The organisational chart for this organisation is shown below, see fig. 9

LOOC’s top leadership during the Games consisted of:

- Olympic President Gerhard Heiberg
- Managing Director Henrik Andenæs
- Deputy Managing Director Petter Rønningen

The Deputy Managing Director was also the Games’ operative leader for sports and cultural events with the corresponding support and service functions. The operative leader reported to the Managing Director.

The marketing department had a separate marketing operation led by the Marketing Director.

The other functions reporting to the Managing Director were:

- Finances/administration
- Marketing
- PR
- Staff/controller
- Legal staff
- Public information
- Construction

The managers in the above-mentioned functions also consulted with the operative leader for sports and cultural activities.

During the Games, the operative leader worked closely with the leader for LOOC’s marketing and finance functions in order to ensure an optimal event also for the sponsors.
Sports and cultural events

The Olympic organisation was based on a matrix organisation in which the sports and service arenas were one dimension and the departments the other. The emphasis was on arenas with Olympic competitions, while the departments were purely support functions for the arenas.

For each arena and section, an operations plan was developed describing the units’ task, organisation, resource requirements, progress plans, contingency plans, etc. These operational plans were cross-checked with the operational plan for the MOC.

The departments with their directors and section chiefs had a fixed place at the MOC. The leaders for the functions that reported directly to the managing director participated at each morning and evening meeting at the MOC.

The directors performed their advisory roles in the departments. They would at all times offer the arenas and the MOC necessary assistance, with priority given to the arenas. The organisation was centred around the arenas which were given a great amount of authority. An operational leadership with departments had the coordination function, as well as decision authority in special and agreed upon cases (see description of the MOC below). The formal reporting to the IOC was conducted by the operations leadership.

Only tasks that could not be solved within the departments’ available resource limits would be presented to the operative leader.

Main Operations Centre (MOC)

As a step in organising the Games, the operative leader established a Main Operations Centre (MOC). The departmental managers and unit leaders reporting to the operative leader were situated at the MOC.

MOC would ensure:
- that there was an overview of all activities
- that the leaders could quickly function as a leader group in case of problems requiring cooperation between several departments.

The activity in MOC comprised:
- to keep updated on the overall activity at all of the arenas and events
- to keep the operative leader continuously updated as to the situation at the arenas and in the departments
- to serve, support and assist the arenas and departments
- in the event of changes to fixed plans, to prioritize and coordinate the implementation of alternative plans, eventual improvisations that were to be implemented internally or externally
- to make operational decisions when required
- to maintain and lead the overall public information activity internally and externally
- to follow-up and control the organisation of all sports, culture and service arenas, as well as the service in the departments
- to analyze and summarise the daily reports from the arenas and departments
- to be the operative leaders communication centre – in both directions – both toward the IOC/public authorities/others, and to maintain the necessary reporting functions.
The operative leadership had four important lines of communication:
1. towards the arenas
2. towards the departments
3. towards the IOC
4. towards authorities and sponsors

The departments with their directors and section chiefs were organised in **MOC**. Through **MOC**, the directors and section chiefs performed their advisory and reporting functions.

In order to assist the operative leader, a chief of staff was appointed at the **MOC**. The chief of staff had the following responsibilities:
- obtaining information about the status at all arenas and events
- advising, coordinating and monitoring
- serving, supporting and assisting the arena leadership in cooperation with the responsible directors and section chiefs
- implementing and following up measures.

The directors and section chiefs were responsible for everything that took place in their areas of responsibility and authority. Together with the department heads, they were responsible for coordinating and advising, as well as making and following up decisions. They had the operative responsibility when it came to the effective use of their own resources and delegating responsibility and authority.

The operative leader had the **MOC** as his staff.

The main concept for the organisation during the Olympics was based on the **MOC** and a number of arenas, as well as the departments that supported the arenas (see fig. 10).

The arenas reporting to the operative leader were:

**Sports arenas**
- **Håkon Hall** (Ice hockey)
- **Gjøvik Cavern Hall** (Ice hockey)
- **Hamar Olympic Amphitheatre** (Figure skating/ Short track)
- **Hamar Olympic Hall** (Speed skating)
- **Birkebeineren Ski Stadium** (Cross country, Biathlon, Nordic combined)
- **Lyngdalbakkene Ski Jumping Arena** (Ski jumping, Nordic combined and the Opening and Closing Ceremonies)
- **Kanhaugen Freestyle Arena** (Freestyle)
- **Lillehammer Olympic Bobsleigh and Luge Track, Hunderfossen** (Bobsleigh and Luge)
- **Hafjell Alpine Centre**, (Slalom/ Giant slalom)
- **Kvitfjell Alpine Centre**, (Downhill/ Super G)

**Service arenas**
- **Olympic Village, Lillehammer**
- **Olympic Subsite Village, Hamar**
- **Media villages**
- **Main Press Centre**
- **International Broadcasting Centre**
- **Arena transport**

Departments reporting to operative leader during the Olympics:
- **Culture**
- **Event support**
- **Transport**
- **Personal resources/ organisation**
- **Information**
- **Sport**
- **Accommodation/ Food services**
- **Broadcasting**
- **Hospitality and protocol**
- **Opening and Closing ceremonies**
Overview of Functions, During the Olympics

**Authorities**
- IOC
- ISF

** Arenas **
- Sports Arena
  - Kvitfjell
  - Hafjell
  - Hunderfossen
  - Birkebeineren
  - Kanthaugen
  - Lysgårdsbakkene
  - Håkon Hall
  - Gjøvik Cavern Hall
  - Hamar Olympic Hall
  - Hamar Olympic Amph.

- Media/Press
  - Radio and TV centre
  - Main Press Centre

- Accommodation
  - Olympic Village
    - Lillehammer
    - Hamar
  - Media Village
    - Hafjell/Sørlia
    - Jorekstad
    - Hamar
    - Storhove
  - IOC Hotel

- Transport
  - Transport Central

- Accreditation Centre
  - Main Accreditation Centre
  - Hamar Accreditation Centre

- Culture
  - Cultural Arenas

**Support Functions**
- Sport
- Culture
- Accommodation
- Food Services
- Controller
- Hospitality & Protocol
- Transport
- Security
- Accreditation
- Health Services
- IT
- Telecommunications
- Ticketing
- Human Resources/Org.
- Volunteers
- Implementation Organisation
- Construction
- Marketing/Development
- Information
- Design
- Finances
- MA
- Documentation
- Administration
- Acquisition
- Project Management etc.

**Figure 10**
The arena and assistant arena leaders were appointed summer 1992. By autumn 1992, the departmental leadership at each arena was in place.

Budget responsibility remained in the departmental sections, which supplied the arenas with equipment, resources, etc.

The leaders at the respective cultural arenas also reported to the operative leadership.

During the Olympics, the organisation had a matrix structure. The staffing plans called for 11 786 Team ‘94 members. The final number was about 12300. Of this number, about 9 200 worked without pay. Around 2 100 members of the armed forces participated, as well as about 800 employees in LOOC (full-time employees, limited contract employees and consultants). During the Olympics, the organisation could in many ways be compared to a volunteer organisation, something that required a special form of leadership and treatment of personnel in order to ensure that the volunteers’ expectations were fulfilled. At the same time, the Olympics was a type of national effort that created a special feeling of team spirit among the volunteers – everyone participated in achieving an international festival and sports extravaganza based on Norwegian values.

The decision-making process during the sports and cultural events

The decision-making process during the Olympics was based on four clearly defined levels:

Operative Leader (highest level of authority):

The Operative Leader represented the highest level of authority, with coordination and decision-making responsibility.

For questions that affected areas that did not report through MOC (marketing, finances/administration, PR, construction and staff/controller), the respective directors were brought into the decision-making process.

