Talvivaara Mining Company Plc

# Annual results review for year ended 31 December 2011

16 February 2012

Stock Exchange Release Talvivaara Mining Company Plc 16 February 2012

#### Talvivaara Mining Company annual results review for year ended 31 December 2011 Significant progress in ramp-up achieved, overcoming technical issues in metals recovery

#### Highlights of Q4 2011

- Record quarterly production of 4,769t nickel and 10,524t zinc owing to improved plant availability
- Net sales EUR 66.5m (Q4 2010: EUR 60.2m)
- Operating profit EUR 14.9m (Q4 2010: EUR 14.3m)
- Revolving credit facility increased to EUR 130m and maturity extended by one year to June 2014
- European Commission approval for uranium off-take agreement with Cameco Corporation received

#### Highlights of 2011

- Progress in ramp-up continued with 16,087t nickel production, up 55% from 10,382t in 2010
- Zinc production 31,815t, up 25% from 25,462t in 2010
- Net sales EUR 231.2m (2010: EUR 152.2m)
- Operating profit EUR 30.9m (2010: EUR 25.5m)
- Acquisition of an additional 4% shareholding in the operating subsidiary Talvivaara Sotkamo Ltd from Outokumpu Mining Oy for EUR 60m in June
- Uranium off-take agreement signed with Cameco Corporation in February

#### Highlights after the reporting period

- Management changes
  - Harri Natunen appointed CEO of Talvivaara and to join the Company from 19 March 2012
  - Current CEO Pekka Perä to become Executive Chairman following the Annual General Meeting to be held on 26 April 2012

### Key figures

EUR million	Q4	Q4	FY	FY
	2011	2010	2011	2010
Net sales	66.5	60.2	231.2	152.2
Operating profit (loss)	14.9	14.3	30.9	25.5
% of net sales	22.5%	23.8%	13.4%	16.7%
Profit (loss) for the period	3.7	(0.9)	(5.2)	(7.7)
Earnings per share, EUR	0.01	(0.01)	(0.04)	(0.04)
Equity-to-assets ratio	27.9%	31.7%	27.9%	31.7%
Net interest bearing debt	455.7	315.0	455.7	315.0
Debt-to-equity ratio	141.3%	81.7%	141.3%	81.7%
Capital expenditure	21.6	23.5	79.1	115.7
Cash and cash equivalents at the end of the period	40.0	165.6	40.0	165.6
Number of employees at the end of the period	461	389	461	389
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All reported figures in this release are unaudited.

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TALVIVAARA



**CEO Pekka Perä comments:** "2011 marked another significant step in Talvivaara's development into a fully producing mining company. Whilst not without its challenges, the lessons learnt have provided a good platform for ongoing improvement and ramp-up in 2012. During the spring of 2011, we held an extended upgrade and maintenance stoppage to remove bottlenecks and to improve the availability of the metals recovery plant. Whilst these targets were initially achieved, production unfortunately suffered from unexpected downtime at the hydrogen sulphide generators during the third quarter, stemming from insufficient control of operating procedures and subsequent breakage of heating elements and lack of spare parts. The decision to downgrade our production target in response was accompanied by an overhaul of our management structures and increased emphasis on operational systems to better reflect Talvivaara's shift to steady production.

These improvements are part of an on-going process, and we are already seeing a positive impact on processes that are running more steadily, and on morale on the ground which is improving. Moreover, we were delighted that we reached our revised nickel production target of 16,000tpa by the end of December 2011. Our production target for 2012 is 25,000-30,000t of nickel, which we believe we can achieve with continued focus on process optimization and management systems.

The environment is fundamental to Talvivaara's success and remains a priority for us. When higher than expected levels of manganese and sulphate were detected in treated process waters in late 2010, partly due to adjustments made to our processes to minimise hydrogen sulphide odour levels at the site, we worked hard in conjunction with local authorities to remedy the situation. Manganese discharges have been reduced by 80% and sulphate levels by 50% since early 2011, and we are continuing to focus on further recycling of process waters, optimised consumption of chemicals and research into other technologies and equipment to reduce these even further. Minimising our environmental footprint remains one of our key goals in the years to come.

2011 was a turbulent year in the global markets, but despite a fall from earlier highs and a degree of volatility, metal prices held out comparatively well. We expect a high degree of volatility and uncertainty to persist in the short term, but, backed by sustained worldwide demand driven particularly by China, we continue to have confidence in the long-term strength of the commodity market.

After eight challenging but very enjoyable years as CEO I have taken the decision to step down from day to day management at Talvivaara. Following the search to recruit an operationally focused CEO who will take the Company forward into steady state and growing production, I am delighted to announce that Harri Natunen will join the Company on 19 March 2012 and step in as CEO after the AGM on 26 April 2012. He has a very extensive and successful background in managing mining and metallurgical operations internationally and can therefore provide us with the expertise that is necessary for us to reach our full scale production and cost targets.

My own intention is to continue to provide my full support as Executive Chairman after the upcoming AGM. The current Chairman Edward Haslam will remain a Board member and will thus continue to provide his guidance and expertise which have been absolutely instrumental to Talvivaara's development ever since 2006.

Finally, I have every confidence in the team at Talvivaara, and would like to thank them for their hard work and commitment which I have witnessed whilst working together. I also wish to extend my sincere thanks to the current Board of Directors for their commitment, and especially to the departing Chairman Edward Haslam."

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#### Presentation and live webcast on 16 February 2012 at 9:00 am GMT/11:00 am EET

A combined presentation, conference call and live webcast on the Annual Results will be held on 16 February 2012 at 9:00 am UK/11:00 am Finland at Event Arena Bank, Helsinki, Finland. The presentation will be held in English.

#### http://qsb.webcast.fi/t/talvivaara/talvivaara 2012 0216 q4/

A conference call facility is available for participants joining via telephone and there will be a Q&A following the presentation.

Listen via teleconference: Europe & U.K Participants: +44 (0)20 7162 0077 US Participants: +1 334 323 6201 Finnish Participants: +358 (0)9 2313 9201

#### Conference id: 909943

Further details on the event can be found on the Talvivaara website, <u>www.talvivaara.com</u>. The webcast will also be available for viewing on the Talvivaara website shortly after the event until the end of 2012.

#### Summary of stock exchange releases and announcements

Talvivaara has released a summary of stock exchange releases and announcements made in 2011 in accordance with the Finnish Securities Market Act, Chapter 2 Section 10c. The summary is posted at <u>www.talvivaara.com</u>.

Talvivaara notes that some of the information given in the releases may be out of date.



#### Talvivaara's fourth quarter review

#### Improved reliability in production

All-time production records for nickel and zinc were achieved in the fourth quarter of 2011 with nickel production of 4,769t (Q4 2010: 3,831t) and zinc output of 10,524t (Q4 2010: 9,369t). The monthly volumes achieved in December were especially promising at 1,924t nickel and 4,653t of zinc, indicating that the production rates required to achieve the 2012 production targets of 25,000-30,000t nickel and 50,000-60,000t zinc had effectively been reached.

The fourth quarter production benefitted from significantly improved metals plant availability, which at 85% was at the level expected to be maintained in 2012. This level was reached after both production lines operated steadily from mid-October onwards after having suffered a series of unscheduled stoppages in the third quarter.

The mining department produced 3.2Mt of ore (Q4 2010: 3.3Mt) and 2.0Mt of waste (Q4 2010: 4.3Mt). The mining operations were uneventful during the period, but the total tonnage mined was affected by part, on average a third, of the mobile equipment having been on loan at the materials handling department to assist in the reclaiming of the primary heap.

In materials handling, the availability of the crushing circuit continued to improve and reached a level where it is no longer expected to impact on achieving the planned 2012 production. However, reclaiming of the primary heap continued to perform below expectations and was a bottleneck to the materials handling output overall. Measures taken to improve the reclaiming capacity included amongst others the testing of new loading arrangements to increase the feed rate of reclaimed ore to conveyors. The results of these trials were sufficiently promising to warrant their planned implementation in early 2012. The amount of ore stacked during the quarter was 3.2Mt (Q4 2010: 2.9Mt).

Bioheapleaching progressed according to expectations during the fourth quarter with the average nickel grade in solution pumped to the metals recovery plant remaining steady at around 2 g/l. Solution was drawn from primary heap sections 1, 3 and 4, and from the secondary heap. Primary heap section 2 was under construction with expected completion in February 2012.

