

Focus. Change. Add Value.



## Messer 2001.



### **Dear Reader,**

*With this annual report Messer wishes to begin a frank dialog with its customers and to set a positive signal for communication.*

*In the following you will find our review of the year, presenting the highlights of the Messer Group in the last twelve months and providing the key financial figures for the Messer Group.*

*The annual financial statement and report of Messer Griesheim Holding AG for 2001 is separate and contains the financial statements prepared in accordance with IAS and US GAAP standards. On request we will be pleased to send you a printed copy of the consolidated financial statements in English. This is also available to download from our home page.*



Partnership. Trust. Success.  
Get ahead with Messer.

*Tailor-made services*

*Partner-like consultancy*

*Ahead through innovation*

*Protecting people and the environment*

**Our target – success for our customers**

For over 100 years the name Messer has been associated with expertise and know-how in industrial gases. Messer is one of the world leaders in this sector, with a core of activities in Europe and North America. From its home market in Germany, a corporation has emerged over a great many years which thinks global but acts local, and is close to its many customers in its regional markets. At year-end 2001, a workforce of 8,350 was employed by the company in 145 affiliates in 54 countries.

Producing and supplying gases of the highest quality is one of Messer's traditional strengths. Its business portfolio covers the production and marketing of oxygen, nitrogen, argon, carbon dioxide, hydrogen, helium, shielding gases for welding, specialty gases and gases for medical applications. Another focal point is the cooperative development of innovative application technologies together with our customers and also in close cooperation with research and science. This enables progress to be planned. Our primary objective is always the success which our customers can

enjoy thanks to our market- and service-oriented products, processes and services. Here too Messer keeps care for the environment, for the quality of its products and for the greatest safety in the handling of gases firmly at the center of its attention.

We supply almost every sector of industry and quarter of society with gases, from metallurgy through to the food and beverage industry, from chemicals through environmental protection to medicine and science. With remote control of production at air separation plants and modern logistical systems, Messer has at its disposal the expertise and the means to distribute gases in a flexible way to customers close by – whether by pipeline, rail, tanker or a fleet of cylinders. On request, Messer can supply customers on the spot from on-site facilities which can be operated on the customer's behalf. No matter which solution is selected, providing a reliable gas supply is our top priority.

Cooperation with our customers means for us translating ideas into reality together and accompanying their introduction into practice. Such a partnership provides the ideal premise for long-term success – mutual trust.

One of our challenges for the future entails making our strengths in service even more useful for our customers by tying together individualized service packages to boost directly our customer's productivity.

1<sup>st</sup> six months

**February**

**Reorientation**

Messer announces the setting of a new course for the company with a comprehensive restructuring program.

**April**

**Change in shareholders**

Goldman Sachs Capital Partners and Allianz Capital Partners replace Aventis as new shareholders; Messer Industrie retains its holdings.

**May**

**Bond in demand on international financial markets**

Messer floats the largest high yield bond of the "Old Economy", a ten-year deposit, worth € 550 million.

**June**

**Expansion**

Messer takes the extension to its specialty gas plant in Krefeld-Gelleo into service as a high-tech center for cylinder treatment and filling.

**June/July**

**Headquarters move to new address**

Messer moves its company executive management from Frankfurt am Main to the existing central location in Germany in Krefeld.

Allianz Capital Partners  
Goldman Sachs Capital Partners



**August**

**Syngas for Bayer**

Messer has set up a syngas plant in Dormagen to supply the neighboring Bayer works.

**September**

**International trade fair**

At the international trade fair Cutting & Welding in Essen, Messer puts its performance range on display.

**October**

**Concentration and growth**

Messer concentrates on its core regions of Europe and North America and parts from significant activities in South America, Africa and Asia. On the other hand, the core business is intensified: Ruhr Oel in Gelsenkirchen receives oxygen and nitrogen from a new air separation plant and by pipeline.

**December**

**Boost for pipeline business**

Messer agrees long-term gas supplies by pipeline to Dillinger Hüttenwerke and Saarstahl in Germany.

2<sup>nd</sup> six months

# Milestones in 2001.

**Setting a new course**

When a company like Messer is re-positioning itself there is no shortage of top news items: reorientation of the corporate strategy, reorganization of the company, change of shareholders, floating a highly acclaimed high-yield bond on the international financial markets, transferring executive management from Frankfurt am Main to the former headquarters for its German business in Krefeld – these are significant events which concerned

us at Messer in 2001. However, we would also like to discuss business successes and other events. We increased our gas production capacity with new production facilities and we successfully presented our products and services at international trade fairs.

If you want to find out more about us, join us on the following pages on a journey through the year 2001 at Messer – to include, depending on your interests, a review of our business activities, what has been happening in our regions and in those sectors with which we are most closely connected. Pick up too information on our applications technology innovations, processes and services. Look out for further highlights.





"We are on the right track."

