

# **RUAG**

Aerospace Defence Technology

Annual Report 2004

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## RUAG – the reliable partner

In the sixth year since it became a private stock corporation, the technology group RUAG, which has production sites in Switzerland, Germany and Sweden, achieved further consolidation and increased profitability. This follows the significant advance in sales recorded in the prior year. The companies acquired in previous years were successfully integrated in operational terms. Sales in the civilian sectors were raised, while the defence technology business exhibited a consolidation.

Declining demand for our products and services in Switzerland in 2004 contrasted with positive developments in other European countries. In overall terms RUAG was able to produce a good set of results for the year – in particular a healthy balance sheet. It has continued to strengthen its reputation as a reliable partner, both nationally and internationally, and has enhanced its profile across the world's markets.

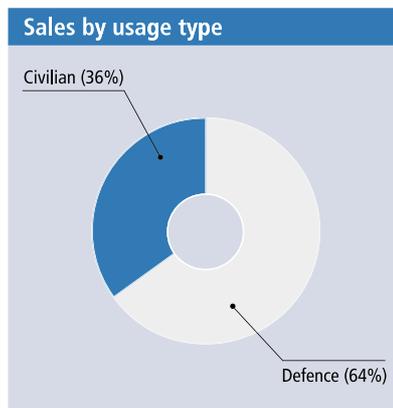
RUAG is an expert in high-precision technologies for the aerospace and defence sectors as well as for the automotive, semiconductor and mechanical engineering industries. It is a leading supplier and integrator of systems and components for military and civilian aerospace applications. Specialities include the manufacturing of aircraft and space vehicle structures, alongside the maintenance and fitting out of aircraft and helicopters.

RUAG develops, builds and integrates weapon, command & control and simulation systems for the Swiss Armed Forces as well as those of other countries.

RUAG is Europe's leading manufacturer of small-calibre ammunition, with a customer base that includes the police, armed forces and other security organizations. Its other main customer grouping in this segment comprises hunters and marksmen.

### Economic environment

The economic recovery that was evidenced in the first half of the year – coming in the wake of several years of recession – has not yet become fully entrenched. Towards the end of the year under review, the incipient upturn had already begun to lose some of its momentum. In a number of European countries, and in Switzerland in particular, the lacklustre economic situation gave renewed urgency to the debate about how to improve the overall economic framework, with calls on politicians to refrain from putting any more obstacles in the way of further deregulation. The exchange-rate situation – with a strong Swiss franc and euro on the one hand, and languishing dollar on the other – meanwhile extracted a heavy toll from all export business, but particularly the aerospace sector.



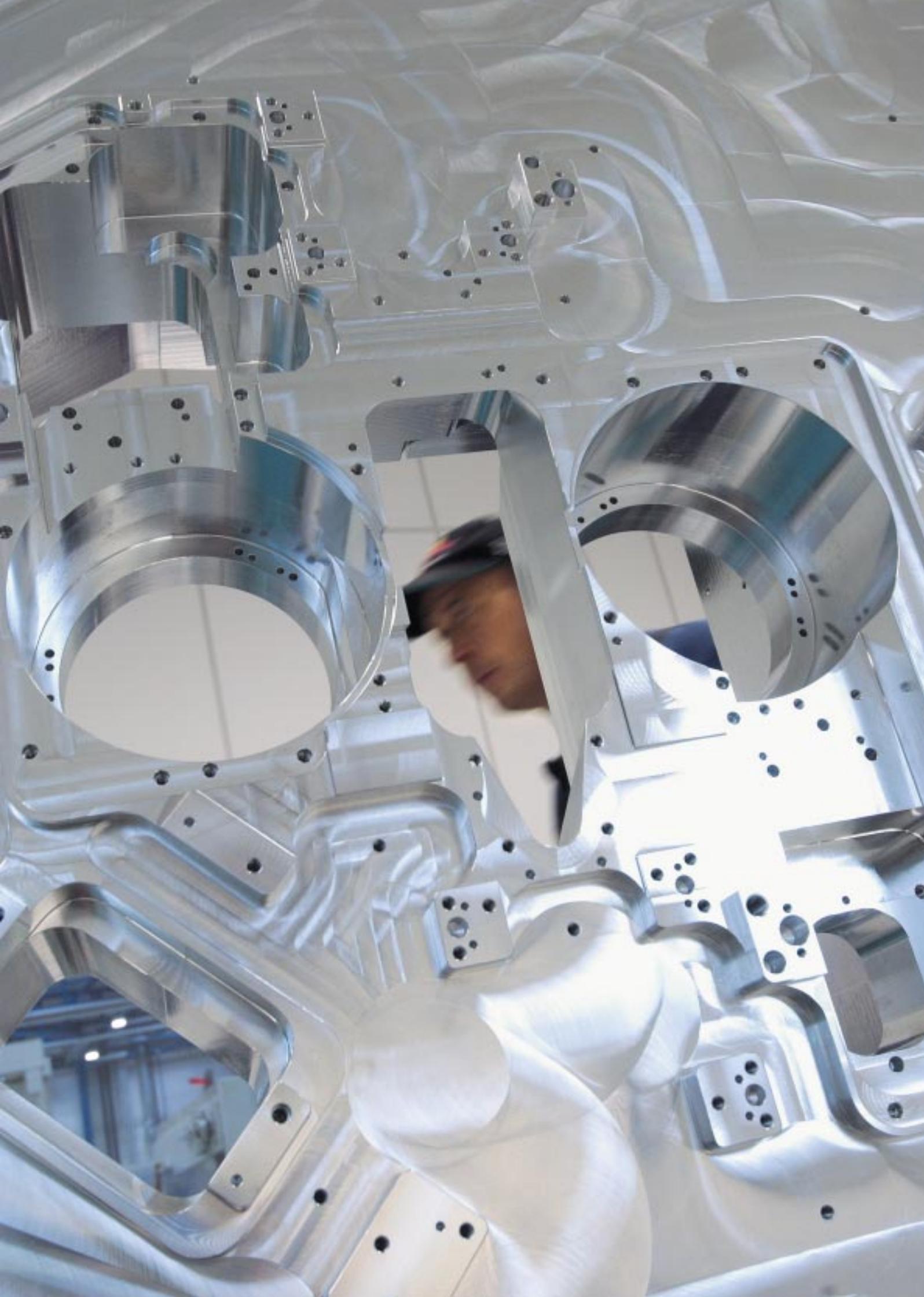
### Market

The level of incoming orders at the world's two leading aircraft manufacturers, Boeing and Airbus, would indicate that the airline industry has now recovered from the low point reached in the aftermath of 9/11. By contrast, for suppliers to the automotive and semiconductor industries the situation remains beset by short-termism and wild fluctuations in order levels.