		Q4	Q4	FY	FY
		2011	2010	2011	2010
Mining					
Ore production	Mt	3.2	3.3	11.1	13.3
Waste production	Mt	2.0	4.3	17.0	16.7
Materials handling					
Stacked ore	Mt	3.2	2.9	11.1	13.3
Bioheapleaching					
Ore under leaching	Mt	35.6	24.3	35.6	24.3
Metals recovery					
Nickel metal content	Tonnes	4,769	3,831	16,087	10,382
Zinc metal content	Tonnes	10,524	9,369	31,815	25,462

#### Production key figures

#### Financial performance in the fourth guarter of 2011

#### Net sales and financial result

Talvivaara's net sales for nickel and cobalt deliveries to Norilsk Nickel and for zinc deliveries to Nyrstar during the quarter ended 31 December 2011 amounted to EUR 66.5 million (Q4 2010: EUR 60.2 million). Net sales increased by 9.7% compared to the previous quarter mainly due to the recognition of additional extraction and processing fees for zinc deliveries in 2011, stemming from increased raw materials prices,



in particular those of elemental sulphur and propane. Product deliveries at 4,658 tonnes of nickel, 134 tonnes of cobalt and 11,669 tonnes of zinc also increased from Q3 2011, but due to the decline in nickel price, this had little effect on the revenues.

Operating profit for Q4 2011 was EUR 14.9 million (Q4 2010: EUR 14.3 million). Materials and services for the quarter were EUR (37.7) million (Q4 2010: EUR (30.7) million) and other operating expenses EUR (13.1) million (Q4 2010: EUR (13.6) million).

Profit for the period amounted to EUR 3.7 million (Q4 2010: loss of EUR (0.9) million).

#### Balance sheet and financing

Capital expenditure during the quarter totalled EUR 21.6 million (Q4 2010: EUR 23.5 million). The expenditure was in line with expectations and related primarily to the construction of secondary heap foundations and the uranium extraction facility, and equipment for secondary leaching.

In October, Talvivaara signed an amendment agreement to the EUR 100 million revolving credit facility with Nordea Bank, Sampo Bank, Svenska Handelsbanken and Pohjola Bank. The facility was increased to EUR 130 million upon the addition of Pohjola Bank to the lender group. The maturity of the facility was also extended by a year until 30 June 2014. As at 31 December 2011, the outstanding loan amount was EUR 50 million (2010: EUR 0).

During the quarter, Talvivaara issued commercial paper notes with the nominal value of EUR 8.5 million based on the maximum EUR 100 million programme with Sampo Bank, Nordea Bank and Svenska Handelsbanken. On 31 December 2011, the outstanding commercial paper notes amounted to the nominal value of EUR 8.5 million.

#### Currency option programme

In December 2011, Talvivaara entered into a currency option programme comprising USD options for three months from January 2012 through March 2012. The monthly obligation is USD 5.0 million and protection is USD 5.0 million. The collar ranges from 1.1140 to 1.4500.

#### Base metals prices impacted by macroeconomic uncertainty

Base metals prices were generally at their lowest levels of the year during the fourth quarter, partially reflecting downgraded prospects for global economic growth and consequently base metals demand. The European sovereign debt crisis also intensified during the quarter, contributing to overall de-risking by investors across asset classes and further pressure on base metals prices. Towards the end of the quarter, however, the market gained a degree of positive momentum following European policy initiatives to contain the debt crisis and more encouraging data on macroeconomic development. The London Metal Exchange ("LME") cash price for nickel declined to its 2011 low of USD 16,935/t in late November and recovered by the year-end to USD 18,280/t, with the quarterly average being USD 18,303/t.

The global nickel supply-demand balance remained in a slight deficit in 2011 according to Brook Hunt, as several new large-scale laterite projects continued to face commissioning issues. While Chinese nickel pig iron ("NPI") contributed to increased supply, NPI capacity was reportedly shut down already at price levels around USD 19,000/t while nickel prices were declining during the autumn. LME nickel stocks continued to decline during the quarter and were at their lowest levels since early 2009 at around 90,000 tonnes.



#### Talvivaara's annual results review 2011

#### 2011 market environment was a tale of two halves

During the first half of 2011, commodities demand benefitted from a robust global growth outlook, reflected in strong base metals prices. Demand from China, in particular, continued to grow rapidly. Towards the summer, sovereign debt and fiscal stability concerns in a number of European countries began to impact financial markets with the effect carrying over to base metals during the latter part of the summer. The Euro area crisis intensified during the second half of the year, and compounded with growing concerns over macroeconomic growth in both mature and developing markets, resulted in increased risk aversion and lower base metals prices.

The LME cash price for nickel averaged USD 22,830/t for the year, some 5% above the 2010 average of USD 21,804/t. Reflecting the broader market sentiment, the price averaged USD 25,565/t for the first half, USD 20,202/t for the second half and USD 18,303/t for the fourth quarter. The LME zinc price followed a broadly similar pattern, averaging USD 2,191/t for the year, up some 2% from USD 2,157/t in 2010.

Global primary nickel consumption in 2011 was some 1.63 million tonnes, marking an increase of 6.5% from 1.53 million tonnes in 2010. China comprised approximately 40% of global demand in 2011, with year-on-year consumption growth at 21%. (*Source: Brook Hunt*)

Global refined nickel output grew by 12.4% to 1.63 million tonnes in 2011, leaving the market in a slight deficit for the year. Supply growth was to a large extent driven by a 55% increase in Chinese NPI output, although the weaker nickel price environment towards the end of the year resulted in shutdowns of NPI capacity. Several greenfield nickel projects expected to come on-stream in 2011 continued to face commissioning issues, delaying supply growth. *(Source: Brook Hunt)* 

The EUR/USD exchange rate remained volatile throughout 2011, and was impacted by the Euro area crisis particularly towards the end of the year. The Euro averaged 1.39 US dollars for 2011, and closed the year at approximately 1.30.

#### Significant progress in ramp-up despite technical issues in metals recovery

Talvivaara closed the year having produced 16,087t of nickel, up 55% from 10,382t in 2010. For zinc, the corresponding figures were 31,815t in 2011 and 25,462t in 2010, implying a 25% increase year-on-year. While this progress is further proof of the feasibility of Talvivaara's processes in large scale operation, it left room for improvement particularly in the reliability of the metals recovery process and equipment availability across all functions. In order to close the performance gap to full scale production, increasing attention was paid on process optimisation and management systems especially during the latter half of the year.

Year 2011 started off with an extended period of cold, sub -20°C temperatures in Sotkamo, and with the metals plant partly handicapped by the after-effects of a transformer failure in late 2010. Despite the challenging start, metals production during the first quarter progressed well and proved the capabilities of the plant in full scale production. However, the high rate of production especially in March also exposed certain bottlenecks which had to be removed in order to sustain the achieved throughput rates and to ramp up production further. The Company therefore decided to hold an extended maintenance break in April-May 2011 to allow for all of the identified issues to be addressed and for the plant to be thoroughly inspected as part of the Company's preventive maintenance plan.

The upgrade and maintenance programme was carried out successfully and production re-started according to plan. However, within weeks of the re-start, the heating elements in the hydrogen sulphide generators started to fail at a rate that caused an acute lack of spare parts. The failure of the heating elements was found to have been caused by excessive operating temperatures in the hydrogen sulphide process, and the operating procedure was subsequently amended to reflect this. However, the shortage in the spare parts inventory continued to severely affect production for several months, until mid-October.

The decision to hold the extended upgrade and maintenance stoppage first forced the Company to cut its production target for the year from 30,000t of nickel to 22,000-28,000t, as announced in April. In October, a further reduction of guidance to 16,000t of nickel had to be announced, resulting from the problems with



the hydrogen sulphide generators. During the fourth quarter, production reliability improved significantly allowing Talvivaara to reach the latest guidance level.

Partly in response to the production issues, but significantly also to the uncertainties in the market environment, Talvivaara announced in October its intention to shift its short term focus from maximisation of production volume to optimisation of profitability. Measures taken to realise this strategy included reduced use of contractors particularly in materials handling and efforts to optimise chemicals consumption in metals recovery. These measures will continue into 2012, partly as part of the Company's focus on improving its management systems, but are not expected to materially affect the production output.

At the departmental level mining continued uneventfully with 11.1Mt (2010: 13.3Mt) of ore and 17.0Mt (2010: 16.7Mt) of waste blasted. The total output was slightly down from the year before, reflecting the bottleneck in materials handling. Waste mining continued at a high level with waste rock being used for the levelling of the secondary heap foundations.

In materials handling, the volume of crushed and stacked ore in 2011 amounted to 11.1Mt (2010: 13.3Mt). Production output was restricted by delays in commissioning of the primary heap reclaiming system, which operated substantially below the budgeted levels throughout the year. Improved operating methods were however identified during the fourth quarter and will be implemented in early 2012.

Bioheapleaching progressed according to expectations during the year, with secondary leaching also proving successful upon increasing amounts of ore being transferred from the primary to the secondary heap. Nickel grades in leach solution varied from slightly less than 2 g/l to more than 3.5 g/l, reflecting different ages of heaps and varying depletion rates of solution to metals recovery. At year end, the nickel grade in solution pumped to the metals recovery plant was around 2 g/l.