**Dear business associates and friends of the company,  
dear members of the staff and employees,**

*None of us is likely to forget last year in a hurry. The tragic events which took place in the USA not only shook the world to its core but have also had significant effects on developments in the world economy. Economies, which were then already slowing down – even in Europe – were dealt a severe blow. Many companies and whole sectors of industry have already announced declining sales and unsatisfactory financial results for the year just ended. Naturally our business as suppliers to industry could hardly remain unaffected by this, especially in the USA, where we are heavily involved in the manufacturing industries. Nevertheless, we can look towards the future with a great deal of optimism and we can look back on last year with a lot of satisfaction because of the turnaround successfully completed.*

Because the company was suffering from a high degree of over-indebtedness, we had in 2000 already developed and begun to implement a comprehensive strategy for consolidation. The corner-stones of this strategy are an ambitious cost-cutting program with a tight organization and the concentration of our portfolio on core businesses and regional core markets. Following on from an analysis of target locations, we decided to focus our attention on Europe and North America as being the regions promising the highest earnings and to part from all our other activities. As a consequence of these divestitures,

we have already managed to significantly reduce our debts in 2001. In addition, we are also on target with our program to cut costs by € 100 million per year from 2003 onwards. First of all we have successfully managed to reduce capital expenditures by making use of existing plant and equipment throughout the entire group.

The year 2001 will undoubtedly enter into the annals of our company as one of the most eventful in over 100 years of its existence. As of 30 April 2001,

Hoechst/Aventis took leave of the many years of partnership with us as a result of the sale of its holdings to the financial investors Goldman Sachs Capital Partners and Allianz Capital Partners. The family shareholder will retain full commitment to the company together with the new majority shareholders. The new ownership structure entailed the complete refinancing of the company. This was accomplished with aplomb thanks to the commitment of our employees and staff. In particular, the Messer High Yield Bond, floated in May and listed on the Luxembourg Stock Exchange as well as being registered with the U.S. American Securities and Exchange Commission, succeeded in raising € 550 million, and so became the most successful high yield bond in Europe.

As a result of the resolute implementation of all the planned restructuring and realignment measures, our profits are once again on the way up. For the coming year we have drawn up plans for additional structural measures in all our core markets to increase the efficiency of our business and further improve the range of supplies and services on offer to our customers. Messer is very well equipped to compete for the foremost positions in the industrial gas business in 2002.

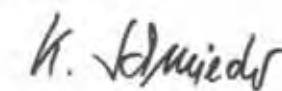
We all know that to sustain our success we need to secure the satisfaction of our customers and their acceptance of our products and services. Markets and the needs of customers are subject to dynamic change. That is why we have made it our declared intention to mould ourselves around the needs of our customers more flexibly than in the past. Our innovative ideas in the development of new applications for our products will stand us in good

stead together with our new service strategy. We will build on the skills and commitment of our employees and staff to put life into these concepts.

For that reason, I should like to take this opportunity to thank all our employees and staff most sincerely for their hard work – without which our successes in the marketplace would not have been possible. I should in particular like to praise them for having maintained their devotion to fulfilling the wishes of our customers throughout this year of radical change and major transformation.

For Messer, the year 2002 will be another giant step forwards on its way to being one of the leading European gas companies with significant activities in North America. By means of further strategic development in the Messer Group we will strengthen the earning power of the company and sustainable increase its value. We are aware that our financial investors will exit with their majority holdings in the medium term. In this way we know that a major change in our ownership is possible. Irrespective of such changes a competitive, efficient and innovative Messer Group will be able to successfully extend its position in the world of industrial gases.

Yours faithfully,



Chief Executive Officer

## On target in 2001.



**1 Klaus-Jürgen Schmieder**  
Chief Executive Officer



**2 Stefan Messer**  
Management Board Member



**3 Peter Stocks**  
Management Board Member



**4 Harald Pinger**  
Management Board Member  
(since 15. February 2002)

### Market position in core regions retained

In 2001, our gas business developed in different directions in the core regions of Europe and North America. Despite the predominantly weak economic situation Messer recorded welcome operational growth overall in its home market in Germany and in the other European regions. We even managed to further boost the leading market position which we occupy in

many European countries. In North America, which was suffering the effects of a long period of industrial economic weakness, growth was seriously impeded. Nevertheless Messer was able to maintain its market position here too. Our business is concentrated on specific economic regions in North America, in particular in the north-east of the United States. Our company has a 5 % share of the global market for industrial gases. We rank third

amongst our competitors in Europe. As a result, Messer is a powerful and attractive partner for customers from many sectors of industry around the world (see pages 16 and 17).

### Doing well

The Messer Group can look back on a good level of operational activities in the year under review despite the fragile economic climate prevailing worldwide and the disposal of activities which we deemed to be outside our core business. The stable supporting pillars include on-site and pipeline businesses which are secured in Germany

### Key Figures, Messer Group

Amounts in € million (consolidated)	2001*	2001*	2000	1999	1998	1997
	Jan.-April	May-Dec.				
Net Sales	574	1 047	1 696	1 492	1 477	1 269
Normalized EBITDA	126	245	359	308	336	307
Normalized EBITDA-Margin in %	21,9	23,4	21,2	20,6	22,7	24,2
Investments	49	79	322	471	464	480
Employees (as per December 31)	8 348		10 043	10 144	9 900	7 076

\*As a result of the strategic realignment of the Messer Group, the change in shareholders on 30 April 2001 and the refinancing measures this occasioned, the figures shown for the periods January to April 2001 and May to December 2001 are incomplete. In addition, the figures for the year 2001 cannot be directly compared with those for the preceding year. See Page 25.

and North America on the basis of long-term contracts with major users in the steel and chemical industries. Another stabilizing factor was our long-term customer relations in the bulk business with liquid gases. In all, on-site, pipeline and bulk business make up 52 % of our total business. In the year under review the gas cylinder business, which is more short-term oriented, had to face stiff price competition.