Directors and Section Chiefs:

Directors and Section Chiefs had the overall responsibility in their departments. They also played an important advisory role for the operative leader.

Arena Leaders:

The Arena Leaders were responsible for the effective use of all resources at an arena.

The Arena Leaders had full authority over all resources, personnel, material and technical equipment that an arena had been given in accordance with the approved operational plan.

Work routines at the MOC were based on these requirements. The Arena Leaders had the final decision-making responsibility for all questions relating to normal operations, and for most questions relating to unexpected events.

The Operative Leader had to be informed of any transfer of resources between arenas.

Departmental Chiefs:

The Departmental Chiefs were responsible for effectively using all resources in the area they were responsible for.
Cultural Programme
The cultural programme included a pre-Olympic part and an Olympic Arts Festival. The work with constructing an organisation for the cultural programme started in September 1993. The section’s staff was characterised by the needs of a planning phase, with little emphasis on technical personnel.

The programme’s management was organised according to LOOC’s general strategy: a decentralized, hierarchical system with clear reporting lines - most problems should be solved out at the arenas.

Independent departmental staffs were established at the largest arenas under the leadership of a production leader with wide-reaching authority. These departments worked as a pool, supplying equipment to the various arenas as needed.

The Informal Cultural Programme was organised under the Sports Arena Section. Other cultural activities were organised by either Lillehammer Municipality’s Cultural Section (for activities in downtown Lillehammer) or other regional and local cultural offices.
Marketing Operations

The Marketing Department was responsible for the following tasks during the Olympics:

- To provide optimal service to the sponsors and the broadcasting companies’ guests (see plans and premises for LOOC guests).
- To run the Sponsor Village so that it worked as a natural meeting place for sponsors and their guests (see plans and premises for the Sponsor Village).
- To conduct sales activities in and at the arenas in order to obtain optimal revenue for LOOC, and to provide service to the spectators (see plans and premises for LOOC’s sales activities).
- To prevent unapproved advertisements in and at the arenas in accordance with The Olympic Charter.
- To ensure optimal exposure for the sponsors and the sponsors’ products within the framework of The Olympic Charter and the respective sponsor agreements.

During the Games, separate marketing groups were stationed at the various arenas and were integrated into the arena organisations. The various group leaders at the arenas had to report both to the Arena Chief and to the Marketing Director who established a separate operational centre (Marketing Operations Centre), but worked closely with the LOOC leadership at the Main Operation Centre. The marketing centres functioned as the authority and coordinating body for all marketing activities.

References

- Operations plan for the Main Operations Centre (MOC)
- Operations plan for the Marketing Operations Centre (MOC)
- Report on the Cultural Operations
- Operations plan for the respective arenas
- Implementation strategies for the various departments
- Organisational handbook for LOOC
In all, 12 035 enthusiastic Team ’94 members participated in staging Norway’s largest sports festival ever. The 12 035 included 9 054 volunteers, 2 100 from the armed forces and 881 employees from LOOC. The armed forces had in addition a reserve staff of about 400 persons.

All volunteers worked without pay, but were provided with a free uniform, transport, food, tickets to certain events and gifts, certificates, medals and diplomas. Many volunteers were lodged at local schools free of charge.

Team ’94 consisted primarily of volunteers with experience from local, national and international sports or cultural events. Most were proficient in one or more languages, and they were chosen based on their personal qualities such as flexibility and ability to work in a team. Each Team ’94 member had to take part in basic training, in addition to the special training they were given for their specific function.

The volunteers ranged in age from 8 to 83.

It was important that the majority of the Team ’94 members resided in the Olympic Region. This was because there were only 3 200 lodgings available for volunteers, and because it was important for the Olympic Region to have qualified persons in the area after the Games. 60 per cent of the volunteers were from Hedmark and Oppland. All Norwegian counties were, however, represented by at least 50 persons and most occupations were represented. The most common backgrounds were:

- financial/administrative professions, 591 persons
- teachers, 467 persons

There were also many students, unemployed persons and pensioners. A number of persons had several functions at the same arena, and many also worked at several arenas.

The volunteers performed all types of jobs at all levels.

The average volunteer worked for a period of 16 days (with two days free).
Recruitment
Premises
A parliamentary bill from the Norwegian Parliament (No. 1 from the Ministry of Culture 1990-91) was the basis for the volunteer recruitment activities.

The bill pointed out that local sports organisations had tremendous experience organising events. It was therefore natural and cost-efficient to use them as much as possible.

The bill also pointed out that the use of armed forces personnel would be cost-efficient.

The recruitment strategy had the following main goals:
- to recruit as many local volunteers as possible so that post-Olympic use of the halls would be ensured
- to recruit persons with the necessary qualifications, so that the staging of the Games would be a success
- to ensure that people throughout Norway felt like they were participating in the event

Strategy
Cooperation
To achieve its goals, the Team '94 Section decided to enter into collaboration agreements with various organisations.

Agreements were made with the following organisations:
- The Norwegian Athletic Association
- The Oppland County Athletic Association
- The Hedmark County Athletic Association
- 40 local sports clubs in Hedmark and Oppland
- The Norwegian University of Sports and Physical Education
- The district college in Møre and Romsdal
- 23 local colleges

In order to have a reserve force and to limit costs, an agreement was also made with the armed forces.

Goal-oriented pyramid recruitment on three levels
Goal-oriented pyramid recruitment:
- the needs are clearly defined before the recruiting starts
- organisations where one knows that the necessary expertise exists are contacted
- leaders and the most important volunteers are recruited first
- the leaders participate in selecting their staff

1:
Volunteers with key tasks at the arenas.
Responsibility: Staffing groups and LOOC.

2:
Tasks with some leadership responsibility at the arenas.
Responsibility: Staffing groups together with the Level 1 volunteers and LOOC.

In order to ensure that all of Norway had a feeling of participating in the event, agreements were also made with 19 sports clubs around the country.

In order to obtain specialist expertise in the field of organising sports events, agreements were made with:
Volunteers with less responsibility and less need for training.


The selection of volunteers was an interplay between the sports organisations, LOOC’s departments, the arena leaders and the Team ‘94 Section. The goal-oriented, pyramid recruitment programme and the collaboration with local sports organisations ensured a good first-hand control of the volunteers. Interviews were held and references were contacted. Each person’s background was checked by the police. Persons with criminal records were rejected.

The goal-oriented, pyramid recruitment programme had clear advantages compared to a strategy of recruiting a large mass of people and then giving each individual different tasks. The “mass method” requires tremendous resources, and it also gives a bad signal since one has to reject thousands of applicants.

Recruitment through personal contacts

Despite a conscious application of goal-oriented recruitment, the Team ‘94 Section daily received a number of enquiries from persons who wanted to participate as volunteers. Most enquiries came from the neighbouring counties of Oslo, Buskerud and Akershus. All enquiries were answered. Those who wanted to work as volunteers had to fill out a registration form. Then, necessary information about the persons were registered in the Team ‘94 Section’s computer system. The information was used by the various departments and arena leaders looking for additional staff.

Need for more staff

Before the recruitment started, the Team ‘94 Section conducted a thorough investigation of the qualitative and quantitative need for volunteers in the various departments.

The first study was conducted in January and February 1992 and concluded that the total need for volunteers was between 11,500 and 12,000.

After a thorough analysis of the test and training events, and the completion of three pilot projects in which the possibility of using the same volunteers in different functions and at different arenas was examined, the management concluded that the number needed was 11,993.

This number proved to be so accurate that only minor adjustments had to be made between May 1993 and February 1994.

Registration

Everyone who wanted to become a volunteer was registered in a computer program that had been adapted from the 1992 Albertville Games.

