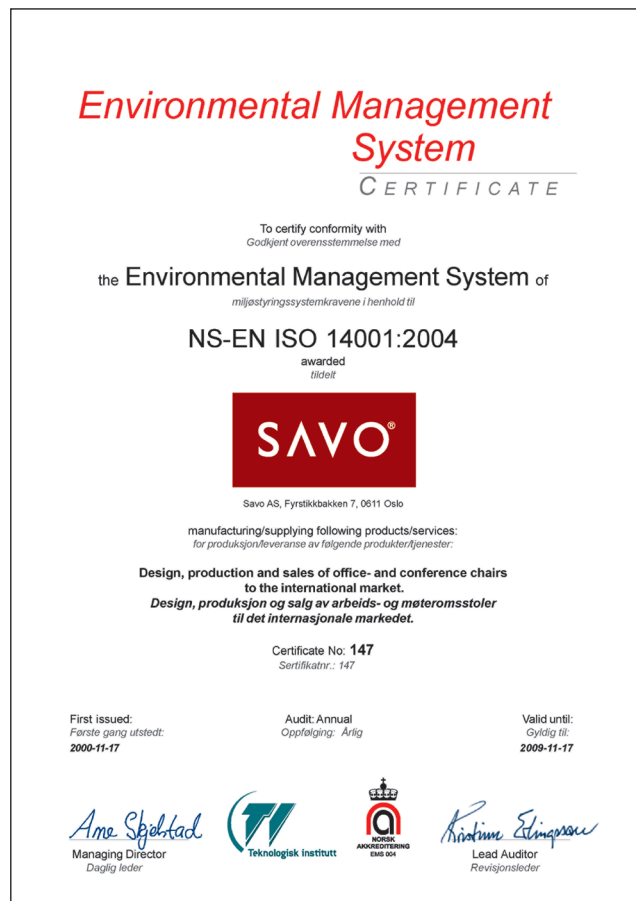




ENVIRONMENTAL STATEMENT 2007-2009

2007-09





EMAS (Eco-Management and Audit Scheme) is a European environmental control system, committing the company to continuous environmental improvement, and to comply with relevant laws. Savo was first registered in 1998, and renewed its registration in January 2004.

Savo was certified according to ISO 14001 standards in November 2000, with the same commitments as EMAS.

## From the Ministry of the Environment: NOU 2002:19

**Preventing waste. A vision holding consumer consciousness, quality of life and focus on circulation.**

### "Example 1: Office chair

With the new office chair **Savo Ikon**, Savo has emphasized dematerialisation. All redundant parts have been removed, at the same time as the functionality is maintained. The chair is made of polypropylene and aluminium. These are both materials easy to recycle. How much does the customer save by buying this chair instead of a comparable Savo office chair? A Savo Ikon2 is priced to 3150 NOK in Savo's pricelist. This is in very many ways comparable to Savo Astarte 90H, priced at 4896 NOK. This means that 1746 NOK are released for increased consumption..."

# SAVO – AN ENVIRONMENTALLY FOCUSED ENTERPRISE

Savo develops, produces and markets office chairs. The number of produced units in 2007 was 42.520 office chairs resulting in a revenue of 139 million NOK. While mounting, packing and distribution is conducted at Bryn, production is mainly dealt with by associate suppliers.

Savo was established in 1945 and is today located in premises built in the 1870's. These were originally used for the produce of matchsticks, and later for mechanical production.

Savo had 37 employees in Norway at the end of 2007 (36,8 years of man-labour). Daughter companies in Sweden and Denmark had a total of 9 employees at this time, 3 in Sweden and 6 in Denmark. (Years of man-labour in 2007 were respectively 3,0 and 4,6). These daughter companies handle solely sales- and distribution cases.

## **Savo's vision:**

"Savo shall be a trendsetting supplier to the international market for office chairs."

## **Savo's idea of business:**

"Through the development, marketing and sale of individual seating, Savo shall become a respective label supplier to the international market for office chairs.

Our respect for individual differences, needs and requests shall be expressed through design, quality and communication. Our solutions shall create values for our clients, profitability for Savo and development for our collaborators."

## **Savo's strategy for environmental issues:**

«We will maintain the EMAS and ISO 14001 registrations.

Respect for the environment in general shall be an important criteria when it comes to all product development and all other company activities.

We shall work with environmental improvements continuously. Relevant law claims shall be respected.

We shall make use of environmentally friendly and recyclable materials and resource friendly methods of production. We shall avoid combining materials that make recycling difficult or impossible.

We aim to develop products with long technical endurance.»

## **ENVIRONMENTAL FACTORS:**

The production at Savo does not entail emission of any kind to water, soil or air. Sub-suppliers are chosen and assessed according to factors such as quality, quality control, environmental attitudes, efficiency, price and flexibility.

