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# Consolidated Key Figures

		97/98	98/99	99/00	00/01	01/02
Copper price LME settlement (avera	age) US\$/t	1,747	1,526	1,787	1,684	1,525
Results						
Turnover	mill.€	1,197	1,135	1,897	2,010	1,920
EBT*	mill.€	78	49	65	54	36
EBT	mill.€	78	49	69	57	38
EBIT	mill.€	73	49	74	65	50
EBITDA	mill.€	98	72	107	111	103
Annual surplus	mill.€	30	24	41	42	20
DVFA/SG cash flow**	mill.€	62	49	78	86	72
Balance sheet						
Total assets	mill.€	483	462	691	709	825
Fixed assets	mill.€	114	146	237	259	340
Capital expenditure***	mill.€	42	57	79	69	45
Depreciation	mill.€	25	23	33	47	54
Net equity						
(incl. unappropriated profit)	mill.€	233	233	250	271	268
NA shares						
Market capitalisation						
at fiscal year-end	mill.€	360	320	378	396	353
Earnings per share*	€	0.95	0.75	1.20	1.26	0.58
DVFA/SG earnings per share**	€	0.96	0.82	1.26	0.88	0.62
Price/earnings ratio as at 30.9.		11.9	13.4	9.8	9.8	18.8
Dividend per share	€	0.77	0.72	0.75	0.75	0.65
Human resources						
Number of employees (average)		2,303	2,190	3,154	3,195	3,612
Personnel expenses	mill.€	115	110	150	168	191
Production						
Cathodes****	1,000 t	364	366	503	540	554
Continuous cast wire rod****	1,000 t	320	277	382	347	285
Continuous cast shapes	1,000 t	176	149	197	204	203
Gold	t	15	17	20	23	28
Silver	t	266	372	483	680	727
	-					
* Mithaut minarity interacts						

<sup>\*</sup> Without minority interests

 $<sup>^{**} \ \</sup>text{As per the German Society of Investment Analysts and Asset Managers/Schmalenbach Gesellschaft}$ 

 $<sup>\</sup>ensuremath{^{***}}$  Without changes in the circle of consolidated companies

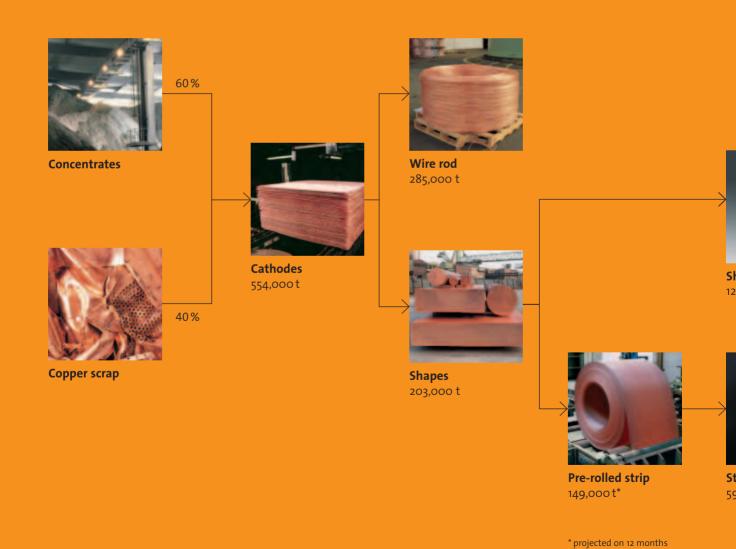
<sup>\*\*\*\*</sup> Including Hüttenwerke Kayser (HK) and HK's share of Deutsche Giessdraht since 1 January 2000 respectively

# NA's Value Added Chain

Mines and secondary markets

**Copper production** 

**Copper processing** 



Processors and end users



naped wires ,000 t\*



:**rips** ),000 t\*

# Company profile

The NA Group is the largest copper producer in Europe and as well the largest copper recycler worldwide. It produces about 800,000 tonnes of copper and copper products annually and with about 3,500 employees is one of the leading copper producers worldwide. The core business is the production of copper cathodes from copper concentrates, copper scrap and recycling materials. These are then processed into continuous cast wire rod and shapes, rolled products and copper alloys. Precious metals are likewise an important product sector. Further speciality products produced and marketed by the NA Group are copper chemicals as well as all the major natural by-elements from copper production. These are processed, for example, into sulphuric acid and iron silicate stone. Our customers include companies in the copper semis industry, the electrical engineering, electronics and chemical industries as well as suppliers of the construction and automotive industries. The NA Group is oriented to growth and increasing enterprise value: our strategy focuses on strengthening the existing business and the utilisation of growth options in copper processing. NA is a member of the MDAX and thus is listed in the DAX 100.

Dear Shareholders, dear Friends of NA,

After careful preparations we dared to go public in July 1998 although the time was not favourable for companies like Norddeutsche Affinerie. New Economy shares were mainly in strong demand. Now, after more than four years, we can proudly say: We have held up well! Nevertheless we find the developments in the New Economy regrettable since our economy lives from the momentum of new business and innovations. We urgently need to regain the investors' confidence in the stock markets and therefore emphatically endorse the introduction of the German Corporate Governance Code.

Firmly anchored in the capital market, we as the largest copper producer in Europe are also a global leader in the industry. We owe this success above all to the creativity and dedication of our staff. They are the substance of the company. Each of us is part of the whole and feels responsible for his task. This provides the basis for our high performance and maintaining our competitiveness. And is why we are quite consciously making "us" the motto of our current Annual Report. The photos in this report were taken by the employees and reflect moments in a working day in the NA Group. We would like you to share these with us.

Yours sincerely Werner Marnette

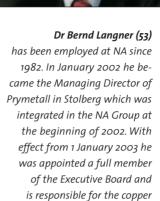




### Dr Werner Marnette (57)

began his career at NA in 1978. He has been a full member of the Executive Board since 1992 and the Chief Executive Officer since 1994. In addition, he was the President of the Wirtschaftsvereinigung Metalle (Federation of the Metal Industry in Germany) from 1998 to 2002 and became the Chairman of the BDI Energy Committee in 2001. He was also elected Chairman of the Hamburg Federation of Industry in 2001.







# Dialogue with the Executive Board

Dr Marnette, when you assess the last fiscal year, what were the most important events?

**Dr Marnette:** The economic environment was very difficult. Taking that into account, NA again achieved a very good result. We stayed on track and successfully continued our strategy in the year 2002. In doing so, we could again enhance performance and reduce costs. NA initiated a whole bundle of measures. These included the integration of the Stolberg

We are concentrating on the copper business and have therefore optimised our investment portfolio.

companies Prymetall/Schwermetall in the NA Group, the commissioning of the Kayser Recycling System in Lünen and the successful completion of the energy-saving project eNergiA in Hamburg. The stock market and our shareholders have obviously understood this very well since NA shares performed much better than the most important German share indices.

The economic prospects for the current year are viewed rather sceptically. The markets are still under great pressure nationally as well as internationally. How have you prepared for this?

**Dr Haag:** Although we did not manage to achieve the good results of the previous year, our development as regards earnings was stable. The advantageous combination of copper production and

processing in the NA Group made a substantial contribution to this. As our balance sheet shows, we are pursuing a very sound and long-term oriented financial policy. In this we are orienting ourselves towards clearly defined and demanding financial ratios. With the introduction of Value Based Management, we will not only improve our cost and income position but also increasingly turn our attention to the optimisation of the invested capital. We have also used the last twelve months to further accelerate the consolidation of the Group.

processing sector.

# What does that mean concretely?

**Dr Marnette:** We are concentrating on the copper business and have therefore optimised our investment portfolio. For this reason we sold our subsidiary MicroMet in April 2002 and initially 80% of our stake in Spiess-Urania Chemicals at the end of the year. We are optimally positioned in the value added chain of copper. Our strength is to be found in our complete orientation to customers and markets. Together we will keep NA on a safe course.

# Is this why you have enlarged the Executive Board?

**Dr Marnette:** Since 1 January 2003 Dr Bernd Langner has been strengthening the Executive Board. Dr Langner is responsible for the segment Copper Processing. In this capacity he will also in future continue as Managing Director of Prymetall. Consequently, we are taking account of the expansion of our copper business and at the same time securing the close tie between parent company and Prymetall.



Dr Toralf Haag (36)
has held managerial positions in the Thyssen Group since 1994. A graduate in business studies, he has been a member of NA's Executive Board since January 2002 when he became the company's Chief Financial Officer.





Dr Michael Landau (52)
has been employed at Norddeutsche
Affinerie since 1981. In March 1998 he
was appointed a member of the
Executive Board, responsible for the
operational side.



Dr Langner, in the course of copper processing NA is also venturing into its customers' line of business due to the acquisition of Prymetall. Doesn't this represent potential conflict?

**Dr Langner:** No, on the contrary. We are not forcing ourselves on to the market with all our might but are developing Prymetall into a service-oriented specialist of high-quality copper flat products. Besides, NA's selective forward integration provides our customers

We are noted for consistently high quality, a wide range of services and competitive prices.

with substantial advantages. In every value added stage NA can offer its customers products which are exactly trimmed to their individual needs and applications. We are noted for consistently high quality, a wide range of services and competitive prices. Nothing will change in this.

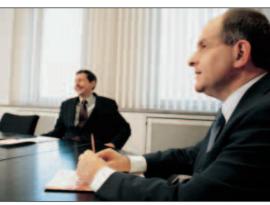
Copper concentrates and recycling materials, such as copper scrap, are the most important source of raw materials for the NA Group. However, on the market for copper scrap especially, there was a dramatic shortage in 2002. How did you react to this?

**Dr Landau:** This market situation has shown how important the merger of NA and Hüttenwerke Kayser was. Because together we can focus on the raw material markets much more effectively. In addition, we are making ourselves more independent of the market for copper scrap and are concentrating on copper bearing and precious metal bearing recycling materials which have a higher margin. The new smelting process, the Kayser Recycling System at Hüttenwerke Kayser in Lünen, is targeting just this raw material group.

What is new about it and what advantages are actually involved?

**Dr Landau:** The start of operation in February 2002 resulted in a basic change in the treatment processes in Lünen. This innovative process with state-of-theart technology will set new benchmarks in environmental protection and energy efficiency.







# How will NA's further growth and investment activities look?

Dr Marnette: In the medium term we shall initially pursue internal growth by utilising and increasing the existing capacities as well as our high technological know how. However, in the course of globalisation we must not lose sight of the important markets, such as Asia and North America. Here, we must in particular find suitable projects or partners in order to become more active in these markets.

NA has a sound balance sheet and stable cash flow in order to fund future investments.

You are therefore thinking about a project outside Europe?

Dr Marnette: Yes, we are doing that although the European market will also grow in future and we will have our share of that. We are currently planning a cooperation with one of the largest copper producers in China. The aim: we supply the know how for the operational business and, above all, environmental protection technology. In return we

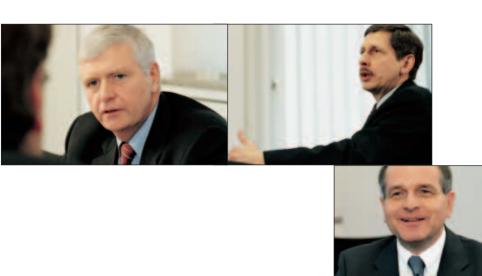
see production there as an option. We want at all events to use the opportunities offered in this growth market of the future However, we shall implement the necessary steps for this cautiously and, above all, with vision.

After the latest acquisitions and capital expenditure – how do you want to fund further growth? Perhaps by a capital increase?

**Dr Haag:** A capital increase is not planned and also not necessary even though we have already received the necessary approvals at the Annual General Meeting. NA has a sound balance sheet and stable cash flow in order to fund future investments. For us, growth in terms of pure quantity or size is generally not the main goal.

Keyword ecotax. What is your view? And how are you adjusting to this additional burden?

**Dr Marnette:** I would first of all like to make one point clear. NA is an energy-intensive company; but this has nothing to do with wasting energy. On the contrary, all our processes and facilities are exceedingly energy-efficient and at the same time protect the environment. We are constantly working on improving this still further, although we are already global leaders in environmental protection. From NA's point of view the ecotax is economically and ecologically counterproductive and has missed the targeted effect.





Dr Landau: NA is exemplary in the saving of natural resources. Thus we have been able to reduce specific energy consumption by more than 20% as part of our project eNergiA which has been running for some years. We are implementing this programme throughout the whole Group. In addition, a current example of saving resources is our highly modern river water treatment installation NAqua which has enabled us to reduce our consumption of potable water by 65%. eNergiA and NAqua show what innovative strength and a true engineering spirit can achieve.

# What do you expect from a modern energy policy?

**Dr Marnette:** The energy policy is an integral part of regional government policy. It must ensure that energy can be planned in the long term and is available at competitive conditions. Any uncertainty and cost increase, i.e. due to politically motivated additional costs, makes our position in international competition more difficult.

# Can the utilisation of regenerative energy sources produce relief in future?

**Dr Marnette:** Regenerative energy can only supplement the classic energy sources. Even if we basically advocate it, government policy must create reliable outline conditions in line with the market on a national and European level. The promotion of

A current example of saving resources is our highly modern river water treatment installation NAqua.

regenerative energy must be oriented to the basic principles of efficiency and competitiveness. It should not be achieved by cross-subsidies at the expense of third parties.

# How do you see NA's future?

Dr Marnette: Copper will remain an irreplaceable key element in numerous applications. Demand is high. The combination of copper production and copper recycling as well as the processing into copper products and innovative special solutions makes the NA Group unique. A widely spread customer structure just as our well qualified employees are further advantages. We are therefore optimally prepared for the next economic upswing.





Ideals give information about corporate culture. They also answer questions about the values that govern combined actions. We at NA feel particularly committed to "Sustainable Development". The approach of Sustainable Development is also the basis of the programme "Responsible Care" – a voluntary initiative of the chemical industry that likewise makes a contribution to future-compatible development.

The NA Group is one of the leading copper producers worldwide. Due to its outstanding properties copper is indispensable in modern life. The material paves the way for economic growth and innovation. At the same time the metal ideally fulfils the prerequisites for sustainability. Because copper can be recycled as often as desired and without any loss of quality and then returned again to the economic cycle. Copper recycling therefore means the saving of resources. As the largest copper recycler worldwide the NA Group makes a decisive contribution to this. In doing so, it holds a leading position internationally in environmental protection.





For NA as a whole, sustainability is much more than just a pure environmental topic and thus not limited to ecological matters. It includes occupational safety and health care just as high product quality and well-defined customer orientation. In addition, we use the entire spectrum of possibilities for economic and political influence in order to make our contribution to Sustainable Development. We understand sustainability as an integrated strategic concept. Accordingly, it is important to reconcile the apparent opposites of economic performance, ecological compatibility and social justice. We are therefore facing up to the economic, ecological and social challenges with great ambition. The practised principle of sustainability helps us to achieve success again and again in our daily work. And in all this, one thing is important: the long-term orientation.

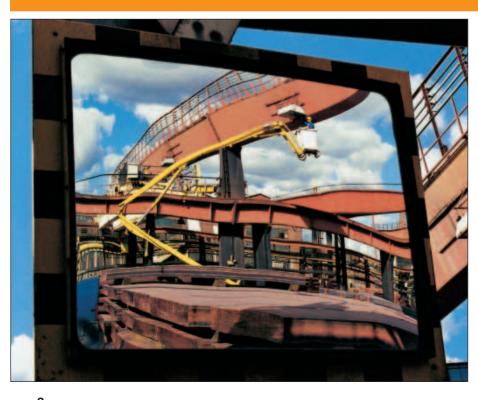
# **Demonstrating initiative**

Efficient and safe processes, individual solutions and innovative products, committed and responsible employees as well as social commitment. Sustainability, as we understand it, can be best described in these terms. We commit ourselves to the handling of all resources in accordance with the principle of sustainability. That also means that we regularly put our decisions and measures to the test. Against this

background sustainability is a constant seeking and learning process which leads to noticeable changes.

By elaborating on concrete and new concepts we want to actively assist in forming the political decision-making process as regards sustainability at an early stage. With the knowledge and experience we have gathered over decades we can make a valuable contribution here.

The principle of Sustainable Development lives from the support of all social groups. In order, however, to be able to implement it successfully, additional dependable political outline conditions and thus reliability in planning are necessary. Future challenges cannot only be met with limit values, bans and fiscal sanctions. The indispensable prerequisite is a government policy which understands the necessity of offering enough room for voluntary initiatives and individual answers. Only in this way can competitiveness – which represents the foundation of all aspects of sustainable and economical development – be ensured in the long term. We are campaigning for this and committing ourselves in many respects, also through voluntary undertakings and agreements. Far in excess of just maintaining statutory demands and requirements, our approach reflects our own initiative. Thus, as part of our eNergiA



project we have achieved a specific energy saving totalling 20 %: a further contribution to the sustained conservation of resources. With the highly modern river water treatment installation NAqua, which we commissioned in autumn 2002, we are saving about 65% of our Hamburg site's water requirement from the public network. Our investments in the high Group-wide environmental and social standards are also economically worthwhile. As a result we stand out from our competitors due to our process and product innovations. In addition, the employees' motivation, but especially how they identify with their company, is strengthened. But what is also clear: only the economic success of the NA Group enables us to implement ecological and social measures.

# We are all in the same boat

The targets of Sustainable Development are elementary parts of our corporate philosophy. The basis for the success of all our corporate sectors is formed by our competent and committed employees. With their knowledge and creativity we manage again and again to play a pioneer role. We promote this environment. Thus, the attractive NA profit-sharing model combines performance orientation with a

success-related remuneration system and the possibility of employee share ownership. As a result our employees benefit from the company's success. In this the team spirit is the focal point. Because large targets can only be achieved together. This accounts for why each employee's personality and manpower is so important. And also why the training of young people is given special priority at NA.

### We talk about it

Transparency and frankness are part of our understanding of Sustainable Development. The works is regularly opened for groups of visitors from all walks of life. For us our active information policy is a central theme spotlighting reliability and credibility.

Our commitment reflects the conviction that all these measures contribute to increasing enterprise value in the long term. As a result we create not only an economic, but also an ecological and social added value. That makes NA a reliable investment for its shareholders as well as for potential investors.





# Corporate Governance

The German Corporate Governance Code was drawn up by a Government Commission appointed by the German Ministry of Justice and was presented on 26 February 2002. The Code is based on the law currently applicable in Germany and contains internationally and nationally recognised standards for good and responsible corporate governance. The provisions are aimed first of all at exchange-listed companies and provide Executive Boards and Supervisory Boards with a code of behaviour as regards the contents. By applying the Code the company becomes more transparent for investors, customers, employees and the general public.

# **Statement of Policy**

At the Supervisory Board Meeting on 12 September 2002 the Executive and Supervisory Boards approved a joint statement of policy:

"NA has committed itself to responsible, transparent corporate management and control, oriented to increasing enterprise value. Our aim is to strengthen the confidence of our national and international investors, business partners and employees as well as the general public in the governance of the Group.

We understand Corporate Governance as a continuous process to improve management and control in the light of new experiences and regulations as well as further developing national and international standards.

We therefore welcome the German Corporate Governance Code. We already fulfil its principles to a great extent and wish to comply with its recommendations as far as possible. Inasmuch as this is not, or not yet, the case for specific reasons, we shall elaborate on this in the statutory declarations of compliance."

At the same meeting it was resolved to form an Audit Committee with equal representation and an ad-hoc committee to work out proposals for a change in the compensation of Supervisory Board members.

At the Supervisory Board Meeting on 5 December 2002 new Rules of Procedure for the Supervisory Board, the Audit Committee and the Executive Board were resolved. The Executive and Supervisory Boards approved the first joint Declaration of Conformity in accordance with Section 161 Companies Act. With four well-founded exceptions the Company complied with the recommendations of the German Corporate Governance Code in the version dated 26 February 2002. In a further joint Declaration of Conformity dated 29 January 2003 the Executive and Supervisory Boards have updated the previous statement which should in future be given each year in the Annual Report.

The Executive and Supervisory Boards are aiming at continuously improving the management and control of the Company as well as the transparency beyond the recommendations made in the German Corporate Governance Code.

# Declaration of Conformity in accordance with Section 161 Companies Act

# **Declaration of Conformity in accordance with Section 161 Companies Act**

The Executive and Supervisory Boards of Norddeutsche Affinerie AG declare that the recommendations of the Government Commission on the German Corporate Governance Code in the version dated 7 November 2002, as published by the Federal Ministry of Justice in the official part of the electronic Federal Bulletin, have been and are being and should in future be complied with. The following recommendations are currently not being initially applied for the following reasons:

Section 5.4.5 § 1 sentence 3 and § 2 sentence 1 Taking into account membership in committees when specifying the compensation of Supervisory Board members; performancerelated compensation of Supervisory Board members in addition to fixed compensation The Articles of Association of the Company currently provide for fixed compensation of the members of the Supervisory Board. The Chair and Deputy Chair positions in the Supervisory Board are taken into consideration in the height of the compensation.

The Supervisory and Executive Boards have decided on a proposal to be put to the next Annual General Meeting on the setting of a new level of compensation for the Supervisory Board in compliance with the recommendations of the German Corporate Governance Code.

### Section 7.1.1 sentence 3

Preparation of the consolidated financial statements and the interim reports under observance of internationally recognised accounting principles

The company will prepare for the first time the consolidated financial statements as at 30 September 2003 and then the subsequent interim reports under observance of internationally recognised accounting principles.

# Section 7.1.2 sentence 2

Having the consolidated financial statements publicly accessible within 90 days of the end of the fiscal year

The Company's fiscal year ends on 30 September. By adhering to the 90 day period the publication would take place during the public holiday period at the end of the calendar year and would receive insufficient attention (e.g. through the balance sheet press conference and analysts' conference). Publication will therefore take place within 120 days of the end of the fiscal year.