Reliability and availability of the metals recovery plant proved to be the decisive factor in determining the overall production output for the year. The availability of the plant in 2011 was approximately 49%, which is well below any reasonably targeted long term levels, but in part still reflects the limited operating history of the facility. Whilst no fundamental problems at the plant have been identified, focus on improving the robustness and reliability of production will continue in 2012.

#### **Financial review**

#### Net sales and financial result

Talvivaara's net sales during the financial year ended 31 December 2011 amounted to EUR 231.2 million (2010: EUR 152.2 million). 15,795 tonnes of nickel, 35,935 tonnes of zinc, and approximately 400 tonnes of cobalt were sold during the year.

The Group's other operating income amounted to EUR 2.3 million (2010: EUR 20.9 million) and came mainly from indemnities on losses, gains on the sale of the Talvivaara-Murtomäki railroad to the Finnish State and fair value gains on derivatives.

Materials and services during the financial year ended 31 December 2011 amounted to EUR (135.0) million (2010: EUR (99.0) million). The largest cost items were consumables, external services and production chemicals, particularly propane and caustic soda (lye). The increase in materials and services reflects the increase in production volumes from 2010 to 2011.

Employee benefit expenses including the value of employee expenses related to the employee share option scheme of 2007 were EUR (25.5) million (2010: EUR (19.9) million). The increase was mostly attributable to the increased number of personnel.

Other operating expenses amounted to EUR (55.2) million (2010: EUR (43.8) million), of which energy and maintenance costs comprised more than two thirds. Operating profit came to EUR 30.9 million (2010: EUR 25.5 million). The operating margin was 13.4%, down from 16.7% reported in 2010 primarily due to the reported production problems and related maintenance costs and cost inefficiencies in 2011.



Finance income for the financial year was EUR 1.2 million (2010: EUR 3.5 million) and consisted mainly of interests on bank accounts and exchange rate gains. Finance costs of EUR (39.1) million (2010: EUR (31.7) million) were mainly caused by interest and related financing expenses on borrowings.

The Company's loss for the financial year amounted to EUR (5.2) million (2010: EUR (7.7) million).

The total comprehensive income for the financial year was EUR (14.6) million (2010: EUR (19.1) million), including a reduction in hedge reserves resulting from the occurrence of the hedged sales.

#### Balance sheet

Capital expenditure in 2011 totalled EUR 79.1 million (2010: EUR 115.7 million). The expenditure related primarily to secondary heap foundations, secondary leaching equipment, and construction of a gypsum pond and the uranium extraction facility. On the consolidated statement of financial position as at 31 December 2011, property, plant and equipment totalled EUR 762.0 million (31 December 2010: EUR 728.2 million).

In the Group's assets, inventories amounted to EUR 240.4 million on 31 December 2011 (31 December 2010: EUR 175.4 million). The increase in inventories reflected the ramp-up of production and the consequent increase in the amount of ore stacked on heaps, valued at cost. During the third quarter the Company re-evaluated the assumptions concerning the operating capacity of the Talvivaara mine to the extent such assumptions are used in inventory recognition. It was concluded that because the ramp-up phase and optimization of the production processes have proceeded slower than previously estimated, the expected operating capacity had to be adjusted to reflect more closely the current and short term expected level of production. The adjustment to the expected operating capacity had the effect of increasing the inventories during the second half of the financial year, as a bigger proportion of the operating costs and related production overheads were subsequently accumulated as inventories rather than being recognised directly as costs.

Trade receivables amounted to EUR 64.0 million on 31 December 2011 (31 December 2010: EUR 52.4 million). The increase in trade receivables reflects primarily the additional extraction and processing fees for zinc deliveries in 2011, stemming from increased chemical costs in zinc production.

On 31 December 2011, cash and cash equivalents totalled EUR 40.0 million (31 December 2010: EUR 165.6 million).

In equity and liabilities, total equity amounted to EUR 322.6 million on 31 December 2011 (31 December 2010: EUR 385.6 million). The reduction in equity was primarily the result of the acquisition by Talvivaara of an additional 4% shareholding in its subsidiary Talvivaara Sotkamo Ltd from Outokumpu Mining Oy. As a result of the acquisition, Talvivaara's ownership in Talvivaara Sotkamo increased from 80% to 84%, and Talvivaara's equity decreased by the acquisition costs of EUR 61.9 million. The equity component of EUR 9.0 million for the senior unsecured convertible bonds due 2015 was also recognised in equity in 2011. A total of 539,407 new shares were subscribed and paid for in 2011 under the company's stock option rights 2007A and 2007B and the convertible bonds due 2015, and the entire subscription price of EUR 2.6 million was recognized in equity.

Borrowings increased from EUR 480.6 million on 31 December 2010 to EUR 495.7 million at the end of 2011. The changes in borrowings during the financial year included a partial draw-down of the revolving credit facility, determination of the equity component for the senior unsecured convertible bonds due 2015, issuance of commercial paper notes, and repayment of the borrowings drawn down to finance the construction of the Talvivaara-Murtomäki railroad.

Total advance payments as at 31 December 2011 amounted to EUR 247.3 million (31 December 2010: EUR 259.9 million). In 2011, the advance payment from Nyrstar was reclassified as a non-monetary liability, as the advance payment is repaid through physical deliveries and therefore does not represent an actual foreign exchange risk. In addition, Talvivaara received a total of EUR 14.4 million in advance payments during the year based on a uranium off-take agreement with Cameco Corporation. The advance payment made by the Finnish state for the railroad was recognized as revenue in September.



Total equity and liabilities as at 31 December 2011 amounted to EUR 1,156.7 million (31 December 2010: EUR 1,214.5 million).

#### **Financing**

In October, Talvivaara signed an amendment agreement to the EUR 100 million revolving credit facility agreement with Nordea Bank, Sampo Bank, Svenska Handelsbanken and Pohjola Bank. The facility was expanded to EUR 130 million upon the addition of Pohjola Bank to the lender group. The maturity of the facility was also extended by a year to 30 June 2014. As at 31 December 2011, the outstanding loan amount was EUR 50 million (2010: EUR 0).

During the second half of the year, Talvivaara issued commercial paper notes with the total nominal value of EUR 18.5 million based on the maximum EUR 100 million programme with Sampo Bank, Nordea Bank and Svenska Handelsbanken. On 31 December 2011, the outstanding commercial paper notes amounted to the nominal value of EUR 8.5 million.

In September, the Finnish State paid the second instalment of its reimbursement towards the construction costs of the Talvivaara-Murtomäki railroad to Talvivaara Infrastructure Oy. As a result of the reimbursement totalling EUR 40 million, the railroad became property of the Finnish State and a part of the national rail network. After the reimbursement, Talvivaara repaid the remaining EUR 18.7 million term loan and the EUR 4.2 million interest subsidy loans drawn down to finance the railroad construction.

In February, Talvivaara signed a uranium off-take agreement with Cameco Corporation. Under the terms of the agreement, Cameco will provide an upfront investment of up to USD 60 million to cover the construction costs of the uranium production facility and extraction circuit. Talvivaara will repay the investment through deliveries of uranium concentrate during the initial years of the agreement. Once the capital sum has been repaid, all uranium concentrate produced thereafter until 31 December 2027 will be bought by Cameco at a price based on market prices at the time of delivery.

In January, an Extraordinary General Meeting of Talvivaara resolved to approve the proposal of the Board of Directors for the issue of special rights in relation to EUR 225 million senior unsecured convertible bonds issued in December 2010 and due in December 2015. The bonds are convertible into 27.0 million fully paid ordinary shares of the Company. The interest rate applied to the convertible bond is 4.00% and the yield to maturity 6.50%, reflecting a redemption price of 114.5% at maturity.

#### **Business development and commercial arrangements**

#### Planned uranium extraction and uranium off-take agreement with Cameco Corporation

In February, Talvivaara signed a uranium off-take agreement with Cameco Corporation. Under the terms of the agreement, Cameco will provide an up-front investment of up to USD 60 million to cover the construction costs of the uranium extraction circuit and related facilities.

Cameco's capital contribution will be repaid through deliveries of uranium concentrate in the initial years of the agreement. Once the capital is repaid, Cameco will purchase the uranium concentrate produced at Sotkamo through a supply agreement that will be in effect until 31 December 2027. Cameco will provide Talvivaara with payment for the uranium based on a formula that references market prices at the time of delivery.

Annual uranium production is estimated at 350tU (ca. 770,000 pounds), corresponding to approximately 410t (900,000 pounds) of yellow cake (UO<sub>4</sub>).

In August 2011, Talvivaara obtained a construction permit for the uranium recovery facility and construction work commenced. Commissioning of the facility, subject to receiving the necessary permits and authorizations (as further described in the Permitting section), is expected during the second half of 2012. Cameco is providing technical assistance to Talvivaara in the design, construction, commissioning and later in the operation of the uranium extraction circuit.