Except for the US, Russia and China, most countries have sharply reined in their defence spending in recent years. Coupled with the fact that the armed forces in many European countries are right in the middle of a massive restructuring process, this has had a massive impact on defence materiel procurement and the industry itself. Around 400,000 jobs have been shed by the defence technology industry in Germany, France and the United Kingdom alone during the past 10 years. The full ramifications of a common EU foreign and security policy – and thereby joint defence policy – for procurement strategy in the near future and its ensuing impact on the continuing consolidation of Europe's defence industry will become clear over the coming years.

### Business structure

In the year under review, RUAG integrated its small calibre ammunition business – which has production sites in Thun (Switzerland), Fürth (Germany) and Amotfors (Sweden) – into RUAG Ammotec. Furthermore, RUAG Munition's large calibre ammunitions business was made a separate product/market means the former RUAG Muni-



tion is no longer present in the market place. RUAG Land Systems and RUAG Components were made accountable to the Defence business area.

Preparatory work was concluded in connection with the amalgamation of our historically decentralized IT services – a project harbouring considerable potential synergies – to enable the newly formed RUAG IT Services subsidiary to commence operations effective 1 January 2005.

### Acquisitions

The first half of the year saw RUAG increase its existing holdings in Sintro Electronics AG of Interlaken, Switzerland, from 90 to 100% and in Mecanex Inc. of the US from 85 to 100%. Sintro has since been integrated into RUAG Electronics.

### International successes

Highlights of our myriad successes in attracting international business include the following: after several years of development work and substantial investment, Airbus UK awarded RUAG an order for the series production of the

outer fixed trailing edges for its new A380 wide-bodied airliner.

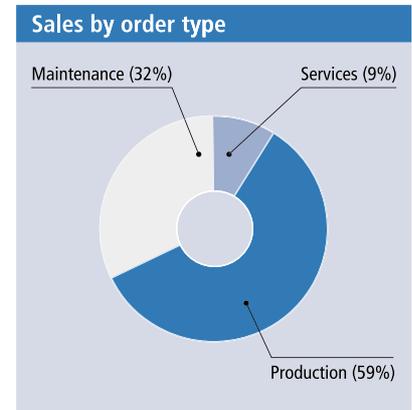
Having already modernized part of the Swiss and Austrian M 109 self-propelled howitzer fleets in previous years, RUAG also proceeded to win a contract from Chile for the extensive modification and subsequent delivery of 24 Swiss Army-surplus M 109 self-propelled howitzers.

Moreover, in a public invitation to tender in the Netherlands, RUAG successfully fended off competition from around six other European rivals to supply the Dutch police force with a new type of small calibre ammunition over the next few years.

The French Army placed an order for a series of laser firing simulators for its infantry divisions. Meanwhile an indoor simulator system will be supplied to the Middle East, and a battlefield simulation system to Asia.

### New centre of excellence

Switzerland's Federal Department of Defence, Civil Protection and Sports (DDPS) commissioned RUAG with developing a centre of excellence for command and reconnaissance called C4ISTAR (Command, Control, Communication, Computer, Intelligence, Surveillance, Target Acquisition and Reconnaissance). As a product-neutral industrial partner, the focus is on linking existing or new systems to create a single integrated set-up; however, the contract also extends to research, procurement, operations and maintenance. RUAG's existing related activities in its Aerospace and Electronics divisions were merged and inte-



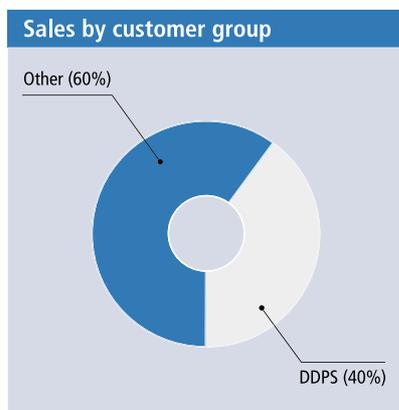
grated into RUAG Electronics, and a first testing and integration centre was installed and commissioned.

### Sales

Net sales increased by 2.1% in relation to the previous year to reach CHF 1,247 million (CHF 1,221 million).

There was a further shift in our sources of sales income, reflecting the transformation that is under way at RUAG. The civilian business continued to grow, and now accounts for 36% (32%) of overall volume. However, this contrasts with a decline in our core business of defence technology. 59% of sales stemmed from manufacturing, 32% from maintenance and 9% from the provision of services.

Customers other than the Federal Department of Defence, Civil Protection and Sport (DDPS) continued to grow in significance, accounting for 60% (58%) of sales. Sales to our biggest individual customer, the DDPS (on behalf of the Swiss Armed Forces), have fallen drastically in just six years, from nearly 90% in 1999 to 40% today. RUAG was successful in more than offsetting the loss of sales to the DDPS, worth a total of



around CHF 400 million, through an intelligent business strategy allied with organic growth and acquisitions. This enabled it to maintain the stability of its business operations, and at the same time secure jobs and expertise.

Sales of products and services in Switzerland declined from 52% to 48% of the total. By contrast, business with other European countries showed a positive trend. Their share of the total volume now stands at 41% (38%).

### Investment

Investment amounted to CHF 48 million (CHF 126 million). CHF 30 million of this was invested in fixed assets, primarily in the renewal of our machine base.

### Earnings

Earnings before interest and tax (EBIT) stand at CHF 45 million (CHF 43 million). EBIT took a CHF 7 million hit due to two factors: first, a continued decline in the volume of orders for large calibre ammunition from the DDPS created the need for non-scheduled depreciation. Second, in the metals processing business we were forced to cease massive forming activities for transmission shafts in order to improve future profitability. The closure of a production facility resulted in residual-value writedowns; at the same time, residual goodwill was written down on a non-scheduled basis. Moreover, efficiency improvements could not fully offset the persistent weakness of the US dollar. Despite these factors, net profit was increased to CHF 29 million (up from CHF 26 million).

Free cash flow generation of CHF 66

million (negative CHF 62 million in prior year) was attributable to active management of working capital and cautious investment activity. The free cash flow was used for the distribution of the CHF 7 million dividend in respect of 2003 and for a reduction in debt. CHF 43 million (previous year: CHF 42 million) was devoted to research and development.

### Personnel

Headcount was reduced from 5,665 to 5,557 to reflect the level of business activity.

Membership of Swissmem, and therefore inclusion in the collective wage agreement for the Swiss engineering industry, was completed on 1 January 2004. This resulted in only minor adjustments in employment conditions for the workforce. A further milestone was achieved in the form of the introduction of an annual working time system at our Swiss subsidiaries.

Our 386 apprenticeship trainees – representing almost 10% of the people employed by RUAG in Switzerland – are

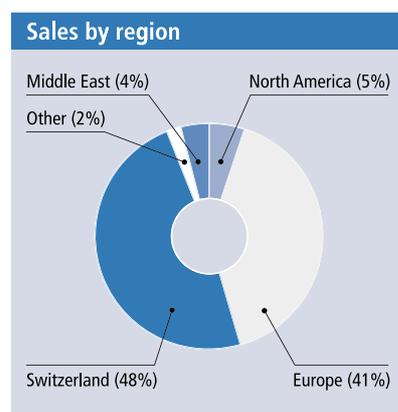
a reflection of our above-average commitment to professional training. We also attach a high degree of importance to professional development at our subsidiary companies abroad.