The interim reports are publicly accessible within 45 days of the end of the respective period under review.

Hamburg, 29 January 2003

The Executive Board

The Supervisory Board

Dr Werner Marnette (Chairman)

Dr Ernst J. Wortberg (Chairman)

# **NA Shares**

The fiscal year 2001/2002 reflected the overall weak stock market trend that resulted from the discovery of the manipulation of the financial statements of major US American companies as well as the lack of signs of recovery in corporate earnings. This led to a fundamental crisis of confidence on the German and international stock markets.

Since 1 October 2001 the NA share price rose steadily and developed well in the months before the Annual General Meeting despite the difficult environment. On 3 April 2002, the day before the AGM, it closed at 15.40 €, the highest closing price since the IPO. As expected, the day after our AGM the price on the stock exchange was impacted by the dividend payment of 0.75 €

excluding and 1.07 € including the tax credit for residents in Germany, which was paid in 2002 for the last time.

The economic weakness and lack of confidence in the stock markets also had an adverse impact on the development of the NA shares in the following months. In September 2002 the downward trend of the DAX could hardly be stopped. As time went on, it reached a mark of just under 2,500 points. A similar development affected almost all the important European share indices. They suffered two-figure percentage losses. Under these outline conditions the NA share price dropped to 10.80 € by the end of the fiscal year as at 30 September 2002. The closing price rose in January 2003 to just over the 11 € mark.

In the period from October 2001 to September 2002 NA shares outperformed the DAX by almost 30%. The MDAX fell short of the trend in NA shares in the same period by about 20%.

### High free float of 72%

At 72% NA's free float continues to be considerable. This has become more important particularly for the German stock market's index weighting since only the free float is taken into account when calculating the market capitalisation. A census of the shareholder structure conducted in March 2002 has shown that the free float is divided into some 48% of private investors and about 24% of institutional investors as regards sociological stratification. Of the 72% roughly

# Development of the NA share price



# Performance of NA shares compared with the MDAX and DAX



8% of the shares are in international mutual funds issued, for instance, in North America or Great Britain.

Possehl Beteiligungsverwaltung GmbH still owns 10%. Dresdner Bank AG has held its block of 8% now for several years. With effect from 8 October 2002 the Hamburgische Landesbank took over the shares previously held by the U.S. American shareholder OM Group Inc. and thus holds just under 10% of NA shares.

### Dividend still at a good level

NA is determinedly continuing its stable dividend policy. We know that NA shares are appreciated as high dividend yield stock by the shareholders. Thus, in accordance with the target set at the IPO, we shall pay about 70% of the annual surplus to our shareholders. On 26 March 2003 the Executive and Supervisory Boards will recommend the payment of a dividend in the amount of o.65 € at the AGM. This corresponds to a payout ratio of 68%. Related to the NA share price as at 30 September 2002, the resulting dividend yield amounts to 6%. Despite the slight reduction compared to the previous year, the dividend represents a good yield in a significantly weaker economic environment. The planned allocation to the revenue reserves amounting to 10.2 million € (previous year: 15.3 million €) contributes to strengthening the capital basis of the NA Group.

# **Investor Relations**

The NA Group attaches great importance to investors relations. We cultivate communication with the capital market and use various instruments to achieve this. Analyst conferences, personal discussions with investors, conference calls, the participation in investment conferences as well as national and international road-shows represent our basis for exchanging information. During our road-shows, especially in North America, we met with great interest in NA shares. The investors there are also focusing more strongly on companies with sustainable

substance that pay an attractive dividend. In addition, we visited our investors and potential shareholders in London, Zurich and Paris as well as, of course, Hamburg, Frankfurt and Munich with a view to explaining our corporate strategy in detail.

# New segmentation of the German equity market

Since 19 March 2001 NA has been listed in the MDAX and continues to fulfil the criteria as regards market capitalisation and trading volume. For the year 2003 Deutsche Börse plans to restructure the segmentation of the equity market. In December 2002 NA applied for admission to the Prime Standard. This has already been approved. The criteria for this are, in particular, the issuing of quarterly reports, the holding of at least one analyst conference annually as well as providing all publications in the English language. NA has been fulfilling these criteria already for a long time. In addition, reporting must be carried out in accordance with International Accounting Standards. We shall be changing over to the IAS at the end of the current fiscal year.

# Visit our new website

A very extensive project was the rebuilding of our NA website. At the beginning of 2003 it will go online. A clear division into the four sectors: Group, Raw Materials/Products, Investor Relations and Public Relations, on the homepage should put visitors to our new website in the right direction to find sectors of interest. Overall these four main menu buttons have more than 40 sub-sections. The aim is to provide information

### Shareholder structure

Possehl Beteiligungs- verwaltung GmbH	10%
Hamburgische Landesbank	10%
Dresdner Bank AG	8%
Private investors	48%
Institutional investors	24%

www.na-ag.com



on NA round the clock. The investor relations sector, in particular, is now more extensive and detailed. Here we have included new topics such as Corporate Governance.

### Very well attended AGM

Some 3,500 visitors attended our Annual General Meeting on 4 April 2002, which was again held in the Hamburg Congress Centrum. In our annual film for the AGM we informed our visitors about events at NA over the past months. The following presentation given by the Chief Executive Officer, Dr Werner Marnette, on the copper market, the trend in business and the strategy was complemented by two live connections to Hüttenwerke Kayser in Lünen as well as Schwermetall in Stolberg. Our shareholders could experience production there at first hand and thus also appreciate NA's repositioning in the value added chain of copper.

# Dialogue with the shareholders

In addition to keeping institutional investors extensively informed, we attach great importance to our private investors. It is important to us that our shareholders can see for themselves more about the attractiveness and the future development of their NA. Therefore, last summer, for meanwhile the fourth year in succession, we held our open days for shareholders entitled "Dialogue with the shareholders". At these events we answer shareholders' questions in the "Alte Schlosserei" (the renovated old locksmiths shop at NA) – our new communication centre – and take our shareholders on a tour of the Hamburg works. In this year alone we held six open days attended by some 1,500 shareholders.

# **Employee share ownership well received**

An important component of NA's success is the motivation of its own employees. Due to their willingness to give of their best, we were able to successfully achieve our targets. Accordingly, NA's employees participated again this year in the company's achievements on account of the good business results of the previous year. Thus, in May a profit-sharing bonus was again paid in accordance with our performance-oriented and success-related remuneration system. One third of the employees took advantage of the offer to use their bonus to acquire NA shares at a discount and have the shares, which cannot be resold for two and a half years, deposited in their accounts.

More than 94% of the senior staff participated in the fifth tranche of NA's stock option plan, which was launched at the time of the IPO and, in doing so, once again documented their confidence in the company's earning power and strength.

At the beginning of April 2002, the second tranche could be converted since NA shares had outperformed the CDAX. The participants have accordingly been able to exchange their convertible bonds into 350,000 new NA shares after three years.

### Award for the Annual Report 2000/2001

In the last two years we were especially pleased about winning the Capital Investor Relations Competition of the business magazine "Capital". In August 2002 we additionally distinguished ourselves by winning the ARC Award for our Annual Report 2000/2001 in the largest Annual Report Competition worldwide run by the Academy of Arts and Sciences/MerComm in New York. NA attaches great importance to open, efficient and transparent communication with all participants in the capital market. The number of awards we have won shows that we are on the right track.

# Key figures of NA Shares

	98/99	99/00	00/01	01/02
Closing price in Frankfurt as at fiscal				
year-end in €	10.00	11.80	12.25	10.80
Year high (close) in €	11.95	12.45	15.00	15.50
Year low (close) in €	8.68	9.50	10.50	9.00
Market capitalisation as at fiscal year-end in mill. €	320	378	396	353
Dividend or recommended dividend respectively in €	0.72	0.75	0.75	0.65
Payout ratio in %	92	74	61	68
Earnings per share* in €	0.75	1.20	1.26	0.58
DVFA/SG earnings per share in €	0.82	1.26	0.88	0.62
Price/earnings ratio as at fiscal year-end	13.4	9.8	9.8	18.8

<sup>\*</sup>Without minority interests

Security Identification No.
International Securities

Identification No.

(ISIN) DE 0006766504 Stock market codes Reuters: NAFG,

Bloomberg: NDA GR

Stock exchangesFrankfurt, HamburgStock market categoryMDAXIssue price12.78 €

Average trading volume

per day 40,000 shares
Number of shares 32,703,000 units



Above: Dr Werner Marnette at the "Dialogue with the shareholders" in the "Alte Schlosserei"



Left:
Gold award for the NA Annual Report. Prize-giving
at the Exhibition of Annual Reports; Achim Griesel,
Maren Schuster, Wolfgang Wietbrok, Simone Tasche
with Felizitas Peters (HGB, front row left)

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# Management Report

# Outline conditions and trends in the industry

The global trend in business activity hardly recovered during the fiscal year. Nevertheless, compared with the generally weak economic situation, the business year was very satisfactory for Norddeutsche Affinerie.

### **Economic outline conditions**

The markets worldwide have shown only very weak development. This also affected business activities in Europe, our core market.

Initially the terrorist attacks in the USA resulted internationally in a strained economic trend. This tendency was reinforced further by the political disputes in the Near and Middle East. To this the general fear of war was added, which put pressure on the crude oil and energy markets.

The gross domestic product (GDP) in the global economy only rose in 2002 by 2.8%, whilst – as in the previous year – the stable growth in China of about 7.5% could only partly compensate for the obvious economic weakness of the Western industrial countries.

The industrial countries achieved total GDP growth of 1.7%.

The US economy already recorded a rise in its GDP of approx. 2.4% in 2002 after only 0.3% in the previous year, although major corporations' balance sheet scandals and weak stock markets adversely impacted the mood.

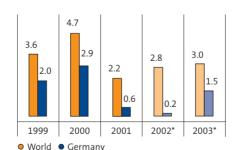
In contrast the Japanese economy had to absorb a decline in GDP for the second year in succession.

The Euro-zone achieved an increase in GDP of only 0.8% for which Germany was to a great degree responsible due to its strong weighting and growth of only 0.2%.

Even continued low interest rates did not manage to revitalise demand for capital goods or for consumer goods significantly. The latter suffered especially from the significant book losses on the stock markets, which impacted the real economy by causing reluctant consumer demand.

### Change in actual GDP

in %

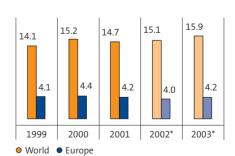


\* Forecast

Source: Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung, November 2002, Hamburgische Landesbank, December 2002

### Global copper demand

in million t



\* Forecast

Source: Brook Hunt

The investments performed by the public sector were likewise insufficient to give momentum to revitalise the economy.

Consequently, our more immediate business environment was also weak in the fiscal year.

# Trends in the industry

# Copper market

In the last fiscal year 2001/2002 the copper market reflected the weak economic trend.

Global demand for copper, which had reduced to 14.7 million tonnes in the year 2001, recovered slightly in 2002 and rose to 15.1 million tonnes. In Europe, the most important market for us, copper demand still did not recover in the year 2002. Totalling about 4 million tonnes it declined by almost 5% compared with the previous year.

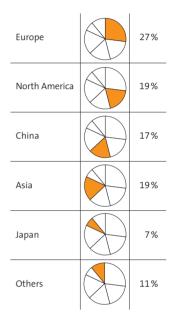
The stocks in the warehouses of the metal exchanges, London Metal Exchange (LME) and Commodity Exchange (COMEX), initially continued to rise in the year 2002. Only in the second half of our fiscal year, from early summer onwards, could a slight reduction in stocks be observed.

In view of the growing stocks on the metal exchanges, the copper quotation on the LME showed a rather untypical trend. It rose until March 2002 by more than 200 US\$ per tonne to 1,600 US\$ per tonne. As a result of the reduced stocks the price increased again at the beginning of June by approx. 100 US\$ per tonne and reached almost

1,700 US\$ per tonne. Since the forecast economic upswing did not materialise and an economic recovery is expected for 2003 at the earliest, the copper price sank again in the last quarter of the fiscal year to less than 1,500 US\$ per tonne. On average in the fiscal year copper was quoted at 1,525 US\$ per tonne.

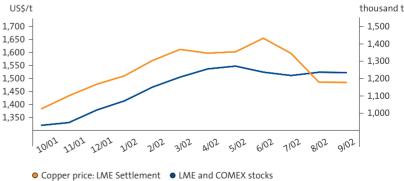
The most important raw material markets for us are the copper concentrate market and the copper scrap market. At the end of 2001 major mining companies announced cutbacks in their production of copper concentrates. In doing so, they were reacting to the reduced demand and wanted to support the copper price with this measure. However, an upshot of the production cutbacks was that supplies of copper concentrates on the international market for spot purchases ran short and the treatment and refining charges achievable by the smelters sank to an all-time low. Nevertheless, the market for long-term agreements, from which NA mainly obtains its supplies, was hardly affected by this.

# Global copper demand by regions in 2002



Source: Brook Hunt

# Copper prices and stocks (LME + COMEX)



# Outline conditions and trends in the industry

The copper scrap market presented a similar picture. Due to the restrictive export policy of some Eastern European countries, above all Russia and the Ukraine, exports of copper scrap were severely limited or completely banned in the last two years. The resultant lack of availability of copper scrap could only be partly compensated by imports from countries outside Europe. The main reasons for this are the strong demand from Asia, especially China and India, and the distortions in competition emanating from there.

In these countries the copper price is artificially kept above the level of the world market by subsidies (e.g. tariff protection). This higher price level increases the profit margin of the local smelters when selling their products to the extent that, when procuring raw materials, they can operate with very much lower treatment and refining charges than other smelters which do not have the benefit of such subsidies. In the present copper market situation this has an especially adverse impact in view of the short supply of concentrates and, above all, copper scrap.

### Sales markets

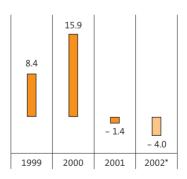
In addition to the raw material markets the sales markets likewise had a decisive impact on our business over the year. They also reflected the general weak economic trend.

The year 2002 was difficult for our main customers in the electrical engineering and electronics industry. After a turnover decline of 1.4% in the year 2001, this industry in Germany recorded further losses of some 4% in 2002. The stabilisation of the order situation expected in the second half-year did not materialise.

Production output in the German mechanical engineering and plant construction industries stagnated in 2002 at the level of the previous year. However, the rising demand from abroad could compensate for the weak domestic demand to a great extent, especially in the second half-year.

# German electrical engineering and electronics industry

Turnover change compared with the previous year in %



\* Forecast Source: ZVEI

# Highlights of the fiscal year in the NA Group

The fiscal year reflected the overall weak economic environment. Despite this, the NA Group closed the fiscal year 2001/2002 with a pre-tax profit of 38 million  $\in$  (previous year 57 million  $\in$ ). The annual surplus amounted to 20 million  $\in$  (previous year 42 million  $\in$ ). The decline resulted, in particular, from the lower profit before taxes on income as well as a high tax burden in the NA Group due to non-deductible losses at Hüttenwerke Kayser. The turnover was reduced by 4% from 2,010 million  $\in$  to 1,920 million  $\in$ , which was the result of lower unit sales of copper products and a lower copper price. The circle of consolidated companies was enlarged by Prymetall/Schwermetall effective 1 January 2002.

# Stable supply of raw materials for copper production

The raw material markets were affected, in particular, by the further decline of the copper price. With a price of 1,319 US\$/t on 7 November 2001 the quotation was at its lowest for 15 years. This long-lasting low price phase together with the flow of copper scrap into subsidised Asian markets resulted in an extreme decline in refining charges and a lack of supplies of copper scrap.

For copper concentrates the treatment and refining charges (TC/RCs) on the spot market decreased further as well. Due to its long-term supply agreements NA was affected by this development only to a limited extent. The production plants were fully utilised on account

of the increased concentrate throughput, the increased treatment of copper-bearing old European coins from the conversion to the Euro as well as optimised material flow management in the Group.

# Kayser Recycling System as the basis for repositioning Hüttenwerke Kayser

With the timely and successful commissioning of the Kayser Recycling System (KRS) in February 2002 an important step was completed in the modernisation and expansion of Hüttenwerke Kayser (HK). The newly developed process at HK contributes to enhancing competitiveness by significant cost savings. It additionally enables a wider range of raw materials to be treated.

# Consolidated turnover

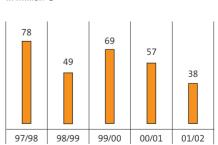
in million €

1,197 1,135 2,010 1,920

99/00

# Consolidated earnings before taxes (EBT)

in million €



Further advantages result from improved energy efficiency and the integrated environmental protection. HK with the KRS secures not only the leading position as the largest and most modern copper recycler worldwide but also sets new benchmarks in environmental protection as well as in the saving of energy and resources in copper recycling.

An all-time high in the cathode production sector was achieved with an output of more than 554,000 tonnes of cathodes.

# New products due to the integration of Prymetall/Schwermetall

The overall weak economic environment also had an impact on sales of our products. Sales on our core market declined especially for continuous cast wire rod. This affected the rod plants both in Hamburg and at Deutsche Giessdraht in Emmerich.

Sales of our specialty product TOP ROD developed well. Unit sales reached a substantially higher level than in the last few years.

Also in the continuous cast shape sector we again achieved the high unit sales level of the previous year due to our strong market position and the integration of Prymetall GmbH & Co. KG (Prymetall) together with its 50% stake in Schwermetall Halbzeugwerk GmbH & Co. KG (Schwermetall).

The utilisation of our new OF plant did not fulfil expectations owing to the trend in sales at our customers in the telecommunications and high tech markets.

The output of pre-rolled strip at Schwermetall could be stabilised at the previous year's level

despite the difficult economic environment. At Prymetall a decline in sales was recorded due to the strained sales situation in both the strip and wire sectors

Growth in the copper product sector was enhanced by the integration of Prymetall/Schwermetall in Stolberg. This is a major part of the strategy Vision NA 2000 Plus.

By processing copper flat products the NA Group is substantially increasing its downstream processing and value added. In addition, the use of the know how from the processing steps of hot and cold rolling assists in optimising the continuous casting process.

Prymetall/Schwermetall were quickly integrated in the NA Group as part of the Euro-Copper project. In parallel with this, Prymetall carried out a cost reduction and performance enhancement programme.

# **Concentration on the core business**

The sale of MicroMet GmbH Pulvertechnologie (MicroMet) effective 1 April 2002 to ECKA Granulate GmbH & Co. KG in Fürth was a continuation of the restructuring of the investment portfolio and provided a growth-oriented solution for MicroMet securing its future.

# Value-oriented corporate management at NA – Value Based Management

As a modern company NA is aiming at the maximisation of enterprise value so as to achieve a sustainable increase in the value of the company. With the introduction of Value Based Management (VBM) NA is claiming technological and cost-related leadership, also in microeconomic controlling.

The key figure "value added" denotes the aftertax profit less costs of capital. If the value added is positive, the return covers all costs including the claims customary on the market for debt/equity.

The NA-related form of VBM is being implemented as part of the dyNAmic project.

# Increase in value added and continuous improvement process

In the context of the dyNAmic project the wealth of modern thought on VBM is transferred to each company in the NA Group.

Employees at all levels of NA AG and its subsidiaries participate in the introduction of same. In joint working groups the value creating processes are defined and improvement potential is identified.

By the implementation of these ideas for improvement NA is targeting quick increases in value added.

We are implementing VBM in its entirety in order that potential for improvement is continuously being developed, also in daily business. The process is largely based on the experience and competence of all the employees in the NA Group and uses the creativity of our personnel.

# Value added serves as a basis for decisions on all levels

The substantial change in the corporate culture of the NA Group is achieved by the holistic value added approach. Not only the height of the individual revenues or expenditures is regarded but it is also measured by the impact on all enterprise parameters. For measures to be carried out, the effect on NA's income, costs and invested capital is determined and the repercussions of all relevant changes in the key figure "value added" ascertained. With this approach it

is possible to assess both the strategic level's ideas and decisions and as well to judge information on the planning of resources and the operative levels and to evaluate proposals for improvements from these sectors. The value added is thus a platform for using the competence of our employees for the sustainable further development and increase in NA's enterprise value.

With the targeted use of VBM in the NA Group we are optimally placed to meet future challenges.

# Financial standing and profitability

The NA Group continues to have a sound and balanced financial position. There is potential for future internal and external growth.

As of 1 January 2002 we integrated the new subsidiaries Prymetall and Schwermetall in the NA Group. This acquisition resulted in increased borrowings. The equity ratio amounting to 34% in the NA Group and 43% at NA AG is nevertheless very sound.

# Consolidated balance sheet structure

as at 30 September in % of the balance sheet total



# **Capital expenditure**

The NA Group continued its growth strategy Vision NA 2000 Plus with capital expenditure in the amount of about 45 million € invested in fixed assets, intangibles and financial assets without changing the circle of consolidated companies. An additional about 93 million € were added to fixed assets as a result of the acquisition and first consolidation of Prymetall. The major investment projects in the fiscal year were:

- The KRS at HK representing state-of-the-art technology for copper recycling
- The reconstruction of the hot and cold rolling mills at Schwermetall
- The construction of a new administration building and communication centre at Prymetall and Schwermetall in Stolberg
- Steps to optimise our precious metal processing in Hamburg
- Various energy-saving measures within the framework of our optimisation programme eNergiA including the highly modern river water treatment installation NAqua to save the use of potable water
- Structural extensions and the continuation of research work in our Hamburg pilot plant for the thin strip casting project
- Preparatory work in Hamburg for a migration of the standard software SAP R2 to its successor R3

Capital expenditure in the segment Copper Production amounted to 33 million € and in the segment Copper Processing to 12 million €.

# Central Services, Technical Services and Materials Procurement

The service sector Central Services, Technical Services and Materials Procurement makes a decisive contribution to achieving high plant availability. We achieve this especially by the practical training of craftsmen in NA-specific areas of operation.