Before they were registered, the volunteers had to fill out a registration form with the following main points:
- Biographical information
- Address
- Closest of kin
• Language proficiency
• Stays abroad
• Education/profession
• Organisational activities
• Experience organising events
• Preferences as to function
• Reason for preference
• Confirmed availability during the Games
• Signature

All this information was registered in the Team '94 Section’s computer. In all, 13,729 forms were registered. The use of the information was approved by Datatilsynet (the governmental agency with the authority to allow or disallow the registration of personal information). Except for the names and addresses of the volunteers, all the information in the archive was destroyed after the Games; a list containing the names and addresses of the volunteers was kept for possible post-Olympic use.

**Marketing**

The main recruitment programme started 4 April 1992. Many of the central sports volunteers were, however, already in place autumn 1991. The goal of the recruitment programme was focus on persons in the Olympic Region. The volunteer project was therefore marketed through an information newsletter that was distributed to all homes in Hedmark and Oppland. There was also information about the project in newspapers, on the radio and on local TV. Information meetings were held at local colleges and for local sports organisations.

The planned marketing activities took place in April, May and September 1992.

The recruitment strategy was successful – already in November 1992, 8,500 volunteers were signed up.

**Proximity to local sports organisations**

In order to obtain the best possible contact with the local sports organisations, and to ease the job of conducting a goal-oriented recruitment, the Team '94 Section established a local office in each arena municipality. The offices were in full operation right up until the start of the Lillehammer Games.

**16-day leave**

One demand that was set was that the volunteers had to be available for at least 16 days. Since most of the volunteers either had jobs or were students, the recruitment activities depended on flexible employers, school officials and employer and employee organisations. The Team '94 Section developed a plan for helping volunteers get free during the 16-day period.

Before the start of the recruitment campaign, a number of meetings between LOOC and the above-mentioned groups and organisations were held.

Material was also developed which both LOOC and the various employees could show to their employers.

This project was very successful – most volunteers were able to use holidays or were allowed to have free from work without pay in order to participate as volunteers.

**Preventing cancellations**

It was vital not to lose any of the volunteers that had been recruited and trained. The Team '94 Section put a number of measures into effect to try to avoid losing any volunteers.

Among the measures were:

• local and centralised motivational gatherings
• basic training for everyone
• participation in test and training events
• regular information updates
• vaccinations against the flu
• gifts
• volunteer centres – social meeting spots for volunteers during the Games
• leadership training courses
• quality assurance of the departments’ and arenas’ treatment of the volunteers before and during the Games
• cooperation with sponsors in order to avoid recruiting from the same places

Quality assurance of the volunteers’ participation during the Games
Since the first volunteers were recruited already in 1991, the Team ’94 Section found it necessary to quality assure their participation during the Games.

   Between December 1993 and January 1994, all the volunteers had to confirm in writing the following points:
• that they would meet at the agreed-upon time
• that they could work the entire Olympic period
Those who did not answer were removed from the list.

The quality assurance resulted in a reduction of 385 persons in the period 3 January 1994 and 11 February 1994. These persons were quickly replaced.

This quality assurance was one of the reasons that only 1 per cent of the volunteers did not participate.

Training
The vision that “The Olympic Winter Games in Lillehammer shall be an international festival and sports extravaganza exhibiting individual expression based on genuine values” was the basis for all training.

   The parliamentary bill (no. 1, Ministry of Culture 1990-91, pt. 4.2.1.) was central in the planning of the training activities: “The Olympic Games can contribute to increasing the level of expertise locally, regionally and nationally.”

   It was also important to take into consideration each volunteer’s needs and expectations:
• experience
• test skills/ knowledge
• acquire new skills/ knowledge
• meet new people/ cultures

Basic training
The Team ’94 Section was responsible for basic training, and developed educational material for basic training.
The focus of the training was to ensure the staging of a successful event; the training would also hold develop the individual volunteer and create positive side-effects for the Olympic Region.

Basic training consisted of the following topics:
- Lillehammer’s background for applying to host the Winter Olympics
- Service and cultural understanding
- Olympism, knowledge about sports, The Olympic Winter Games
- Information about the Olympic Region
- 1994 Lillehammer Games

The educational material for basic training was in its entirety developed by the Team ’94 Section and Oppland county-municipality. Visual material was obtained from the IOC archives (film material) and NRK television. Material was also obtained from literature and other sources around the country. In the areas of cultural understanding, the Team ’94 Section contacted experts who quality assured the material that had been developed.

Educational principles
The educational principles that formed the basis of the basic training were a combination of class meetings, self-study and group work. This type of “participating learning” proved to be inspiring for the course participants.

The educational material consisted of:
- a textbook with exercises
- two video programmes
- one slide programme
- an overhead series
- questions for group discussion

In addition to the textbook, the volunteers received:
- an Olympic almanac
- the ’94 Guide

Duration of basic training
Basic training consisted of three four-hour courses held during the evening. About 60 per cent of the volunteers came from the Olympic Region and were able to attend training sessions held at schools close to home.

About 40 per cent of the volunteer corps came from other parts of the country. Weekend courses were therefore organised around in the different regions.

Autumn 1993, the volunteers who still had not taken part in the basic training course were offered a weekend course in the Olympic Region or in Oslo, or to take a self-study/ correspondence course. The volunteers that were recruited after 1 June 1993 were only offered the choice of self-study/ correspondence course. This was done so that the great number of volunteers would receive the training in time.

Goal of basic training
We wanted basic training to bring the volunteers closer together, so that they felt like an integral part of Team ’94, not just a part of the department or arena that had recruited them. It was also important that the volunteers and LOOC employees felt like equal Team ’94 members. Basic training was therefore obligatory both for the volunteers and the employees.

Basic training instructors
In order to complete the basic training for 9 935 volunteers and employees, a relatively large number of instructors were needed. (The armed forces were responsible for the basic
training of armed forces personnel.) 52 instructors were recruited from the school system, business community and sports clubs in Hedmark and Oppland.

Most of the instructors had experience from
- pedagogical work
- sports or other relevant organisation work
- personnel work

Another requirement was that the instructors had to have personal qualities such as
- the ability to motivate
- the ability to work in a team
- the ability to get along with others
- the ability to create a secure and good working environment
- the ability to complete assignments

The instructors went through an extensive training programme that started autumn 1991 and ended spring 1993.

The instructors represented an important resource for LOOC. Through training and direct personal contact, the instructors helped the various volunteers stay close to LOOC and made them feel like a part of the organisation.

Benefits of basic training
One of the goals of basic training was to create positive spin-off effects both in the Olympic Region and nationally. The Team ’94 Section therefore cooperated with two professional educators who reworked the basic training programme for persons and companies who were not directly involved in the Olympics. This educational programme was called “Adult education with an Olympic menu”.

10 829 persons from 34 companies (primarily in the Olympic Region and Oslo) participated in this special basic training programme. This means that in all about 23 000 persons participated in LOOC’s basic training programme (including armed forces personnel).

**Technical training:**
Each individual department was responsible for training volunteers that were recruited to their department. This training gave the volunteers important information about the job they would be performing during the Winter Games.

The Team ’94 Section was responsible for developing plans for each department, and to coordinate their training activities.

A Training Forum was established consisting of a representative from each department with the Team ’94 Section as organiser and coordinator.

A common standard was made for preparing the departmental plans. Each department made adjustments and presented their final version to the Team ’94 Section.

Funds for the technical training were transferred to the various departments only after the plans had been approved by the Team ’94 Section.

The technical training was based on the basic training programme and helped give the volunteers an overall level of expertise.

**Arena training:**
The arena leadership was responsible for training volunteers serving at their arena. In cooperation with the various departments, the arena leadership saw to it that the training would ensure that the volunteers were familiar with their jobs and workplace during the Games.