### Real estate

As part of our real estate strategy, all properties at the sites in Thun and Altdorf were placed under a single management. This marked a further step towards the goal of amalgamating our real-estate portfolio. At the Berne business park, the conversion of a former production facility into a new office and service centre was completed ahead of schedule. A total of CHF 16 million was invested in property.

### Outlook

On the basis of the order intake and orders in hand at the end of the year under review, RUAG can afford to be optimistic about its prospects for the new financial year.

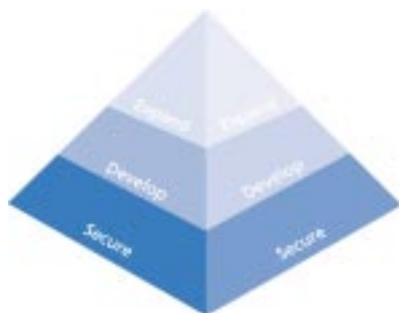


### Change at the top

During the year under review, the Board of Directors dealt with corporate planning for the coming years as well as overseeing the Group's operational management. In addition, the handover at the top of the organization, from Dr. Walter Bürgi to Konrad Peter, took centre stage at the annual shareholders' meeting.

#### Business plan

The Board of Directors approved the business plan for 2005 to 2008, based on the Group strategy that was developed in 2000 and reassessed during 2003. Going forward, the Board expects continued growth in the business and a further improvement in the earnings situation.



#### Owner's strategy

In late 2002 the Federal Council extended to 2006 the validity of the owner's strategy, the basis for the industrial activities that RUAG must provide on behalf of the Swiss Armed Forces. In the view of the Board of Directors, cooperation with the Group's owner on this basis continued to prove fruitful in the year under view.

Senior officials at the Federal Department of Defence, Civil Protection and Sport (DDPS), who are responsible for safeguarding the interests of the owner on behalf of the Federal Council, were

informed regularly about the business situation and key developments within the Group.

The DDPS for its part confirmed that no further procurements of large calibre ammunition are planned in the near future once orders-in-hand have been completed. Our biggest single customer has also ruled out making direct payments to safeguard the specialist skills that we possess. In this field RUAG is essentially a manufacturer of complex subsystems. We are currently examining possible forms of cooperation with partners. However, the Board of Directors cannot rule out withdrawing from this business area as well, as our main customer is unable to guarantee a full workload in the future.

#### Mission statement

The Board of Directors also approved an updated mission statement for the Group as a whole. An internal code of practice covering the export of war material and related legal & compliance matters – supplementing all relevant provisions and regulations passed by the legislature – was issued in conjunction with the mission statement. These foundations – together with related training for sales and marketing personnel in particular – are an assurance of the particular responsibilities expected of a supplier of defence technology products that is anchored within the European legal and ethical system.

Furthermore, we noted that the allegations of irregularities that had been circulating in a section of the Swiss media concerning the liquidation of army surplus materiel proved completely unfounded. The criminal proceedings that

had been instigated by third parties against RUAG were therefore thrown out by the judge.

### Committees

As part of the change in the chairmanship of the Board of Directors, the Audit Committee was also partially reconstituted. It is now chaired by Hanspeter Käser. Konrad Peter, Peter Saurer and Paul Häring are the other members. The Audit Committee dealt in particular with financial management, risk management and ongoing audit work.

The Compensation Committee consists of three non-executive members of the Board of Directors. It is chaired by Konrad Peter, the other members of the Compensation Committee being Hanspeter Käser and Hans-Peter Schwald. As part of the management development framework, it dealt primarily with succession planning for senior management and salary matters.

### Discretionary business

Dr Walter Bürgi retired as member and Chairman of the Board of Directors as of the date of the annual shareholders' meeting 2004. He has chaired the Group since 1999, the year in which RUAG was established as a private stock corporation. During his term in office of just over five years, RUAG's first chairman made a substantial contribution to shaping the Group's transformation. He has been a committed, open, prudent and successful chairman of RUAG. The annual shareholders' meeting expressed its appreciation for the important contribution he has made.

Konrad Peter (born 1946), CEO of Zellweger Luwa AG, and who has been a

member of the RUAG Board of Directors since 2002, was appointed as the new Chairman.

The Board of Directors was complemented by the election of Paul Häring (born 1957, from Wünnewil in the canton of Fribourg).

Peter Schneuwly, CEO of RUAG Aerospace, passed away completely unexpectedly on 3 July. RUAG has lost an outstanding leader and a personality characterized by great commitment. The Board of Directors transferred responsibility for leading the subsidiary company on an interim basis to Peter Scherrer, Business Area Manager, Systems and Space. In December it appointed Dr Myriam Meyer Stutz as a member of the Executive Board and CEO of RUAG Aerospace. She will take up her new

position on 1 August 2005. The Board of Directors would like to thank Peter Scherrer for leading the company with commitment and foresight during the interim period.

### Acknowledgements

The Board of Directors thanks its customers for their trust and for their orders. Thanks are due to the Swiss federal government for its cooperation, and to the Group's management and staff for their great commitment and outstanding performance in the year under review. The Board of Directors, Executive Board and our employees will do all in their power to ensure that RUAG continues to satisfy the needs and expectations of its customers, shareholders and stakeholders, and remains a reliable partner.



Konrad Peter

Chairman of the Board of Directors



Toni J. Wicki

Chief Executive Officer



### Members of the Board of Directors

Name	Born	Position	Member since	Elected until
Walter Bürgi	1934	Chairman until 5 May 2004, non-executive	1999	–
Toni J. Wicki	1944	Chief Executive Officer	1999	2007
Hanspeter Käser	1943	Vice-Chairman as of 5 May 2004, non-executive	1999	2007
Konrad Peter	1946	Chairman as of 5 May 2004, non-executive	2002	2006
Peter Saurer	1945	Non-executive member	2002	2006
Hans-Peter Schwald	1959	Non-executive member	2002	2006
Jakob Baumann	1958	Non-executive member	2003	2007
Paul Häring	1957	Non-executive member	2004	2008

### Executive Board

Name	Born	Position	Member since
Toni J. Wicki	1944	Chief Executive Officer	1999
Ueli Emch	1945	Member, Head RUAG Electronics	1999
Urs Kiener	1965	Member, Chief Financial Officer	2002
Eduard Knecht	1954	Member, Group Head Human Resources	1999
Stephan Kocher	1944	Member, Head RUAG Land Systems	1999
Cyril Kubelka	1963	Member, Head RUAG Ammotec since 1 September 2004	2004
Paul A. Moser	1944	Member, Head RUAG Munition until 30 September 2004	1999
Peter Schnewly †	1945	Member, Head RUAG Aerospace until 3 July 2004	2000
Peter Scherrer	1955	Member a.i., Head RUAG Aerospace a.i. since 4 July 2004	1999
Martin Stahel	1946	Member, Head of Group Services	2000

The CVs of members of the Board of Directors and the Executive Board can be found on our website, [www.ruag.com](http://www.ruag.com).