All services are regularly compared with external labour as regards costs. By doing so, the cost-efficiency in providing a top performance for each individual sector is optimised. Our maintenance concept contributes to keeping and enhancing our international leading position in plant availability.

In collaboration with the subsidiaries we are currently establishing a uniform competence centre system. The aim is to optimally use the know how available at the various locations throughout the entire Group. This means that for the special professional skills there should only be one specialist Group-wide regardless of the location. In Material Procurement this step has already been implemented with HK. Thus it is important that the positive experience gained by the use of Competence Centres is transferred to the other subsidiaries as well. With the introduction of the performance-oriented remuneration system we have fixed targets for each employee in Material Procurement as regards the savings to be realised. The savings achieved have a direct impact on the remuneration of the individual employee. The target is raised each year.

The energy service sector in recent years assisted in achieving significant reductions in energy consumption.

Our latest project is the installation of an energy control room. This should help to achieve an even more efficient energy input in the NA plants. Projects to generate electricity from waste heat steam complete this concept.

The logistics department within the service sector has successfully managed in the past to reduce costs. Despite a great increase in transport services in the last few fiscal years the raw material transport costs have been significantly reduced. This is all the more noteworthy since the demands on flexibility in this sector are constantly increasing due to the growing variety of materials and products.

### Outlook

The upswing in the national, European and international economic trend which has been expected for many months has still not materialised. The forecasts for the short and medium term development, especially in Germany and Europe, are initially assuming continued weak economic growth. NA's sales markets will also be affected by this. We are therefore expecting a business trend which should be similar to that of the last fiscal year, but are reckoning with an economic upswing in the course of the year 2003.

In the segment Copper Production we expect to be fully supplied with raw materials, also in future, and will thus be able to maintain our cathode production at a high level. As in the previous year this ensures the profitability of the NA Group. In Europe we are observing a positive development in the demand for copper cathodes. This observation is supported by the start of a shortage of copper cathodes in the European market.

In the raw material processing sector work is continuing on the capacity expansion for especially attractive raw materials that achieve good profit margins. The aim is to utilise the concentrate processing capacity in Hamburg to the full and to make even better use of the advantages presented by the KRS in Lünen in the processing of complex copper raw materials.

Existing capacity bottlenecks in the precious metal production sector will be removed. The first expansion stage is taking place in the current fiscal year 2002/2003.

In the segment Copper Processing we are expecting trends to vary depending on the product group:

The production of shapes and pre-rolled strip is at the previous year's high level. In the event of an economic upswing we expect this to rise further. Our specialty products, such as oxygen-free copper, will also benefit from this to a greater degree; this applies in particular in the event of a global economic upturn.

Sales of our wire rod are mainly spread over Germany and our European neighbours and are therefore very dependent on local economic trends. The most important customer branch is the cable industry whose forecasts at present still do not indicate any growth spurt. In accordance with the annual agreements concluded to date we are assuming that we will be able to increase sales from our plants in Hamburg and Emmerich to above the previous year's level.

In this difficult to assess situation, NA is concentrating on the continuation of measures to enhance performance, reduce costs and improve its market position. In so doing, we are improving the prerequisites for optimal participation in the expected economic upswing.

# **Human Resources**

The NA Group has grown again since the integration of HK due to the acquisition of Prymetall and Schwermetall.

# Trend in personnel in the NA Group

Annual average

	00/01	01/02
NA	2,036	2,040
HK	679	655
Prymetall		333
Schwermetall*		130
Spiess-Urania	214	202
Deutsche Giessdraht	119	117
CABLO	60	52
Retorte		35
MicroMet	74	36
Peute Baustoff	13	12
Total	3,195	3,612

<sup>\*</sup>with 50% of the workforce

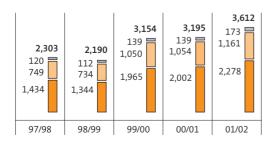
# New emphases in personnel management

The implementation of the growth strategy requires a new orientation of personnel management in the Group. We implemented the newly developed concept within the framework of the "Personnel 2000 Plus" project at the end of the fiscal year 2001/2002. Accordingly, NA AG's personnel management was decentralised and transferred into a system of personnel specialists, each responsible for a particular section in order to strengthen the support of the employees and senior staff in NA's business units and its subsidiaries. In addition, the position of Head of Personnel for the NA Group and Group-wide central functions such as personnel planning, personnel development and basic questions have been created. The heads of personnel in the NA Group meet regularly in a newly introduced management circle. Greater significance is also awarded to exchanging staff between the Group companies.

Furthermore, within the context of Group integration, the time-tested instruments of individual Group companies are successively being transferred to all sectors. This occurs above all in the sectors: the company suggestion scheme, further vocational training, occupational safety, remuneration systems and profit-sharing.

# Number of employees in the NA Group

Annual average



● Blue collar ● White collar ● Apprentices

### Increased personnel due to acquisitions

The number of employees in the Group has increased on average in the fiscal year by 417 to 3,612. This increase results from the acquisition of Prymetall including its 50% stake in Schwermetall effective 1 January 2002 as well as the first full consolidation of Retorte Ulrich Scharrer GmbH. At the end of the fiscal year there were 3,711 employees working in the Group – that is 504 more than in the previous year.

In the fiscal year the number of employees at NA AG rose only slightly on average from 2,036 to 2,040. The number of personnel at the end of the fiscal year totalled 2,053 employees (previous year: 2,060).

### Personnel structure

In the Group and at NA AG two thirds of the employees are blue collar workers. About 27% of the white collar employees are graduates; a further 13% are employed as foremen in the production and maintenance sectors.

# Employees benefit from the company's success

### **Stock Option Plan**

In February 2002 the fifth tranche of the Stock Option Plan for senior staff was issued for which more than 94% of senior staff subscribed. This percentage documents the confidence our senior staff have in the profitability of our company.

Within the framework of this Stock Option Plan the employees were issued with fixed interestbearing convertible bonds that entitle the holder to purchase new shares if NA shares outperform the CDAX within the period of about three years. The lifetime of the second tranche that was issued in 1999 ended in spring 2002. For this tranche there had been an 1.8 fold increase in the NA share price whilst the CDAX – when the reference periods were compared – only had a value of 97%. Accordingly, the participants could exercise the share options and in April 2002 they acquired a total of 350,000 shares.

# Performance-oriented, success-related remuneration system

The performance-oriented and success-related remuneration system introduced at NA AG in the fiscal year 2000/2001 has proven its worth.

Qualified and performance-oriented employees make a decisive contribution to the success and value of the company. Accordingly, the performance of the individual is linked with the performance of the team, the department or the plant.

The employees' performance (individual performance) and team performance (collective performance) complement each other and make an essential contribution to the company's success, the third component. These form the basis of our innovative remuneration system.

For employees on the tariff wage-scale the individual performance is assessed and rewarded within the framework of an annual discussion. for employees receiving above-scale remuneration on the basis of target agreements. The collective performance is determined monthly.

The individual performance and collective performance add up to the company's success which, depending on NA's results, is expressed in a three-stage payment. The last stage covers the employees' linear participation in the company's success.

Due to the good results a profit-sharing bonus could again be paid to our employees in May 2002. This bonus was combined with the possibility of acquiring company shares at a discount. Instead of a cash payment, about one third of the employees opted in favour of a 10% higher bonus in order to invest this in NA shares for at least two and a half years.

With these two programmes our employees participate directly in NA's success.

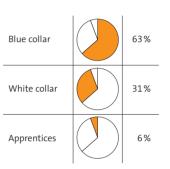
# **Vocational training and further education** are the prerequisites for growth

Importance is being increasingly attached to qualified personnel in international competition. We therefore give priority to the training and advancement of our employees. Accordingly, in the context of systematic personnel development we have significantly intensified vocational training.

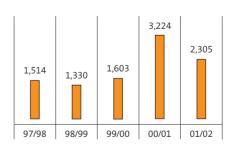
In the year under review 2,305 participants took advantage of our offers of advanced vocational training. In the previous year, only due to the one-time expenditure for training under our new remuneration system, we had a higher number with 3,224 participants. In the last fiscal year for the first time we issued a Group-wide advanced vocational training brochure. Employees from all over the Group took advantage of the specialised seminars on offer.

# Personnel Structure of NA AG

Average of the fiscal year



# Participants in training courses of NA AG



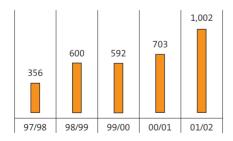
On 30 September 2002 there were 208 young persons in apprenticeships in the NA Group, of which 136 apprentices in 13 different trades and professions in Hamburg. With a percentage of 6.6% NA AG has the most extensive apprenticeship programme in the chemical industry in Hamburg. The training is handled under Groupwide viewpoints. For example, the apprentices of various Group companies attended a weeklong introductory seminar. Reciprocal visits to Group companies also belong to the apprentices' programme.

# Participation in company suggestion scheme increased again

The creativity of our personnel is an important chapter that is also documented in the company suggestion scheme. In the last fiscal year the employees of NA AG with a total of 1,002 ideas for improvement – that is 43% more than in the previous year – made their contribution to ensuring that we produce more cost-effectively, environmentally compatibly and safely. Many of the proposals focused on the eNergiA project which aims at achieving a substantial reduction in energy consumption.

# Company suggestion scheme:

Number of suggestions submitted



# Occupational safety at NA AG again at an exemplary level

Accident frequency in the last fiscal year could again be reduced. The quota is meanwhile down to twelve notifiable accidents per one million hours worked and is thus the best result to date. Consequently, NA AG is recording less than the average accident frequency in the chemical industry. Accident-related loss of working hours is also about 10 % lower.

This success can be attributed particularly to our Occupational Safety Programme. One major item of this programme was the clear emphasis on management responsibility as regards occupational safety together with extensive seminars for all management levels. In addition, a new comprehensive system was introduced to investigate accidents in order to introduce effective countermeasures. We shall implement successful steps to reduce accident frequency throughout the Group.

# **Company health care**

In the last fiscal year health circles were held again with the aim of further improving health care and occupational safety and thus of increasing the well-being of the employees at their work-places. As part of these circles the employees in the individual plants discuss matters concerning health care and occupational safety with their superiors, the works' physician, the safety officers and the works' council. Extensive improvements could be achieved as a result of the employees' participation.

Workplace-related measures to improve on-thejob health care are being offered in close collaboration with NA's Company Health Insurance Fund.

### Early retirement scheme

In the fiscal year an average of 103 employees at NA AG participated in the early retirement scheme promulgated by the chemical industry. As a result of this scheme workplaces are vacated which we can use to help young people start their working careers. In the NA Group 199 employees were on the early retirement scheme – that corresponds to 5.4% of the workforce.

# Remuneration for additional pension fund

With the collective agreement on the conversion of remuneration the tariff partners wish to promote the development of a voluntary pension fund. To achieve this, the Federal Financial Supervisory Authority approved the pension fund of the chemical industry in April 2002 as the first of its type in Germany. In several information sessions we explained to our employees the advantages of this additional retirement pension and offered them this attractive possibility to fulfil their legal right to use their remuneration for a self-contributory pension.

# Code of behaviour at NA AG

NA performs through its employees who bear the responsibility of creating the company's internal and external image. Thus, we have compiled a code of behaviour for our employees with guidelines for licit and responsible actions at NA AG. It contains the defined outline conditions under which NA pursues its targets. This code of behaviour should be not just a help to our employees, but also an obligation. We published the booklet in German only because the NA Group is located in Germany.

### **Anniversaries**

In the fiscal year 13 employees in the NA Group celebrated their 40th and 75 employees their 25th anniversary. Our thanks go to all of them for the loyalty and dedication they have shown over the years.

### **Employees shape the Annual Report**

As part of a competition NA Group employees made a significant contribution to the design of this Annual Report by permitting the photos they had taken to be used. We should like to thank them for their interest and assistance.

### **Addendum**

### Performance enhancement at Prymetall

Immediately after the acquisition of Prymetall NA initiated the integration project Euro-Copper. As part of this project a cost reduction and performance enhancement programme (TOP-PLUS) was started in spring 2002. The more than 400 measures covered process optimisation, energy saving, improvements in material flow management and product quality, but also the reduction of personnel expenses.

Thus, personnel adjustments are planned due to the high percentage of personnel expenses in the company's cost structure. These personnel adjustments should reduce the workforce of 439 employees (1 October 2002) by 86 in a socially acceptable manner.

The implementation of the TOP-Plus programme and the planned capital expenditure of almost 6 million € will ensure the future of the production site Stolberg and give Prymetall a significantly strengthened competitive position, both nationally and internationally.



# Research & Development

Our Research & Development (R&D) sector fulfils important tasks in the NA Group: it ensures that production processes, process technology and our products are constantly being improved. In addition, it is concerned with the development of new copper products and processes as well as the opening up of growth options.

We are working on a number of projects for copper production and processing because successful project work lays the foundation for innovation in all sectors.

thin strip casting and copper-based solar cells. We are planning again next year to continue our development work at a high level.

### **R&D** personnel structure

Specialists with different qualifications	60%
Scientists, engineers	28%
Technicians	12%

### **Human resources**

The core of our activities is formed by the R&D Department in Hamburg, in which the number of staff increased last year to 25. The percentage of scientists and engineers in the team amounts to 28%. The other employees are technicians (12%) and specialists with varying qualifications (60%).

We regard the training of young graduates as one of the important tasks for the future. Thus we have intensified our work with universities and technical colleges. This occurs, for instance, in the form of theses and student research projects. Accordingly, last year NA trained 16 university interns, of which two were graduands.

# **Increased development activities**

The capital expenditure for Research & Development increased in the last fiscal year to 6.9 million €. Thus, we have again intensified our development work. The focal points were the projects

# Optimise processes – increase earnings

We are focusing on new customer and environmental requirements and raw material qualities respectively. In doing so, increasingly more importance is attached to the use of modern measuring and evaluating methods to achieve better process control and enhance performance.

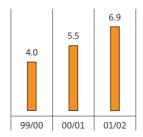
The focal point of our optimisation work is clearly to be found in the copper processing sector. Examples of our successful work are above all:

- more efficient processing of intermediary products with high gold contents
- higher purity of softened lead by an optimised refining step
- the preparation of alternative charging concepts to increase the recycling of electronic scrap

Our work for the copper processing sector has been concentrated on product development. An example of very important optimisation work in this sector is the quality improvement of tincoated strips by refining the tin melt at Prymetall.

### R&D expenditure

in million €



# New process and copper products

Important tasks are the development of new products for our customers and the introduction of new production processes in both segments. This provides the foundation for developing our business further.

The emphasis was on the development of tailor-made materials on the basis of our oxygen-free copper. Their properties such as conductivity, strength or reformability are adapted meanwhile even more to meet customer requirements. The installation of a pilot casting plant in our process engineering centre was a major step in this direction. The plant gives us the possibility of producing low-alloyed copper materials quickly and flexibly.

A further development project in the copper processing sector is thin strip casting. We have been working on the development of this extraordinarily sophisticated process for about two years and have successfully completed the first development stage. In the long duration test we were able to produce qualitatively good strip for the next fabrication processes. This result is our platform in searching for a strategic partner from the copper semis industry.

Another main research project is the development of a cost-effective and flexible CIS solar cell (Cu = Copper, In = Indium, Se = Selenium). As product advantages over today's solar cells we want to offer a lower price per kilowatt hour of electricity produced as well as lower weight and a variety of possible architectural applications. In order to achieve this, we are pursuing a favourably priced galvanic production process and are using a flexible copper foil instead of stiff

glass as the base. Although we still have some way to go before we have achieved the saleable product, we regard the current project status as a good starting position for the participation of a strategic partner in the next development step.

# **Outlook**

Today NA is a significantly grown forward integrated copper Group with the segments Copper Production and Copper Processing. The R&D activities in the Group take account of this development and modify and complement the main production themes.

In copper processing the foremost concern is process optimisation. The main points of emphasis are on increased capacity utilisation, on saving energy and resources and the environmental compatibility of the processes. The R&D sector works closely with the production plants and sees itself as their service provider.

In the segment Copper Processing R&D is even more strongly integrated in NA's product business. Consequently, we ensure that we have a market-oriented R&D which is focused on our customers' needs. The themes are the enhancement and modification of the product range, quality improvements as well as the creation of new copper products.

# **Environment and Energy**

Sustainability is an important part of our corporate philosophy. For us Sustainable Development means satisfying the needs of the current generation and at the same time ensuring that the development of future generations is not adversely affected. In our work at NA great importance is attached to environmental protection which we improved again in the last fiscal year.

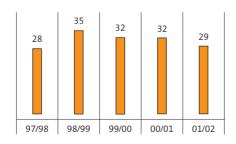
# **Copper – pure sustainability**

Copper as a metal – the most important product of the NA Group – ideally fulfils the prerequisites of sustainability. It has high chemical resistance and is an excellent electricity and heat conductor. In addition, copper can be recycled as often as required without loss of quality. The resources used for the production are not lost and are quasi stored in an "energy bank".

The in any case minimal losses in the utilisation cycle are further reduced due to technical progress in the sorting, preparation and production processes. The high value and the material's special properties thus make recycling an economic and sensible necessity. Copper as a material is equatable with other renewable resources on account of the high recycling rate. The decisive factor is that after use the copper-bearing products are passed on for recycling in great quantities in order to recover the copper again.

# Capital expenditure in environmental protection at NA AG

in % of total capital expenditure



### Sustainability

NA has consistently worked to achieve continuous improvement in environmental protection. In total, at NA AG, we have directed 29% of capital expenditure into environmental protection. This corresponds to an average of about 30% over many years. Group-wide the main investment project was the commissioning of the KRS in Lünen. Additional projects focused on measures to reduce the consumption of energy and potable water. Further measures involved a reduction in fugitive emissions and thus an improvement in ambient air quality in the immediate vicinity of the Hamburg works.

For us the increase in resource efficiency is the key to economic success and part of our future strategy for Sustainable Development. Thus, by implementing targeted measures within the framework of eNergiA we have managed to reduce specific energy consumption at NA yet again in the last four years by more than 20%. Accordingly we have made a valuable contribution to fulfilling the climate protection agreement between German industry and the German Government and thus to climate protection. In this framework the German non-ferrous metals industry has undertaken to reduce related to the year 1990 – the energy related specific CO<sub>2</sub> emissions by 22 % by the year 2005. NA AG has already fulfilled its part of this undertaking.

By participating in the Responsible Care Initiative of the chemical industry the NA Group has undertaken to act in accordance with the ideals in the sectors of environmental protection, product responsibility, occupational safety and health care, plant safety and the averting of dangers as well as logistics and the dialogue with the general public. The number of different sectors alone documents that we understand sustainability not only in terms of saving resources but also integrate it in all our actions.

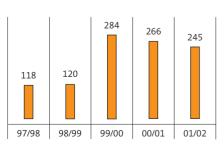
The NA Group is the largest copper recycler worldwide with a secondary copper production of about 180,000 tonnes at HK and about 65,000 tonnes at NA AG. The aim is to enhance recycling still further in order to make an additional significant contribution to Sustainable Development.

Silver, gold and platinum group metals as contained in the raw materials are fed into the production processes and extracted in a pure form. The refining of gold and silver is performed – like the production of pure copper – in an electrolytic process.

From the sulphur contained in the raw materials, NA AG produces premium sulphuric acid that is used primarily in the chemical industry. Saving resources here means that it is possible to dispense with the mining of natural sulphur for the production of sulphuric acid.

Copper produced from recycling materials in the NA Group

in thousand t



From the iron in the copper concentrates, NA produces an iron silicate stone that is a soughtafter material for hydraulic construction due to its excellent properties. It is environmentally compatible, resistant to weathering and in comparison with natural stone has a higher specific weight. The use of this by-product is also ecologically sensible because each cubic metre of iron silicate stone avoids the quarrying of about 1.4 m<sup>3</sup> of natural stone and thus the consumption of nature. Part of the iron silicate is granulated and, due to its good abrasive properties, used as a blasting agent. The close link of all production steps and the use of the latest production technology enable us to produce almost all the raw materials used in a saleable form. As a result resources are saved and material cycles closed.

# Special environmental achievements of Norddeutsche Affinerie AG

The Environmental Management System existing at NA AG was certified in February 2002 by the Rheinisch Westfälische TÜV as per DIN EN ISO 14001 and validated as per the Eco-Audit Directive. With the last step - the official examination of our existing Environment and Occupational Safety Management System by an external verifier – we are ensuring that the system works and documenting to shareholders, the general public and employees that we take our responsibility towards mankind and the environment seriously.

Environmental Statement



# **Environment and Energy**



### eNergiA

In the fiscal year 2001/2002 we could once again prove impressively that we use energy extremely effectively.

For NA energy is a decisive cost factor. As an energy-intensive enterprise we have also in the past attached particular importance to energy-efficiency. In addition, as far back as 1999 we started the Project eNergiA on our own initiative ahead of the liberalisation of the energy markets and carried it out with great success. As part of this project specific energy consumption at NA AG could up to now be reduced by more than 20%.

The realisation of the ideas presented by the employees was a focal point of our project work. Of the 350 suggestions 250 were implemented. They concern the electricity, gas and water sectors. Accordingly we have achieved the following savings:

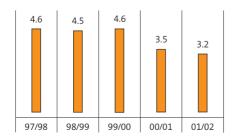
- Electricity: approx. 40 million kWh (corresponding to an annual consumption of about 17,000 households)
- Gas: approx. 20 million Nm<sup>3</sup> (corresponding to the annual consumption of about 15,000 households)
- Potable water: approx. 380,000 m<sup>3</sup> (corresponding to the annual consumption of about 3,800 households)

Some very important projects have resulted from the energy-saving programme eNergiA. An example of the wide spectrum is our state-of-the-art river water treatment installation NAqua that we commissioned in autumn 2002. With this innovation we have once again broken new technological ground.