### Target EBITDA Margin of 30 %

We regard the normalized EBITDA, i.e. earnings before interest, taxes, depreciation and amortization without exceptional influences, as being the key figure for assessing the operational earning power of our company. In comparison with the previous year, this figure continued its positive course. Messer has made a good step towards higher profitability with the EBITDA margin (normalized EBITDA in relation

to sales revenues) being improved during the year. It is our aim to become one of the most profitable companies in this sector of industry by the end of 2003 with a target EBITDA margin of 30%.

#### Investing in the future

Following on from the substantial investments made in previous years, which for a period amounted to as much as one third of annual sales, Messer has reduced its expenditure in the year under review to a more

normal level. First of all, we shall make full use of the expanded production capacities such as those in the USA and place our gases on the market by means of our applications technologies. Nevertheless we still intend to expand and grow our business further. Our attention is focused in particular on the growth region of eastern Europe and on extending the on-site and pipeline business in Germany and North America. (cf. pages 12 – 15).

#### Successful realignment

Our strategy is oriented towards concentrating on our core business and on our core regions of Europe and North America. By selling off non-core activities (cf. table) we are giving our portfolio a clear focus and increasing returns on the capital invested. In addition to regional activities, we also sold off the home-care business sector, our North American CO<sub>2</sub> activities and part of our engineering business with non-cryogenic plants, since these no longer belong to our core business. In all, these successful disposals enabled us to reduce our debt by the sum of € 307 million.

In the context of this divestment and of the reorientation program which envisages a reduction in personnel in Europe of 850 employees, the total number of employees world-wide fell by some 17 % to 8,348 (cf. pages 21 and 22). This eventful year brought exceptional burdens for our workforce. The inclusion of senior staff in our strategic planning and the open discussion on our realignment and reorientation were decisive factors in their successful implementation of these internal processes.

#### Increasing efficiency and reducing costs

Another focus of our consolidation strategy is our ambitious program of cost reduction by € 100 million per year from the end of 2003 onwards. A large percentage of the measures required to achieve this target were already implemented or had been initiated in the year under review. This included the rationalization of our filling facilities in Germany, the number of which will be reduced from 16 to 9 plants by the end of 2002, with increased capacity utilization. Cost optimization measures are also scheduled in other European countries. Within the scope of our new organizational structure including Europe-wide supply chain management, we can in addition utilize the synergy effects of, for example, logistics in the filling, distribution and cross-border supply of gases.

#### Ready to face challenges

In the year under review, Messer has coped with an exceptional program of reorganization with great success and is now realigned and reoriented in its core markets. We shall be pursuing

the path we have now adopted and intend to complete all the measures to consolidate the company and increase its worth.

In the year 2002, we shall do everything we can to make best use of our excellent chances with specific programs of activities in the highly differing regional markets. In this we will be acting upon the results of our analyses into key sectors. In addition, our customers will profit from our new service strategy, which highlights the value of special services such as premium delivery, stock monitoring, maintenance or consulting services dealing with products or application technologies. Furthermore we are boosting our profitability by means of optimized utilization of production capacities. We will seize every opportunity we see and will systematically extend our portfolio in our core markets. In all of these activities, we shall be a reliable partner for our customers and contribute to their success with our products and processes.

EBITDA 2001\*:  
in € million by region



■ May - December 2001

■ January - April 2001

\* see page 9

#### Divestiture (Activities sold as per 31.12.2001)

##### Non Core Activities 2001

CO <sub>2</sub> -business	North America
Healthcare	Canada
Homecare	Germany
Non-cryogenic plant	China, Germany, Italy, USA
Nitric oxide business	Belgium, Germany, Austria, Switzerland

##### Regions 2001

Africa	Egypt, Namibia, South Africa
South and Central America	Argentina, Brazil, Cuba, Mexico, Trinidad and Tobago
Asia	Korea, Thailand

##### Regions (planned)

South and Central America	El Salvador, Guatemala, Honduras, Nicaragua, Peru, Venezuela
Asia	China, India, Indonesia, Malaysia, Singapore, Sri Lanka, Taiwan
Australia	Australia

## Market strength in core regions.



### Core regions

Our core regions are Europe and North America. In line with the magnitude of our business, we subdivide Europe into Germany, Western Europe excluding Germany, and eastern Europe. Central supply chain management functions for the whole of Europe, combined with decentralized market responsibility for operational business in the region, ensure optimum customer orientation and flexibility in the services we offer.

### Germany

Generating 41 % of world-wide revenues and 38 % of the Group's normalized EBITDA our German business made a major contribution to the success of the Messer Group. Nevertheless the weakening economic climate in Germany and the disposal of the home-care business did take its toll. We attribute this strong performance in part to the diversification of our range of products and services which managed to balance out declines

in some sectors of industry with growth in other areas. With more than 150,000 customers in the metallurgy, chemicals, electronics, food and beverages and medical sectors, our customer structure has a wide base, making us less susceptible to the effects of developments in individual areas.