# Aviation and Space

RUAG Aerospace won three significant awards in the year under review. As the sole European contender, the company was presented with the „Supplier of the Year“ award from Boeing in the Aerospace Support category. It also received the recognition award from the Chamber of Commerce in Central Switzerland, part of the Innovation and Entrepreneurship prize series, for its work in securing the major Airbus A380 contract. Finally, it was given one of the top prizes for „Best Practice in Human Resource Management“ in the Swiss HR awards. For the company itself, this recognition represents a confirmation of the effectiveness of its business strategy and an incentive to continue pursuing its successful direction.

## Military aviation

The Swiss Air Force is our main customer in the military aviation sector. Alongside regular maintenance work, phase 1 of the Upgrade 21 project for the F/A-18 fighter aircraft fleet is proceeding on schedule. A production readiness review conducted by Boeing produced an excellent rating. Delivery of the Swiss Air Force's decommissioned F-5 aircraft to the US Navy is also proceeding as scheduled. Seven aircraft were handed over in 2004. The leasing, and consequent avionics modifications and maintenance operation of 12 Swiss F-5 E fighter aircraft to the Austrian Air Force, started well. At the end of the year, six modified F-5s were already stationed in Austria.

RUAG Aerospace returned the first completely overhauled Alouette 3 light helicopter to its customer, the Dutch air force; three further helicopters of this type are to follow.

In the reconnaissance drones project for the Finnish armed forces, the first of the second series of drones was delivered.

## Civilian aircraft and helicopter maintenance

The maintenance network for civilian aircraft and helicopters provided by RUAG Aerospace Services GmbH in Oberpfaffenhofen (Germany), RUAG's subsidiaries in Switzerland – ASB in Berne/Belp and SAS in Lugano/Agno (Switzerland) – and by service operations at Zurich airport was consolidated further.

At the end of September, RUAG Aerospace Services GmbH in Oberpfaffenhofen (Germany) celebrated its 30th anniversary as a Cessna Citation Authorized Service Centre. The maintenance offering for these types of aircraft is excellently positioned in the market place. A new contract for the complete interior refurbishment of a Lear 55 business jet for Aegean Airlines of Greece constitutes another sales success.

## Space

Following around two years' preparation by the École Polytechnique Fédérale de Lausanne (EPFL) and RUAG Aerospace, a „Space Technology Center“ was established by EPFL, the Swiss Space Office and RUAG on 11 October.

RUAG is also participating successfully in the Rosetta mission, which aims to land an ESA probe on the comet known as „Churyumov-Gerasimenko“.

The second payload fairing assembled at RUAG was successfully deployed on the US Atlas V-500 launcher in December. The aerospace programmes are pro-

ceeding at a slow but stable pace. Follow-up orders for payload fairings and new programmes are exposed to enormous competition and pricing pressure.

## Aerostructures

The Aerostructures division positioned itself clearly by establishing a joint market presence for structural assembly operations in Emmen (Switzerland) and at the subsidiaries RUAG Aerospace Structures GmbH, Oberpfaffenhofen (Germany) and Derendinger SA, Geneva (Switzerland). Systematic efficiency enhancement programmes enabled production processes to be optimized on a sustainable basis.

The signing of the A380 contract with Airbus UK is a remarkable success, coming after two years of preparatory work. By the end of 2004, 14 shipsets of A380 outer fixed trailing edges had already been delivered on time.

A new order for CF34-10 engines from General Electric for Embraer aircraft marked a successful entry into this market. External fuel tanks for France's „Rafale“ fighter aircraft are being manufactured on behalf of Dassault Aviation; initial specimen production was concluded successfully and series production has commenced. Our Derendinger SA subsidiary acquired a new customer in the form of Dassault, and won new orders from Snecma and Eurocopter.

## Guided missile and anti-aircraft systems

The primary customer for guided missile and anti-aircraft systems is the DDPS. The financial year was characterized by maintenance projects and implementation of the training concept for the





Swiss Armed Forces. Various combat effectiveness enhancement programmes for guided missiles were successfully concluded. Preparatory work for production of the new Rapier Mark2 guided anti-aircraft missiles has been concluded.

### **Control and communication systems**

The FLORAKO military air traffic and mission control system was put into operation in February 2004. Maintenance work was carried out by RUAG Aerospace to a high standard. Maintenance

work on the broadband microwave directional beam network (BBUS RISTL) was also performed across Switzerland. From 1 January 2005, this area will be integrated into RUAG Electronics' centre of excellence for command and reconnaissance.

## **Command & control, simulation and training**

In accordance with the Group strategy, RUAG systematically pushed ahead in the year under review with the positioning of the RUAG Electronics command and reconnaissance centre of integration and excellence, ensuring that this centre is firmly anchored with its key customer, the DDPS. It amalgamated the command and reconnaissance divisions of RUAG Electronics and RUAG Aerospace with the C4ISTAR Services division. RUAG Electronics provides technical support services for day-to-day command and intelligence systems for the army and air force. It further expanded the competence centre for C4ISTAR-relevant systems, providing time-critical call-out services and maintenance work, increasingly on a direct in-field basis.

### **Professional mobile radio**

The POLYCOM project (Switzerland's security communications network) developed with our partners reached the implementation phase. A test network for technical training was set up at the corresponding repair centre in Aigle – the only certified repair shop in Switzerland. Initialization of Change and Release Management was concluded.

### **Virtual simulation**

In the virtual simulators segment, RUAG Electronics delivered the crew training system for the upgraded self-propelled howitzers and the training system for the fixed installation security monitoring systems to its customers. Acceptance trials of the key system for gunnery training on the Swiss Armed Forces' Spz 2000 armoured infantry fighting vehicle (AIFV) and the forward observer training simulators were successful.

The last of a total of 20 driving simulators were installed on site in the Middle East and handed over to the customer.

As subcontractor to a Norwegian simulator manufacturer, we successfully con-

ducted the upgrading of simulators for the Swedish armed forces' RBS-70 anti-aircraft system.

### **Live simulation**

In the year under review, RUAG Electronics delivered a series of turret crew training laser simulators for the AIFV 2000 to the Swiss Armed Forces. Several components series were delivered for laser simulators for the R Spz 93 range of wheeled armoured personnel carriers.

Important milestones were reached according to plan in projects to develop a training system for military operations in urban terrain and for simulation systems for personal equipment and weapons of the Swiss Army's infantry.

An order from armasuisse in the year under review for the delivery of laser simulators for the Leopard 2 main battle tank and a series of after action reporting devices for use with the simulators were among further business successes.

### **Live simulation international**

The RUAG live combat training simulator system successfully passed trials conducted in the US by the US Marine



C4ISTAR testing and integration centre

Corps as part of the „Foreign Comparative Testing program“. This also necessitated the integration of the US Marines' existing infantry simulators. The trial system that was supplied is related to the SIMUG system deployed by the Swiss Armed Forces.