As a result we save some 65% of our requirement of potable water from the Hamburg water network. The almost fully automatic computerised plant produces process water from the water in the River Elbe. Thus, the project NAqua supports NA's pioneer role in environmental protection and the sustainable saving of resources. In September 2002 the installation was successfully commissioned and sponsored by the City of Hamburg within the framework of the "Companies protecting resources" project.

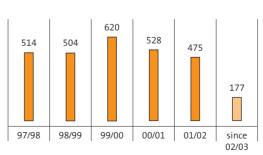
# Natural gas consumption at NA AG

in million m<sup>3</sup>/month



# Potable water consumption at NA AG

in thousand m<sup>3</sup>



A further major project is our special concept for reducing energy consumption. A major part of this concept is to produce steam from previously unused waste heat and then convert it into electricity in a turbine. NA won the CO<sub>2</sub> competition in the City of Hamburg with this concept. The target of the competition was to support special projects for the reduction of CO<sub>2</sub> emissions and to document Hamburg's pioneer role in environmental protection.

The jury consisting of representatives from the Hamburg Environmental Authorities and Industry was satisfied by the especially technical and commercial creativity of the idea. Technical implementation is scheduled for the current fiscal year 2002/2003.

Also in future we will utilise all the potential for saving energy. The economical use of energy is of significant importance for us, particularly with a view to further capacity expansions and the cost situation.

Norddeutsche Affinerie AG

Hamburg's Senator for Environmental and Health Affairs, Peter Rehaag and Dr Werner Marnette commission the NAqua installation together



### Risk Management

The corporate risks in the NA Group are diverse and represent varying risk potential. The most important individual risks are permanently observed and their impact on NA AG and the subsidiaries systematically analysed. The aim is to recognise risks early, assess them correctly and limit them to a great extent.

Risk management concerns all the corporate sectors. It is part of the Group-wide planning process that takes in not only sales and production planning but also personnel, investment and finance budgets. These plans and budgets extend over several years, are updated each year and monitored monthly. The strategic plan is examined each year with a view to its implementation and, if necessary, adapted to the changing corporate targets.

We differentiate between risks in core processes – such as procurement, production and sales – and risks in support processes. These cover transactions on the exchanges, finance, environmental protection including occupational safety and health care, human resources and the IT sector. The risks are categorised by the respective sectors as regards cause, frequency and possible loss potential as well as evaluated to the greatest possible extent qualitatively and – as far as possible – quantitatively.

NA and its active subsidiaries have documented the hazards in a risk management handbook which is available for inspection.

Risk management in the NA organisation is regarded as a company management task under the direct authority of the Chief Executive Officer.

#### **Macro-economic risks**

Risks resulting from the macro-economic trend could arise in particular due to changes in political or economic factors. On the raw material procurement side, due to the wide geographic spread of its suppliers, NA is well positioned to minimise political risks in the countries of origin of our copper raw materials. As to sales of our copper products in our core markets, Germany and Western Europe, the general economic trend has an impact on our business. Due to the strengthening of the core business of copper, the development and enhancement of close customer relations and its competitive cost position, NA is also well placed in a weak economic environment. Further incalculable factors could, however, result from new and tightened statutory directives, such as a change in the existing law on ecotax.

### **Industry-specific risks**

Copper is a base material with numerous possible applications in almost all sectors of our modern life. For the foreseeable future we do not see any substitution products that could significantly affect our business. As in the past, however, there will be developments in special segments which could replace copper in certain applications. On the other hand there will in all likelihood be new applications for copper. We are expecting copper demand in Europe to increase by about one million tonnes in the next ten years. Accordingly, we are reckoning in the long term with a stable growth trend that will promote the utilisation of our production plants and the sales of our copper products.

#### Risks from business activities

### Raw material procurement

Our supply of copper concentrates, the most important raw material for our copper production sector, is largely secured by long-term supply agreements with major mines. These basic agreements have lifetimes of between five and fourteen years. The treatment and refining charges, which are relevant for our results, are renegotiated in intervals of one to three years and represent a stabilising component for our business due to their long-term character. We procure copper scrap and other recycling materials on the volatile secondary markets, where the availability and refining charges obtainable are to some degree dependent on the copper price quoted on the metal exchanges. That means that – depending on whether the copper price is low or high – the supply declines or increases and thus the refining charges can fall or rise

respectively. Our subsidiary HK is more affected than NA in Hamburg. The KRS, a modern smelter plant in Lünen, that is currently in trial operation, will in future open up further processing possibilities and a wider range of secondary materials to be treated. Risks will be further minimised as a result of this and as well the material flow optimisation measures in the NA Group, i.e. the optimised processing of raw materials from the viewpoint of operating income.

The production plants for continuous cast wire rod and shapes are kept supplied with the copper cathodes produced in the NA Group. In the relatively unlikely event of a deficiency in the cathode production in Hamburg and Lünen at the same time, we have the alternative of purchasing cathodes on the market and on the metal exchanges.

### Production

Our core facilities operate continuously around the clock, others in a five-day week. Maintaining the plants' high availability is an important corporate target. They are continuously monitored by our own specialists and in collaboration with external specialised firms. In the event of disruptions, which can have a major impact, measures are taken in accordance with our alarm and emergency guidelines. Exercises are conducted to ensure the correct reaction in case of an emergency and test alarms. In addition, there is comprehensive fire insurance and cover for business interruption and loss of profits resulting from fire for all the production plants in the NA Group.

#### Sales

Sales of our copper products, which depending on turnover form the focal point of our sales activities, are performed directly and indirectly in different industries and supported by close ties to our customers. By concluding long-term agreements with various major customers we have assured a basic sales level for our main products, continuous cast wire rod and shapes.

Our products are well accepted by our customers. They exceed all the quality demands for continuous cast wire rod and shapes and are certified in accordance with DIN EU ISO 9001.

### Research and development

The close links between development, production, technology and our customers and suppliers form the basis for the further development of our products and production technology. In this way our plants become more efficient and product quality further improves.

Another important sector is the development of new products where we are focusing on copper materials in the form of wire rod or shapes. Here marketing and customers dictate the requirements.

We broke new ground with our thin strip casting project and the development of CIS solar cells. These development projects reflect the future potential of copper.

In all these cases our targets, schedules and development budgets are oriented to the respective projects in order to optimally monitor them and keep risks at a minimum.

#### Risks arising from financial transactions

The NA Group is the largest copper producer in Europe. Precious metals are an additional important product sector. In our international business we are confronted with risks related to metal trading and foreign exchange transactions. Thus, using various financial instruments, we perform daily hedging to limit the risks arising from metal price fluctuations, foreign exchange and changes in interest rates. We have agreements with banks regarding the utilisation of short-term and long-term credit lines. The funding of growth investment projects and acquisitions is assured.

A management circle including the Executive Board meets regularly and observes developments on the metal markets, the price situation as well as NA's liquidity position by means of differentiated information instruments and set limits.

In the notes to the financial statements under Section 11 we have detailed the open nominal volume of our derivative financial contracts and the market value of all open contracts.

At present we cannot detect any significant risks in the metal trading sector as well as in our currency and liquidity management.

### **Legal risks**

There are no pending or threatened legal proceedings, arbitration proceedings, proceedings before the Patent Court or claims for damages, which have a significant impact on the economic situation of the NA Group.

### Other risks and IT risks

The adherence to laws, directives and requirements is imperative to ensure the continued existence of the Group. Environmental protection, occupational safety and health care are important corporate targets. We achieve these targets by constantly improving environmental protection and occupational safety as well as having health screening performed by the company's own physician. Monitoring is performed by readings taken in internal and external inspections as well as audits. In the IT and communication technology sector we are contractually covered for possible breakdowns in our operative computer systems by the precautions taken by our service data processing centre. The current software is continually being adapted to fulfil the economic and legal demands placed on it.

#### **Overall risk**

The overall evaluation of the NA Group's risk situation revealed that, as a result of the last fiscal year and the implementation of the scheduled projects, there are neither risks directly jeopardising the existence of the company nor risks which due to their significant impact on the Group's assets, its financial situation and operating results might endanger the continued existence of the enterprise. The current annual report shows that the NA Group has a sound financial structure and the existing equity level permits targeted growth through capital expenditure.

The Supervisory Board of NA AG has set up an Audit Committee. In accordance with Section 5.3.2 of the German Corporate Governance Code, this Committee is also concerning itself intensively with matters of risk management.

In compliance with statutory directives, our risk management system was assessed by the auditors. The auditors determined that the Executive Board had taken the steps required under Section 91 § 2 Companies Act in a suitable manner and that the management system fulfilled the prerequisites for this.

### Outlook

NA's value added potential since the integration of Prymetall/Schwermetall stretches right into the product markets. The company's adopted growth route is currently still lacking the corresponding demand in order to utilise the production capacities to the full. The latter remains dependent on the general economic trend and the tendencies on the raw material markets.

With the successful integration of Prymetall including its 50% stake in Schwermetall NA has created and also utilised the prerequisites for selective forward integration in copper processing: we have already been successful in ensuring sales of our continuous cast products. We are expecting even more success from this undertaking as soon as the general economic situation improves.

Highly differing assessments of and opinions on the economic development of our business environment are given by the respective specialists. They do, however, agree that an imminent, strong and long-lasting growth increase cannot be expected. The reason for this is the weak growth in Germany and other key EU member states. In addition, the buying power is being shifted away from the dependent industrial nations and on to the oil and gas producing countries. This is caused by the energy price increases, especially for crude oil and natural gas. Added to this we have the uncertainties caused by the incalculable repercussions of the conflicts in the Near and Middle East.

The development of the global copper market will have a decisive impact on the procurement possibilities and the economic utilisation of our processing capacities. As before, a distinction must be made between the effects on metal scrap supplies and on concentrate supplies.

Accordingly, we are counting on the versatility and flexibility of our Group. These features have yet again increased since the acquisition of HK and Prymetall/Schwermetall and the resultant greater value added potential.

It is expected that the strained supply situation governing in 2001 and 2002 will ease from the smelters' viewpoint in the course of 2003 and possibly even lead to a concentrate surplus.

As a result the prospects for an improvement in the treatment and refining charges compared with last year are rising. There were only insufficient quantities on the spot market in 2002 and consequently treatment and refining charges (TC/RCs) reached an historical low. We were hardly affected by this due to our largely long-term supply agreements. Higher TC/RCs on the spot market will probably also have a positive impact on the long term market for copper concentrates, from which we traditionally cover 80 - 90% of our concentrate needs to ensure sufficient supplies.

With almost unchanged high cathode stocks at the exchanges totalling about 1.2 million tonnes, it cannot be ruled out that major copper mines will cut back their available concentrate quantities further in order to support the copper price. This could inter alia have an adverse impact on the availability of free concentrates and thus also on the TC/RCs to be agreed upon.

Generally similar price and quantity mechanisms apply for copper scrap. However, they are intensified still further by the special European market conditions. The imports from Russia and the Ukraine are missing here and competition on the procurement markets is tough, such as that from the state subsidised scrap smelters in China and India. We have, however, strengthened our network of agencies on the copper scrap markets and are successfully enhancing our contacts to secondary material suppliers, even under the current difficult market conditions.

With more experience in the operation of the innovative KRS in Lünen, we shall optimise the utilisation of the plant and be able to act with greater independence of the classic copper scrap markets. When and to what extent the copper scrap market will change again to our advantage is difficult to forecast. A positive change in the market situation can hardly be expected as long as the copper price stays at a low level.

The economic trend in our customers' industries is significant for the sales success in our wire rod and shapes sectors. As a result of our acquisition of Prymetall/Schwermetall we have become part of the customer industries ourselves for continuous cast shapes.

We are well positioned for an economic upswing and could react immediately by stepping up our production.

### **Future capital expenditure**

The NA Group is resolutely pursuing its growth strategy Vision NA 2000 Plus. This includes capital expenditure in fixed and financial assets. In the current fiscal year we intend to invest about 55 million € in fixed assets Group-wide.

The NA Group will continue to invest in the segments Copper Production and Copper Processing in future as well. In the current fiscal year important projects are primarily the expansion of the precious metal activities, further optimisation measures within the framework of our energy saving project eNergiA and measures to increase enterprise value in the context of the VBM project dyNAmic.

NA will further enhance its globally leading position in environmental protection. In the secondary smelter we will invest about 6 million € for additional secondary hood systems and filter plants in order to reduce fugitive emissions still further.

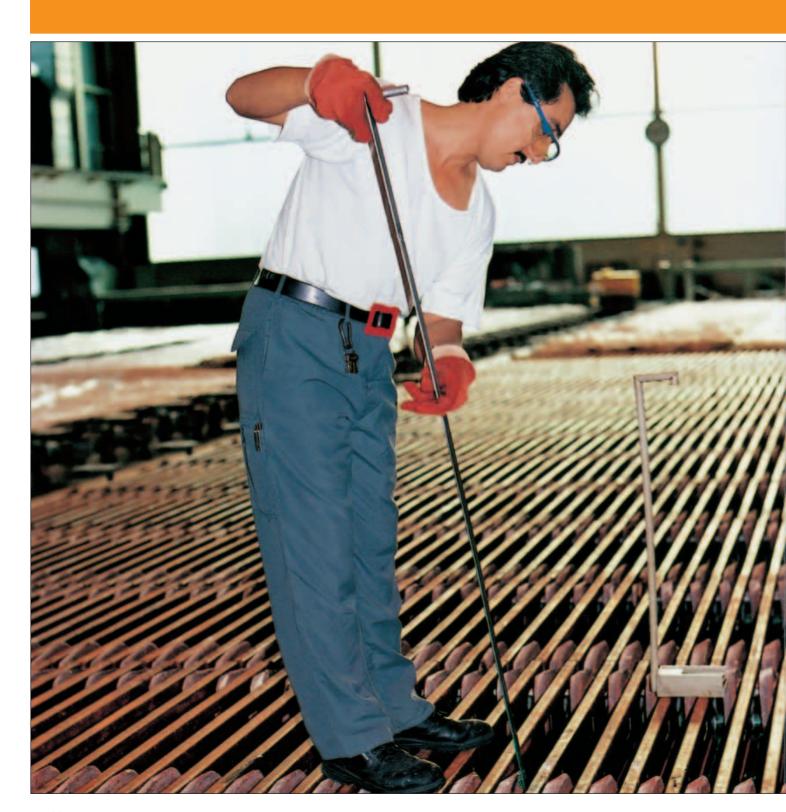
At HK in Lünen there are still remaining payments to be made since commissioning the KRS recycling plant at the end of February 2002. Further capital investment is going into the expansion and modernisation of various plants at our subsidiary Prymetall as well as Schwermetall in Stolberg.

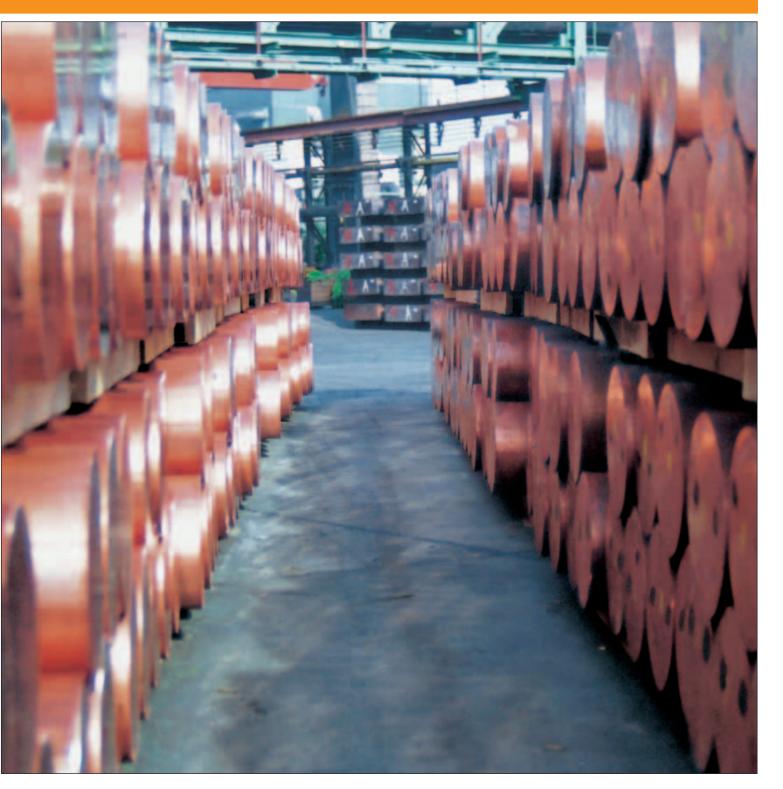
In the current fiscal year we are investing chiefly in new process technologies and measures to increase productivity. They serve to consolidate and optimise the current business.

All our investments are carefully planned and implemented to the best of our knowledge. Nevertheless, in our industry we are frequently breaking new ground with the result that the opportunities may also involve taking risks. The risks are minimised to a great extent in our planning process and by timely investment controlling.

# Segments

The two pillars of the NA Group







Mines and secondary markets	Copper Production	Copper Processing	Processors and end users
	<ul> <li>NA's Business Unit Metallurgy</li> <li>Hüttenwerke Kayser 98,3%</li> <li>CABLO 100%</li> <li>Retorte 100%</li> <li>Peute Baustoff 100%</li> </ul>	<ul> <li>NA's Business Unit Copper Products</li> <li>Prymetall 100%</li> <li>Schwermetall 50%</li> <li>Deutsche Giessdraht 60%</li> <li>Spiess-Urania 60%</li> </ul>	

The NA Group is active in two significant sectors of the value added chain of copper: in copper production and copper processing. In the segment Copper Production we first of all produce high-purity copper in the form of marketable cathodes from copper concentrates and recycling materials. We then process these into high-value copper products in the segment Copper Processing.

Turnover by segments		Earnings by segments			
Segment Copper Processing		51%	Segment Copper Production		57%
Segment Copper Production		49%	Segment Copper Processing		42%
			Others		1%



### **Segment Copper Production**

The segment Copper Production covers all the Group activities relating to the production of copper and other metals. The following organisational units in the NA Group are combined here:

- NA's Business Unit Metallurgy with marketable copper cathodes as the end products
- Hüttenwerke Kayser AG in Lünen as the largest copper recycler worldwide likewise producing cathodes
- CABLO Metall-Recycling & Handel GmbH in Hamburg as the largest industrial cable dismantling works in Germany
- Retorte Ulrich Scharrer GmbH in Röthenbach as the largest distributor of selenium products worldwide
- Peute Baustoff GmbH in Hamburg as the largest producer of iron silicate stone and abrasives

In this segment we achieved a profit before taxes on income in the amount of 21.6 million €. On average the segment had 2,301 employees.

### **Copper cathodes**

Copper cathodes are the main product in this segment. These cathodes are copper sheets about 1 x 1 m in size and 6 – 8 mm thick with a purity level of more than 99.99%, which are produced in the copper tankhouse. The copper cathodes produced at NA are registered at the two most important metal exchanges in the world – LME and COMEX.

In the fiscal year we produced 554,000 tonnes (previous year 540,000 tonnes) in Hamburg and Lünen and thus further enhanced our position as the market leader in Europe.

The prices for the raw materials depend on the metal contents and the metal prices on the exchanges whereas so-called treatment and refining charges (TC/RCs) make up the fee taken

for processing the materials. These TC/RCs represent the segment's main source of income.

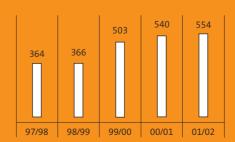
#### The markets

The most important feed materials of the segment Copper Production are copper concentrates and copper scrap.

The international concentrate market was severely impacted by the continued low copper prices and production cutbacks at some mines. The raw material shortage affected above all the spot market where the refining charges declined sharply in the second half of the fiscal year.

### Cathode output (Group)

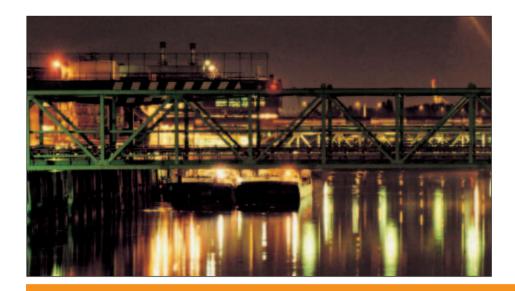
in thousand t



### **Segment Copper Production**

in million €

	00/01	01/02
Turnover	1,492	1,456
EBT	25.9	21.6
EBIT	30.8	27.6
Capital expenditure	62.6	32.9
Depreciation	38.2	36.6
Number of employee (average)	s 2,245	2,301



However, on account of its primarily long-term agreements NA AG was kept well supplied with concentrates throughout the fiscal year and thus only affected by these unfavourable developments to a limited extent. Beside this, the necessary additional purchases on the spot market were largely made in the first half-year. Although the TC/RCs for long-term supply agreements declined in the course of the fiscal year, they remained at a relatively stable level in comparison with the spot market. The successful start of production at the Antamina copper mine in Peru also contributed well to NA's over-

all supplies. The proportion of deliveries covered by long-term direct agreements with the mines could be increased to about 90%.

The trend in the copper scrap market was adversely impacted by the low copper prices. In addition, the market was severely affected by export restrictions in Eastern Europe and strong demand from Asian countries. The availability reflected the distinct shortage that was apparent not only in Western Europe

but also in North America and Asia. As a result some processors of copper scrap could not utilise their capacities any more. The refining charges worldwide reached drastically low levels.

Due to our capacity expansion in the concentrate sector, however, the use of copper scrap could be significantly reduced in the segment and the effect of the deteriorated conditions on the copper scrap market lessened.

The recycling of coins developed well. Since the con-

version to the Euro, various old coins were supplied from the countries in the Euro-zone and recycled in our plants in Hamburg and Lünen. In so doing, we were able to recover the valuable metals contained and, for instance, process them into starting materials – also for new coin strips – in Stolberg.