#### Production expansion - Operation Overlord

Conceptual studies relating to production expansion beyond 50,000tpa of nickel were carried out throughout the year. A dedicated project team was established and at the end of 2011 consisted of nine



members with metallurgical, infrastructure, bioheapleaching, materials handling and project coordination expertise.

The scoping studies were based on the target of doubling the presently planned production to approximately 100,000tpa of nickel. Whilst studies relating to various processing options continue, it appears relatively likely that a substantial part of the expanded production would be LME quality nickel metal, i.e. Talvivaara would integrate its production one step further downstream. Production of cobalt metal remains also an option, but refining of zinc to zinc metal is currently not within the planning scope. For certain products and raw materials, e.g. manganese and sulphuric acid, joint ventures or other partnering arrangements will be investigated.

The baseline studies of the environment relating to the planned expansion commenced in the spring of 2011 and by year-end preparations for the Environmental Impact Assessment were at an advanced stage. Permitting is anticipated to proceed to the submission of an environmental permit application during 2012.

No investment decisions relating to the production expansion have yet been taken. Provided the investment is pursued, it is envisioned to be carried out in a modular fashion to allow spreading out of the expenditure over an estimated 5-6 year period starting around 2014. The modular approach also allows commissioning of the equipment and processes sequentially in the order of the process stages, which is expected to reduce the risk of serious start-up issues.

#### <u>Acquisition of an additional 4% shareholding in the operating subsidiary Talvivaara Sotkamo Ltd from</u> <u>Outokumpu Mining Oy</u>

Talvivaara Mining Company signed an agreement on 1 June 2011 with Outokumpu Mining Oy and its parent company Outokumpu Oyj to acquire an additional 4% shareholding in Talvivaara Sotkamo Ltd. As a result of the acquisition, Talvivaara's ownership in Talvivaara Sotkamo increased from 80% to 84% and Outokumpu Mining's ownership decreased to 16%. The acquisition price for the 4% stake was EUR 60 million.

Simultaneously, Talvivaara entered into an exclusive option agreement with Outokumpu Mining Oy and Outokumpu Oyj (the "Option") whereby it will have the right, at its sole discretion, in one or more installments, to acquire Outokumpu Mining's remaining 16% shareholding in Talvivaara Sotkamo for EUR 240 million at any time prior to 31 March 2012.

As of 31 December 2011 Talvivaara had not exercised the Option and the Board considered it unlikely that the Option would be exercised.

#### Redemption of the Talvivaara-Murtomäki railroad by the Finnish State

In 2008-2009, Talvivaara constructed a 25 km railway connecting the Talvivaara mine with the national railway grid. Subject to agreed minimum transportation volumes on the railroad being achieved, the Finnish State agreed to reimburse the construction expenses to Talvivaara Infrastructure Ltd up to an amount of EUR 40 million (0% VAT) in two instalments and to redeem the railroad. The first agreed transportation milestone was reached in 2010 and the Finnish State subsequently paid EUR 20 million in June 2010 as a partial reimbursement. The remaining minimum transportation volumes were reached in January 2011, and the Finnish State paid the remaining EUR 20 million in September 2011. In conjunction with the final reimbursement, the railroad became property of the Finnish State and part of the national rail network.

#### Geology

During 2011, Talvivaara's geological activities focused primarily on resource infill drilling to improve geological mapping of already known ore profiles. Apart from a brief campaign at the Kuusilampi deposit in early 2011, drilling was carried out at the Kolmisoppi deposit where mining operations have not yet commenced. In total, approximately 11,000 metres were drilled during the year.

Talvivaara's total mineral resources, as defined by the JORC code, stand at 1,550Mt and Measured and Indicated Resources at 1,121Mt. The resources contain 3.4Mt of nickel and 7.6Mt of zinc at average metal grades of 0.22% nickel and 0.49% zinc.



Significant exploration potential remains between the Kuusilampi and Kolmisoppi deposits and to the north of the Kolmisoppi deposit. Talvivaara expects to update its mineral resources statement in late 2012.

#### Research and development

Talvivaara's research and development activities focused mainly on further optimisation of the bioheapleaching and metals recovery processes, and recovery of additional metals from the leach solution.

Process development work in bioheapleaching included studies aimed at better understanding the behaviour of full scale heaps, improving heap aeration concepts, and optimising the hydrodynamics of the heaps. Four test heaps of 50,000t of ore each were constructed and started up during the second half of the year to study parameters for improved leaching efficiency. The results obtained from these heaps to-date are promising and provide further insight into optimisation of the full scale heap performance as well as leaching costs.

In metals recovery, the focus was on production capacity and product quality improvement especially regarding the moisture content of the zinc product. Chemical purity of all products, in particular copper sulphide, was also in focus, as was the optimisation of chemicals consumption to reduce costs.

Catalytic burning of hydrogen sulphide to avoid odour problems and to reduce caustic soda consumption was one of the key projects of the year with a clear target at production application in 2012. The tests showed that hydrogen sulphide can be converted to sulphur oxides which in turn can be scrubbed out without caustic soda. As a result, the investment project in catalytic burning was committed and is expected to be completed during the coming summer.

As a response to the increased sulphate levels in effluent waters discovered in late 2010, a project to evaluate and develop relevant water purification technologies for sulphate removal commenced in early 2011. The project comprised initially a technology study together with VTT, the Technical Research Centre of Finland, to compare various technologies available for this application. The study was later continued as a techno/economical study for selected appropriate technologies. As a result, a membrane technology was chosen and the work continued with laboratory tests to develop design criteria for further testing and eventually for an industrial scale plant.

Various tests and piloting activities were carried out to provide necessary data for the uranium permitting process. A continuous pilot process was also run with the chosen technology supplier to verify the uranium extraction process.

#### Sustainable development

Talvivaara continued to develop its operations in line with its sustainable development policy which emphasizes continuous improvement and operational excellence. In 2011, the Company paid special attention to improved control of water discharges, active stakeholder communication especially in the areas neighbouring the mine, and implementation of management systems supportive of sustainable development.

Talvivaara is committed to continuous improvement in environmental efficiency, operational risk management and the reduction of environmental impact. Thanks to investments aimed at reducing emissions to air, the environmental performance improved throughout the year. Some further improvements in 2012 are still necessary for the dust and hydrogen sulphide emission limits set in Talvivaara's environmental permit to be consistently met.

Water emissions were in a particular focus following the higher than anticipated concentrations of sulphate and manganese in discharge waters in late 2010 and early 2011. With immediate reaction to the elevated concentrations, the sulphate and manganese levels reduced significantly already by the summer of 2011 and any permanent damage to the nearby lakes was avoided. By the end of the year, water quality in the lakes closest to the mine had already started to improve even in the deepest sections, where most of the sulphate containing water had stratified. Going into 2012, recycling of process waters at Talvivaara is being increased and new water purification methods are being tested with the aim of

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implementing yet additional purification steps within the next 2-3 years. The catalytic burning of hydrogen sulphide, which Talvivaara intends to start in 2012, has the potential of significantly reducing caustic soda consumption, which in turn is expected to reduce sodium and sulphate concentration in process waters.

The sulphate and manganese discharges from the mine attracted significant media attention during the last quarter of the year, causing concern for many of Talvivaara's stakeholders. In response, the Ministry of the Environment requested a statement from the local Environmental Authority to attest whether the monitoring of the mine had been sufficient and whether there were grounds to consider coercive measures against Talvivaara. The conclusion, which was found satisfactory by the Ministry, was that the monitoring programme had been and continues to be extensive, and that no grounds for coercive measures, e.g. fines or limitation of production, were found.

Talvivaara took again part in the CDP carbon footprint reporting initiative. This data gathering and reporting exercise will help the Company to optimize its greenhouse gas emissions in the future. Talvivaara also continued to develop its Global Reporting Initiative (GRI) reporting and related data verification.

Talvivaara was awarded the environmental management system ISO 14001 certification in December 2010, followed by continuous improvement of the system throughout 2011. The Company also prepared for the certification of the OHSAS 18001 occupational health and safety standard, and commenced development of a risk management system in accordance with the ISO 31000 standard. Risk assessment for disasters under the Seveso Directive was updated.

The environmental security placed for future restoration of the area and monitoring obligations amounted to EUR 32.7 million at the year-end (2010: EUR 27.0 million).

With respect to safety issues Talvivaara's goal is a safe and healthy working environment, and the Company continued to develop its safety culture based on zero accident philosophy. The injury frequency in 2011 was 14.7 lost time injuries/million working hours (2010: 10.7 lost time injuries/million working hours).

Open and frequent communication is of utmost importance when building a long-term, trusting relationship with the nearby residents and communities, and Talvivaara has focused increasingly emphasis on its community programme during the past year. Open days for visitors and meetings with the local residents continued; in addition, a new, locally focused internet site was launched soon after the year end to provide up-to-date environmental information and a discussion and feedback channel for the local residents.