A follow-up series of infantry laser simulators was delivered to the Slovakian armed forces. As part of a study by

the German Federal Office of Defence Technology and Procurement (BWB), the indoor positioning system was presented at the Infantry School in Hammelburg (Germany). This system can be used to precisely monitor and record trainees' movements inside buildings.

RUAG Electronics recorded two significant export achievements with laser combat training simulators in the year

under review: first, the French Army commissioned RUAG to provide over 4,000 laser firing simulators for the personal equipment of infantry soldiers. Second, we began producing a combat training system including laser combat training simulators for a customer in the Far East.

## Small calibre ammunition

RUAG Ammotec's business activities are focused firstly on training and high-performance ammunition for the police, government agencies and special forces, together with defence technology products. On the civilian side, the company is the European market leader in ammunition for hunters and sport shooters as well as a recognized partner in the field of ammunition components worldwide.

### Service issue ammunition

Once again, orders for the Swiss Armed Forces remained rather subdued in the year under review. Deliveries of 5.56 mm rounds for the Assault Rifle 90 continued to decline. In Germany too, procurement levels were low due to budget cutbacks in the defence sector. The focus instead was on small-scale orders for special units.

### Ammunition for government agencies

Significantly higher sales were achieved in special ammunition for use by government agencies.

The company has demonstrated outstanding technological expertise, achieving certification for its low-pollutant 9 mm x 19 „Sintox Action 4“ and for

the modified Sintox-Forensis ignition charge. This expertise is reflected in an order from the Dutch police force. The expansion of our „green“ Sintox technology is therefore producing encouraging success internationally too. As the very first round purely for police use, the Action 4 satisfies the requirements set out in the „Reduced Pollutant 9 mm x 19 Rounds“ Technical Directive issued by the Interior Ministers of the German Länder.



Cartridges for fastening applications

### Hunting and sporting ammunition

With its extensive range of hunting and sporting ammunition, RUAG Ammotec offers a product range that is unique in the world and remains Europe's leading manufacturer of small calibre ammunition. Its long-established RWS®, Rottweil®, Geco®, Norma® and Hirtenberger® brands maintained their position very

well, although the situation in the market remains difficult.

The excellent performance by marksmen at the summer Olympics in Athens using RWS ammunition gave us an important image boost.

Due to the trend towards stricter laws and the difficult economic environment, enthusiasts are becoming increasingly uncertain about the future and consequently postponing their purchasing decisions.

### Industry

The encouragingly positive trend in the industrial and components business continues apace. The breadth of the range is impressive, and sales were boosted by involvement in major international contracts. Demand from the automobile industry for lead-free pyrotechnic charges for safety systems continues unabated. The situation in cartridges for fastening applications is highly competitive due to the persistently weak level of economic activity in the construction industry. But in this area too the company benefited from a high degree of product awareness and its many years of expertise in manufacturing.



## Land systems and ammunition

With proven products such as the modernization programme for M-109 self-propelled howitzers as well as new developments, RUAG Land Systems was successful in acquiring new customers in the international market during the year under review.

### Bridge-laying vehicle

Market analysis has revealed a need for bridge-laying vehicles among those armed forces which deploy Leopard 2 tanks. Procurement preparations have reached varied stages. RUAG Land Systems will respond flexibly to the needs of its customers and is expanding its capabilities in this area.

Our expertise in the field of armoured bridge-laying vehicles and Leopard 2 tanks led to the successful acquisition of an international customer for the development and construction of a prototype. The new generation of vehicles is designed to ensure bridges can be laid in only minutes, for both tactical and disaster relief deployments, assisting people in difficulty or ensuring supplies reach troops.

### Armoured Infantry Fighting Vehicle 2000

Final assembly of the Armoured Infantry Fighting Vehicle 2000 for the Swiss Armed Forces is proceeding according to timetable. Bottlenecks at supplier companies were overcome without any major difficulties. Deliveries of vehicles to the end user are on schedu-

le. The programme will be concluded in 2005.

### M 109 self-propelled howitzers

The order for combat effectiveness enhancement of self-propelled howitzers for the Swiss Armed Forces was concluded successfully. The modernization programme is kindling major international interest. For instance, Swiss Army surplus self-propelled howitzers were modernized for a customer in the Middle East and delivered in the year under review. An additional order for the delivery and modernization of 24 systems was won from Chile. Various modules from the combat effectiveness enhancement programme have now been deployed in the self-propelled howitzers of some armed forces.

### Armoured engineer vehicles

This development project, financed in



The new armoured engineer vehicle

collaboration with Rheinmetall Landsysteme, has reached the prototype stage. The prototype armoured engineer vehicle has been successfully tested by the Swiss, Dutch and Danish armed forces.

The Swiss Army declared the armoured engineer vehicle ready for procurement. Under the 2004 armaments programme, the Swiss parliament has decided not to proceed with procurement for the time being.

The Swiss Armed Forces have appointed RUAG Land Systems as their partner for the integration of the „Heer“ (land forces) command & control system into wheeled and tracked vehicles and command & control containers.

### In-field maintenance

The new Logistics Organization of the Swiss Armed Forces, along with the forces' greater cooperation with the industry, is opening up new prospects in maintenance. For instance, nationwide maintenance work was carried out for troops using the Leopard 2 and M 109 systems.

### Large calibre ammunition

In the international market, the Warhead Division has intensified its business contacts both for high-performance fragmentation ammunition and for shaped-charge warheads. It is involved in various international cooperation projects, particularly in relation to warhead development.



## Metals processing, recycling and disposal

RUAG Components, which is primarily active as a supplier, saw both sales and earnings recover from the weak level of the prior year. The cost-cutting measures that had been introduced are now having a positive impact.

### Automotive engineering

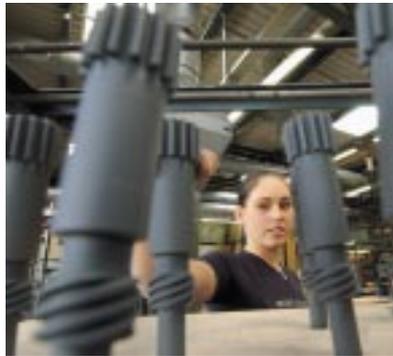
Another mediocre year of slow business growth in the automobile industry meant few signs of encouragement for the automotive engineering unit. Ongoing pressure on prices, coupled with a lack of innovative opportunities, is having a damaging effect on metal components. Owing to a systematic focus on thick sheet metal forming in and around the transmission and transmission components segment, volumes remained stable.

Since the difficult situation seen in the previous year in terms of massive forming for truck transmission shafts failed to show material improvement, it was decided to halt production in this area.

### Mechanical engineering, machining technology

Thanks to a sharp jump in order intake in the first half, especially in the semiconductor industry, the entire segment experienced a highly productive period in terms of capacity utilization. Successes were also recorded in the manufacture of assemblies and acquisition of new customers. Orders for the capital goods sector and rotation-symmetrical products remained behind expectations, however.