### **Concentrate supplies**

Chile	32%
Peru	20%
Argentina	18%
Portugal	9%
Indonesia	7%
Papua New Guinea	5%
Others	9%



#### NA AG'S BUSINESS UNIT METALLURGY

In the business unit Metallurgy we recover copper in the form of marketable cathodes from various raw materials. Further important products are precious metals: gold, silver, platinum and palladium as well as lead and other by-products.

In addition, during metal production we produce premium sulphuric acid and iron silicate stone which due to its physical and chemical properties is suitable especially as an environmentally friendly construction material.

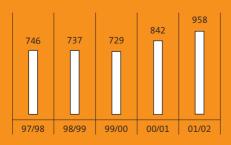
### Increased concentrate throughput

The throughput of copper concentrates in our primary smelter (RWO) could be increased in the fiscal year to some 958,000 tonnes (previous year 842,000 tonnes). The new capacity target of 1 million tonnes of concentrate was thus not completely reached. This was above all due to two scheduled standstills for repair work in the anode furnace sector.

The tankhouse in Hamburg achieved an all-time high with an output of 374,000 tonnes (previous year 360,000 tonnes) of copper cathodes.

### **Concentrate throughput**

in thousand t



As a result of the increased quantities in the concentrate and cathode sectors we were able to reduce our costs for copper production and thus also clearly improve our position in comparison with international competition.

### Secondary sector well utilised

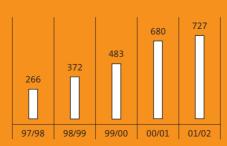
The secondary smelter plant was kept well supplied during the

entire period. At the beginning of the fiscal year the electric furnace had to discontinue operation for about four weeks due to serious damage in the plant. Nevertheless we were able to ensure that the processing of precious metal bearing materials continued.

We have successfully further enhanced the precious metal production. The silver output rose to 727 tonnes (previous year 680 tonnes), the gold output reached 28 tonnes (previous year 23 tonnes). On top of this about 1.4 tonnes of platinum and some 3.8 tonnes of palladium were produced in solutions.

### Silver output

in t



### Production figures business unit Metallurgy

in thousand t

	00/01	01/02
Concentrate throughput	842	958
Copper scrap input	69	60
Copper cathodes	360	374
Sulphuric acid	808	953
Iron silicate stone	540	651

Our project to expand and modernise the precious metal sampling and the top blown rotary converter plant is still running to schedule. Of the budgeted capital expenditure amounting to about 8 million € an amount of approx. 1 million € was invested in

As a result of the higher throughput of copper concentrates we have also increased the production of sulphuric acid.

the fiscal year 2001/2002. The project enables us to utilise further potential arising from the greater quantities of precious metals extracted due to the increased throughput of concentrates and additionally bought precious metal bearing materials.

The investment also results in improved workplace health care and environmental protection. The modernised and increased processing capacities will be available by the end of the fiscal year 2002/2003.

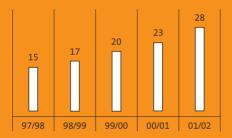
### High sulphuric acid output

As a result of the increased throughput of copper concentrates processed, the sulphuric acid output rose to about 953,000 tonnes (previous year 808,000 tonnes).

At the beginning of the fiscal year the supply on the global sulphuric acid market was clearly greater than demand. However, this situation increasingly improved in the course of the calendar year 2002.

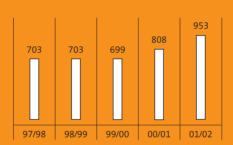
### **Gold output**

in t



### Sulphuric acid output

in thousand t





Sales to North Western Europe, our main sales area, rose substantially. This was especially due to our strategic measures to constantly improve the quality of our sulphuric acid. Consequently, the average revenues from sales rose again in the course of the year. We are assuming that this trend will continue in the current fiscal year.

On 30 September 2002 the Business Unit Metallurgy had 792 employees.

### Sulphuric acid sales

Chemical industry	45%
Fertilisers	20%
Pigment production	13%
Metal leaching	5%
Others	17%

### HÜTTENWERKE KAYSER AG (HK), LÜNEN

HK has specialised in the recycling of copper-bearing secondary raw materials and is the global leader in this sector. With environmentally friendly process technology HK treats up to 300,000 tonnes of secondary raw materials at its Lünen site annually and thus makes a decisive contribution to Sustainable Development.

### Optimisation beyond site boundaries

The leading position in copper recycling could be further enhanced during the last fiscal year.

At the end of February 2002 the Kayser Recycling System (KRS) started operation as scheduled. This new development sets benchmarks as regards technology, environmental protection and energy efficiency. With this process we are expanding the range of treatable raw materials considerably and improving raw material utilisation. In addition, we are also making a significant contribution to the saving of resources.

The efficient utilisation of the existing plants is secured by the comprehensive material flow management between HK and NA. In addition, we have



optimised the raw material supply and the processing routes from one production site to another and could thus fully utilise the tankhouse capacities, even in a difficult market environment.

In January 2002 the 70% stake in E.R.N. Elektro-Recycling NORD GmbH (E.R.N.) formerly held by CABLO Metall-Recycling & Handel GmbH was transferred to HK. The aim of the integration is to coordinate the activities better and to achieve a stronger position in the growth market of electro and electronic scrap recycling. Now that the directive on electronic scrap has been adopted by the EU it will soon be included in German national law. This market will offer various development opportunities in the next few years which we aim to utilise.

### **Difficult markets**

HK was faced with special challenges during the last fiscal year. The secondary raw material markets like the copper market were under the influence of a moderate global economic trend. There was an unusual shortage of copper scrap supplies.

Nevertheless, the available processing capacities could be fully utilised. The substantially reduced refining charges, especially for copper scrap, did, however, have an adverse impact on earnings. As in the previous year the output of copper cathodes amounted to 180,000 tonnes.

#### Orientation securing the future

HK has countered the decline in refining charges in the fiscal year 2001/2002 by tightened cost management. Every effort is being made to improve earnings as part of the Value Based Management (Project HK-dyNAmic) which is being implemented throughout the NA Group.

HK is integrated in the long-term strategy of the NA Group. With its core competence in the recycling sector HK plays a major role within the framework of Sustainable Development. As part of this, copper recycling is an important instrument in achieving sustainability targets.

On 30 September 2002 there were 642 employees at HK.





### CABLO METALL- RECYCLING & HANDEL GMBH (CABLO), HAMBURG

CABLO is the largest cable recycling enterprise in Germany. In the two production sites in Fehrbellin (Brandenburg) and Straß (Bavaria) cable scrap is dismantled and prepared in environmentally friendly processes in modern and efficient plants and the metal granules and plastics extracted are sold.

A large quantity of the about 19,000 tonnes of cable which are dismantled by CABLO originated from industrial partners, such as cable works. The metal granules produced are sold to NA or to third parties. NA recycles the granules and delivers them, e.g. as continuous cast wire rod, back to the cable works. CABLO is thus an important link in the strategic partnership between NA and the cable works.

Due to the strained market environment the targets as regards processing quantities were not quite reached. Nevertheless the fiscal year was satisfactory. This was a result of the good marketing possibilities for metal granules. In addition, further potential could be realised on the cost and earnings side.

From dismantling, about 8,500 tonnes of copper granules and 1,200 tonnes of aluminium granules are produced and sold to various customers.

There were 51 employees at CABLO on 30 September 2002.

CABLO is the largest cable recycling enterprise in Germany. NA, together with its subsidiary Retorte, is the global market leader for certain selenium products.

### RETORTE ULRICH SCHARRER GMBH (Retorte), RÖTHENBACH

Retorte produces high-value selenium products from crude selenium of varying origins and sells it worldwide for numerous applications. It is the world market leader in some product sectors.

Selenium is a by-product which arises during the production of copper and precious metals in Hamburg. NA recovers it as crude selenium from the anode slimes in the copper tankhouse.





In the fiscal year 2001/2002 the crude selenium supply was good. This largely resulted from an increase in the crude selenium production at NA AG.

Retorte had 34 employees on 30 September 2002.

We shall continue to implement our programme to reduce costs and enhance performance in the current fiscal year as well.

### PEUTE BAUSTOFF GMBH (PBG), HAMBURG

NA produces iron silicate stone as a by-product of copper production. PBG prepares this material and sells it as hydraulic construction material and abrasives.

In the last fiscal year the increased output resulting from the expansion of NA's concentrate processing capacity was entirely sold.

In total the production of iron silicate products at 651,000 tonnes rose by 21% compared with the previous year (540,000 tonnes).

On 30 September 2002 PBG had 12 employees.

### **Outlook**

The raw material markets, in particular for copper concentrates and copper scrap, will in all probability also not recover in the first few months of the current fiscal year. After that, however, it is generally expected that the concentrate market will pick up since additional quantities will be available due to expansions at existing mines, such as Escondida in Chile. The copper scrap market will continue to be influenced by the trend in the copper price. From today's viewpoint a significant improvement in the treatment and refining charges can only be expected if the copper price has a long term recovery. In addition, a reduction in the export duties in Russia could have a positive impact, which would make it possible for copper scrap to be exported again from Russia to Western Europe.

We are reckoning with full utilisation of our plants also in the current fiscal year. Regardless of the expected economic environment we shall intensively pursue our programme to reduce costs and enhance performance.



### **Segment Copper Processing**

The following organisational units in the NA Group are included in the segment Copper Processing:

- NA's business unit "Copper Products" with the plants for the production of continuous cast wire rod and shapes
- Deutsche Giessdraht GmbH in Emmerich, which likewise produces wire rod
- Prymetall GmbH & Co. KG in Stolberg as a producer of strips, profiles and wires
- Schwermetall Halbzeugwerk GmbH & Co. KG in Stolberg with the largest hot rolling mill for copper and copper alloys worldwide
- Spiess-Urania Chemicals GmbH as the fifth largest distributor of crop protection products in Germany

In the segment Copper Processing a profit totalling 16.2 million € was achieved. On 30 September 2002 it had 1,311 employees. This is 361 more than in the previous year, mostly due to the acquisition of Prymetall/Schwermetall.

The segment mainly covers the processing of the copper cathodes produced in Hamburg and Lünen into various copper products. NA is represented in all the product lines of the industrial processing of copper.

### Wire rod

NA produces continuous cast wire rod in the plants in Hamburg and Emmerich. In addition, special wire rod is produced in the form of continuous cast wire rod from the Top-Cast plant. Wire rod is chiefly processed into cables and wires, and to a lesser extent, into profiles as well. For wire rod we are ranked no. 3 in Europe.

### **Segment Copper Processing**

in million €

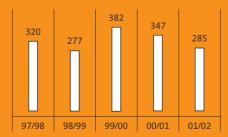
	00/01	01/02
Turnover	1,581	1,422
EBT	30.6	16.2
EBIT	33.3	21.5
Capital expenditure	6.3	12.0
Depreciation	8.3	16.9
Number of employee (average)	950	1,311

### **Shapes**

In its continuous casting plant in Hamburg NA produces copper billets and cakes. The cakes are used as the starting material for the production of strip and sheets and the billets as the starting material for the production of tubes and profiles. In the OF copper plant special alloys, such as oxygen-free copper brands and low-alloyed copper, are further

### Wire rod output (Group)\*

in thousand t



<sup>\*</sup>including shares of DG's output

processed into billets and cakes. NA is the market leader in Europe for continuous cast shapes.

Whilst at NA only billets and cakes are produced in pure copper and low-alloyed copper brands, Schwermetall casts cakes in its own production plants in more highly alloyed copper, such as brass. At Prymetall brass is cast in the form of billets for processing into shaped wires in its own plants.

### Strips in copper and copper alloys

On 1 January 2002 NA took an important step along the next value added stage of copper processing due to the acquisition of Prymetall/Schwermetall. Consequently Schwermetall, the 50 % subsidiary, produces pre-rolled strip from the shapes procured from NA and from the cakes it produces itself from

### Continuous cast shape output

in thousand t



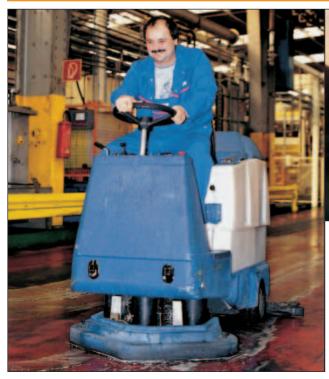
copper alloys. This pre-rolled strip is delivered to Prymetall, the copartner Wieland-Werke and to other customers. From the pre-rolled strip supplied by Schwermetall, Prymetall produces high-grade strips in copper and copper alloys – rolled, annealed and slitted to customer requirements.

#### **Shaped wires**

At Prymetall billets from the company's own foundry are processed into shaped wires and round wires made of brass materials by pressing and drawing.

### Value added

We mostly use our own copper cathodes for our copper products. This gives us maximum control over our feed materials so that we can offer our customers the highest and most consistent quality. As a result of the constantly high quality of our base material, we are the preferred supplier for high-grade copper products. Thus, the unique properties of copper – like high electrical and thermal conductivity – are the foremost consideration in the





use of our copper. The direct proximity of the production and processing of the copper cathodes means great flexibility and reliability for our customers.

The acquisition of Prymetall/Schwermetall has enabled us to offer our customers copper products at all stages of value added: from the cathode through to continuous cast wire rod and shapes and on to pre-rolled strip, strips or wires.

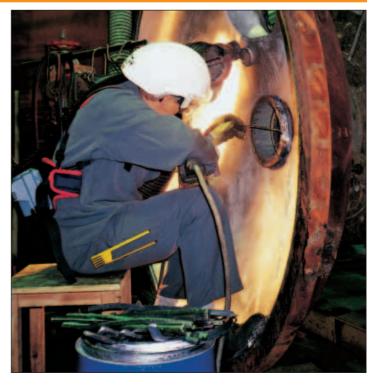
The value added in the segment Copper Processing is generally determined by the so-called shape surcharge. This is the fee that the customer pays us for processing the cathode into, for instance, wire rod. In this case the customer buys at the price of the exchange-listed cathode (copper price) plus the transformation charges. Since the revenues from transformation charges are usually lower than the copper price, the turnover is largely determined by this. Turnover is therefore not a significant parameter for the segment's success. In order to avoid any risks arising from changing metal prices, NA uses the commodity exchange, London Metal Exchange (LME), for hedging.

#### **BUSINESS UNIT COPPER PRODUCTS**

The business unit Copper Products consists of the two product lines, continuous cast wire rod and shapes, with two plants each. A decisive success factor for the sales of NA's copper products is the close and intensive collaboration with our customers. The well-received commercial and technical services range from individual customer solutions to the joint development of materials. These also include the e-Business portal www.copper-online.com that enables our customers to complete transactions with NA simply and quickly.

Together with our customers we are developing tailor-made products for intelligent and specific applications.

In the year under review a total of 204,000 tonnes of continuous cast wire rod was produced in NA's rod plant and sold. In addition, the Business Unit also markets the wire rod produced at the 60% subsidiary, DG. NA's share of the production output amounted to 81,000 tonnes. This means a total output for the NA Group of 285,000 tonnes.





Most of the wire rod is produced in the rod plants which operate in a fully continuous technological process based on the Southwire principle. In this process molten copper is cast on a large casting wheel. It is then rolled on the connected rolling stands mainly into a diameter of 8 mm. In addition, wire rod is also produced for special applications in diameters of up to 21.4 mm.

Besides the high electrical conductivity our wire rod features excellent recrystallisation behaviour. This is one of the main criteria for optimal processing at our customers who produce cable and wire from

We are working on expanding our offer of particularly high value specialty products. Our customers benefit from this.

the wire rod. Due to its high and homogeneous quality NA's wire rod is suitable for a host of processing applications: from power cable through enamelled wire and flat wire to fine wire.

An important technical measure was the increase in the height of the cathode shaft furnace for melting cathodes. Consequently, the throughput can be increased once again and the specific energy consumption substantially reduced. In the summer a further coiler was installed for the wire rod coils weighing up to 5 tonnes. As a result our customers are able to unwind our wire rod without difficulty, even with very fast drawing machines.

In another plant wire rod in oxygen-free and lowalloyed copper is produced in various diameters. With this so-called TOP ROD we have filled a segment for specialty products, which are used above all for the production of special conductive profiles and in the plating industry.

The trend in business for wire rod reflected the lack of an economic upturn, especially in the core market of Europe. This was additionally impacted by production expansions at competitors, the closing down of two cable works and the relocation of production works to Eastern Europe. The declining demand for enamelled wire and communication cable resulted in lower demand for our wire rod.

With an output of about 5,500 t of TOP ROD we could again record an increase of approx. 10 % in contrast to the economic trend. NA is pressing on with its development work particularly in this sector. We want to offer further low-alloyed materials, tailor-made exactly to suit our customers' requirements. The target is to achieve stronger diversification of the production programme in the direction of high-value products.

The second product group in the business unit is continuous cast shapes. These are billets and cakes that are processed by our customers into tubes and profiles or into strips, sheets and foils respectively. With its output of some 203,000 tonnes of shapes NA is by far the leading producer in Europe. With



our products we primarily cover application sectors that make particular demands on copper, such as the electrical engineering and electronics industries. Copper's high electrical conductivity is of special significance here. NA's shapes are also used in applications with the highest requirements like superconductors. Our customers roll the shapes into a thickness of less than 10 µm. In so doing, approx. 250 km of foil is produced from a 9 m long cake.

With this extensive spectrum of lengths, widths and thicknesses as well as piece weights of up to 25 t we take the needs of our customers into account and enable them to fabricate efficiently. The shapes are mainly produced on three continuously operating casting plants using especially energy-saving technology. The production of cakes weighing 25 tonnes in a continuous casting process is unique in the world. This process not only leads to low costs but also to a consistent quality.

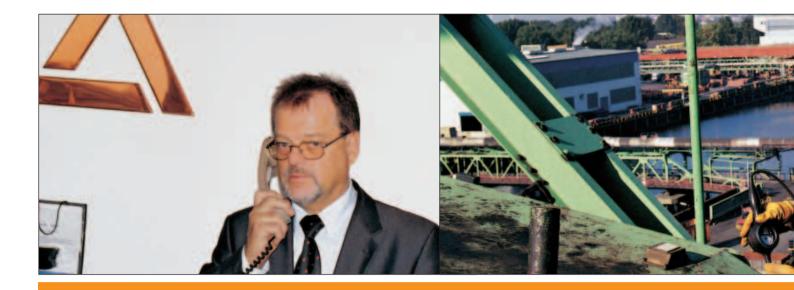
With the new OF copper plant NA has further enhanced its position as the leading producer of high-value copper materials. In this plant special shapes are cast from oxygen-free and low-alloyed copper. This oxygen-free copper features the highest conductivity and vacuum strength and is increasingly used for innovative technological applications, for instance, as cable shielding in the telecommunications branch. Due to our know how in the production of weldable and highly conductive copper we have achieved a unique market position in some sectors.

The successful integration of Prymetall/Schwermetall in the NA Group has helped us to maintain the previous year's production level for continuous cast shapes despite the difficult economic environment. Prymetall and Schwermetall are major processors of our cakes. Consequently, sales of our copper shapes will also be strengthened in the future. NA was able

We have successfully completed the integration of Prymetall and Schwermetall in the NA Group. As a result we are strengthening the sales of our copper shapes in the long term.

to compensate to a large extent for the weak economic trend by the significantly increased quantities delivered to Prymetall and Schwermetall. NA could compensate for the loss of orders from the traditional markets by the conclusion of export orders outside Europe. Due to the extremely weak economic situation in the electronics and telecommunications sectors the spectrum of copper products has shifted slightly – from high-grade materials to standard products. This development puts pressure on the average revenues and the utilisation of the OF copper plant.

The business unit Copper Products had 335 employees as at 30 September 2002.



### PRYMETALL GMBH & CO. KG (Prymetall), STOLBERG

Since 1 January 2002 Prymetall including its 50% stake in Schwermetall has been the latest acquisition in the NA Group. As a result NA has achieved an important step in the further processing of copper shapes. We have thus opened up direct market access for attractive copper flat products and are fully utilising the research and development possibilities offered by NA.

We are also represented in the market for attractive copper flat products due to the processing of continuous cast shapes into sheets and strips.

Prymetall covers the strip and wire production sectors. In order to produce strips, the continuous cast shapes which are mainly supplied by NA AG are initially processed at Schwermetall into a pre-rolled strip. At Prymetall the end products are then fabricated to meet customers' requirements by a combination of rolling, annealing, adjusting and slitting.

The billets needed as the starting material for the wire sector are cast at Prymetall in its own foundry. The billets are then processed into round or shaped wires by extrusion, annealing and drawing. The main material is brass.

The qualitatively high-grade strips and wires are used for applications in the electrical engineering, electronics, automotive, telecommunication, consumer goods and construction sectors. Thus, the rolling sector is represented on the markets for copper roofing and industrial strip made of copper and brass. The wire sector supplies customers primarily with shaped brass wires, for example for electrical plugs and clamps. With a market share of about 13% Prymetall is ranked 4th in Europe in the copper strip sector. Moreover, in the brass wire sector Prymetall as well as three similarly sized competitors play a leading role in Europe, with market shares of 25% each.

The end of the fiscal year for Prymetall and Schwermetall was moved to 30 September due to their integration in the NA Group. In the resultant short fiscal year 2002 (January - September) product sales totalled about 52,900 tonnes. Of this figure the strip sector accounted for 83% and the wire sector 17%.

Accordingly the quantity produced – rounded up to a full fiscal year – amounts to approx. 6% less than in the previous year. The reduced demand following the global economic downswing has contributed to this result. In the year under review, the export share, especially due to exports to non-EU states, grew from 49% to 60%. The sales drop was particularly noticeable for high-grade products on account of the economic stagnation in the electrical engineering and telecommunications sectors. At the same time there was continued pressure on the revenues obtainable.





On 2 January 2002 a multilevel joint project to integrate Prymetall in the NA Group was started entitled Euro Copper. An important point in the first few months was to disengage Prymetall from its former parent company, Prym Holding. An independent accounts department was established in the course of this process. In addition a new administrative building was constructed within the shortest possible time.

