Securities and Exchange Commission
Washington, D.C. 20549

04033573

Form 11-K
Annual Report

Pursuant to Section 15(d) of the
Securities Exchange Act of 1934

For the Fiscal Year Ended December 31, 2003

A. Full title of the Plan and the address of the Plan, if different from that of the issuer named below:

SENA 401(k) Plan
c/o Stora Enso North America Corp.
510 High Street
P.O. Box 8050
Wisconsin Rapids, WI 54495-8050
USA

B. Name of issuer of the securities held pursuant to the Plan and the address of its principal executive office:

Stora Enso Oyj
(Stora Enso Corporation)
Kanavaranta 1
P.O. Box 309
00101 Helsinki,
Finland

Exhibit 23 Consent of Independent Accountants – Filed herewith.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the SENA 401(k) Board has duly caused this annual report to be signed on its behalf by the undersigned thereunto duly authorized.

SENA 401(k) Plan

Dated: June 24, 2004 By Dawn E. Neuman

Dawn E. Neuman
Member, SENA 401(k) Board

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 (No. 333109214) of Stora Enso Oyj (Stora Enso Corporation) of our report dated June 21, 2004 relating to the financial statements of SENA 401 (k) Plan, which appears in this Form 11-K.

PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP
Milwaukee, Wisconsin
June 23, 2004

PRICEWATERHOUSECOOPERS

# SENA 401(k) Plan

## Financial Statements and Supplemental Schedule
## December 31, 2003 and 2002

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# SENA 401(k) Plan
## Index to Financial Statements
## December 31, 2003 and 2002



Note: Other schedules required by Section 2520.103-10 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 have been omitted because they are not applicable.

PRICEWATERHOUSECOOPERS

**PricewaterhouseCoopers LLP**
100 E. Wisconsin Ave., Suite 1500
Milwaukee WI 53202
Telephone (414) 212 1600

## Report of Independent Registered Public Accounting Firm

To the Participants and Administrator of the SENA 401(k) Plan

In our opinion, the accompanying statements of net assets available for benefits and the related statements of changes in net assets available for benefits present fairly, in all material respects, the net assets available for benefits of the SENA 401(k) Plan (the "Plan") at December 31, 2003 and 2002, and the changes in net assets available for benefits for the years then ended in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Plan's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with standards of the Public Company Accounting Oversight Board (United States) and auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental Schedule of Assets (Held at End of Year) is presented for the purpose of additional analysis and is not a required part of the basic financial statements but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. This supplemental schedule is the responsibility of the Plan's management. The supplemental schedule has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

PricewaterhouseCoopers LLP

Milwaukee, Wisconsin
June 21, 2004

# SENA 401(k) Plan
## Statements of Net Assets Available for Benefits
## December 31, 2003 and 2002

| | 2003 | 2002 |
|---|---|---|
| **Assets** | | |
| Investments | | |
| Plan interest in the SENA Master Trust | $ 202,229,339 | $ 162,897,028 |
| Loans to participants | 1,689,788 | 1,172,032 |
| Total investments | 203,919,127 | 164,069,060 |
| Receivables | | |
| Company contributions | 220,451 | 133,233 |
| Participant contributions | 243,616 | 354,536 |
| Total receivables | 464,067 | 487,769 |
| Net assets available for benefits | $ 204,383,194 | $ 164,556,829 |

The accompanying notes are an integral part of these financial statements.

# SENA 401(k) Plan
## Statements of Changes in Net Assets Available for Benefits
## For the Years Ended December 31, 2003 and 2002

| | 2003 | 2002 |
|---|---|---|
| **Additions** | | |
| Additions to net assets attributed to | | |
| Investment income (loss) | | |
| Interest in net investment income (loss) of the SENA Master Trust | $ 37,369,747 | $ (27,388,011) |
| Interest from participant loans | 93,826 | 91,148 |
| | 37,463,573 | (27,296,863) |
| Contributions | | |
| Company's | 3,929,931 | 2,044,706 |
| Participants' | 9,608,763 | 9,222,948 |
| | 13,538,694 | 11,267,654 |
| Total additions (reductions) | 51,002,267 | (16,029,209) |
| **Deductions** | | |
| Deductions from net assets attributed to | | |
| Benefits paid to participants | 11,266,318 | 14,176,159 |
| Administrative expenses | 12,392 | 10,456 |
| Total deductions | 11,278,710 | 14,186,615 |
| Net increase (decrease) before plan transfer | 39,723,557 | (30,215,824) |
| Transfers from other plans (Note 1) | 102,808 | 3,660,037 |
| Net increase (decrease) | 39,826,365 | (26,555,787) |
| **Net assets available for benefits** | | |
| Beginning of year | 164,556,829 | 191,112,616 |
| End of year | $ 204,383,194 | $ 164,556,829 |

The accompanying notes are an integral part of these financial statements.