### Pipeline and on-site business as stable support

A pillar of support for us is our strong market position in the pipeline and on-site business which accounts for 21 % of total revenues. This business links more than 50 major customers from the steel/metal and chemicals sectors in the industrial regions of Germany around the Saar and Rhine/Ruhr to our air separation plants by pipelines more than 600 kilometers long. It serves the primary purpose of supplying production facilities which require continuous consumption of oxygen, nitrogen, argon and, in some cases, compressed air, day-in, day-out, around the clock. This business comprises long-term supply contracts, which give contractual partners – both Messer and the customer – a high degree of business security. The introduction of two additional air separation plants supplying air gases to the Hüttenwerke Krupp Mannesmann steelworks and to the Ruhr Oel-Werk in Gelsenkirchen-Scholven has also paid off. In the on-site business, we have extended our product portfolio to include a new syngas plant in Dormagen which produces carbon monoxide from natural gas in an environmentally friendly fashion and supplies it to the neighboring Bayer AG plant by pipeline. At the end of the year, contracts for the supply of air gases to Dillinger Hütte and Saarstahl were extended, which include future investment in the system's expansion.

### Liquid gas as the driving force for applications technology

Declining sales of bulk products in the steel industry were compensated by major orders received from the automotive and environmental protection sectors. For example, we now supply large amounts of liquid oxygen to a foundry manufacturing brake disks for trucks and to a chemical plant for the treatment of waste sulfuric acid. Our customers have profited from the innovative capabilities of our applications engineers and the fact that processes were practically implemented to their economic benefit at site. The share in total revenues derived from bulk business in Germany in 2001 amounted to 33 %.

### Differentiated market for gases in cylinders

In the year under review, the market for standard cylinder gases and anaesthetic gases suffered from ongoing falls in prices and volumes. Such falls were offset by rising sales under our new 300 bar range of products and by expanding our business with an innovative mobile oxygen system for hospitals (Oxsystem®).

In the special gas segment, sales and turnover saw a distinct increase although the availability of helium was severely limited by the temporary absence of international sources of supply on the world market. This was where our Supply Chain Management system demonstrated its strength! Through the exchange of products within the entire Messer Group, any consequent down-time at our customers was successfully minimized. Our plant for special and medical gases in Krefeld-Gellep was developed to become one of the most modern technology centers in Europe. It can provide our customers with gases of

high purity, high-quality gas compounds and pharmaceutical gases. Thanks to the clean room technique, we were even able to satisfy the extreme demands of customers of our subsidiary Messer Nippon Sanso in the semiconductor technology sector. Other highlights of this center of competence are optimized filling facilities for the medical gases, carbon dioxide and nitrous oxide in compliance with pharmaceutical standards and the newly established separating plant for the valuable and rare gases, krypton and xenon.

### Western Europe excluding Germany

The market for industrial gases differs greatly in structure across Western Europe. Our strengths are in selected products and sectors of industry. That is why Messer has set up and expanded the production and distribution of carbon dioxide for the food and beverage industry, particularly in France, Great Britain, and Italy. Our business with gases in cylinders is of more importance in France, Belgium, the Netherlands and Switzerland. In the industrial region around Tarragona in north-east Spain, a lot of effort has been invested beyond our dominant pipeline business to advance activities with liquid gas and gas in cylinders. We intend to invest in a new filling station, which will optimize distribution costs and provide a wide range of products to our customers.

With 16 % of global revenues and 15 % of the Group's normalized EBITDA the share of our business in Western Europe (excluding Germany) remained stable.

Sales 2001\*  
in € million by region



\* see page 9



Messer in France, as specialists for freezing, chilling, neutralizing and also for the cooling of foods and beverages for transportation has received various major orders to supply nitrogen and carbon dioxide. It was also most successful in supplying oxygen for the glass industry. Consequently, it was logical for Messer to increase its production capacity by investing in a new carbon dioxide source and expanding our CO<sub>2</sub> works in Lavéra. As a result of an explosion on the premises of a chemical plant near Toulouse we lost

king plants with oxygen and producers of beverages with carbon dioxide. In Switzerland, we have taken a modern filling plant into service, thus extending our range of products.

One focus for Messer in Great Britain is the supply of carbon dioxide to the traditional brewery and beverages segment. By resorting to creative marketing ideas for patented products, and through other services, such as quality analyses and engineering in foods and beverages technologies, it was possible to successfully offset declines in the standard products such as oxygen and acetylene. Amongst others, English pubs are being supplied with dispensing systems to convey the draught beer to the tap using a mixture of carbon

our access to an important source of CO<sub>2</sub>. However, to ensure that our customers could still be supplied on time, our production facilities in Nangis, Rouen and Lavéra organized supplies with the support of our European Supply Chain Management system. The logistics structure will be further optimized by the planned filling plant in Lyons. In Italy, Messer has laid the foundations for further growth by concluding numerous agreements to supply metal-work-

ing plants with oxygen and producers of beverages with carbon dioxide. Gas mixtures for the food and beverage industry and gases for protective shield welding are providing some impetus to address the stagnation in the gas cylinder business.

