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VA TECH

VA Technologie AG

Sustainability Report 2004

sustainable solutions. for a better life.

04

Sustainability Report
VA Technologie AG

In line with the guidelines of the Global Reporting Initiative (GRI)
This VA TECH Sustainability Report contains facts and figures relating to the 2004 financial year. The economic, social and environmental balance reporting are in line with the Global Reporting Initiatives (GRI). All aspects of the GRI principles affecting the VA TECH Group that can be employed were implemented. The VA TECH Sustainability Report is published in conjunction with the VA TECH Annual Report. Detailed information concerning Group topics and economic key figures can be found both in these documents and on our homepage: www.vatech.at

Key figures

KEY ECONOMIC FIGURES (EUR M)	2004	2003	2002
Order intake	4,634	4,336	4,125
Order backlog as at 31.12.	4,695	4,314	3,961
Sales	4,073	3,828	3,773
EBITDA[1]	65	123	103
EBITA[2]	-11	57	30
Group earnings	-68	-15	-93
One-off effects[3]	-101	-30	-68
Group earnings before one-off effects	33	14	-25
Free cash flow	22	185	101
Investments	87	80	98
Innovation expenses	105	76	86
Net liquidity	252	238	83

[1] Earnings before interest, taxes and depreciation
[2] Earnings before interest, taxes and goodwill amortisation
[3] Restructuring expenses and book profit/loss from the sale of plants and investments, as well as extraordinary goodwill amortisation
[4] Net basis of Group earnings

For details, explanations and further key figures in accordance with the GRI index, please see the Economy chapter "Key figures and interpretations".

KEY ENVIRONMENTAL FIGURES		2004	2003	2002
Total material consumption	t	102,198	113,702	107,755
Direct energy consumption (primary energy)	GJ	705,926	741,664	1,039,727
Indirect energy consumption (secondary energy)	GJ	442,170	445,107	542,970
Total water consumption	m^3	518,947	540,817	599,119
Emissions of climate-relevant gases	t [CO_2]	247,718	234,248	317,516
Ozone depleting substances	t [CFC_{11}]	0.18	0.18	not defined
Other significant atmospheric emissions	t	230	185	382
Total waste	t	17,768	17,159	23,945
Total wastewater	m^3	459,966	487,352	486,106
Soil emissions	t	0	34	63

For details, explanations and further key figures in accordance with the GRI index, please see the Ecology chapter "Key figures and interpretations".

KEY SOCIAL FIGURES	2004	2003	2002
Total workforce	16,562	17,478	17,725
By region			
Europe	82%	84%	84%
North America	9%	8%	8%
South America	1%	1%	2%
Asia/Pacific	7%	6%	5%
Near and Middle East, Africa	1%	1%	1%
Apprentices/employees	3.7%	3.8%	2%
Jobs with flexible working hours	55%	55%	60%
Investments in training and further education	EUR 6.2 m	EUR 8 m	EUR 6 m
Working hours lost due to sickness/accidents	36.3 h/MA	54.7 h/MA	42.0 h/MA
Working hours lost due to accidents	2.6 h/MA	4.0 h/MA	5.6 h/MA

For details, explanations and further key figures in accordance with the GRI index, please see the Social chapter "Key figures and interpretations".

Energy efficiency

Energy is the source of growth, development and change. A responsible and efficient approach to energy not only secures the basis of human civilisation, but also opens up new opportunities for sustainable development and coming generations.

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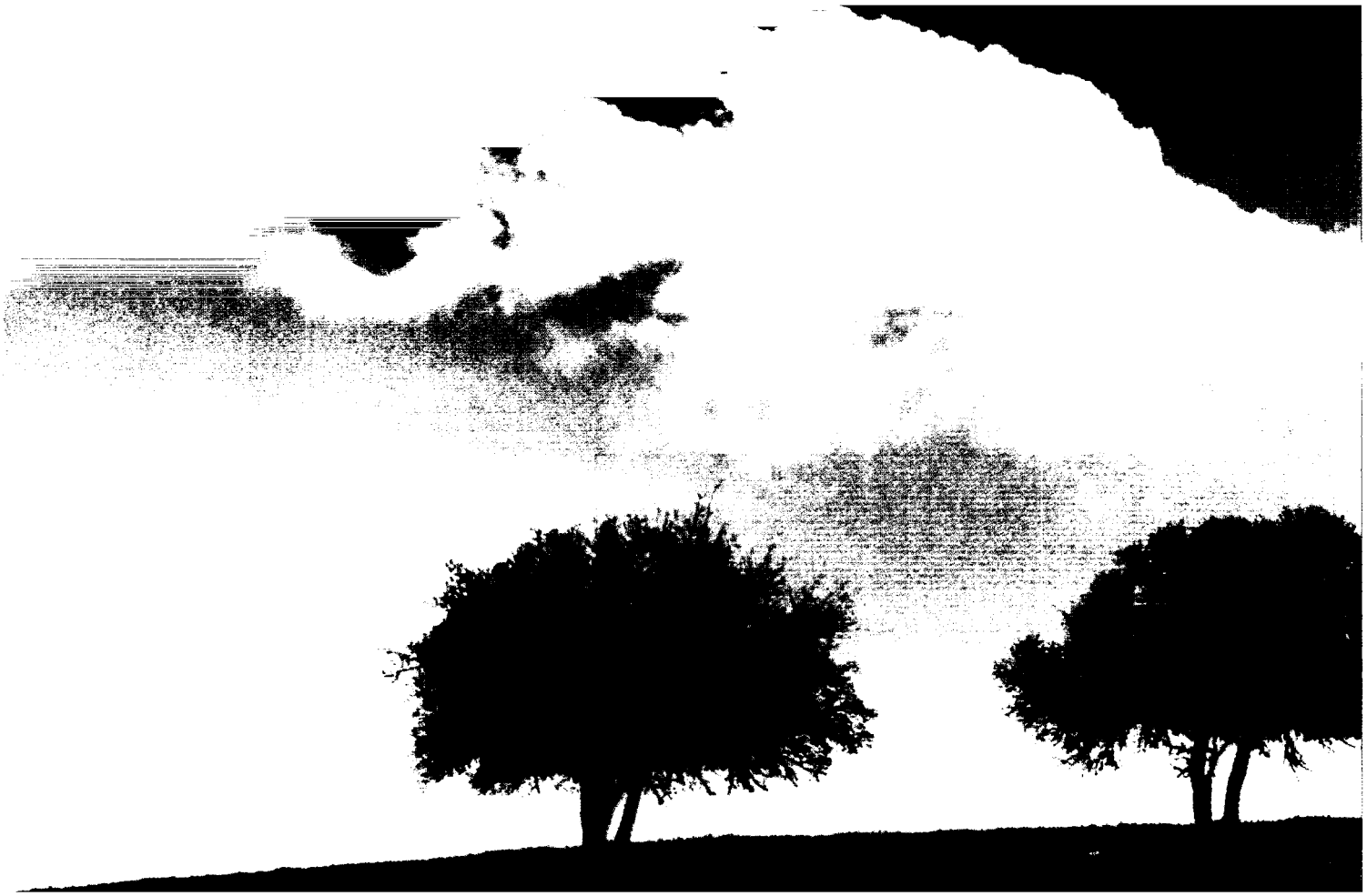


This is the fourth VA TECH Group Sustainability Report. It provides a comprehensive presentation of our divisional activities irrespective of national and cultural boundaries.

Ladies and gentlemen,

The VA TECH Group has assumed a pioneering role with regard to sustainable management. Therefore, the gradual interlocking of the various aspects of sustainable development with corporate and decision-making processes cannot be a one-off occurrence. Rather it is an extended process, involving the step-by-step integration of sustainability considerations. The most important points of orientation in this regard derive from a candid dialogue with our target groups, as well as the constantly shifting economic, technical, political and social structures within which we operate.

A sustainability pioneer

The beginning was formed by the idea of "sustainable solutions", which represented a commitment to the sustainability concept. This led to a mission statement, which forms a guideline for our activities. In addition, Balanced Scorecards were introduced for the Group, the Divisions and their business areas, in order to ensure the improved implementation of the mission statement and strategies, as well as the targeted use of value drivers and other measures. This represented a major advance in the direction of the comprehensible implementation of strategies and the improvement of proactive business management.

Initial successes in the areas of ecology, economy and social matters are already evident. As compared to the preceding year, prior to one-off effects, the Group result for 2004 more than doubled and amounted to EUR 33 m. In the past three years, the development of the social indicators has also demonstrated a thoroughly positive trend. For example, the hours lost due to working accidents have been reduced by a total of 54%. Moreover, there are also reasons for pride as far as in-house environmental performance is concerned. By means of a range of comprehensive measures, since 2002, we have succeeded in cutting energy consumption by 27% and in the past financial year, over 50% of our employees were subject to an implemented ISO 14001 environmental management system. Indeed, if the production locations are considered in isolation, then the extent of coverage amounts to 75%.
We are now in the fourth year of reporting and still have the same objective in view, namely, ongoing advances in the field of sustainability.

Sustainability as a strategic success factor

However, it is not merely our intention to reflect upon what has already happened. Rather, we see these achievements as representing a platform for the future and therefore wish to consider today what the markets of tomorrow have in store for us. The Group's strategic targets involve a focus on the European domestic market and other key markets with growth potential. Following the expansion in southeast Asia and North America of the mid-1990s, these growth markets are now comprised by Asia, China and Russia. The development of automation and service business represents an attractive, strategic success factor, as sizeable growth opportunities can also be anticipated in highly developed countries. Furthermore, the differentiation between innovative and sustainable solutions remains one of the Group's major, strategic goals. For VA TECH, sustainability in the form of economic, ecological, cultural and social responsibility does not constitute a fashionable trend, but rather a prerequisite for the provision of coming generations with the freedom to develop and a sufficient supply of resources.

Energy efficiency and resource conservation

This report deals in detail with the topic of energy efficiency. The central aspect is the question as to what VA TECH can contribute immediately to the intelligent use of energy. As far as the international efforts aimed at climate protection are concerned, as a "Climate Saver", we are focused on cutting the CO_2 burden. In recent years, our plants and systems reduced CO_2 emissions by an average of more than 50 m tonnes. We intend to raise this figure still further and to create fresh project potential from the demand for emission reductions.

The importance of values

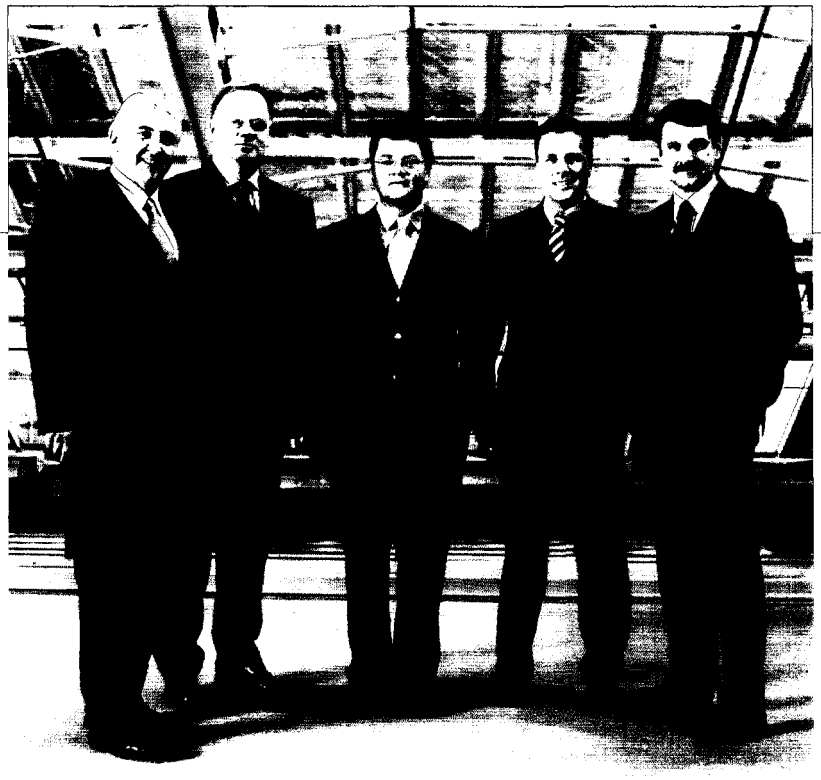
As an economic unit, every company has the primary goal of obtaining profits and surviving in competition. However, the existence of a company also depends on the combination comprised by its workforce and its competences, know-how, attitudes and values. Those who like us have set themselves the task of enhancing the quality of life through innovative, sustainable solutions must be prepared for change and open to future developments, as well as to secure a common basis.

For us, "sustainable solutions. for a better life." is more than just a mission statement. It means both a challenge and an opportunity for the future. It also implies the definition of values that will lead to value added for our stakeholders. These values create the trust that forms a foundation for improved customer relationships and higher customer benefits. In plant building in particular, value creation is a vital factor, as our projects are designed to run for long periods and incorporate large order volumes. The development and cultivation of mutual confidence between customers and VA TECH as a contractor constitutes a key element in our future-oriented strategy.

Customer confidence

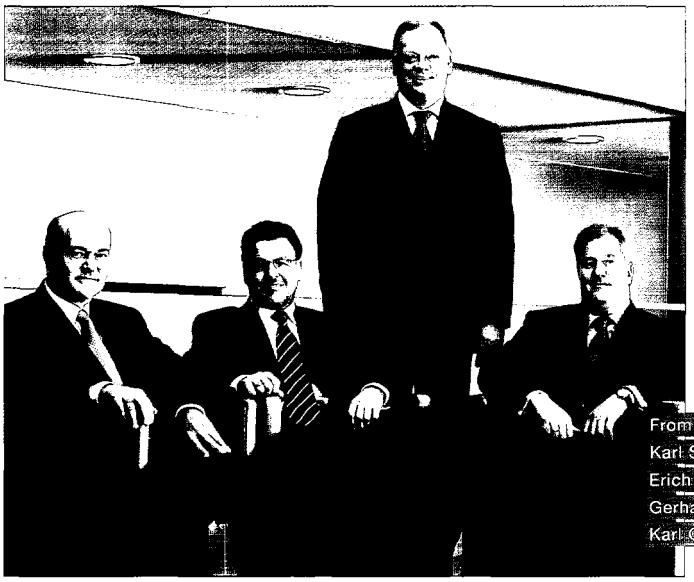
Group order backlog at a record level of EUR 4.6 bn is clear evidence of the fact that our customers trust us and that we constitute a responsible partner. We see ourselves as not only being a supplier of innovative plants, but rather as a company committed to sustainable development on the basis of resource conservation. This is because, for us, solutions are only sustainable when the technical, economic, ecological and social framework offers a platform for trust and long-term business relations. In this manner, we guarantee our contribution to customer satisfaction, optimum stakeholder relations and the eco-efficient supply of society.

KLAUS SERNETZ	GERHARD FALCH	HANNO M. BÄSTLEIN	CHRISTIAN HABEGGER	JÜRGEN WILD
Chairman of the Board	Vice-Chairman of the Board	Chief Financial Officer	Member of the Board	Member of the Board



From l. to r.:
Christian Habegger,
Gerhard Falch,
Klaus Sernetz,
Hanno M. Bästlein,
Jürgen Wild

Innovative technologies as a commitment to sustainability



From l. to r.:
Karl Schwaha (Member of the Managing Board)
Erich Ennsbrunner (Member of the Managing Board)
Gerhard Falch (Chairman of the Managing Board)
Karl Gruber (Member of the Managing Board)

METALLURGY

"Designing technological processes in line with sustainable energy and resource conservation is one of the greatest challenges facing us as the leader in the global metallurgical technology market."

From l. to r.:
Christian Habegger (Chairman of the Managing Board)
Helmuth Tschabuschnig (Member of the Managing Board)
Alfred Friedinger (Member of the Managing Board)
Franz Strohmer (Member of the Managing Board)

POWER GENERATION

"We are already ensuring future-oriented energy production through the use of renewable energy sources and highly efficient technologies."

TRANSMISSION AND DISTRIBUTION

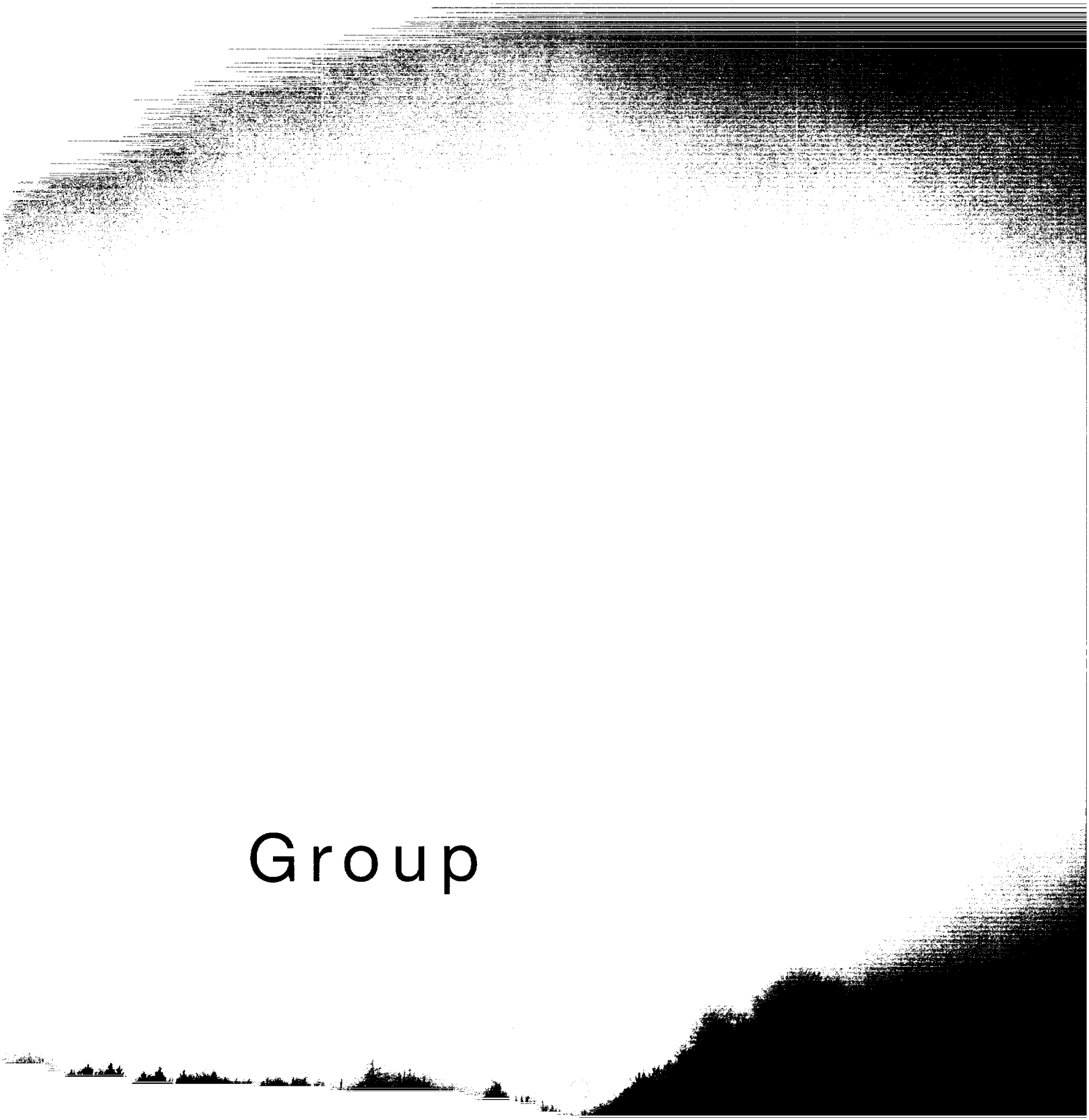
"New technologies and the intensive use of automation solutions guarantee a more efficient and secure supply of valuable energy."

From l. to r.:
Christian Habegger (Chairman of the Supervisory Board)
Artur Fuchs (Member of the Managing Board)
Klaus Rinnerberger (Member of the Managing Board)

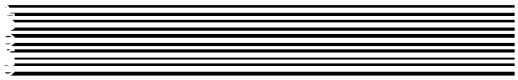
INFRASTRUCTURE

"With our holistic and mature solutions regarding the optimum use of energy and resources, we secure long-term benefits for both our customers and the environment."

From l. to r.:
Herbert Kaufmann (Member of the Managing Board)
Jürgen Wild (Chairman of the Managing Board)
Stefan Hase (Member of the Managing Board)



Group



For me, energy efficiency is a benchmark for the reasonable approach of a society to its resources.

Helmut Rechberger
Institute of Water Quality and Waste Management
Vienna University of Technology

A mission can be judged by the degree to which it can be communicated, understood, interpreted and finally, actively experienced.

Living sustainability – values and visions

As a technology and services company, in its four Metallurgy, Power Generation, Transmission and Distribution and Infrastructure Divisions, VA TECH possesses know-how for the optimum production and use of raw materials and a reduction in environmental impact that is in global demand. Our objective was and is to be a company based on sustainability, bearing responsibility for both society and the environment.

The right approach

VA TECH's sustainability strategy represents a significant step along the road to this goal. "sustainable solutions. for a better life." answers the concrete question as to what sustainability means for a global player. Through the overall effects of its know-how, products, services and technologies, VA TECH constitutes one of the designers of a sustainable society. Our motto represents both a mission statement and the driving force behind future Group development.

We are convinced that, in future, those companies which develop products and solutions that take human needs and sustainability factors into equal account will primarily be the ones to enjoy economic success. Not only today and tomorrow, but on a long-term, i.e. sustainable basis.

Our contribution

As a corporate citizen, we wish to be a good neighbour, as well as a competent and fair partner, and contribute to a better future. An economic approach based on sustainability is also a special expression of corporate responsibility towards our various interest groups. Our sustainability strategy has global validity for all Group Divisions. We are convinced that this allows us to do more than merely play an active role in ecological, social and economic development. We understand the systematic implementation of the principles of sustainability as being an important element in the promotion of the qualifications and motivation of our employees, the strengthening of the competitiveness of our customers. This is because we not only raise efficiency throughout industrial plant life cycles, but also that of non-industrial applications. A company that actively pursues sustainability accentuates the future orientation of its strategies. VA TECH ensures the effective use of resources, which are in increasingly short supply, clean solutions and extended plant life by means of innovative products and technological answers.

A focus on increased efficiency

We ensure the efficient use of limited resources.

A focus on emission reductions

We offer clean solutions.

A focus on the plant life cycle

We extend the service life of industrial plants.

Did you know that ...

... VA TECH undertakes **responsibility for millions of people?** Among others, the following are in global operation:

- Metallurgical plants for the production of 150 m tonnes of steel per year, which roughly corresponds with annual consumption in the EU.
- Turbines and generators for the production of 100,000 GWh of electricity from renewable sources for 100 m people.
- High-voltage transmission systems for power distribution among 500 m people.
- Infrastructure solutions for a reduction in the energy needs of our customers.
- Plants for the water supply and wastewater treatment for 200 m and 130 m people respectively.

... internationally almost 1,700 institutions and companies are contributing to sustainable development within the **UN's "Global Compact" initiative**? VA TECH was the first Austrian company to decide to support this Kofi Annan project.

...over **16,500 employees** at 200 locations work for VA TECH on all five continents?

... approx. **4,400 patents** secure the technological basis of the Group?

... with its innovative products and solutions year for year, VA TECH contributes to the **reduction** or prevention of emissions amounting to around **50 m tonnes of CO_2** annually?

... VA TECH **co-operates** with more than 90 national and international universities and research institutes?

... since 1996, VA TECH has supported **Médicins sans Frontières** with projects in Thailand, Mexico, Afghanistan and, most recently, the Ukraine?

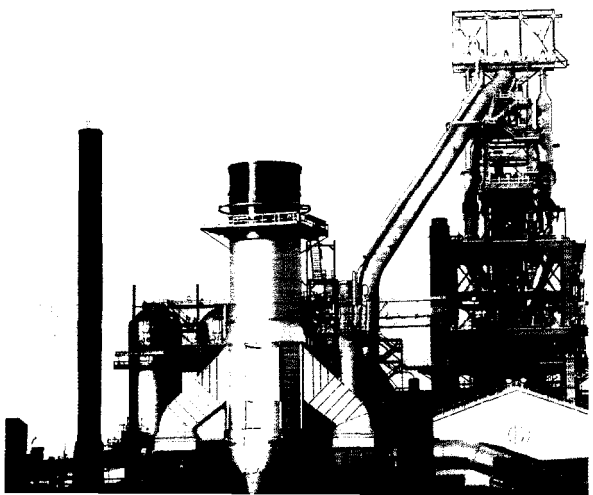
... over 400 managers for 34 countries contributed to the creation of our joint vision, **"sustainable solutions. for a better life."**? Following the first Group workshop, the mission process was furthered in the course of annual Managing Board workshops at international locations.

Our businesses

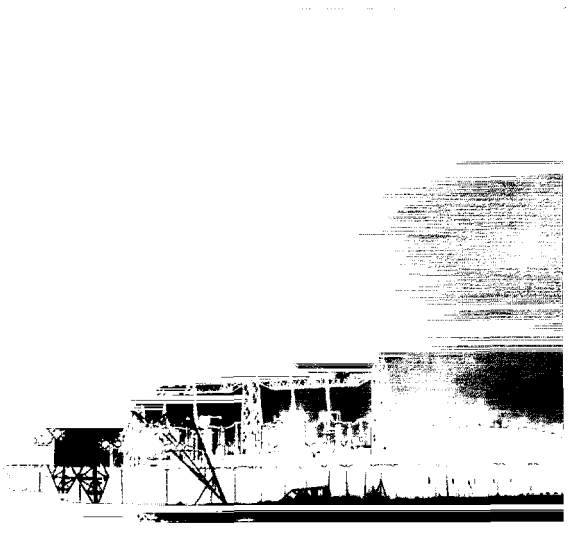
We offer products and services in the following four Group Divisions:

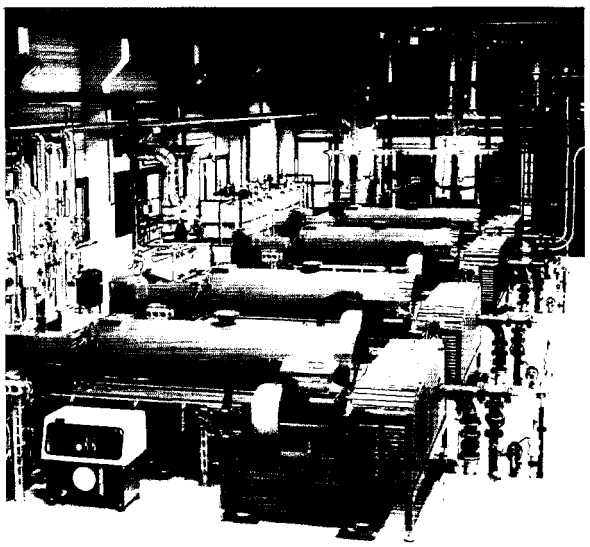
Metallurgy
Power Generation
Transmission and Distribution
Infrastructure

Profile:	**Metallurgy** VOEST-ALPINE Industrieanlagenbau (VAI) is the world's leading supplier of engineering and metallurgical plants to the global iron and steel industry and the flat products sector of the aluminium industry. VAI offers a wide range of state of the art technology from raw materials to the finished product. VAI is unique with regard to the scope of capabilities in the areas of metallurgical processes, automation solutions and metallurgical services, offering expertise that covers the entire life cycle of customer plants.
Position:	Top 1 global
Order intake:	EUR 1,623 m
Employees :	3,434
Strategic targets:	• *Consolidation of top 1 position as a* technology, automation and services partner for the steel and aluminium industries. • Automation and services business expansion.
Products and services	Mineral and reduction technology; complete plants/metallurgical plant integration, steelmaking, continuous casting and environmental technology; rolling mill, strip processing and pipe and tube technology; automation; metallurgy services.



Power Generation	**Transmission and Distribution**	**Infrastructure**
VA TECH HYDRO is a global supplier of electromechanical equipment and services for hydropower plants. It is one of the world's largest suppliers for the hydroelectric power generation market and holds a leading position in the growing power plant refurbishment sector. The combined cycle business area specialises in the engineering and construction of energy-efficient, gas-fired combined cycle power plants with a focus on Europe.	VA TECH Transmission & Distribution is a leading international supplier of electrical power transmission and distribution systems, offering both integrated systems solutions and cutting edge technology individually tailored to our customers' needs.	◦ The VA TECH ELIN EBG Group is a leading supra-regional supplier of of multifunctional plants, systems and services involving extensive drive technology, service and project competence. ◦ ai informatics is an international supplier of complete IT solutions and a partner to companies in industry, telecommunications and retail, as well as in the private and public service sectors. ◦ VA TECH WABAG is an international supplier with a comprehensive range of water and wastewater treatment and seawater desalination technologies.
No 3 global	Among the leading suppliers in the high-voltage sector	Top 3 in Austria and some CEE states
EUR 871 m	EUR 1,235 m	EUR 1,019 m
3,036	5,431	4,374
◦ Strengthening of the No 3 global position in the hydropower sector, consolidation of market leadership in the compact hydro, modernisation and services sector. ◦ Market penetration with new products, expansion in the automation field. ◦ Consolidation of the combined cycle position in Europe.	◦ Consolidation of the global leading position in the high-voltage sector, expansion in the automation and services sectors. ◦ Streamlining of the business structure and growth in key markets outside Europe.	◦ Strengthening of market leadership in Central Europe, development into a leading "infrastructure company" in the CEE states. ◦ Continuation of regional expansion. ◦ Emphasis on automation competence.
Large hydro (turnkey power plants); compact hydro (hydropower plants up to 15 MW); hydro service (profitability and value increases for existing power plants); combined cycle (gas-fired combined cycle power plants); turbogenerators.	Turnkey, conventional high-voltage plants in conventional and compact gas-insulated design; circuit breakers and disconnectors; GIS systems; product and network services; automation, control and protection technology; power transformers of up to 1,300 MVA, 765 kV, special transformers.	Electromechanical, electronic plants and holistic utility systems, plants and services for industrial, building and municipal infrastructures, drive technology, IT services, water and wastewater treatment and disposal, sea water desalination.



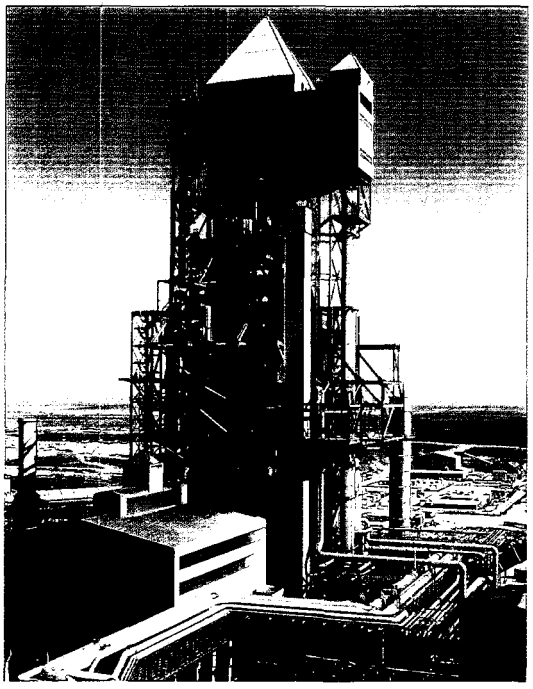


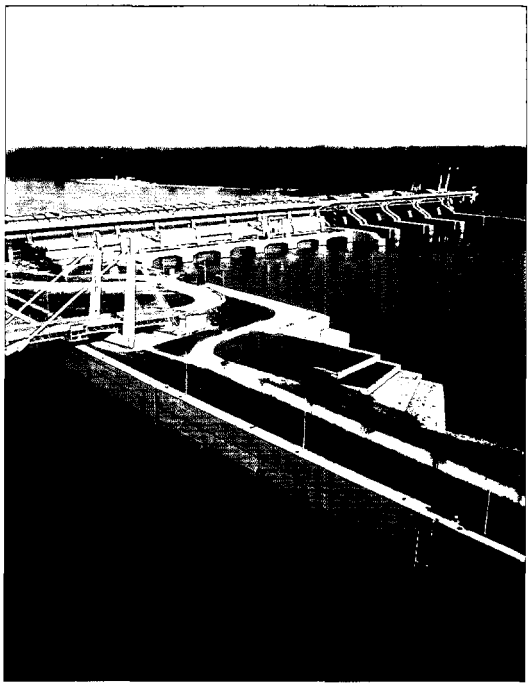
Innovative and sustainable technologies contribute to energy efficiency and resource conservation and thus make a major contribution to the eco-efficient supply of society.

Sustainable solutions in all Group Divisions

Metallurgy

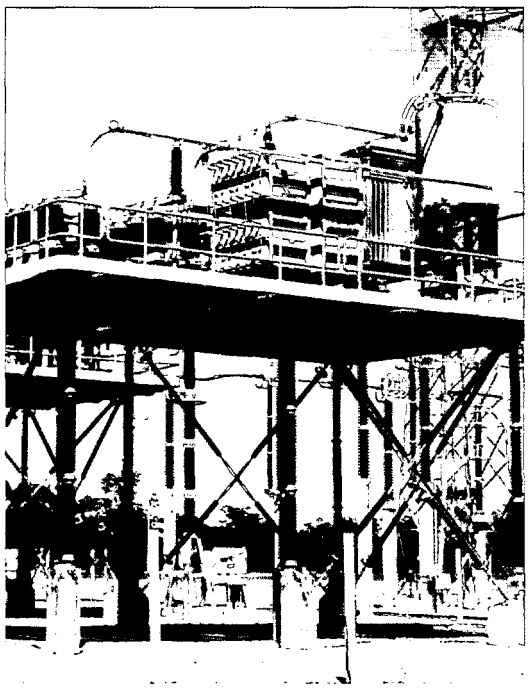
The design of technological processes in line with sustainable energy and resource conservation is one of the greatest challenges facing us as the global leader in the field of metallurgical technology. The use of our innovative, sustainable technologies, process models and automation solutions means that the volume of energy required for the production of one tonne of steel only a few years ago has been cut by over 30%. On average, our customers achieve a reduction in CO_2 emissions of some 20 million tonnes every year.





Power Generation

Using our technologies, we contribute 100,000 GWh of renewable energy annually to the supply of 100 million people.
By means of renewable energy sources and highly efficient technologies, we already guarantee future-oriented power generation with a savings potential of 45,000 GWh per year and thus facilitate a reduction in CO_2 emissions of around 23 million tonnes per year.



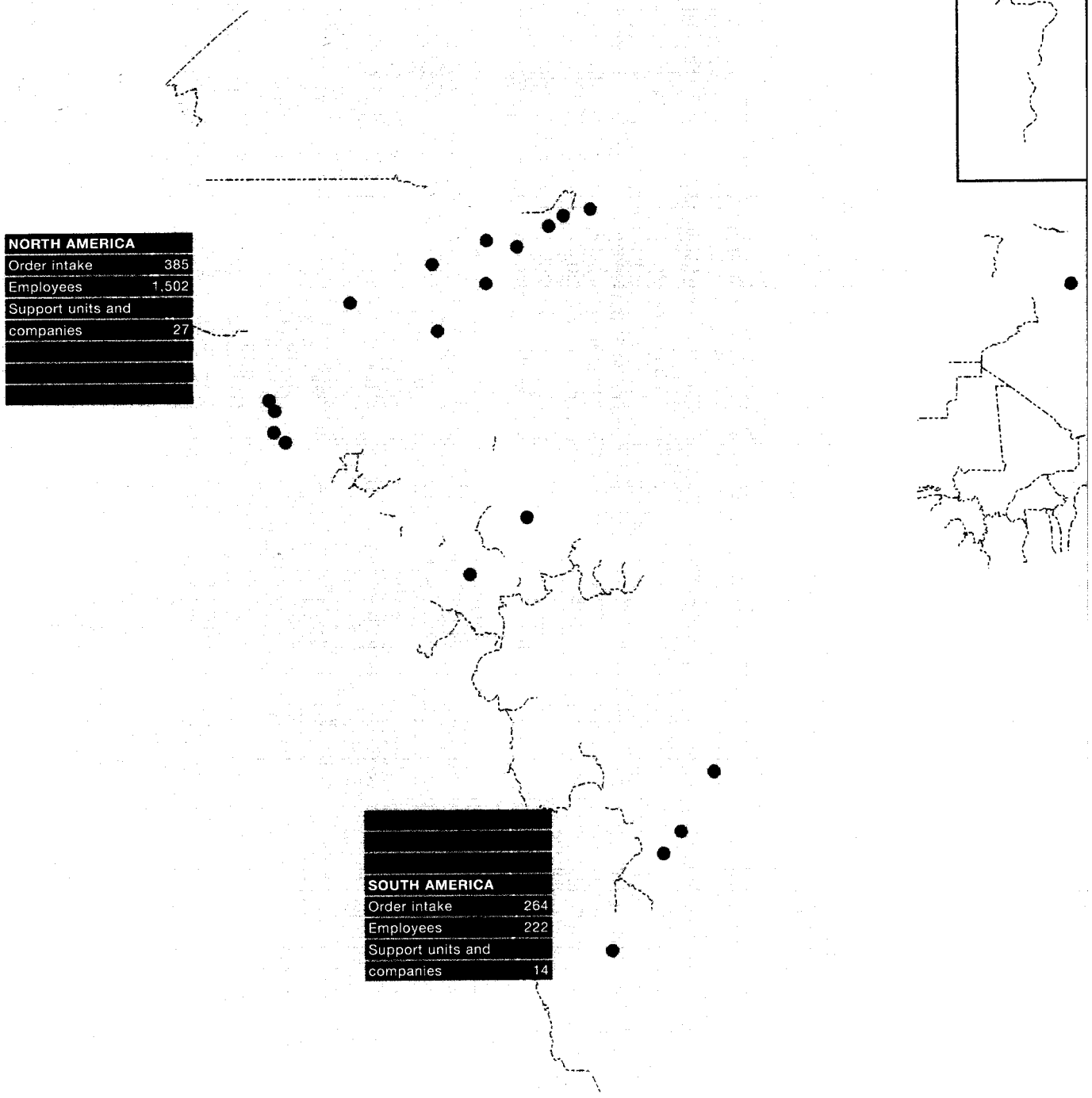
Transmission and Distribution

Over 500 million people rely on our high-quality and durable systems for power transmission and distribution. We aim to improve the efficiency of transmission systems and guarantee security of supply through our range of high-voltage supplies and services. New technologies and the increased use of automation solutions guarantee an efficient and secure supply of valuable energy and thus permit the realisation of energy and CO_2 savings potential.