**Special training:**
Special training was given to certain volunteers. This consisted of language training, simulations, leadership training and a training programme for those manning the PA systems.

The Team ’94 Section was responsible for all language training.
**Language training:**
Together with Oppland County-municipality, the Team ‘94 Section employed three language teachers. They taught employees and key personnel in English, German and French. A separate language laboratory was developed in the Team ‘94 Section’s offices.

In addition to this training, three teachers planned and managed the overall language training operations.

The language service was functional and goal-oriented. After discussions with each department, the teaching was organised around vocabulary that was related to each department and sport.

1 006 volunteers completed the language course:
English 583, German 291, French 132

In order to complete the language course, 42 language teachers were recruited from high schools in Oppland, Hedmark and Oslo. The courses were held at schools in the Olympic Region and Oslo.

50 courses were held in English, 21 courses in German and 11 in French, for a total of 15 000 hours of language teaching.

A language course on cassettes was developed and could be borrowed by all of the sports clubs.

**Information plan:**
The information plan was developed to ensure:

- that all Team ‘94 members received thorough information
- that the right information was given at the right time
- that the volunteers were given goal-oriented information about the Games and about being a volunteer
- that the departments and arena leadership were given an overview of the information going to the volunteers through Volunteer Information so that they did not send out the same information

The volunteers were primarily given three types of information. General information about the Games and the role of the volunteers, information about the position they had been given and information about the arena at which they would work.

General information:
Even though the volunteers were given information both during basic training and during the technical and arena-specific training, there was also a need for regular updates about the event and the job.

Team ‘94 consisted of both volunteers and employees who would be working side by side on the same team. In order to strengthen team spirit, Volunteer Information was aimed at writing about both groups.

The goal of Volunteer Information was:
- to inform the volunteers about the preparations for the Olympics. The information would help give them an overall idea of the event and make them feel secure about their role.
- to motivate the volunteers and give them the feeling of being taken care of.
to make the volunteers feel like they were an essential part of the Olympic team.

**Channels of general information**

Information to the volunteers had two main channels of distribution:

- **Olympiaposten**

- **Information letters**
  News bulletins. These were sent out each month. The first information letter was sent May 1993 and the last January 1994.

  Personal letters were also sent out: welcome letters when the volunteer was assigned a job, a Christmas greeting, a summer greeting, invitations to and information about the motivational gatherings, verification of biographical data, etc.

**Volunteer gatherings**

In addition to the written information, two major gatherings were held to motivate the volunteers before the Games.

The first gathering took place on 12 February 1993 in Håkon Hall Lillehammer. Participation was voluntary, and the occasion was to celebrate that there was just one more year until the Games. It was important for the volunteers to get to know each other and develop team spirit.

The second gathering, which was mandatory, took place 26-28 November 1993. The volunteers were given training relevant to their assignments during the Olympics. A gathering with entertainment was also organised in Håkon Hall. More than 8 000 volunteers came together under one and the same roof.

**Team ‘94 centres**

There was a Team ‘94 centre at each arena. This centre provided volunteers with information and help; they could also eat lunch, obtain warm and cold drinks and watch television.

During the evenings, the Team ‘94 members who were free from work could visit the centre in Lillehammer. The centre was a social meeting place for all the volunteers, where there was music, entertainment and dancing. One could also buy
food and beverages. Before the Games, the volunteer centre functioned as a receiving station for the arriving Team '94 members.

The volunteers' efforts exceeded all expectations
The recruitment, training and information activities were a success. Nevertheless, the volunteers' patience, attitudes and skills exceeded all expectations, and therefore contributed significantly to making the Lillehammer Games a success.

Statistics:
Professions represented by more than 100 persons:
Financial and administrative functions.............................................. 591
Teachers......................................................................................... 487
Office workers................................................................................ 212
Construction workers.................................................................161
Nurses.............................................................................................147
Agricultural workers.......................................................................147
Computer professionals...............................................................136
Doctors..........................................................................................133
Housewives...................................................................................131
Students/school children..............................................................3245
Pensioners......................................................................................192
Unemployed persons..................................................................... 99

Statistics over the volunteer Team ‘94 members according to county (in per cent):
Oppland....................................................................................36.38%
Hedmark....................................................................................23.21%
Oslo...........................................................................................11.35%
Akershus....................................................................................8.35%
Sør-Trøndelag................................................................................3.07%
Buskerud....................................................................................2.86%
Møre og Romsdal..........................................................................2.37%
Hordaland..................................................................................1.84%
Vestfold....................................................................................1.59%
Østfold......................................................................................1.53%
Telemark....................................................................................1.06%
Rogaland....................................................................................0.99%
Troms..........................................................................................0.93%
Nord-Trøndelag............................................................................0.84%
Vest-Agder................................................................................0.81%
Nordland....................................................................................0.79%
Aust-Agder................................................................................0.73%
Sogn og Fjordane........................................................................0.72%
Finnmark....................................................................................0.65%
Lillehammer “Main Street” 6 a.m. 12 February 1994.
Head of Operations Petter Rønningen
LOEA was founded autumn 1990. The employee association’s goals were to represent the full-time employees in LOOC. The background for establishing LOEA was the need to have a representative for the employees in the discussions with the management.

**LOEA’s tasks**
The employee organisation’s mandate was to work to improve the employees’ technical expertise and obtain the best wage and working conditions for the employees.
LOEA also had an contractual right to lead the wage negotiations on the part of its members.

**Agreements as the basis for cooperation**
In order to achieve these goals, an initial agreement was signed between LOEA and the leadership in LOOC:
- a main contract regarding the conditions of employment
- a tariff agreement concerning wage and working conditions
The documents were developed in order to ensure defined working relationships between the employees and management.

**Lines of cooperation**
Formal and informal channels of cooperation were established between LOOC’s management and the leaders of LOEA. The formal channels were taken care of through the cooperation committee – a discussion forum for organisational development, finances and other issues. Representatives from LOOC management and LOEA convened monthly in order to exchange and discuss relevant issues. A number of informal meetings were also held between LOEA, the Director of Personnel and the Managing Director in order to solve problems for individual employees or groups of employees.

**Experience**
There is no doubt that the employee association played a significant role. By avoiding having a great number of trade organisations – each promoting their own cause – this single organisation represented all professional groups.

This was often the key to avoiding potential confrontational situations. LOEA was a forum for all of the employees’ viewpoints, and functioned as an important communications link between LOOC management and the employees.

The work approach was a combination of formal management tools and informal work routines. This allowed the LOEA leadership to make quick decisions and make flexible arrangements.

The work in LOEA was influenced by the fact that LOOC was a project organisation – a combination of public and private sector activity. This also affected LOEA’s function as a link between the employees and LOOC management in that work routines and decision mechanisms were more flexible than what is otherwise common in Norway.

Time was a valuable resource in all of LOOC’s work. This also influenced LOEA’s activities, primarily in terms of its inability to keep all members informed of its activities at all times. Decisions had to be made quickly. Following up decisions also had to take place quickly, so that information often became “old” before it could be presented to the members.

**Board representation**
Already in 1990, LOEA was represented on LOOC’s board. This representation allowed the employees to participate in all strategic decisions and plans. Board representation was also an important tool for promoting and protecting the employees’ interests and working conditions.
Conclusion
The establishment of the Lillehammer Olympic Employee Association (LOEA) was a correct decision. As of January 1994, 85% of all full-time employees in LOOC were members. The organisation gave members a voice on issues that were essential for the daily activities involved in preparing and staging the Lillehammer Games.
Sustainable development, an environmental challenge described in the United Nations environmental committee’s report “Our Common Future” (1987), is a challenge to everyone. And so it was for the organizers of the XVII Olympic Winter Games in Lillehammer.