Materials and processes that are used in our products are chosen according to quality, price, environmental friendliness etc. Savo emphasizes the endurance of its products: that parts are easy to replace and that the materials as far as possible can be recycled when the chair no longer can be used as a chair.

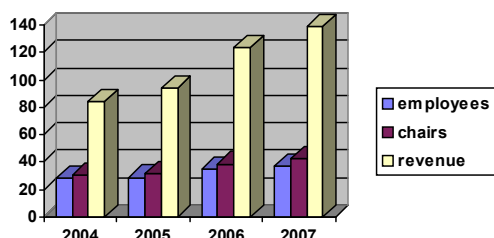
Savo's production at Bryn has no immediate environmental problems. Our production and our products affect the environment mainly through the processes of producing different materials and parts for our products. We can reduce the total strain on the environment by making certain that discarded products get sensibly recycled.

The endurance of our products is an important aspect in connection with rightful exploitation of the resources. Our own handling of waste both from the office and the production is a major area of focus. We also focus on environmental effects from our closest associate suppliers and have no knowledge of other environmental problems further down the line of production.

## EMPLOYEES, PRODUCTION and REVENUE:

Savo's developments from 2004-2007:

	2004	2005	2006	2007
No. of employees (Oslo)	28	29	35	37
No. of chairs produced	30195	32000	38808	42520
Reveue in mill. NOK	84,5	94,1	123,4	139,0



## EFFECTS ON THE ENVIRONMENT:

### ENERGY:

Savo has AC power as its only source of energy. Savo's production demands only a small amount of electric energy. Apart from a compressor for air pressure, the only energy needed is that to light and heat the building.

### WATER:

Savo does not use water in its production and has no emission to water from its production. All wastewater is sanitary and is drained to the local sewage network.

### SOUND POLLUTION

Savo creates no excessive noise beyond the sound of transport in and out of the company.

### TRANSPORT:

Transport is a huge environmental strain, both locally in Oslo as well as globally. Savo works in a marked where frequent deliveries are a constant demand, resulting in us supplying the whole of the Oslo-area, as well as the most of Norway daily. In addition to this we depend on frequent deliveries, as our storage space is limited.

The best way to avoid unnecessary strains on the environment in connection with transport is to use modern, environmentally optimized equipment, and see to that the utilization of this equipment is optimal.

We therefore make use of professional transporters that operate in most of Norway every day. This

implies that our products are delivered together with other products – hereby avoiding transports solely for Savo. Together with the national transport companies, it is in our interest to accomplish as good a balance as possible when it comes to the transport of our products.

The environmental criteria set for choosing transporters is their exploitation of goods and percentage of rail transport. Transporters are assessed in the same way as other sub-suppliers.

## MATERIALS/RAW MATERIALS:

Savo's chairs are normally comprised of:

- Polyamide and steel castors
- Polyamide (30% glass) chair base or high polished aluminium.
- Gas action comprised mainly of steel including a small amount of chromium III, and some plastic parts.
- Mechanism normally consisting of aluminium and steel (not chrome), with some plastic parts.
- Steel or aluminium armrests with PUR Foam. Only one model has chrome plating (chromium III) on the armrest.
- Seat and back made up of plastic, pressed cardboard and some plywood, PUR Foam and textile (mainly wool fabric). Wool endures hard wear. All our wool fabrics are tested for a minimum of 50.000 Martindale. Wool has natural flame resistance. About 75% of sold fabric is wool.

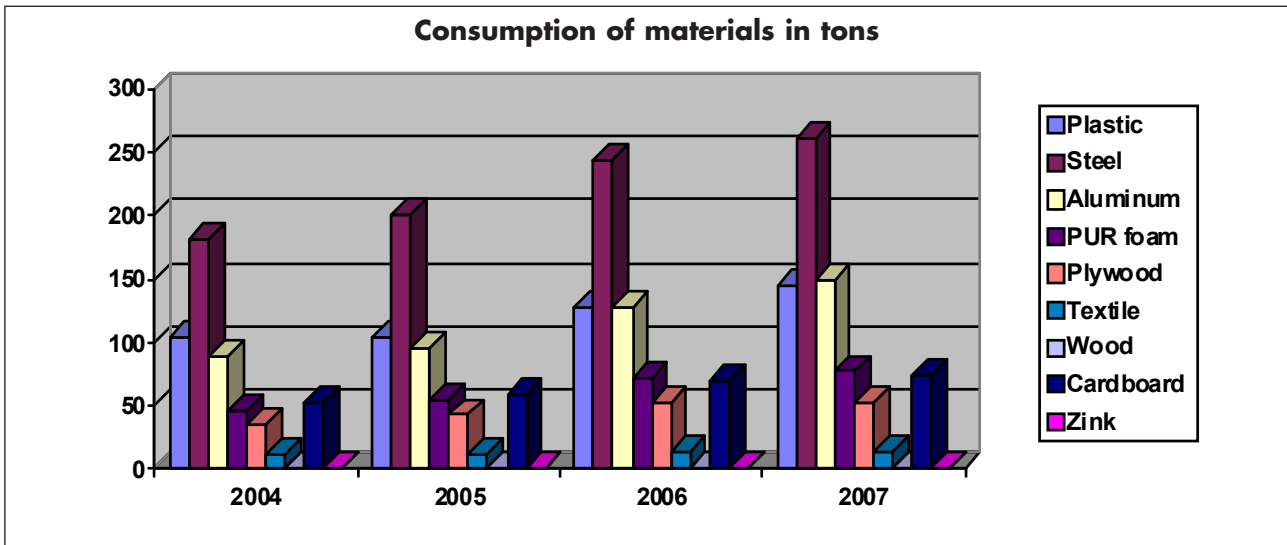
**CONSUMPTION OF MATERIALS  
(in tons):**