Infrastructure

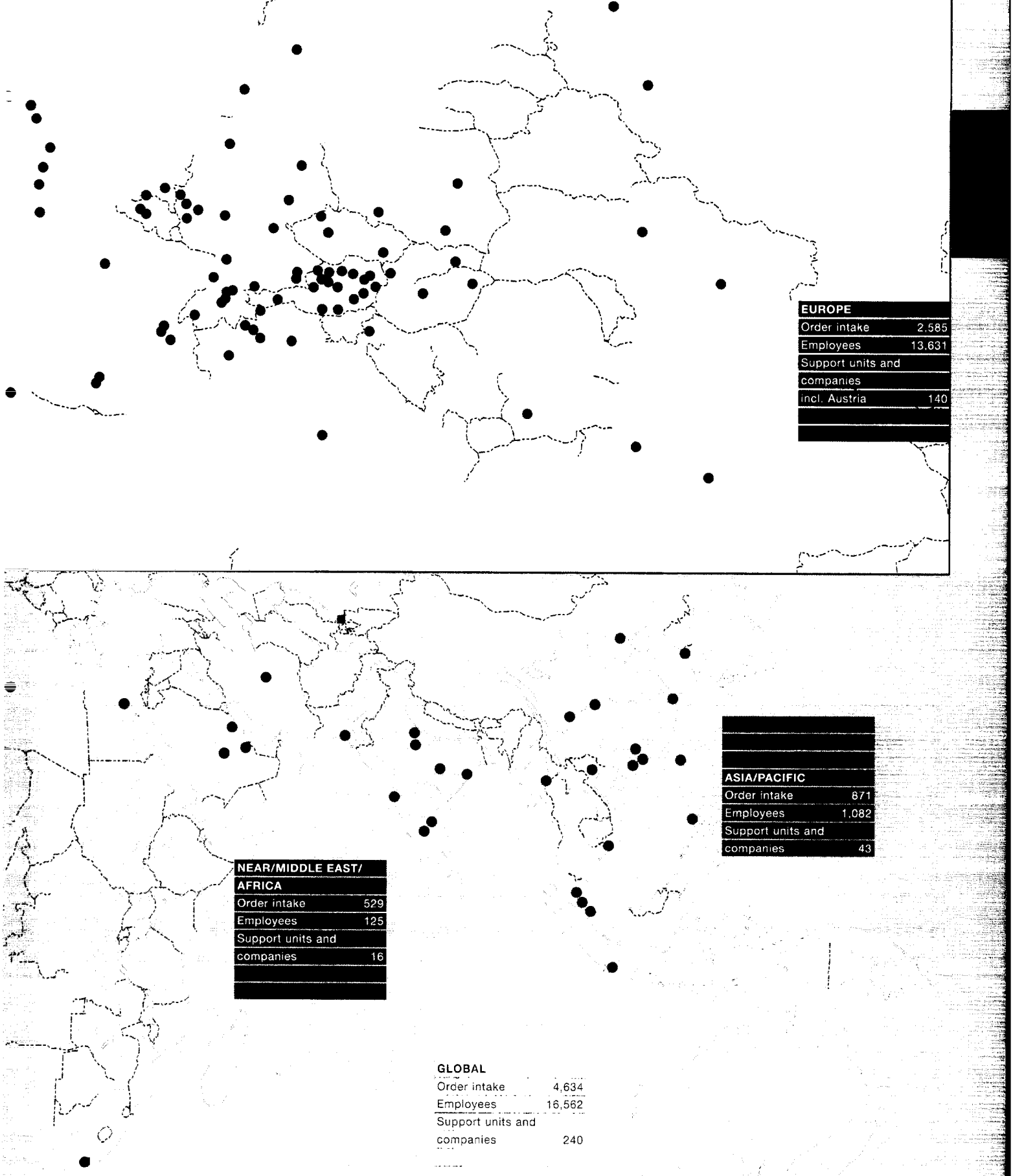
As an "Infrastructure Company" we offer mature, holistic solutions for industrial, building and municipal utility systems, plants and services. The optimum utilisation of energy and resources not only guarantees long-term benefits for our customers, but also the environment. The focal point is formed by energy efficiency, reduced energy consumption and a comprehensive approach to the complete plant life cycle. In the Water Systems area, our plants provide 200 million people with drinking water and treat the wastewater from 130 million.

Our global presence



NORTH AMERICA	
Order intake	385
Employees	1,502
Support units and companies	27

SOUTH AMERICA	
Order intake	264
Employees	222
Support units and companies	14



GLOBAL	
Order intake	4,634
Employees	16,562
Support units and companies	240

Mission

sustainable solutions.
for a better life.

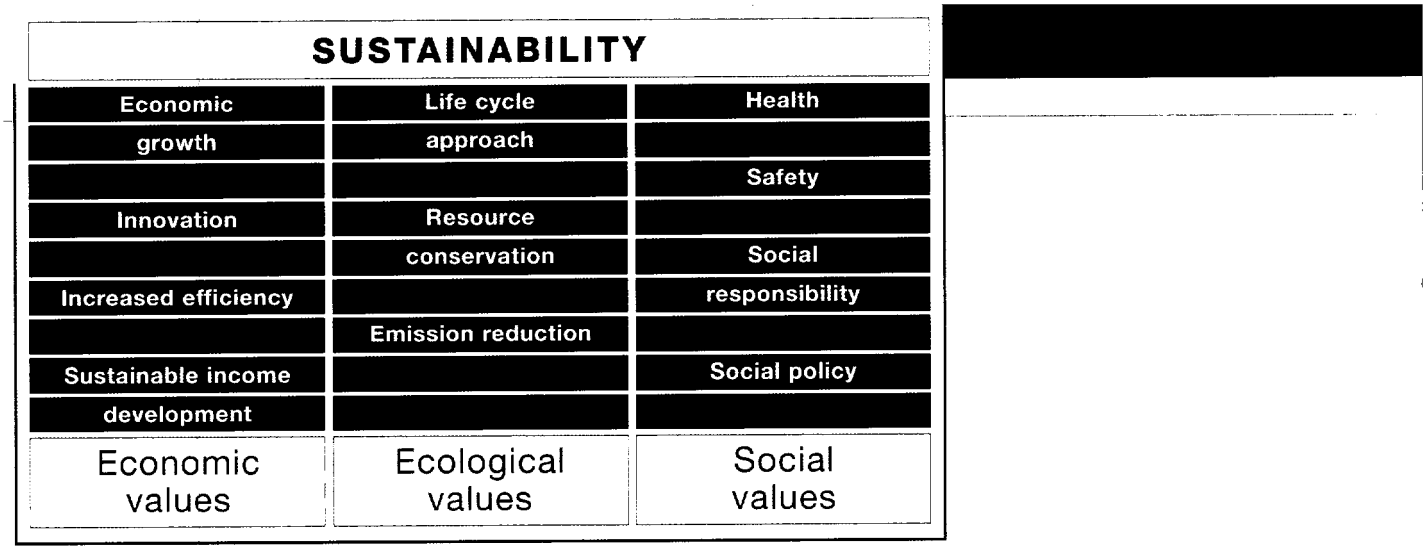
1.) VA TECH is a leading global Technology and Service Company. We are committed to creating value.

2.) Together with our customers all over the world, we develop sustainable solutions to improve the quality of life. We are the most responsive, innovative and reliable partner.

3.) To our shareholders, we deliver predictable, superior returns on their invested capital.

4.) It is our employees who make these things happen on the basis of trust, fairness and integrity. We encourage creativity, diversity and personal development.

5.) For us, it's all about performance, commitment and a readiness to change.



Economic policy

VA TECH is a leading, global technology and services company.

- We act and feel like a single company.
- We have the entrepreneurial spirit, culture and systems of a dynamic and flexible enterprise.
- We offer a comprehensive range of top technologies, systems, products and services.
- We hold leading positions in our international business markets. We deal with challenges as a global player.
- We aim to create value. Value added for our customers, shareholders, employees and society is our main objective and we pursue it with passion.

We develop sustainable solutions together with our customers around the world, in order to improve the quality of life.

- We regard ourselves as a partner to our customers and know their needs.
- Our solutions are sustainable, i.e. effective and efficient, durable, safe and also economic, ecological and socially intelligent.
- We subscribe to the principle of renewal, particularly with regard to energy and resources.
- We undertake to raise living standards in both industrial and developing nations.
- We endeavour to integrate economic and ecological objectives and requirements.
- We are a customer-oriented, innovative and reliable partner and offer unique, customised solutions.
- As a life cycle partner, we create value throughout the entire service life of the plants of our customers.

We offer our shareholders attractive and predictable returns on their capital.

- Our earnings power is foreseeable, predictable and sustainable.
- We make every effort to be among the best.
- We are aware that we work with the capital of others.

Innovative and sustainable products and solutions

- We secure efficient resource consumption through innovative products and systems, offer clean solutions and prolong plant service life. Consequently, we adopt a position as a responsible partner to our customers and create value throughout the entire life of plants.
- For this purpose, we possess the latest technologies supplemented by technical services as an integral part of modern industry.
- As a technology supplier, we feel an obligation to include integrative, sustainable thinking as a fixed element in our innovative activities. In addition, we also wish to fulfil our responsibilities through the ongoing further development of plants, products and processes according to the newest ecological know-how. We regard "sustainable technologies and solutions", which take special account of renewable energies, as constituting an important contribution to the future.

Environmental policy

We accept responsibility for the people and environment around us

- We know that our business activities have an influence upon the environment. We are therefore aware of our special responsibility for the people and environment around us and act accordingly.
- We constantly endeavour to continually reduce environmental impact through the careful use of resources, as well as sustainable products and services.
- Wherever economically and technically viable and compatible with customer needs, we allocate priority to technologies, processes and products with low environmental impact.
- It is our declared aim to continually improve our performance in the environmental sector.

We fulfil high environmental standards

- Our environmental management is based on legislation and international standards and is integrated into our management system.

We integrate our stakeholders into our environmental management

- We support our customers in all matters relating to the environment of relevance to our products and services.
- While taking into account the requirements derived from the orders from our customers, we make every effort to minimise the regional, environmental impact of our products, services and activities throughout the entire product life cycle.
- Accordingly, we adhere strictly to all environmental legislation.
- We include our sub-suppliers in our environmental endeavours and support them during the assumption of best practices of environmental relevance.
- We promote the environmental awareness of our workforce.
- All managerial staff act in an environmentally-conscious manner. The prevention of pollution and an ongoing improvement in the ecological situation in their area of activity is a demanding challenge.
- Within the scope of their activities, all employees are called upon to act in an environmentally-conscious manner in line with this policy, and are obliged to adhere to all environmental laws, decrees, standards and directives.
- We contribute to the stability of our business results by means of activities in line with legal stipulations, as well as the careful balancing of economic and ecological factors.

Social policy

Equal opportunities

We offer equal opportunities to all employees. Discrimination on grounds of gender, age, nationality, colour, religion, sexual orientation, or beliefs is forbidden.
As an international Group, in particular, we promote cross-border co-operation and teamwork with other cultural circles and thus contribute to mutual understanding and tolerance.

Management and teamwork

We treat one another with respect and esteem that extends across all hierarchical levels. We honour and encourage the acceptance of individual responsibility by our workforce. Trust and fairness form the basis for our teamwork. We adhere to a clear performance orientation and expect commitment and readiness to further personal development.
We support our employees in the attainment of qualifications and further training and make every effort to offer them long-term employment perspectives.

Social responsibilities

As a company, we also have social responsibilities. We adhere to national laws, particularly those relating to labour matters and in addition, undertake to meet even stricter principles within the company if we believe this is to appropriate for ethical, social or health reasons. We reject child labour, illegal employment and unethical business practices in general and in addition, do not accept them among our business partners. Necessary personnel adjustments are undertaken correctly, with fairness and the highest possible level of social acceptability. We involve ourselves in public life, supporting the sciences, arts, culture and social projects to the best of our abilities. We cultivate an open dialogue with our stakeholders.

Health and safety policy

We have responsibilities and obligations for health and safety in the workplace. During our activities, we allocate the health and safety of our employees and other persons working with us major priority.
It is our declared aim to prevent injury to our employees, to guarantee the safety of third parties during our business activities, avoid damage to property and to continually improve our performance in the health and safety area.

Health and safety management

Our health and safety management is based on legislation and international standards and is integrated into our management systems.

Integration of all stakeholders

We identify the dangers emanating from our business activities, evaluate the health and safety risks and implement preventive measures, in order to reduce these risks to a minimum.
We observe both legal and customer requirements with regard to health and safety and ensure adherence.
We assess the health and safety competence of our suppliers, co-ordinate and supervise with them with the aim of ensuring secure working procedures.
We promote an awareness of health and safety matters and provide the appropriate resources and training. Our managers are obliged to lead by example.
We encourage our employees and contractual partners to actively contribute to health and safety, to follow health and safety principles and to use the personal protection equipment provided.
We contribute to the stability of our business results, by acting in complete accordance with the health and safety laws, in order to reduce possible risks to people, plants and products and to proactively prevent accidents and incidents.

VA TECH sustainability reporting

From an internal viewpoint to an external perspective

In December 2004, VA TECH invited respected experts to a discussion on the topic of "Sustainability". The aim was to gather advice and suggestions concerning the optimisation potential with regard to sustainability measures and reporting, which remains to be exploited.

Since 2001, the VA TECH Group has been actively involved with the topic of sustainability. From the outset, the initiated sustainability process was supplemented by reporting, which provides an insight into the respective status.
VA TECH asked experts from various specialist areas to contribute their expertise and expectations to the reporting process in an open discussion.

elmut Rechberger,
ens Dangschat

Participants in the expert discussion

Chairman:
Alfred Strigl
(Austrian Institute for Sustainable Development – ÖIN)

Participants:
Jens Dangschat
(Institute for Area Development, Infrastructure and Environment Planning, Vienna University of Technology),
Heinz Hübner
(Former head of the chair for Technology Effects and Innovation Research, University of Kassel),
Gottfried Magerl
(On behalf of Nebojsa Nakicenovic; Institute of Electrical Measurement and Switching Technology, Vienna University of Technology),
Ingo Marini
(Institute for Process, Environmental and Technical Biosciences, Vienna University of Technology),
Helmut Rechberger
Institute for Water Quality, Resource and Waste Management, Vienna University of Technology),
Konrad Autengruber
(Business Development, VA TECH HYDRO),
Harald Hagenauer
(Investor Relations, head of the VA TECH Sustainability Board, VA TECH),
Ursula Scheidl
(Corporate Communications, VA TECH MSG)

"Sustainability also means that a company expands on a solid economic basis and thus offers the workforce long-term perspectives."

Helmut Rechberger

Experts on optimisation potential

[illegible] Hübner,
Konrad Autengruber,
[illegible] Strigl

Ingo Marini,
Gottfried Magerl

Sustainable profits must also be guaranteed

Sustainability reports must clearly demonstrate that the company will continue to operate at a profit in future. Only thus can sustainability be genuinely guaranteed, not just in an economic, but also in an ecological and social context.

Sustainability and public concerns

Sustainability is still often equated with environmental protection. However, even though the differences are small, sustainability covers an important aspect, "We currently act in a sustainable manner, in order to ensure coming generations a future worth living." Consequently, the environmental component is automatically linked with sustainability aspects. When reference is made to sustainability, then the concerns and fears of the public must be closely studied. There are numerous surveys on this topic. VA TECH should analyse these anxieties and then deduce the role that a company can actually assume in this connection with regard to social responsibility for the population.

"Company sustainability reports and strategy are subject to the important requirement that all decisions with an economic, ecological and social dimension should receive equal weighting."

Heinz Hübner

Heinz Hübner, Konrad Autengruber

A company operating on a sustainable, economic basis must succeed in providing answers to existential and ethical questions.

Sustainability from a philosophical viewpoint

When reference is made to future generations, central ethical questions must be faced. In the past, the response to existential and ethical questions was the prerogative of only a few institutions such as the church. Later, other bodies or political parties assumed at least a part of this role. However, when today an enterprise such as VA TECH succeeds in making at least a minor contribution towards the provision of a positive response to all these central questions of existence and the future, then people will be pleased to work with this company, with which they feel at home and understood.

Sustainability in figures

The presentation of processes and services in numerical terms represents a major component in the Sustainability Report. If this report were to contain relative values and points of reference instead of absolute figures, then the interrelationships could be better clarified and the reader's perception of the dimensions involved facilitated, i.e. as to whether the results listed represent too much or too little. However, care should be taken that business secrets are not revealed.

Sustainability and the time factor

When a car, which has a product life cycle of 7-20 years, is compared to an industrial plant that has a service life of 30-50 years, not only does the question arise as to the sustainability of the product, but also that of the producer. Suddenly, time constants play a role, which lead to completely new considerations such as, "Will our company still exist? Can this investment risk actually be assumed? What do these plants mean for the conservation of resources in 50 years' time? What are the consequences during this period? This is a dimension that is not easy to evaluate, but it is one that would enrich the Sustainability Report enormously.

System limits for sustainability reporting

During projects, it is frequently difficult to draw a line with regard to the extent of system considerations such as sub-supplier energy use. Therefore, the experts propose that transparency be relied upon in this connection with an active statement that not all information was attainable and thus appropriate allowances must be made during the definition of system limits.

Setting sustainability objectives

The Sustainability Report makes clear that VA TECH claims to allocate equal weight to economic, ecological and social factors during the taking of all decisions. Therefore, the experts recommend that operational targets also be established at this level. This involves the weighting of the individual dimensions and for example, the subsequent determination that during the next five years the environmental protection dimension should be increased from 4-8%. Instead of the verbal scales used frequently in the Report, there should be indicators which are quantifiable with regard to the points of reference.

Helmut Rechberger

Ursula Scheidl

In addition, a sustainability report must provide sufficient space for the open discussion of weaknesses, particularly with respect to transparency and the definition of objectives for the current year under report and the years to come. Standard methods include backcasting ("back to the present"), or benchmarking instruments as employed by VA TECH.

The social dimension of sustainability

During projects, the quantifying of objectives in the social area must also be accounted for. For example, one possibility would be to inquire as to by how many per cent the social share in the enterprise should increase and which projects are to be realised to this end.

"A sustainability report may not gloss over the facts, for this impairs its credibility. There must be room for the addressing of optimisation potential."

Gottfried Magerl

What I expect from future pioneers

sustainable solutions. for a better life.

An essay by
Alfred Walter Strigl
CEO, Austrian Institute for Sustainable Development

For me, energy and efficiency means the creation of five times the current quality of life using half as much energy. This cannot be achieved by technology alone. Social innovation and individual responsibility are also needed. Something that requires hearts, brains and hands.

Future pioneers are way out in front. They see the horizon sooner and understand first what is approaching, long before the hoard of fellow travellers and followers. Future pioneers are restless and constantly on the move. They inquire, seek, observe and dream with a greater acuity than others. In their territories they are on the pace. They are the ones that leap barriers and enter unknown territory, something for which they need courage. The courage to lead the way like a scout or a trailblazer and the courage to have a mission in which they believe.

Future pioneers are unwilling to be served with a tomorrow, a path, a world, in which they feel uneasy. They seek to create this tomorrow using their own strengths, without tiring and with complete certainty. If these dreamers were to be left in the desert, they would find water! Others would have failed long before and retreated to a position of mediocrity. Not however the future pioneers. They wish to implement their ideas and have no desire to wake up in a future where others have made the decisions and bought and invented everything in advance. Future pioneers personify the future long before it has arrived for other people. They know that the future is in the hands of those who can provide coming generations with cogent reasons for life and hope.

Future pioneers sail ahead. They do not set their course in line with that of other ships, but rely instead on their own compasses. Winds and waves do not determine their route and they pity those who are uncertain of their destination, for they will spend a lifetime sailing in circles. The future pioneers know and determine their goals. They are the torchbearers for the future. They understand the ongoing creation of tomorrow as both an obligation and an opportunity. They are in demand as bridge builders for those who stand and wait and serve as a driving force when all else is stagnation. Future pioneers wake up earlier and seize the moment. It is a fact of life that those that will, already can and those that come too late are destined to quickly disappear.

For this reason alone, future pioneers invent life, a better life. They discover and create improvement. Their enemies are those who mean us all too well. Do-gooders are not the friends of progress. Therefore, future pioneers may not hesitate. They cannot afford to wallow in the slothful comfort of the familiar, the impotent misery of today and the logic of yesterday. The future pioneers search, anticipate and imagine and discover solutions. They pursue paths that are new, inventive and creative and that also lead to foreign shores and the terra incognita of the continent of the future. Moreover, even though they recognise just a few stretches of coastline and their maps have many empty spaces, the future pioneers still have a chart in order to find their way to this continent of an improved existence. They know that there a great deal will be different, more intelligent, fairer and finer. For future pioneers have the solutions, viable solutions for tomorrow, in their hearts. sustainable solutions. for a better life.

Biography in brief.

Alfred Walter Strigl (b. 1966) studied biochemistry and technology at the Graz University of Technology. In 1998, he started work at the Austrian Institute for Sustainable Development (ÖIN) at the Vienna University of Natural Resources and Applied Life Sciences, first as office head and then as CEO. He is a member of the Austrian Committee for Sustainable Development, the president of European Sustainable Development (ESD) and headed the Austrian delegation to the World Summit on Sustainable Development in Johannesburg. Alfred Strigl is responsible for the Corporate Sustainability area at the ÖIN and supports numerous companies and organisations en route to sustainability.

As head of the VA TECH Sustainability Board and the responsible member of the Investor Relations Department, Harald Hagenauer has been involved in the sustainability process from the beginning. In an interview, he provides information concerning the main milestones, success factors and goals.

Interview with
Harald Hagenauer

VA TECH Communications & Investor Relations
Head of the VA TECH Sustainability Board

For me, energy efficiency means better 80% now, than 100% never.

Let's just do it

VA TECH has been concerned with the topic of sustainability for four years. Where did the impetus for this involvement derive from?

Hagenauer: In fact we have been pursuing the concept of sustainability since 1994. It was then that we defined our product focus in the mission statement as follows: "We possess technologies for the optimum use of raw materials and energy and to ease environmental impact." This objective has accompanied us ever since. An additional incentive came slightly later from the capital markets, which signalled a strong interest in this topic, and from our employees.

Were employee needs focused directly on this topic?

Hagenauer: Following comprehensive restructuring a worldwide employee survey was completed in 1997. This led to the creation of the "Sustainable Solutions" concept by 400 managers. They worked out a joint mission statement and our commitment to sustainable solutions. At the same time reporting also commenced.

What influence did sustainability reporting have on the process?

Hagenauer: Reporting concerning the status of a development and the initial leaving of gaps makes sense as the sustainability report is itself an important process driver. Moreover, we wanted to guarantee a constant insight into this process. If at first our solutions and the mission process were the focus of attention and then work on Group targets and structures, today we can point to the successful implementation of measures around the world, or in other words, to a successfully realised mission.

In the retrospective, what were the factors in this success?

Hagenauer: It is important to quickly establish targets and milestones and to start work immediately. In top down terms, a commitment by the Managing Board is essential. However, of equal significance is external validation at a relatively early stage along with the thematisation of strengths and weaknesses as a third party option. Rapid opening up in the direction of stakeholders also furnishes important impulses.
There can be no doubt that we have succeeded in creating a bridge to core business, for only genuine integration can guarantee the full implementation of this topic.

If you look five years into the future, how do you think sustainability should have developed?

Hagenauer: If one recognises trends at an early stage, it is better to be a frontrunner rather than lagging behind due to legal stipulations. Our aim is to evolve from being a pioneer to become a trendsetter. Sustainability topics are already firmly anchored in many of our operative companies and units. It would bye my wish that the sustainability topic per se would become a natural part of a value-oriented company management.

Work in progress

During recent years the topic of sustainability at VA TECH was characterised by efforts of committed employees and the constant desire to make progress. With the creation of its mission statement, "Sustainable Development" in 1994, VA TECH took initial steps towards sustainable development. The following is a look back at the milestones of this Group process.

2001

At the beginning of 2001, an initial, global employee survey is held. The results are presented in April 2001 and show the potential for corporate development in the areas of mission, management, communications, careers, integration and bureaucracy. This process of change is dubbed the "CHANCE" project and provides a platform for business reorientation and focusing, as well as a renewal of Group identity and culture.

In order to support Group activities in line with sustained development, the VA TECH Sustainability Board is founded as an advisory body to the Managing Board. All the Group Divisions and specialist areas are represented.

The VA TECH Sustainability Board consists of nominees from the Group Divisions, who are supported by experts during the implementation of specific measures.

Harald Hagenauer, Head of the VA TECH Sustainability Board (Communications & Investor Relations – VA TECH),
Helmut Andexer (Human Resources – VA TECH MSG),
Kurt Guwak (Human Resources – VA TECH MSG),
Klemens Possart (Communications – VA TECH MSG),
Helmut Eidinger (Quality Management – VAI),
Siegfried Wenger (QSU Management – VA TECH HYDRO, VA TECH T&D),
Robert Sagmeister (Quality and Environmental Management – VA TECH HYDRO),
Konrad Autengruber (Business Development – VA TECH HYDRO),
Gerald Witz (Business Development – VA TECH HYDRO),
Ursula Scheidl (Communications – VA TECH MSG),
Jean-Pierre Beaudet (Strategy und Technology – VA TECH T&D),
Hans-Jörg Wech (Strategy and Technology – VA TECH T&D),
Christian Schrofler (Communications – VA TECH MSG),
Franz Henl (Environmental Management – VA TECH ELIN EBG),
Leopold Wimmer (Quality Management – VA TECH ELIN EBG)

2002

The VA TECH Managing Board and over 400 managers from 34 countries meet for the first "Group Workshop", in order to formulate a shared mission under the motto, "sustainable solutions. for a better life." This is then approved with its five core principles by the Managing Board in February 2002.

March 2002: VA TECH issues its first Sustainability Report.

March 18-22, 2002: Against the background of the UNO conference on development financing in Monterrey, Mexico, and at its invitation, VA TECH, the Confederation of Austrian Industry and ABCSD experts from industry and the public sector discuss possible approaches to the financing of sustainable development, as well as the importance of investments from an ecological and social viewpoint.

April 2002: VA TECH becomes the first Austrian company to sign the UN Global Compact.

May 2002: 660 participants are presented with the programme and measures for the implementation of the "sustainable solutions. for a better life." mission during workshops (road shows) at 16 locations. Employees are thus provided with an opportunity to discuss their expectations with regard to the implementation of the VA TECH mission.

August 25-September 4, 2002: Participation at the World Summit for Sustainable Development in Johannesburg offers VA TECH representatives the chance to discuss the use of renewable energy, the future potential of water resources and the financing of sustainable development in expert forums.

September 2002: VA TECH is accepted into the "FTSE4Good" sustainability index for socially responsible investors.

2003

January 2003: The second "Group Workshop" is predominated by the topic of the sustainable implementation of the VA TECH mission.

March 2003: The second VA TECH Sustainability Report is published.

April 2003: The first joint VA TECH and University of Linz "Sustainability Forum" is characterised by a discussion concerning the consideration of economic, ecological and social targets for the securing of sustainable development. The second VA TECH Sustainability Report is officially presented during this event.

August 2003: VA TECH becomes a member of the Austrian Network for Sustainable Management (B.A.U.M.).

November 2003: The "Rio Amoya" project is awarded first prize in the "Water" category during the Energy Globe presentation ceremony at the Design Center in Linz. VA TECH HYDRO is supporting the completion of this project with its innovative technologies.

2004

January 2004: Third "Group Workshop" attended by 600 managers from around the world.

March 2004: Publication of VA TECH's third Sustainability Report.

May 2004: The VA TECH HYDRO Tsankov Kamak hydropower project wins the Trigos company prize in the "Market" category. This project is the first to show the advantages to the Austrian economy of the sustainability aspects of the Kyoto Agreement. Trigos is an award for companies showing exceptional social responsibility, which is presented by the CSR Austria Association.

June 2004: Global Compact Summit in New York. The attendees have the possibility to discuss the possibilities offered by achievements thus far and to establish strategy for the future. Kofi Annan, the initiator of the Global Compact, informs the invited guests concerning enlargement to ten principles.

November 2004: VA TECH takes second place in the "Sustainability" category during the awards for the best environmental and sustainability reports 2002 presented by the Chamber of Financial Fiduciaries (AERA 2002 – Austrian Environmental Reporting Award).

Revision and supplementation of existing policies and integration of the sustainability principles into a new Group directive. A further objective of this Group guideline is an improvement of reporting standards in the environmental and social sectors.

Pursuing goals, taking measures

As a frontrunner, we have developed further and have established the topic of sustainability throughout the Group. The results of our target definition are already measurable and the resulting processes initiated represent an established part of our improvement measures.

The results of a Group-wide, statistical survey on the basis of a Global Reporting Initiative (GRI), show that during the past four years satisfactory progress has been made with regard to target development and optimisation potential.
As a genuine, integrative element in Group strategy, differentiation through "sustainable solutions" has found its way onto the Group's Balanced Scorecard system as a leading item. In line with the integration of core areas into a process of continuous improvement, during 2004 polices were examined, expanded and supplemented. Optimum guidelines for key figure reporting were integrated into this Group directive.

Our sustainable management targets

Economic targets

- Positive and continually rising economic value added (EVA®), which means capital returns that exceed capital costs.
- An operating EBIT margin of over 5% (EBIT/sales).
- A sustained increase in free cash flow.
- An equity ratio of above 20%.

Ecological targets

- Introduction of an integrated, management system at all main locations by the end of 2006.
- Cuts in resource consumption (water, energy) and emissions with a main emphasis on CO_2.
- Use of environment-friendly materials, increase in the recycling quota and a reduction in waste.
- Enhancement of employee awareness with regard to environmental issues.

Social targets

- Promotion of work safety and health protection.
- Further development and extension of managerial competences.
- Upgrading of employee qualifications in relation to Group themes.
- Improved communications and ongoing optimisation of reporting.

Environmental management system implementation on course for success
One of the goals defined in the environmental area of the Balanced Scorecard is the establishment of an integrated management system at all major locations by the end of 2006. During the past financial year, 51% of the work force was already working according to an implemented ISO 14001 environmental management system. 75% coverage was achieved at production locations.
Current key figure development is mirrored by comprehensive measures from the environmental protection programmes at the individual locations, which for example, have led to a 27% cut in energy consumption since 2002.

Raising customer information and awareness levels
Over 50% of all image and product brochures contain appropriate references to the topic of sustainability. Anchored as a target in the Balanced Scorecard, this additional project and product cription information is intended to support the decision-making processes and to raise awareness levels.

Work safety and health safeguards
The protection of vital interests is not only the primary, personal goal of each employee and their families, but also the primary premise of companies acting with responsibility. The "Basic rules for health and safety", prepared by a team of experts from across the Group, represent a supplement to existing safety management systems and is an ideal medium for the communication of the main safety standards for both internal and external use. The successful balance up to now with regard to working time lost due to accidents should thus be maintained. As a result of extensive, prevention measures, VA TECH has achieved a cut in hours lost due to occupational accidents by more than 50% as compared to 2002.

Integrative approaches through Balanced Scorecards

The Balanced Scorecard (BSC) management tool creates a link between short- and long-term corporate goals on the one hand and internal and external company perspectives on the other.

The gradual meshing of corporate and decision-making processes with the aspects of sustainable development requires many targeted, individual measures. Starting from the mission statement and hence our commitment to sustainable solutions, the integration of sustainability aspects into the Balanced Scorecard system represents a further step in this direction. The systematic pursuit of sustainability targets guarantees the timely anticipation of social and ecological changes and a reaction to the resulting needs. Operative processes such as risk management can thus be continuously improved and the strategic pursuance of innovation and market opportunities optimised.

Another reason for this approach is the reformulation of classic customer perspectives into stakeholder perspectives, in order to increasingly involve employees, suppliers, investors, the general public, NGOs and all persons with an interest in the company or its business activities in strategic planning .

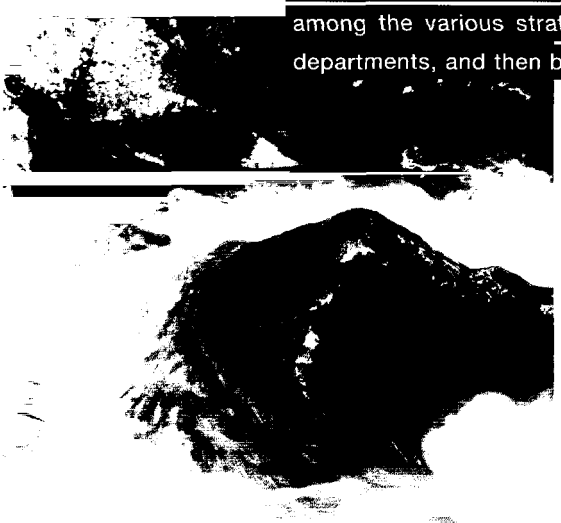
In verbal terms, at Group level the sustainability concept found access to the Group BSC through the formulation of the targets "sustainable increase in corporate value" and "differentiation through innovative, sustainable solutions and close customer relationships".

Organisational framework

The methodology input for the process was supplied by a task force, which ensured structural exactness. The scorecard owners, with responsibility for strategy and the attainment of targets, formulated goals, measures and indicators. Preparation took place in an ongoing top-down process that extended to the individual locations. Apart from the Sustainability Board, the Strategy, Innovation and Communications working group was also integrated into the development process.

Making strategy measurable

The Balanced Scorecard (BSC) management tool is a multi-dimensional key figure system for the realisation of a strategy in the form of operative targets and their monitoring. The BSC links short- and long-term corporate goals with internal and external corporate perspectives. On the basis of result statistics, strategic target areas and measures for their achievement are both established. One advantage of the BSC is that the targets that it contains can be divided up among the various strategic business areas in a process, which extends to the individual departments, and then be traced accordingly.



Cultural awareness – the precondition for global auditing in the VA TECH Group

Monitoring and auditing the international realisation and implementation of quality, health and safety standards, as well as environmental management systems (QSU systems), is not only a complex matter with regard to content. Siegfried Wenger is under way around the world in these matters. For him, differing regional and cultural circumstances number among the major hurdles on his journeys across the globe.

The global challenge

VA TECH companies are to be found in many parts of the world. From Group headquarters in Central Europe, subsidiaries fan out from China in the East to Mexico in the West. In a nutshell, the central challenge posed by this diversity is how to ensure that the benchmarks relating to quality, health, safety and environmental performance function at the same high level, when products, projects and services are used in widely differing areas of application across the globe. Another core question is how to make certain that the product and project quality on offer are identical worldwide, irrespective of where the engineering, production and services are offered.

A single global system

Are far as employee health and safety are concerned, uniform global standards are a prerequisite. Furthermore, a commitment to the environment may not end at the back door of Group headquarters.

International standards cover the demands relating to quality, health and safety, as well as environmental management (QSU management systems). All the major Group locations possess management systems, which contain one or more of these aspects. The teamwork with internationally recognised and accredited certification bodies guarantees adherence to QSU management system guidelines at the same international level.

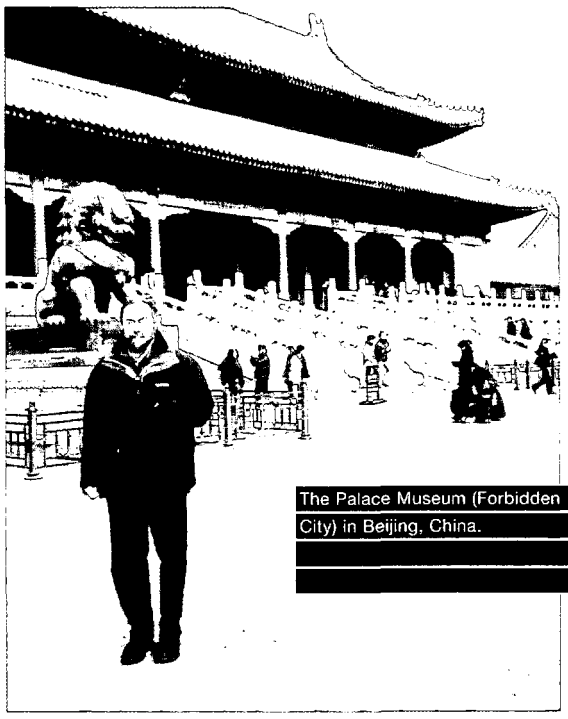
Internal auditing

Rules in the form of directives, regulations, process instructions and guidelines, which guarantee global implementation, are essential as a control mechanism. Internal audits are multifaceted instruments for the checking of the practical application of these regulations in the course of business and the evaluation of their effectiveness. The question is, do the regulations help or hinder business activities and do the latter take place in accordance with the former? Moreover, are the processes functioning properly and are the optimum procedures being selected? And finally, are the instructions sufficiently clear and understandable for the employees to implement them?

"House visits"

VA TECH divisional QSU managers are globetrotters. At intervals, they visit every Group outpost and complete internal audits, which serve to ensure adherence to regulations and uniformly constant high standards worldwide.

Allocation of ISO 9001 accreditation to VA TECH HYDRO India in Bhopal.



The Palace Museum (Forbidden City) in Beijing, China.