#### Permitting

Permitting work during the year related to the extraction of uranium as a by-product, the renewal of the existing environmental permit for the Talvivaara mine, and preparations for the permitting process pertaining to the planned production expansion, first to 50,000tpa and subsequently to up to 100,000tpa of nickel.

In March, Talvivaara submitted an application for the renewal of the existing environmental permit to the regional environmental permitting agency. The updated permit is expected to be obtained by the autumn of 2012.

In June 2011, Talvivaara submitted an application to the Ministry of Employment and Economy in accordance with the Mining Act (503/1965) for the expansion of the Talvivaara mining concession area by approximately 70 km<sup>2</sup>. Subject to approval of the expansion, the total area of the Talvivaara mining concession will be approximately 130 km<sup>2</sup>. The expansion of the mining concession area relates to the previously announced increase in the Talvivaara mineral resources, the full exploitation of which is not possible within the existing mining concession area.

Baseline studies of the environment relating to the potential production expansion (Operation Overlord) and the expansion of the mining concession area commenced in the spring and continued through the year. Preparations for the Environmental Impact Assessment (EIA) for the production expansions initially



to 50,000tpa and later to up to 100,000tpa of nickel commenced during the autumn. By the year-end, the EIA programmes were close to completion and the actual EIA work was anticipated to start in early 2012.

In March 2011, Talvivaara submitted the environmental permit application for uranium extraction to the Regional Environmental Permitting Agency, with the decision on the permit expected during Q2 2012. In April 2010, Talvivaara applied to the Ministry of Employment and Economy for a permit to extract uranium as a by-product, in accordance with the Nuclear Energy Act. Talvivaara expects to obtain this permit during the first quarter of 2012.

Talvivaara received European Commission approval for the uranium off-take agreements with Cameco in November 2011. A further ratification by the European Commission pursuant to the Euratom Treaty was obtained soon after the year end, in January 2012.

#### Management systems and operational quality

With Talvivaara moving closer to steady state production requiring corresponding operational stability and processes, the Company launched a special programme targeted at improving all operating procedures and creating a shared and consistent working environment, the "Talvivaara Way of Working" (in Finnish, "Talvivaaran Tapa Toimia", or T3+). Commenced in the fourth quarter, the programme's initial stages focused on identification, measurement and follow-up of key performance indicators at all levels of the organisation and processes. The work will continue in 2012 and will also cover other aspects of operational quality, such as cleanliness and order (5S), overall control systems, and motivational factors. The initial results of the programme have been promising and have encouraged the entire organisation to continue their efforts in applying the new "Talvivaara Way of Working".

#### **Risk management and key risks**

In line with current corporate governance guidelines on risk management, Talvivaara carries out an ongoing process endorsed by the Board of Directors to identify risks, measure their impact against certain assumptions and implement the necessary proactive steps to manage these risks.

In 2011, the Company's risk management activities were focused on further development of risk management practices within departments and functions, and on updating the Group level risk management policies to reflect Talvivaara's present development stage as an operational rather than a project focused entity.

Talvivaara's operations are affected by risks common to the mining industry, such as risks relating to the development of Talvivaara's mineral deposits, estimates of reserves and resources, infrastructure risks, and volatility of commodity prices. There are also risks related to currency exchange ratios, management and control systems, historical losses and uncertainties about the future profitability of Talvivaara, counter parties, dependence on key personnel, effect of laws, governmental regulations and related costs, environmental hazards, and risks related to Talvivaara's mining concessions and permits.

In the short term, Talvivaara's key operational risks continue to relate to the ongoing ramp-up of operations. While the Company has demonstrated that all of its production processes work and can be operated on industrial scale, the rate of ramp-up is still subject to risk factors including the reliability and sustainable capacity of production equipment, and eventual speed of leaching and metals recovery in bioheapleaching. In addition, there may be production and ramp-up related risks that are currently unknown or beyond the Company's control.

The market price of nickel has historically been volatile and in the Company's view this is likely to persist, driven by shifts in the supply-demand balance, macroeconomic indicators and variations in currency exchange ratios. Nickel sales currently represent close to 90% of the Company's revenues and variations in the nickel price therefore have a direct and significant effect on Talvivaara's financial result and economic viability. Talvivaara is, since February 2010, unhedged against variations in metal prices. Full or substantially full exposure to nickel prices is in line with Talvivaara's strategy and supported by the Company's view that it can operate the Talvivaara mine profitably during the lows of commodity price cycles.

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Talvivaara's revenues are almost entirely in US dollars, whilst the majority of the Company's costs are incurred in Euro. Potential strengthening of the Euro against the US dollar could thus have a material adverse effect on the business and financial condition of the Company. Talvivaara hedges its exposure to the US dollar on a case by case basis with the aim of limiting the adverse effects of US dollar weakness as considered justified from time to time.

Liquidity and refinancing risks may arise as a result of the Company's inability to produce sufficient volumes of its saleable products, particularly nickel, unexpected increase in production costs, and sudden or substantial changes in the prices of commodities or currency exchange rates. Talvivaara seeks to reduce liquidity risk by close monitoring of liquidity in order to detect any threat of adverse changes in advance so as to allow for sufficient time to secure access to adequate credit or other funding on reasonable terms. Talvivaara also seeks to maintain a balanced maturity profile of its long-term debt in order to mitigate refinancing risks.

#### Personnel

The growth in Talvivaara's personnel continued in 2011, with the total number of employees increasing from 389 to 461. The personnel is mostly recruited locally from the Kainuu region, where Talvivaara is the largest provider of new job opportunities.

The average age of Talvivaara's personnel was 38.8 years, and the age distribution of employees is comparable to the industry average in Finland. In its recruitment process, Talvivaara seeks to maintain a representative staff age structure, in spite of the reasonably high rate of recruitment from a limited pool of potential recruitees in the region. Although the mining industry has conventionally been male-dominated, Talvivaara seeks to hire employees representing both genders. This has however proven difficult due to the limited number of female applicants.

Personnel turnover continued to decrease during the reporting year, reflecting the increasing maturity of the operations. As in previous years, the turnover mainly affected newly recruited employees and did not affect the Company's operations. The personnel turnover at Talvivaara Sotkamo Ltd was 4.3% (2010: 5.1%), and there was no personnel turnover at Talvivaara Mining Company (2010: 0%).

The salaries and wages of Talvivaara's personnel are based on industry-wide collective agreements and company-specific job grading. The total compensation consists of base salary and short and long term incentive schemes. Annual short term incentive metrics include personal performance based and company-wide criteria. During the ongoing ramp-up phase the primary criterion has been Talvivaara's production output. The Company's long term incentive schemes comprise Talvivaara's Stock Options 2007, which is allocated to all personnel, and a management holding company Talvivaara Management Oy, which is targeted to executive management and requires personal investment in the Company shares by the participants. A new option scheme, Talvivaara Stock Options 2011 was established at the Annual General Meeting of 2011, but these options have yet to be allocated.

Personnel development is based on annual training and development plans. All Talvivaara personnel participate in introductory training with work safety as a key component. The Company's target is also that all of its employees will have first aid competence.

#### **Corporate governance statement**

Talvivaara will issue a Corporate Governance Statement of 2011 and publish it as part of its Annual Report and as a separate statement on its website at <u>www.talvivaara.com</u> during the week starting 26 March 2012. The Corporate Governance Statement will not form part of the Board of Directors' Report.

#### **Resolutions of the Annual General Meeting**

Talvivaara's Annual General Meeting was held on 28 April 2011 in Sotkamo, Finland. The resolutions of the AGM included:

• that no dividend be paid for the financial year 2010;



- that the annual fee payable to the members of the Board in 2012 be as follows: Chairman of the Board EUR 160,000, Deputy Chairman (Senior Independent Director) EUR 69,000, Chairman of the Audit Committee EUR 69,000, Chairman of the Nomination Committee EUR 53,000, Chairman of the Remuneration Committee EUR 53,000, Chairman of the Sustainability Committee EUR 53,000, other Non-executive Directors and Executive Directors EUR 48,000;
- that the number of Board members be seven and that Mr. Edward Haslam, Mr. Eero Niiva, Ms. Eileen Carr, Mr. D. Graham Titcombe, Mr. Pekka Perä, Mr. Tapani Järvinen and Ms. Saila Miettinen-Lähde be re-elected as Board Members;
- that the auditor be reimbursed according to the auditor's approved invoice and authorised public accountants PricewaterhouseCoopers Oy be elected as the company's auditor for the financial year 2011;
- that the Board be authorised to decide on the repurchase, in one or several transactions, of a maximum of 10,000,000 of the Company's own shares. The repurchase authorisation is valid until 27 October 2012. The proposed authorisation replaces the authorisation to repurchase 10,000,000 shares granted by the Annual General Meeting of 15 April 2010; and
- that the Company shall issue stock options partly to the key employees and partly to the
  personnel of the Company and its subsidiaries. The maximum total number of stock options
  issued will be 5,500,000 and the stock options entitle their owners to subscribe for a maximum
  total of 5,500,000 new shares in the Company or to receive existing shares held by the Company.
  The beginning of the share subscription period shall require attainment of certain operational or
  financial targets determined by the Board annually.