	2004	2005	2006	2007
PLASTIC	103,1	104,8	127,7	145,0
STEEL	182,3	200,7	244,1	260,3
ALUMINIUM	89,0	95,8	128,6	149,6
PUR FOAM	47,0	54,7	70,9	77,3
PLYWOOD	35,7	42,8	52,1	52,1
TEXTILE	11,0	12,0	14,1	14,8
WOOD	-	-	-	-
CARDBOARD	52,1	58,3	70,2	74,2
ZINK	0,6	0,4	0,5	0,5
TOTAL	520,8	569,5	708,2	773,8

**AVERAGE CONSUMPTION OF MATERIALS IN  
KG PER CHAIR PRODUCED:**

	2004	2005	2006	2007
PLASTIC	3,41	3,28	3,29	3,41
STEEL	6,04	6,27	6,29	6,12
ALUMINIUM	2,95	2,99	3,31	3,52
PUR FOAM	1,55	1,71	1,83	1,82
PLYWOOD	1,18	1,34	1,34	1,22
TEXTILE	0,37	0,37	0,36	0,35
WOOD	-	-	-	-
CARDBOARD	1,73	1,82	1,81	1,75
ZINK	0,01	0,01	0,01	0,01
TOTAL (average)	17,2	17,8	18,2	18,2

Steel is going down and aluminium is increasing per kg. This gives an environmental benefit when reusing it since 10 times less energy is needed for melting used aluminium compared to new. The numbers are based on the number of chairs produced. Additional equipment such as individual parts and service parts are not included.



**SUB-SUPPLIERS:**

Associate suppliers mainly deal with our production and we have made inquiries to these suppliers about issues concerning the environment and improving environmental focus. We inquire about our associate suppliers' self-made assessments of their own environmental issues and will follow them up individually. In those cases where we know of specific environmental aspects to the associate suppliers' materials or production processes, we have asked extra questions if no answer has been received earlier.

As of today, 14 of our associate suppliers (apprx. 22%) have stated that they are environmentally approved, most of them according to EMAS or ISO 14001.

Sub-suppliers that work with materials owned by Savo (cutting of plywood and papering) are assessed

on consumption of material and wastage. We have previously strongly requested our suppliers to deliver our products on EUR-pallets. They all now use recycled pallets, either EUR-pallets or wooden pallets. The aim is to minimise our waste, as well as the total waste in the chain of suppliers.

**SOURCE-SEPARATION, REUSAGE, RECYCLING AND WASTE HANDLING:**

In Savo we have from March 1. 1997 developed our source-separation of cardboard/paper, plastic, wood-disposal, iron, aluminium, hazardous waste as well as waste for incineration.

As hazardous waste we consider: light bulbs, spray boxes, toner-cassettes, discarded EDP equipment, painting, lacquer and oil.

Hazardous waste is delivered to Veolia. Out of date computing equipment is either given to members of staff, or delivered to Veolia if alternative use is not possible.

Other waste is sorted into the following fractions:

- Parts that the service department can use
- Parts returned to supplier as defects
- Iron/steel
- Aluminium
- Cardboard
- Plastic
- Paper
- Woodwork
- Organic waste
- Unsorted waste/waste for incineration

At our offices, paper and waste for incineration are

sorted in separate bins. Paper and cardboard is emptied by the cleaning-staff. Every Monday Veolia collects sorted waste.

### RETURNED CHAIRS

If chairs are sent in return, some of the parts are used again on "new" chairs in the service department, while other parts are source-separated. Parts that cannot be reused are processed into regular source-separation as well as the recycling of materials/energy.