## 1. Description of the Plan

The following description of the SENA 401(k) Plan (the "Plan") provides only general information. More complete information regarding the Plan's provisions may be found in the plan document.

### General

The Plan is a defined contribution plan maintained by Stora Enso North America Corp. (the "Company") under the provisions of Section 401(a) of the Internal Revenue Code ("IRC"), which includes a qualified cash or deferred arrangement as described in Section 401(k) of the IRC, for the benefit of eligible employees of the Company and those United States subsidiaries and affiliates of the Company that adopt the Plan with the Company's consent. All full time employees of the Company, as defined, who do not belong to a collective bargaining unit or, prior to December 31, 2002, who are not eligible to participate in the Stora Enso North America Retirement and Savings Plan ("RSP Plan") are eligible to participate in the Plan. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended ("ERISA").

Effective December 31, 2002, the RSP Plan was merged into the Plan. Assets of the RSP Plan, totaling $2,646,895, were transferred into the Plan on that date. During 2003 and 2002, net assets totaling $102,808 and $1,013,142, respectively, were transferred to the Plan from the SENA 401(k) Plan for Union Members and the SENA 401(k) Plan for Kimberly Union Members ("Kimberly Plan"), representing the account balances of participants whose change in employment status made them ineligible for coverage under the latter two plans. Transfers from the Kimberly Plan are also related to the consolidation of frozen account balances for non-union Kimberly Plan participants whose active account balances are held under this Plan.

Under a trust agreement, Fidelity Management Trust Company (the "Trustee") was appointed trustee of the Plan.

### Contributions

Participants may contribute an amount up to 25% of eligible compensation effective January 1, 2003, as defined in the plan agreement, not to exceed IRC limitations. Effective January 1, 2002, participants who have attained age 50 may make catch-up contributions in accordance with applicable IRC provisions. The Company provides a matching contribution equal to 100% of the first 3% and 50% of the next 2% of the participant's income deferred contributions effective January 1, 2003.

Participant contributions are generally made through payroll deductions. Participant and Company contributions are remitted to the Plan on a bi-weekly basis.

### Investment Options

The Plan provides for various investment options within the SENA Master Trust. Each participant is responsible for designating multiples of whole percentages of both participant and Company contributions for investment among the available investment funds, other than Fidelity Brokerage Link. Designations may be changed on a daily basis at the participant's discretion.

Fidelity Brokerage Link held former employer securities that were transferred to the Plan upon the merger of the Lake Superior Paper Industries Retirement Savings Investment Plan (the "LSPI Plan") in 1996, along with a money market fund for liquidity purposes. Continuing contributions or transfers to Fidelity Brokerage Link were prohibited. Any dividends or other earnings received by a participant's Fidelity Brokerage Link account were invested in the money market fund portion of the account until the participant directed investment of these amounts to one or more of the other investment funds under the Plan. The Plan's investment in Fidelity Brokerage Link was liquidated in January 2003, and transferred to other participant directed funds.

**Participant Accounts and Allocations**

Participant recordkeeping is performed by Fidelity Investments Institutional Operations Company, Inc. ("Fidelity"). For all investment options other than the SEO Unitized Stock Fund and Fidelity Brokerage Link, Fidelity maintains participant balances on a share method. Participant investments in the SEO Unitized Stock Fund and Fidelity Brokerage Link are accounted for on a unit value method. The unit value for the fund is computed daily based on share price, dividend information and the value of the fund's short-term investments. At December 31, 2003 and 2002, the Plan held 703,357 units and 781,259 units, respectively, of the SEO Unitized Stock Fund at unit values of $32.84 and $24.53, respectively, and as of the same dates 15 units and 1,307,891 units, respectively, of Fidelity Brokerage Link at unit values of $1.00.