Intercultural understanding

A knowledge of regional and cultural differences is vital to the completion of international audits. The basic definition of the terms quality, environment, health and safety often varies greatly from one culture to the next and offers extensive room for interpretation. For example, quality can mean the "extremely precise adherence to specifications", "suitable for the application foreseen", or "better than average". The fundamental understanding of daily health and safety precautions can differ between obligatory and non-existent. Are first aid items, hospitals and emergency services close at hand, or are they totally inaccessible? While in some countries people are often left to their own devices in this regard, in others, lawyers are called before physicians.

At many locations, crystal-clear, clean water comes straight out of the tap, but at others the treatment of drinking and wastewater demands complex environmental measures.

Recognise and integrate

Therefore, for people like the company auditors, who assess the performance, effectiveness and efficiency of quality, health and safety systems, it is essential that cultural differences be respected along with an awareness of their effects on the performance, effectiveness and efficiency of regional management systems. In some cases, a balancing act is required when judging whether a product, service or product is to be viewed according to specific national circumstances or a precise, uniform and generally applicable corporate yardstick.

While, for example, in some states stable scaffolding and aluminium ladders are regarded as being the minimum standard, in south-east Asia, bamboo is generally seen as state-of-the-art. On the other hand, product quality stipulations are to be observed irrespective of whether, e.g. generators or generator components are manufactured in Bhopal/India, or in Weiz/Austria. Here, the quality must be identical, as is also the situation with regard to professional health, safety and environmental behaviour rules.

"If one wishes to understand business processes, one must understand people. If one wishes to understand people, one must understand their culture."

Siegfried Wenger

In the areas of employee health and safety; VA TECH endeavours to achieve equal standards at all its locations.

Global Compact

In June 2004, 400 guests from around the world met for the first "Global Compact Leaders Summit". VA TECH was also represented at this event in New York.

In 2002, VA TECH became the first Austrian company to join the Global Compact, a union of companies and NGOs, such as the WWF and Transparency International, under the patronage of the UN General Secretary, Kofi Annan. Membership in this grouping involves an obligation to abide by ten principles derived from the US resolution on human rights, environmental protection and working rights. The Global Compact currently has over 1,700 members and approximately 45 national networks.

Leaders Summit in New York

The original nine principles of the Compact have now been supplemented by the topic of corruption in a milestone move on the road to a sustainable and fair global economy. The attendees at the New York meeting, including a representative from VA TECH, discussed topics such as the key strengths of the Global Compact, visions for the world and concrete suggestions and how these might be achieved within the framework of 40 working groups.

The Global Compact and VA TECH

Participation in the Global Compact makes tangible the existence of a broad basis for a shared, Group-wide set of values. Accordingly, the ten principles form the guidelines for corporate development in an ethical sense. In line with this platform, individual theme areas are anchored as a control mechanism within VA TECH in the form of Group directives.

The ten principles of the Global Compact

Human Rights

1. Businesses should support and respect the protection of internationally proclaimed human rights within their sphere of influence; and
2. make sure that they are not complicit in human rights abuses.

Labour Standards

3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
4. the elimination of all forms of forced and compulsory labour;
5. the effective abolition of child labour; and
6. the elimination of discrimination in respect of employment and occupation.

Environment

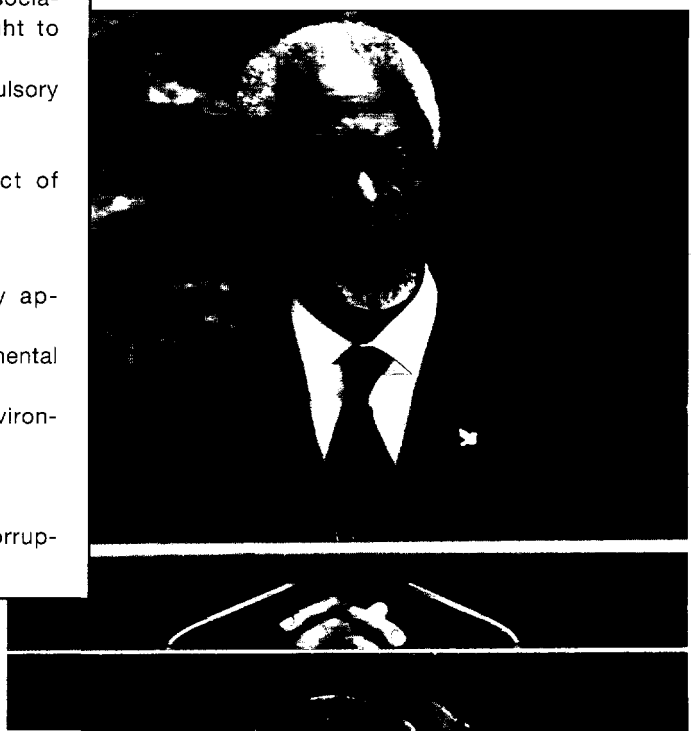
7. Businesses should support a precautionary approach to environmental challenges;
8. undertake initiatives to promote greater environmental responsibility; and
9. encourage the development and diffusion of environmentally friendly technologies.

Anti-Corruption

10. Businesses should work against all forms of corruption, including extortion and bribery.

"We are all travellers on a shared, historic journey."
Kofi Annan

www.unglobalcompact.org



Communications processes in companies acting according to the principles of sustainability are characterised by efforts to integrate the needs and opinions of stakeholders into business activities, the promotion of an open dialogue and the support of active participation.

An open dialogue

VA TECH relies on open communications and a dialogue with stakeholders. A free exchange of opinions and the readiness to handle conflicts in a candid manner can assist in the clarification of opposing viewpoints and the creation of learning opportunities. The results of these processes represent a major factor in the development of VA TECH corporate policy.

Dialogue transparency
As far as topics relating to the future supply of energy are concerned, we are in contact with both NGOs (non-governmental organisations) and our customers.
These discussions are characterised by agreement, but controversial standpoints such as those relating to some hydropower projects, are also debated.

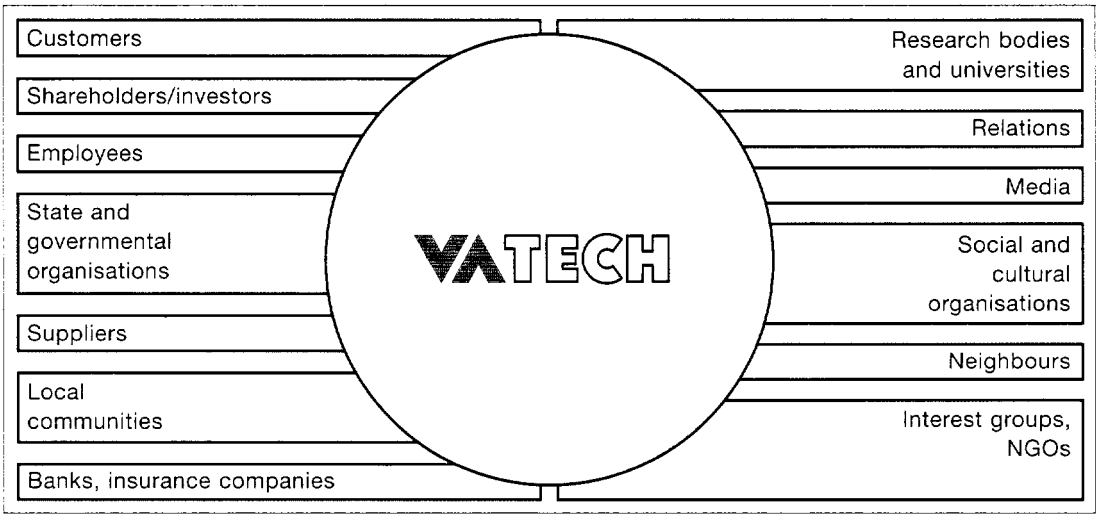
A member of society
An active dialogue with customers during the creation of solutions, know-how exchanges with universities and the consideration of future global and regional needs, constitute a sizeable contribution to the development of our "sustainable solutions".

As a committed member of the community, we cultivate lively contacts at both local government and regional supplier level. For example, open days at our various locations ensure a pro-active dialogue with the local population.

Shareholder dialogue
We promote dialogue with both retail and institutional investors through our international road shows, ongoing contacts with analysts and bank representatives, meetings and specialist conferences.

The VA TECH Shareholders Club, which currently has some 4,000 registered members, offers our roughly 14,000 retail investors invitations to major events and an electronic support system.

VA TECH and its main dialogue groups



Social commitment

Candour in combination with transparent communications creates confidence and security. Future developments and stakeholder needs are openly discussed with representatives from the worlds of business and the public domain at events such as the Forum Alpbach.

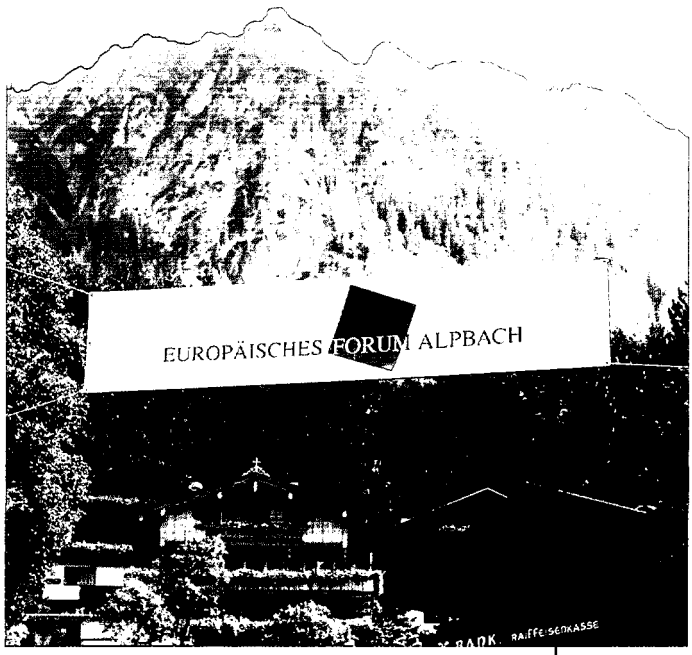
Alpbach Technology Discussions 2004
This year, VA TECH again organised a working group on the topic of "Technological potential for the achievement of climate protection targets with or without ratification of the Kyoto protocol". Karl Schwaha from the VAI Managing Board gave a presentation of Group technology potential in the climate protection sector.

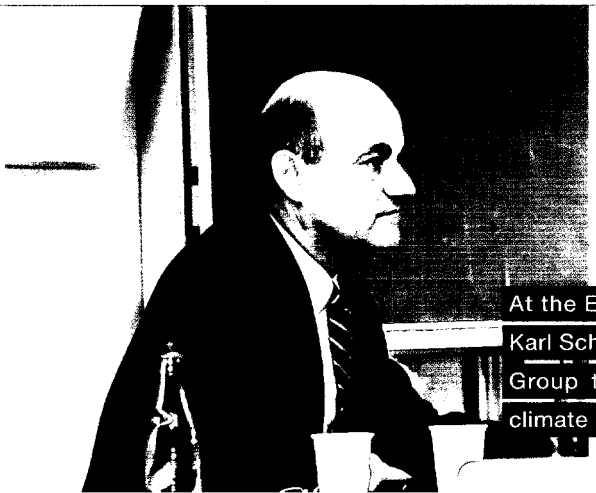
Today, the projects realised by VA TECH annually, reduce yearly CO_2 emissions by an average of 50 m tonnes. The discussions with top class presenters including Veit Sorger (President of the Confederation of Austrian Industry) Helmut Draxler (Chairman, RHI) and Ferdinand Fuhrmann (Chairman, Nettingsdorfer Papierfabrik) were both stimulating and controversial.

Working Group 11, "Transport telematics, opportunities for a mobile society", was headed by the ASFINAG Chairman, Walter Hecke, and as one of the contributors to the transport control systems in the high-quality ASFINAG road network, VA TECH was able to bring its experience potential to bear in the discussions.

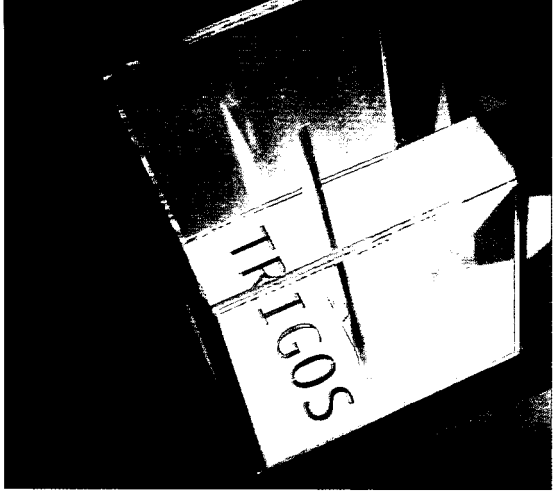
The European Forum in Alpbach has an almost 60-year history and has evolved into one of Europe's most important meeting-points and discussion platforms for personalities from the worlds of politics, science, the arts and culture.

Capital Club
The Capital Club represents another means of providing transparent communications and holds regular public events, which are organised by VA TECH. These meetings deal with topics such as the capital markets, wealth creation and retention, and sustainability.





At the European Forum in Alpbach, Karl Schwaha gave a presentation of Group technology potential in the climate protection sector.



The involvement of VA TECH HYDRO in the Tsankov Kamak project, which the Austrian federal government has already described as "exemplary", constitutes a major contribution to Austrian climate protection strategy. The project was completed in a consortium with Alpine Mayreder and Verbundplan and generates CO_2 reduction potential of around 1 m tonnes through the production of clean and renewable energy (180 GWh/y). This represents a safe supply of power for around 60,000 households.

As Christian Habegger, the VA TECH HYDRO Chairman and member of the VA TECH Managing Board, underlined in an initial statement, "This award underlines clearly VA TECH's role as a forerunner and example in the areas of sustainability and climate protection."

The Trigos is presented to companies that have already demonstrated their social responsibility in the form of actual projects, or have implemented it within their corporate strategies. All in all, 25 projects were nominated from the 80 entries and nine companies received awards in the three categories "Society", "Workplace" and "Market".

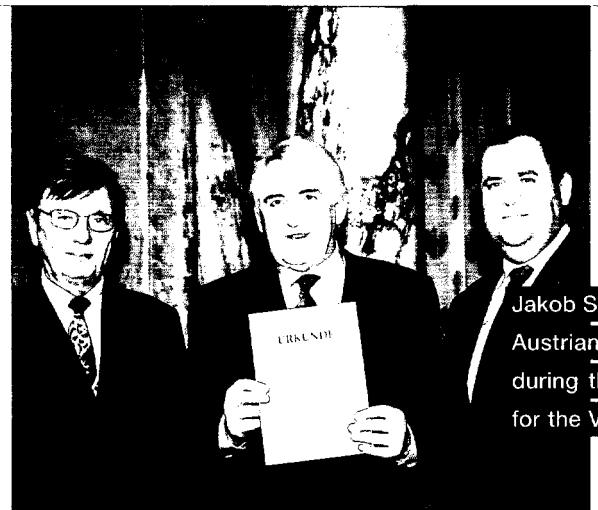
Recognition for social commitment

The commitment of the Group, as exemplified by the signing of the UN Global Compact, the creation of a Sustainability Board and the preparation of a Sustainability Report, were deciding factors in the receipt of the "Trigos". This prize, which was presented for the first time by the Corporate Social Responsibility Austria Association (CSR Austria), met with enormous interest and over 80 companies applied.

The "Companies with Responsibility" prize competition, which was launched at the beginning of the year, came to an exciting culmination with the Trigos Gala 2004. VA TECH HYDRO captured first prize in the "Market" category for the innovative Tsankov Kamak project in Bulgaria.

AERA award for the 2003 Sustainability Report

During the awards for the best environmental and sustainability reports in 2003, VA TECH received second prize in the "Sustainability" category. Christine Jasch, the head of the Sustainability Committee of the Chamber of Fiduciaries, explained this choice by saying that through its multiplicity of content, the Report provided a convincing presentation of the aspects of sustainable development in a major industrial group. The information, facts and figures were shown in an attractive manner and problems such as working and environmental conditions in international regions were also addressed. Furthermore, the Report was audited in accordance with the guidelines of the Global Reporting Initiative (GRI) and externally certificated.



Jakob Schmalzl, Christian Habegger and the Austrian environment minister, Josef Proll, during the presentation of the AERA award for the VA TECH Sustainability Report 2003.

Under the motto, "What's needed? Think sustainability - design technology", young people were encouraged to participate in a critical analysis of technical topics connected to the concept of "sustainable development". The focus was on the areas of energy, agricultural mechanisation and sustainable transport strategies.

"What's needed? Think sustainability - design technology"

The Vienna Museum of Technology provided the platform for an interdisciplinary discourse concerning humankind, the environment and technology, which was launched with the support of VA TECH during the 2004/2005 academic year by means of an information project for the upper schools at all types of educational institutions on the topic of "Technology and Sustainability".

The new information project is comprised of numerous working phases. Students from a variety of school types are invited to study one of the three technological topics of energy, agricultural mechanisation and sustainable transport strategies from the perspective of "technology and sustainability". Following a research phase, in which the students work on their selected theme, a presentation of the results is given in the form of an idea plan. Subsequently, the realisation phase commences, involving preparation with the assistance of so-called mentors of the results by the students in various media forms such as film, photography and journalism for display in a museum. During the closing event, the students can present their own work, which is then shown for a month in a special exhibition at the Vienna Museum of Technology.

Gabriele Zuna-Kratky explains her motivation relating to the completion of this project and her approach to sustainability.

Interview with

Gabriele Zuna-Kratky

Director, Vienna Museum of Technology

For me, energy and efficiency constitute the basic prerequisites for productive activities in an institution of our dimensions.

Technology and sustainability. What's needed?

How did the idea of a school product with VA TECH come about?

Zuna-Kratky: Excellent long-term business relations and a new sponsoring partnership made an approach to VA TECH concerning possible participation in a planned educational project, "Technology and Sustainability", only logical. The topic of sustainability is closely connected with VA TECH and our contribution is profound experience in working with schools and naturally technology.

What expectations do you have with regard to the project?

Zuna-Kratky: We anticipate a still clearer public perception of the Museum as a partner to schools. The complexity of the project, which derives from the different approach to differing types of school and the fact that some 150 people are involved, will naturally provide us with additional museum-pedagogic experience. VA TECH enables the students to gain practical insights.

The superordinated project objective is the realisation of the "Agenda 21 Concept" at the beginning of the UN's "Education for sustainable development" decade. The role of the Vienna Museum of Technology as a private institution is highly suitable for the integration of sustainable thinking into the educational system. We possess long-term experience and competence in dealing with young people not least because they represent our main visitor group. The promotion of creativity and reflection among young adults and the offer of future access points to them, constitutes one of our major priorities.

Could you describe the central milestones of the projects?

Zuna-Kratky: The initial event on December 13, 2004 had the objective of team formation comprised of one class, one topic and one mentor. This launched the research phase. The subsequent presentation of the idea plan in March 2005 will serve the written determination of the research results of the students and provide us with a possibility for correction. The final event on May 31, 2005, is certain to prove a highpoint, as it will see the presentation of the results of the information project. Finally, the results will be put on display in the Museum for a month.

We were especially impressed with the commitment and initiative of the individual project participants including the students, teachers, mentors, the team from Kulturkontakt Austria, which played a major role in project development, and the Technical Museum crew. Also worthy of special note is the excellent co-operation between the representatives of VA TECH and the Austrian Institute for Sustainable Development. One challenge derives from the complexity of the project. It is not always simple to find a common denominator for differing levels and to create uniform preconditions for all. The motivation of the students to research in an active and serious manner is also a major task.

What do you expect from a responsible company such as VA TECH with regard to sustainability and where do you see the challenges facing VA TECH and society?

Zuna-Kratky: As the first Austrian company to sign the Global Compact, VA TECH has accepted a responsibility to not only promote profitable business areas, but also to place greater emphasis on branches of special relevance to the environment. A major hurdle facing the company is the supply of innovative products and solutions, which account for ecological, economic and social considerations to an equal degree. Society must adopt sustainable thinking and adapt the educational system in this direction. We are already on the right road with our "What's needed?" project.

Franz Dörfler provides an insight into the importance of supplier evaluation within the framework of sustainable, corporate management.

Interview with
Franz Dörfler

Head of Sourcing and Logistics, VA TECH HYDRO

For me, energy efficiency means the management of the resources available so that sufficient energy is available for the important things in life.

From supplier to partner

How is the evaluation of suppliers organised?

Dörfler: The evaluation system is covered by the VA SP 001 directive. This consists of various documents such as supplier questionnaires and audit forms.

What precisely do these stipulations regulate?

Dörfler: The guideline controls the entire supplier assessment process, irrespective of whether an existing or potential supplier is involved. If several suppliers of equal standard are available for selection for a project, the directive states that we should take into account the attitude of the supplier towards the environment, safety and health.

What does the supplier assessment process look like?

Dörfler: This depends to a great extent on the type and importance of the product. A check in line with ISO 9001 is undertaken by a qualified and independent auditor. Should the supplier also use subsuppliers, these, too, will be audited.

Who carries out the supplier assessment?

Dörfler: This is a Sourcing assignment, but as it progresses, Quality Management, Quality Assurance, Production Management and Design Management provide support.

How is the assessment completed?

Dörfler: Companies which have already provided us with deliveries should be subjected to periodic, annual checks. Various criteria flow into this evaluation, including image, quality system, quality problems, adherence to delivery dates, the handling of complaints, unscheduled inquiries, the environmental management system, the health and safety system and social aspects.

Do differing guidelines apply to differing countries and what does the assessment process look like outside Austria and Europe?

Dörfler: Our stipulations apply without exception to every country in which we are operative. Naturally, in some states implementation is more difficult, but nonetheless total adherence must apply. Supervision is also identical in all countries and with regard to all suppliers.

VA TECH is a global player. How does it deal with the topic of child labour among its suppliers?

Dörfler: As our products relate to heavy industry, there are traditionally no points of contact with this problem. Nonetheless, in the course of the ongoing checks of our suppliers attention is paid to any possible misdemeanours in this regard.

How are environmental and safety questions dealt with during supplier assessments?

Dörfler: These aspects are taken into account in the supplier directives and there are also separate regulations for this purpose. Safety officers are appointed for all major projects and these monitor adherence to the regulations on the spot. Should a supplier breach the regulations, a reminder is issued immediately. If this fails, dismissal from the site follows.

VA TECH life cycle partnership

Development

All major projects are coupled with environmental impact and therefore a careful approach is vital. However, this responsible approach actually begins much earlier, as during the development of technologies, products and services it is essential that supplementary economic, social and environmental considerations be taken into account.

Pre-project Phase

The beginning of a new project is marked by the development of technical concepts and solutions. The customer receives information concerning alternative energy and cost saving schemes, the potential for emission reductions is evaluated, ideas with regard to the prolongation of plant and product life are discussed, and the possibilities for maintenance, disposal and recycling are analysed.

Quotation Phase

During the quotation phase, a solution is prepared on the basis of customer specifications, which corresponds precisely with the related demands and the applicable legal statutes. Consulting with regard to increased efficiency, lower energy, operating and maintenance costs, reduced emissions, extended plant service life and long-term amortisation calculations, as well as references to the benefits of sustainability in all advertising material, assist the customer's decision-making process.

Project Engineering

In this phase, the task is to realise the customer order in technical terms. In many cases this includes risk analysis and provisions with regard to safety, health safeguards and the environment. For economic reasons alone, a cautious approach to resources in this connection is vital.

Suppliers and Partners

Due to the fact that in major projects a considerable quantity of components and services are obtained from suppliers and partner firms, the selection of these companies is a critical factor in success. These enterprises must also subscribe to relevant safety and environmental stipulations and legislation.

Production, Assembly and Commissioning

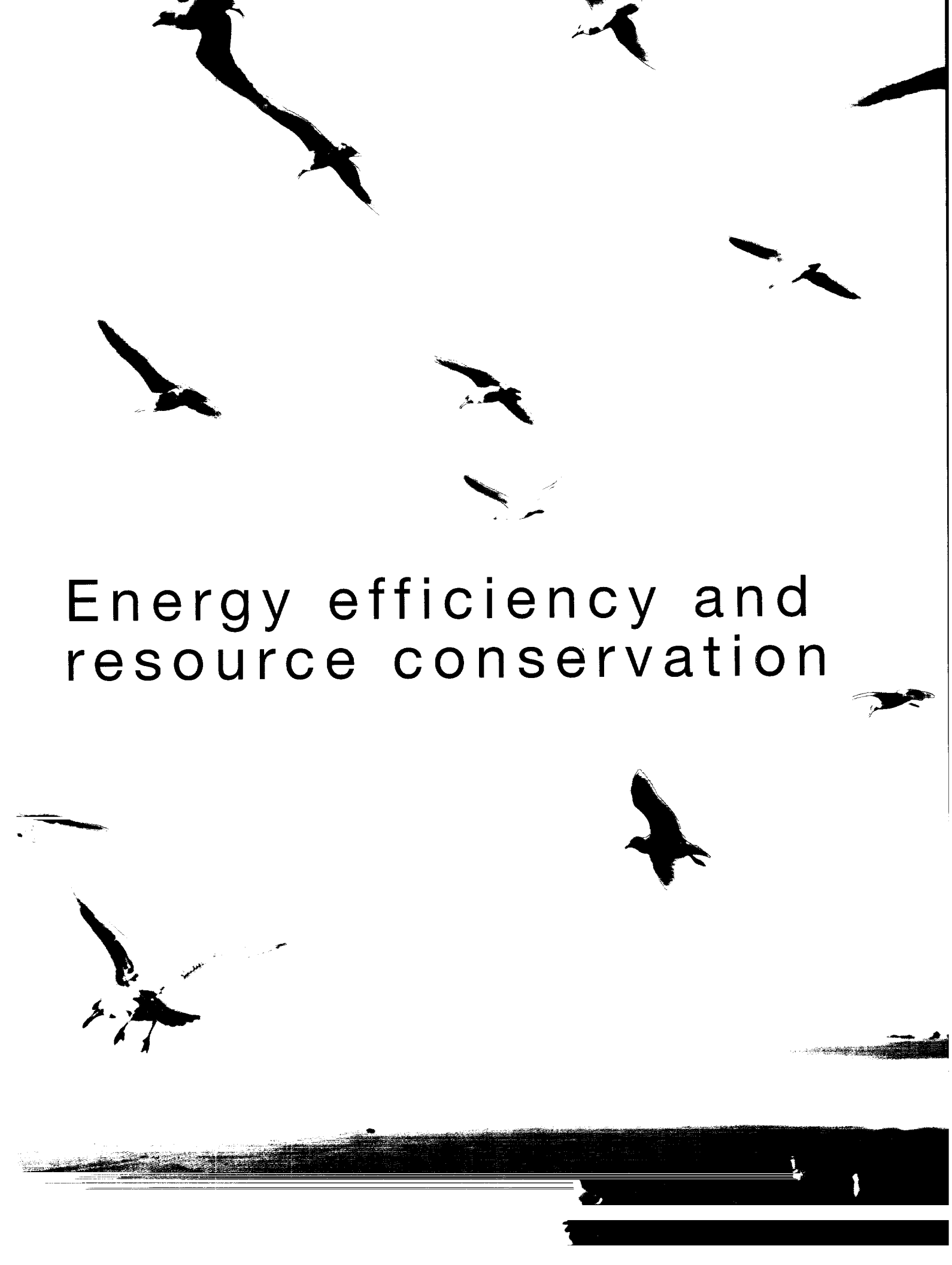
Economic, ecological, safety engineering, social and legally irreproachable production, installation and commissioning conditions must be observed during project realisation. VA TECH seeks to implement uniform environmental and social standards. Accident prevention is an absolute priority.

Repair, Maintenance, Servicing

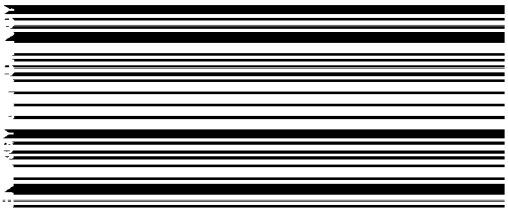
In the main, the products and solutions that VA TECH delivers to its customers assume the form of long-term capital goods. Their service life can be retained and extended through the appropriate repair, maintenance and servicing. Older plant can be refurbished and thus be brought up to the state-of-the-art.

Disassembly, Disposal

At the end of the technical or economic life of a product or plant, disassembly and correct disposal take place.



Energy efficiency and resource conservation



For me, energy efficiency means energy use rather than waste. This also applies to "technical energy", as well as organisational and human energy.

Siegfried Wenger

Head of Quality, Safety and Environmental Management

VA TECH HYDRO and VA TECH T&D

Investments in the electricity supply

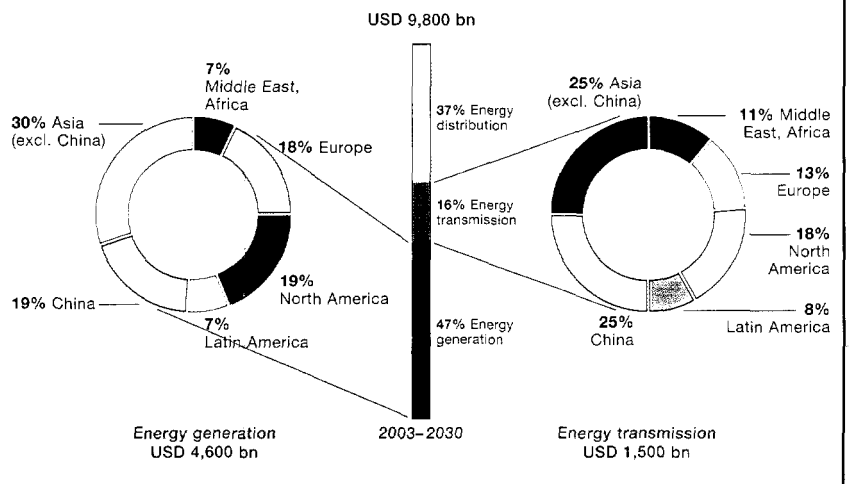
In the coming years, the global demand for energy will continue to rise and the greenhouse gas problem will be further exacerbated by fossil fuels. Global hunger and poverty could be ameliorated by a global electricity supply.

The latest world energy reports show a sobering picture of the global energy system in the years up to 2030. In the case of average "business as usual scenarios", energy consumption will increase by 60-70% in the coming 25 years. The main energy sources will continue to be fossil fuels. Therefore, without additional political action in the direction of renewable energy and efficient energy employment, a 60% rise in the CO_2 content of the atmosphere can be awaited by 2030.

Electricity consumption to double by 2030

In order to meet the increased demand in all areas, a sum of USD 16.5 bn, or half the world's annual income, will be required for energy sector investment up to the year 2025. EUR 10 bn should flow into the electricity segment, which represents the highest global investment requirement. According to the IEA Outlook 2004, worldwide electricity consumption is set to go up from 13,290 bn kWh in 2001, to 23,072 bn kWh in 2005, a rise of almost 80%. The largest investments will be in the developing and emerging economies. China must spend USD 2 bn, in order to fully electrify and India USD 0.67 bn, to achieve 70% connection throughout the sub-continent. To reach this goal, both countries are looking largely to coal, which will further complicate still unsolved ecological problems.

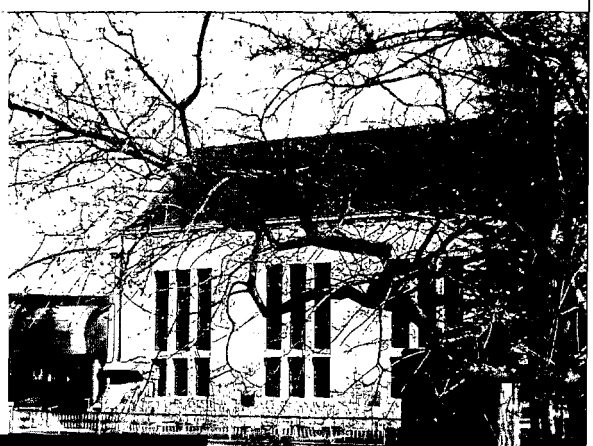
REGIONAL DISTRIBUTION OF ELECTRICITY INVESTMENT 2003-2030

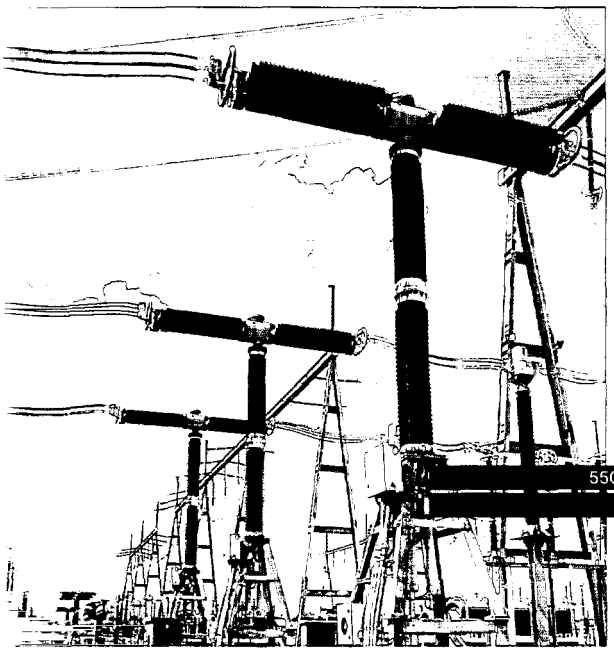


Source: IEA World Energy Investment Outlook 2004

Connection to the grid means fighting poverty

The UNO regards access to electricity as one of the most important targets for the attainment of the Millennium Development Goals in the developing countries and the extermination of extreme poverty, hunger and disease, as well as the creation of functional basic education and health services. This is because only the presence of an electricity supply can ensure indu-





550 kV substation in Pluak Daeng, Thailand

In the opinion of the experts from the International Energy Agency, quoted in the Global Energy Outlook for 2004, in spite of large-scale investment, particularly in the developing nations, the imbalance in the energy sector with regard to consumption will only be marginally corrected. Therefore, global, political action in the direction of sustainable energy production and supply is required.

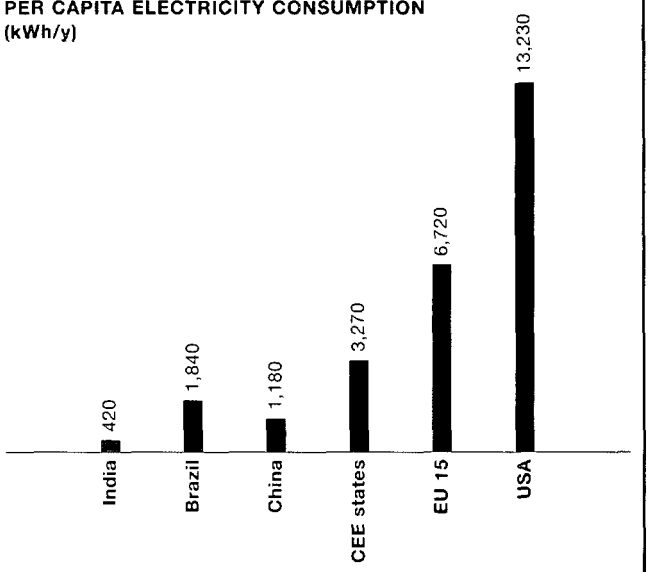
strial and agricultural development, the creation of employment, health and educational structures. Despite major investment, the imbalance in the energy supply could not be corrected in the years up to 2003. Two billion people (2002: 1.6 bn) had to continue to exist without electricity, the majority of whom live in Africa. In the developing nations, the non-sustainable use of biomass and wood for heating and cooking will increase rather than decrease. After 2.4 billion people in 2002, the number of people affected will rise to over 2.6 billion by 2030.

Hydropower offers new resources in developing countries

As a sustainable and environment-friendly source of energy, hydropower can be expected to achieve annual growth of around 2% in the years up to 2030. Hydropower will continue to represent the largest of the renewable fuels with a share of around 90%. Above all, the developing countries are seeking to use previously untapped resources.

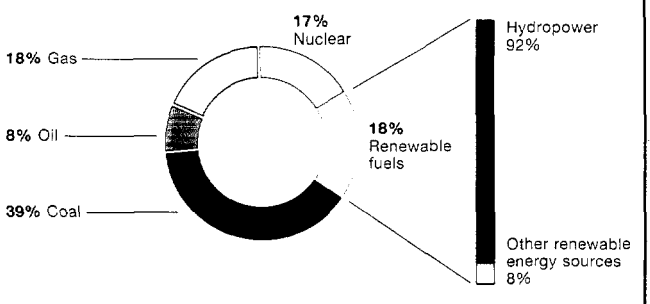
Asian nations such as China, India, Malaysia and Vietnam, as well Latin American states, including Brazil, Peru and Venezuela, are focusing on hydropower. In North America, Western and Eastern Europe, the priority will be on refurbishment and the upgrading of old capacity.

PER CAPITA ELECTRICITY CONSUMPTION (kWh/y)



Source: International Energy Agency (IEA) 2004

SHARES OF FUEL IN ELECTRICITY GENERATION



Source: IEA Statistics, Renewables Information 2003

Energy forecasts for 2030. Natural gas will be the second most important primary energy source.

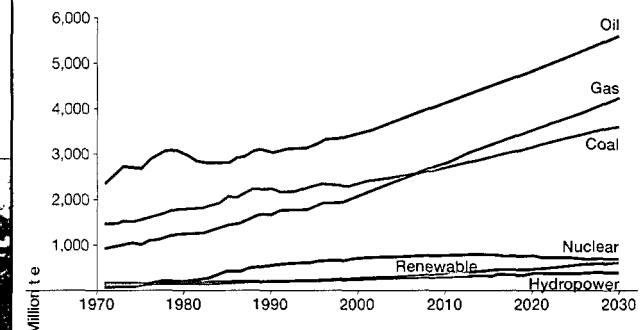
In the overall energy mix in 2030, oil will continue to dominate with 35%. 54% of the oil requirement will be consumed by the transport sector. According to the estimates of the IEA experts, the demand for natural gas will double by 2030 and thus push coal out of its second place among the most important fuels. In particular, natural gas will gain in importance in the emerging economies, while hydropower will demonstrate stable further development. Today, it is assumed that about two-thirds of the growth in demand for electricity will be met by gas fuelled power plants. The IEA predicts that there will be far larger growth among the "new" renewables such as geothermic energy, photovoltaic, wind and tidal power. The IEA experts forecast 5.7% growth rates in the regenerative energy sector. In absolute terms, alternative energy generation will quadruple between 2002 and 2030. However, the contribution of this segment to the primary energy requirement will remain at a level of 2%. It is also predicted that that by 2030, nuclear power will represent a stagnating energy source. The IEA experts anticipate that the atomic power pinnacle will be reached in 2010. New reactors will just keep pace with the closures of older nuclear power stations.