Noticeable improvements in all sectors, such as procurement, customer administration, development as well as metal and currency hedging were very quickly achieved as a result of the intensive and friendly cooperation between Prymetall and the departments in the NA Group. The involvement of NA's R & D and Application Technology Sectors presents Prymetall with new possibilities for working together with customers.

A further component of Euro Copper is a programme to enhance performance that creates the basis for stable operating results and future growth. Significant potential for improvement was identified through the active participation of practically all the employees. It is currently being implemented with an investment volume of almost 6 million €. Performance enhancement is being achieved in particular by a reduction in the workforce of more than 20% and a substantial drop in energy consumption.

In the strip production sector, the erection of a new slitting line was started in May 2002, which was commissioned at the beginning of October. This plant achieves a considerably better quality in slitted strips. In addition, it closes the gap of the 600 mm wide production line and provides an important contribution to increasing capacities and productivity.

On 30 September 2002 Prymetall had 440 employees.

### SCHWERMETALL HALBZEUGWERK GMBH & CO. KG (Schwermetall), STOLBERG

With the integration of Prymetall NA acquired a 50% stake in Schwermetall. The other 50% is held by Wieland-Werke, one of our major customers for our continuous cast products.

Schwermetall operates the largest and most modern hot rolling mill for copper materials worldwide. The company is one of the leading producers of pre-rolled strip in copper and copper alloys. For the production of pre-rolled strip Schwermetall procures the necessary continuous cast copper shapes in refined copper from NA. Shapes in copper alloys, such as brass, are on the other hand produced in the company's own foundry with a capacity of 180,000 tonnes. The shapes are processed into pre-rolled strips with widths of 1,250 mm and coil weights of up to 25 tonnes by hot rolling, milling and cold rolling or annealing, pickling and slitting.

In the short fiscal year 2002 (January –September) 224,000 tonnes of pre-rolled strips were sold, approx. 4% less than in the comparable period of the previous year. This result also reflects the weaker demand

for copper semis. In addition to the shareholders of Schwermetall – Wieland-Werke and Prymetall – the company's customers include numerous semis fabricators worldwide.

After extensive reconstruction work at the turn of the year the hot rolling mill was successfully recommissioned at the beginning of 2002. Besides the power train, the entire control system was renewed. This has resulted in a further improvement as regards cost-efficiency and quality, in particular for wide strips. The first automatic surface inspection plant worldwide was installed which detects surface defects after milling.

On 30 September 2002 a total of 344 employees were working at Schwermetall. The NA Group has consolidated 50% in its number of personnel.

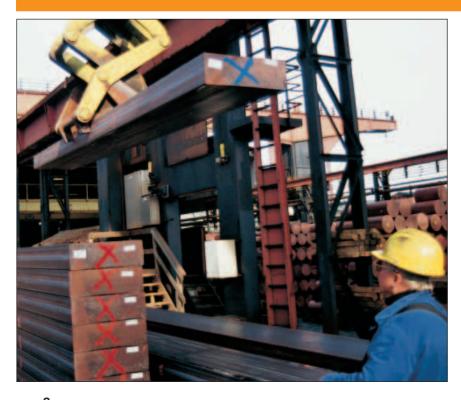
### DEUTSCHE GIESSDRAHT GMBH (DG), EMMERICH

Deutsche Giessdraht in Emmerich produces continuous cast wire rod from cathodes and complements the wire rod production in Hamburg mainly for the sales markets in West Germany and Italy. Marketing is performed by the shareholders, the NA Group (60%) and Codelco (40%).

Production output was reduced by 20% to 157,000 tonnes (previous year 196,000 tonnes) due to the low demand.

The conversion of the IT structure that was started in the fiscal year 2000/2001 is running to schedule and will be completed in 2004. For the fiscal year 2002/2003 DG is planning to reconstruct the casting wheel to accommodate diameters of 3 m involving capital expenditure in the amount of about 1 million €. As a result, the company's performance will be further enhanced.

As at 30 September 2002 DG had a total of 116 employees.



### SPIESS-URANIA CHEMICALS GMBH (SPU), HAMBURG

Spiess-Urania Chemicals is active in the distribution of crop protection products, the control of vegetation on rail tracks as well as the production and distribution worldwide of copper salts. It is ranked no. 5 in Germany among the distributors of crop protection products.

Crop protection products are especially used for applications in agriculture, fruit plantations and wine-growing as well as for the private sector.

The copper salts produced at NA's production site have a variety of applications. The are, for instance, used as fungicides in wine-growing and in coffee growing, as antifouling paints for ships' hulls or as a basic material in catalysts.

The sales situation in the copper salts sector was positive so that the production capacity could be fully utilised.

SPU together with its subsidiary J. M. Lauff GmbH, Cologne, has increased its vegetation control activities on the tracks of the German Railways. In the last fiscal year the distribution network was tightened up by closing branches which resulted in further cost reductions. By utilising synergies in the company the number of staff employed at SPU could be decreased from 211 as at 30 September 2001 to 191. This was achieved in a socially acceptable manner.

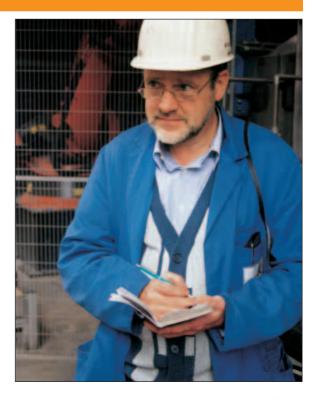
#### Addendum

NA has completed its discussions with Mitsui & Co. Ltd (Mitsui), Tokyo. Backdated to 1 October 2002 Mitsui is taking over 80 % of the shares in SPU, in which NA AG previously was the majority shareholder.

Altogether NA and the Spiess family are retaining only a 20% stake in SPU. The transfer of this remaining 20% to Mitsui has already been laid down by contract and will take place effective 30 September 2004. The aim is to strengthen SPU's future development and enable further growth.

NA has continued the optimisation of its portfolio by selling SPU and is focusing still more strongly on the production and processing of copper.





## Consolidated balance sheet

### as at 30 September 2002

<b>Assets</b> in thousand €	Notes	2001/2002	2000/2001
Fixed Assets	1		
Intangible assets		69,070	13,188
Property, plant and equipment		265,578	237,697
Financial assets			
Shares in affiliated companies		313	360
Investments in associated companies		3,554	6,113
Other investments		639	538
Long-term securities		130	622
Other loans		1,134	755
		5,770	8,388
		340,418	259,273
Current assets			
Inventories	2	318,141	305,817
Receivables and other assets	3		
Trade accounts receivable		128,478	110,896
Receivables from affiliates		3,247	2,785
Receivables from other			
Group companies		1,548	652
Other assets		22,497	20,985
		155,770	135,318
Short term security investments	4	1,506	1,496
Liquid assets	5	7,471	6,409
		482,888	449,040
Deferred items		1,983	568
Total assets		825,289	708,881

<b>Equity and liabilities</b> in thousand €	Notes	2001/2002	2000/2001
Equity	6		
Subscribed capital		83,720	82,824
Conditional capital 38,116 T€			
Capital reserves		27,421	25,815
Revenue reserves		148,237	138,641
Retained earnings		8,628	23,526
		268,006	270,806
Minority interests		9,323	9,308
Special reserves with an equity portion	7	708	3,804
Provisions	8		
Provisions for pensions		59,723	53,706
Other provisions		106,776	88,783
		166,499	142,489
Liabilities	9		
Convertible bonds		2,895	2,740
Bank loans and overdraft		189,546	78,514
Trade accounts payable		142,031	167,048
Payable to affiliates		1,025	1,206
Other liabilities		45,250	32,958
		380,747	282,466
Deferred items		6	8
Total equity and liabilities		825,289	708,881

# Changes in Group fixed assets

for the period 1 October 2001 to 30 September 2002

### Acquisition or construction cost

Total fixed assets	1,113,409	209,158	45,405	25,748
	10,768	39	1,010	3,494
Other loans	759	-	75	160
Long-term securities	622	-	_	495
participations are held	625	_	_	-
Loans to companies in which				
Other investments	1,087	101	-	_
Investments in associated companies	7,315	-	439	2,823
Loans to affiliated companies	-	-	465	-
Shares in affiliated companies	360	- 62	31	16
Financial assets				
	1,077,795	147,762	40,951	21,239
assets under construction	30,200	5,714	9,698	104
Payments on account and	<u> </u>	<u> </u>	<u> </u>	·
Other equipment, factory and office equipment	67,317	6,230	3,951	6,296
Technical equipment and machinery	704,788	117,449	22,568	13,512
Land and buildings	275,490	18,369	4,734	1,327
Tangible assets				
	24,846	61,357	3,444	1,015
Payments on account	2,566	56	2,668	-
Goodwill	5,964	59,468	-	-
and licenses to such rights	16,316	1,833	776	1,015
licenses and similar rights				
Franchises, trademarks, patents,				
Intangible assets				
in thousand €	01.10.2001	companies	fiscal year	Disposals
		of consolidated	Additions in the	

### Net book value

	TACE DOOK VALUE				
					Depreciation in
		Write-downs			the current
Transfers	Write-ups	30.09.2002	30.09.2002	30.09.2001	fiscal year
912	_	13,081	5,741	6,147	2,090
-	-	6,492	58,940	4,475	5,002
- 901	-	-	4,389	2,566	
11	_	19,573	69,070	13,188	7,092
			00,010	_5,_50	7,002
8,495	-	247,188	58,573	40,418	4,053
24,037	_	670,975	184,355	157,709	38,046
					·
97	3	61,520	9,782	9,370	4,408
91	<u> </u>	01,320	9,782	9,370	4,400
- 32,640	-	_	12,868	30,200	
- 11	3	979,683	265,578	237,697	46,507
			242	260	
_	_	_	313	360	
_	_	_	465	-	
_	_	1,377	3,554	6,113	175
_	-	549	639	538	_
_	_	625	_	_	_
3	_	-	130	622	
- 3	2	4	669	755	
-	2	2,555	5,770	8,388	175
-	5	1,001,811	340,418	259,273	53,774

# Consolidated profit and loss account

for the period 1 October 2001 to 30 September 2002

in thousand €	Notes	2001/2002	2000/2001
Turnover	12	1,919,968	2,009,857
Variations in inventories of			
finished goods and work in process		- 24,504	- 7,323
Own work capitalised		2,515	3,722
Other operating income	13	30,040	41,465
Cost of raw materials and supplies	14	- 1,537,607	- 1,685,524
Gross profit		390,412	362,197
Personnel expenses	15	- 190,780	- 168,429
Depreciation and amortisation	16	- 53,599	- 46,584
Other operating expenses	17	- 96,894	- 83,211
Income from investments	18	569	922
Net interest	19	- 11,587	- 7,683
Result of ordinary activities		38,121	57,212
Taxes on income	20	- 17,747	- 14,915
Profit for the financial year		20,374	42,297
Profits/losses attributable to minority interests		- 1,546	- 1,687
Allocations to revenue reserves		- 10,200	- 17,084
Unappropriated profit		8,628	23,526

# Consolidated cash flow statement

in thousand €	2001/2002	2000/2001
Profit for the financial year	20,374	42,297
Depreciation on fixed assets	53,770	46,395
Changes in long-term provisions	1,196	1,479
Other expenses and income not affecting cash flow	- 3,106	- 3,724
DVFA/SG cash flow	72,234	86,447
Changes in short-term provisions	13,667	- 11,670
Cash flow movements due to investments in associated undertakings	132	- 520
Profits and losses from the disposal of fixed assets and consolidated companies	- 1,898	- 253
Changes in inventories	14,002	13,747
Changes in trade accounts receivable and sundry assets	15,122	- 10,378
Changes in trade accounts payable and sundry liabilities	- 15,072	10,956
Cash inflow from current operating activities	98,187	88,329
Disposals of fixed assets	1,105	856
Additions to fixed assets	- 44,967	- 68,877
Proceeds from the sale of consolidated companies	5,250	-
Payments for the acquisition of consolidated companies	- 77,084	- 81
Cash outflow from investing activities	- 115,696	- 68,102
Proceeds from capital increases	2,636	4,067
Proceeds from the convertible bond issue and the raising of bank loans	95,079	17,160
Payments for the redemption of bonds and bank loans	- 53,348	- 18,620
Dividend payments of NA AG	- 24,265	- 24,000
Dividend payments from subsidiaries to third parties	- 1,531	- 2,189
Cash inflow (previous year: outflow) for financing activities	18,571	- 23,582
Changes in financial resources affecting cash flow	1,062	- 3,355
Financial resources at beginning of period	6,409	9,764
Financial resources at end of period	7,471	6,409

## Balance sheet of NA AG

### as at 30 September 2002

<b>Assets</b> in thousand €	Notes	2001/2002	2000/2001
Fixed asset	1		
Intangible assets		8,178	6,663
Property, plant and equipment		156,561	171,340
Financial assets			
Shares in affiliated companies		122,378	44,639
Investments		2	2
Other loans		1	1
		122,381	44,642
		287,120	222,645
Current assets			
Inventories	2	204,444	206,193
Receivables and other assets	3		
Trade accounts receivable		70,180	89,166
Receivables from affiliates		24,421	35,878
Receivables from other Group companies		926	652
Other assets		16,579	11,180
		112,106	136,876
Short-term security investments	4	1,506	1,496
Liquid assets	5	3,712	3,565
		321,768	348,130
Prepaid expenses		58	6
Total assets		608,946	570,781

<b>Equity and liabilities</b> in thousand €	Notes	2001/2002	2000/2001
Equity	6		
Subscribed capital		83,720	82,824
Conditional capital 38,116 T€			
Capital reserves		26,724	24,984
Revenue reserves		130,996	120,796
Retained earnings		21,257	24,265
		262,697	252,869
Special reserves with an equity portion	7	597	1,193
Provisions	8		
Provisions for pensions		24,588	24,792
Other provisions		71,268	61,143
		95,856	85,935
Liabilities	9		
Convertible bonds		2,895	2,740
Bank loans and overdrafts		95,594	48,506
Trade accounts payable		104,211	144,022
Payables to affiliates		12,349	10,013
Other liabilities		34,744	25,331
		249,793	230,612
Deferred items		3	172
Total equity and liabilities		608,946	570,781

# Changes in fixed assets of NA AG

for the period 1 October 2001 to 30 September 2002

### Acquisition or construction cost

in thousand €	01.10.2001	Additions	Disposals	Transfers	
Intangible assets					
-					
Franchises, trademarks, patents, licenses and similar rights and					
licenses to such rights	12,492	477	732	217	
Payments on account	1,884	2,666		- 217	
	14,376	3,143	732	-	
Tangible assets					
Land and buildings	230,912	1,399	1,251	499	
Technical equipment and machinery	542,422	6,965	12,481	2,634	
Other equipment, factory					
and office equipment	42,824	2,274	4,075	22	
Payments on account and					
assets under construction	4,711	6,276	104	- 3,155	
	820,869	16,914	17,911	_	
Financial assets					
Share in affiliated companies	49,282	77,739	2,618	_	
Investments	2	-	-	_	
Other loans	1	_	_	_	
	49,285	77,739	2,618	-	
Total fixed assets	884,530	97,796	21,261	-	

# Net book value

	Write-downs			Depreciation and write-downs in
Write-ups	30.09.2002	30.09.2002	30.09.2001	current fiscal year
-	8,609	3,845	4,779	1,524
-	-	4,333	1,884	_
-	8,609	8,178	6,663	1,524
-	206,304	25,255	25,961	2,545
-	421,252	118,288	134,998	25,713
_	35,755	5,290	5,670	2,354
-	_	7,728	4,711	
-	663,311	156,561	171,340	30,612
_	2,025	122,378	44,639	
_	-	2	2	
-	-	1	1	
-	2,025	122,381	44,642	
-	673,945	287,120	222,645	32,136

# Profit and loss account of NA AG

# for the period 1 October 2001 to 30 September 2002

in thousand €	Notes	2001/2002	2000/2001
Turnover	12	1,696,296	1,897,166
Variations in inventories of			
finished goods and work in process		- 5,358	- 11,887
Own work capitalised		1,944	3,408
Other operating income	13	25,920	44,804
Cost of raw material and supplies	14	- 1,481,199	- 1,687,815
Gross profit		237,603	245,676
Personnel expenses	15	- 108,830	- 106,796
Depreciation on fixed assets	16	- 32,136	- 35,663
Other operating expenses	17	- 52,226	- 56,663
Income from investments	18	9,196	8,046
Net interest	19	- 4,799	- 4,551
Result of ordinary activities		48,808	50,049
Taxes on income	20	- 17,351	- 10,484
Profit for the financial year		31,457	39,565
Allocations to revenue reserves		- 10,200	- 15,300
Dividend		21,257	24,265

# Notes to the Financial Statements: Group and NA AG

## **GENERAL REMARKS**

The financial statements of the Group and those of Norddeutsche Affinerie AG were compiled in accordance with the statutory accounting requirements of the German Commercial Code (HGB). Unless specifically indicated, the statements made apply to both. In order to improve the clarity of presentation, some items have been combined in the balance sheets and the profit and loss accounts and detailed separately in the notes to the financial statements.

## **CONSOLIDATED COMPANIES**

The number of consolidated companies has increased since the previous year. With the acquisition of Prymetall GmbH & Co. KG, Stolberg, effective 1 January 2002, this sub-group consisting of 100 % of Prymetall GmbH & Co. KG and 50 % of the pro rata consolidated Schwermetall Halbzeugwerk GmbH & Co. KG, Stolberg, has been taken into account for the first time. Furthermore, Retorte Ulrich Scharrer GmbH, Röthenbach, which up to now had been consolidated by the equity method, was included in the circle of fully consolidated companies. MicroMet GmbH Pulvertechnologie, Hamburg, was deconsolidated following its sale effective 1 April 2002. Proceeds in the NA Group resulting from the deconsolidation amounted to 1.9 million €.

In addition to the main fully consolidated subsidiaries three associated companies were included in the consolidated financial statements as part of the equity consolidation in accordance with the book value method. The goodwill resulting from the equity method amounts to 394 thousand €. The inclusion of other subsidiaries and associated companies was waived on account of their insignificance with regard to the Group's overall financial position.

Overall, compared with the previous year, the consolidated financial statements are impacted by the first-time consolidation of the sub-group Prymetall GmbH & Co. KG.

# **CONSOLIDATION PRINCIPLES**

The capital consolidation is performed in accordance with the book value method, whereby the book values of the investments are set off against the shares of the equity of the subsidiaries as of the date of initial consolidation. The date of initial consolidation is defined as the acquisition date. Differences arising on initial consolidation to the extent that they possess the character of goodwill have been capitalised and amortised over their probable useful life of up to ten years. There were no negative differences on initial consolidation.

All the companies included in the financial statements are German companies. Thus, differences did not arise due to the conversion of foreign currencies.

Receivables and payables as well as income and expenses arising between the companies included by the full consolidation method have been completely eliminated; likewise any material inter-company profits.

## **ACCOUNTING AND VALUATION PRINCIPLES**

The financial statements of those companies included in the consolidated financial statements by the full consolidation method have been prepared in accordance with uniform accounting and valuation principles. The principles used in the financial statements of Norddeutsche Affinerie AG and in the consolidated financial statements of the Group are identical. No adjustment was made to the interest rate used for calculating the pension provisions at certain subsidiaries since this was not considered significant.

The fiscal option to release the special reserves with an equity portion in accordance with Section 52 § 16 Income Tax Code was exercised in full at a subsidiary.

## **Fixed assets**

Intangible assets are stated at cost and depreciated on schedule.

Tangible fixed assets are valued at acquisition cost or construction cost. The construction cost of self-constructed assets includes directly allocable costs and related overhead costs. Movable fixed assets are depreciated using the declining-balance method with scheduled transition to the straight-line method in accordance with the fiscally permissible possibilities. Exceptions to this are additions to expand the capacity for processing concentrates and major investment projects at Hüttenwerke Kayser AG, which are depreciated using the straight-line method. Low-value items are fully depreciated in the year of acquisition. Unscheduled depreciation is made if the estimated value of an asset is calculated as being lower than the net book value.

The financial assets are stated at the lower of cost or market value.

# **Current assets**

Inventories are stated at the lower of cost or market value at the balance sheet date. The metal inventories are accounted for using the "Lifo" method. As far as necessary, reductions are made for a decline in value on an individual basis. The principle of loss-free valuation is maintained.

Receivables and other assets are accounted for at cost. Doubtful receivables are accounted for using an allowance account. Receivables in foreign currencies are valued at the historical exchange rate or at the selling rate in effect at the balance sheet date, rate-hedged receivables at the rate of the hedge transaction.

Securities are stated at cost less write-downs to the current market value, if necessary.

Bank balances in foreign currencies are valued at the selling rate at the balance sheet date.

## **Provisions**

Provisions for direct pension obligations are provided on the basis of actuarial principles and discounted at interest rates of 3.5 % and 6 %.

Pension and provident funds are funded in accordance with tax regulations. Provisions have been made to cover the unfunded portion of the Company's pension obligations, as determined in accordance with the regulations of Section 6a of the German Income Tax Code. To calculate the deficient cover, the securities held in the funds' assets are valued at book value and leased property valued at its intrinsic value.

Other provisions cover all foreseeable risks and uncertain obligations, including open contracts. They are accounted for at the amounts expected to be required for settlement. For provisions, which are expected to be used in later years, the probably incurred expenditures are accumulated pro rata.

#### Liabilities

All liabilities are stated at their repayment value. Liabilities in foreign currencies are translated at the rate in effect when they were booked or the buying rate on the balance sheet date, rate-hedged liabilities at the rate of the hedge transaction.

The valuation of transactions, which are still subject to metal price risks as of the balance sheet date, was undertaken on a "per metal" basis. As part of portfolio examinations, unrealised gains were set off against unrealised losses regardless of the period of their future realisation. A loss carry-over after set-off is recorded as a liability under provisions, a gain carry-over is not taken into account.