#### Shares and shareholders

The number of shares issued and outstanding and registered on the Euroclear Shareholder Register as of 31 December 2011 was 245,781,803. Including the effect of the EUR 85 million convertible bond of 14 May 2008, the EUR 225 million convertible bond of 16 December 2010, and the Option Scheme of 2007, the authorised full number of shares of the Company amounted to 290,636,391.

The share subscription period for stock options 2007A is between 1 April 2010 and 31 March 2012 and for stock options 2007B between 1 April 2011 and 31 March 2013. By 31 December 2011 a total of 449,286 Talvivaara Mining Company's new shares had been subscribed for under the stock option rights 2007A and a total of 1,883,814 stock option rights 2007A remain unexercised. On 31 December 2011, 108,700 shares were not registered. A total of 48,763 new shares of Talvivaara were subscribed for under the stock option rights 2007B and a total of 2,284,337 stock option rights 2007B remain unexercised. In addition, a total of 215,736 new shares of the Company were subscribed for under the convertible bonds due 2015.

In 2011 a total of 952,000 stock options 2007C were allocated. The share subscription period for stock options 2007C is between 1 April 2012 and 31 March 2014.

As at 31 December 2011, the shareholders who held more than 5% of the shares and votes of Talvivaara were Pekka Perä (23.0 %), Varma Mutual Pension Insurance Company (8.6%), Solidium Oy (7.0%) and Ilmarinen Mutual Pension Insurance Company (5.9%).

#### Share based incentive plans

By resolution passed at the general meeting of shareholders on 28 February 2007, the Company resolved to issue free stock options to the personnel of the Company and its subsidiaries entitling them, after the split of the Company's shares 1:70, to subscribe for a maximum of 6,999,300 new shares in the Company (2007 Option Scheme). Pursuant to the terms and conditions of the 2007 Option Scheme, the Board of Directors shall decide upon the distribution of the stock options.

During 2011, the Board of Directors, based on the recommendation of the Remuneration Committee, allocated 952,000 2007C options, giving an entitlement to subscribe for a total of 952,000 new shares in

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the Company, to the personnel of Talvivaara and its subsidiaries. Of the options allocated since 2007, 78,000 2007C options entitling to subscribe for 78,000 shares were returned back to the Company during 2011. In 2011, a total of 274,908 new shares were subscribed for under the stock option rights 2007A and 48,763 with 2007B. At the end of 2011, 100 2007C options were available for allocation under the 2007 Option Scheme. The voting rights of the shares to be issued against the outstanding share options amount to 2.6% of the total share capital.

In December 2010, The Board of Directors of Talvivaara decided on a new shareholding plan directed to members of the Talvivaara Executive Management Team (the "Participants"). The plan enables the Participants to acquire a considerable long-term shareholding in the Company. Through this plan, the Participants personally invested a significant amount of their own funds in Talvivaara's shares. The Participants financed their investments partly by themselves and partly by a loan provided by Talvivaara.

The EUR 5.7 million loan granted by the Company to Talvivaara Management Oy for the purpose of acquiring Company shares carries an interest of 3.0% and shall be repaid in full by 2014. The 1,104,000 shares held by Talvivaara Management Oy have been pledged to Talvivaara as security for the loan.

By resolution passed at the Annual General Meeting of 28 April 2011, the Company resolved to issue free stock options to the personnel of the Company and its subsidiaries (2011 Option Scheme). The maximum total number of stock options issued will be 5,500,000 and the stock options entitle their owners to subscribe for a maximum total of 5,500,000 new shares in the Company or to receive existing shares held by the Company. The commencement of the share subscription period will require attainment of certain operational or financial targets determined by the Board annually. As at 31 December 2011, no options under the 2011 Option Scheme had been allocated.

#### Events after the review period

#### Uranium permitting

Talvivaara received a ratification on its uranium recovery process from the European Commission under the Euratom Treaty ("Treaty") in January 2012. One of the main objectives of the Treaty is to improve the supply security of nuclear fuel in the European Union. In its opinion, the European Commission considers that uranium recovery at the Talvivaara mine complies with the goals set by the Treaty and may improve the supply security of nuclear fuel in the European Union.

#### Management of process waters

In order to improve water management in view of the environmental effects of the mining operations, Talvivaara has implemented new water recycling procedures allowing the reduction of raw water intake by approximately 50%. The new arrangement also allows further improvement of the quality of discharge waters and is expected to help in eventually reducing the amount of water emissions.

Installation of the new water recycling systems required a four-day stoppage at the metals recovery plant. Apart from this, operations at the plant have been uneventful during the early part of 2012.

#### Short-term outlook

#### Market outlook

Following general sentiment driven weakness during the latter half of 2011, nickel and base metals prices more broadly have shown signs of recovery in early 2012. Volatility is however expected to remain at an elevated level, as investors and other market participants assess the likely outcome of the European sovereign debt crisis as well as the global growth outlook.

Barring a severe global recession, significant downside to nickel prices beyond levels already seen in late 2011 would appear to be capped by marginal costs of production. Talvivaara continues to believe the longer term support level to be around USD 20,000 per tonne.

Talvivaara expects the global nickel market to remain broadly balanced from a supply-demand perspective. Several new laterite nickel projects have continued to face commissioning issues, and it appears increasingly likely that their contribution to supply in the near term will be limited. Chinese NPI production is expected to also balance the market, as the utilisation rate of this capacity tends to quickly react to variations in nickel price.



#### **Operational outlook**

Talvivaara expects production at the Sotkamo mine to continue ramping up and to reach the annual nickel production volume of 25,000-30,000t in 2012. In line with the guidance provided at the Company's Capital Markets Day in November 2011, total operating costs in 2012 are expected to amount to approximately EUR 250 million including leasing, and capital expenditure to EUR 40-50 million excluding construction of the uranium extraction circuit.

#### Board of Directors proposal for profit distribution

The Board of Directors is proposing to the Annual General Meeting to be held on 26 April 2012 that no dividend is declared in respect of the year 2011.

Talvivaara Mining Company Plc Board of Directors

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## CONSOLIDATED INCOME STATEMENT

	Unaudited	Audited	•••••••	Audited
	three	three	twelve	twelve
/	months to		months to	months to
(all amounts in EUR '000)	31 Dec 11	31 Dec 10	31 Dec 11	31 Dec 10
Net sales	66,492	60,218	231,226	152,163
Other operating income	268	3,661	2,304	20,904
Changes in inventories of finished				
goods and work in progress	17,491	14,003	59,727	67,100
Materials and services	(37,687)	(30,745)	(135,022)	(99,029)
Personnel expenses	(6,353)	(5,498)	(25,482)	(19,944)
Depreciation, amortization, depletion				
and impairment charges	(12,158)	(13,757)	(46,642)	(51,948)
Other operating expenses	(13,121)	(13,556)	(55,212)	(43,790)
Operating profit (loss)	14,932	14,326	30,899	25,456
Finance income	236	81	1,197	3,477
Finance cost	(11,279)	(8,125)	(39,060)	(31,655)
Finance income (cost) (net)	(11,043)	(8,044)	(37,863)	(28,178)
Profit (loss) before income tax	3,889	6,282	(6,964)	(2,722)
Income tax expense	(161)	(7,166)	1,748	(5,012)
Profit (loss) for the period	3,728	(884)	(5,216)	(7,734)
Attributable to:				
Owners of the parent	1,915	(810)	(8,263)	(8,699)
Non-controlling interest	1,813	(74)	3,047	965
	3,728	(884)	(5,216)	(7,734)
Earnings per share for profit (loss) attribu	utable to the			
owners of the parent (expressed in EUR p				
Basic and diluted	0.01	(0.01)	(0.04)	(0.04)

#### CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

(all amounts in EUR '000)	Unaudited three months to 31 Dec 11	Audited three months to 31 Dec 10	Unaudited twelve months to 31 Dec 11	Audited twelve months to 31 Dec 10
Profit (loss) for the period Other comprehensive income, items net of tax	3,728	(884)	(5,216)	(7,734)
Cash flow hedges	(1,983)	(2,769)	(9,368)	(11,341)
Other comprehensive income, net of tax	(1,983)	(2,769)	(9,368)	(11,341)
Total comprehensive income	1,745	(3,653)	(14,584)	(19,075)
Attributable to:				
Owners of the parent	249	(3,025)	(16,132)	(17,772)
Non-controlling interest	1,496	(628)	1,548	(1,303)
	1,745	(3,653)	(14,584)	(19,075)