**Eastern Europe**

The market for industrial gases has enjoyed a very positive development in eastern Europe despite the generally prevailing economic slow-down. Operational growth in every country was increased, but particularly in Finland, Poland and the Czech Republic. In the

year under review, sales in this region contributed 13 % to total revenues world-wide and 16 % to normalized EBITDA. In particular, business with on-site facilities set up in the year 2000 pursued a welcome course. Considerable savings in energy and transport costs were attained.

Austria Messer continued to rely on the sales of specialty gases for science and research with persistently good growth rates thanks to specialized skills and innovative advisory services from our staff. In this way, we have been able to secure various major orders including an order for carbon dioxide from beverage producers and for medical gases. Here we also managed to reduce costs effectively by means of a well-balanced segmentation by product and industrial sector. The automation of an air separation plant, the concentration of the filling facilities and the outsourcing of the transportation of bulk and cylinder gases to forwarding agents are only a few of the measures aimed at improving efficiency.

In the year under review, in Poland, Messer managed to sell several on-site facilities for the production of oxygen and nitrogen, to increase the sales of gases in cylinders and to attain significant growth in the metal-processing and building construction sectors of industry. Our high share of the market in Slovakia and in the Czech Republic was not only maintained but was even extended through orders from the automotive, tire and fluorescent lighting industries. By utilizing our 300-bar technology, Messer was able to achieve strong growth in Finland in cylinder gases. For example, the percentage of shielded welding gases in the overall business rose by 30 % to 50 %. In the Baltic States of Estonia, Latvia and Lithuania, the classic pro-

ducts – oxygen and gases for welding and cutting – dominated. Following market analyses, we launched special gases and medical gases in the Baltic markets.

With investments in various eastern European countries in the year under review, we have created the preliminary conditions to further consolidate our very good market position in this region, to intensify our activities and to open up new market segments. One area of importance was Croatia. Here we were able to considerably extend our business volume through greater utilization of the air separation plant taken into service in 2000. In Bulgaria and Hungary new contracts for carbon dioxide and nitrogen were concluded with major customers from the food- and beverages industry. In Slovenia the customer segment was further diversified through the introduction of dry ice as a product. Hungary, Bosnia and Yugoslavia recorded encouraging growth in the sales of shielded welding gases. In Kosovo we have successfully started selling gases.

**North America**

The lion's share of our business activities in North America takes place in the United States with a lesser volume in Canada. The main products are oxygen, nitrogen and argon. Business is split up into three means of delivery and concentrates on the supply of liquid gases. Other important segments are the on-site and pipeline business and business with gas in cylinders, for which the main focus is on the north-east of the USA.

After Germany, North America is the second-largest regional market for the Messer Group. With 24 % of revenues world-wide and 25 % of the Group's normalized EBITDA it made a major contribution to our overall business.




We were able to maintain our market position in all sectors of processing industries, which include our major customers in North America. Long-term supply contracts in particular played a significant part here as well as orders which we owe to our applications technology know-how. Predominant were processes from the food and beverage industries and high-tech applications for the electronics industry.

Following on from large-scale investment in air separation facilities aimed at expanding production capacity, we are now optimizing capacity utilization. Our activities concentrated on future markets such as, for example, in biotechnology, the scientific sector at universities, life sciences and medicine.

Despite drastic increases in the price of energy and fuels we succeeded in cutting costs by efficient production and sales planning. We achieved additional cost reduction by the quality-conscious implementation and observation of safety standards in conjunction with a decline in industrial accidents per million working hours and consequently lower expenditure on insurance.

Thanks to improvements in logistic systems and in key account management we were able to make more efficient use of our production capacities and to develop our activities with key customers more effectively. Investment in information technology and customer relations management strengthen our market position through growth in new business and concentration on customer-oriented service.



-  US-headquarters: Messer Pennsylvania
-  Air separation plants
-  On-site plants: Cylinder filling works Retail stores



Know-how for key sectors.

**Top performance for our key sectors**

Messer produces and markets the complete spectrum of industrial and medical gases. Depending on how they are produced, they are called air gases, synthetic (syngas) or other gases (figure). We supply these gases with the support of local sales associates through a strong, local sales network in many countries, to a wide range of industrial sectors (figure). Strategically, however, and based on a European-wide analysis of industrial sectors, we set regional points of

emphasis and focus on markets in which we can use our skills to the benefit of our customers.

One of the recognized strengths of our company is that we are responsive to individual customer requests and seek success jointly as a partner. This is exemplified in the form of awards from our customers (cf. page 21). From the great many innovative applications let us mention only a few of the orders booked in the year under review which have enabled our customers to increase quality and productivity in their production facilities with our assistance:

**Food industry**

For part of the European market the ice-cream producer Langnese-Iglo produces the fruit ice pellets "Solero Shots", which are not just a favorite amongst children. Our process for the production of the pellets is patented and is based on our cryogenic know-how which is paying off for our customers in the pelletizing plant we supplied. We are continuing this successful cooperation with the user with a new contract for the supply of liquid nitrogen.

heated, a precisely determined furnace atmosphere consisting of nitrogen, hydrogen, and carbon monoxide has to be produced. At Krupp Edelstahlprofile the last of the facilities there was converted to our process and potential scrap was drastically reduced.