Brown and hard coal will remain relatively stable at 22%. The falling coal consumption in the OECD states will be counterbalanced by rises in other global regions. Above all, China and India will exploit their extensive coal reserves to a growing extent.

Differing estimates concerning oil reserves

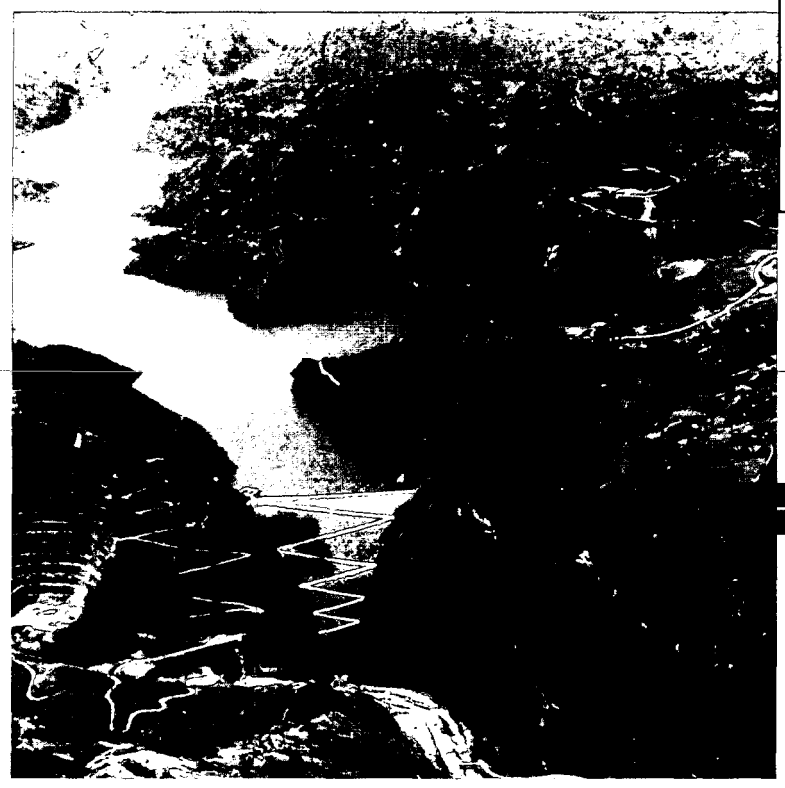
There is a dichotomy of opinion among the experts with regard to the availability of fossil fuels reserves in the future. While the United States Geological Survey (USGS) assumes that global oil production will peak between 2020 and 2030, unless fresh sources are found in the meantime, the IEA experts see the availability of undiscovered reserves in a more optimistic light. They predict that sufficient fossil fuels and investment in new production technologies will still be available up to 2030.

GLOBAL PRIMARY ENERGY DEMAND



Source: IEA Statistics, Renewables Information 2003

In absolute terms, the production of energy from renewable sources *quadrupled between 2002 and 2030.* However, the contribution to the primary energy supply remained at around 2%. By 2030, nuclear power will turn into a stagnating energy source.



Guavio power station in Colombia.

Helmut Rechberger, an expert in sustainability and materials balance from the Vienna University of Technology on the topic of steel, its recycling capacity and future projects for resource conservation.

Interview with
Helmut Rechberger
Institute for Water Quality and Waste Management,
Vienna University of Technology

For me, energy efficiency is a benchmark for the reasonable approach of a society to its resources.

From ore to "urban" mining

During recent years, the steel industry has done a great deal to reduce the environmental impact of steel production.

Rechberger: The energy efficiency of the steel production process has been practically fully optimised with the result that virtually nothing is wasted. Emissions of atmospheric pollutants have also been greatly reduced due to filter technology.

Furthermore, wastewater and waste flows have been reduced due to the use of closed cycles and recycling. Thus, these areas show exemplary achievements and all in all, from a technological viewpoint, an environmentally compatible steelworks is no longer a utopian concept.

Is steel a material that does, or could, correspond with the concept of sustainability?

Rechberger: The sustainability criteria are naturally valid for steel and the term extremely wide-ranging. For example, in order to be able to refer to ecologically sustainable steel production must take place exclusively using renewable energy. However, if one considers the recyclability of steel in these considerations then the picture is far rosier.

What stands out for you when the topic resource conservation, emission reduction and recyclability is considered with regard to steel?

Rechberger: Steel per se is a material that is ideally suited for cyclical employment. This is illustrated by the excellent functioning of product recycling in the case of goods such as motor vehicles. This is genuine recycling and not "downcycling". What is still not anchored in the current consciousness is the fact that with our buildings and infrastructure we have created a considerable reserve of steel and that these secondary reserves are growing at a rate of 2–3% annually.

This would mean a doubling within roughly 30 years?

Rechberger: In the future we should use these secondary reserves to a far greater extent and thus reduce primary consumption. This would involve the supplementation of classic mining with an "urban extraction" variation. However, a change in the handling of resources would be needed, as we cannot afford to lose sight of materials after the production phase, which is the case at present. For example, we know down to a few tonnes just how much steel is produced annually, but we have only a vague idea of the dimensions of the reserves, upon which we are currently sitting.

Up to now, steel consumption has always served as a yardstick for national or regional prosperity. In view of the international steel shortage caused by the undertow from the Chinese market, will this change?

Rechberger: One may not only consider consumption, but also the ownership and stocks of steel as an indicator of prosperity. Then we would see that in comparison with the countries that are currently booming with high growth rates, we remain extremely wealthy.

Will supplies of steel start to dry up one day, in a scenario similar to that already being discussed in connection with fossil fuels?

Rechberger: As is evident, should the supply of raw materials and supplies fail then short- and medium-term difficulties can arise. Natural reserves may also be exhausted in some regions, as can be seen in Austria. However, if the secondary reserves are included in steel management in time and an improved cycle is achieved through a higher recycling quota, then I do not envisage any long-term, insoluble problems.

Energy optimisation for China's steel industry

With its know-how in the areas of energy optimisation and steel plant automation, VAI is represented in virtually all of China's important steel production centres. Major orders have been obtained in recent years from customers such as the Shagang Group. These include the automation and modernisation of the "Westfalenhütte" steelworks, which was spectacularly transferred by Shagang from Dortmund to the Yangtse Delta.

VAI modernises "Westfalenhütte" steelworks following transfer to China

As an expert for sustainable solutions, VAI supplies expert and energy management systems for the efficient regulation of the energy flow in combination with the conservation of resources.

One of VAI's major partners is the Shagang Group. This privately owned Chinese steel producer has an international reputation, not least due to the fact that in 2002, it commissioned the dismantling of the "Westfalenhütte" by a thousand specialists and its reassembly on the Yangtse Delta in a process lasting two years.

In order that the steelworks matches the latest technological requirements and can efficiently produce top quality products, as a specialist for modernisation and conversion projects, VAI was given an order for the equipping of a wide range of plant systems, from the blast furnace to the rolling mill, with process automation and energy optimisation systems. The order will be finished entirely by the end of 2005.

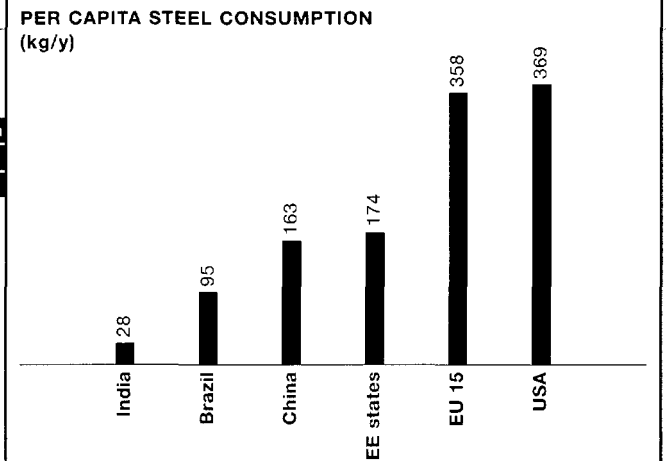
The sleeping Chinese giant has awoken

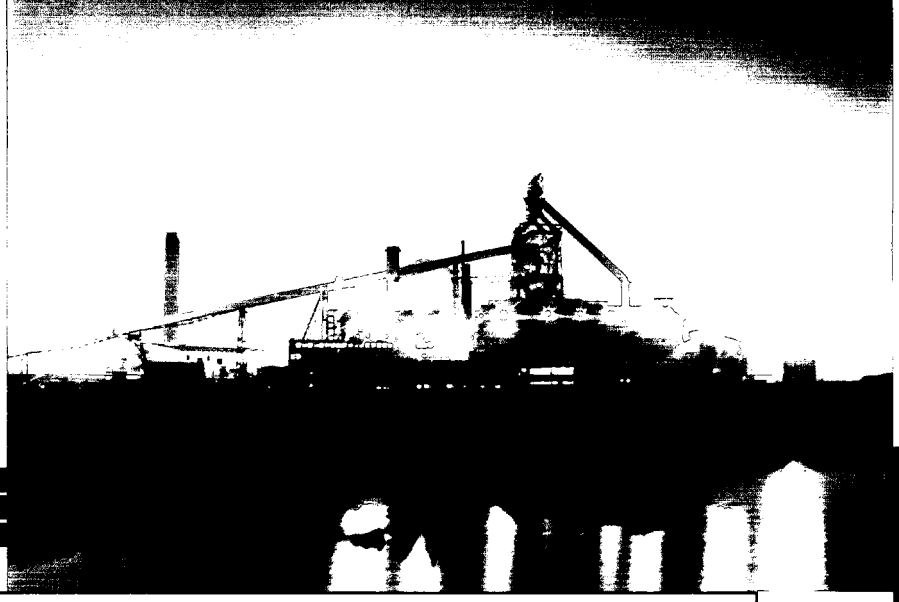
In an enormous tour de force, the Chinese population of 1.3 billion is currently in the process of creating a basis for an increase in its living standards and therefore the national economy is booming. *Imposing construction projects, a sextupling of foreign trade since 1990, thousands of new skyscrapers* in Shanghai alone and a huge demand for capital goods indicate that China is in the middle of an unparalleled spurt to catch up with the rest of the world.

Economic growth in China during 2004 amounted to 9.5%, following 9.1% in 2003. In terms of GDP, China has already overtaken Italy and should it maintain this pace, will draw level with the UK during this year and pass Germany in 2008 and Japan in 2015. Indeed, according to the Goldman Sachs BRIC Report 2003, China will leave the USA behind in 2040, while the World Bank already foresees this development in 2015.

This gigantic economic growth is mirrored by Chinese steel production. In 2004, over a quarter of global steel production, amounting to 272.5 m tonnes was of Chinese origin. The increase in China's steel production between 2003 and 2004 totalled 23%, or 51 m tonnes, which was more than the combined production of South America. In the coming 4-6 years, experts predict that Chinese production could rise to 350-450 m tonnes, as in the run-up to the Olympic Games in Peking and the World Exhibition in 2010, China intends to show that it has attained its set targets.

2.4 billion people consume less than 50 kg of steel per capita per year.





CORUS steel plant in Redcar, Teeside, UK

China's steel production – resource conservation and energy optimisation

China's steel producers are looking to employ the latest technologies during production, as this is the only means by which they can meet the steady rise in demand and fulfil the ambitious targets. As a consequence of the steel boom, coke prices have shot up from USD 70 per tonne to periodically hit the USD 350 per tonne mark. Therefore, the efficient use of coke in steel production is of increasing importance in integrated steel plants. Indeed, 80% of the primary energy requirement in a metallurgical complex relates to coal, the remainder to oil and gas.

VAIRON automation system cuts energy costs by saving up to 500 wagons of coke per year

A special role in the energy-efficient use of resources is played by automation systems such as the VAIRON blast furnace expert system developed by VAI in co-operation with voestalpine. This sophisticated system optimises the complex process sequences in the blast furnace and facilitates fully automated running for the first time.

VAI technologies make a contribution to a sustainable reduction in metallurgical plant energy consumption

VAI has developed a steady stream of technologies, process models and automation solutions for the metallurgical industry. The use of such sustainability innovations has already cut the total energy required for the production of a tonne of steel by over 30% in the past 40 years. A Western European steel plant with an annual capacity of 10 m tonnes of steel requires approximately 54,000 GWh of energy yearly. With the related savings, it would be possible to provide 80,000 Europeans or 1,300,000 Indians with energy for a year.

VAIRON is targeted on the most stable, precisely defined and thus energy-efficient production mode possible. This system, which due to its special modelling, is designed to react at the first sign of deviations, provides a significant reduction in fuel consumption rates and thus a cut in energy costs.

In the case of a medium-sized blast furnace, a fall in consumption of only 5 kg of coke per tonne of crude steel leads to annual savings of some 10,000 t, the equivalent of a freight train with over 500 wagons full of coke.

Energy management systems for integrated steel plants

Energy management systems extending throughout an integrated steel plant can register, present, evaluate and optimise energy flows during the entire production process. Energy costs play a central role in the iron and steel industry and through the permanent controlling and systematic co-ordination of energy-related sequences facilitated by energy management, 3% of total energy costs have already been saved at other metallurgical plants.

Hydropower provides security of supply

VA TECH HYDRO specialises in sustainable solutions in the energy generation field and energy use combining resource conservation.

Hydropower is the prime source of possibilities for the generation of energy in combination with resource conservation. Over 90% of the electricity obtained from renewables derives from this source, the remainder being divided among solar, biomass and wind power, whereby the latter already plays a major role in total German power generation.

Germany currently has wind energy plants with a total capacity of 14,000 MW. Current expansion plans foresee 16% of the electricity requirement as deriving from wind power in the coming decades. Wind-related fluctuations will be compensated for by conventional power plant technology such as hydropower, or gas fuelled combined cycle power plants, which must be on constant standby.

Kops II pumped storage power plant
In 2004, VA TECH HYDRO received an order for the building of the Kops II pumped storage power plant in the federal province of Vorarlberg in western Austria, which is intended to supply the peak and control power requirements for the grid in Baden Würtemburg in Germany. The German grid is characterised by a high percentage of wind power.
For VA TECH HYDRO, the construction of new pumped storage power plants and the refurbishment and upgrading of existing capacity constitutes a major element in its sustainable solutions.

Increasing demand for refurbishment measures in Western Europe
VA TECH HYDRO has major opportunities in the Western European market as a result of its energy-efficient solutions. During the next 15 years, the need for new power stations and refurbishment measures for older plants in Western Europe is set to rise sharply. According to estimates from the association of large power station operators, VGB, in the EU 25 alone, existing power plant capacity of 200,000 MW must be replaced or updated. Increasing consumption and higher standards in the new EU states permit the expectation that new plants with an additional 100,000 MW of capacity will be required.

Hydropower stabilises networks
The Kops II pumped storage power plant is intended to supply the peak power requirements of the grid in Baden Würtemburg in Germany.
The plant, which will cost EUR 300 m, represents the largest current investment project in Vorarlberg.
As the biggest pumped storage plant in the federal province, Kops II is due to go on-stream in 2008 and will be employed primarily for the regulation of power load fluctuations in the Energie Baden Würtemburg (EnBW) grid. The water for the plant is to be collected in the Silvretta range between Tyrol and Vorarlberg and then conducted via a 5 km pressure tunnel to the Aussertafamunt pressure shaft, where with a gradient of 80% and a head of 808m, it will create the third highest pressure load in Europe and the fourth highest in the world. Kops II, which will be fitted with three Pelton turbines with a maximum capacity of 450 MW (by comparison the Freudenau run of river power plant on the Danube generates 150 MW) by VA TECH HYDRO, is largely situated underground, both the machine house and the transformers being installed in caverns.

Completion of an underground, pressure tunnel for the Kops II pumped storage power plant.

Lake Kops in Montafon, Vorarlberg, Austria.

	HARVEST-FACTOR [-]	SERVICE - PERIOD [h/a]	LIFE-TIME [a]
Small-scale hydropower	40 – 100	~6,000	80
Run of river	100 – 200	~8,000	80
Pumped storage	100 – 200	~2,500	80
Wind power	9 – 30	~2,000	20
Photovoltaic	~5	~1,500	25
Solar power	20 – 100	~1,500	20
Biomass	10 – 20	~8,700	20
Coal-fired power station	**30 – 80**	**~6,500**	**30**
Oil-fired power station	**10 – 30**	**~6,500**	**30**
Gas-fired power station	**4 – 30**	**~6,500**	**30**
Nuclear power plant	**7 – 100**	**~6,500**	**30**

$$\text{Harvest factor} = \frac{\text{Net energy generation}}{\text{Energy invested during construction and operation}}$$

Source: Heimerl (2002), Straß (11997), revised: FN/IWK, 2003

Involvement with gas fuelled combined cycle power plants

In the coming decades, the energy mix for power plants will continue to consist of a broad range of regenerative energy such as coal, gas and nuclear power. In addition to hydropower plants, VA TECH HYDRO is also involved in the planning and construction of gas fuelled combined cycle power stations, which display a high degree of efficiency.

The advantage of hydropower lies in a high harvest factor

Hydropower is characterised by an especially high "harvest factor". This factor describes how much energy is generated by a power plant in ratio to the energy required for its construction.

Large hydropower plants such as run of river and pumped storage power plants have a harvest factor of 100-200. In fact, hydropower allows the highest harvest factor of all the other forms of energy generation (see table).

Incidentally, the harvest factor of a hydrogen fuel cell is less than one. The production of one cubic metre of hydrogen from methane requires 5 kWh, while combustion only provides 3 kWh of heat and during use in a fuel cell, a mere 1.8 kWh of electricity are generated.

Accordingly, electricity from a state-of-the-art, hydrogen fuel cell has an energy factor of 0.36. Consequently, the production of a fuel cell requires roughly two and a half times more energy than it provides during its service life.

Pumped storage power plants

Pumped storage power plants are characterised by their ability to cover peak power demand within minutes. Such peaks mainly occur in the early morning, at midday and in the evening. During the night, the same equipment is employed to refill the storage basins, which means that pumped storage power plants offer high levels of security of supply and power availability.

Energy savings during electricity transport

VA TECH T&D supplies the Brazilian national grid with flexible systems for optimum electricity transmission.

Brazil, a country as large as Europe, also has some special features in the energy production area. The Amazon basin, which is one of the world's water-richest areas, lies in the north and north-east of the country. However, the nation's large cities and most populated regions are to be found in the south.

Therefore in order to guarantee security of supply and to still the hunger for energy in this emerging economy, not only is the hydropower potential of the south being exploited, but also that of the north (east). With the result that electricity requires transportation over enormous distances.

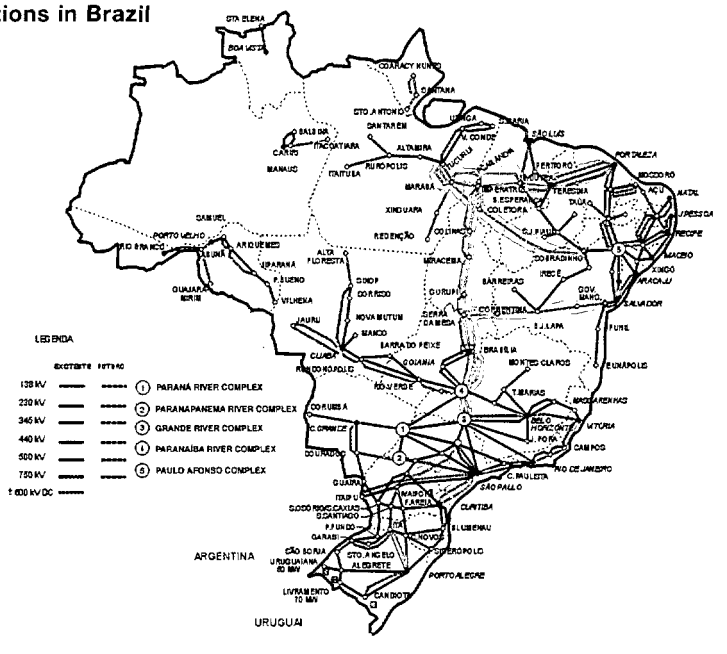
VA TECH T&D minimises the losses in the Brazilian national grid

The transport of the electricity generated in the large hydropower plants of the north to the southern industrial regions involves the bridging of more than 1,000 km. The only way that power losses can be reduced to a tolerable level is through the use of maximum voltage lines, of up to 765 kV, and special energy management systems. VA TECH T&D has established itself in Brazil as one of the most important suppliers of energy-efficient solutions for both local and supra-regional power transmission projects. Above all, the demand is for solutions that minimise transmission losses and stabilise the network as a whole.

So-called Flexible AC Transmission Systems (FACTS) are employed to compensate for line resistance. These highly effective energy management systems allow the transmission of larger volumes of power with lower losses via high-voltage lines. This effect is achieved by the controlled minimisation of voltage drop along the line, hence maintaining transmission capacity of the electrical grid. As a result of the installation of this technology in the most important Brazilian sub-systems, it has been possible to increase electricity transmission capacity and to cut related losses.

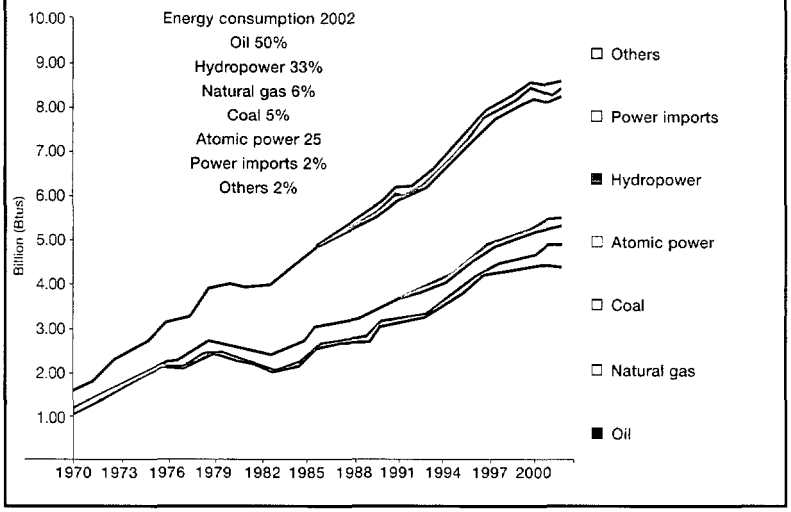
VA TECH T&D projects and project participations in Brazil

- South-east – north-east: 500 kV interconnection, switchgear for 5 substations, automation, control and protection systems.
- South – south-east: 500 kV interconnection with switchgear for 2 substations and 765 MVAr series compensation bank.
- Samambaia substation: 262 MVAr series compensation bank and switchgear.
- Amaralina substation.
- Parada Angelica substation.



Sistema Interligado nacional (SIN): all in all the Brazilian grid and long-distance transmission network in the 230 – 765 kV range has a total length of 73,000 km.

TOTAL ENERGY CONSUMPTION IN BRAZIL ACCORDING TO SOURCE, 1970-2002



Brazil's total energy demand illustrates the enormous progress of the Latin American growth region.
Source: EIA

Energy-hungry Brazil

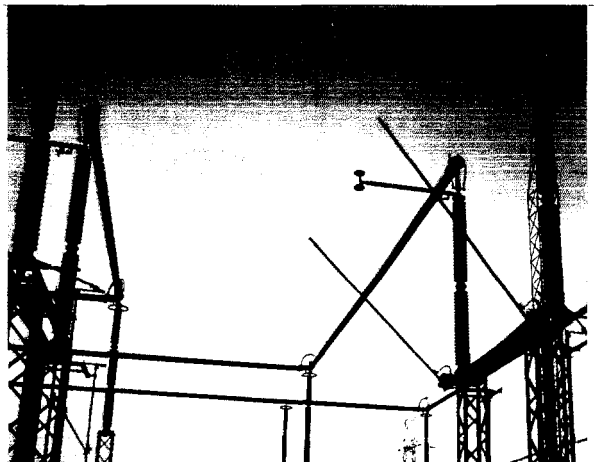
With an area of 8.5 m km and a population of around 175 million, Brazil is one of the world's largest countries. However, 20 million Brazilians have no access to electricity. While in some regions, particularly in the north and north-east, the level of electrification only amounts to 35%, the south has purchasing power that compares with that of the OECD states.

81% of electricity output derives from hydropower, the rest being generated using coal- and natural gas-fired plants, as well as a few biomass, nuclear and wind power plants. In order to avoid the supply bottlenecks like those caused in 2000 and 2001 by low water levels, investment in thermal power plant construction has increased.

Experts from the Brazilian Basic Infrastructure and Industry Association forecast that 2,800 MW in additional capacity will be required annually in order to support yearly economic growth of 2.5-3%. This would require investments of USD 5 million per year.

Transmission losses

The higher the voltage during transmission, the greater the line transport capacity and hence the lower the power losses. For this reason, if electricity is to be transported over long distances it is transformed to the highest voltage possible. However, high-voltage lines also have their own resistance, which means that they lose power during the transport process. At a voltage of 800 kV, which is the highest practical transmission voltage, and with additional technical measures, losses can be cut to below 0.5% per 100 km.



Energy savings through contracting

With its new model for energy economies, "Saving Contracting", VA TECH ELIN EBG has created a special instrument for user motivation that places a particular emphasis on sustainability and can facilitate energy savings of around 20%.

In recent years new technologies and concepts have been developed for the economic and low environmental impact use of energy. However, energy savings potential has often remained neglected due either to the diversion of capital resources to other investments, or a lack of the necessary planning and realisation know-how. It is precisely at this point that "Saving Contracting" comes into its own. This modern and intelligent type of outsourcing is a combined energy management and financing instrument.

Energy contracting is a modern method of achieving energy and cost savings through the optimisation and modernisation of existing utilities systems. The building owner delegates energy saving to a contractor, who invests in measures that are implemented using both technical and communications possibilities (user motivation). The resulting energy cost savings are employed to finance the related investments. Following the end of the contract, the customer profits fully from the energy savings.

Recognising potential and using it in an economic manner

When employing "Saving Contracting", the object owner agrees a contract with the contractor, who has know-how in the areas of energy system modernisation and optimisation that guarantees energy savings. The contractor then initiates all the energy saving measures, optimising energy flows, providing investment and motivating users of the building to save energy. Particularly this final point, user motivation, can make a sustained contribution of up to 20% to total energy savings. Following the reduction in energy costs, the building owner gives the contractor a share of the savings and a win-to-win situation is created.

Above all, energy contracting is already in use in the public sector as an instrument for efficient energy management in official buildings.

The advantage for the customer derives from the fact that energy supply systems are not modernised using capital, but through financing derived from the savings achieved. The investment payback takes place within a reasonable period of ten years. The contractor deals with any questions relating to energy and maintenance during the operational period and energy savings and a reduction in pollutant emissions is guaranteed.

Energy contracting for 65 federal schools
The Federal Ministry of Education, Science and Culture commissioned VA TECH ELIN EBG to implement energy saving measures at 65 federal schools within the framework of a contracting project. The schools are located in four federal provinces (Upper Austria, Salzburg, Carinthia and Vienna).

VA TECH ELIN EBG guaranteed annual average energy cost savings of at least 18.5% and a cut in CO_2 emissions of 2,700 t. This roughly 15% energy saving is to be achieved through the update of the utilities systems. For example, the electricity and heating costs will be cut by means of the comprehensive renewal of the control technology in combination with the installation of a central district heating control system for all buildings.

Further focal points of the modernisation involve a reduction in power peaks by means of load management, the hydraulic optimisation of the heating plants, attendance controls for the lighting and the renewal of the heat generation systems.

Motivating users to energy-efficient behaviour
The remaining 3-4% of the energy saving potential, which adds up to around 20% of the total economies, will be attained by the creation of awareness regarding the thrifty use of energy. Over 30,000 pupils and 5,000 teachers and administrative personnel are to be included in a VA TECH ELIN EBG motivation programme, in which the joint possibilities for energy-efficient behaviour will be considered.

The large and heterogeneous target group is to be reached by a multiplier model, which is intended to show the personal advantages of energy savings measures at every level. Teams are to be formed, which will jointly prepare teaching materials, the ministry. An interactive CD-Rom, an Internet page, as well as additional information material will be designed within the scope of the programme together with teachers and pupils. The motivation programme is to be accompanied by the involvement of the local and regional media, which will create effective publicity. As a result, the concept of energy savings could spread from the schools to the entire school regions.

In accordance with the mission statement, "sustainable solutions. for a better life.", VA TECH ELIN EBG is to take a major step towards sustainable technologies and services and resource conservation, as well as the establishment of energy-saving and ecological behaviour among the younger generation.

User motivation

1. INFORM	2. SUPPORT	3. REWARD
Bringing people on board	Supplying tools	Presenting performance
Creating awareness	Showing possibilities	Celebrating joint success
Arousing interest	Creating motivation	Demonstrating advantages
Winning multipliers	Making targets clear	Providing "fresh" motivation

Energy saving contracting – as a result of systematic user motivation, VA TECH ELIN EBG achieves 20% of the entire energy volume saved.

Source: VA TECH ELIN EBG

Research for energy efficiency

Increased effectiveness and higher energy efficiency represent the objectives of VA TECH's multifaceted research efforts.

KnetMET, a network for environment-friendly metallurgy technology

For a technology-based company like VA TECH, the speedy transition of energy-efficient, resource-conserving innovations into products represents a key factor for success in global competition. In turn, a major element in the acceleration of the innovation process is the networking of the know-how available.

To this end, VAI, which is a VA TECH Group company, joined forces in 2001 with voestalpine Stahl GmbH, voestalpine Stahl Donawitz GmbH and RHI to form a competence network for "technical metallurgical and environmental process development", or KnetMET for short.

KnetMET has received funding from the Federal Ministry of Industry and Labour and the federal provinces of Upper Austria and Styria, and incorporates 23 R&D projects aimed at creating sustainable and environment-friendly metallurgical processes.

Programme focus

Mathematical, physical modelling and the simulation of metallurgical processes, which includes the necessary materials and refractories, form the focus of the KnetMET programme. The aim is to achieve optimum process management with regard to product quality and the minimising of energy and raw material use.

Solution of the scale sludge problem

As part of efforts aimed at achieving zero waste, solutions have been developed for dealing with scale sludge. This is created during steel production and hot rolling, may not be stored without prior treatment and has an iron content of up to 70%.

In the KnetMET programme, a process has been developed in conjunction with the Johannes Kepler University of Linz, which now permits the extraction of iron from the scale by means of thermal drying and deoiling, which renders the scale harmless for the environment. This energy-optimised process results in residual oil content of far less than 0.05% and the fulfilment of all the mandatory, environmental protection regulations.

The new and innovative FINEX® hot metal production process

The FINEX® hot metal production process is also the subject of ongoing further development within the KnetMET programme. FINEX® can produce hot metal from fine ore in a single process step and was developed in recent years by VAI in teamwork with the South Korean steel company, POSCO, which is one of the world's biggest steel producers. The process is characterised by an extremely efficient use of resources, as the coke production and fine ore sintering needed during the classic process route are no longer required. FINEX® employs cheaper power station coal and fine iron ore (approx. 80% of global iron reserves consist of fire ore). Using the new process, gaseous emissions (dust, sulphur and nitrogen oxide) can be reduced by an average of 90% ,while the emissions in water (ammonium, aromatic compounds) are cut by up to 98%.

Another KnetMET project involves the use of hydrogen as a reduction agent. Tests have shown that the utilisation of hydrogen plasma allows the production of steel without CO_2 emissions. However, problems such as the cheap production of hydrogen on a large industrial scale remain to be solved.

FINEX® plant at the POSCO steel company, Pohang/South Korea.

Computer-aided turbine running simulation halves losses at a tenth of the costs

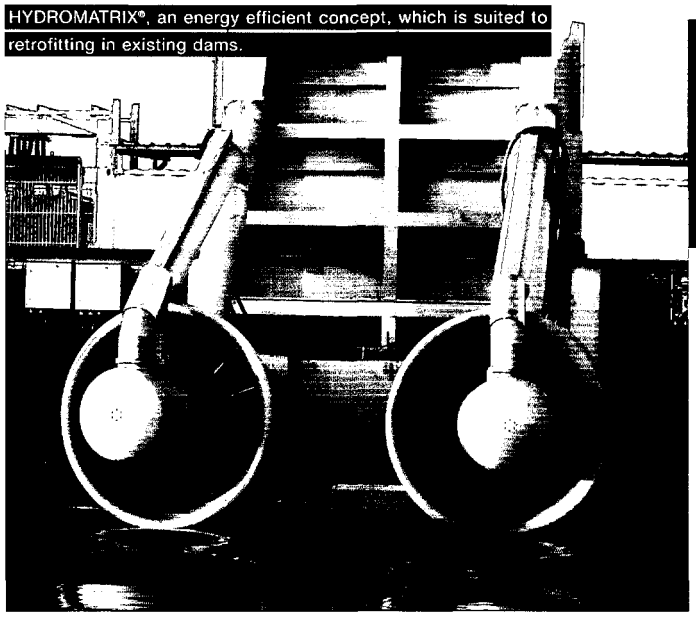
Hydropower plants have a life of up to 80 years. Therefore, it can be no surprise that they become outdated and cease to correspond with the state of the art. In the course of refurbishing, replacement turbines with a far higher level of efficiency are installed.

For this purpose, VA TECH HYDRO has developed a special simulation process, which by means of the latest numerical processes allows an extremely precise, computerised estimation of the potential for efficiency improvement. The Computational Fluid Dynamics (CFD) method can already be employed for a wide range of turbines and the latest breakthrough occurred in 2004 with the simulation of the flow patterns in a Francis turbine. CFD permits the precise simulation of the pressure and flow conditions in all the important phases and provides notable cost advantages.

CFD simulation of a draft tube vortex at part load.

In correlation to the results of tests on the turbine testing stand, the simulation method reduces costs by 90%.

HYDROMATRIX®, an energy efficient concept, which is suited to retrofitting in existing dams.



HYDROMATRIX® AND STRAFLO-MATRIX™

The market has already been pleasantly surprised by the VA TECH HYDRO innovation, HYDROMATRIX®, a matrix of small, identical turbine generators that can transform dams into hydropower plants. The system is in operation in a dam project in Jebel Aulia in Sudan and a new order for the Nussdorf power plant in Austria has already been signed.

Now, VA TECH HYDRO has come up with another new concept, the STRAFLO-MATRIX™, a further development of the matrix system in which the turbine runner and the generator rotor sit on a single shaft, whereby the runner blades are on the inside and the generator poles (with permanent magnets) on the outside.

Vision of Future Energy Networks

New developments and scenarios for the future show that the energy supply in the industrialised nations can no longer be secured without investment in existing networks. The market launch of new energy technologies, such as performance electronics and alternative sources (wind energy), as well as the changed needs of power network users due to market liberalisation and power quality demands, also necessitates new solutions, which permit more efficient and sustainable energy transport.

The Vision of Future Energy Networks project, which is financed by VA TECH T&D and other companies in conjunction with ETH Zurich, is now investigating what an optimum energy system of the future could look like. Using the latest technological know-how, a concept is being created for a future energy network that has been optimised at all levels. Basic research has attached great value to the integration of electrical energy with other power sources and a decentralised transport structure within the network, which would be supported by alternative energy sources.

Finding a balance between environmental compatibility and energy efficiency

VA TECH HYDRO is a global supplier of electromechanical plants and services for hydropower plants. The focal points of its current activities include pumped storage power plants, power plant refurbishment and small-scale hydropower plants.

It is therefore essential that VA TECH HYDRO be at home in all the world's markets, in order to provide customers with the performance they are seeking. Trends in the hydropower sector at present revolve around pumped storage power plants, power plant refurbishment and small-scale hydropower plants and it is in precisely these areas that VA TECH HYDRO's capabilities are in international demand. Accordingly, the company is involved in a large number of international projects, either as a consortium leader or a sub-supplier.

Aiming for the best possible solution

In the course of large-scale power plant projects, environmental and social issues can arise, which the customer must accommodate during planning. In such cases, export loan finance banks prescribe environmental and social standards, which we as a contractor are naturally obliged to follow. We are aware of the environmental and social consequences that such projects can have, when questions of resettlement and water quality are raised. In line with our corporate philosophy, in this situation we always proceed in dialogue with the local customer, in order to guarantee that the best possible solution is found, both for all those involved and the environment.

Maintaining a dialogue and ensuring high efficiency

We are also conscious of the fact that major power station projects are a concern of international NGOs and that in general, they view such undertakings with a critical eye. We make every effort to also conduct an open dialogue in this regard and, as far as is possible, to include critical topics in discussions with the customer. It is the task of the respective customer to commission the required studies such as the environmental impact assessment and the resettlement action plan and then implement the findings. We also require this to be done and make it our duty to furnish the best possible solution at the most equitable price, while ensuring that through our know-how and technology, the respective power plant represents the state of the art. Consequently, we can secure optimum energy use from the resources available, with the highest possible efficiency level. In this connection, VA TECH HYDRO supports the International Hydropower Association, which has prepared its own sustainability guidelines for the implementation of power plant projects.

Exploiting opportunities

The task now is to use the positive potential of hydropower for sustainable, climate-protective energy generation. Aspects such as the use of hydropower plants as drinking water reservoirs, irrigation systems, flood protection and leisure areas, all represent valuable regional impulses. A long service life and high harvest factor guarantee the sustainability of such projects. Moreover, people and the environment can profit from the positive effects, as it is important for us that hydropower make an increasing contribution to the rising, global demand for power, as it constitutes the most economic form of renewable energy. Our assignment is to ensure that hydropower retains its opportunities within the global energy mix.