## CONSOLIDATED STATEMENT OF FINANCIAL POSITION

CONSOLIDATED STATEMENT OF FINANCIAL	Unaudited	Audited
	as at	as at
(all amounts in EUR '000) <b>ASSETS</b>	31 Dec 11	31 Dec 10
Non-current assets		
Property, plant and equipment	761,985	728,226
Biological assets	7,688	8,464
Intangible assets	7,371	7,737
Deferred tax assets	26,398	20,552
Other receivables	2,902	7,626
Available-for-sale financial assets	630	464
	806,974	773,069
Current assets		
Inventories	240,436	175,361
Trade receivables	64,027	52,354
Other receivables	5,249	8,702
Derivative financial instruments	10	40
Cash and cash equivalent	40,019	165,555
	349,741	402,012
Assets held for sale	-	39,391
Total assets	1,156,715	1,214,472
EQUITY AND LIABILITIES		
Equity attributable to owners of the parent		
Share capital	80	80
Share issue	278	91
Share premium	8,086	8,086
Hedge reserve	- ,	7,494
Other reserves	449,532	433,012
Retained earnings	(151,129)	(80,068)
5	306,847	368,695
Non-controlling interest in equity	15,733	16,895
Total equity	322,580	385,590
Non-current liabilities	107 101	407.000
Borrowings	467,161	437,623
Advance payments	235,569	225,068
Trade payables	-	17
Provisions	6,036	3,935
Current liabilities	708,766	666,643
Borrowings	28,515	42,934
Advance payments	11,684	42,934 34,800
Trade payables	33,677	39,408
Other payables	51,478	43,820
Derivative financial instruments	15	1,277
	125,369	162,239
Total liabilities	834,135	828,882
Total equity and liabilities	1,156,715	1,214,472
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## CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY

(all amounts in EUR '000)

(all amounts in EUR '000	Share capital	Share issue		Hedge reserve	Invested unrestricted equity		Retained earnings		Non- controlling interest	Total equity
<b>1 Jan 10</b> Profit (loss) for	80	-	8,086	16,567	401,248	16,200	(71,368)	370,813	11,784	382,597
the period Other comprehensive	-	-	-	-	-	-	(8,699)	(8,699)	965	(7,734)
income - Cash flow hedges	-	-	-	(9,073)	-	-	-	(9,073)	(2,268)	(11,341)
Total comprehensive income for the period Transactions with	-	-	-	(9,073)	-	-	(8,699)	(17,772)	(1,303)	(19,075)
owners Stock options	-	91	-	-	364	- 19,926	-	455 19,926	- 4,982	455
Perpetual capital loan Incentive arrangement for Executive	-	-	-	-	-		-			24,908
Management Employee share option scheme - value of employee	-	-	-	-	-	(7,142)	-	(7,142)	1,432	(5,710)
services Total contribution	-	-	-	-	-	2,415	-	2,415	-	2,415
by and distribution to owners <b>Total transactions</b>	-	91	-	-	364	15,199	-	15,654	6,414	22,068
with owners	-	91	-	-	364	15,199	-	15,654	6,414	22,068
31 Dec 10	80	91	8,086	7,494		31,399	(80,067)	368,695	16,895	385,590
1 Jan 11 Profit (loss) for	80	91	8,086	7,494	401,612	31,399	(80,067)	368,695	16,895	385,590
the period Other comprehensive income	-	-	-	-	-	-	(8,263)	(8,263)	3,047	(5,216)
- Cash flow hedges Total comprehensive	-	-	-	(7,869)	-	-	-	(7,869)	(1,499)	(9,368)
income for the period Transactions with owners	-	-	-	(7,869)	-	-	(8,263)	(16,132)	1,548	(14,584)
Stock options Conversion of senior unsecured convertible	-	187	-	-	658	-	-	845	-	845
bonds due 2015 Perpetual capital loan	-	-	-	-	1,800	-	- (1,891)	1,800	- (360)	1,800 (2,251)
Acquisition of subsidiary	-	-	-	- 375	-	- 997		(1,891)	(300)	(61,886)
Incentive arrangement for Executive	-	-	-	575	-		(00,908)		(2,330)	, i i
Management Senior unsecured convertible bonds due	-	-	-	-	-	94	-	94	-	94
2015, equity component Employee share option scheme	-	-	-	-	-	9,018	-	9,018	-	9,018
<ul> <li>value of employee services</li> <li>Total contribution by</li> </ul>	-	-	-	-	-	3,954	-	3,954	-	3,954
and distribution to owners	-	187	-	375	2,458	14,063	(62,799)	(45,716)	(2,710)	(48,426)
Total transactions with owners	-	187	-	375	2,458	14,063	(62,799)	(45,716)	(2,710)	(48,426)
31 Dec 11	80	278	8,086	-	404,070	45,462	(151,129)	306,847	15,733	322,580



## CONSOLIDATED STATEMENT OF CASH FLOWS

	Unaudited three	three	Unaudited twelve	Audited twelve
(all amounts in EUR '000)	months to 31 Dec 11	months to 31 Dec 10	months to 31 Dec 11	months to 31 Dec 10
<b>Cash flows from operating activities</b> Profit (loss) for the period Adjustments for	3,728	(884)	(5,216)	(7,734)
Tax Depreciation and amortization	161 12,157	7,166 13,758	(1,748) 46,641	5,012 51,949
Other non-cash income and expenses Interest income	(8,171)	(3,976)	(34,987) (1,197)	(8,340) (3,477)
Fair value gains on financial assets at fair value	(236)	(81)		
through profit or loss Interest expense	(193) 11,279	(4,068) 8,125	(520) 39,060	(24,348) 31,655
Change in working capital	18,725	20,040	42,033	44,717
Decrease(+)/increase(-) in other receivables Decrease (+)/increase (-) in inventories	(16,763) (15,398)	(20,607) (14,972)	(2,380) (65,075)	(40,381) (65,850)
Decrease(-)/increase(+) in trade and other payables	(8,429)	32,888	(403)	47,141
Change in working capital	(40,590)	(2,691)	(67,858)	(59,090) (14,373)
Interest and other finance cost paid Interest and other finance income	(21,865) (10,579) 274	17,349 (9,849) (3,438)	(25,825) (24,666) 1,329	(14,373) (26,213) 49,382
Income taxes paid	(15)	-	(15)	-
Net cash generated (used) in operating activities Cash flows from investing activities	(32,185)	4,062	(49,177)	8,796
Acquisition of subsidiary, net of cash acquired Purchases of property, plant and equipment	(398) (21,511)	- (23,048)	(61,885) (78,833)	- (114,947)
Purchases of biological assets	(21,311)	(23,040)	(78,833) (82)	(114,947) (7)
Purchases of intangible assets	(54)	(427)	(229)	(704)
Proceeds from sale of property, plant and equipment	-	- 13	19,995 257	-
Proceeds from sale of biological assets Proceeds from sale of intangible assets	-	-	257 5	89 -
Proceeds from government grant related to intangible assets	-	302	-	302
Purchases of financial assets at fair value through profit or loss	-	-	(12,010)	_
Purchases of available-for-sale financial assets Proceeds from sale of	-	(463)	(167)	(463)
financial assets at fair value through profit or loss	-	-	12,022	-
Net cash generated (used) in investing activities Cash flows from financing activities	(21,981)	(23,623)	(120,927)	(115,730)
Realised stock options	278	90	845	454
Related party investment in Talvivaara shares Proceeds from interest-bearing liabilities	- 59,226	(5,713) 235,973	- 70,242	(5,713) 292,512
Perpetual capital loan	- 19,220	200,975	(3,042)	292,312
Proceeds from advance payments	7,381	-	14,381	263,419
Payment of interest-bearing liabilities	(11,255)	(51,210)	(37,858)	(314,935)
Net cash generated (used) in financing activities Net increase (decrease) in cash and cash	55,630	179,140	44,568	260,612
equivalents Cash and cash equivalents at beginning of the	1,464	159,579	(125,536)	153,678
period	38,555	5,976	165,555	11,877
Cash and cash equivalents at end of the period	40,019	165,555	40,019	165,555



## NOTES

## 1. Basis of preparation

This year-end report has been prepared in compliance with IAS 34.