## NOTES TO THE BALANCE SHEETS AND PROFIT AND LOSS ACCOUNTS

# 1. Fixed assets

The split and changes in the fixed assets of the Group and of NA AG are given on pages 62/63 and 68/69.

Intangible assets include usage rights acquired for a fee as well as goodwill resulting from the consolidation within the framework of the consolidated financial statements. Both items are depreciated on schedule. Additions are the result of the first consolidation of Prymetall GmbH & Co. KG and payments for the migration of our SAP software to System R<sub>3</sub>.

Capital expenditures totalled 41.0 million € in the Group for tangible assets excluding additions from the first consolidation. A major project was the "Kayer Recycling System" commissioned at Hüttenwerke Kayser AG in Lünen. At the Hamburg site capital expenditures were directed into our energy-saving project eNergiA as well as into plants to optimise precious metal processing and in the research project "thin strip casting".

A breakdown of the shareholdings accounted for under financial assets is given on page 86. Additions to financial assets of NA AG represent the acquisition of Prymetall GmbH & Co. KG. Disposals represent the sale of MicroMet GmbH Pulvertechnologie.

# 2. Inventories

	NA Group		NA AG	
in thousand €	30.09.2002	30.09.2001	30.09.2002	30.09.2001
Raw materials and supplies	129,775	108,744	77,080	73,553
Unfinished goods	115,854	125,386	83,558	92,117
Finished goods, merchandise	72,408	71,572	43,806	40,523
Payments on account	104	115	-	-
	318,141	305,817	204,444	206,193

Despite the Group expansion, total inventories in the Group only rose by about 12 million €. Additions resulting from the consolidation of the sub-group Prymetall GmbH & Co. KG amounting to 36 million € could be partly countered in particular by lower inventories at Hüttenwerke Kayser AG and the disposal of MicroMet GmbH Pulvertechnologie.

The difference between the market value of inventories at the balance sheet date and our valuation amounts to 27 million € for NA AG and 31 million € for the Group.

# 3. Receivables and other assets

5. Receivables and other assets					
	Maturing in		Т	Total	
in thousand €	less than 1 year	more than 1 year	30.09.2002	30.09.2001	
NA Group					
Trade receivables from third parties	128,478	-	128,478	110,896	
Receivables from affiliated companies	3,247	-	3,247	2,785	
Receivables from enterprises in which participations are held	1,548	-	1,548	652	
Other assets	21,072	1,425	22,497	20,985	
	154,345	1,425	155,770	135,318	
	Mat	uring in	Т	otal	
in thousand €	less than 1 year	more than 1 year	30.09.2002	30.09.2001	

			-	
in thousand €	less than 1 year	more than 1 year	30.09.2002	30.09.2001
NA AG				
Trade receivables from third parties	70,180	-	70,180	89,166
Receivables from affiliated companies	24,421	-	24,421	35,878
Receivables from enterprises in which participations are held	926	-	926	652
Other assets	16,005	574	16,579	11,180
	111,532	574	112,106	136,876

The increase in receivables and other assets resulting from the first consolidation of Prymetall GmbH & Co. KG amounting to 44.6 million € was partly compensated by reduced trade receivables from third parties at NA AG, lower receivables from taxes at Hüttenwerke Kayser AG and the deconsolidation of MicroMet GmbH Pulvertechnologie.

At the time the balance sheet was compiled, the outstanding trade receivables had practically all been settled.

# 4. Short-term security investments

Our short-term security investments are pledged to secure claims from one of our pension funds.

A write-up of about 19 thousand € was required to reinstate the original value of securities.

## 5. Liquid assets

Liquid assets include current and fixed bank deposits as well as cheques, cash in hand and deposits at the Bundesbank.

# 6. Equity

	Subscribed	Capital	Revenue	Consolidated	Consolidated	Minority
in thousand €	capital	reserves	reserves	profit	equity	interests
01.10.2001	82,824	25,815	138,641	23,526	270,806	9,308
Dividend payments	-	_	_	- 24,265	- 24,265	- 1,531
Capital increase	896	1,740	_	-	2,636	-
Net earnings	-	_	10,200	8,628	18,828	1,546
Consolidation measures						
and other changes	-	- 134	- 604	739	1	
30.09.2002	83,720	27,421	148,237	8,628	268,006	9,323

In the last fiscal year, 350,000 new bearer shares of NA AG calculated at  $896,000 \in$  were issued in exchange for convertible bonds as part of the stock option plan for the Executive Board and senior staff. As a result, the subscribed capital amounts to  $83,719,680 \in$  and is divided into 32,703,000 bearer shares. The agio from the capital increase amounting to  $4.97 \in$  per share,  $1,739,500 \in$  in total, was allocated to capital reserves.

The conditional capital now totals  $38,115,520 \\in \\mathbb{a}$  and consists of "conditional capital I" in the amount of  $3,115,520 \\in \\mathbb{a}$  and "conditional capital II" in the amount of  $35,000,000 \\in \\mathbb{a}$ , which enable rights to be granted to the holders of warrants and/or convertible bonds that may be issued up to 11 June 2003 or 31 March 2005 respectively.

There is still an approved capital of 40,000,000 €. Accordingly, subject to the approval of the Supervisory Board the Executive Board is authorised to increase the subscribed capital in the period up to 31 March 2005 by issuing new shares against a cash or non-cash capital contribution in one lump sum or in several instalments.

10.2 million € were allocated from the net earnings to the revenue reserves of NA AG.

The revenue reserves are made up as follows:

	NA Group		NA AG	
in thousand €	30.09.2002	30.09.2001	30.09.2002	30.09.2001
Statutory revenue reserves	6,391	6,391	6,391	6,391
Other revenue reserves	141,846	132,250	124,605	114,405
	148,237	138,641	130,996	120,796

# 7. Special reserves with an equity portion

In the Group 3,237 thousand € of the special reserves with an equity portion formed in accordance with Section 52 § 16 of the German Income Tax Code to reinstate the original values were released.

# 8. Provisions

	NA	NA Group		NA AG	
in thousand €	30.09.2002	30.09.2001	30.09.2002	30.09.2001	
Provisions for pensions	59,723	53,706	24,588	24,792	
Other provisions					
Personnel sector	45,372	40,411	30,128	29,425	
Maintenance and repairs	15,072	13,084	13,590	11,631	
Environmental protection	7,682	8,536	220	220	
Other	38,650	26,752	27,330	19,867	
	106,776	88,783	71,268	61,143	
	166,499	142,489	95,856	85,935	

The pension obligations for NA AG and the fully consolidated subsidiaries have been evaluated in accordance with the new biometric tables and with the discount rates of 3.5 % and 6 %.

In the evaluation of an interest and currency swap transaction shown under open contracts the negative market value of the interest portion was no longer balanced in comparison with the previous year.

The increase in provisions is primarily due to allocations to provisions for major repairs, obligations under early retirement schemes and the threat of losses as well as the first consolidation of the sub-group Prymetall GmbH & Co. KG in the amount of 12.9 million €.

Altogether, the provisions for the Group at the balance sheet date in the amount of 85.6 million € (previous year: 79.3 million €) were of a long-term character. NA AG's share of this total amounted to 43.2 million € (previous year: 43.3 million €).

# 9. Liabilities

	Maturing in			Total	Total
in thousand €	less than 1 year	1 to 5 years	more than 5 years	30.09.2002	30.09.2001
NA Group					
Convertible bonds	877	2,018	_	2,895	2,740
Liabilities to banks	40,232	134,802	6,262	181,296	78,514
Advance payments					
received on orders	1,701	_	_	1,701	818
Trade accounts payable	142,031	-	-	142,031	167,048
Liabilities from the acceptance					
of drawn drafts and the					
issuing of drafts	8,250		_	8,250	_
Liabilities due to					
affiliated companies	1,000	_	25	1,025	1,206
Liabilities due to enterprises					
in which participations are held	1,601	_	_	1,601	164
Other liabilities	41,557	244	147	41,948	31,976
of which taxes paid				(22,276)	(15,815)
of which as part of social contributio	ns			(6,070)	(5,940)
	237,249	137,064	6,434	380,747	282,466

		Maturing	in	Total	Total
in thousand €	less than 1 year	1 to 5 years	more than 5 years	30.09.2002	30.09.2001
NA AG					
Convertible bonds	877	2,018	-	2,895	2,740
Liabilities to banks	3,596	88,343	3,655	95,594	48,506
Advance payments received on orders	1,433	-	-	1,433	662
Trade accounts payable	104,211	_	-	104,211	144,022
Liabilities due to affiliated companies	12,349	_	-	12,349	10,013
Liabilities due to enterprises in which participations are held	330	_	-	330	-
Other liabilities	32,981	_	_	32,981	24,669
of which taxes paid				(18,224)	(12,664)
of which as part of social contributio	ins			(4,816)	(4,500)
	155,777	90,361	3,655	249,793	230,612

The convertible bonds with a nominal value of 2,895 thousand € are divided into 5,657 bonds, made out to the holder with a nominal amount of 511.29 € or € 512 each and with interest payable of 5.5 % p.a., 5.2 % p.a. and 4.6 % p.a. They have been acquired by senior staff in the NA Group as part of a share option plan.

The Group's liabilities to banks have increased, mainly due to the acquisition and first consolidation of Prymetall GmbH & Co. KG. At the balance sheet date this sub-group's financial liabilities totalled 57.7 million €.

The advance payments received include fees from tolling business still in process. The decline in trade accounts payable is the result of a decrease in deliveries at NA AG which have not yet been finally invoiced. Higher tax burdens and the expansion of the Group have accounted for an increase in other liabilities.

At subsidiaries the liabilities to banks in the sum of 60,334 thousand € are secured by mortgages, inventories assigned by way of security as well as assets.

Debt discounts arising in the amount of 377 thousand € are shown as assets under deferred items.

# 10. Contingent liabilities and other financial liabilities

	NA Group	NA AG
in thousand €	30.09.2002	30.09.2001
Contingent liabilities from notes discounted	8,767	7,678
Financial liabilities from capital projects	18,142	16,239
Financial liabilities from tolling agreements	15,828	15,327
Other financial liabilities (p.a.)	6,186	3,024

Liabilities under tolling agreements refer to the value of the metal extracted during the tolling process which has to be returned. These liabilities are accounted for by corresponding recourse claims.

# 11. Derivative financial instruments

To hedge the risks in the operational business which arise from fluctuations in non-ferrous metal prices, foreign exchange rates and interest rates, we employ derivative financial instruments in the Group in the form of futures transactions, options and interest hedging. These agreements, which are monitored as part of a risk management system, are made with reputable brokers and banks.

The non-ferrous metals futures and hedging transactions primarily concern copper and the U.S. dollar.

	No	Nominal volumes	
in million €	30.09.20	002	30.09.2001
Non-ferrous metal futures transactions			
Maturing in up to 1 year	233	2.1	363.8
Maturing in 1 to 5 years	30	6.1	52.9
	268	8.2	416.7
Foreign exchange forward trading			
Maturing in up to 1 year	299	9.5	422.0
Maturing in 1 to 5 years	5:	1.1	37.1
	350	0.6	459.1
Option dealings			
Foreign exchange	51	7.6	49.9
Interest derivatives	64	4.5	37.9

The nominal volume of the derivative financial instruments is the sum of all the purchase and sales contracts. The market value on the other hand is calculated using the value of the contracts at the price valid on the day of valuation and indicates how – separated from underlying transactions – the derivative contracts would impact profit. As at 30 September 2001 the market value, which thus results from setting off the respective profit and loss of the individual items, amounted to -14.5 million € for metal hedging, 7.0 million € for foreign exchange hedging and -4.2 million € for interest derivatives. The difference between acquisition and market value of option dealings, for which a premium was paid, amounted to 1.0 million €.

# 12. Turnover

	NA	Group	NA AG		
in thousand €	2001/02	2000/01	2001/02	2000/01	
By product groups					
Copper cathodes	299,780	343,757	319,500	343,370	
Continuous cast wire rod	547,967	732,368	545,387	729,485	
Continuous cast shapes	279,989	376,682	332,810	376,682	
Pre-rolled strip, strips and shaped wires	169,829	-	-	-	
Precious metals	454,984	388,046	455,059	375,701	
Chemicals	97,785	96,250	9,859	9,805	
Metal powders	8,031	18,766	-	-	
Other	61,603	53,988	33,681	62,123	
	1,919,968	2,009,857	1,696,296	1,897,166	

In the year under review, 66 % of the Group turnover was achieved in the domestic market, 22 % in the European Union, 5 % in the non-EU European markets and the remaining 7 % in non-European countries, primarily in North America.

The turnover of continuous cast wire rod and shapes also includes revenues for so-called "Wandelkathoden" (copper on account), which are delivered in the requested sizes in accordance with the customer's specification.

The decline in Group turnover of about 4% is largely attributable to lower copper prices and unit sales. Additional turnover from the enlarged Group amounting to 120.4 million € was compensated by this.

# 13. Other operating income

	NA	Group	NA AG		
in thousand €	2001/02	2000/01	2001/02	2000/01	
Release of special items with an equity portion	3,237	1,902	597	597	
Other operating income	26,803	39,563	25,323	44,207	
	30,040	41,465	25,920	44,804	

This total includes income from the disposal of fixed and financial assets, from the release of provisions as well as income not relating to the period under review and costs which have been charged to another party. In addition, balancing amounts for utilised provisions are included here, for which the primary cost is charged to the respective item of expense.

The decline in other operating income by 12.8 million € in the Group concerns especially NA AG. Last year the utilisation of provisions for the overhaul of the East Smelter (RWO) and previously omitted maintenance at NA AG were shown in the amount of 19.1 million €.

# 14. Cost of raw materials and supplies

	NA Group		NA AG		
in thousand €	2001/02	2000/01	2001/02	2000/01	
Raw materials, supplies and purchased goods	1,472,904	1,606,592	1,416,230	1,604,367	
Cost of purchased services	64,703	78,932	64,969	83,448	
	1,537,607	1,685,524	1,481,199	1,687,815	

The cost of raw materials and supplies has reduced due to lower turnovers. Compared with the previous year the proportion of the cost of raw materials and supplies in the Group improved from 84 % to 81 %. This resulted from the greater vertical production range due to the Group expansion which is included in the cost of raw material and supplies in the amount of 69.5 million €, and lower expenditures for major repairs.

# 15. Personnel expenses and human resources

	NA	Group	NA AG		
in thousand €	2001/02	2000/01	2001/02	2000/01	
Wages and salaries	155,736	137,001	89,881	87,172	
Social security and special benefit expenses	35,044	31,428	18,949	19,624	
(of which expenditure for old age pensions)	(4,075)	(4,449)	(1,533)	(2,654)	
	190,780	168,429	108,830	106,796	

Apart from the general wage-scale increase, the rise in personnel expenses in the Group by 13 % is mainly due to the enlargement of the consolidated circle in the amount of 23.5 million €.

The average number of employees during the year was:

	NA	Group	NA AG		
	2001/02	2000/01	2001/02	2000/01	
Blue collar	2,278	2,002	1,296	1,309	
White collar	1,161	1,054	628	620	
Apprentices/trainees	173	139	116	107	
	3,612	3,195	2,040	2,036	
(of which no. of employees in joint enterprises)	(130)	-	-	-	

# 16. Depreciation

In the year under review, depreciation in the Group rose by 7.0 million € to 53.6 million €. This was above all the impact of depreciation from the first consolidation of the sub-group Prymetall GmbH & Co. KG including goodwill amortisation. Goodwill amortisation in the Group totalled 5.0 million €.

After completing various major investment projects in the previous year, lower depreciation by 3.5 million € was shown for NA AG

# 17. Other operating expenses

This item includes administration and marketing costs, fees, insurance, rents and leases as well as allocations to provisions. In addition, other taxes in the Group in the sum of 781 thousand  $\in$  (previous year: 758 thousand  $\in$ ) are shown.

The first consolidation of the above sub-group also had an impact on other operating expenses. The increase by 13.7 million € was largely the result of the enlargement of the circle of consolidated companies in the amount of 22.0 million € as well as a reduction at NA AG due to reduced allocations to provisions and the sale of MicroMet GmbH Pulvertechnologie.

## 18. Income from investments

	NA	Group	NA AG		
in thousand €	2001/02	2000/01	2001/02	2000/01	
Income from agreements to transfer profits	2	3	1	2	
Income from shareholdings	7	1	9,195	10,663	
(of which from affiliated companies)	-	-	(9,195)	(10,663)	
Profit from associated companies	644	1,272	-	-	
Depreciation on affiliated companies and shareholdings	-	354	-	2,619	
Expenditure from transfer of losses	84	-	-	-	
	569	922	9,196	8,046	

The income from investments in the Group mainly comprises income from subsidiaries of Spiess-Urania Chemicals GmbH which are not fully consolidated.

# 19. Net interest

	NA	Group	NA AG		
in thousand €	2001/02	2000/01	2001/02	2000/01	
Income from loans under financial assets	52	67	-	_	
Interest and similar income	3,845	6,133	3,697	6,319	
(of which from affiliated companies)	(256)	(146)	(362)	(700)	
	3,897	6,200	3,697	6,319	
Interest and similar expenses	15,484	13,883	8,496	10,870	
(of which to affiliated companies)	(127)	(13)	(514)	(757)	
	(11,587)	(7,683)	(4,799)	(4,551)	

The net interest includes the interest component of pension costs in the sum of 1.1 million  $\in$  (previous year: 0.9 million  $\in$ ) for NA AG and 2.9 million  $\in$  (previous year: 2.5 million  $\in$ ) for the Group.

In the Group the rise in the interest paid by 3.9 million € was due to the increased use of credit facilities by the sub-group Prymetall GmbH & Co. KG and Hüttenwerke Kayser AG.

# 20. Taxes on income

The taxes on income at NA AG amounted to 17.4 million € corresponding to a tax rate of 36 %. This was positively impacted by the acquisition of Prymetall GmbH & Co. KG. An adverse impact was made in particular by the non-tax-deductible allocations to provisions for threatened losses.

In the Group the tax rate rose to 47 % due to non-tax-deductible losses at Hüttenwerke Kayser AG.

# 21. Impact of tax measures

The utilisation of additional depreciation permitted for tax purposes in the previous years, taking into account the release of special reserves with an equity portion, has increased income before taxes for the Group by approx. 4.5 million €. The future tax rate will amount to about 40%.

# **GROUP SEGMENT REPORTING**

	Segment		Segment					
	Copper	Copper Production		Processing	Ot	hers	Group	total
in thousand €	01/02	00/01	01/02	00/01	01/02	00/01	01/02	00/01
Turnover								
Total	1,456,050	1,491,741	1,422,193	1,580,663	1,848	997	2,880,091	3,073,401
of which with other								
segments	927,867	1,004,723	32,089	58,551	167	270	960,123	1,063,544
Group with third								
parties	528,183	487,018	1,390,104	1,522,112	1,681	727	1,919,968	2,009,857
Earnings before								
taxes on income	21,570	25,940	16,160	30,579	391	693	38,121	57,212
EBIT	27,636	30,837	21,544	33,267	528	791	49,708	64,895
EBITDA	64,263	69,081	38,451	41,607	593	791	103,307	111,479
Income from								
participations	1	101	567	819	1	2	569	922
Other income not								
affecting cash flow	3,084	2,970	12	754	10	-	3,106	3,724
Fixed assets	216,627	222,754	122,879	36,492	912	27	340,418	259,273
Capital expenditure	32,939	62,614	12,027	6,264	-	-	44,966	68,878
Depreciation	36,627	38,244	16,907	8,340	65	-	53,599	46,584
Total assets	468,305	514,946	345,129	184,721	4,384	2,805	817,818	702,472
Liabilities	233,249	236,582	140,756	42,565	6,742	3,319	380,747	282,466
Average number of								
employees	2,301	2,245	1,311	950	-	-	3,612	3,195
Personnel expenses	119,698	118,487	71,082	49,942	-	-	190,780	168,429

The segments are split in accordance with internal processes and the production structure of the NA Group. Under "Other" contributions and earnings are shown which cannot be allocated to a particular segment.

It was decided not to divide the segments up further into geographical units, since this would not result in any further significant information. The segment figures were determined using the same accounting and valuation principles as otherwise used in the financial statements.

In addition to this Group Segment Reporting, further information is given on the segments in the Management Report on pages 40 to 59 of the Annual Report.

# Segment Copper Production

- NA business unit Metallurgy
- Hüttenwerke Kayser
- CABLO
- Retorte
- Peute Baustoff

# **Segment Copper Production**

The segment Copper Production comprises all the sectors dealing in the procurement of copper-bearing and precious metal-bearing raw materials and ends with the production of marketable metals. Raw materials include in particular copper concentrates, copper-bearing recycling materials and precious metal-bearing raw materials.

The segment's end products are copper cathodes, which can be sold on the metal exchanges, saleable gold, silver and platinum metal products as well as the natural by-products in the raw materials, e.g. sulphuric acid and iron silicate stone. Precious metals, sulphuric acid and iron silicate products are sold externally to third parties. The copper cathodes produced are primarily passed on to the segment Copper Processing. There they are processed to copper products and sold which results in a significant percentage of the Group's turnover within the segment Copper Production. The segment Copper Production also includes environmentally friendly cable dismantling, the sale of the resultant metal granulate as well as the production of high quality selenium products.

# **Segment Copper Processing**

- NA business unit Copper Products
- Deutsche Giessdraht
- Prymetall
- MicroMet
- Spiess-Urania

# **Segment Copper Processing**

The segment Copper Processing covers in particular the processing of the copper cathodes from the segment Copper Production into continuous cast wire rod and shapes, strips and shaped wires as well as the copper trade. The main customers of the products are the cable, wire and semis industries. The products are primarily distributed in Europe.

In addition, this segment includes the production and distribution of crop protection products and copper chemicals as well as metal powders (until 31 March 2002).