Richard Taylor in an interview concerning sustainability, power station construction and the future role of hydropower.

Interview with
Richard Taylor
Director of the International Hydropower Association (IHA)

"For hydropower, efficiency means more than just increased Watts per droplet. Efficiency implies the optimisation of an extensive range of services, which brings improved environmental, social and economic benefits."

"Designing hydropower on a sustainable basis"

What can hydropower contribute to the solution of the world's major problems such as hunger and poverty?

Taylor: In a world in which almost a third of the population has no access to electricity and over a billion people lack a sufficient water supply, sustainability experts have established three important targets, consisting of improved fresh water management, the increased use of renewable energy and an intensified attack on poverty. Hydropower can contribute to all these objectives as it generates almost 20% of the electricity produced worldwide and represents over 90% of renewable energy. In addition, hydropower offers large energy reserves because only around a third of the potential available has been exploited.

What recognition does hydropower enjoy as a sustainable energy source at international level?

Taylor: In recent years the international community has recognised the significance to a sustainable economy of the use of this energy source. For example, over 170 countries signed a declaration at the third World Water Forum in Kyoto, in which they agreed to realise this potential and extend the utilisation of hydropower using sustainable means.

Was has changed with regard to the expanded use of hydropower today as opposed to the past?

Taylor: Those tapping into hydropower today are looking for eco-social, sustainable solutions. Irrespective of the size of a power plant, it has to fulfil the three major sustainability principles. It must be environment-friendly, socially acceptable and economical. Accordingly, along with technical questions, planners have to consider social and ecological consequences. In the past, these were often ignored during dam construction. Therefore, the IHA has prepared a guideline for project sustainability with planning tools that include evaluation criteria, which permit civil society to assess whether or not the power plant meets sustainability criteria.

Where is the expansion of hydropower heading? More large projects, or rather small, decentralised undertakings?

Taylor: One cannot generalise in this connection. Every direction must be assessed in a social and regional context according to sustainability criteria. Small plants could be especially important to the development of remote areas, as they facilitate a decentralised energy supply. Alternatively, large plants offer an opportunity to satiate the enormous power demands of conurbations and industrial areas by efficient and safe means. Pumped storage power plants could provide backup in order to deal with demand peaks. However, what is vital is that everyone affected by the construction of a power station is involved in the project so that good and sustainable solutions can be created jointly.

Short biography

Richard Taylor is the CEO of the International Hydropower Association (IHA), which was founded by him CEO in 1995. He reports directly to the IHA Board of Directors. A fellow of the British Institute of Energy, Richard Taylor is an experienced environmental and hydropower expert, who has been working in the water resources sector since 1986 and is involved in a range of international UN, IEA and WEC development projects.

Economics

For me, energy and efficiency mean the performance and stamina required in order to realise a goal with economy and success.

Anton Lindmayer
Quality Manager and Safety Specialist, VAI

Sustainable value added

VA TECH's path to operative and financial excellence is secured by a systematic concentration on growth markets, well-established customer relationships and leading competitive positions.

The sustainability concept regarding extended targets and involvement in both the environmental and social sectors contained in our products and solutions creates security and trust in long-term company development that is capable of future survival.

ECONOMY

One important impulse for sustainability reporting has derived from the capital markets. Early involvement with this topic, a voluntary obligation to higher standards and our commitment to the active inclusion of multipliers in communications, have been rewarded with the acceptance and recognition of our customers.

Sustainability pays dividends

From the outset, it was our aim to accommodate the rising demands of the capital markets by means of this value parameter. Sustainability and corporate social responsibility represent an approach for which the capital markets reward companies that become involved with these long-term values at an early stage. Over the years, VA TECH has succeeded in receiving listings in various sustainability indices such as the FTSE4 Good and entering investment funds, which operate according to ecological and social criteria. The volume of investment in this segment has risen sharply around the world. For VA TECH, this development has provided recognition and simultaneous confirmation of its commitment.

Regional network

In line with the basic engineering and plant building rule, that "for every branch employee, there are three in the supplier and services chain", we are an active part of the regional value added process at our international locations. Apart from the direct responsibility to our shareholders and employees for our economic development, we also represent a guarantee for long-term, positive economic perspectives.

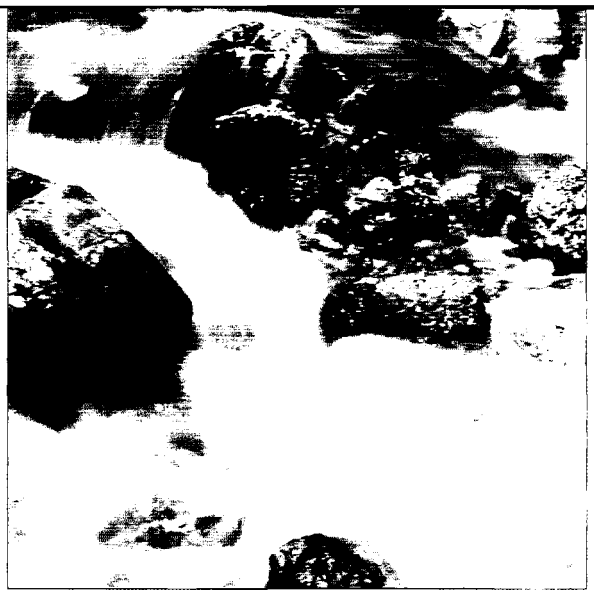
Involvement with the topic of sustainability opens up perspectives and beneficial dimensions.

The strategic factors relating to the topic of sustainability in the VA TECH Group:

- Image enhancement, trust creation and stronger customer relationships.
- Shareholder trust creates value added: customer benefits, share price stability and employee continuity.
- Opportunities for the use of new technologies.
- Banks and investors make increasing reference to ecological and social risk factors.
- The growing number of investment funds, investing according to social and ecological criteria.
- The correlation between best practice companies in CSR and above-average price performance is a fact.

The operative advantages of the topic of sustainability at the individual Group locations:

- Internal process improvements (ISO 14001) in the environmental and social sectors minimise the risk of accidents, standstills and emissions.
- Internal process improvements (ISO 14001) raise productivity.
- The ongoing support of employee development (personal qualifications and career opportunities).
- The application of ethical values and social responsibility to dealings with the workforce creates a sense of identification and increases motivation levels.
- Continual improvements in health and safety criteria for employee protection.



Recognised performance

A variety of awards confirm the Group's commitment to sustainability. The growing importance in national and international benchmarking of value retention as a differentiation characteristic is evidenced by its transition from a trend topic into a benchmark of corporate management for the future.

An international company evaluation based on a survey of 1,000 CEOs, fund managers and journalists from 25 countries, placed VA TECH among the Austrian top five. The study, which is prepared annually by the consultants Price Waterhouse Coopers and the Financial Times, assesses companies according to their innovative strengths, further development, transparency and social responsibility.

In a study completed by the Vienna University of Economics of the 55 companies listed in the ATX Prime Market of the Vienna Stock Exchange, in the industrial category VA TECH was adjudged to be the company offering the highest level of sustainability. Company performance was analysed with regard to environmentally compatible products and processes, as well as social responsibility.

SARASIN

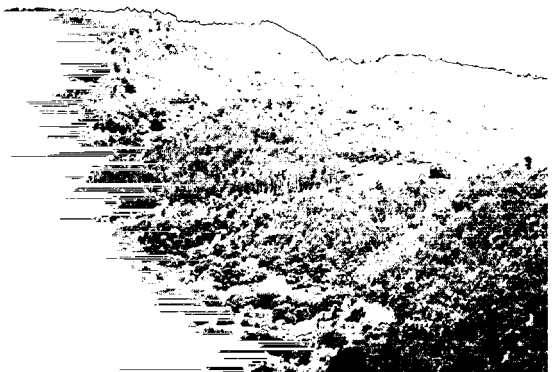
Above-average rating

In sustainability research completed during July 2004, the Sarasin investment bank awarded VA TECH an "above-average" rating. This evaluation qualifies VA TECH for the ValueSar and OekoSar sustainability public funds.

2003
TRADE FINANCE
Deal of the Year

Deal of the year

The respected Euromoney/Trade Finance Institute selected the complete financing of the Tsankov Kamak power plant in Bulgaria, which was arranged by VA TECH Finance, as the "Deal of the Year 2003". This extremely complex transaction with the contractual partner, Natsionalna Elektricheska Kompania (NEK), which has a volume of EUR 220 m, is based on a safety concept that is supported by the income derived from the sale of emission certificates to the Austrian Republic. This was the first project to come into final effect under the terms of the joint implementation mechanism contained in the Kyoto protocol.



The acceptance of voluntary obligations by companies makes a major contribution to the creation of shareholder confidence. In the following interview, Friedrich Mostböck explains the advantages of greater transparency, quality improvements in the teamwork between supervisory and managing boards and shareholders, and an orientation towards long-term corporate values.

Interview with

Friedrich Mostböck

Head of Research, Erste Bank Group and President of the Austrian Association for Financial Analysis and Asset Management (ÖVFA)

For me, energy and efficiency are two terms that share direct operational links. Future energy questions can only be solved in the interests of all when maximum efficiency is applied.

Corporate governance enlivens the capital markets

How has corporate governance developed at international level?

Mostböck: This term derives from the US and with a delay has now spread to continental Europe. Corporate governance relates to questions that have a direct or indirect influence on managerial decisions and hence on corporate success. Corporate governance supplements existing corporation legislation through the assumption of voluntary obligations. Throughout Europe, and in Austria and Germany in particular, corporation law is more extensive and applicable (than in the USA) as a basis for intelligent supplementation by corporate governance. Moreover, against the background of advancing globalisation and the growing competitive capacity of the international capital markets, since the mid-1990s the efforts to define the basic principles for good corporate governance have intensified. On the one hand, these principles formulate the main legal framework for corporate management and supervision and on the other, simple recommendations such as those regarding accounting, final audits and the integrated co-operation between managing and supervisory boards (characteristics, limit on the number of seats on the supervisory board etc).

What concrete effects has corporate governance on Austrian companies?

Mostböck: As a result of increased transparency with regard to the dealings between supervisory and managing and stockholders through an orientation towards long-term value added, these voluntary self-regulating measures make a major contribution towards the confidence of both domestic and international stockholders.
An extremely important factor is the voluntary nature of the Austrian Code. This means that as far as the Austrian Working Group for Corporate Governance is concerned, there are no plans to integrate such formulations into corporation law.
The effects of corporate governance of Austrian companies are highly positive as they have promoted and enlivened the capital market. The Code has proved to be necessary for international investors and has served as a significant element in the internationalisation of the Austrian capital market in recent years.
The ÖVFA has completed a calculation regarding adherence to the Austrian code on the basis of an index weighting. This showed that on a market capitalisation basis, over 90% of the ATX subscribes to the Austrian Corporate Governance Code.

What in your opinion is the central significance of the realisation of the Corporate Governance Code?

Mostböck: The most important factor is the actual implementation of these voluntary obligations. This means not merely the issuing of commitments on paper, or in eye-catching publicity, but rather the orientation of internal company thought and action towards the Code.

It is important that the Code becomes part of daily routine, as otherwise in the long run, the international, institutional investors, who are of importance to every expanding, listed company, cannot be kept on board.

Corporate governance for transparent Group management

For us, transparency, openness and clarity with regard to our shareholders, employees and other public interest groups constitute an integral part of future-oriented corporate management. An important element in this strategy is formed by the Austrian Corporate Governance Code (CG Code), which was unanimously accepted by the Supervisory Board in 2002.

Main Corporate Governance Code principles
○ The equal treatment of all shareholders.
○ Transparency with regard to shareholders.
○ Open communications between the Managing and Supervisory Boards.
○ Prevention of conflicts of interest among body members.
○ Efficient controls through the Supervisory Board and the auditors.

Austrian corporations listed on the Prime Market of the Vienna Stock Exchange are subject to numerous regulations at legislative (Corporation Act, Stock Exchange Act, etc.), administrative law (e.g. issuer compliance directive from the financial market authority) and contractual levels (e.g. conditions for participation in the Vienna Stock Exchange Prime Market). Apart from these regulations, VA TECH voluntarily accepts the 79 rules contained in the three categories of the CG Code.

L rules ("Legal requirements") describe the legal regulations, which are valid for listed, Austrian corporations in general and irrespective of a commitment to the CG Code.

C rules ("Comply or explain") are to be adhered to and non-compliance must be justified. The precise implementation and its limitations are contained in the VA TECH Annual Report, or under www.vatech.at/corporategovernance.

R rules ("Recommendations") are not binding and are of a purely advisory nature, but have already largely been implemented within VA TECH. In 2003, limitations only applied with regard to Rule 31 (publication of the remuneration paid to each Managing Board member).
Adherence to the individual regulations was assessed and confirmed by the auditors Ernst & Young on the basis of the corporate governance statement for 2004.

An overview of the main regulations contained in the Austrian Corporation Act is provided in the annex to the Austrian Corporate Governance Code (http://www.corporategovernance.at).

Risk management

For VA TECH, risk management is an integral part of those corporate activities aimed at achieving the sustained, positive development of assets, finances and earnings, as well as long-term increases in corporate value throughout the Group. It incorporates:

- The conscious, actively guided and controlled handling of risks.
- The balancing of risks and the related opportunities.
- The coverage of certain risks through hedging within the scope of a comprehensive concept.

Strategic, organisational and content-related regulations are combined in a Group directive.

A risk management organisation has been introduced throughout the Group for both central and decentralised corporate bodies, which defines 13 risk areas that are managed by an extensive range of process rules. In accordance with the principles of corporate governance, the auditors subjected Group risk management to a separate examination.

Key figures and interpretations

The VA Technologie AG consolidated financial statements for 2004 were prepared in accordance with the current International Financial Reporting Standards (IFRS). Apart from VA Technologie AG, they contain 117 subsidiaries.

VA TECH Group order situation
For VA TECH, the 2004 financial year was characterised by a steady improvement in the global economy, exceptionally positive market development in the iron and steel industry, as well as tangible growth impulses for the capital goods industry from EU expansion.

Order intake at a record level
During 2004, order intake in the VA TECH Group rose by 7% from EUR 4,336 m to EUR 4,634 m. The largest increase in new orders came from Metallurgy (plus 41%).

In regional terms, orders from Europe predominated with 56% (2003: 65%), of which 12% came from Eastern/Central Europe (2003: 6%) and 5% from the CIS (2003: 4%), followed by Asia with 19% (2003: 15%), thereof 11% China (2003: 7%) and the Near/Middle East, Africa with 11% (2003: 11%). Investment activity in both North America with 8% (2003: 7%) and South America with 6% (2003: 2%) improved over the preceding year.

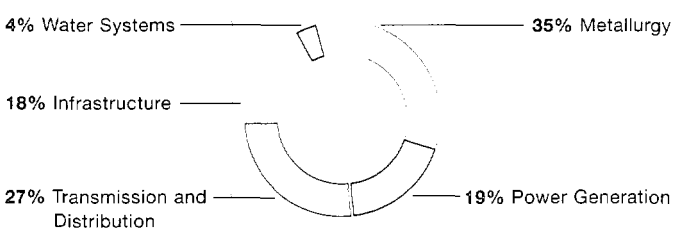
In Europe, Austria was the largest single market (15% of total order intake), followed by Germany (6%) and Romania (5%).

Order backlog at around EUR 4.7 bn
Order backlog as at December 31, 2004, stood at an excellent EUR 4,695 m (plus 9% as compared to December 31, 2003). In terms of sales of EUR 4,073 m, this corresponds with average use of capacity for over one year.

EC 1: Sales
In 2004, VA TECH sales were raised by 6% from EUR 3,828 m to EUR 4,073 m.

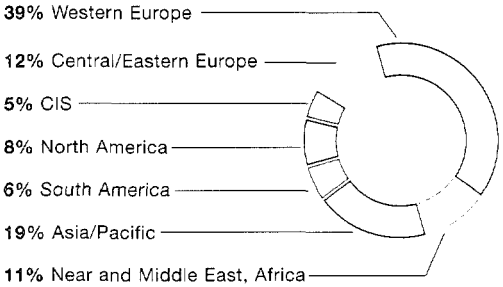
Metallurgy (plus 24%) and Infrastructure (plus 21%) showed the strongest growth rates. Power Generation sales were constant (minus 1%). Sales in the Transmission and Distribution Division fell due to the sale of operative units (minus 8%), as was the case with regard to Water Systems (minus 21%).

ORDER INTAKE BY DIVISION 2004

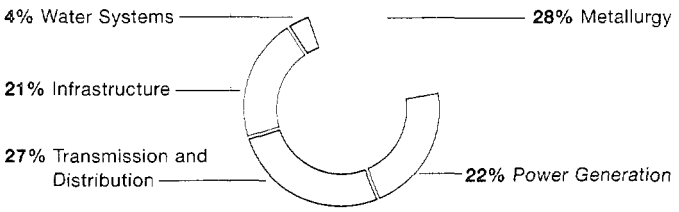


-3% Group services and consolidation

ORDER INTAKE BY REGION 2004

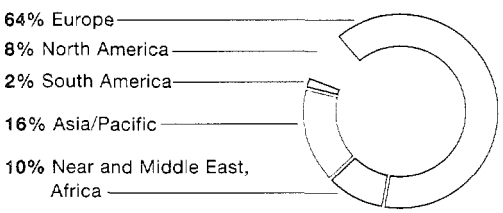


SALES BY DIVISION 2004



-2% Group services and consolidation

SALES BY REGION 2004



PROFIT AND LOSS STATEMENT EUR M	2004	2003	2002	P+L STRUCTURE 2004	CHANGE 2003/2004
Sales	4,073	3,828	3,773	100%	+6%
Costs of goods sold	-3,529	-3,255	-3,201	87%	-8%
Gross profit	544	573	572	13%	-5%
EBITDA	64.6	123.4	102.9	1.6%	-48%
EBITA	-10.7	57.0	30.1	-0.3%	-
EBIT	-44.2	5.4	-15.5	-1.1%	-
Financial result	-21.5	-24.8	-75.2[2]		+13%
Taxes	-7.0	-2.7	-14.0		-159%
Group earnings	-67.8	-15.4	-93.0		-340%
One-off effects[1]	-100.5	-29.7	-68.0		-
Group earnings before one-off effects	+32.7	+14.3	-25.0		+129%

[1] Restructuring expenses, book profit/losses from the sale of plants and investments, as well as extraordinary amortisation on goodwill (on the basis of Group earnings)
[2] Including depreciation of the Babcock Borsig Power investments totalling EUR 44.4 m.

EC2: Geographical distribution of markets/sales per region

EUR M	VA TECH GROUP	METALLURGY	POWER GENERATION	TRANSMISSION AND DISTRIBUTION	INFRA-STRUCTURE
Europe	2,599	601	647	518	914
North America	328	110	65	154	2
Latin America	91	52	9	30	0
Asia	652	336	129	125	65
Near and Middle East, Africa	403	62	34	273	37
Total	**4,073**	**1,160**	**884**	**1,100**	**1,019**

EC3, EC4: Sourcing, cost of goods, materials and services purchased

VA TECH Group sourcing is subject to ever-increasing demands due to the growing focus on core competences and the resulting, continuous reduction in production depth. However, this process also offers fresh opportunities.

In 2004, EUR 2,699 m was spent on materials and services. This represented an increase of 11% as compared to 2003 and a ratio of 66% to sales.

During the year, there were considerable increases in raw material prices. These affected both the production areas (e.g. higher copper prices in the transformer segment) and engineering and plant building activities (e.g. in the form of more expensive steel).

The creation of a permanent sourcing organisation in China and Brazil allowed the optimum concentration of the know-how in these sourcing markets.

In addition, the existing lead buyer concept for strategic components, which is already in use in the VA TECH Group Divisions, was further pursued in order to continue the targeted search for new suppliers. This policy has proved highly effective in what is a period of global raw material price rises.

In the engineering sector, payments to suppliers are rendered exclusively on the basis of valid contracts. Requested services are defined, ordered and payed for in accordance with contract terms.

VA TECH has over 30,000 suppliers worldwide, of which around 8,000 are found in Austria. Every VA TECH post secures three jobs among the suppliers. Group sourcing was largely concentrated in the following countries: Austria (36%), Germany (15%), UK (7%), Italy (7%), France (5%), USA (5%).

EC5: Personal costs

Group personnel costs totalled EUR 956 m in 2004 and represented 23% of sales. In regional terms, Europe represented 93% of costs, North America 6%, South America 1% and Asia and Near/Middle East, Africa, less than 1% respectively.

Results

Group earnings before interest, tax and goodwill amortisation (EBITA) amounted to EUR 64.6 m as opposed to EUR 123.4 m in 2003 and was strongly influenced by the one-off effects required by restructuring.

A Group result of minus EUR 67.8 m was achieved in 2004, following minus EUR 15.4 m in 2003. This Group result included one-off effects, which derived from planned resizing in the Transmission and Distribution Division (EUR 85 m) and Water Systems (EUR 14 m). These measures were implemented with the intention of completing every possible step in 2004 that would ensure clearly positive and sustainable Group results in years to come.
For example, decisive resizing measures were required for the restructuring of the transformer segment. These affected the locations in Edinburgh/Scotland and St. Catherines/Canada, where production could no longer be maintained due to continuing underuse of capacity, cost structure problems and unfavourable exchange rates. A series of restructuring measures were also implemented in the Water Systems sector. Business activities were aligned with market needs and units in Germany and France were sold off.

This created a platform for a sustained improvement in future divisional results.
Prior to one-off effects, the Group profit/loss more than doubled over the preceding year to plus EUR 32.7 m (following minus 25.0 m in 2002, to plus EUR 14.3 m in 2003 and plus EUR 32.0 m in 2004).

Asset and financial situation

BALANCE SHEET STRUCTURE (AS AT 31.12.2004)

ASSETS	%	EUR M	EUR M	%	EQUITY AND LIABILITIES
Fixed assets*	12.5	429	392	11.4	Equity
Goodwill	9.5	325	303	8.8	Social capital
Gross liquidity	20.5	702	450	13.1	Financial liabilities
Working capital	55.4	1,902	2,266	66.1	Working capital
Other assets	2.1	72	19	0.6	Other liabilities
Balance sheet total	**100**	**3,430**	**3,430**	**100**	**balance sheet total**

* Excluding goodwill (EUR 325 m) and fixed asset securities (EUR 22 m)

Tangible assets contained in the total assets amounted to 10% of the balance sheet total, which underlines the low asset intensity in engineering business.

In 2004, asset-side working capital rose from EUR 1,864 m to EUR 1,902 m. Due to the increased volume of sales, receivables were up from EUR 1,219 m at EUR 1,284 m. Inventories were reduced from EUR 228 m to EUR 200 m.

Equity including minority interests amounted to EUR 392 m, which resulted in an equity quota of 11.4%. Asset coverage, the ratio of equity to fixed assets, totalled 51%.

Liabilities to banks were cut by 18% from EUR 472 m to EUR 389 m.

Equity and liabilities side working capital increased from EUR 2,199 m to EUR 2,266 m. This figure included trade accounts payable, which rose from EUR 808 in 2003 to EUR 832 m.

The working capital balance as at December 31, 2004, improved again from minus EUR 335 m in the preceding year to minus EUR 364 m. This amounted to minus 8.9% of the operating result (2003: minus 8.8%) and represented a further reduction in Group operative capital commitment.

Liquidity

Active payment management aimed at securing sufficient liquidity is a major Group priority. As already mentioned, Group gross liquidity, the total of all VA TECH liquid assets (cash, securities, receivables bearing interest), fell to EUR 702 m. At EUR 450 m, interest-bearing liabilities (mostly liabilities to banks) were far lower than in 2003 (minus 23%). This resulted in an increase in net liquidity to EUR 252 m (2003: EUR 238 m). Accordingly, the Group is debt-free.

Cash flow, investments, acquisitions

Cash earnings in 2004 amounted to plus EUR 31 m (2003: EUR 75 m). This fall was primarily the result of restructuring expenses. If the changes in working capital are taken into account, operating cash flow of EUR 49 m (2003: EUR 159 m) results.

The cash flow from investing activities totalled EUR 28 m (2003: EUR 26 m). This figure includes investments in tangible and intangible assets of EUR 61 m (2003: EUR 51 m). Shareholding investments and divestments resulted in a loss of EUR 4 m (2003: minus EUR 25 m).

Investments in tangible and intangible assets are traditionally low within VA TECH, as due to the focus on development and engineering, capital-intensive production plants are unnecessary. There was no outstanding single investment in 2004, but rather a concentration on replacement and rationalisation (for details, please see page 30 of the Notes). The majority of VA TECH locations are to be found in Europe and therefore this region received the major share of investments.

Investments in shareholdings totalled EUR 26 m in 2004 (2002: EUR 29 m). No major acquisitions of note were made in 2004. Accordingly, despite the negative Group result derived from restructuring expenses, Group free cash flow amounted to a positive total of EUR 22 m (2003: EUR 185 m).

LIQUIDITY

EUR M	2004	2003	2002
Gross liquidity	702	824	822
- interest bearing debt capital	-450	-586	-739
= Net liquidity	252	238	83
Equity including minority interests	392	477	505
Gearing%	-64%	-50%	-16%

CASH FLOW, INVESTMENTS, ACQUISITIONS

EUR M	2004	2003	2002
Cash earnings	31	75	20
+ Balance sheet change in working capital	+29	+86	+130
+ Change in working capital (change in the scope of consolidation, other)	-11	-2	-53
= Cash flow from operating activities	49	159	97
+ Cash flow from investing activities	-28	+26	+4
= Free cash flow	**22**	**185**	**101**

INNOVATION EXPENDITURE BY DIVISION

	%
Metallurgy	45
Power Generation	21
Transmission and Distribution	24
Infrastructure	8
Water Systems	2

Innovation management

During the past year, the VA TECH Group invested a total of EUR 105 m in research and order-related development (FRASCATI definition). Innovation involves the entire procedure from idea generation to its implementation as a finished product on the market. Thus development, completion and start-up represent a single process.

VALUE ADDED ANALYSIS

EUR M	2004	2003	2002
Accrual			
Sales	4,073	3,828	3,773
+ Other income	109	91	132
- Expenditure	-3,257	-2,935	-2,966
Value added	925	983	939
Distribution			
To shareholders (dividends)	-	-	-
To employees (wages, salaries, benefits)	956	957	975
To the state (taxes)	16	9	14
To creditors (interest)	21	32	44
To the company (reserves)	-68	-15	-93
Value added	**925**	**983**	**939**

EC6-EC10: Value added analysis

The table above provides an insight into the distribution of value added among the Group's various stakeholders. Payments to the owners/shareholders in the form of yearly dividends and to creditors in the shape of interest are contained in the figures. Effective taxation in 2004 amounted to EUR 16 m, whereby the vast majority of this sum was paid in Europe (EUR 14 m). Expenditure on social, cultural and other sponsoring measures totalled EUR 420,000. In 2004, VA TECH received EUR 8.2 m for research projects. Details concerning the economic key figures are available from the VA TECH Annual Report and the homepage www.vatech.at

Ecology

ECOLOGY

For me, energy efficiency means as little "reactive power" as possible.

Anton Beneder
Chairman of the VA TECH Group Works Council

From product quality to social responsibility

The efforts to guarantee product conformity were primarily the first steps towards integrated management systems – after that the establishment of management systems, which cover all aspects of sustainable development, is a new challenge with regard to complexity and integration.

ECOLOGY

The "correct" management system

In simple terms, there is no "correct" or "incorrect" management system, as no system can solve every problem. Management systems must adjust to deal with the needs of individual organisations, existing and potential customers, markets, shareholders and the legal framework, etc. They may never be static and in order to function, their directives and rules may not be engraved in stone.

VA TECH management systems

The differing VA TECH business areas have management systems, which are aligned with the type of business activity, market and customer requirements. All the main VA TECH business areas operate according to management systems, which correspond with ISO 9001: 2000. Many locations have already designed, introduced and implemented a system according to ISO 14001.

Perspectives

There can be no question that the development of management systems, the integration of safety and health systems in the workplace, environmental aspects in combination with social responsibilities, etc., represent investments in the area of company sustainability and greater quality of life. Unfortunately, in many cases the evaluation of product, project and service quotations takes place exclusively on the basis of financial advantage. The protection of the environment, health and safety continue to be regarded as matters of course. Efforts with regard to quality of life demand the joint participation of all stakeholders, irrespective of whether they be customers, shareholders, employees, suppliers and local authorities. The VA TECH companies are ready to make their contribution.

Siegfried Wenger
Head of Quality, Safety and Environmental Management
VA TECH HYDRO and VA TECH T&D

For me, energy efficiency means energy use rather than waste.

Five steps to excellence

Level 1

Product quality
Customers expect products, projects and services that conform with regulations and standards. The accommodation of these basic needs during the provision of performance is a minimum requirement upon a quality standard. The guarantee of such standards leads automatically to a systematic approach to activities and hence quality assurance. Nonetheless, while the mere separation of the defective from the defect-free ensures that the customer receives a satisfactory product, it is generally uneconomical.

Level 2

Corporate process quality
The introduction of quality control systems represents the next step towards a genuine management system. The quality of products, processes and services is examined with regard to customer requirements. In many companies, the closer definition of company processes and their interaction constitutes the basis for management systems. The control of such processes means that no time or resources, etc. are wasted. However, the focus always remains on the product, the project or the service with regard to specific needs.

Level 3

Management system quality
The linkage of corporate process controls with the management of areas such as human resources, business management aspects, or process improvements, leads to established management systems that are mostly based on the international ISO 9001 quality standard. Various aspects of work safety or environmental protection are integrated directly into these management systems, which thus conform to the stipulations of ISO 14001 (environmental management), OHSAS 18001 and SCC (safety and health).

Level 4

Business relationship quality
The next step in development involves the inclusion of customers in the further evolution of solutions and the integration of suppliers. Accordingly, customer demands are not only fulfilled, but also implicit technical and economic needs can be defined with greater precision and be accounted for in performance. The earliest possible involvement of suppliers facilitates alternative solutions, which are superior, lower cost or better oriented towards customer and consumer needs. Management systems no longer exist in isolation. The limits have become more permeable, the interactions between own management systems with those of customers and suppliers offering fresh possibilities for quality and profit optimisation along the entire performance chain.

Level 5

Social relationship quality
Companies with a sustainability orientation look after the environment, but not only with regard to nature and landscape conservation. These enterprises deal with all aspects of environmental questions and consider the significance of their activities and their impact on society, local communities and nature. They integrate corporate social responsibility to the same extent as resource preservation and the avoidance of waste and emissions, not to mention the financial effects such as the payment of taxes and communal levies to local government and authorities. It is clear that a management system, which is targeted on the quality of social relationships has the highest degree of complexity and demands the efforts of all those involved. In a best case scenario, such a business management system should offer a perfect balance between the interests of the customers, shareholders, employees, suppliers and local government.

Management systems organisation – high standards worldwide

Quality, health, safety and environmental standards do not simply exist. They are the result of forward-looking management, the setting of objectives, specialist competence and an awareness of needs. A clear commitment of the uppermost management tier, managerial competence, as well as periodic, internal audits, ensure the permanent guarantee of globally high standards.

Quality, health, safety and environmental managers are active in every business area of the VA TECH Group and report to the responsible members of the divisional managing boards. These managers are equipped with decision-making authority in their areas of activity and operate largely independently of sectors such as engineering, sourcing, production and services.

An efficient organisation, clearly regulated responsibilities and the necessary flexibility with regard to regional realisation guarantee optimum results during the implementation and monitoring of integrated management systems.

In co-ordination with the respective divisional managing boards, the managers develop quality, health, safety and environmental policy and at the same time are responsible for its successful implementation. Furthermore, they are also in charge of the preparation and publication of practical, binding guidelines for all locations and companies.

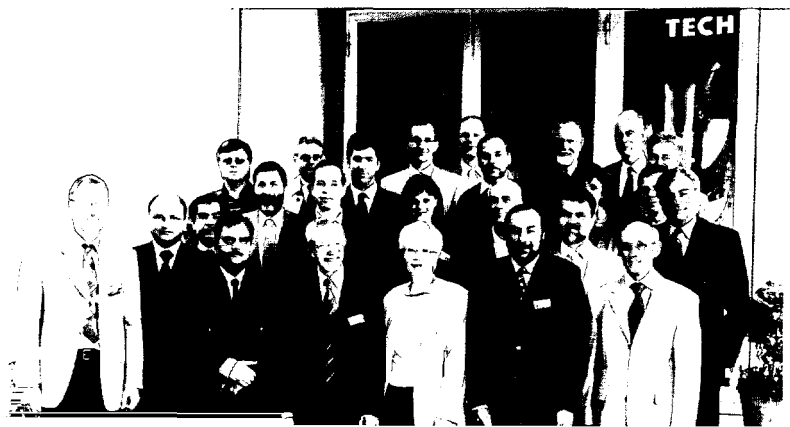
Online exchanges of experience

The quality, health, safety and environmental managers in the business areas are the direct subordinates of their equivalents at Group Division level, who as competence centres bear responsibility for the support and advice of their local colleagues.

Regular meetings like the annual VA TECH HYDRO quality manager conference ensure that a common approach is hammered out and that know-how, best practice models and experience are exchanged. The access of every quality, health, safety and environmental manager to all quality regulations, processes and checklists is secured by means of the Intranet. Moreover, as a discussion platform, the Intranet, also provides opportunities for a multilateral exchange of views.

Interdisciplinary working groups

Individual project groups deal with special topics on an ongoing basis. For example, during the period under review, one working group was involved with the theme of the reduction and avoidance of working accidents, incidents and near misses. The resulting brochure, published under the title, "Basic rules for health and safety" lays down the minimum standards in these areas and is available to employees at all of VA TECH's locations around the world.



Annual conference of the VA TECH HYDRO quality manager in Kriens/Switzerland.

The introduction of an integrated management system at all major Group locations by 2006 is one of VA TECH's chief priorities. Robert Sagmeister provides an insight into progress towards realisation and initial successes.

Interview with
Robert Sagmeister
Quality and Environment Manager, VA TECH HYDRO

For me, energy efficiency means running the second half of a marathon faster than the first.

"Those that stop improving cease to be good."

How has VA TECH HYDRO environmental management developed in recent years?

Sagmeister: VA TECH HYDRO has 16 A-consolidated locations worldwide, twelve of which have turbine and generator production centres. Due to the legal situation, environmental management has always been firmly anchored at these companies and the VA TECH turbine manufacturing plants were the first to introduce related management systems. In 2003, the Ravensburg, Kriens, Zurich, Vevey, Schio, Madrid and Morelia locations were re-certified according to ISO 14001. Moreover, in the same year, the Austrian locations in Vienna, Linz and Weiz integrated an environmental management system into the existing quality management system. A milestone in this regard was the "sustainable solutions for a better life" mission statement and the establishing of the Sustainability Board. On the basis of the mission statement, the VA TECH HYDRO Managing Board decided to complete the certification of all its locations with ISO 14001 by 2006.

What is the current status of this project?

Sagmeister: The project for Vienna, Linz and Weiz commenced at the beginning of 2004 and here an environmental system according to ISO 14001 has already been set up, introduced and implemented. The external pre-audit will take place in the May of this year and the external certification audit will follow in autumn. Moreover, the certification of the Indian locations will mean that in 2005 all the VA TECH HYDRO production centres will dispose over environmental management systems in accordance with ISO 14001.

What do you regard as being the main impulses for an environmental management system throughout VA TECH HYDRO?

Sagmeister: We wish to act and not react. Since 2002, we have registered a steady increase in questions of environmental relevance during the pre-qualification for quotations with regard to both figures and content. Within the foreseeable future, ISO 14001 certification will be absolutely vital in the market. In addition, our shareholders also clearly

In-house, we have recognised the fact that the advantages derived from our environmental management systems represent an important factor in future competitiveness.

What are these advantages in concrete terms? Have initial successes already been registered?

Sagmeister: It is beyond dispute that we can minimise costs using an active environmental management system. Special savings potential is available in the waste disposal, energy and water supply and material expenses areas. Decisive in this regard is the optimisation of the design process to include resource conservation aspects. Further advantages are legal security and reduced risks, which in turn lead to improved conditions in the insurance segment and higher bank credit ratings.

As a member of the Sustainability Board, you are responsible for environmental reporting within VA TECH. Where do the major challenges in the reporting process lie?

Sagmeister: Following a few teething troubles, we can now register a major improvement. This is certainly due to the establishment of uniform standards, which have been put in writing in a VA TECH Group directive. In general, this has considerably enhanced reporting "culture". We subject the results of reporting to a yearly analysis, which then flows into further development. For example, originally the consumption and emission of SF6 and CFC were not measured, but initial logging and analysis has already resulted in a successful environmental protection project at our high-voltage switchgear plant in Italy.