Each participant's account is credited with the participant's contribution and an allocation of the Company's contribution and plan earnings, and charged with an allocation of investment and administrative expenses. Allocations of plan earnings are based on participant account balances in relation to total fund account balances, as defined. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

**Vesting**

Participants are immediately fully vested in their contributions, Company contributions and the earnings thereon.

**Benefits**

Upon termination of employment, participants may elect to receive the value of their account in one of the following distribution methods:

(a) Lump sum; or
(b) Series of equal installments (quarterly or annually) over a period not exceeding the lesser of ten years or the joint life expectancy of the participant and his beneficiary; or
(c) Transfer to an eligible retirement plan; or
(d) Defer withdrawal to any time up to April 1 following the year in which age 70 ½ is attained; or
(e) In the case of the Inter Lake Wisconsin Inc. 401(k) Retirement Plan trust to trust transfers into the Plan, which occurred in the 1998 and 2002 plan years, such transferred amounts may be paid in quarterly installments over a payment period specified by the participant (not exceeding the joint life expectancy of the participant and the designated beneficiary) or by a dollar amount specified by the participant for participants who have attained age 57 and terminated employment. A participant who retires after age 57, or who incurs a disability, may elect an ad hoc withdrawal in any amount up to two times in any plan year; or

(f) In the case of the LSPI Plan, a participant in the plan immediately prior to the effective date of the merger may elect, prior to March 31, 2002, to receive an annuity contract purchased by the Trustee with such participant's account balance to provide payments over a fixed period not exceeding ten years or the joint life expectancy of the participant and his beneficiary. Subsequent to March 31, 2002, no distributions in the form of an annuity contract are available under the Plan.

A participant may make the following withdrawals prior to termination:

(a) Withdrawal of all or any portion of the balance in his account for a hardship causing immediate and heavy financial needs, as defined, (however, these withdrawals will generally be subject to a 10% penalty tax); or
(b) After age 59-1/2, withdraw the entire account balance in a single lump sum; or
(c) In the case of the Inter Lake Wisconsin Inc. 401(k) Retirement Plan trust to trust transfers into the Plan, which occurred in the 1998 and 2002 plan years, such transferred amounts may be withdrawn as follows:
    (i) a participant who has made after-tax voluntary contributions prior to 1987 may elect to withdraw such contributions once in any plan year while employed; and
    (ii) a participant who has attained age 59-1/2 may elect to withdraw a portion of his transferred amount once in each plan year quarter while employed.

If a participant dies before the distribution of benefits, the benefits are distributed to the beneficiary designated by the participant.

**Loans to Participants**
Participants meeting eligibility requirements may borrow up to the lesser of (a) 50% of their vested account balance or (b) $50,000, reduced by any outstanding loan balances, with a minimum loan amount of $1,000. Loans are repaid through payroll deductions. Loans require payment within five years of the date of withdrawal, unless for the purchase of a primary personal residence, in which case the loan period shall not exceed 15 years. Loans bear interest at a rate equal to the prime rate as established by The Wall Street Journal on the first business day of the month in which application for such loan is made.

## 2. Summary of Significant Accounting Policies

**Basis of Accounting**
The accompanying financial statements are prepared on the accrual basis of accounting.

**Use of Estimates**
The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, and changes therein, and disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

**Investment Valuation and Income Recognition**
The Plan, along with the SENA 401(k) Plan for Union Members and the SENA 401(k) Plan for Kimberly Union Members, participates under a master trust arrangement in the SENA Master Trust. Each plan has an interest in the net assets of the SENA Master Trust, represented by the total of the specific interests of the individual participants of the plans.

All plan investments in the SENA Master Trust, except the investments in the SEO Unitized Stock Fund and Fidelity Brokerage Link, are stated at fair value based on quoted market prices. The fair values of the SEO Unitized Stock Fund and Fidelity Brokerage Link are computed daily based on share price, dividend information and the value of the short-term investments.

Loans to participants are valued at unpaid principal balances.

Purchases and sales of investments are recorded on a trade date basis. Dividends are recorded on the ex-dividend date. Interest is recognized when earned. Interest and dividends and net realized and unrealized appreciation (depreciation) from the investment in the SENA Master Trust is recorded on the accompanying financial statements as interest in net investment income (loss) of the SENA Master Trust.