## Segment data

The turnover of the individual segments was divided into inter-Group turnover with other segments and turnover with third parties. The latter results in the Group turnover. The previous year was in some instances adjusted to achieve the Group-wide turnover of the segment Copper Production. The turnover between the individual segments and Group companies was settled at prices customary on the market and corresponds to turnover achieved with third parties.

The earnings before taxes on income reflect the segment's respective contribution to the Group profit. Contributions to earnings due to other shareholders resulting from minority interests in subsidiaries have not been specifically indicated here.

The EBIT (earnings before interest and taxes) of the individual Segments have been adjusted by the respective net interest. The EBITDA (earnings before interest, taxes, depreciation and amortisation) are the EBIT less depreciation.

The income from participations represents the earnings of the companies which have been included by the equity consolidation method as well as the earnings of the companies which are not consolidated.

In addition, other expenses and income not affecting cash flow as shown in the consolidated cash flow statement are likewise allocated to the segments.

The total assets include all assets with the exception of the respective segment's liquid assets.

Trade accounts payable, liabilities due to affiliated companies and other liabilities just as liabilities to banks and liabilities from convertible bonds were combined and shown as the liabilities of the individual segments.

The cash flow statement in the financial statements is shown on page 65 of the Annual Report.

## OTHER INFORMATION

# **Executive Board and Supervisory Board**

The members of the Supervisory Board and the Executive Board are listed on pages 90/91 of this report.

Based on the recommended dividend, the remuneration for the members of the Executive Board for the fiscal year 2001/2002 amounts to 1,655,254 € and includes, apart from a fixed part totalling 892,904 €, a success-related component totalling 520,125 € as well as a component as a long-term incentive totalling 242,225 €. Former members of the Executive Board and their survivors received a total of 1,032,786 €. Provisions in the sum of 11,228,694 € have been allocated to cover their pension claims.

The compensation of the Supervisory Board in the fiscal year 2001/2002 amounted to 199,829 €.

Members of the Supervisory Board hold 14,996 and members of the Executive Board 8,500 shares in Nord-deutsche Affinerie AG. In addition, the members of the Executive Board have acquired convertible bonds with a nominal value of 335 thousand €, which in accordance with the bond conditions can be exchanged on maturity for shares in Norddeutsche Affinerie AG.

# **Recommended profit appropriation**

Net profit of Norddeutsche Affinerie AG	31,456,950 €
Allocations to other revenue reserves	10,200,000 €
Net surplus	21,256,950 €

We shall recommend at the Annual General Meeting that the net surplus of Norddeutsche Affinerie AG in the sum of 21,256,950 € be used to pay a dividend of 0.65 € per share.

Hamburg, 20 December 2002

The Executive Board

Dr Werner Marnette

Dr Michael Landau

Dr Toralf Haag

Toul Head

# Shareholdings

# as at 30 September 2002

	npany name seat ho	% of capital eld by NA Group	Currency	Subscribed capital in 1,000	Held directly by	Stake in %
1.	Norddeutsche Affinerie AG, Hamburg		€	83,720		
2.	Hüttenwerke Kayser AG, Lünen	98	€	23,400	1	98
3.	Prymetall GmbH, Stolberg	100	€	30	1	100
4.	Prymetall GmbH & Co. KG, Stolberg	100	€	12,800	1	100
5.	Gesellschaft für Metallanlagen GmbH, Hamburg	100	€	3,900	1 2	67 33
6.	Spiess-Urania Chemicals GmbH, Hamburg	60	€	8,667	1	60
7.	CABLO Metall-Recycling & Handel GmbH, Hamburg	100	€	767	1	100
8.	Peute Baustoff GmbH, Hamburg	100	€	52	1	100
9.	Retorte Ulrich Scharrer GmbH, Röthenbach	100	€	2,045	1	100
10.	Berliner Kupfer-Raffinerie GmbH, Hamburg	100	€	2,557	1 2	67 33
11.	Hüttenbau-Gesellschaft Peute mbH, Hambi	urg 100	€	26	1	100
12.	NA Venture GmbH, Hamburg	100	€	25	1	100
13.	CIS Solartechnik GmbH, Hamburg	45	€	45	12	45
14.	Schwermetall Halbzeugwerk GmbH, Stolbe	rg 50	€	52	4	50
15.	Schwermetall Halbzeugwerk GmbH & Co. K Stolberg	CG, 50	€	12,500	4	50
16.	Deutsche Giessdraht GmbH, Emmerich	60	€	6,200	5	60
17.	Hüttenwerk Kayser GmbH, Lünen	100	€	26	2	100
18.	C.M.R. International N.V., Antwerp	50	€	1,000	2	50
19.	Hungurania Kft., Budapest	60	HUF	3,000	6	100
20.	J.M. Lauff GmbH, Cologne	60	€	256	6	100
21.	Dr. Spiess Chemische Fabrik GmbH, Kleinkar	lbach 60	€	512	6	100
22.	Spiess-Urania Pflanzenschutz GmbH, Ochsenfurt	60	€	200	6	100
23.	EGC Eisenbahn- u. Gleisbau-Consulting Gm Berlin	bH, 30	€	31	6	50
24.	E.R.N. Elektro-Recycling NORD GmbH, Hamb	ourg 70	€	512	2	70
25.	JoSeCo GmbH, Kirchheim/Schwaben	33	€	225	9	33

Companies 2 and 4 to 10 as well as 16 were fully consolidated as part of the financial statements. Company 15 was consolidated pro rata.

Companies 20, 21 and 22 were consolidated using the equity method. A complete list of shareholdings is on file at the commercial register of the Hamburg courts under the number B 1775.

# **Auditors' Report**

We have audited the annual financial statements, together with the bookkeeping system, of the Company Norddeutsche Affinerie AG as well as the consolidated financial statements and the report on the position of the Company and the Group prepared by the Company for the fiscal year from 1 October 2001 to 30 September 2002. The preparation of those documents in accordance with German commercial law is the responsibility of the Company's management. Our responsibility is to express an opinion on the annual financial statements, together with the bookkeeping systems, as well as on the consolidated financial statements and the report on the position of the Company and the Group based on our audit.

We conducted our audit of the annual and the consolidated financial statements in accordance with § 317 HGB and the generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the annual and consolidated financial statements in accordance with German principles of proper accounting and in the report on the position of the Company and the Group are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Company and evaluations of possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the internal control system and the evidence supporting the disclosures in the books and records, the annual and the consolidated financial statements and the report on the position of the Company and the Group are examined primarily on a test basis within the framework of the audit. The audit includes assessing the accounting and consolidation principles used and significant estimates made by the management, as well as evaluating the overall presentation of the annual and the consolidated financial statements and the report on the position of the Company and the Group. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, the annual and the consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of Norddeutsche Affinerie AG and the Norddeutsche Affinerie Group, respectively, in accordance with German principles of proper accounting. On the whole, the report on the position of the Company and the Group provides a suitable understanding of the Company's and Group's position and suitably presents the risks of future development.

Hamburg, 23 December 2002

KPMG Deutsche Treuhand-Gesellschaft Aktiengesellschaft Wirtschaftsprüfungsgesellschaft

Wirtschaftsprüfer

Pallasch Wirtschaftsprüfer

# Supervisory Board's Report

Dear Shareholders,

In the fiscal year 2001/2002 NA consistently pursued its growth strategy and its forward integration in the value added chain of copper.

During the year the Supervisory Board regularly reviewed the Executive Board's business management and acted in an advisory capacity. It was kept informed by the Executive Board in written and verbal reports about the company's financial situation as well as about company policy and significant business transactions. At four scheduled meetings the business performance of the Company and of its individual Segments including the Group companies was discussed in detail. At an extraordinary meeting the Supervisory Board, after a detailed examination and discussion of the project, approved the acquisition of Prymetall GmbH & Co. KG in Stolberg including its 50 % stake in Schwermetall Halbzeugwerk GmbH & Co. KG, likewise in Stolberg. A Supervisory Board Meeting was held at Prymetall's headquarters in Stolberg with a tour of the operations of both companies. Quite apart from these meetings, the Supervisory Board was also kept informed by the Executive Board about developments at regular intervals. In addition to carrying out the functions stipulated by law and the Articles of Association, the Supervisory Board assisted with certain important matters in an advisory capacity.

In the last fiscal year the Supervisory Board was above all concerned with

- the successful integration of Prymetall GmbH & Co. KG in the Group;
- measures to optimise the precious metals business;
- the sale of MicroMet GmbH Pulvertechnologie to ECKA Granulate GmbH & Co.;
- the Value Based Management project to enhance performance and increase enterprise value further;
- the optimisation of the material flow management, especially with Hüttenwerke Kayser AG giving particular consideration to the installation of the new KRS plant.

In the Supervisory Board Meeting on 30 January 2002 the Supervisory Board gave its approval to the issuing of the 5th tranche of convertible bonds to the Executive Board and senior staff.

At its meeting on 12 September 2002 the Executive and Supervisory Boards agreed on a joint Statement of Policy regarding Corporate Governance, in which NA commits itself to maintaining responsible, transparent corporate management and control, oriented to increasing enterprise value. NA welcomes the German Corporate Governance Code. Its recommendations will be almost fully complied with. At its meeting on 5 December 2002 the Executive and Supervisory Boards issued the first Declaration of Conformity which was updated on 29 January 2003.

The financial statements for the fiscal year from 1 October 2001 to 30 September 2002, which were issued by the Executive Board in accordance with the German Commercial Code, as well as the management report for the company and for the Group have been audited by KPMG Deutsche Treuhand-Gesellschaft AG, Wirtschaftsprüfungsgesellschaft, Berlin und Frankfurt a.M., in accordance with the resolution passed at NA's Annual General Meeting held on 4 April 2002 and the subsequent order placed by the Supervisory Board. The auditors have issued an unqualified report. All the members of the Supervisory Board received copies of the financial statements and the audit reports. They were discussed in detail at the Balance Sheet Meeting on 29 January 2003. During this meeting the auditors reported on the main results of the audit and were available to give the Supervisory Board further information. The Supervisory Board agreed with the results of the audit carried out by the auditors on the basis of its own examination of the financial statements, the consolidated financial statements, the management report and the recommendation for the appropriation of the net earnings. It approved and thereby adopted the financial statements and the consolidated financial statements. The Supervisory Board concurred with the Executive Board's recommendation for the appropriation of the net earnings.

In addition to the statutory Committee in accordance with Section 27 § 3 Law on Co-determination, the Preparatory Committee and the Personnel Committee, an Audit Committee was formed in the year under review. All the Committees have equal representation.

As a result of a change in the shareholder circle, Mr James P. Mooney resigned from office as a member of the Supervisory Board with effect from 30 November 2002. Our thanks go to Mr Mooney for services rendered to the good of the Company.

On 4 February 2002 Mr Paul Hofmeister, Chairman of the Executive and Supervisory Boards for many years, passed away. Mr Hofmeister was the Honorary Chairman of the Supervisory Board until his death. The Company is indebted to the deceased. We shall honour his memory.

With effect from 1 January 2003 Dr Bernd E. Langner has been appointed a Member of the Executive Board.

The Supervisory Board thanks the Executive Board, NA staff as well as the employees' representatives for their responsible and dedicated efforts and achievements.

Hamburg, 29 January 2003

THE SUPERVISORY BOARD

Emst Within

Dr Ernst J. Wortberg

Chairman

# Supervisory and Executive Boards

## SUPERVISORY BOARD

**Paul Hofmeister,** Hamburg Honorary Chairman († 4 February 2002)

# Dr Ing. Ernst J. Wortberg, Pogeez

Chairman

Chairman of the Executive Board of L. Possehl & Co. mbH, Lübeck

 Deutscher Eisenhandel AG, Berlin Chairman of the Supervisory Board

# Hans-Jürgen Grundmann, Seevetal\*

Deputy Chairman Shop mechanic Chairman of the Works' Council of Norddeutsche Affinerie AG

# Joachim Bruhn, Hamburg\*

Coppersmith

Member of the Works' Council of Norddeutsche Affinerie AG

# Meinhard Carstensen, Hamburg

Retired member of Executive Board and former member of the Supervisory Board of Dresdner Bank AG, Frankfurt a. M.

# Gottlieb Förster, Itzstedt\*

Union secretary of the Industrial Union: Mining, Chemistry, Energy, Hanover

- Deutsche Shell GmbH, Hamburg Member of the Supervisory Board
- Shell Deutschland Holding GmbH, Hamburg Member of the Supervisory Board
- Gerresheimer Glas AG, Düsseldorf Member of the Supervisory Board
- Chemie Pensionsfonds AG, Munich Member of the Supervisory Board

# Dr Peter von Foerster, Hamburg

- Alsen AG, Hamburg
   Chairman of the Supervisory Board
- Phoenix AG, Hamburg
   Member of the Supervisory Board
- Hamburger Hafen- und Lagerhaus AG, Hamburg Chairman of the Supervisory Board
- Unilever Deutschland GmbH, Hamburg Member of the Supervisory Board
- Hemmoor Zement AG i.L., Hamburg Chairman of the Supervisory Board
- Desitin Arzneimittel GmbH, Hamburg Member of the Administrative Council
- Max Giese Bau, Kiel
   Chairman of the Advisory Council
- Bernhard Schulte KG, Hamburg Member of the Advisory Council

# **Prof. Dr Ing. Jürgen Haußelt,** Germersheim Head of the Institute for Material Research III of

the Research Centre Karlsruhe GmbH, Karlsruhe

• Chair for Material Process Technology, 15th Faculty, Albert-Ludwigs University, Freiburg i. Br.

# Gerd Körner, Hamburg\*

Commercial employee in the Accounts Dept. of Norddeutsche Affinerie AG Member of the Works' Council of Norddeutsche Affinerie AG

# Günter Kroll, Hamburg\*

Graduate engineer Head of the Vocational Training Department of Norddeutsche Affinerie AG

<sup>\* =</sup> elected by the employees

James P. Mooney, Rocky River, Ohio, USA (from 5 December 2001 to 30 November 2002) Chairman of the Board and Chief Executive Officer of the OM Group, Inc, Cleveland, USA

- Cobalt Development Institute, Guildford, England Chairman
- Cleveland Clinic Foundation, Cleveland, USA Trustee

# Egon Schäfer, Sarstedt\*

Retired union secretary of the Industrial Union: Mining, Chemistry, Energy, Hanover

DI Deutsche BauBeCon AG, Hanover
 Deputy Chairman of the Supervisory Board

# **Prof. Dr Fritz Vahrenholt,** Hamburg REpower Systems AG, Hamburg Chairman of the Executive Board

- SAM Smart Energy AG, Zürich, Schweiz President of the Administrative Council
- Denker & Wulf AG, Sehestedt,
   Member of the Supervisory Board
- ThyssenKrupp Technologies AG, Essen Member of the Supervisory Board
- Hamburger Sport-Verein AG, Hamburg
   Deputy Chairman of the Supervisory Board

# **EXECUTIVE BOARD**

**Dr Werner Marnette,** Hollenstedt Chairman of the Executive Board and Director of Labour Affairs

- Hamburgische Landesbank, Hamburg Member of the Supervisory Board
- Hüttenwerke Kayser AG, Lünen Chairman of the Supervisory Board
- Leoni AG, Nürnberg
   Member of the Supervisory Board

**Dr Michael Landau,** Mölln Member of the Board

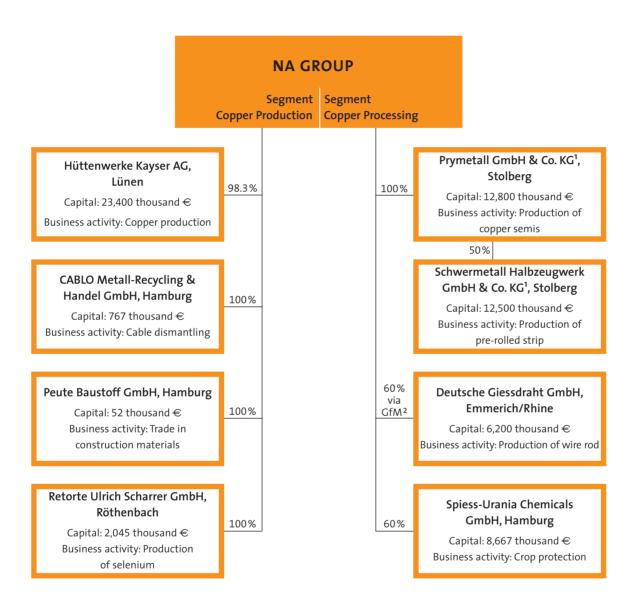
**Dr Toralf A. Haag,** Hamburg Member of the Board (since 1 January 2002)

**Dr Bernd E. Langner,** Winsen/Luhe Member of the Board (since 1 January 2003)

• Prymetall GmbH & Co. KG, Stolberg Spokesman of the Management Board

# Main Shareholdings

# as at 30 September 2002



<sup>&</sup>lt;sup>1</sup> in the Group since 1 January 2002

<sup>&</sup>lt;sup>2</sup> Gesellschaft für Metallanlagen mbH

# Glossary

**Anodes** Positive electrodes of an electrolytic cell, end-product of the RWO; copper

content about 99.5%.

**Anode slimes** Important by-product of the copper tankhouse, which settles on the bottom

of an electrolytic cell as the copper anodes dissolve. The precious and non-soluble components of the anodes are recovered with the anode slimes (e.g.

silver, gold, selenium and lead).

Cathodes Product of the copper tankhouse (copper content > 99.99%) and the first

marketable product in copper production which can be sold on the metal exchanges; basis of the copper price fixation on the metal exchanges.

**COMEX** Together with the LME one of the two most important metal exchanges. It

is of particular importance to the American market.

**Continuous** Semi-finished product produced in a continuous process for the production of

cast wire rod copper wire. The wire rod diameter ranges from 8 to 21.4 mm.

**Continuous casting** Continuous casting produces a continuous strand. During the casting process,

sizes of various lengths are separated from the casting billet by a flying saw. A variety of profiles (billets and cakes) and lengths can be created. These so-called continuous cast shapes are processed further by rolling and pressing

into sheets, foils, profiles and tubes.

**Converter** A furnace in which metal production or refining processes are typically car-

ried out through oxidation. Copper matte from the flash smelter is treated in

the converter to blister copper.

**Copper concentrates** A product resulting from the processing (enriching) of copper ore, NA's main

raw material. Since copper is found principally only in ores in compound form and in low concentrations (0.5 to 4% copper content), the ores, after extraction from the mine, are enriched in processing facilities into concentrates (copper

content of 25 to 40 %).

**Copper tankhouse** In the copper tankhouse an electrochemical process, the last refining stage

in copper recovery, takes place. Anodes and cathodes are hung in a sulphuric acid solution (electrolyte) and connected to an electric current. Copper and soluble impurities (nickel, etc.) are dissolved in the electrolyte. Copper from the solution is deposited on the cathode with a purity of more than 99.99%. More precious elements (e.g. silver and gold) and insoluble components

settle as so-called anode slimes on the bottom of the tankhouse cell.

# Glossary

**Flash smelter** First phase in the processing of copper concentrate. The concentrate, which is

suspended in a reaction shaft, reacts with oxygen and is melted through the heat released. Sulphur und iron are separated into intermediary products. The copper is then enriched in the copper matte (copper content about 65%).

Iron silicate stone A by-product of the (primary) copper concentrate smelting process. During

such process the iron contained in the copper concentrate is combined with silicate flux to yield iron silicate. Although its structure is similar to natural rock, this artificially produced stone has a substantially higher density and

hardness.

**KRS** Kayser Recycling System; a newly installed smelting furnace at the subsidiary

Hüttenwerke Kayser AG for the treatment of a large range of copper-bearing secondary raw materials, as a result of which Hüttenwerke Kayser enhances its leading position as a copper recycler. The plant was commissioned in

February 2002.

LME London Metal Exchange: the most important metal exchange in the world

with the highest turnover.

**OF copper** Oxygen-free copper. Special copper brand with high conductivity for electric

and electronic applications.

**Primary copper** Copper recovered from copper ores.

**RWO** The primary smelter at NA's production site in Hamburg.

**Secondary copper** Copper produced out of recycling material.

Smelter A part of a works or company, in which crude metal or bullion are recovered,

is called a smelter. Typical products are lead bullion or blister copper.

**Spot market** Market for prompt deliveries.

Stainless steel Negatively polarised electrodes used in the copper tankhouse, on to which the copper ions which are dissolved from the anodes are deposited cathodi-

cally as metallic copper.

Sustainable Development Lasting future-oriented development targeted since the 1992 UN Conference

as being the most sensible ideal of the way forward.

**TOP ROD** Oxygen-free copper wire rod which depending on the customer's require-

ments contains alloying elements up to 5%.

**Top blown rotary** A single-stage pyrometallurgical facility for the recovery of precious

**converter (TBRC)** metals from the anode slimes in the copper tankhouse.

**Treatment and refining** Compensation which NA receives for the processing of copper concentrates

charges (TC/RCs) and other raw materials to copper.

# NA FINANCIAL CALENDAR 2003

30 January Annual Press Conference

30 January DVFA Analysts Conference

30 January Results 1st quarter

26 March Annual General Meeting

14 May Results 2<sup>nd</sup> quarter

14 August Results 3<sup>rd</sup> quarter

18 October 8<sup>th</sup> Open Day at the Hamburg Stock Exchange

17 December Results 4<sup>th</sup> quarter (unaudited financial statements)

# **LEGAL NOTICE**

# Forward-looking statements

This report contains forward-looking statements based on current assumptions and forecasts. Various known and unknown risks, uncertainties and other factors could have the impact that the actual future results, financial situation or developments differ from the estimates given here. We assume no liability to update forward-looking statements.

# **IMPRINT**

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# Concept and design

HGB Hamburger Geschätsberichte GmbH & Co.

# Photos of the Executive Board

Ralf Tooten

# Photos

Further photos were taken during a competition by the employees at NA. Special thanks go to all those who participated.