The order intake for metal defence technology components was unsatisfactory. A restructuring of production was carried out.



Coatings – capacity at a high level

### Coatings

In contrast with the industry trend, order intake and production capacity utilization increased significantly. High market awareness of RUAG coatings provides grounds for optimism. The order backlog calls for an extremely high degree of flexibility in order processing.

### Environment

The year under review saw the commissioning of Europe's most modern disposal centre for refrigeration equipment. Together with a partner, this makes us the market leader in Switzerland.

Electronics recycling is undergoing a veritable boom. Our sophisticated technology, together with the ecological efficiency of the recycled materials, is our strong point in this field, and indicative of further potential for expansion. Disposal of surplus army stock was once again a strong source of business.

## Research and development

In the aerodynamics area, extensive wind tunnel tests were carried out for the European aircraft and automobile industries. Development of the A400M military transport aircraft constituted a focal point of testing activity.

The near two-year complete airframe fatigue tests of the F/A-18 were concluded as scheduled in September. On this fighter aircraft we conducted simulations based on double the normal service life in a highly technical series of tests that met with widespread recognition among international experts. The results now enable systematic monitoring of the Swiss Air Force's fleet as well as the efficient planning of structural checks that will help to ensure that the aircraft remain in operation for their full service lives.

Bighorn, a 120 mm smooth bore mortar system developed in-house, is now available for incorporation in various light armoured vehicles. In the past year, Bighorn was trialled in both a wheeled and a tracked armoured vehicle.

Major progress was achieved in the protection of light, medium and heavy combat vehicles. By using Explosive Reactive Armour (ERA) technology, protection systems are also efficient against state-of-the-art penetrators.

The retrofit development project involving the 120 mm smooth-bore Compact Tank Gun (CTG) was concluded. CTG is ideally suited to replacing obsolete weapons systems in main battle tanks and in this way allows the use of modern, NATO-compatible ammunition.

Our technological leadership in terms of shaped-charge and fragmentation technology was bolstered further. In fragmentation technology, activities concentrated on the inclusion of fragmentation performance in new calibres and systems. In shaped-charge technology, penetration performance was increased further.

In conjunction with the adoption of new technology by a major customer, RUAG Components has co-developed a new aluminium frame for chip production systems through process engineering.



Precision component for a space observatory

# Corporate Governance

## Background

This report on corporate governance describes the principles of management and control at the most senior level of the RUAG Group, in accordance with the SWX Swiss Exchange directive regarding information on corporate governance. However, the RUAG Group has made certain adaptations and simplifications to reflect its shareholder structure. Unless otherwise specified, the information is applicable as at 31 December 2004.

## Board of Directors

The duties of the Board of Directors of

RUAG Holding are governed primarily by the Swiss Code of Obligations, the Federal Council's owner's strategy, the Articles of Association and the Regulations Governing Organization and Operations.

The Board of Directors of RUAG Holding consists of seven individuals. The Chief Executive Officer is currently the sole executive member of the Board of Directors. The non-executive members of the Board of Directors have no material business relationship with the RUAG Group. The list on page 9 provides information about the name, age, posi-

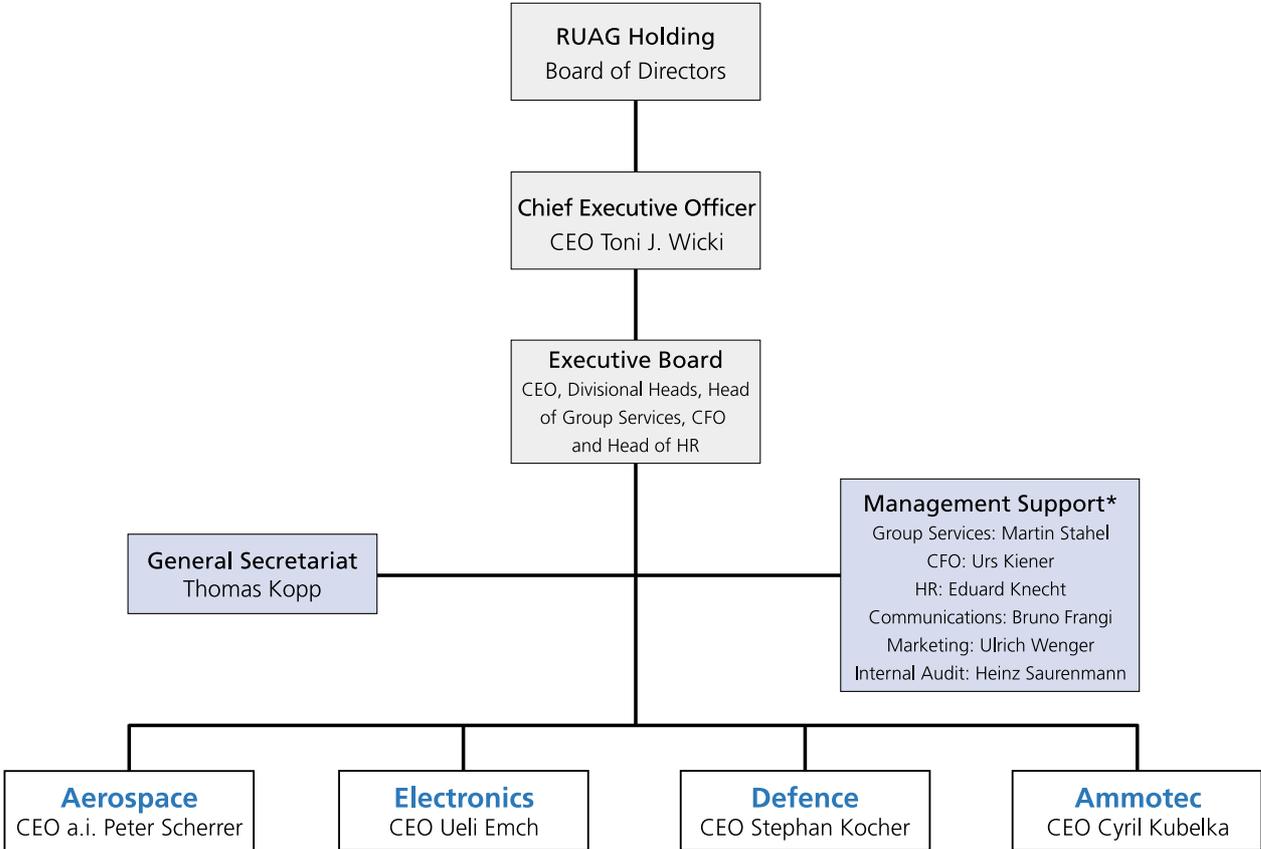
tion, date of joining and remaining period in office of the individual members of the Board of Directors.

## Conflicts of interest

The members of the Board of Directors of RUAG Holding do not sit on the board of any other listed company.