**Automotive industry**

As a recognized supplier to the automotive industry we support key account customers all over Europe with know-how transfer within the Messer Group through our subsidiaries and by organizing presentations, displays and demonstrations. Opel Zaragoza in Spain now seals petrol tanks by means of our fluorination process. VW in Slovakia ordered gases for flame spraying and welding and Peugeot/Citroen in France placed an order for liquid nitrogen for the cleaning of brake systems. By means of laser soldering, DaimlerChrysler has been able to dispense with the previous operation of sealing with synthetic materials in the production of the new S Class in Germany following successful trials in our technical center. Porsche relies on our high-grade calibration/test gases for their engine test stands/beds.

**Recycling/Environment**

The fact that reports on the depletion of the ozone layer in the atmosphere have now receded into the background as news is due to advances made in waste gas purification/cleaning achieved in recent years. Statutory environmental prescriptions throughout the entire European Union stipulate that the cooling agent (CFC = chlorofluorocarbon) used in refrigerators must be recycled when the appliance is scrapped. In this, a particular contribution is made by exhaust air cleaning facilities, jointly developed by Messer, which operate by using the low temperature of liquid nitrogen. The efficiency of cryogenic exhaust air cleaning is convincing more and more waste disposal companies. In the year under review, we were awarded orders worth millions.

**Metallurgy**

The specialized knowledge our applications technologists from the metallurgy sector possess is held in high esteem by producers of special steels. For instance, wire rod has to be annealed after drawing to obtain the required material properties because of work hardening. This takes place in heat treatment furnaces. To prevent oxidation when the wire rod is being

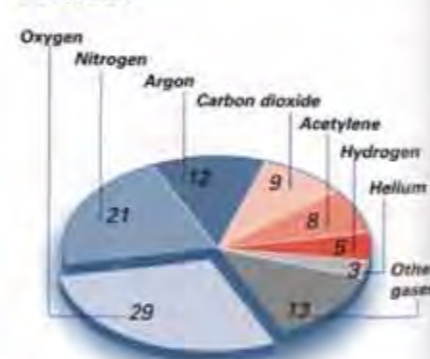
**Medicine**

Using liquid medical oxygen as a ready-to-use pharmaceutical product (LOXmed®) saves clinics the costs of analysis and quality assurance. The advantages of this innovation were presented at local events in Germany by our Medical Sales team, which is resolutely expanding business in medical gases and services for hospitals, doctors and emergency services. More than 300 hospital pharmacists made use of our offer of information on the legal requirements for medications.

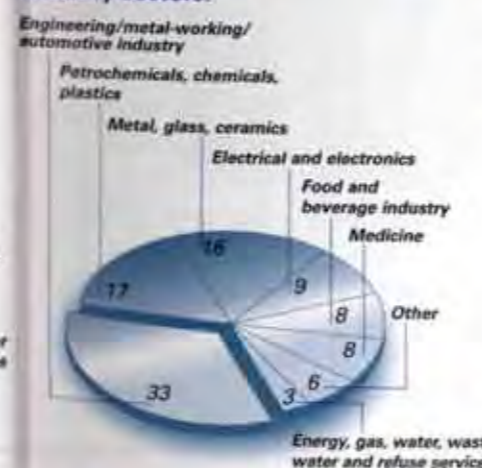
**NITROGEN**


Gentle cooling and freezing using liquid nitrogen is a traditional Messer application. Nevertheless, together with our customers we still keep on finding more and more innovative applications – such as the creation of Solero Shots ice cream pellets.

**Products:**



**Industry sectors:**





Ahead through innovation.

HELIUM

Taking the rare gas helium as an example shows clearly how imaginatively our products are used – to give balloons for scientific purposes their lift, as components in high-grade gases for shielded welding or as a coolant for super-conducting magnets in nuclear magnetic resonance tomography. The list is almost endless.



#### **Innovative ideas as driving force for business**

In the year under review, Messer invested € 14 million in research and customer-oriented development. Seventy applications for patents and fifty notifications of new inventions document once more the innovative ability of our company. This kind of value creation enlivens our business because innovations open up new market segments. Our well-known and respected high-tech processes are so successful thanks in no small measure to the fact that they are most often developed in close cooperation with the users and so meet the twin demands of practicality and productivity.

France, the Netherlands, Switzerland, Hungary and the USA in the year under review. This process saves customers time and money, produces products which appeal both technically and optically and is kind to the environment as well. In contrast to chemical processes, it operates by using only such media as nitrogen and oxidation agents, which are environmentally neutral.

#### **Refrigerated transport on a new track**

Thanks to our new systems of refrigerated transport of foodstuffs using liquid nitrogen or carbon dioxide it is now possible to deliver together in one single vehicle products which require differing temperatures such as, for example, fresh produce, frozen and deep-frozen foods. The Siber-System developed by Messer France together with Olivio Cold Logistics celebrated its market premiere at major wholesale stores such as Sainsbury's in Great Britain, Netto in Denmark and Intermarché in Spain. We also managed to gain more than 10 new customers with the CryoAkku in Germany and eastern Europe.