## 2. Property, plant and equipment

	Machinery and	Construction in	Land and	Other tangible	
(all amounts in EUR '000)	equipment	progress	buildings	assets	Total
Gross carrying amount at 1 Jan 11	336,598	21,036	257,613	206,227	821,474
Additions	1,389	78,314	126	4	79,833
Disposals	(7)	-	(66)	-	(73)
Transfer to assets held for sale	-	-	-	50	50
Transfers	23,265	(58,006)	16,248	18,515	22
Gross carrying amount at 31 Dec 11	361,245	41,344	273,921	224,796	901,306
Accumulated depreciation and					
impairment losses at 1 Jan 11	39,794	-	21,150	32,304	93,248
Disposals	(1)	-	-	-	(1)
Depreciation for the period	26,998	-	11,494	7,582	46,074
Accumulated depreciation and					
impairment losses at 31 Dec 11	66,791	-	32,644	39,886	139,321
Carrying amount at 1 Jan 11	296,804	21,036	236,463	173,923	728,226
Carrying amount at 31 Dec 11	294,454	41,344	241,277	184,910	761,985

### 3. Trade receivables

(all amounts in EUR '000)		
	31 Dec 11	31 Dec 10
Nickel-Cobalt sulphide	55,258	50,437
Zinc sulphide	8,769	1,917
Total trade receivables	64,027	52,354

### 4. Inventories

(all amounts in EUR '000)

14,016	8,668
	-,
213,629	154,632
12,791	12,061
240,436	175,361
	12,791

## 5. Borrowings

(all amounts in EUR '000)

Non-current	31 Dec 11	31 Dec 10
Capital loans	1,405	1,405
Investment and Working Capital loan	57,863	57,324
Revolving Credit Facility	49,110	-
Senior Unsecured Convertible Bonds		
due 2015	217,138	219,426
Senior Unsecured Convertible Bonds		
due 2013	80,796	78,086
Finance lease liabilities	37,444	53,018
Other	23,405	28,364
	467,161	437,623
Current		
Investment and Working Capital loan	1,430	-
Commercial papers	8,481	-
Railway Term Loan Facility	-	18,527
Finance lease liabilities	18,604	20,211
Interest Subsidy Loans	-	4,196
	28,515	42,934
Total borrowings	495,676	480,557

## 6. Advance payments

(all amounts in EUR '000)		
Non-current	31 Dec 11	31 Dec 10
Deferred zinc sales revenue	221,187	225,068
Deferred uranium sales revenue	14,382	-
	235,569	225,068
Current		
Deferred zinc sales revenue	11,684	14,800
Advance payment on railway	-	20,000
	11,684	34,800
Total advance payments	247,253	259,868

## 7. Changes in the number of shares issued

ri ondinges in the number of shares issued	
	Number of shares
31 Dec 10	245,316,718
Stock options 2007A and 2007B	249,349
Conversion of senior unsecured convertible bonds due 2015	215,736
31 Dec 11	245,781,803

23(26)

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#### 8. Contingencies and commitments

#### (all amounts in EUR '000) The future aggregate minimum lease payments under non-cancellable operating leases

	31 Dec 11	31 Dec 10
Not later than 1 year	1,919	1,175
Later than 1 year and not later than 5 years	929	1,993
Later than 5 years	37	11
	2,885	3,179

#### **Capital commitments**

At 31 December 2011, the Group had capital commitments amounting to EUR 14.5 million principally relating to the completion of the Talvivaara mine, improving the reliability and expansion of production capacity. These commitments are for the acquisition of new property, plant and equipment.

Talvivaara Mining Company Plc					
Key financial figures of the Group		Three	Three	Twelve	Twelve
		months to	months to	months to	months to
		31 Dec 11	31 Dec 10	31 Dec 11	31 Dec 10
Net sales	EUR '000	66,492	60,218	231,226	152,163
Operating profit (loss)	EUR '000	14,932	14,326	30,899	25,456
Operating profit (loss) percentage		22.5 %	23.8 %	13.4 %	16.7 %
Profit (loss) before tax	EUR '000	3,889	6,282	(6,964)	(2,722)
Profit (loss) for the period	EUR '000	3,728	(884)	(5,216)	(7,734)
Return on equity		1.2 %	-0.2 %	-1.5 %	-2.0 %
Equity-to-assets ratio		27.9 %	31.7 %	27.9 %	31.7 %
Net interest-bearing debt	EUR '000	455,657	315,002	455,657	315,002
Debt-to-equity ratio		141.3 %	81.7 %	141.3 %	81.7 %
Return on investment		1.9 %	0.9 %	4.0 %	2.8 %
Capital expenditure	EUR '000	21,583	23,475	79,144	115,658
Research & development expenditure	EUR '000	-	365	-	365
Property, plant and equipment	EUR '000	761,985	728,226	761,985	728,226
Derivative financial instruments	EUR '000	(5)	(1,237)	(5)	(1,237)
Borrowings	EUR '000	495,676	480,557	495,676	480,557
Cash and cash equivalents at the					
end of the period	EUR '000	40,019	165,555	40,019	165,555



Share-related key figures					
Share-related key lightes		Three	Three	Twelve	Twelve
		months to	months to	months to	months to
		31 Dec 11	31 Dec 10	31 Dec 11	31 Dec 10
Earnings per share	EUR	0.01	(0.01)	(0.04)	(0.04)
Equity per share	EUR	1.25	1.50	1.25	1.50
Development of share price at					
London Stock Exchange					
Average trading price <sup>1</sup>	EUR	2.57	6.27	4.22	4.89
	GBP	2.20	5.39	3.66	4.20
Lowest trading price <sup>1</sup>	EUR	2.28	5.70	2.25	3.99
	GBP	1.95	4.90	1.95	3.42
Highest trading price <sup>1</sup>	EUR	2.98	7.10	7.17	7.11
0	GBP	2.55	6.10	6.22	6.10
Trading price at the end of the					
period <sup>2</sup>	EUR	2.39	6.92	2.39	6.92
	GBP	2.00	5.96	2.00	5.96
Change during the period		-20.6 %	21.1 %	-66.4 %	54.2 %
Price-earnings ratio		463.2	neg.	neg.	neg.
Market capitalization at the end					
of the period <sup>3</sup>	EUR '000	588,487	1,697,196	588,487	1,697,196
	GBP '000	491,564	1,460,861	491,564	1,460,861
Development in trading volume					
<u> </u>	1000				
Trading volume	shares	25,743	16,728	67,799	93,802
In relation to weighted average number of shares		10.5 %	6.8 %	27.6 %	38.2 %
Development of share price at		10.5 %	0.0 70	27.0 %	30.2 70
OMX Helsinki					
Average trading price	EUR	2.55	6.35	4.33	5.18
Lowest trading price	EUR	2.27	5.65	2.27	3.99
Highest trading price	EUR	2.98	7.18	7.34	7.18
Trading price at the end	LOIX	2.00	7.10	7.01	7.10
of the period	EUR	2.49	7.07	2.49	7.07
Change during the period		-16.2 %	24.5 %	-64.8 %	63.3 %
Price-earnings ratio		459.3	neg.	neg.	neg.
Market capitalization at the end	EUR	100.0	nog.	nog.	nog.
of the period	'000	612,488	1,734,389	612,488	1,734,389
Development in trading volume					
	1000				
Trading volume	shares	73,918	42,665	190,901	140,115
In relation to weighted average					
number of shares		30.1 %	17.4 %	77.7 %	57.1 %
Adjusted average		0.45 004 004			0.45 0.44 0.00
number of shares		245,601,204	245,241,660	245,601,204	245,241,660
Fully diluted average		244 407 204	244 127 660	244 407 204	244 127 660
number of shares Number of shares at the end		244,497,204	244,137,660	244,497,204	244,137,000
of the period		245 781 803	245,316,718	245 781 803	245 316 718
		, 0 .,000	,	,. 0 .,000	,,

1) Trading price is calculated on the average of EUR/GBP exchange rates published by the European Central Bank during the period.

2) Trading price is calculated on the EUR/GBP exchange rate published by the European Central Bank at the end of the period.3) Market capitalization is calculated on the EUR/GBP exchange rate published by the European Central Bank at the end of the period.

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Employee-related key figures		Three months to 31 Dec 11		Twelve months to 31 Dec 11	
Wages and salaries	EUR '000	5,385	4,443	21,574	16,652
Average number of employees Number of employees at the end		451	381	445	362
of the period		461	389	461	389

## Other figures

Other figures	Three months to 31 Dec 11	Three months to 31 Dec 10		Twelve months to 31 Dec 10
Share options outstanding at the end of the period Number of shares to be issued against	6,501,151	5,950,822	6,501,151	5,950,822
the outstanding share options	6,501,151	5,950,822	6,501,151	5,950,822
Rights to vote of shares to be issued against the outstanding share options	2.6 %	2.4 %	2.6 %	2.4 %

## Talvivaara Mining Company Plc

## Key financial figures of the Group

Return on equity	Profit (loss) for the period
	(Total equity at the beginning of period + Total equity at the end of period)/2
Equity-to-assets ratio	Total equity
	Total assets
Net interest-bearing debt	Interest-bearing debt - Cash and cash equivalent
Debt-to-equity ratio	Net interest-bearing debt
	Total equity
Return on investment	Profit (loss) for the period + Finance cost
	(Total equity at the beginning of period + Total equity at the end of period)/2 + (Borrowings at the beginning of period + Borrowings at the end of period)/2
Share-related key figures	
Earnings per share	Profit (loss) attributable to equity holders of the Company
	Adjusted average number of shares
Equity per share	Equity attributable to equity holders of the Company
	Adjusted average number of shares
Price-earnings ratio	Trading price at the end of the period
	Earnings per share
Market capitalization at the end of the period	Number of shares at the end of the period * trading price at the end of the period