## Election and term of office

The Board of Directors of RUAG Holding is elected by the annual shareholders' meeting. In accordance with the Articles of Association, the Board of Directors consists of at least three individuals. A majority of the members of the Board of



\* Finance/Controlling, HR, Communications, Marketing, Technology, Legal, Internal Audit  
Detailed information on the company's legal structure may be found on page 34 of the 2004 Financial Report.

Directors must be Swiss nationals domiciled in Switzerland. The members of the Board of Directors are elected for a four-year term and may be re-elected. The Board of Directors is responsible for defining the rotation of such elections.

### Internal organization

The Board of Directors is ultimately responsible for the business strategy and overall management of the RUAG Group. It has the uppermost decision-making powers and determines the guidelines for strategy, organization, financial planning and accounting to be pursued by the RUAG Group. The Board of Directors has delegated the management of day-to-day business to the Chief Executive Officer (CEO). The latter is responsible for the overall management of the RUAG Group and for all matters not assigned to another corporate body under the terms of Swiss law, the Articles of Association, the owner's strategy of the Federal Council and Regulations Governing Organization and Operation.

The main duties of the Board of Directors, under the terms of the Swiss Code of Obligations and Articles of Association of RUAG Holding, are:

- The strategic focus and management of the RUAG Group in accordance with the owner's strategy of the Federal Council
- The structuring of the accounting function, financial controlling and financial planning
- The appointment and dismissal of

members of the Executive Board and other senior executives

- Supreme oversight of business activities
- Production of the annual report, as well as the preparation of the annual shareholders' meeting and implementation of resolutions passed by the latter

Decisions are taken by the Board of Directors as a whole. To assist the Board in its role, two committees have been formed: an Audit Committee and a Compensation Committee. In the 2004 financial year, the Board of Directors held regular meetings on six occasions. In addition, the committees met on seven occasions. The agenda for meetings of the Board of Directors is set by the Chairman in collaboration with the Chief Executive Officer. Any member of the Board of Directors may request that an item be included in the agenda. The members of the Board of Directors are provided with documentation prior to each meeting of the Board of Directors to enable them to prepare for the items to be discussed.

The Board of Directors ensures an exchange of views with the senior executives of the company and regularly visits one or more of the RUAG Group's sites.

### Committees

The Board of Directors has formed an Audit Committee and a Compensation Committee. These committees are chaired by an appointee of the Board of Directors. The committees meet regu-

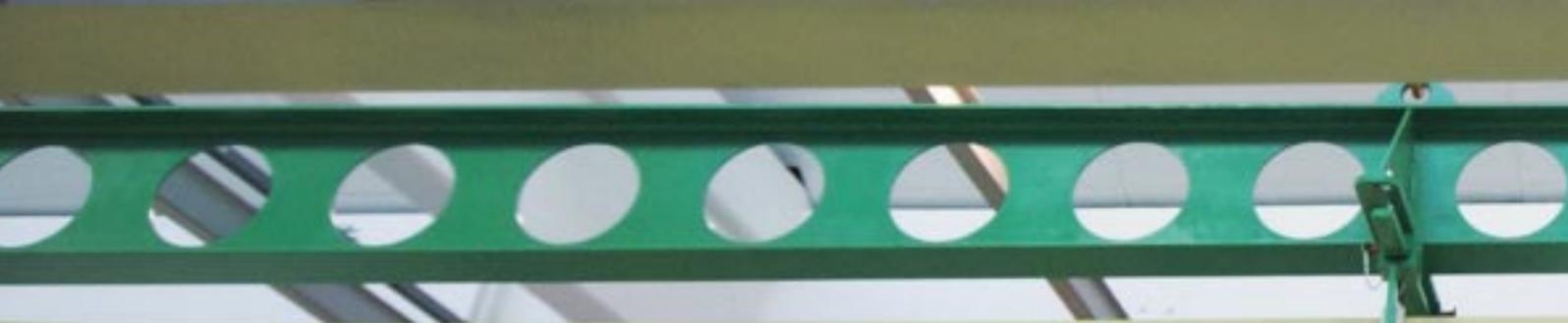
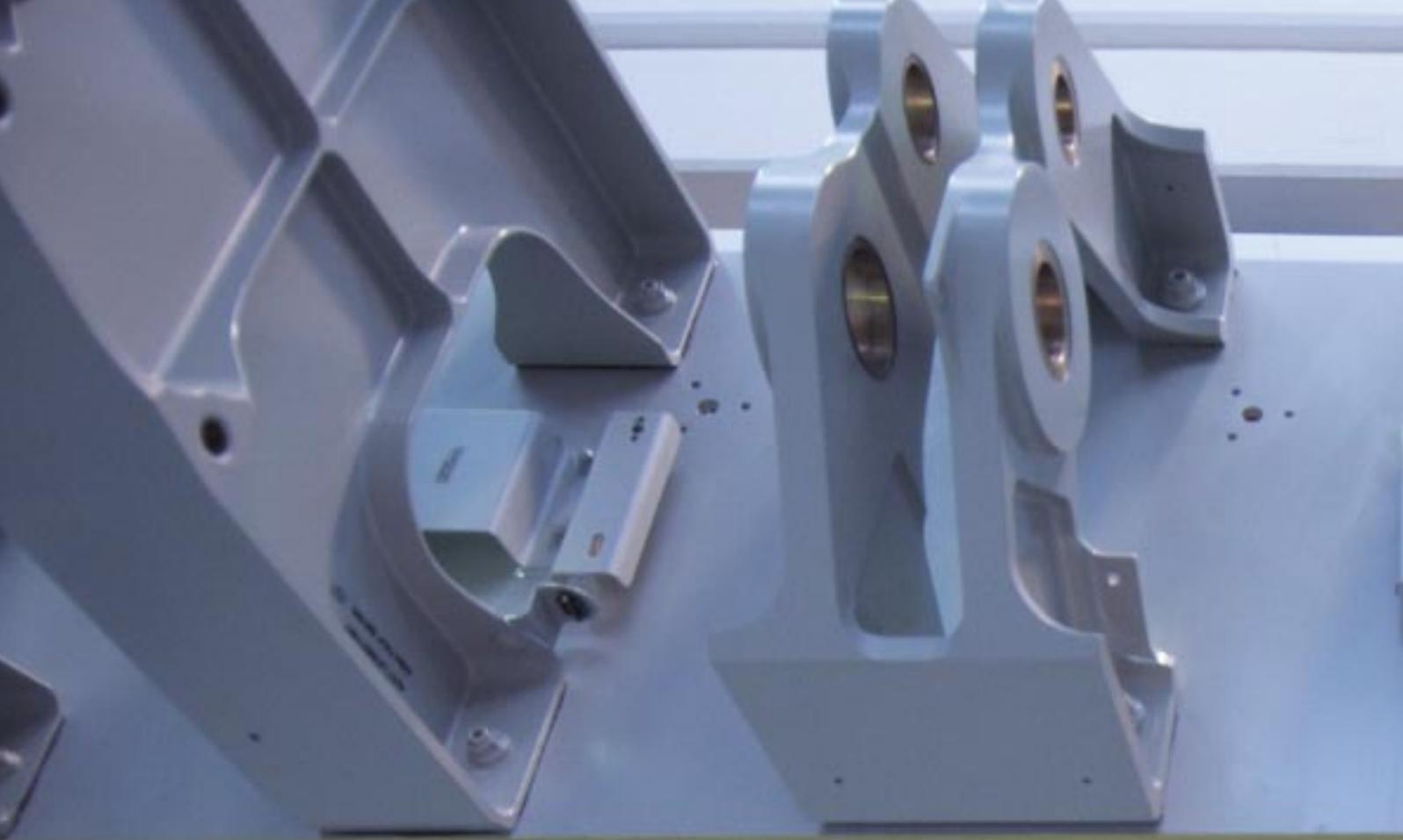
larly to draw up the minutes of meetings and recommendations for discussion at the regular meetings of the Board of Directors. The agenda of each committee's meetings is set by its chairman. The members of the committees are provided with documentation prior to the meetings to enable them to prepare for the items to be discussed.