Our lifestyle in the industrialized part of the world is a tremendous burden on the environment, but even the most pessimistic prophets believe that something can be done.

We can prevent or keep in check a destructive development by changing our lifestyles, purchasing other goods, producing in a different manner and handling waste more efficiently. According to Worldwatch Institute, what is needed is a change equal to that caused by the industrial revolution.

Sports and the environment

Major sports events have negative effects on the environment: arenas are built, roads and parking facilities are expanded, large numbers of people are transported, food is consumed and waste accumulates. The environmental effects may be difficult to avoid completely, but we can work to minimize the number and their effect.

Concern for nature is increasing, and thus also the demand for action and creative solutions. Not even the sports movement can avoid this responsibility.

Since most children and young people participate in sports activities, sports has an influence on the attitudes they adopt – also in relation to their attitudes toward nature.

Sports organisations have many team members both on and off the field, all of whom must become more environmentally aware in a “greener teamwork” for sustainable development. Sports and the IOC have a tremendous opportunity to use their influence to set environmental requirements for all the parties involved in such events, and through this achieve environmental results that have an international significance.
Goals for environmental work
The Lillehammer Olympic Organizing Committee (LOOC) strove to achieve results in its environmental commitment:
- in LOOC
- locally
- nationally
- internationally

LOOC hoped that the environmental work they initiated would be followed-up by:
- the IOC
- future Olympic organizers

The main goals
To give the Olympic Movement a third dimension, ENVIRONMENT – in addition to SPORT and CULTURE.

By the time the Games were over on 27 February 1994, LOOC wanted others to already be involved in carrying on with the environmental work.

Environmental considerations as success criteria for Lillehammer ’94
LOOC was the first Olympic Organizing Committee to formulate environmental goals. In the summer 1990, the following goals were specified for Lillehammer ’94:
- To create environmental awareness
- To take regional considerations into account
- To create sustainable development and business growth
- To take environmental considerations into account in the construction of arenas
- To uphold environmental standards at all stages of the event

An important prerequisite for this work was that environmental issues would be given priority within the given economic framework of the Olympic Winter Games.

LOOC experienced that when environmental requirements are stipulated early in the planning process, the desired results are achieved within the given budget limits.

LOOC’s strategy documents outlined an ambition level which often exceeding that which the authorities required.

Key documents:
- Lillehammer’s municipal regulatory plan
- Specifics about the cultural landscape analysis
- The government’s financial guarantee and the Norwegian Parliament’s report
- Architectural contest for Lillehammer’s Olympia Park
- Environmental goals for Lillehammer ‘94
- Surroundings and architecture
- Energy consumption and energy economization
- Administration, operation, maintenance and environment
- Waste disposal plan for the Olympic Region (GLØR)
- Waste and renovation – general and overall principles
- Waste and renovation – recommended environmental principles for purchases
- Hygiene requirements for planning and staging the Lillehammer Games

The sustainability principles (from the U. N. World Commission on Environment and Development) have been followed when developing strategy documents.

Environmental requirements and priority areas
Among the fundamental principles and environmental demands LOOC presented for its cooperation partners in 1990 i.e. before any construction began, were:
- Sports facilities should have a consistent Norwegian design blending in with the surrounding landscape.
- Treatment of the terrain must be taken into consideration when placing the facilities in areas with untouched nature.
- Environmentally friendly materials such as stone, wood etc. should be given priority.
- Energy effective solutions in relation to investments and operations should be given priority.
- Environmental requirements must be included in all the contracts with all the sponsors and suppliers.
- Environmental audits would be performed.

In addition to LOOC’s general environmental policy, LOOC emphasized a number of priority areas in 1991, 1992 and 1993. Twenty-one project areas were selected based on their contribution to highlighting Lillehammer ‘94’s environmental profile. The results of this work have provided important experience and expertise for later Olympic Games, other large sports events, the business community, municipalities and government ministries.

An agreement was made with The European Programme for Technology Cooperation (EUREKA) in regards the environmental monitoring project ENSIS. This joint venture involved monitoring air and water quality in the entire Olympic Region.

Other examples of priority areas included an educational programme, where schools around the country have used Olympic-related material and environmental work in LOOC as a part of their basic education.

The Norwegian Broadcasting Company (NRK) has also used the same information to make an educational programme about the environment for schools in Norway.

**Key cooperation**

Cooperation with various environmental organisations (through Project Environmentally Friendly Olympics), The Norwegian Department of the Environment, all the Olympic municipalities, the regional commissioner and the military was critical to the success of LOOC’s work in this field.

During the planning of the Hamar Olympic Hall in Åkersvika in the autumn 1990, a conflict of interest arose between the environmental organisations, Hamar Municipality and LOOC. The environmental organisations wanted the hall moved as far away as possible from the nearby bird sanctuary. The municipality had already approved the city’s area development plan, but LOOC and the municipality wanted to accommodate environmental objections made by the environmental organisations.

The solution was that the area development plan was modified and the hall was moved. As a result of this conflict, close cooperation was established between LOOC and the other involved parties for future projects. The conflict also resulted in LOOC setting requirement for the architectonic development of the Hamar Olympic Hall, and emphasising through strategy documents demands on the use of natural materials and energy economization measures.

Holding weekly “thursday meetings” was an important step in formally establishing a forum for cooperation.
Environmental work in LOOC was anchored in the management

LOOC’s Managing Director was chosen as the leader of the Controller Department and the member of the management group responsible for environmental issues. LOOC’s Board of Directors was regularly informed about all sides of LOOC’s environmental efforts. The Board’s involvement became a motivating factor for the entire organisation. Environmental issues were integrated into LOOC employees’ basic training. The organisation’s “green office” programme became a reality. The environmental profile was presented for the teachers who would be training the Team ‘94 members. Close to 12 000 Team ‘94 members would contribute to realizing and accentuating LOOC’s environmental profile.

One employee from each section of the organisation was given responsibility for environmental issues. Together with the Controller unit’s leader and the Environmental Coordinater/Controller, this group represented an internal environmental committee.

External environmental committees were also established with scientists and professionals from the environmental sector in Norway. Through the entire period from 1990 till the staging of the Games, the Ministry of the Environment was also a strong and motivating factor in our work.

Prerequisites for success

The preconditions for success in LOOC’s environmental work were:

- Organizing and allocating the responsibility for environmental issues
- Stipulating environmental requirements, follow-up/ review
- Cooperating with environmental organisations, the Ministry of the Environment and other government departments
- Selecting cooperation partners, sponsors and suppliers committed to environmental issues

The constructive cooperation among the many groups, interests and environmental concerns involved in the Lillehammer Games was an important basis for a more environmentally friendly Games.

Concrete Results

Examples from Olympic facilities:

Hamar Olympic Hall

- The site for the hall was chosen in cooperation with environmental organisations. The hall was moved further away from the adjacent bird sanctuary.
- The hall was also turned so that the main entrances did not face out toward the bird sanctuary.
- A buffer zone of trees was planted.
The architecture of the hall was based on cultural traditions (the site had been a boat-yard for viking ships in the 11th century; a viking settlement has been excavated nearby).
- Heat circulation/heat pumps were installed that use the excess heat from the ice refrigeration unit. This hall will save between NOK 3 and 4 million in energy costs each year.
- Centralized control/monitoring of energy use.
- Environmentally friendly materials have been used and new wood-laminate technology has been developed (the world’s longest wood-laminate span 104 m).
- The hall is located within walking distance of downtown.