**Risks and Uncertainties**
The Plan's investments are exposed to various risks, such as interest rate, market, and credit risks. Due to the level of risk associated with certain investments and the level of uncertainty related to changes in the value of investments, it is at least reasonably possible that changes in risks in the near term would materially affect participants' account balances and the amounts reported in the statements of net assets available for benefits and the statements of changes in net assets available for benefits.

**Administrative Expenses**
Administrative expenses incurred in the administration of the Plan are paid by the Company, except for fees related to loan administration and the Fidelity Brokerage Link, which are paid by the Plan.

**Benefit Payments**
Benefit payments to participants are recorded when paid.

## 3. SENA Master Trust

The Plan's allocated share of the SENA Master Trust's net assets and investment activities is based upon the total of each participant's share of the SENA Master Trust. The percentage of the Plan's investment in the SENA Master Trust to the total net assets of the SENA Master Trust is 58% and 60% as of December 31, 2003 and 2002, respectively.

The fair value of investments of the SENA Master Trust is as follows:

| | 2003 | 2002 |
|---|---|---|
| Investments, at fair value | | |
| Cash and cash equivalents | $ 368,178 | $ 646,561 |
| Common stocks | 29,107,942 | 24,853,555 |
| Mutual funds | 318,648,970 | 246,446,729 |
| Total investments | $ 348,125,090 | $ 271,946,845 |

Investment income (loss) of the SENA Master Trust for the years ended December 31, 2003 and 2002 is as follows:

| | 2003 | 2002 |
|---|---|---|
| Net appreciation (depreciation) in fair value of investments | | |
| Common stock | $ 8,094,367 | $ (2,948,159) |
| Mutual funds | 51,752,113 | (49,308,797) |
| | 59,846,480 | (52,256,956) |
| Interest and dividends | 4,166,231 | 3,615,734 |
| | $ 64,012,711 | $ (48,641,222) |

## 4. Investments

The following presents investments that represent 5 percent or more of the Plan's net assets:

| | 2003 | 2002 |
|---|---|---|
| Stora Enso Oyj ADS, 1,688,408 and 1,797,389 shares, respectively | $ 22,819,174 | $ 18,800,694 |
| Fidelity Magellan Fund, 451,665 and 449,391 shares, respectively | 44,145,733 | 35,483,885 |
| Fidelity OTC Portfolio, 556,334 and 577,631 shares, respectively | 18,064,168 | 13,811,151 |
| Fidelity Retirement Government Money Market Fund, 26,296,553 and 28,448,355 shares, respectively | 26,296,553 | 28,448,355 |
| Fidelity Spartan U.S. Equity Index Fund, 419,133 and 417,746 shares, respectively | 16,518,021 | 13,012,775 |
| Fidelity U.S. Bond Index Fund, 864,724 and 815,304 shares, respectively | 9,676,264 | 9,164,021 |
| Fidelity Freedom 2020 Fund, 805,470 and 0 shares, respectively | 10,487,215 | - |

## 5. Tax Status

The Internal Revenue Service has determined and informed the Company by a letter dated December 11, 2002, that the Plan is designed in accordance with the applicable sections of the IRC. The Plan has been amended since receiving the determination letter. However, the plan administrator believes that the Plan is currently designed and being operated in accordance with the applicable requirements of the IRC. Therefore, no provision for income taxes has been included in the Plan's financial statements.

## 6. Plan Termination

Although it has not expressed any intent to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan subject to the provisions of ERISA.

## 7. Related Party Transactions

The Plan periodically invests in a money market fund and mutual funds managed by the Trustee, participant loans, and a fund invested in the American Depositary Shares of the Company's parent, Stora Enso Oyj. Transactions involving these investments are considered to be party-in-interest transactions. These transactions are not, however, considered prohibited transactions under 29 CFR 408(b) of the ERISA regulations.

## 8. Amounts Allocated to Withdrawn Participants

Approximately $62,321,460 and $46,436,148 of plan assets have been allocated to the accounts of persons who are no longer active participants of the Plan as of December 31, 2003 and 2002, respectively, but who have not yet received distributions as of that date.

| Identity of Issue, Lessor or Similar Party | Description of Investment | Current Value |
|---|---|---|
| * Participant Loans | Maturities ranging from 2004 to 2018; interest rates ranging from 4% to 12% | $ 1,689,788 |

* Indicates party-in-interest.