In 2003, our internal reporting standards were revised in line with GRI guidelines. During this year, we wish to present trends for the first time and despite VA TECH's lack of business homogeneity, publish key statistics of environmental relevance using own performance as a benchmark. These efforts have been rewarded by the positive results achieved by the environmental report and reporting in numerous external evaluations, both in the form of analysis

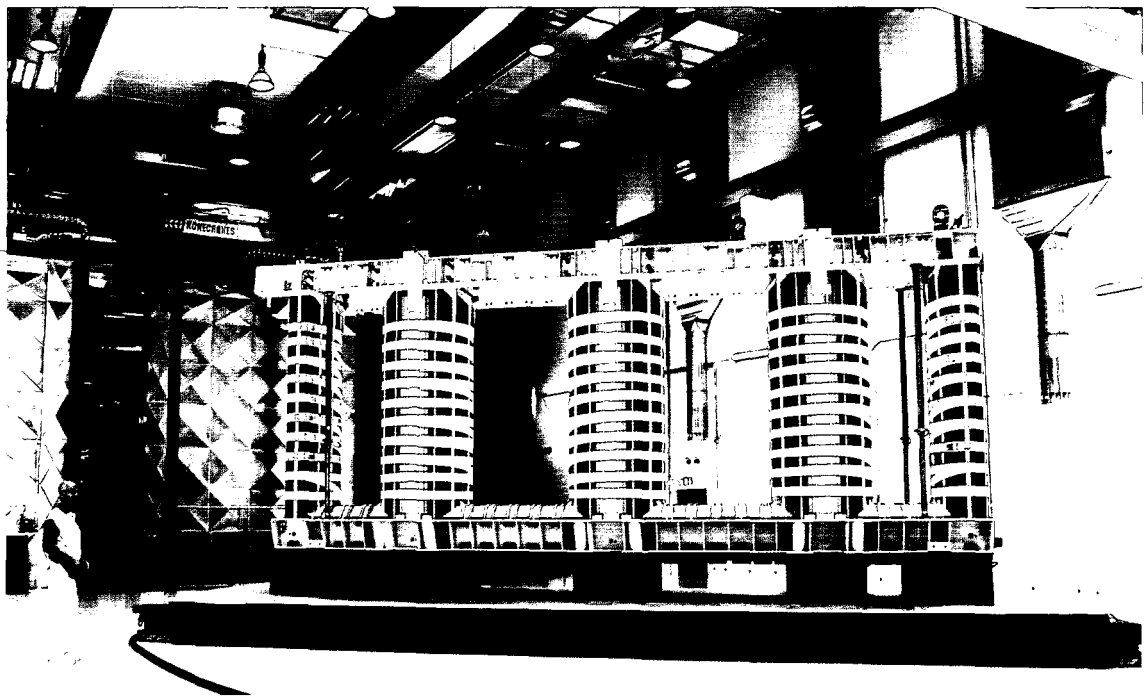
Ecological solutions, both large ...

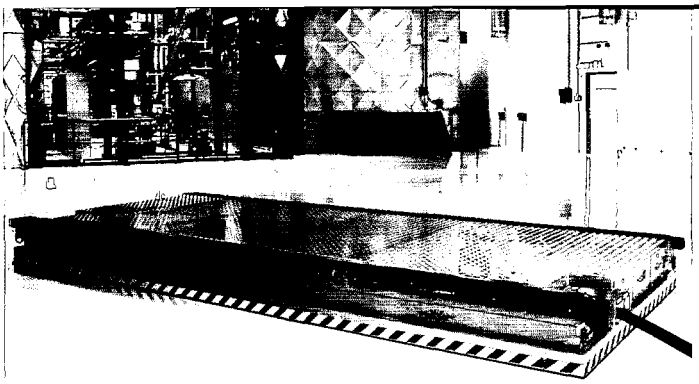
The following examples of completed environmental programme measures at the VA TECH ELIN Transformatoren (ETG) plant in Weiz demonstrate in concentrated form some of the most important aspects of corporate environmental protection.
The reports provide information about what has been achieved thus far, as well as on alternative measures in the areas of resource conservation and environmental protection.

Active part drying process in the desert climate zone
The VA TECH ELIN Transformatoren (ETG) plant in Weiz manufactures transformers for the global very high performance and high voltage market.

Drying prior to tank installation is an important aspect of the production of active parts for the inner workings of a transformer. Up to now, the core and winding assembly (active part) was dried in a vapour phase system and then secured and re-clamped at a live part temperature of around 65°C in a process that had to be completed quickly to prevent the active part becoming too cold and absorbing ambient moisture. If this procedure took longer than six hours, then repeated re-drying was required. After the entire active part was secured and set at the calculated clamping values, it was lifted into the transformer tank and the lid closed. An alternative method involved the filling of the vapour phase unit with oil. This immersed the active part, thus preventing water absorption. However, 950,000 l of oil were required to fill the complete volume and as the storage and handling of such quantities of oil represented a high environmental risk, this method was not employed.

The solution? A desert climate!
Since 2004, for the first time in the world, ETG has been carrying out active part drying using a double vapour phase unit with an ambient desert climate. The system involved is the largest, most high-powered and modern anywhere and brings a decisive improvement to the state-of-the-art production process with respect to drying and dryness retention. A further advance in active part quality has been achieved through the





use of air conditioning throughout the entire production hall. A type of desert climate is created with less than 10% residual moisture in the air and a temperature of 28-33°C, thus ensuring that the active part is unable to absorb any moisture. In addition, the new hall is a declared clean room zone.

The environmental benefits

Resources are conserved, while maximum energy efficiency is attained, as reheating is no longer required. The active part can stay dry in this zone for a period of several days, e.g. at weekends, without absorbing moisture. The active part is already cooled in the boiler and therefore no longer requires processing at 60°C. Indeed, the active part temperature can be lowered to 30°C and the desert climate system means that a complex and hazardous vapour phase system with oil is not required.

Furthermore, during the introduction of the desert climate concept, an air cushion system was introduced for part transport. In this way, the parts, which can weigh up to 400 t, can be moved in a flexible, energy saving, low-noise, environment-friendly, explosion protected and economic manner. VA TECH ELIN Transformatoren is the first company in the world to employ the desert climate method for transformer drying. A system that from a technical, economic and ecological perspective constitutes a further step towards "sustainable solutions. for a better life."

...and small

Pigeons can be a nuisance. Moreover, when the conservation of buildings and monuments is involved, they constitute an enormous cost factor, as their aggressive droppings eat into the stone and soil both buildings and systems. In a long-term battle against these birds at the VA TECH location in Weiz, a large selection of mechanical and electrical defence measures were tried and all failed.

The answer? Peregrine falcons!

VA TECH in Weiz has now turned to the pigeons' natural enemy, the peregrine falcon, which helps to keep the pigeons away from the production centre. For many years, birds of prey have been a symbol for endangered species and their numbers have fallen in all the world's densely populated areas. Indeed, the birds used in Weiz were all bred locally at the Weihappl falconry in Bad Gleichenberg.

The environmental advantages

The use of peregrine falcons ensures cleanliness at the Weiz plant, while simultaneously securing the continued existence of a threatened animal.

Reinhold Zingl

CEO, VA TECH ELIN Transformatoren

Which environmental management system does VA TECH use in Weiz?

In Weiz, an environmental management system in line with ISO 14001 is employed, which is integrated into the existing quality management system.

What for you were the milestones in the realisation of the environmental management systems in Weiz?

We started to consider the topic of environmental protection in an intensive manner some ten years ago. Initially, it was important for us to adopt a systematic approach and improve in the energy and waste management areas. As a consequence, we introduced an energy management system, which enabled us to control our energy consumption and complete cost optimisation. At the same time, a biomass-fired district heating plant and a gas-engine type district heating plant were built. These efforts played a major role in our receipt of the Styrian Climate Protection Prize in 2001 and a year later we were awarded the "Climate Protection Partner Company" certificate. With our district heating network we also supply public facilities as well as numerous residential areas in the municipal borough of Weiz. In local terms, the town of Weiz has already been able to achieve the Kyoto targets with regard to CO_2 emissions. Our environmental initiatives and our positive relationship with the public have persuaded Weiz to become a "Climate Protection Alliance Municipality".

Which environmental highlights have been realised?

The "desert climate system", which went into operation last year, can certainly be designated as our largest environmental protection investment. This saves considerable amounts of energy and resources during the drying of large transformers. In addition, since last autumn, we have also adopted completely new approaches to waste management. A fully decentralised and volume-dependent waste concept was introduced, in which our disposal companies collect the waste from the so-called waste islands at the production point. The waste producers are invoiced directly for the costs, which has greatly increased the awareness levels of our workforce with regard to waste collection.

KEY INDICATORS AT THE WEIZ LOCATION

Divisions	VA TECH Transmission & Distribution	VA TECH HYDRO
Divisional companies	VA TECH ELIN Transformatoren GmbH & Co	Generators & Service
Sales 2003	EUR 129.2 m	EUR 133 m
Employees' (Dec. 31, 2004)	509	974

Excerpt from the VA TECH ELIN Transformatoren environmental targets and investment projects 2004 [1]

- Energy savings during the transformer drying process through the new desert climate system.
- Reduction of the use of solvents by means of a switch from acetone-based, diluted cleaning agents to low-solvent agents for the cleaning of the epoxy resin coating on copper coils.
- Optimisation of measures for the application and retouching of the final paint coating on large transformers.

[1] Further information concerning the implemented environmental objectives and new programmes is available on pages 80 and 81.

The VA TECH location Weiz receives the "Climate Protection Alliance Company" certificate in the presence of the Styrian Secretary for the Environment.

KLIMABÜNDNIS BETRIEB
Wir tun was für den Klimaschutz
2004

In addition, for the first time, a waste transport truck with automatic weighing device, coding and filling system has been developed and introduced. As a result of this optimised waste management the quality of waste separation has been improved further in combination with heightened awareness which has led to a massive reduction in our disposal costs.

Furthermore we have also made progress in the protection sector. A central store for hazardous materials has been created in order to minimise the risks of soil or water contamination due to the incorrect storage of substances that could threaten the environment and to protect employees against fire. Last but not least, in recent years, building insulation has been systematically refurbished or replaced and heating systems optimised in moves aimed at steadily cutting our energy demand.

What are the current focal points?

At the end of 2003, we decided to integrate our environmental protection measures into the existing management system and undertake certification according to ISO 14001. We now have several years of active environmental protection behind us and this year, are looking for confirmation of our efforts in the form of international certification. However, this does not mean that we will now be content to rest on our laurels.

We have always pursued our own development programmes in which we integrate environmental interests at any early stage. This is achieved by the consideration of low resource consumption during the design process and the minimisation of the environmental impact of our products in a life cycle assessment which takes place in the form of a systematic environmental assessment. For example, a completely new type of environment-friendly distribution transformer has been launched onto the market. This transformer has particularly low levels of noise and radiation emissions and contains no mineral oil, which could endanger the environment, using biodegradable synthetic ester instead. This eco-friendly innovation is currently unique and thus represents another trendsetter in the global market.

As far as investments of environmental relevance are concerned, for 2005 we plan to upgrade both our internal wastewater system and our energy cable network. In addition, a new state-of-the-art hazardous waste store is to be built and our two filling stations are to be modified. A switch of the forklifts in the plant to operation using vegetable oil has already commenced.

Examples of environmental programmes and investments of environmental relevance

Extract from the environmental targets and investment projects at some VA TECH locations during 2004:

Location/Country	Implemented environmental objectives and investments
Weiz/AUT	New waste concept – decentralised waste disposal in the plant by means of external, specialist companies, including waste weighing device on the trucks. As a result, fair distribution of disposal costs in line with the causal principle and thus an increase in waste awareness
Weiz/AUT	Storage of hazardous substances improved through a special store and cabinets
Weiz/AUT	Energy savings through new roof and façade insulation, as well as thermal glazing in Halls C1, D2, E0, E2, H0, H1
Weiz/AUT	Environmental burden register for the location
Weiz/AUT	New database for legal compliance
Weiz/AUT	New sheet painting plant for emission reduction
Weiz/AUT	Soldering smoke capture system for reduced emissions
Weiz/AUT	Reduction in paint waste of 10%, waste quantity cut from 19,678-11,605 kg
Weiz/AUT	Reduction in use of cooling lubricants and minimum quantity lubrication
Weiz/AUT	Compressor station update for better decentralised supply and energy savings by means of consumption-related layout and optimisation of the line network and control system
Weiz/AUT	Switch of the forklifts to vegetable oil
Ravensburg/D	Overhaul of the wastewater system
Kriens/CH	Switch to lighting with energy-saving lamps, lower rated capacity
Kriens/CH	Heating: change from diesel to natural gas – 25% less CO_2
Grenoble/FR	New throughflow gauge for the precise measurement of SF_6 gas
Grenoble/FR	Replacement of three PCP transformers by new, environment-friendly alternatives
Lyon/FR	New oil tank retention pit – reduction in the oil contamination risk
Lyon/FR	Replacement of halon fire extinguishers – gas reduction
Lyon/FR	Water savings due to the scrapping of a water-cooled air conditioning system
Lyon/FR	Energy savings through a automatic vacuum cleaner stop
Hebburn/UK	New environment-friendly product design for SOLKOR, ARGUS, MOD II
Quebec/CAN	Energy savings through a new transformer drying plant - minus 350,000 kWh/y
Quebec/CAN	New degreasing system instead of trichloroethylene
Guanghzou/CN	Purchase of process heat and shut-down of own boiler house
Bridhla/IND	Noise reduction through new generator housing

Extract from the new environmental programme at some VA TECH locations during 2004:

Location/Country	Measure	Responsibility	Date	Status
	RENEWAL			
Weiz/AUT	Renewal of the energy network	Bloder	Lfd.	Invest. for 1st part started in 2005-03-17
Weiz/AUT	Renewal of the North and South plant filling stations	Bloder	2005	Invest. approved
Weiz/AUT	Halls H, D1, D2, W1, renewal of the floors – replacement of contaminated wood flooring through coated concrete	Bloder	2005	
Grenoble/FR	Replacement of PCB transformer in C6	Michaud	2005	
Grenoble/FR	Coverage of the complete retention basin in the neutralisation area and area and installation of a level gauge	Descottes	2004	
	IMPROVEMENTS TO THE ENVIRONMENTAL MANAGEMENT SYSTEM			
Weiz/AUT	Certification of the EM system according to ISO 14001	Haidenbauer, Sagmeister	2005	Project plan ISO 14001 Introduction – Weiz generators
Weiz/AUT	Certification of the EM system according to ISO 14001	Winkler, Sagmeister	2005	Project plan ISO 14001 Introduction – Weiz transformers
Wien, Linz/AUT	Certification of the EM system according to ISO 14001	Sagmeister	2005	Locations Vienna and Linz
Ravensburg/D	Certification of the EM documentation	Asbeck	2005	
Hebburn/UK	Hazardous materials register	Hill	2005	
Hebburn/UK	Integration of environmental requirements in the general purchasing conditions	Craven	2005	
Hebburn/UK	Completion of environmental audits at sub-suppliers	Craven	2005	
Guanghzou/CN	Certification of the EM system according to ISO 14001	Jim Jin	2005	Guanghzou plant/China
Bhopal/IND	Certification of the EM system according to ISO 14001	Chandra	2005	Bhopal plant/India
Bridhla/IND	Certification of the EM system according to ISO 14001	Kaul	2005	Bridhla plant/India
	REDUCTION IN ENERGY CONSUMPTION			
Weiz/AUT	Improvement of the building insulation, roof renewal and insulation in Halls E3, D3	Bloder	2005	Invest. approved
Weiz/AUT	New insulation glass windows in Hall H0	Bloder	2005	2nd building phase
Weiz/AUT	New heating and electrical systems in Halls U0, H0, W1	Bloder	2005	Invest. in progress
Weiz/AUT	Renewal of the façade with improvements to the insulation of the walls and windows in Hall U0	Bloder	2005	Invest. in progress
Ravensburg/D	Improvement of hall heat insulation through new glazing	Mattmann	2005	
Ravensburg/D	Energy-saving lighting	Mattmann	Ongoing	

Hebburn/UK	Energy consumption reduction	Scott	Ongoing	
Guanghzou/CN	Reduction in energy consumption of 5%.	Buchgeher	2005	
Guanghzou/CN	Substitution of a boiler through the purchase of process steam	Buchgeher	2005	
Bridhla/IND	Savings of energy for room cooling through the increased use of blinds	Kaul	2005	
	EMISSION REDUCTIONS			
Weiz/AUT	Reduction in VOC emissions. Installation of an extractor for winding spraying in Hall C1	Bogensberger	2005	Investment application in preparation
Weiz/AUT	Reduction in noise emissions – noise insulation of the centrifuge tunnel control room	Bogensberger	2005	Investment contained in the building budget
Weiz/AUT	Exchange of a ventilator in the South Plant paint shop, update of the small component spraying cabin	Freißmuth	2005	Investment for ventilator replacement approved, update of the spraying cabin in planning
Weiz/AUT	Measures for reduction in generator noise emissions	Müller	Ongoing	
Weiz/AUT	Erosion unit – reduction in resin vapours (combustion products)	Tehlivets	2005	New technology replaces erosion. unit scrapped
Weiz/AUT	Enlargement of the hazardous substance store for oil storage	Haidenbauer	2005	In planning
Weiz/AUT	Insulation coating erosion plant – combustion products, replacement through rinsing using sulphurous acid	Winkler	2005	University testing successfully concluded
Kriens/CH	Razing of two oil tanks – reduction in the risks regarding oil contamination and waste	Meier	2006	
Grenoble/FR	Installation of the devices needed for the operational metering of all SF_6 filling and emptying procedures	Descottes	2005	Throughflow measurement tested
Grenoble/FR	Extension of the measures for the measurement of SF_6 gas emissions during all construction site and service activities	Guerry	2005	
Grenoble/FR	Continuation of the improvement measures regarding the measurement and reduction of SF_6 gas emissions during R&D	Couliard	2005	
Grenoble/FR	Extension of the measures for the measurement of SF_6 gas emissions in the production area	Descottes	2005	New valves, position displays, DILO pumps improved
Grenoble/FR	Completion of noise measurements on the site limits	Clopeau	2004	
Lyon/FR	Retention basin for oil tanks	Bouche	2005	
Guanghzou/CN	Prevention of soil contamination due to oil through retention basins	Buchgeher	2005	
	WATER CONSUMPTION OPTIMISATION			
Weiz/AUT	Renewal of the sewer network	Bloder	Ongoing	5-year plan, calculation finished, renewal concept finished, first construction phase 2005
Ravensburg/D	Maintenance of the wastewater system	Mattmann	2005	
Grenoble/FR	Service water network as an extinguishing water reserve	Bouverot	2005	
Grenoble/FR	Installation of energy and drinking water meters (also including water meters for B3 neutralisation room)	Lagay	2005	
Bridhla/IND	Savings of wastewater of up to 50%	Kaul	2005	
	INCREASE IN THE RECYCLING QUOTA AND REDUCTION IN WASTE VOLUMES			
Weiz/AUT	Building of a hazardous waste store	Haidenbauer	2005	In planning
Ravensburg/D	Concept for the separation of metal swarf	Polivka	Ongoing	
Grenoble/FR	Creation of special waste containers for the storage of hazardous waste	Bouverot	2005	
Grenoble/FR	Reorganisation of waste collection points	Escaron	2005	
Lyon/FR	New coupling treatment unit	Bouche	2005	
Lyon/FR	New laser cutting machine, in order to reduce off-cuts	Bouche	2005	
Hebburn/UK	Introduction of wood packaging recycling	Hampshire	2005	
Hebburn/UK	Purchase general conditions changed regarding recyclable packaging material	Craves	2005	
Hebburn/UK	Reduce waste quantities – increased recycling	Scott	Ongoing	
Hebburn/UK	Reduction of costs for packaging disposal	Scott	Ongoing	
	ONGOING IMPROVEMENT OF ENVIRONMENTAL REPORTING (ECO-CONTROLLING)			
Weiz/AUT	Introduction of an eco-controlling	Haidenbauer	2006	Computer-supported data collation for an environmental report
	RAISING OF EMPLOYEE ENVIRONMENTAL AWARENESS LEVELS			
Ravensburg/D	Provision of notices concerning EWR environmental activities	Polivka	Ongoing	
Ravensburg/D	Environmental data balance for waste, water and energy	Asbeck	Ongoing	
Hebburn/UK	Repeat of basic training concerning environmental protection	Hill	2005	
Hebburn/UK	Special training concerning the use of SF_6 gas	Hill	2005	
Hebburn/UK	Enhancement of employee environmental awareness through special training	Scott	2005	
	CONSERVATION OF RESOURCES AND USE OF ENVIRONMENT-FRIENDLY MATERIALS			
Weiz/AUT	Reduction of solvent use	Haidenbauer	Ongoing	Solvent balance prepared and communicated to the BH. Checks to be made as to whether cleaning agent dilution could be replaced by low-solvent materials
Weiz/AUT	HYDRO – magnetic supported thrust bearing, reduction in bearing oil requirement	Müller	2004	Project will be continued
Weiz/AUT	Reduction in manually processed synthetic resins	Müller	2004	Project will be continued
Weiz/AUT	Environment-friendly distributor transformer, replacement of mineral oil through biodegradable ester	Wruss	Ongoing	Product optimisation
Hebburn/UK	Minimised paper consumption; use of more recycled paper	Hill	2005	
	TRAFFIC AND TRANSPORT OPTIMISATION			
Hebburn/UK	Development of a transport plan	Hill	2005	
Hebburn/UK	Optimisation of business travel, use of environment-friendly means of transport for business travel	Hill	Ongoing	
Hebburn/UK	Improvement of building site transport co-ordination, transport savings	Finn	Ongoing	

Key figures & interpretation

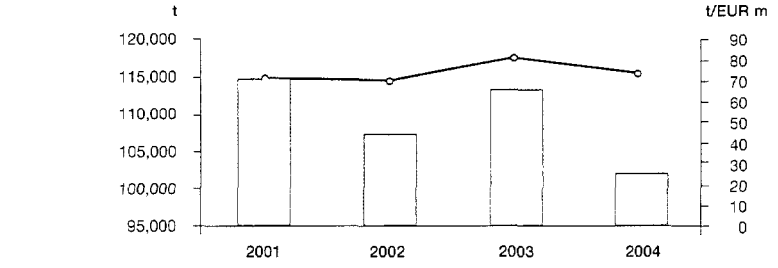
In order to ensure the enhanced comparability of trends, this year relative key figures have been determined for the first time. The reference quantities, own performance (sales less all purchases), creates virtual comparability through the improved accommodation of production locations with higher value creation, as opposed to purely engineering offices.

It should be pointed out that as a "solution provider", VA TECH offers its customers tailor-made concepts. Plants, products and services are therefore individually aligned with respective customer needs. Corresponding fluctuations in material and energy consumption, as well as with regard to recyclable materials, are either directly or indirectly dependent upon differing customer demands. In view of this divergence, a comparison of current environmental data with that of previous years is only possible to a limited degree.

The following figures result from the consolidation of the values from all main engineering and production locations and provide 85% coverage. Small sales and representative offices with less than 30 employees were not taken into account.

The following represent the respective indices of the key indicators for environmental performance according to the GRI (Global reporting Initiative) guidelines:

EN1: TOTAL MATERIAL CONSUMPTION



	2001	2002	2003	2004
Material (t)	114,343	107,755	113,702	102,198
Material/own performance (t/EUR m)	72.1	70.2	81.6	74.4

MATERIALS

EN1: Total materials consumption according to type, excluding water
In the main, VA TECH processes steel, copper, aluminium, mineral oil and various plastics. Engineering and design are oriented towards optimised material utilisation in order to conserve resources.

Despite an increase in sales of 4% over the past year, total material consumption fell by approximately 10% (mainly due to lower metal demand).

The key figures only contain the material volumes directly processed by VA TECH. Components, which are supplied by sub-suppliers for customer plants are not included in consumption.

Metals

The major share of the metals employed consisted of structural and construction steel for various parts and components, electric steel for generators, motors, transformers, copper for generator windings, transformers, current/voltage transformers, switchgear and cable, aluminium and aluminium alloys for components, lines, etc. Other metals such as tin, lead and silver are processed in smaller quantities. The largest reduction in consumption was achieved in the share of structural steel.

METALS		2004	2003	2002
Total	t	**81,158**	**92,482**	**87,589**
Structural steel	t	32,000	48,508	25,554
Electromagnetic steel	t	31,815	27,495	30,266
Copper and alloys	t	14,530	13,812	29,387
Aluminium and alloys	t	2,744	2,589	1,944
Lead, tin, zinc and alloys	t	30	11	373
Others	t	38	67	66

Chemicals

Chemicals consist primarily of paints, solvents and resins, e.g. epoxy resin, which is employed for insulation in high-voltage engineering. SF_6 gas is used for insulation in high-voltage switchgear. The consumption of paint and SF_6 gas increased sharply for production reasons.

CHEMICALS		2004	2003	2002
Total	t	**1,071**	**787**	**1,556**
Acids	t	24	24	62
Lyes	t	0	0	0
Paints	t	355	237	924
Solvents	t	121	105	107
Cleaning agents	t	35	39	43
Resins, e.g. epoxy	t	181	236	255
Toxic chemicals	t	6	7	6
SF_6 gas	t	239	117	137
Others	t	110	21	20

Oils, grease, lubricants

The vast majority of these materials consists of insulation oils, which are employed in transformers and current/voltage transformers. A far smaller percentage is comprised by lubrication oils for production plants, as well as for journal and guide bearings in turbines and generators.

A cut of almost 8% as compared to 2003 resulted from a successful project aimed at reducing the use of coolants (saving of approx. 300,000 l lubrication oil).

OIL, GREASE, LUBRICANTS		2004	2003	2002
Total	t	**13,808**	**15,059**	**12,895**

Other materials

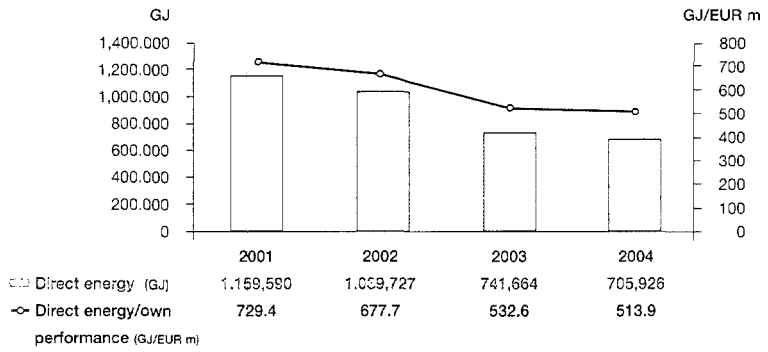
OTHER MATERIALS		2004	2003	2002
Paper	t	2,231	2,371	2,881
Wood	t	3,451	2,755	2,580
Plastics, synthetic materials	t	480	243	254

EN2: Use of waste from other companies

During the production of VA TECH products in the areas of power generation, transmission and distribution, industrial plants, building systems, automation, drive technology, facility management, steelmaking plants and water treatment plants, it is technologically impossible to use waste from other companies as a production input.

ENERGY		2004	2003	2002
Total	GJ	1.148,096	1.186,770	1.582,697

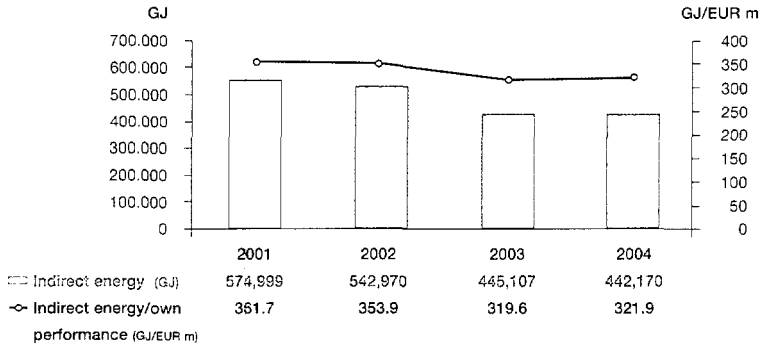
EN3: DIRECT ENERGY CONSUMPTION



	2001	2002	2003	2004
Direct energy (GJ)	1.159,580	1.039,727	741,664	705,926
Direct energy/own performance (GJ/EUR m)	729.4	677.7	532.6	513.9

PRIMARY ENERGY		2004	2003	2002
Biomass	t	5,555	5,717	4,938
Oil, diesel	t	2,694	2,766	3,292
Erdgas	m³	9.913,248	10.648,047	13.834,170
Propane	t	1,594	1,624	5,535
Others, e.g. steam	t	1.133,538	1.440,184	1.268,380

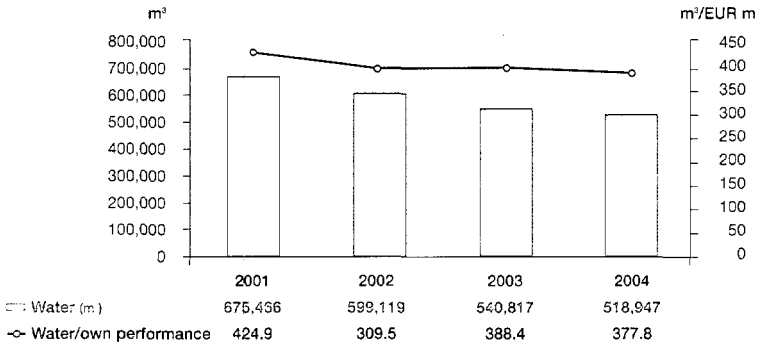
EN4: INDIRECT ENERGY CONSUMPTION



	2001	2002	2003	2004
Indirect energy (GJ)	574,999	542,970	445,107	442,170
Indirect energy/own performance (GJ/EUR m)	361.7	353.9	319.6	321.9

SECONDARY ENERGY		2004	2003	2002
Electrical power	GWh	99.9	103.0	128.5
District heating	GWh	22.9	20.6	22.3

EN5: TOTAL WATER CONSUMPTION



	2001	2002	2003	2004
Water (m³)	675,436	599,119	540,817	518,947
Water/own performance (m³/EUR m)	424.9	309.5	388.4	377.8

ENERGY

Energy consumption for production plant (process heat, drives, etc.), heating and/or cooling fell by 3% over the preceding year. Energy consumption has shown a downward trend for the past four years.

A substantial share of energy consumption also derives from the plant testing of generators and transformers.

EN3: Direct Energy Consumption
The share of primary energy was cut by almost 5%.

EN4: Indirect energy consumption
In 2004, the share of secondary energy in total energy consumption was raised by 1% to around 39%, whereby a further step was made in the direction of environment-friendly energy use.

EN17: Initiatives for the use of renewable energy and increased energy efficiency
It is of note that in the past year, the Kriens plant switched from diesel oil heating to environment-friendly natural gas. The lighting system at the Kriens and Ravensburg locations was converted to energy-saving lamps. Furthermore, within the framework of maintenance activities, ongoing investments were made in improvements to the insulation of buildings and production halls, e.g. new thermo-glazing in the halls at the Weiz location. The Weiz location also possesses a biomass-fired heating plant with a capacity of 4,800 kW for the production of district heating. In addition, a unit heating plant is operated for the generation of 1,450 kW of electricity, whereby 1,700 kW of district heating is generated thermally through the use of waste heat.

WATER

EN5: Total water consumption
Water consumption consists of both process water for production plants (including cooling waster) and water for drinking and hygiene purposes (showers and toilets). A smaller volume is required for hydraulic test stands.

During 2004, the downward trend with regard to water consumption was maintained with a reduction in the total volume by around 4% as compared to 2003.

BIO-DIVERSITY

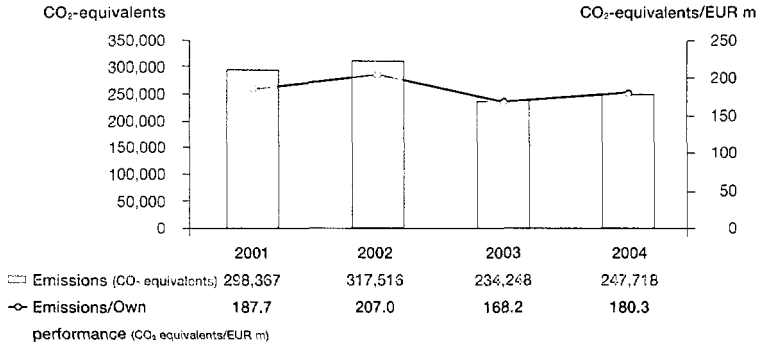
EN6: Land in habitats with great bio-diversity
No land was reported in regions with high levels of bio-diversity, where VA TECH has engineering offices and production centres.

EN7: Effects of products and services on bio-diversity
The Group is aware of the fact that, e.g. the completion of a hydropower plant, transformer substation, or steel plant has an influence on the environment. Nonetheless, VA TECH cannot control the impact on bio-diversity, as customers determine the plant location. However, together with our customers and interested parties, we endeavour to find the best possible solution.

EMISSIONS, WASTEWATER AND WASTES

EN8: Emissions of gases of climatic relevance
Direct emissions
The share of greenhouse gases emitted in 2004 rose by around 6%. This was due to the enormous CO_2 equivalent from SF_6, as emissions of the latter rose by 13% due to production factors. If CO_2 emissions are considered separately, there was a fall of 5%. CO_2 emissions from indirect energy were also down by approximately 2%.

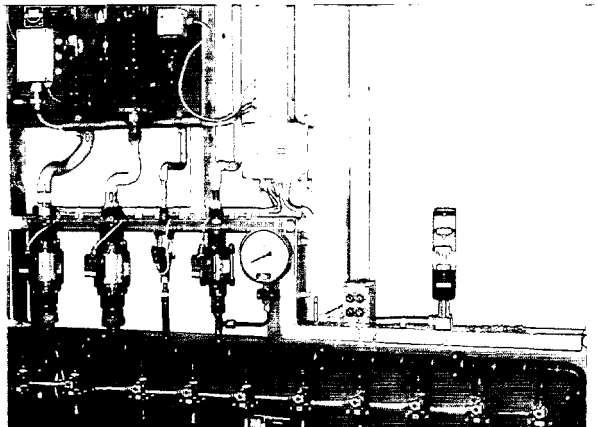
EMISSIONS OF GASES OF CLIMATE RELEVANCE



DIRECT EMISSIONS		2004	2003	2002
Total in CO_2 equivalents	t	**179,888**	**165,061**	**232,036**
CO_2	t	34,248	36,254	55,329
CH_4	t	104	109	158
SF_6 gas	t	145,537	128,697	176,549
INDIRECT EMISSIONS				
Total in CO_2 equivalents	t	**67,830**	**69,188**	**85,480**
Electrical energy	t	62,175	64,093	79,976
District heating	t	5,655	5,095	5,504

SF_6 emissions
The Transmission and Distribution Division manufactures SF_6 insulated high-voltage switchgear. Sulphur hexafluoride (SF_6) is a non-toxic insulating gas, which facilitates the production of space-saving high-voltage switchgear with an especially long service life, factors that contribute to the saving of resources in the form of land.

The CO2 equivalent of SF_6 amounts to 23,900 (conversion factor for Co_2 equivalents), which means that its influence on the greenhouse effect is very great. The internal programme for the reduction of SF_6 consumption and emissions launched in 2003 brought further successes during the past year. Following the installation of an FS_6 recycling plant at the location in Battaglia (13,500 kg of used SF6 were recycled in 2004), along with an emptying/filling installation, which only emits negligible amounts of the gas, the Grenoble location succeeded in cutting its SF_6 emissions by 20% (according to CAPIEL) despite a 400% production-related, increase in demand. In total, SF_6 consumption virtually doubled, but emissions increased by only 13%.



EN9: Emissions of ozone-degrading substances

CFCs, which are responsible for the destruction of the ozone layer, are employed in air conditioning systems. Emissions can also be caused during maintenance work (exchange of the cooling gas).

CFC emission logging commenced in 2003 and in 2004 there were no changes of note.

EN10: Other significant atmospheric emissions

Due to the increased use of paint for production reasons, the share of volatile organic compounds (VOCs) rose by approximately 34%. VOCs are the cause of ground level ozone.

EN11: Wastes

Total waste volumes rose by over 3% in 2004, whereby the recycling share was up by 8% and the actual quantity requiring disposal down by 5%.

Recyclable metals

Metal wastes are separated and sold by type. Other recyclable wastes such as plastic residues from packaging, waste from crates and cartons, waste paper and glass were sent to the appropriate recycling companies for reprocessing. The share of recyclable waste in total waste volume during the past year amounted to about 67%.

Industrial and hazardous waste

Industrial waste (non-hazardous residues) is collected in accordance with mandatory stipulations and then turned over to licensed disposal companies. The same applies to hazardous waste such as batteries, fluorescent tubes, toner cartridges, monitors, electronic scrap, etc.

The disposal of hazardous and partially toxic materials such as waste paint, solvents and cleaning agents, contaminated filters, waste resins and oil is carried out exclusively by licensed companies, in compliance with all official regulations and recording obligations.

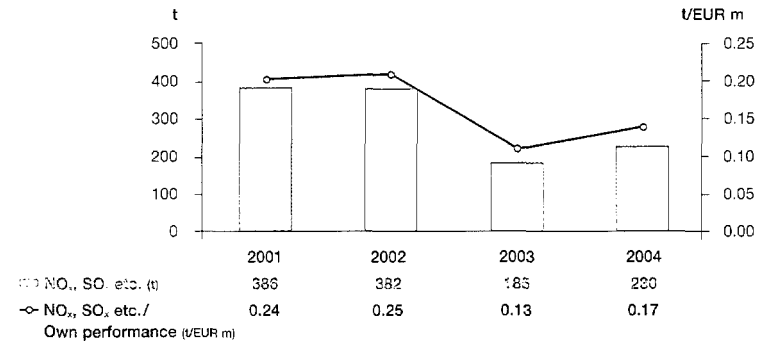
It should be mentioned that the new galvanising plant installed in Weiz in 2003, which has a closed cycle and recycling capacity, made a major contribution to a reduction in hazardous waste, saving approximately 100,000 l of galvanic fluid.

EN12: Wastewater

Wastewater derives from process water for production plants (including cooling water) and water for hygiene purposes (showers, toilets). The volume of wastewater fell by approximately 6% in 2004.