**Gjøvik Olympic Cavern Hall**
- Close to downtown Gjøvik, but doesn’t occupy any downtown property, nor does it need a separate transport system.
- Situated inside a mountain with a year-round stable temperature of 8 °C (annual energy savings of NOK 150 000).
- Shares facilities with a swimming pool and telephone co.
- Environmental considerations were the basis for the selection of transport routes for excavated rock.
- Strict requirements for reducing excavations vibrations.
- The excavated rock was used to build a beach promenade.
- The air conditioning system was equipped with heat recycling and ventilation aggregates for water-carried heat.
- The track’s main contours have been adapted to and sunk into the terrain.
- Trees were left standing close to the track (for shade).
- Walls were built of natural stone.
- The track was built to face north in order to save energy.
- Fines up to NOK 50 000 could be issued to contractors for inadvertently felling large pine trees.
- Extensive use of wooden materials, natural stone and turf.
- Greatest possible safety protection for the refrigeration facility (ammonia). The refrigeration pipes were embedded in the track’s concrete shell and laid under ground.

**Lillehammer Olympic Bobsleigh and Luge Track**
- Due to environmental and security considerations, this venue was moved from the Olympia Park in Lillehammer to a site 15 km north of Lillehammer.
- The track design was adapted to the landscape of the area.
- Optimum location of the jumps in the terrain. Little rock mass removed.
- Good utilization of excavated rock and gravel.
- Rehabilitation of arable land around the arena.
- Replanting and planting all around the stadium.
- Topsoil saved and replaced.
- Rock, cement and wood were used as building materials.
Excavated rock was used for hill facade/support wall.

Heating based on thermostatically controlled, manually regulated electric convection heaters.

Birkebeineren Ski Stadium
- The stadium was built in accordance with stringent environmental requirements.
- Vegetation and woods have been spared as much as possible.
- Soil was removed before excavation and later replaced.
- A special plan to conserve arable land was carried out.
- The excavation work was carried out in such a way that excess mass and damage to the terrain were minimized.
- Fines up to NOK 10 000 were assessed for damage to trees.
- The track for the biathlon penalty round was designed as part of the main stadium in order to avoid damage to the terrain and prevent unnecessary felling of trees.
- The plans were often adjusted to spare particular trees.
- The site was replanted after construction in order to preserve the character of the site as much as possible.
- Wooden bridges were built in places where the track crossed roads and other tracks.
- A bullet retrieval system was developed for the lead bullets used in the Biathlon.

Lillehammer Olympic Alpine Centre, Hafjell and Kvitfjell
- Transition from high-pressure snow-making equipment to low-pressure equipment resulted in lower energy consumption and less noise.
- Cables and pipes were laid underground.
- The architecture is in accordance with the desired visual profile; environmentally friendly materials were used.
- The planned service route at Kvitfjell was made narrower in order to reduce environmental damage.
- Priority was given to landscaping, sowing and planting.
- The room heaters at the arenas are centrally controlled.
- An efficiency control system reduces energy use.
- “Warm rooms” in buildings have timer-controlled heaters to reduce night-time temperatures (Kvitfjell).
- Outdoor lighting is controlled by a photo-cell and there is a two-stage floodlight system (Hafjell).

International Broadcasting Centre (IBC)
- Ensuring that the building harmonized with existing buildings and terrain was emphasized.
- The purpose of the building changed from being solely an Olympic radio and television centre during the Olympics, to becoming a part of the Regional College after the Olympics.
- The plans are based on Norwegian building traditions and materials.
- It is adapted to the local environment and at the same time demonstrates that it has an Olympic function.
- Special architectural specifications were laid down.
- The building is adapted to the terrain, which is sloping, by ensuring that although it is five storeys high, it stands only two storeys above ground level in a few places.
- The building “dissolves” towards the edges in order to achieve a gradual transition to the terrain.
- A centrally located glass courtyard serves as the main link, providing a feeling of spaciousness.
- Large glass walls open onto the valley.
- Part of the building is clad in natural brown slate and specially produced concrete building blocks.
- Since the technical requirements for the IBC are continually changing, flexible building systems were chosen that could be adapted to new requirements and functions during the Olympic Games. This also made it easy to modify the building for post-Olympic use.
Water, sewage and electronic systems are designed to function well, both during and after the Games. The technical systems will provide the best possible indoor climate, and there were extremely strict specifications for the air-conditioning plant.

Energy-saving systems are based on proven heat recovery and air-conditioning technology.

There are temporary walls, installations etc. in large areas of the building (17-18,000 m²). Emphasis was put on selecting materials which could be re-used when the building was converted to a regional college.

All the temporary walls were installed without the use of glue and putty in order to avoid damaging materials which are to be re-used.

Between 70 and 80 per cent of wallboard and upright supports will be re-used.

Doors and fittings will be re-used.

**Environmental audits**

Environmental auditing systems were developed for the planning and construction phases of construction work, and special audits have been carried out in connection with four of the largest arenas in order to ensure that environmental standards have been adhered to. Environmental audits were also conducted on all the venues in order to check that the landscaping work had been completed as planned. The same was done for each of the sports arenas immediately preceding and during the Olympics.

**Environmental information**

Environmental information was one of the 21 priority areas for LOOC’s environmental work. Organizing the distribution of information at various levels was an important part of the environmental profile. Early on it was clear that LOOC did not have any intention of creating an “environmental Games,” not even for “marketing” purposes. Environmental protection would simply be one of several success criteria for the organisation as a whole.

LOOC’s information was primarily based on practical examples of its environmental efforts – on concrete results. The background was that it was not desirable nor possible to build up a credible environmental profile by only referring to planning documents and project descriptions. Modern environmental work is practical: environmentally friendly solutions to concrete challenges.

With this as the basis for the environmental information, press kits were developed with a description of what, why and how LOOC’s environmental work was conducted. The environmental measures at each facility were described, as well as concrete results. As a supplement to the concentrated press material, a folder with the title “Environmental documentation” was put together. The target group for this was primarily researchers, decision makers and students. The folder contained a thorough description of goals and results, as well as other pertinent information.

Approximately eight out of ten of the 2,000 international journalists who visited LOOC in 1993 were most interested in the environmental measures. The environmental work was
also one of the most popular topics for the international press during the Olympics. LOOC’s environmental efforts received almost exclusively positive reviews.

The person responsible for environmental information participated in LOOC’s working committee on the environment. Constructive cooperation developed between the various technical staff leaders and contributed to the goal-oriented and well coordinated information exchange on environmental issues.

**Other environmental measures**
- Real pigeons would not be used during the Opening Ceremony because of the low temperatures, the dark and the danger of birds of prey, etc.
- A recently developed material – glass cement – was used in the Torch Holder (recycled glass mixed with concrete).
- Biodegradable plates and eating utensils were used.
- Sorting at source of waste was practiced in accredited areas.
- The amount of waste was reduced by having suppliers meet stringent environmental requirements.
- The Olympic medals were made primarily of natural stone.
- A newly developed bullet retrieval system was installed at the biathlon stadium.
- Ammonia was used in the refrigeration system at the ice halls, instead of ozone destructive KFK-products.
- Electric ice-preparing machines were used instead of gas-driven machines.
- More than 80% of the transport to and from the Olympics occurred by bus or train.
- Close to 70% of the 20 000 large and small information signs were made of recycled paper.
- School children and previous Olympic medal winners planted Olympic forests around the country. This was meant to compensate for the trees that had been cut down during the construction of Olympic arenas.
- Measuring stations in and around the Olympic Region registered air and water quality. Daily, on-line information was available on INFO ‘94 (electronic information system).
- The kiosks at the Olympic arenas were designed so that they could be used after the Games by the Red Cross.
- Parts of the media accommodation would be moved to other parts of the country after the Olympics to be used as student housing at universities and technical schools.
- Environmental hosts were assigned to each Olympic arena.
- An extended Controller function was established during the Games to monitor progress on the environmental goals; both LOOC, environmental organisations and the military were represented.
- “Olympic Feature Press Centre” was established in the Main Press Centre where information about Olympic environmental efforts could be obtained.
- The military’s Olympic brigade made a significant contribution to LOOC’s environmental activities with their own extensive programme (transport, waste treatment, etc.).
- “The environmental path” and “The environmental wheel” were environmental projects designed to clean up and minimize the number of signs and advertisements along travel routes.
- A “1994 Sports environmental calendar” was produced in cooperation with the Norwegian Athletic Association.
- “Green hotels” was an effort to improve the environmental profile and environmental involvement of Olympic hotels.
- The mascots, 8 boys and 8 girls, had the environment as their particular area of emphasis.
Information about the Games’ environmental profile and an invitation to join LOOC’s environmental efforts was printed on tickets and other information material.