#### **Life for an English ship canal**

In cooperation with our Central Applications Technology team, our subsidiary in England, Messer UK, developed and implemented a water aeration project for a harbor basin on the Manchester Ship Canal. In one of the harbor basins sludge combined with anaerobic digestion processes was giving off unpleasant odors in a residential and commercial area. The water will be enriched over the long term with up to 20 tons of oxygen per day through floating pontoons and injection systems. It is anticipated that the water cycle will be regenerated after about 10 years.

#### **Waste disposal**

Stricter regulations from the European Community are forcing industrial corporations to dispose of waste in an

environmentally acceptable manner. Messer markets an oxygen injection technology for fluidized bed incinerators which considerably increases their throughput when sewage sludge is being incinerated. A plant using this system went into service in 2001 at Infraseriv GmbH in Frankfurt am Main.

#### **From theory to practice**

Cooperation with universities, colleges and research institutions has a long tradition at Messer. The MEDEA and SC 300 projects sponsored within the scope of European programs were brought to a successful conclusion. Together with the semiconductor industry we optimized the utilization of gases in processes such as wafer production. The knowledge gained at the commissioning of such major semiconductor plants as Infineon in Dresden was used when our new development laboratory in Krefeld-Gellep was being set up. This will profit our customers, who procure products from them.

#### **Competitive advantages through knowledge management**

Nowadays companies are more and more dependent on knowledge: knowledge in the form of patents, process experience, applications know-how, information from the market and from customers. Only when knowledge is quickly to hand can it be effectively used and so secure competitive advantages. For this reason, Messer maintains a database for example in which more than 300 processes are documented. This pool of knowledge can be accessed by all staff and employees via the Intranet. Our company rewards the commitment of employees who actively participate in internal knowledge management with the award of an annual prize, the "Knowledge Sharing Award".

Right across our core sectors of industry – chemicals, metals, foods and beverages, environmental, engineering and medicine – innovative processes were implemented at new users in the year under review of which only a few will be mentioned here by way of example.

#### **Hardening and blackening in one operation**

Following on from its tremendous success in metal-working plants in Germany, the patented Blackrapid® process for hardening and blackening tools has been licensed to users in

Protecting people and the environment.

SAUERSTOFF  
OXYGEN

*Oxygen is our elixir of life. In medical applications it saves lives. In the treatment of water and waste water it encourages microbial growth protecting the environment.*

### Our employees

At the end of 2001, Messer employed 8,348 persons world-wide, 1,695 less than in the year before. Of these, 27 % were in Germany, 12 % in the other western European countries, 28 % in eastern Europe, 14 % in North America and 19 % in other regions.

The substantial reduction in the number of employees by approx. 17 % is the consequence of our divestment measures and our realignment and re-orientation program. The new alignment of our business activities in particular was so far advanced in the year under review, that the workforce in Europe had already been reduced by 552 jobs by the end of 2001, of which 233 were in Germany. The number of jobs to be cut in Europe will be around 850 in all. Our company has set itself the objective of carrying these measures through in a socially acceptable manner.

### Qualification

A company is only as good as its workforce. Foresighted human resources planning and personnel development coupled with targeted investment in the personal and specialist qualifications of staff and employees are important instruments to secure the future of our company. With such measures, which include target-group-oriented advancement programs for senior staff, continuing education and training of all employees where required, and also the recognition and good use of individual competencies and abilities the result is an increase in performance and productivity for the entire Messer

Group. Good internal communication and a dynamic dialog between the various sectors and hierarchical levels within the company promote motivation, the driving force of any corporation. For this reason, we have introduced at Messer regular senior staff meetings in line with the new supply chain management organization and have restructured the employee media. The Group journal "Messenger" brings together Group and national news and information on a modular principle and so serves to link all Messer employees in an information network. In future, executive management and senior management will engage in mutual dialog on strategy and vision of the company and their implementation with participants from all over the world in a critical and constructive manner in the new Messer Management Forum. Our senior international staff have been given as an incentive the opportunity to acquire shares in the company with additional options. In all, 156 key managers in Europe and North America have invested some € 11 million in their company (approx. 1,5 % of share capital from the Messer Group).

### Awards

Messer owes its success to the commitment of our employees. This was once more made clear when we were awarded the title as best supplier in the production materials and services sector by the Matsushita Group. From Robert Bosch GmbH we received the Bosch supplier award, which included a judgement amongst others on faithful delivery, innovative performance, service and process optimization within our total gas management system. We were accorded the title of best supplier and provider of logistics service by Siemens AG Medical Solutions.

**Occupational safety has priority**

In Europe, the number of accidents at Messer was 3.7 accidents per million hours worked as at the end of 2001, below the average for the EIGA (European Industrial Gases Association), and was also once more at an internationally low level. As evidence of our exemplary safety efforts, we received seven awards through the EIGA in the past year for accident-free work at production facilities and filling plants in Germany and Spain. With their high degree of commitment in the most varied national and international associations and committees, our employees have made their contribution to the fact that the safety standard in the industrial gas sector is so high. By means of training courses and practical sessions we actively involve our employees and customers in our safety efforts.

**Quality and the environment as a demand and a voluntary commitment**

The renewal of quality and environmental management certification at locations belonging to companies in the Messer Group document our claim to top quality and that is what we offer our customers. For us, it also goes without saying that all our actions, in particular production and transport, should be in harmony with the requirement to conserve resources and protect people and the environment.