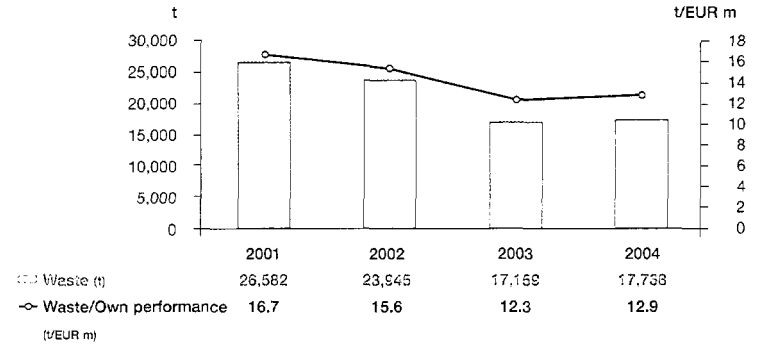
OZONE-DEGRADING EMISSIONS		2004	2003
Total in CFC_{11} equivalents	**t**	**0.18**	**0.18**

EN10: OTHER SIGNIFICANT ATMOSPHERIC EMISSIONS



OTHER ATMOSPHERIC EMISSIONS		2004	2003	2002
Total	**t**	**230**	**185**	**382**
NO_x	t	22	23	34
SO_2	t	11	11	13
Dust	t	147	110	310
Others, e.g. HC contaminated vapour	t	50	40	24

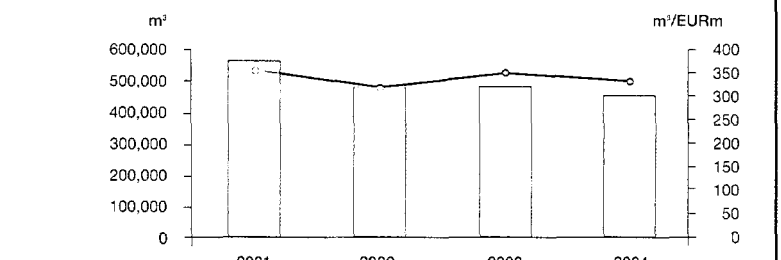
EN11: TOTAL WASTE



RECYCLING		2004	2003	2002
Total	**t**	**11,878**	**10,976**	**14,622**
Steel	t	6,715	6,295	7,330
Copper and aluminium	t	924	930	2,458
Other metals	t	714	416	372
Plastics (hydrocarbons)	t	152	149	130
Paper	t	1,110	1,062	1,445
Wood	t	1,905	1,584	2,549
Glass	t	19	18	18
Others	t	339	522	320

WASTE		2004	2003	2002
Total	**t**	**5,890**	**6,183**	**9,323**
Industrial waste	t	3,318	3,652	8,045
Hazardous waste	t	422	668	1,029
Other waste	t	2,150	1,862	249

EN 12: WASTEWATER



	2001	2002	2003	2004
Wastewater (m³)	571,165	486,106	487,352	459,936
Wastewater/Own performance (m³/EURm)	359.3	316.8	350.0	334.8

SOIL EMISSIONS		2004	2003	2002
Total	t	0	34	63

EN13: Soil emissions
As the result of the installation of a new collecting basin, the controlled and officially approved emission of emulsion water into the soil at one location during turbine production ceased during 2004. An authorised specialist company now disposes the emulsion water.

PRODUCTS AND SERVICES

EN14: Product influence on the environment
Our business, which involves the production and servicing of products and systems for the generation of electricity in hydro and thermal power plants, power transmission and distribution, water treatment and steel production, has an effect on both people and the environment.

We make constant efforts to continually reduce the impact on the environment through the careful use of natural resources, as well as sustainable products and services. Indeed, wherever technically and economically justifiable and compatible with customer needs, we give preference to environment-friendly technologies, processes and products. This is ensured by means of optimum design and using environmental life cycle assessments, which are intended to achieve an ongoing minimisation of environmental impact.

EN15: Share of reusable products
VA TECH supplies products with a very high level of sustainability, which partially have a service life of 50 years and more. Almost 90% of our products can be recycled and reused.

LEGAL CONFORMITY

Adherence to all applicable environmental statutes represents an absolute VA TECH priority. This fact is documented by company environmental policy.

EN16: Penalties
During 2004, one accident of environmental significance was reported. During a traffic accident en route to a construction site, approximately 300 l of diesel fuel escaped from a truck into the soil. As a result of immediate measures such as the use of oil binders and barriers, the detrimental effects on the environment were kept to a minimum. A specialist company removed the contaminated soil and the accident site was restored, as confirmed by measurements by independent bodies. We are unaware of other cases where penalties were incurred for breaches of statutory regulations.

TRANSPORT

EN 34: Means of transport
Multi-modal transport is employed in the majority of VA TECH projects, i.e. several means of transport are used to carry freight. All in all, this gives the following transport distribution (this data was not determined in 2001 and 2002):

TRANSPORT	2004	2003
Ocean-going vessels	35%	37%
Railways	28%	27%
Trucks	26%	23%
Inland waterway vessels	10%	12%
Aircraft	1%	1%

GENERAL

EN35: Environment-related investments
Examples of environmental programmes and investments are contained in this report on pages 80 and 81. The share of environment-related investments remained at the level of the preceding year at an estimated 0.5% of sales.

For me, energy efficiency is constituted by an optimum in- and output ratio achieved through the addition of intelligence.

Kurt Guwak
CEO
VA TECH Management Services

Promoting development potential

Under the project name "Chance", measures in recent years were aimed at creating a shared identity and a solid platform for the creation of productive teamwork.

The basis and starting point for the formulation of targets was a global employee survey carried out in 2001. The results clearly showed the needs of the workforce. The upheavals of recent years caused by acquisitions, joint ventures, divestments and restructuring brought about profound changes in personnel structures and thus created uncertainties with regard to values and objectives. In 2002, the VA TECH Managing Board and 400 leading managers formulated a joint vision as a launching pad for the following measures.

Group integration through the VA TECH Chance programme

Under the process management of the Chance steering committee, numerous supportive measures were established such as Group workshops, Managing Board coaching and the Leadership Programme. The measures contained in the latter were targeted on 500 managers around the world with the aim of improving individual managerial performance and developing a new leadership understanding. The targets were visualised in the Leadership Competence Wheel. Thus far, the Chance process initiated in 2001 has brought a marked improvement in teamwork and Group integration. In 2004, with its Chance project VA TECH was honoured as one of Austria's most innovative companies by the Confederation of Austrian Industry within the framework of the project, "Accent for the Future – the Innovation Offensive".

"The Chance project has markedly enhanced Group integration, which means greater organisational energy and efficiency."

Wolfgang Schwaiger, VA TECH Communications and Investor Relations

SOCIAL ISSUES

VAIπ Leadership Feedback 360°

Irrespective of the form, for their further development people require feedback from all those they work with. In the case of VAIπ Leadership Feedback 360°, the individual perceptions of colleagues and subordinates (feedback provider group) are given to the assessed persons (feedback recipient group), which in this case consisted of 85% of VAI managers from various specialist areas within all the major Group companies. This instrument is intended to furnish the so-called focus persons with qualitative and quantitative statements in confidential form with which to sharpen up their self-assessment, enhance their strengths and recognise their potential. The anonymous evaluation was completed by means of on-line questionnaires, which were sent to the feedback provider group. The estimation took place in line with the three perspectives of self-estimation, colleagues and subordinates. The project launch was preceded by a meeting in which the participants (feedback provider group and focus persons) were informed about the sense, purpose, sequence and use of the 360° feedback. Evaluation took place via an external company. Specific improvement potential regarding the managerial behaviour of the respective manager was prepared and a guideline for interpretation discussed. In the subsequent VAI Benefit Outlook, which took place at regular intervals, employees reported about their project experiences at a short workshop. The VAIπ Leadership Feedback 360° is basically foreseen for the entire VA TECH Group and additional pilot projects are under way at VA TECH HYDRO.

VAIπ Leadership Feedback 360°

Assessment areas:

- Intercultural competence
- Social competence
- Personal competence
- Entrepreneurial competence
- Managerial competence
- Specialist competence

The VA TECH mission statement establishes that, "It is our employees make these things happen on the basis of trust, fairness and integrity. We encourage creativity, diversity and personal development." The manner in which this mission is put into practice is described in the following interview with Kurt Guwak.

Interview with
Kurt Guwak
CEO, VA TECH Management Services

For me, energy efficiency is constituted by an optimum in- and output ratio achieved through the addition of intelligence.

Visions from practical personnel management

What is the significance of the promotion of creativity, variety and personnel development for everyday personal management?

Guwak: Visions represent guiding stars and not cookery recipes. However, guiding stars are found in the heavens and whether or not they can actually play a role in everyday, earthly situations is a justified question. Nonetheless, I do believe that visions can furnish us with intelligent orientation aids and although it is vital that they do not take us too far away from reality, they must continually be recalled within the scope of our consciousness. This is because insights alone change nothing, only repeated insights.

Is the VA TECH Vision an intelligent orientation aid?

Guwak: Yes, because it was largely originated from within the company. Therefore, it actually mirrors something of our values, expectations and even our dreams. It has to do with us and our reality and cannot be exchanged at will. The values that are mentioned here communicate a certain human image. This image shapes VA TECH culture and differs from those at some other companies.

How can this difference be recognised?

Guwak: For example, there are large areas of personal freedom within the company. Individual responsibility is taken seriously. On this basis, a strong climate of trust and a high degree of willingness to co-operate prevails in many areas. Lobbies or groupings, whether they be of a political, national or other nature, do not divide us internally.

What does this mean in concrete terms for the focal points that you establish in personnel management?

Guwak: For us it is clear that first and foremost, each employee is responsible for their own further development and training. The Group companies and, above all, the respective managers provide support in this connection, offer possibilities and show perspectives. However, we do not assume the personal duties of others. On the contrary, we encourage everyone to assume their own responsibilities.
It is in this spirit that we offer training possibilities and our employee discussions are built on a dialogue between partners. Accordingly, we try to develop career models and perspectives in companies, which should help employees to assess their further development steps and participate in the related decisions. We do not wish to direct our employees, but to assist them with their personal development.

What role do variety and internationality play in this connection?

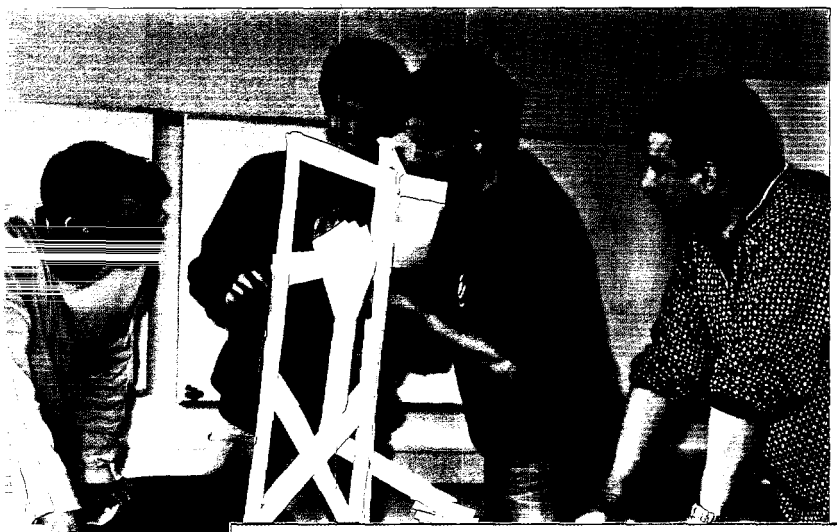
Guwak: The international dimension is an extremely important factor. On the one hand, it is important to approach differing traditions and cultures with esteem and respectful inquisitiveness, and on the other to develop a clear VA TECH "signature". We can only succeed in this regard if we have clear objectives and values in the background and on this basis communicate and co-operate intensively across various cultural boundaries. Here, we already on a highly promising path, but there is still much to do!

Successful participation

"ESP is one of the most energy-rich and efficient integration instruments in the VA TECH Group."

Lorenz Held,
VA TECH Human Resources

Employee Share Programme (ESP)
As established in the VA TECH mission statement and anchored in the Balanced Scorecard, it is the Group workforce that makes a major contribution to corporate success. Following the successful acceptance of the "Chance share", a new ESP was launched in 2004 with the aim of turning employees into "joint owners" and allowing them to participate in sustained Group success as shareholders. In addition, ESP was also intended to support the development of a new success-oriented Group identity and culture. Over 3,400 employees (29% worldwide) took advantage of the scheme and invested in VA TECH. Moreover, as a result of the shift away from general bonuses to share-based employee remuneration, workforce participation rose by a further EUR 4 million. This meant that all in all around 4% of share capital is in the hands of Group personnel.



Value-oriented management remuneration
The VA TECH mission statement contains a clear declaration of intent with regard to value creation. Therefore, in order that the aim of sustained value increases in the Group is supported in an optimum manner, since 2001 the VA TECH top management has been subject to a value-oriented management and salary scheme based on economic value added (EVA®). The objective is to create a clear focus on value added and to involve as many employees as possible in the related development process.

Welcome on board
A future-oriented, expertise-based training constitutes a solid platform for a successful professional career. VA TECH numbers among those companies that offer young people an opportunity to receive such specialist tutelage and therefore, the communication of superordinated branch issues is the target of measures related to training and further training.
In order to assist new employees during integration into the Group, the "Welcome on board" introductory event was introduced, which is organised by the Human Resources department several times yearly. The aim is to establish know-how transfer and social networking between new employees and to enable them to get to know the Group's various products.
This year's apprentice exchange between VA TECH HYDRO Weiz and Ravensburg was among the main features of the Group's much-praised educational programme. This contains a successful combination of attractive apprentice employment and additional, specifically company-related training. Plant visits provide an interesting insight into working methods and production technologies. During a training week in Kriens, topics such as apprenticeship contracts, work safety and teamwork, etc. were examined under the guidance of two trainers. In addition, a company day gave the trainees in the first apprenticeship year an introduction to customer-supplier relationships.
In the course of a stay at a mountain hut, the introductory seminars for new trainees were held. These involved the provision of information concerning companies and their products in the course of working group activities. Managers from the companies presented were on hand to answer the critical questions of the youngsters during interesting discussions.

An interview with Anton Beneder concerning the focal points of his activities, the challenges of the year under review and corporate responsibilities with regard to sustainable development.

Interview with
Anton Beneder
Chairman of the VA TECH Group Works Council

For me, energy efficiency means as little "reactive power" as possible.

The challenges of development for a secure future

What were the focal points of your activities during the period under review?

Beneder: Basically, there were three main areas in which the competence of the Works Council was in special demand. The first of these involved the implementation of an employee participation model, which was launched successfully at both national and international level.
A second major task was the support of Group integration. The Group has come closer together, which means that the things we have in common have become part of daily life. In concrete terms, this involved the definition of a shared framework in the form of Group codes of behaviour.
Thirdly, the European Works Council Forum has developed in a highly positive manner, evolving from an information platform into a working team. For the Group, this means that in the search for solutions, dialogue must always take priority over confrontation.

During the year under review, VA TECH was confronted by major challenges. How do you see the situation from the perspective of the Works Council?

Beneder: Considerable restructuring was completed during 2004 and was accompanied in its entirety by the European Works Council Forum. Such support ensured that employees at the affected locations were able to introduce measures and make suggestions.
The Works Council was especially challenged by the Siemens Group presentation of a takeover bid. Our main task was to pick up on employee fears and to work on their solution. It is entirely understandable that the workforce is concerned when in the case of a takeover there are overlaps in the majority of business areas. A merger in such areas leads to problem areas and in this situation, it is the task of the Works Council to find opportunities and possibilities for a development that will offer a secure future.

What does sustainable development mean for you as an employee representative?

Beneder: Naturally, we are answerable to the employees and their families. In addition, it is part of the nature of international plant building that responsibility does not cease at the plant gates, but extends along the supplier chain, to the providers of financial services and beyond to other service areas. Accordingly, we not only bear a responsibility for the Group's personnel, but also for the economic location, as well as the more than 8,000 supplier companies in Austria and the cities and communities in which we are active. This is our understanding of active corporate and social responsibility.

How is the future set to shape up?

Beneder: Every development offers an opportunity. We, as the Group workforce, are aware of our strengths and the customers trust us. As long as this is the case, then we know that our performance is suited to the market and that we are on the right track.

India offers a colourful mosaic comprised of divergent landscapes, varied vegetation and the multifaceted traditions of daily life. Klaus Stefanc gives his impressions of the country.

Interview with
Klaus Stefanc

Spokesman of the VAI Engineering & Automation Advisory Committee, Kolkata/India

For me, energy and efficiency means achieving a target with a minimum of expended effort.

Multicultural experiences

What are the challenges to a European inherent in working in a country like India?

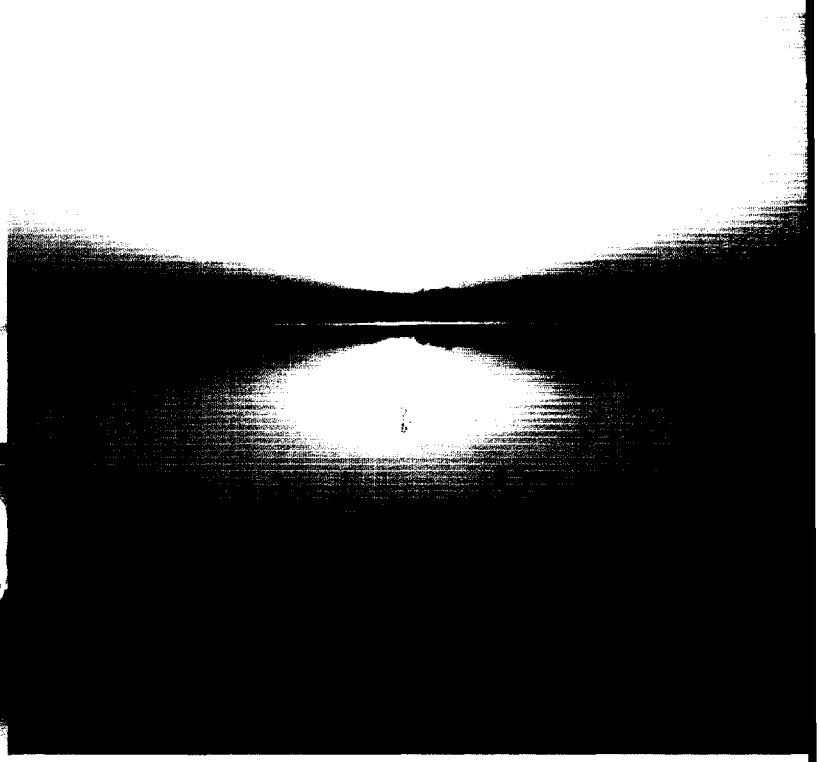
Stefanc: It is frequently pointed out that India is far more a sub-continent than a country. This is due to the variety of lifestyles and religions that it encapsulates, although in the course of globalisation this diversity has lost some of its acuity. Nonetheless, in daily life and the world of work there are still innumerable hints that religion, philosophy, ancient texts, traditional habits and the family possess a very high status. In my opinion, anyone deciding to spend some time working in India must possess a large and genuine interest and understanding for these aspects of the nation's culture. For those who are open to such influences, a stay in this country will not only prove to be interesting and pleasant, but also profitable from a working perspective.

Naturally, since my first visit to India in 1983, globalisation has induced many changes. For example, apart from traditional Indian cooking, one can now enjoy international cuisine. This merger of differing cultures is reflected by the choice of foods available. The supermarkets in the big cities are well stocked and there is virtually nothing in the areas of food, health products or clothing that a European would find lacking.

How does the Group support its employees in other countries?

Stefanc: When an employee decides to work at a VA TECH location in India, virtually complete preparations are made in advance. Comprehensive assistance is given with regard to everything from accommodation to transport and naturally the

KEY DATA CONCERNING THE KOLKATA LOCATION	
Division	VOEST-ALPINE Industrieanlagenbau (VAI)
Divisional company	VAI Engineering & Automation
Employees	75
Profile	• Base for the marketing and sales of all VAI companies in India. • Know-how in the areas of automation, project development and completion with regard to the casting, rolling and further processing of steel. • Offload engineering in the automation and controlling sectors. • Support during plant start-ups by VAI Engineering & Automation specialists.



colleagues on the spot all do their best to help. In addition, there is also an attractive remuneration package. Medical checks are completed both before and after the posting and all the necessary inoculations and an individually composed package of the most important medicines are provided. Regular security checks are completed locally and the results sent to Group headquarters per e-mail. For example, special emergency plans were prepared in the wake of 9/11.

Is the co-operation with suppliers in India subject to particular rules?

Stefanc: There are no regulations in India that differ from those applying to all other VA TECH locations. In general, all business partners and suppliers are experienced in dealing with international companies and are therefore used to their standards. Long-term business relationships exist with many of these partners and both sides know what is mutually expected. I believe that this extended and successful teamwork represents an important criterion for follow-up orders among the suppliers.

To what standards is the co-operation with Indian sub-suppliers subject?

Stefanc: The range is extensive. Particular care is taken during partner selection and over the years a solid stock of reliable suppliers has been created. For us, the cornerstones in this regard are production surveillance and adherence to delivery dates, areas in which no compromises can be made.

How is the maintenance of VA TECH's high standards in the area of working conditions monitored?

Stefanc: VAI Engineering & Automation in Kolkata received ISO 9001: 2000 accreditation in 1994 and regular internal audits ensure adherence to both international norms and VAI quality standards.

How does the Group respond should these regulations be breached?

Stefanc: The company is headed by a management board and is subject to its control. This body meets on a quarterly basis, which allows the initiation of immediate countermeasures in the case of serious lapses. The measures involved could involve changes of organisational structure, the transfer of responsibilities, or a search for support within the Group.

Does the VA TECH support social initiatives in India?

Stefanc: VA TECH offers assistance in certain cases. For example, VAI Engineering & Automation (VAI E&A) made donations during the flood disaster in Eastern India in 2002. In addition, local schools are supported with funding.

Safety first

The provision of information and the heightening of awareness levels constitute a major aspect of work safety measures within the framework of the Group's risk management strategy. Apart from communications, co-ordination and control are the main elements in VA TECH's safety management system.

Basic
HEALTH AND SAFETY RULES

sustainable solutions, for a better life.
www.vatech.at

Objectives of "Basic rules for health and safety":

- Safe completion of all working procedures
- Accident prevention
- No endangering of persons
- No damage to plants
- Prevention of environmental pollution

Information creates awareness

The aim of the "Basic rules for health and safety", which have been issued in a brochure in six languages and are valid for the entire Group, is to promote a culture of safety through comprehensive communications activities. The minimum standards for safe, environment-oriented working contained in this document, which have been validated by a Group directive, apply to the personnel at all VA TECH locations and construction sites, as well as to sub-supplier staff. The safety manual is supplemented by operational regulations, instruction documents, specific construction site safety plans, safety passes and the mandatory instructions and training.

The fact that the thematisation of safety is a central factor in a reduction in working accidents is evidenced by VAI's successful balance. In the period from 2000-2003, the hours lost due to accidents were cut by 85% as a result of measures relating to schooling and the raising of safety awareness.

The challenge of major construction sites

Ever-shorter throughput times and hence shrinking construction periods demand a special focus on project safety co-ordination. Functional safety management for the protection of all those on site is therefore a prerequisite. Information, training, supervision and the creation of safety consciousness are the central factors in this regard.

Safety and danger handling hierarchy

- Risk prevention through design.
- Combating of dangers at source.
- Protection of all persons in the vicinity.
- Personal protection equipment.

The starting-point for all measures is a Group-wide safety policy. The central safety and health plan combines the individual items of information relating to a project. Moreover, central values concerning co-ordination and co-operation are accounted for by the communication of potential dangers, safety measures and rules of behaviour. Alarm exercises and reporting system for accidents and near misses support the checking of the efficiency of existing safety measures and if required, their adaptation. Regular safety audits, inspections and periodic safety discussions evaluate the implementation of the safety planning. The results furnish a platform for an assessment and alignment of individual elements by the management review.

The editorial staff of the Group-wide safety manual:

Johannes Bube Prize 2004

As a result of the exemplary work safety scheme used during the building of the Goldisthal (Germany) pumped storage power plant, the Vattenfall Europe Generation site was awarded the 2004 Johannes Bube Prize. This recognition honours the advances made since 2000 with regard to innovative, model solutions for the safety-oriented and danger-free design of workplaces, technologies and products. VA TECH HYDRO played an active and successful role in both the construction

VA TECH relies on high safety standards around the world and not only with respect to its own employees, as suppliers and partners are also integrated into this comprehensive system. Anton Lindmayer provides an insight into related organisation, realisation and individual projects.

Interview with
Anton Lindmayer
Quality manager and safety manager, VAI

For me, energy and efficiency means having the performance capability and endurance to realise an objective with economy and success.

Work safety is a human obligation and makes economic sense

What priority does the topic of work safety occupy within the VA TECH Group?

Lindmayer: For VA TECH, health and safety are important, strategic success factors. The number one priority is to raise job satisfaction and work quality levels in a sustained manner through ongoing improvements in the work and health protection systems. We prevent accidents and economic damage by means of the systematic implementation of safety management, which we see as a precept for financial reason and a human obligation.

What work safety projects were completed during the period under review and which individual, concrete objectives were pursued?

Lindmayer: One important project was the preparation and issue of the VA TECH "Basic rules for health and safety". These address every VA TECH employee and our contractual partners. The start of a training programme for all construction site managers played a major role in this connection within VAI. The main emphasis lay on the communication of basic know-how on the topics of safety, health and employee safety regulations.

What are the major challenges posed by safety management, particularly on large construction sites?

Lindmayer: The implementation of mandatory stipulations, as well as the "simple and easy" preparation of contractual obligations is a massive task. One cornerstone of our safety management is organisation, based on the interplay between managers, occupational physicians, safety specialists and safety officers. Regular information ensures that all those involved are integrated into current developments. First class safety management is also based on successful realisation, which incorporates the provision of project and tion and auditing, as well as the maintenance of accident statistics with related measures.

Which awards has VA TECH received for safety management projects?

Lindmayer: VAI construction operations have been accredited according to the SCC safety standard and the VA TECH combined cycle pursuant to the OHSAS 18001 safety norm. We have received numerous awards from our customers for our successful safety and health policy. For example, the customer Vattenfall, presented us with a letter of recognition for outstanding performance in the area of health, work and fire protection during the Goldisthal pumped storage power station project.

What measures are taken to ensure that safety rules are adhered to in the workplace and on construction sites?

Lindmayer: The determination of accident frequency (accident statistics) makes improvement potential immediately apparent. Another instrument is the evaluation and determination of protective measures in the workplace and on construction sites. We enhance a sense of responsibility and sharpen awareness with regard to "safe working" through instructions and training.

Safety in the workplace is subject to differing regulations in the various countries in which VA TECH is active. Are there self-imposed minimum standards, which must be observed?

Lindmayer: Workplace safety rules apply in all the countries where we are active. Our self-imposed, minimum standards are constituted by the VA TECH "Basic rules for health and safety". Among other factors, the observance of these ground rules constitutes a guarantee that dangers are recognised in time and that the appropriate countermeasures are

Ideas and innovations for the future

The steady increase in competition makes the ongoing update of technologies, products and services a prerequisite for corporate success. Within VA TECH, innovation has a clear focus on the provision of solutions for future-oriented development and the restriction of environmental impact to a minimum.

Innovation demands the best brains available. The challenge is to create a suitable environment for this purpose. The promotion of new developments is therefore the aim of the annual "Leonardo" innovation competition.
This year also saw the issue of an invitation to all VA TECH Group employees to submit their ideas for a company equipped for the future and a total of 27 project teams participated in the competition. The respective company idea managers completed the collation and processing of the proposals within the framework of idea management.

The selection procedure was completed by members of the VA TECH Managing Board, as well as external experts, who this year were supported by Friedrich Schneider (University of Linz), Gabriele Zuna-Kratky (Vienna Museum of Technology), Franz G. Rammersdorfer (University of Vienna) and Klaus Zeman (University of Linz).

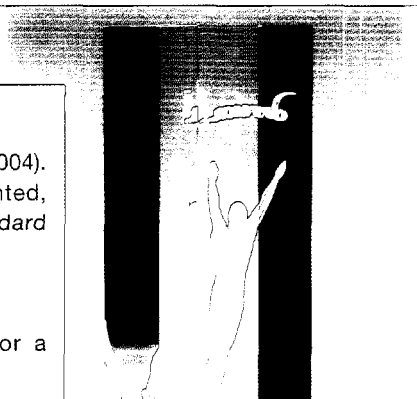
Following the assessment procedure, the winners were presented with their awards by the VA TECH Chairman, Klaus Sernetz, during the Leonardo Night at the Linz Ars Electronica Center.

Successful development

This year the Leonardo competition was held for the eighth time in the three main categories "Technological Innovation", "Innovative Services" and "Internal Improvements". Special prizes were awarded to the winners in the four special categories, "Visionary Ideas", "E-solutions", "Smart & Simple" and "Sustainable Solutions". Prizes were presented for both visionary ideas, the realisation of which offer far-reaching, entrepreneurial possibilities, as well as suggestions that impress due their originality and simplicity (Smart & Simple) and concepts that bring competitive advantages in the e-business segment. A prize for sustainable solutions with regard to energy efficiency, emission reductions, life cycle or social commitment was also awarded.

"Leonardo" highlights since 1997

- More than 600 entries with 75 prize winners (1997-2004).
- 62% of ideas have been successfully implemented, utilised or marketed, which as compared to standard idea management quotas is an excellent figure.
- 50% of ideas have led to in-house savings.
- 56% of ideas have been employed in orders.
- Patents have been registered and allocated for a whole range of prize-winning "Leonardo" ideas.

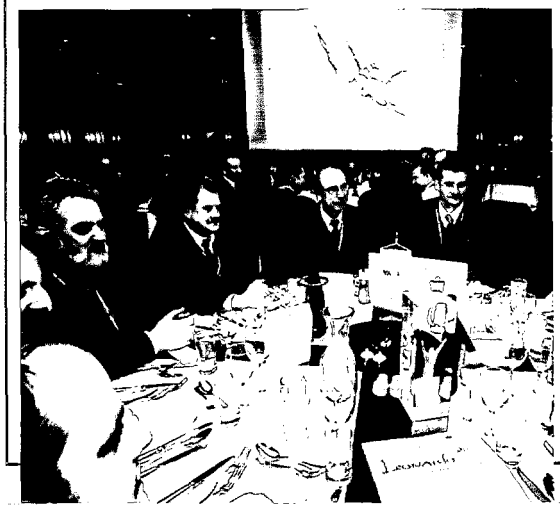


"The Midel Transformer" project submitted by VA TECH EBG Transformer and the "Gimbal Dynamic Coal Distribution System" project from Metallurgy VAI UK, were awarded special prizes in the "Sustainable Solutions" category.

The Midel Transformer

The minimisation of the risks related to environmental impact is playing an increasingly significant role in the transformer market. For example, up to now, transformers have been filled with mineral oil and to avoid this environmental hazard, in recent years new insulation liquids such as Midel have been developed as an alternative. Midel is an entirely biodegradable, ester-based insulation fluid. A further positive environmental characteristic is that possesses a flash point at 275°C, which is twice as high as that of mineral oil. In addition, as compared to mineral oil or resin, Midel has decisive ecological advantages with regard to service life and disposal.

VA TECH EBG transformers (TF) can be regarded as leading the way in the fields of safety, environmental compatibility and innovation and the company has now succeeded in producing the world's first high-voltage, high-capacity transformer to be based on this new type of insulation fluid. In line with "sustainable solutions. for a better life." VA TECH EBG transformers constitute an important contribution to VA TECH corporate strategy.



"Gimbal Dynamic Coal Distribution System"

"Gimbal" is a material distributing device, consisting of a small mechanical unit, which uses fall height and material speed in order to achieve defined material distribution in blast furnaces and COREX®, FINEX® and MIDREX metallurgical reactors. The most important feature of this innovation is the fact that coal (COREX® and FINEX®), burden (blast furnace) or oxides (COREX® and MIDREX) can be fed into reactors in predetermined amounts and then distributed. The resulting customer advantage relates to low coke and coal consumption, as well as production cost savings of 5-10% at prices of around EUR 100-150 per tonne of hot metal. The benefits for VA TECH derive from improved products (blast furnace, COREX®, FINEX® and MIDREX) and a lower-cost, alternative distribution system for blast furnaces.

With a service life of 10-20 years, the Dynamic Coal Distribution System offers sustainable raw material savings and lower emissions. At present, the system is undergoing plant trials at the lead customer, Saldanha Steel.

Deadly flood

It is Sunday, December 26, 2004, Boxing Day, as south-east Asia is hit by a natural disaster of unimaginable proportions. The completely unexpected tsunamis, which were not reported (in time) by any observation station, broke over Indonesia, Sri Lanka, Thailand and parts of India.

Whilst during the following days some parts of the world gradually received information concerning the dimensions of the flood waves, in the immediately affected areas it was already gruesomely clear by the late morning of December 26 that there were hundreds of thousands of victims, families would be torn apart forever, many thousands of people were missing and a large number of tourists would not be returning to their homelands.
As a global player with around 17,000 employees, the VA TECH has private or business connections to all the nations involved. Such an emergency obliges us to a still greater awareness with regard to questions of sustainability and our responsibilities and this is the reason why rapid gestures of solidarity were soon forthcoming.

Klaus Rinnerberger, a member of the VA TECH T&D Managing Board, presents a donation to the Tsunami Relief Mission in Banda Aceh/Indonesia.

Donation of a water treatment plant worth EUR 100,000
This plant, the delivery and installation of which was co-ordinated via VA TECH WABAG in Austria and India, can supply around 10,000 people. The precise area of use for the plant will be defined with the rescue services on the spot.

VA TECH Group fund-raiser
In a joint fund-raiser between the Managing Board and the Group Works Council, donations were collected for the support of the tsunami victims. All in all, some EUR 16,000 were contributed by the VA TECH workforce, a sum that was then doubled by the Managing Board as a sign of its unlimited solidarity with those affected by the flood. The money will be employed in conjunction with the aid organisations active in the disaster region for the reconstruction of a destroyed village.

EUR 50,000 donation to the aid organisations in Banda Aceh
The Managing Board and the Divisions have donated EUR 50,000 to the Tsunami Relief Mission in Banda Aceh, the hardest hit region in Indonesia. This money has already been used to support the purchase of three fishing boats and other boats and goods are to follow.

Life is precious and "Médicins sans Frontières" seeks to save it the world over

VA TECH has been acting as a partner to the aid organisation "Médicins sans Frontières" since 1996. At present, the company is sponsoring an HIV/Aids project for mothers and children in the Ukrainian cities of Odessa, Mikolayiv and Simferopela, where the rate of new HIV infections is the highest in the country. The focus of AIDS help in the Ukraine is on mother and child treatment.

Following the end of the Soviet Union, the health system in the Ukraine collapsed almost entirely. Today, many hospitals still do not possess sufficient quantities of medicaments and medical equipment. Above all, the number of HIV infections has risen dramatically and at present totals between 300,000 and 400,000, which represents over 1% of the entire population. Moreover, from the port of Odessa, the HIV virus has spread rapidly via the ocean route.

In order to halt the further spread of this deadly epidemic, the activities of "Médicins sans Frontières" are not only focused on the treatment and support of those infected with HIV and AIDS sufferers, but first and foremost, the prevention of AIDS among the Ukrainian population as a whole.

Targeted measures should cut infection rates

In the obstetrics wards, the organisation's doctors and helpers are attempting to stop the transfer of the virus from mothers to their children during birth. To this end, shortly before delivery, the mother receives the medicament Nevirapin, which is also administered to the baby immediately after birth. In addition, as many Caesarean sections are carried out as possible, as this measure also reduces the danger of transmission to a considerable degree. In April 2000, the anti-retroviral (ARV) treatment of babies born with the infection commenced. This therapy allows the affected children a considerably longer life of vastly improved quality.

Initial signs of success

In the meantime, the transmission rate has been cut from 30% to 13% and the ARV method has saved almost two-thirds of the babies from infection. Moreover, the Ukrainian health authorities have now recognised HIV/AIDS as an epidemic and attempts are being made to achieve the greatest progress possible with the means available. As a result of the concentration on sustainable projects, the globally active VA TECH constitutes a stable and calculable support for aid organisations and with its yearly donations secures the continuation of their support work.

ÄRZTE OHNE GRENZEN

The organisation "Médicins sans Frontières", which received the Nobel Peace Prize in 1999, is widely known as an organisation that provides rapid aid. The organisation creates sustainable medical structures in needy areas and thus provides the local populations with long-term opportunities to overcome their health problems.

Creating room for development

A belief in the power of innovation, investments in advanced technologies and an active policy of sustainability represent major influences on VA TECH's way forward.
For us, the acceptance of social responsibility means the recognition of needs and the provision of room for the development of potential.

„i2b" – the business plan competition
By means of the promotion of innovative ideas for future-oriented solutions and the motivation to assume personal responsibility, VA TECH underlines its corporate multiplicity in a number of ways. In order to support venture founders and young businesspersons during the formulation of their business plans, the "i2b" (ideas to business) competition was launched at the initiative of VA TECH in co-operation with the Austrian Chamber of Commerce.
The aim of "i2b" is to create a network which brings together ideas, people, companies and capital. Every participant receives an opportunity to gradual develop his or her idea into a practical business plan with the support of an experienced coach. During the entire competition, venture, financial, ilegal and innovation experts are all available with their know-how in an advisory capacity and to provide professional feedback.
The business plan competition takes place in three phases, each of which is concluded by a large prize-giving event during which the best concepts submitted are given awards. The best business plans receive a total of EUR 54,000. In the period up to June 2005, "i2b" will be offering a 28 coaching events for all persons interested in founding a company.

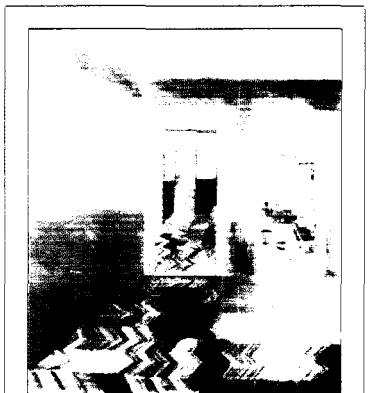
VA TECH.art.net.work.
During 2004, VA TECH completed the art.net.work. project for the third time, supporting students at the Vienna Academy of Fine Arts in order to promote talent on a correct and, above all, long-term basis.

The impetus for these activities derived from the initial Group Workshop in 2001, which had the aim of encouraging artists to produce an artwork within the course of a single day. In co-operation with Prof. Gunter Damisch, this project has now been extended to last for two to three years and presents changing, half-yearly exhibitions of works by international students and graduates, which are free of any artistic limitations.