The goal of reducing the energy needs of new facilities by 30% compared with buildings meeting current Norwegian standards was achieved.

Straw mats instead of plastic mats were applied on steep slopes to prevent soil erosion.

The “Green office” project led some public ministries such as the Ministry of the Environment to follow suit.

Sælehuset – a log cabin built based on a model from the 12th century – was erected near the Olympic Park. The house was one of the projects in a pilot study entitled “Nature and culture for a sustainable local society”.

**The staging of the Winter Games**

Special priority areas for LOOC’s environmental commitment during the Games were hygiene and waste management.

As a result of good preparation, motivation and constructive cooperation on the part of the management and all parts of the organisation, there were few major problems.

During the first days of the Games there were some problems involving the extensive and advanced sort-at-source system for treating waste at accredited areas. This improved when the catering supplier provided better training for and follow-up of their employees. The amount of waste however was much less than expected (for ex. in the Lillehammer region there were 500 instead of the anticipated 800 tonnes – nearly half of the 500 tonnes were recirculated).

Some idling of cars was registered, even though signs and information material explicitly forbade this practice. The extreme low temperatures must be partly to blame for this, however.

The traffic situation did not cause any major environmental problems, however. The level of nitrogen oxides doubled compared to normal levels, but only over short periods of time and did not pose any health risks. It did, however, give evidence of the advantage of public transportation from an environmental perspective, and it also proved ENSIS to be an excellent monitoring and managing tool.

Information on tickets, spectator guides and Team ’94 guides encouraging cooperation on ensuring a clean and good environment and emphasizing that smoking and alcohol are not consistent with the Olympic spirit have clearly harvested results. There were many positive reactions from the public and other satisfied guests about how everything was clean and organized both at the arenas, at restrooms, in the streets downtown and along highways and railways.

Post-Olympic use of the knowledge and experience gained during the Lillehammer Games was discussed at a special meeting with representatives of Project Environmentally Friendly Olympics, the Ministry of the Environment and representatives from Atlanta, Nagano and Sidney. One of the results of the meeting was that a common strategy would be developed based on the experiences learned during the Lillehammer Games on how to protect the environment.

A meeting was also called with representatives from Norwegian sports organisations and the Norwegian Athletic Association to discuss future sports-related environmental activities in Norway.

With the numerous results on the environmental front achieved prior to and during the Lillehammer Games, it can be said that LOOC’s goals have to a significant degree been achieved.

A network of environmental commitment
The Olympic Games attract athletes, journalists and spectators from many different countries and cultures. As a result of the Games, which reaches out to an entire world, sports heroes become role models for youths.

The International Olympic Committee is at the core of a network comprised of the world’s leading sports authorities. Major commercial companies are sponsors and suppliers of goods and services to the Games and maintain close contact with the Olympic organizers. This is why LOOC posed the environmental challenge to sponsors and suppliers and invited them to participate in making the Lillehammer Games a “greener Olympic Games.” The high status of the Games meant that such demands had to be accepted. Ideas were exchanged and new experience and expertise were gained bridging across cultural, political and commercial barriers.

Since 1992 the IOC has shown great interest in LOOC’s environmental work, and has given LOOC valuable support and motivation in its environmental work.

Based on this – and the environmental results that LOOC has achieved – LOOC developed an exhibition for the IOC’s 100-year anniversary held in Paris in August 1994 illustrating the environmental challenges and results from Lillehammer 1994.

LOOC is confident that the IOC has now incorporated environmental responsibility as the third dimension of the Olympic Games. The environmental work that Lillehammer ’94 has initiated must be followed up and developed. New and greater environmental goals can be achieved. As an important signal to the rest of the sports world, a continuation of this important aspect will express a willingness of solidarity with and responsibility for fellow human beings and nature.
Appendixes
The Norwegian Olympic Committee, hereinafter called NOC and the City of Lillehammer, hereinafter also called Lillehammer, as parties to the agreement with the International Olympic Committee, have agreed that the Lillehammer Olympic Organizing Committee for the 1994 Winter Games, hereinafter also called LOOC, shall be governed by the following:

Articles

1. Name
The name of the Committee is Lillehammer Olympiske Organisasjonskomité, abbreviated LOOC. The English designation thereof is Lillehammer Olympic Organizing Committee.

2. Object
The object of the Committee is to prepare, organize and carry out the Olympic Winter Games in Lillehammer in 1994 in accordance with The Olympic Charter, and pursuant to agreement of 15 September 1988 where IOC gives NOC and Lillehammer the right to organize the Olympic Winter Games in Lillehammer in 1994.

The Committee’s overriding objective is to make preparations so that the 1994 Olympic Winter Games in Lillehammer will be carried out in a first class manner for the region and the country, so as to create a lasting and positive effect for the city and region.

3. Functions and responsibilities of the Committee
The Organizing Committee shall conclude a separate cooperation agreement with the city of Lillehammer, the Norwegian Olympic Committee and the Norwegian Government. The Committee shall – in its cooperation with the City of Lillehammer, the Norwegian Olympic Committee and the Norwegian Government – implement all measures that are necessary for the progress of the preparations and the performance of the Games, and for that purpose.

- Ensure the preparation of a progress plan comprising all the preparatory work and necessary investments.
- Take or ensure the taking of all necessary action to maximize the revenues of the arrangement.
- Execute or ensure the execution of all necessary investments.
- Carry out all other functions that are necessary for complying with the requirements which follows from the contract with IOC and The Olympic Charter.

4. Status of the Committee
The Committee is a separate legal entity with limited financial liability. The Committee members have no personal liability for the activities of the Committee.

5. Headquarters
The Committee headquarters are in Lillehammer.

6. Period of office
As provided in The Olympic Charter, the Committee will be dissolved at the latest six months from the Closing Ceremony for the 1994 Olympic Winter Games.

7. Committee members
The Committee members will be appointed by the Norwegian Olympic Committee and the City of Lillehammer and will number from 24 to 32.

The International Olympic Committee’s representative in Norway, and the President and Secretary General of the Norwegian Olympic Committee are members of the Committee.

His Royal Crown Prince Harald is the honorary president of the Committee.

8. Decision-making bodies
The Committee has the following decision-making bodies:

a) The Organizing Committee in plenary session
b) The Executive Board of 10 members
c) The Managing Director

d) The Organizing Committee in plenary session is the highest decision-making body for the preparation, organizing and execution of the Olympic Winter Games in Lillehammer 1994.

It is the responsibility of the Organizing Committee to:

a) Elect the members of the Executive Board who are subject to election.
b) Supervise the activities of the Executive Board.
c) Approve budgets and adopt the accounts of the Organizing Committee.
d) Approve final plans for arena placings and the final investment programme.
e) Approve budgets and cost limits for the expenses and projects to be included in the Olympic Games accounts.
f) Elect the auditor.
g) Determine the remuneration of the auditor and Executive Board members and other remuneration for attending meetings.
h) Deal with any other matters that are submitted to the Committee or which the Committee at its own initiative takes up for consideration.
i) Appoint main sub-committees.