Total of employees:



as per December 2001

**Shareholders in the Messer Griesheim Group GmbH & Co. KGaA**

From 1 May 2001:

**Allianz Capital Partners**



Until 30 April 2001:  
Hoechst AG (66 2/3 %)  
Messer Industrie GmbH (33 1/3 %)

**Messer Griesheim GmbH Stockholders' Committee**

- Udo G. Stark (from 22.05.2001)  
Chairman (from 12.11.2001)  
Commerce graduate
- Dr. Jürgen Heraeus  
Chairman (until 23.02.2001)  
Chairman of the Supervisory Board of Heraeus Holding GmbH
- Horst Waesche (until 21.05.2001)  
Chairman (23.02.2001 to 21.05.2001)  
Member of the Board of Management of Aventis S.A.
- Carl-L. von Boehm-Bezing (until 19.03.2001)  
Member of the Board of Management of Deutsche Bank AG
- Igor Landau (until 21.05.2001)  
Member of the Board of Management of Aventis S.A.
- General Wesley K. Clark (from 29.08.2001)  
Managing Director - Merchant Banking Stephens Group, Inc.

- Dr. Alexander Dibellius (from 22.05.2001)  
Chairman (23.05.2001 to 12.11.2001)  
Managing Director, Goldman Sachs & Co. oHG
- Dr. Stephan Eilers (from 22.05.2001)  
Solicitor,  
Freshfields Bruckhaus Deringer
- Dr. Gerhard Rüschen (from 29.08.2001)  
Commerce graduate
- Wilhelm von Storm (from 22.05.2001)  
Consultant
- Stephen Trevor (from 22.05.2001)  
Managing Director,  
Goldman Sachs International

**Supervisory Board**

- Dr. Jürgen Heraeus  
Chairman (from 23.05.2001)  
Chairman of the Supervisory Board of Heraeus Holding GmbH
- Horst Waesche (until 22.05.2001)  
Chairman (until 22.05.2001)  
Member of the Board of Management of Aventis S.A.
- Fritz Klingelhöfer  
Deputy chairman Mechanic,  
Chairman of the Central Works Council of Messer Griesheim GmbH
- Carl-L. von Boehm-Bezing (until 19.03.2001)  
Member of the Board of Management of Deutsche Bank AG
- Hans-Dieter Brand  
General Manager of IG BCE  
Mitglieder-Service GmbH
- Dr. Alexander Dibellius (from 22.05.2001)  
Managing Director, Goldman Sachs & Co. oHG
- Klaus Dupke  
Technical employee, Deputy Chairman of the Central Works Council of Messer Griesheim GmbH

- Dr. Stephan Eilers (22.05.2001 to 16.08.2001), Solicitor,  
Freshfields Bruckhaus Deringer
- Albertus Geilen  
Technical employee,  
Member of the Central Works Council of Messer Griesheim GmbH
- Uwe Goemann  
Regional Manager (Duisburg area) of the Industriegewerkschaft Bergbau Chemie Energie trade union
- Igor Landau (until 22.05.2001)  
Member of the Board of Management of Aventis S.A.

- Prof. Dr. Dr. h.c. mult. Heinz Riesenhuber (until 22.05.2001)  
Chemical engineer,  
Federal Minister (retired.)
- Dr. Gerhard Rüschen (from 29.08.2001)  
Commerce graduate
- Alexander Sauer  
Deputy Chairman  
of the Committee of Senior Executives of Messer Griesheim GmbH
- Udo G. Stark (from 22.05.2001)  
Commerce graduate
- Wilhelm von Storm (from 22.05.2001)  
Consultant
- Stephen Trevor (from 22.05.2001)  
Managing Director, Goldman Sachs International
- Dr. jur. Petra Wibbe, LL.M. (until 16.05.2001), Solicitor

**General Managers**

- Dr. Klaus-Jürgen Schmieder,  
Chairman
- Stefan Messer
- Dr. Jürgen Schöttler (until 12.11.2001)
- Peter Stocks

On April 30, 2001 the former stockholders of Messer Griesheim GmbH, Hoechst AG and the Messer family, together with the new shareholders performed a series of acquisition transactions. As a result of these transactions, Messer Griesheim Holding AG owns 100 % of Messer Griesheim GmbH. All the shares in Messer Griesheim Holding AG are held directly and indirectly by the Messer Griesheim Group GmbH & Co. KGaA. The shareholders in Messer Griesheim Group GmbH & Co. KGaA as of 31.12.2001 are six equity funds managed by Goldman Sachs Group (33.665 %), Allianz Capital Partners (33.665 %)

and Messer Industrie GmbH (32.67 %). As a consequence of the change in ownership we have had to prepare separate financial statements for the periods 1 - 4/01 (predecessor) and 5 - 12/01 (successor). In this connection it was necessary to revalue all assets to market prices. This accounting policy, together with the refinancing programme and the various deconsolidation transactions which were to be concluded within a year of the sale, have the result that the periods 1 - 4/01 and 5 - 12/01 are neither comparable nor to be added together. For the same reasons no comparison with the figures from previous years is meaningful.

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