In order to offer the objects sufficient space, the students can exhibit their work in the foyer and corridors of the eighth floor of the VA TECH headquarters building in the Penzinger Strasse in Vienna. Eight to ten works are exhibited simultaneously.

The value of life in Schloss Hartheim
VA TECH also shows its sense of social responsibility through its support of the home for the mentally handicapped in Schloss Hartheim.

A gallery makes the artistic work of the residents accessible to the general public and as a place of learning and remembrance, within the scope of the exhibition project, "The value of life", Schloss Hartheim points out the problems regarding the acceptance of handicapped persons in society from the Industrial Revolution up to the present.



Insights into the VA TECH Group

The VA TECH Group is involved in youth support activities through a variety of projects and events. As a global, industrial player, VA TECH has a targeted focus on the implementation of integrated concepts and the professional furtherance of the coming generations.

Daughters' Day
During a Daughters' Day held at VA TECH HYDRO in Kriens, Switzerland, a large number of girls took the opportunity to spend a day at work with their parents and thus learn about their jobs at first hand. They were also able to meet their parents' colleagues in the course of a guided tour of the company's various departments. A VA TECH HYDRO game was created especially for this occasion, with the intention of showing the youngsters the idea of teamwork. The girls ended their "working day" with a joint lunch.

A sniff of technical air
Various initiatives are currently running in Switzerland, which are aimed at raising the numbers of women working in the technical professions. In the course of a project at the Luzern University of Technology and Architecture (HTA), girls from secondary schools had the chance to sample some business atmosphere at the VA TECH HYDRO location in Kriens. Apart from information about company products and services, the "technofreaks" were shown a robot in operation. Moreover, well equipped with eye protection, they were also able to see how a turbine is designed and the subsequent production of the individual components on an NC controlled milling centre. Last, but not least, they witnessed the "modelling" of Pelton turbine impellers using a welding robot.

Careers Day 2004
VA TECH was represented at the 2004 Careers Day at the Johannes Kepler University in Linz with an information stand, which proved to be a meeting-point for individual discussions throughout the day. VA TECH also provided a more detailed presentation of its activities in the course of a workshop. The Careers Day was organised by the Union of Students in Linz and Salzburg, the Kepler Society, Linz University and the services company, MLP Private Finance. The students responded with great interest to the initial, joint presentation of the participating companies and took the chance to gather information about the job opportunities on offer. VA TECH also made presentations at similar events held at the Vienna University of Technology, the Vienna University of Economics and the Leoben University of Mining.

"Brains Trust" project
The Works Council and the head of the VA TECH Kindergarten in the Cumberlandstrasse in the 14th district of Vienna joined forces in the course of the "Brains Trust" project to organise a trip to the parents' workplace at the Penzing location. The sight of impressive circuit and assembly drawings made a strong impression on the children and Roland Scharb, the Deputy Chairman of the Board until the end of June 2004, used turbine, generator and transformer models to explain to the little ones how electricity comes out of the socket in the wall.

An inter-cultural exchange among the young

A further aspect of VA TECH's corporate-citizenship programme is formed by the support of the United World Youth Council (UWYC) at Radley College in Oxfordshire, UK. The UWYC, which is organised by the British Fontainbleau Youth Foundation, is an interactive dialogue programme for young people aged 17-21 from all over the world. It promotes mutual understanding, respect and tolerance among the participants, who learn about the socio-economic and political situation of others and receive an insight into their rights and obligations.

Key figures & interpretations

In order to guarantee clarity, the various indicators for social performance were categorised according to GRI *guidelines (Global Reporting Initiative)*.

EMPLOYMENT

LA1: Employment Structure
At the end of 2004, the VA TECH Group employed a workforce of 16,562, 55% of whom work in jobs using flexitime. The majority of these posts are organised on a sliding time basis, the employee largely deciding when to start and end work. As in most technology-oriented companies, VA TECH Group employees are predominantly male and not merely at top management level. Indeed, in 2004, men constituted 85% of the workforce, although in the same year, the numbers of women in managerial positions rose further to 7.5% (2003: 6.8%).

Employees by region and country (see table below)
Salaried staff constitute 65% of the workforce, which mirrors the Group's engineering and services orientation.

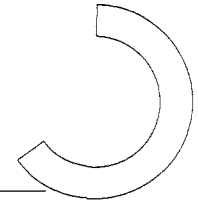
LA2: Fluctuation
The basis for this calculation is provided by employee numbers excluding leasing personnel. In 2004, the fluctuation rate in the VA TECH Group amounted to 7.9% (all persons leaving including retirees, etc.) and a further 2.8% fluctuation derived from restructuring measures. Long-term employees make a significant contribution to company success and particularly in international plant building business, it is important to employ personnel on a prolonged basis and to use their experience. Moreover, the increase in the retirement age in many European countries means that the trend towards longer periods of employment is set to strengthen. 52% of our employees are over 40, almost 25% are older than 50 and 10% are over 55. One half of the work force have been with the company for more than 10 years, 29% for more than 20 years and 11% for more than 30 years.

EMPLOYEES BY REGION	2004	2003	2002
Europe	13,631	14,651	14,964
North America	1,502	1,422	1,342
South America	222	251	294
Asia/Pacific	1,082	1,014	980
Near/Middle East/Africa	125	140	145
EMPLOYEES BY COUNTRY	**2004**	**2003**	**2002**
Austria	45%	45%	44%
France	9%	10%	10%
UK	8%	9%	10%
Germany	6%	7%	8%
Italy	4%	5%	4%
India	4%	3%	3%
USA	4%	4%	3%
Mexico	3%	3%	3%
Czech Republic	3%	3%	3%
Switzerland	3%	3%	2%
Rest of Europe	4%	2%	3%
Others worldwide	7%	6%	7%
TOTAL EMPLOYEES	16,562	17,478	17,725

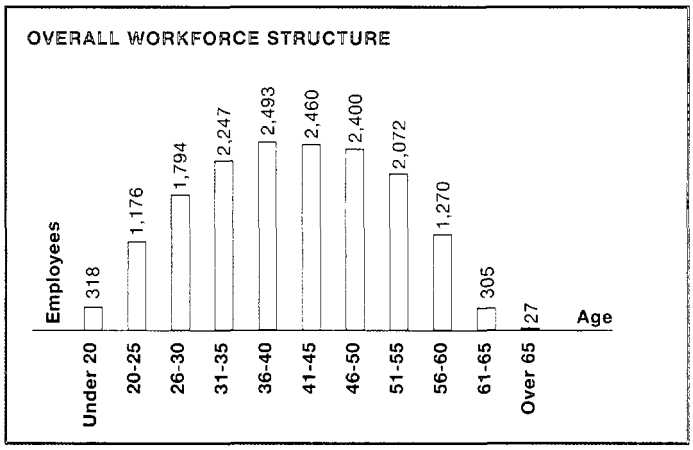
STAFF-MANAGEMENT RELATIONS

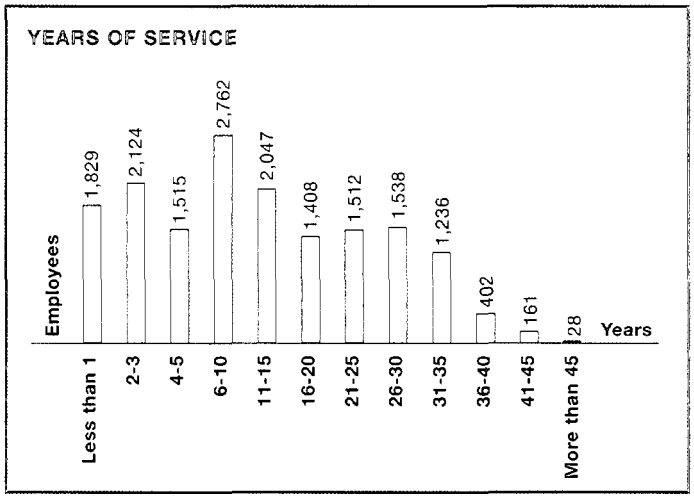
LA3. Institutionalised Employee Participation
Over 90% of employees are represented by Works Councils, or trades unions and around 95% of the workforce are protected with regard to their remuneration by collective wage agreements, tariff or minimum loan legislation. In 2004, interviews were carried out at various locations with 400 employees

BLUE- AND WHITE-COLLAR WORKERS



and managerial staff, which allowed matters of concern to be communicated directly to the management. These road shows also offered a further opportunity for direct communications with the Managing Board. Apart from ongoing supplies of information concerning the Group and its activities, employees receive supplementary news via Hotlines, the employee journal and "VA TECH direct", which offers video interviews via the Intranet consisting of Managing Board statements concerning current topics.





LA4: Information, Consulting and Negotiations with Employees Concerning Change
All the main regulations, e.g. the superordinated company directives of the European Union are adhered to. In line with social partnership within the Group, employee representatives are integrated into the decision-making process.

HEALTH AND SAFETY

LA5: Gathering and Registration of Working Accidents and Sickness Data
The directives of the International Labour Organisation (ILO) are employed for the gathering and registration of data concerning working accidents.

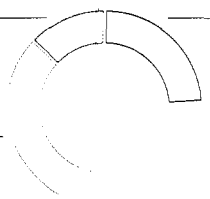
LA6: Health and Safety Committees
Safety standards, which frequently exceed the national norms, have been established for all locations around the world. The standards are publicised at every location and compliance is monitored.

LA7: Working Accident and Sickness
Our goal continues to be accident prevention and the avoidance of damage to health though active work protection and safe working conditions, as well as the use of safety officers. These efforts are reflected in a marked reduction in the time lost due to working accidents. The average number of hours lost per employee has been cut by 54% over 2002 to 2.6 h.

Unfortunately, accidents could not be prevented entirely and in 2004, five VA TECH employees died in occupational accidents. Each case was thoroughly analysed and measures, such as employee training, were immediately implemented.

	2004	Ø PER EMPLOYEE	2003	Ø PER EMPLOYEE	2002	Ø PER EMPLOYEE
Working hours lost due to sickness/accident	600,663	36.3	956,405	54.7	744,450	42
Working hours lost due to accidents in the workplace and en route to work	42,477	2.6	70,162	4	98,551	5.6

QUALIFICATION STRUCTURE



13% Others

24% University and advanced technical college graduates

34% Skilled employees

29% Secondary school graduates (A-levels)

68.5% of our employees possess a technical training.

A crisis task force has been created, which is on permanent alert in order to initiate within hours measures for the protection of our employees in crisis regions (e.g. evacuation) in co-ordination with international safety consultants. As a result, during 2004, VA TECH employees in especially critical countries (e.g. Iraq) suffered no personal injuries.

LA8: HIV/AIDS Principles and Programmes
VA TECH has no production locations in countries with a high incidence of HIV/AIDS, but nonetheless supports support projects organised by "Medicins sans Frontières".

LA 9: Training and Further Education
The VA TECH Group attaches great value to having well-trained employees and apprentices (3.7% of the workforce). In order to maintain and improve the qualifications of its personnel, in 2004 VA TECH invested around EUR 6.2 m in employee training and further education. During the year, 10,659 employees attended seminars and courses for the updating and expansion of their know-how. The average time involved amounted to 3.2 days (total of 33,715 training days). The relative decline in investment in training and further training resulted from the above average spending on the VA TECH Leadership Programme in 2003.

DIVERSITY AND OPPORTUNITIES

LA10: Principles of Equality and their Monitoring
For us, adherence to national labour legislation and the strict rejection of child labour are matters of course, while human rights represent an irrefutable principle. We make every effort to offer equal opportunities to every employee. These principles are contained in our social policy, which is anchored in the new Group directives and is implemented in the operative units by means of regulations.

LA11: Executive Management and Group Management Bodies
A detailed list of VA TECH's corporate bodies, such as the AGM, Supervisory Board and Managing Board, as well as their composition and activities in 2004, is contained in the VA TECH Annual Report, as well as on the homepage www.vatech.

HUMAN RIGHTS

HR1: Handling of All Aspects of Human Rights
We recognise the international guidelines and initiatives regarding the preservation of human rights. For us, upholding human rights represents an irrefutable principle and is contained in social policy, which is an integrated element in Group philosophy.

HR2: Influence of Human Rights on Investment Decisions
Through its acceptance of the ten principles of the Global Compact and its social policy principles, VA TECH has given a commitment to the preservation and protection of human rights in the course of its business activities.

HR3: Influence of Human Rights on the Selection of Suppliers
VA TECH purchases metal and electrical industry products, which are largely of a high technical standard. The production of such items necessitates a thorough training and therefore child labour and inhuman working conditions play a minor role. In the case of our suppliers, ISO accreditation is a prerequisite and is monitored on site. Checks are made for possible inadequacies among suppliers in the course of ongoing visits and audits.

HR4: Principles for the Prevention of Discrimination
Our management principles in the form of the leadership competence wheel are explicitly directed against every type of discrimination for reasons of nationality, culture, gender or religion. The leadership competence wheel forms the basis for employee discussions, as well as for further management training and provides selection criteria for career decisions and managerial appointments.

HR5: Free Trades Union Activity and Wage Negotiations
VA TECH plays an active role in social partnership structures. In many countries such as Austria, the UK, France, Germany, Italy and Canada, regular wage and salary negotiations are held with employee representatives, works council and trades unions. The Group has a European Works Council, which meets on an annual basis. In addition to Switzerland, the new EU countries were integrated into this body prior to accession to the Union.

HR6 & HR7: Child and Forced Labour
The child and forced labour indicators are not of relevance to VA TECH, as the Group's products relate to the metallurgical and electrical industries and therefore there are no points of contact. Nonetheless, the strict rejection of child and forced labour is an irrefutable principle of VA TECH social policy.

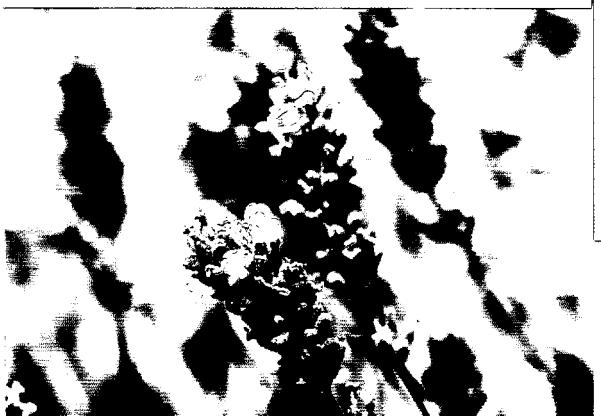
SOCIETY

SO1: Influences on Local Government and Society
VA TECH participates in numerous national and international initiatives and associations, in order to actively manage its influence on local government and society. Examples include the Austrian Water and Wastewater Association, the Austrian Business Council for Sustainable Development, the International Hydro Power Association, the International Association on Water, the Water Quality Council, the Social Policy Committee of the Confederation of Austrian Industry and co-operation during the preparation of the "Corporate Social Responsibility" (CSR) guidelines.

SO2: Handling of Arrangement, Bribery and Corruption
The main objectives of our Group are the halting of corruption and the implementation of international standards in all the countries in which we are active. For this reason, we support a Transparency International initiative, aimed at the prevention of corruption in business transactions. In this connection, VA TECH supports the extended principles of the UN Global Compact regarding the fight against corruption.

A competitive code has also been prepared in order to secure global adherence to fair competition throughout all VA TECH Group companies.

SO3 & SO5: Political Contributions
It is a Group principle that political parties are not given financial donations.



PRODUCT RESPONSIBILITY

PR1: Consumer Health and Safety
The protection of the health and safety of our customers during the use of our products and services is established in VA TECH's health and safety policy.
The following is an extract from the new Group directive from January 2005:

- It is our declared aim to prevent injuries to our employees in the workplace and to guarantee the safety of third parties during our business activities, to prevent damage to property and to continually improve our performance in the health and safety sector.
- We identify the dangers resulting from our business activities, evaluate the health and safety risks and implement preventive measures, in order to minimise these risks, wherever this is practical.
- We determine both legal and customer requirements with regard to health and safety and ensure their observance.

PR2: Products and Services
We provide our customers with detailed operating and maintenance instructions for our products. These contain all the necessary health and safety warnings. In addition, where appropriate, our products bear the CE symbol, or we provide the necessary manufacturer declarations.

Glossary

Audit
An examination of the corporate environmental management system.

Balanced Scorecard
The Balanced Scorecard (BSC) is an instrument for measuring performance, which allows a holistic and balanced examination of a company from various perspectives with the aim of establishing a clear, strategic orientation for its relevant markets.

Benchmarking
Comparison of planned and actual performance of a company, or of its working procedures, with one or more enterprises, which are regarded as exemplary. These enterprises can belong to the same, or another economic branch, and as a rule, certain predetermined key indicators are employed.

CAPIEL
Coordinating Committee for Common Market Associations of Manufacturers of Industrial Switchgear and Control.

Corporate Citizenship
The overall commitments of a company in the interests of society, which go beyond its actual business activities. This involves the attempts of the company to act in a responsible manner towards its partners and as a good citizen, to establish positive links with the communities in which it is active.

Corporate Social Responsibility (CSR)
This concept is part of VA TECH's complete sustainability strategy. It demonstrates the responsibility of a company to all the relevant stakeholders and provides for a company commitment to take responsibility for the wellbeing of its employees, their families, the local community and society as a whole. This comprehensive approach ensures that despite the social focus, ecological factors are also taken into account.

Corporate Governance
This determines the guidelines for the transparent corporate management and supervision. The recommendations of the Corporate Governance Code provide clarity and strengthen trust in a responsible company management. In particular, they serve to protect the stockholders.

CO_2 equivalent
Greenhouse gas effect in terms of carbon dioxide.

DIN EN ISO 14001
This is a globally applied series of standards for environmental management systems in every type of company. It contains directives for environmental audits, which as opposed to the EU Eco Audit, do not require publication. Since April 1997, the possibility exists for linkage between the ISO 14000 standards and the EU Eco Audit.

FTSE4Good-Index
FTSE4Good is a Financial Times and London Stock Exchange share index, which is oriented towards adherence to ecological and ethical criteria (environmental compatibility, stakeholder relationships, upholding and promotion of human rights).

Global Compact
This UN initiative was first presented by Kofi Annan, Secretary-General of the United Nations, before the World Economic Forum in Davos in 1999 and comprises ten guiding principles in the areas of human rights, labour standards and environmental protection. Companies entering into this voluntary agreement are challenged to gear their business operations to these principles.

Global Reporting Initiative (GRI)
The international GRI was established in 1997 with the aim of developing a system for uniform company reporting on economic, ecological and social matters, as well the standardisation of sustainability reports through the use of common sustainability indicators.

International Energy Agency (IEA)
The IEA was founded in Paris in 1974 as an independent institution with strong links to the OECD. The IEA issues a monthly Oil Market Report and a half-yearly World Energy Outlook, both of which are of major importance. They are the world's only authoritative source of key energy indicators.

Kyoto Protocol
Within the scope of the climate protection conference held in Kyoto in December 1997, the contracting states agreed to reduce their greenhouse gas emissions by 5.2% by 2008 and 2012, respectively.

Life Cycle Assessment (LCA)
Collation of material and energy flows, which are caused by a product in the course of its entire service life (physical balance, Life Cycle Inventory – LCI); combination of impacts depending on effect (effect analysis, Life Cycle Impact Assessment – LCIA) and evaluation with differing aggregations.

Monitoring
Determination of the actual emission reductions following project realisation.

OHSAS 18001
OHSAS 18001 is structured in an analogous form with the ISO 14001 and ISO 9001:2000 standards. OHSAS means Occupational Safety Assessment Series and was developed by the British Standards Institution together with international accreditation organisations.

Shareholder/shareholder value
Shareholders is the designation used for the joint owners of a company. Shareholder value is a corporate concept, which places the optimum satisfaction of the shareholders above the maximisation of profits.

Stakeholders (interest groups)
Stakeholders are those groups, which are affected by the business activities of a company. This is often a reciprocal relationship since the stakeholders also can exert an influence on the company. Typical stakeholders groups are shareholders, consumers, employees, the local population, authorities, non-governmental organisations and consumer protection groups.

Greenhouse gases
Greenhouse gases are trace gases, which are found in very small concentrations in the Earth's atmosphere. However, although they constitute less than 1% of the gas volume, due to their typical physical characteristics, they play a very special role in determining the Earth's climate and possess differing degrees of warming potential. One benchmark in this regard is the so-called "Global Warming Potential/GWP", which represents the glasshouse potential. The Kyoto protocol covers THG: carbon dioxide (CO_2), methane (CH_4), dinitrogen monoxide (N_2O), part-halogenated, fluorinated hydrocarbons (HFC), perfluorinated hydrocarbons (PFC) and sulphur hexafluoride (SF_6).

Greenhouse effect
Trace gases are the cause of the greenhouse effect. They function like a membrane, which the short-wave radiation from the sun can permeate virtually without hindrance, but which partially retains the long-wave radiation from the Earth's surface. The main reason for this additional greenhouse effect, which is caused by humans, is the release of CO_2.

Global Warming Potential/GWP
This assesses the complete effect of a gas over a period of 100 years and allows the comparison of the greenhouse effect of differing gases. For example, methane has 21 times the greenhouse effect of CO_2. If the volume of emissions is known, the global effect of the gases can be extrapolated. If the concentration of a greenhouse gas in the atmosphere increases, these leads to worldwide climate change.

Environmental Management Systems (UMS)
Environmental management comprises the planning, control, supervision and improvement of all measures relating to in-house environmental protection, as well as environmentally oriented business and personnel management. Environmental management systems serve to systematise operational procedures in order to enhance economic and ecological benefits and to demonstrate ecological awareness. They provide a contribution towards implementing environmental policy and achieving the environmental goals of a company, giving priority to preventive measures that are to be continuously upgraded.

Environmental Policy
Overall environmental goals and guiding principles in the activity of a company, including compliance with all of the relevant environmental regulations.

Environmental Programme
Description of the specific goals and activities of a company in the field of environmental protection, including a description of the measures taken or planned to achieve these goals.

Validation, external
Valuation of environmental/sustainability reports by examining strategies and missions as well as their linkage to the operational level. Validation is subjective, relates to values and general expertise and can be carried out by scientists or stakeholders. In respect of annual reports, external validation corresponds to the activity of a financial analyst.

Certification
Written confirmation of the operational entity (OE) that the CDM project led to verified emission reductions during a certain period of time.

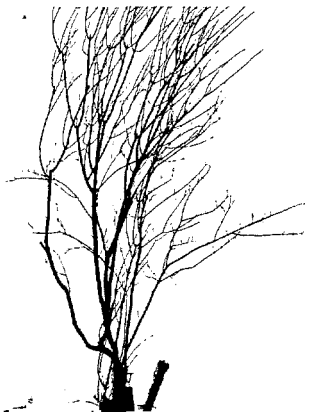
Fulfilment of the GRI Directives

Evaluation by the Austrian Institute for Sustainable Development (ÖIN)
VA TECH sustainability reporting is based on the GRI Directives 2002 [1]. The following table provides an overview of which GRI content and key indicators are considered in the Report and where they are to be found. The notes define the status and contain recommendations concerning the further development of sustainability reporting.

Status: ■ Beyond GRI ☐ Considered ☐ Partially considered ☐ Missing ■ Irrelevant

CONTENT PURSUANT TO GRI			IN REPORT (SECTION – PAGE)	NOTES
1.1	Vision, strategy	☐	Page 10, 18 ff	Mission, values/principles and policies (social and environmental policy) are definitively oriented towards sustainability and clearly described.
1.2	Managing Board statement	☐	Introduction Page 4-5	The introduction makes clear reference to the challenges relating to the topic of sustainability.
2.1–2.8	Organisational profile	☐	Page 12 ff	Presentation of the organisation, divisions and global presence (world map).
2.9	Stakeholders	☐	Page 22 ff, 36 ff	Description of the stakeholders and their relationship to the company; expert group (external perspective) given prominence; presentation of dialogue themes and projects.
		■	Global Compact Page 34 Corporate Citizenship Page 35	Commitments to the Global Compact and Corporate Citizenship are voluntary and go beyond the GRI Directives.
2.10 – 2.22	Report limitation and profile	☐	Page 28 f, as well as key figures in the economics, ecology and social sections	Reporting period, internal company processes and principles, polished presentation of the related contact possibilities and key indicators.
3.1 – 3.8	Structure and governance	☐	Page 12 ff	Governance partially described; the presentation of the main strategic programmes is recommended.
3.9 – 3.12	Inclusion of stakeholders	☐	Page 22 ff, 36 ff	Contact to and dialogue with critical pressure groups is described; the presentation of potential areas of conflict is recommended.
		■	Energy efficiency and resource conservation Page 42 ff	The special topic illustrates both interrelationships and developments; energy saving is recognised as an opportunity; research questions are addressed.
3.13 – 3.20	Business principles and management systems	☐	Page 18 ff, 80 f	Description of basic principles, initiatives, memberships of organisations; reflections on the consequences of these activities is suggested.
		■	Interviews Page 27, 39, 40, 47, 59, 64, 75, 78, 91, 93, 94, 97 and essay on page 26	The numerous interviews give an animated impression of the sustainability process and go beyond the GRI Directives.

[1] See also www.globalreporting.org



4.1	GRI content index	■	Page 110-111	A GRI index including external evaluation was undertaken, which goes beyond the GRI.
EC 1–3, 5–10	Financial flows from/to stakeholders	□	Economy Page 60 ff	Clearly presented economic key indicators pursuant to GRI Directives.
EN 1–16, 17, 34, 35	Material, energy, water, bio-diversity, emissions, transport, products and services	□	Ecology Page 70 ff	All environmental indicators are clearly presented in line with the GRI Directives. Some additional indicators are also included as recommended by the GRI. Graphics provide extra clarification of the trends.
LA 1–2	Employment	□	Social Page 88ff, 104	Presentation of indicators in accordance with the GRI Directives. Division according to region/country takes place in LA2.
LA 3–4	Employee-management relations	□	Page 104f	Performance indicators shown in accordance with the GRI Directives.
LA 5–7	Health and safety	□	Page 105f	Performance indicators shown in accordance with the GRI Directives. More detailed information is given, in particular in relation to LA7.
LA 8	HIV/AIDS programme	□	Page 106	Description of the support of AIDS programmes is provided.
LA 9	Training and further training	□	Page 106	Performance indicators shown in accordance with the GRI Directives.
LA 10–11	Variety and chances, composition of the management	□	Page 4-7, 106	Performance indicators shown in accordance with the GRI Directives.
HR 1–7	Human rights	□	Page 106 f	Performance indicators shown in accordance with the GRI Directives.
SO 1	Relations to local government	□	Page 107	Performance indicators shown in accordance with the GRI Directives.
SO 2	Bribery and corruption	□	Page 107	Performance indicators shown in accordance with the GRI Directives. More information concerning Transparency International is recommended.
SO 3 & 5	Political funding	□	Page 107	Performance indicators shown in accordance with the GRI Directives.
PR 1–2	Product responsibility	□	Page 72f, 107	Description in PR1 and PR2. Supplement to the PR3 performance indicator would be desirable.
PR 3	Management for the protection of the private sphere	□		Presentation of the performance indicator is recommended.
Glossary		■	Page 108f	Of assistance.

Convincing openness and transparency

A belief in the power of innovation, investments in advanced technologies and an active policy of sustainability have a major influence on VA TECH's way forward. For us, the acceptance of social responsibility means the recognition of needs and the provision of room for the development of potential.

In times of rapid change and globalisation, a steadily growing number of companies are looking for economic success that also accounts for ecological and social factors and seeking to create a stable framework within these areas.

For VA TECH, openness, credibility and the integration of pressure groups constitute animate principles.

With its Sustainability Reports, which made their first appearance in 2001, VA TECH has succeeded in informing the public about its corporate performance and guaranteeing a parallel, balanced view of the three areas of Economy, Ecology and Social Matters. The complete presentation of VA TECH processes and the various aspects of its activities, products and services in the Group Sustainability Report constitute a major contribution to the realisation of the sustainable development mission statement.

The enterprise takes this responsibility seriously and thus seeks contact to all stakeholder groups. Moreover, in the final analysis, the VA TECH Sustainability Report is also an instrument for the organisation of stakeholder integration.

Therefore, at many levels, VA TECH and its employees encourage customers to engage in critical discourse and communicate with suppliers, shareholders and associations. This multifaceted, ongoing dialogue puts the Group in a position to shape markets, politics and thus society in a sustainable manner.

Global Reporting Initiative

As a central element in the VA TECH reporting system, the Sustainability Report is to be seen in an integrative relationship to the Annual Report. The basis for transparent corporate communications is provided by the Global Reporting Initiative (GRI). Using the entirety of its know-how, products, services and technologies, VA TECH is one of the designers of a sustainable society. The issue of concrete data, transparent and, above all, clearly structured and comprehensible sequences form the focus of the VA TECH Sustainability Report.

The gradual interlocking of corporate and decision-making processes with the aspects of sustainable development demands a wealth of targeted measures.

Starting from the mission statement and a commitment to sustainable solutions, the integration of sustainability aspects into the Balanced Scorecard system constitutes a further step in this direction. The three dimensions of sustainability find clear expression in the VA TECH Sustainability Report. Economy, ecology and social matters are dealt with in their entirety and presented with the same transparency as solutions for energy efficiency and resource conservation.

The data collation for this year's VA TECH Sustainability Report resulted from the gathering of information material at location, country and divisional level. This information was then supplemented with the results of events, location tours, studies, project reports, publications and interviews with stakeholders. The data was then evaluated, prepared and subjected to further scrutiny by those persons responsible for sustainability within the Group. This examination led to the identification of optimisation potential, which has contributed to the inclusion of improvements in the final report.

Declaration concerning the VA TECH Sustainability Report 2004

The auditors were commissioned to:

- Verify the financial figures contained in the 2004 Sustainability Report.
- Assess the environmental and social key figures gathered throughout the Group, the consolidation of this data and the resulting reporting.

The management board of VA Technologie AG is responsible for the preparation of the Sustainability Report.

The financial statistics in the Sustainability Report were verified on the basis of our knowledge obtained within the framework of the audit of the financial statements. Within the framework of visits to the location in Weiz and Linz, the following were studied in detail in order to assess the environmental and social statistics:

- Documentation, basic principles and Group stipulations
- Organisation and responsibilities
- Reporting experience within the Group
- The gathering of environmental and social statistics (Weiz, Linz)

An audit of the key figures reported by the responsible persons at the location did not take place on the spot. Access to all the requested documents was provided voluntarily and information was given.

Certification

Economy
The financial figures contained in the "Economy, Key Figures & Interpretations" section from page 66-69, represent excerpts from the consolidated financial statements of VA Technologie AG from December 31, 2004, prepared according to International Financial Reporting Standards, which we have audited and allocated unqualified approval. The financial statistics contained in this chapter are accurately presented. For further information, reference should be made to the consolidated financial statements and the management report.

Ecology
We audited the key environmental figures contained in the "Ecology, Key Figures & Interpretations" section from page 82-87. On the basis of random checks of the processes employed and the study of the data used for the determination and calculation of the key figures, we adjudge the latter as being accurate. Suggestions for possible improvements were made in the course of the audit.

Social Matters
We audited the key social figures contained in the "Social Matters, Key Figures & Interpretations" section from page 104-107. On the basis of random checks of the processes employed and the study of the data used for the determination and calculation of the key figures, we adjudge the latter as being accurate. Suggestions for possible improvements were made in the course of the audit.

Vienna, February 23, 2005

ERNST & YOUNG
WIRTSCHAFTSPRÜFUNGSGESELLSCHAFT MBH

Richard Sterl
Auditor

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Declaration of the Austrian Institute for Sustainable Development

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VA TECH plays a special, leading role with regard to the topic of sustainability in Austria. Some four years ago, it became the first Austrian company to orientate its company mission entirely towards this vision. It is a pioneer in the field of sustainability reporting and this is the fourth report to be published in succession. VA TECH has also established benchmarks in the area of sustainability report networking and the operational sustainability process. The latter has continually gained in depth and after the mission, targets and measures, this time a type of interim summary concerning the realisation process forms a focal point. The attainment of established targets can be clearly and understandably presented:

- The Sustainability Balanced Scorecard (SBSC) key figure system has already been introduced throughout the Group and serves to push the strategy process forward and make it more transparent.
- At the end of 2004, the planned targets relating to the objective of furnishing all VA TECH products and services with additional information concerning sustainability by the year 2006, had been exceeded by over 50%.
- The run-up curve with regard to the introduction of environmental management systems has been completely fulfilled in line with the planned targets. Accordingly, at the end of 2004, over half of Group personnel were already accommodated in ISO 14001 accredited workplaces.
- In order to be able to successfully co-ordinate an operational sustainability process (including reporting) across many, different business areas and locations, a binding Group Directive with the title, "Sustainability in VA TECH – Principles and Reporting" was prepared by the Sustainability Board and is about to be introduced throughout the Group.

As an external process participant, ÖIN would like to contribute the following impressions to the fourth VA TECH Sustainability Report 2004:

- The Sustainability Report clearly documents how strong the influence of the topic of sustainability has become with regard to the identity and core strategy of the entire Group.
- Aspects relating to sustainability have been well presented in 2004 by means of supplementary and updated statistics, as well as comprehensive descriptions.
- The use of the focal point topic "Energy efficiency", not only provides a focus on fundamental areas of the Group as far as content is concerned, but also an exciting presentation of impulses for product and service innovation.
- A further intensification of the GRI requirements has led to the virtually complete registration of all the desired data and key figures.

However, the quality of a sustainability report not only derives from the definition of the current position of a company, but also the clarification of those signposts which appear necessary for a successful continuation of the process. The VA TECH Sustainability Report 2004 addresses these requirements:

- Complete integration of the topic within VA TECH through the implementation of the Group Sustainability Directive.
- Initial revision of the SBSC key figures and the resulting extrapolation of further implementation steps.
- Targeted and intensified dialogue with important contact groups.

VA TECH was and is among the leaders in the group of companies that see sustainability as a genuine opportunity for product, market and service innovations. The élan and determination with which this topic has been approached and repeatedly injected with fresh energy over the years are worthy of special note. Alone these efforts with regard to company corporate sustainability have greatly strengthened the confidence of both stake- and shareholders alike.

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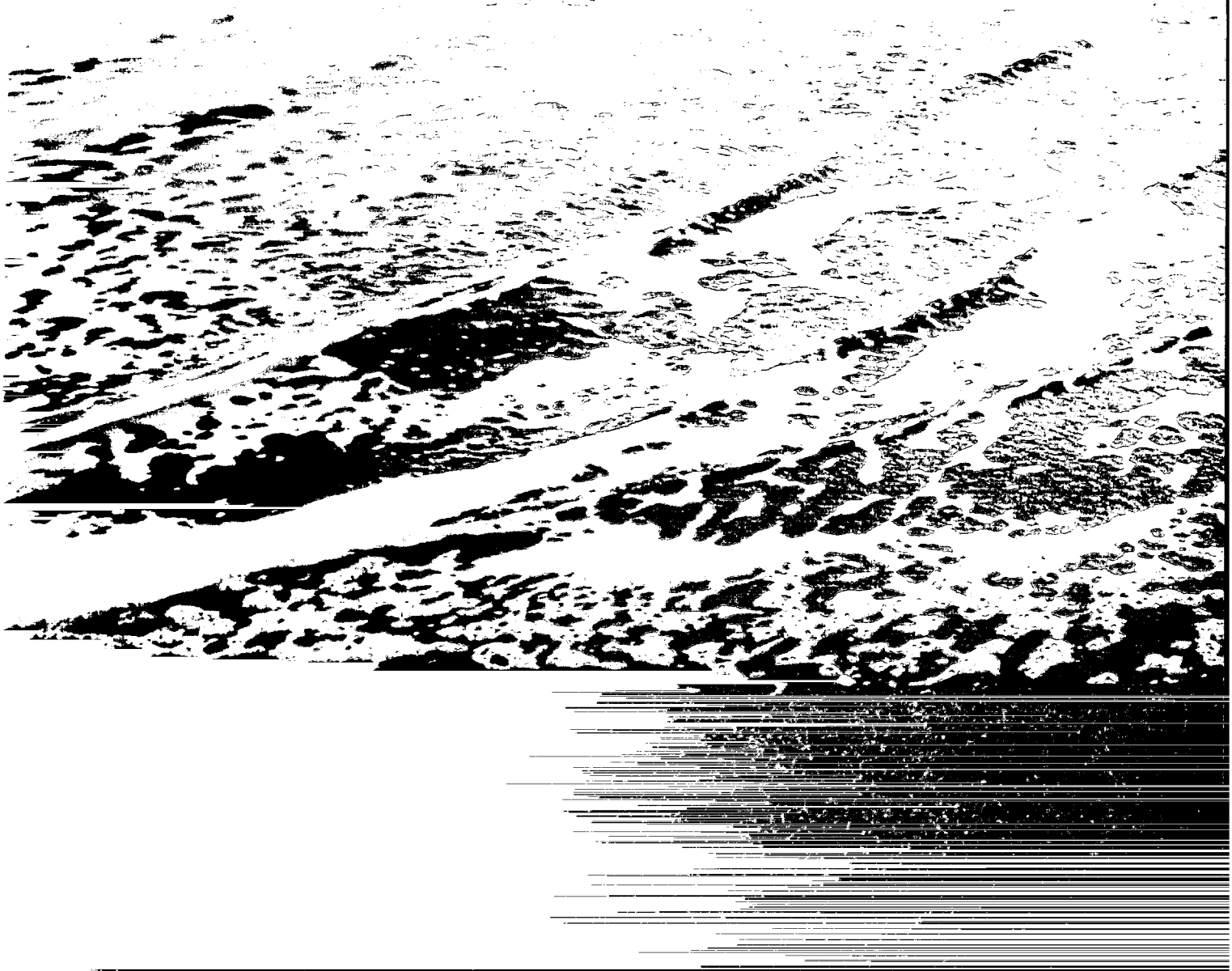

This report contains information concerning VA TECH products, services, technologies and behavioural standards. Nonetheless, the content published here does not represent an express or implied assurance. The VA TECH Sustainability Report is available both in English and German on the internet at: www.vatech.at

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