## WASTE

Delivered materials/waste in tons:

Type of waste	Goes to	2004	2005	2006	2007
Paper/cardboard	reuse	15,4	18,5	19,1	28,3
Plastic	recycling				1,0
Woodwork	fuel	5,5	9,0	10,7	9,1
Waste of incineation		8,0	9,9	12,6	16,8
Textile	recycling				
Foam	incineration				
Organic waste	incineration				
Iron/steel	recycling	1,5	4,5	1,4	2,5
Aluminium	recycling	0,2	0,2	0,2	0,4
Total		30,6	42,1	44,0	58,1
Amount of sorted waste		74%	76%	71%	71%
Average per chair		1,01 kg	1,32 kg	1,13 kg	1,37 kg

The increase in waste in 2007, and especially for cardboard and incineation, is mainly due to redecoration of our premises.

### ENVIRONMENTAL AIMS FOR 2006-2008: :

1. As a minimum maintain accomplished NOK per kilogram. SEF 1 (Savo Environment Factor 1) (SEF = mean price/mean weight).
2. Increase total sales of the environmentally friendly model series Savo Ikon and Maxikon from 35% in 2006 to 40% in 2008.
3. An increase in the competence level in the design department concerning choice of materials and environment.
4. Savo products shall fulfill the recommended criteria for Norwegian governmental purchase.

### ENVIRONMENTAL PROGRAMME 2006-2008:

1. The average price increased by 13.7% from 2004 to 2006, due to our higher-priced models selling better than previously. These are also heavier. Average weight has not increased equivalently. We must continue to focus on NOK per kilogram. Therefore our aim of maintaining SEF1 to at least the same level as today is

important.

2. Savo Ikon and Maxikon are two very environmentally friendly model series. Consist of a mere 60 parts (apprx). Between 94% and 100% of the chairs can be recycled. Between 34% and 54% of the materials used in the chairs can be recycled. Because of the Ikon series' design it is easy and inexpensive to re-upholster the chair. This makes re-upholstering a realistic alternative to buying a new chair. This gives lower lifecycle costs. Therefore, our most environment-friendly plan of action is to increase the sale of these models.
3. Courses held during the period, on what environmental consequences our choice of materials have.
4. Make the environmental product declaration EPD for Savo Ikon, Maxikon and XO.

### RESULTS 2007:

1. SEF 1 increased by 2,8% from 2006 to 2007 as average weight was stable and average price

increased by 2,8%.

2. Total sales of Savo Ikon og Maxikon was in 2007 38% in 2007 - up from 35% in 2006.
3. Lecture from the company 2025design 25.9.07 about use of materials and design strategies in relation to health and environment from the point of view of Savo's products.

### **THE ENVIRONMENTAL CONTROL SYSTEM:**

Savo's environmental control system is constructed in order to satisfy the demands in EMAS and ISO 14001. The system is built up by a general part that describes Savo's environmental control system, as well as Savo's strategies and aims.

The environmental control system has procedures for:

- Product development/design
- Choice and follow-up of sub-suppliers concerning environment, packaging and transport
- Purchase for office and production
- Source-separation, waste-handling and recycling of chairs and chair-parts
- Mapping of market standards concerning environment
- Educational programs for our members of staff.

The control system also includes procedures for document control, evaluation of deviation, revision, rapports etc.

The control system includes original copies of all registration forms to be used in connection with issues concerning environment.

The environmental reports, as well as the report of the run-through of environmental matters in 1997 can also be found in Savo's environmental control system. These are up to date.

Savo publishes environmental reports every year. Every year, an external examiner assesses both the environmental report and the environmental control system. The next assessed environmental account is to be published in May 2009.

*Environmental examiner 2007 was The National Institute of Technology, NO-V-0005. Date for acceptance 2008-05-06.*

ønsker du å vite mer om Savo?

Føl deg velkommen til å  
ta kontakt med din lokale  
forhandler!

Vi viser også til våre

Internetsider:

[www.savo.com](http://www.savo.com)

**Savo as**

Fyrstikkbakken 7

Postboks 161 Bryn

N-0611 Oslo

Tel.: +47 22 91 67 00

Fax: +47 22 63 12 09

E-mail: [savo@savo.com](mailto:savo@savo.com)

**Savo ab**

Marcusplatsen 11

SE-131 34 Nacka

Tel.: +46 (0)8 702 67 60

Fax: +46 (0)8 702 67 61

E-mail: [info@savo.se](mailto:info@savo.se)

[www.savo.se](http://www.savo.se)

**Savo as**

Skudehavsvej 5

DK-2100 København Ø

Tel.: +45 39 27 94 94

Fax: +45 39 27 94 93

E-mail: [savo@savo.dk](mailto:savo@savo.dk)

[www.savo.dk](http://www.savo.dk)

**Forhandler:**