Appendix 1 – Articles
The Organizing Committee shall have a president and three vice presidents. The vice presidents shall be:
- The Mayor of Lillehammer
- The President of the Norwegian Olympic Committee
- A representative of the Norwegian Government
- The Mayor of Lillehammer is the deputy of the president.

The Organizing Committee shall be convened whenever considered necessary by the Executive Board or demanded by one-sixth of the members of the Organizing Committee.

10. Executive Board
The Executive Board shall consist of ten members, including:
- The President of the Organizing Committee
- The three Vice Presidents
- IOC's representative in Norway
- The Secretary General of the Norwegian Olympic Committee
- The other members are elected by the Organizing Committee.

The Executive Board is responsible for the everyday operation of the Organizing Committee, and for that purpose the Executive Board is responsible for:
- Preparing and following up budgets and accounts.
- Preparing and following up investments and progress plans.
- Appointing all necessary personnel in the administration, including the managing director. The Executive Board may empower the managing director to make certain appointments.
- Appointing other sub-committees that those mentioned in Clause 8 h above.

The Executive Board shall at least four times a year convene the Organizing Committee in order to submit a report on its activities.

The Executive Board is subject to the procedural rules applying to boards of directors of joint stock companies under the Norwegian Companies Act.

11. Managing Director
The Organizing Committee shall have a managing director. The managing director is in charge of the everyday management of the Organizing Committee's activities and shall comply with the guidelines and instructions issued by the Executive Board. The everyday management does not comprise matters which must be regarded as being of an unusual kind or of major importance. Such matters may only be decided by the managing director if the Executive Board in each case has empowered him to do so or he cannot wait for the Executive Board’s decision without causing major inconvenience to the activities of the Organizing Committee. The Executive Board shall in such case be notified as soon as possible of the matter. The managing director shall ensure that the Organizing Committee’s bookkeeping is in accordance with law and regulations and that the capital administration is organized in a safe manner.

12. Power of signature
The Organizing Committee is committed by the signatures of the Organizing Committee’s president and one vice president jointly, or by the Organizing Committee’s president and managing director jointly.

13. Audit
The Organizing Committee shall elect one or more auditors who shall examine the Organizing Committee's accounts and annual financial statement and deal with its other affairs. The auditing of the Organizing Committee’s accounts is subject to the rules applying to the auditing of joint stock companies.

The Ministry and the Controller General have the right to verify that funds that are granted or otherwise made available by the Government or which are guaranteed by the Government, are utilized in accordance with the conditions and in a financially proper manner. The Controller General has the right to obtain all information which he considers necessary for his verification.

14. Liquidation
In accordance with the provisions of The Olympic Charter, the decision to liquidate the Organizing Committee shall be made at the latest within six months from the closing ceremony of The 1994 Olympic Winter Games. The decision to liquidate is made by the Organizing Committee at ordinary majority.

When the Organizing Committee has resolved to liquidate, it shall elect a liquidation board which may be identical with the existing Executive Board under the Organizing Committee.

The liquidation board shall prepare a list of the Organizing Committee’s assets and draw up a balance sheet with a view to the liquidation. The Organizing Committee’s business may continue during the liquidation to the extent desirable for an appropriate execution of the liquidation. In any case the liquidation must be completed within 12 months from the resolution to liquidate was adopted pursuant to the rules of The Olympic Charter.

As soon as the liquidation has been concluded, the liquidation board shall draw up a final report to The International Olympic Committee.
15. These articles may be amended only by agreement between the represented parties. The Articles were approved by the Lillehammer Municipality 7 April 1989 and by the Norwegian Olympic Committee 12 May 1989.

Lillehammer Olympic Organizing Committee (LOOC) 1988 to 1990

1. Organizing Committee (plenum)
Honorary President: H.R.H. Harald, Crown Prince of Norway
President: Ole Sjetne (until October 1989)
           Gerhard Heiberg (as of October 1989)
Vice President: Audun Tron
                Per Haga
                Jan Gulbrandsen (until April 1989)
                Arne Myhrvold (as of April 1989)
Members: Jan Staubo
         Arne Myhrvold (until April 1989)
         Grete Waitz
         Hans B. Skaset
         Marit Wiig
         Johan Baumann
         Morten Corneliusen
         Bjørge Stensbøl (as of April 1989)
         Rune Gerhardsen
         Ole-Jacob Libæk
         Bjørn Kjensberg
         Steinar Killi
         Marie Brenden
         Kaci Kullmann Five (until October 1989)
         Per Kristian Foss (as of October 1989)
         Randi Iversen
         Kjell Svendsrud
         Rønnaug Sørlie
         Anne Lise Gjestvang
         Hans Bleken
         Finn Yngve Engnæs
         Tor E. Berge
         Erik S. Winther
         Ola Prestegarden

Deputy members:
Odd Arve Lien
Armand Carlsen
Svein Erik Jensen
Atle Schjøtt
Turid Seime
Ingolf Mork
Møyfrid Hallset Skei
Odd Seim Haugen
Nils Petter Gill
Trond Harstad
Arild Gjerde
2. Board
President: Ole Sjetne
(resigned in October 1989; replaced by Gerhard Heiberg)
Vice Presidents: Audun Tron
Per Haga
Jan Gulbrandsen (until April 1989)
Arne Myhrvold (as of April 1989)
Members: Jan Staubo
Arne Myhrvold (until April 1989)
Bjørge Stensbøl (as of April 1989)
Hans B. Skaset
Anne Lise Gjestvang
Marie Brenden
Deputy members: Tor E. Berge
Per Kristian Foss (as of December 1989)

(after the change into a public company 1990)

1. General Assembly
Honorary President: H.R.H. Harald, Crown Prince of Norway
(resigned when becoming Norway's King on 17 January 1991)
President: Gerhard Heiberg
Vice Presidents: Audun Tron
Per Haga
Arne Myhrvold
Members: Jan Staubo
Per-Kristian Foss
Marie Brenden
Henrik Andenæs
2. Board
President: Gerhard Heiberg
Vice Presidents: Audun Tron, Arne Myhrvold

LOOC’s board and council observers
Steinar Sørlie (from Lillehammer Municipality)
Tor Lian (representing the Norwegian sports community)
Bjørn Brun-Hansen (employee-representative from LOOC)
Board members in Lillehammer OL '94 AS (from 1991 to 1992)
(On 1 January 1993, the original LOOC AS was merged with Lillehammer OL '94 AS and the last-mentioned changed its name to LOOC AS).

President: Gerhard Heiberg
Vice President: Audun Tron
Arne Myhrvold

Members:
Tor Espedal
Christian Hambro
Tor Moursund
Ragnhild Sohlberg
Henrik Andenaes

Observers:
Bjørgulv Noraberg (Lillehammer Municipality)
Marit Wiig (representing the Norwegian sports community)
Kåre Karlsen (Ministry of Culture)
Terje Gloppen (employee-representative from LOOC)
Kjetil Rolseth: 10, 11, 22, 28, 54, 55, 64, 65, 67, 135, 143, 147, 149
SCAN FOTO: 12, 16, 18, 19, 20, 21, 22, 24, 25, 26, 27, 146
ALLSPORT: 17, 131
Erling Kjaernes: 29, 129, 131, 142
Petter Moshus: 49
Jim Bengtson: 50, 68, 69, 70, 71, 72, 73, 126, 129, 131, 135, 145
Lavassir Nordrum: 51
LOOC: 56, 60, 63, 131, 145
Jørn Sundby: 111, 112, 113
IOC: 115, 117
Cecilie Nordstrøm: 86, 87, 126, 129
M. Godø: 137
Tor Arne Sandnes: 135
Hans Brox: 145, 152
John Kelly: 149