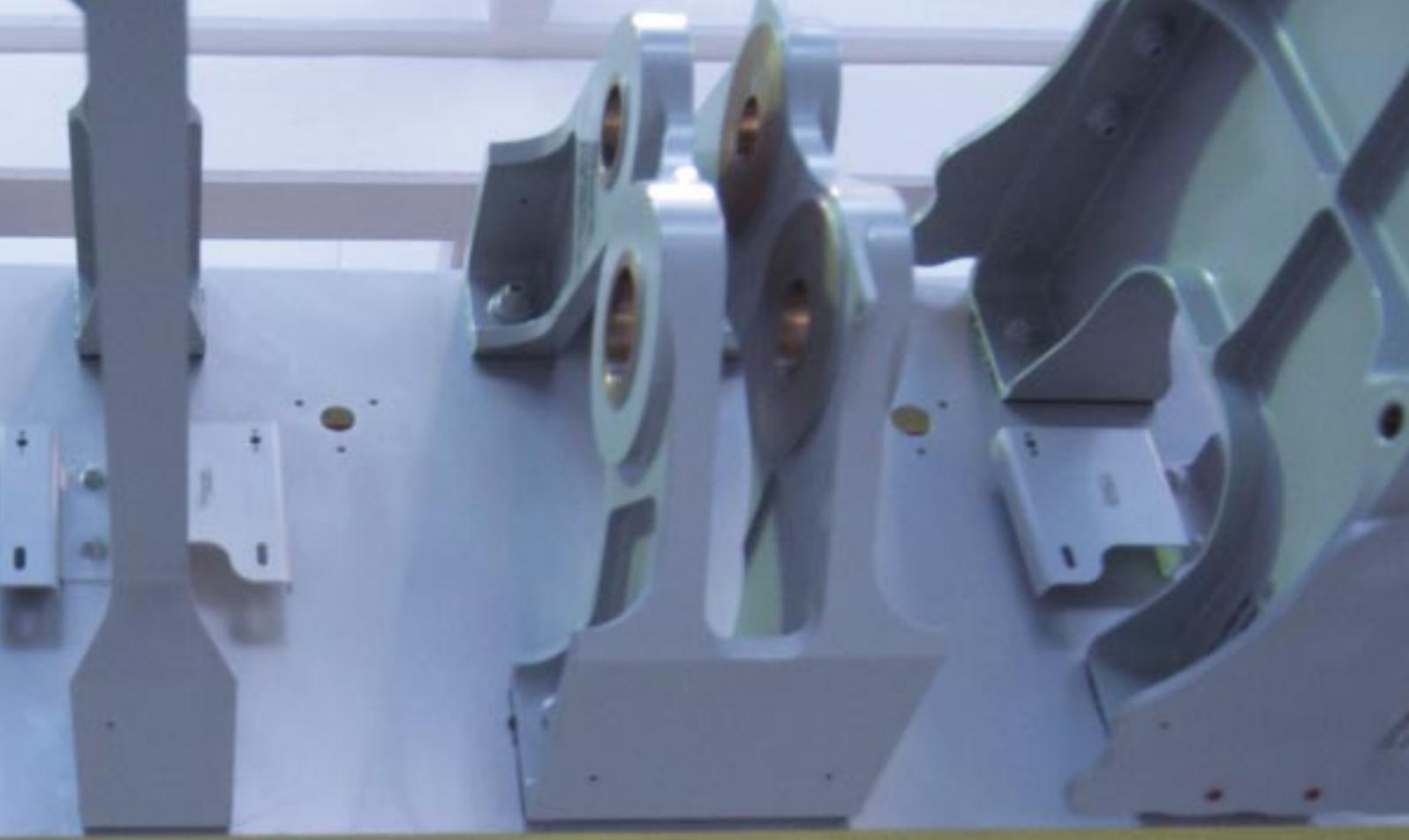
### Audit Committee

The Audit Committee is composed of four non-executive members of the Board of Directors: Hanspeter Käser, Konrad Peter, Peter Saurer and Paul Häring, the Chairman being Hanspeter Käser. The members of the Audit Committee are experienced in financial and accounting matters by virtue of their professional backgrounds. The Audit Committee meets at least once annually, although it may be convened by the Chairman as and when business requires. The meetings are attended by the Chief Executive Officer, Head of Group Services, Chief Financial Officer, Internal Auditor and Representative of the External Auditors.

The main duty of the Audit Committee is to uphold a comprehensive and efficient audit structure for RUAG Holding and the RUAG Group. With regard to external auditing, the duties of the Audit Committee include:

- Approving the main elements of the audit
- Acceptance of the audit report and any recommendations of the auditors, prior to the annual accounts (individual and consolidated) being submit-





ted to the overall Board of Directors for approval

- Submitting a proposal to the overall Board of Directors regarding which external firm should be proposed to the shareholders' meeting for election as auditor and group auditor, assessing the service provided, remuneration and independence of the external auditors as well as supervising the compatibility of audit activities with any consultancy mandates

The Audit Committee regulates and monitors internal auditing. It provides the overall Board of Directors with a regular report on its activities, and immediately informs the Board of any important matters.

### Compensation Committee

The Compensation Committee comprises three non-executive members of the Board of Directors. The position of Chairman is currently held by Konrad Peter; the other members are Hanspeter Käser and Hans-Peter Schwald.

The Compensation Committee is responsible for personnel planning for the Executive Board and submitting nominations for the vacant posts at this level to the overall Board of Directors.

The Committee is also charged with proposing the compensation package for the members of the Board of Directors, determining remuneration policy for the members of the Executive Board

and approving the emoluments of the members of the Executive Board. The Compensation Committee meets at least once a year.

### Information and controlling tools in relation to the Executive Board

The Management Information System (MIS) of the RUAG Group is structured as follows: The subsidiaries' balance sheet, income statement and cash flow statement are compiled on a monthly, quarterly, semi-annual and annual basis. This information is consolidated for the various divisions and for the group as a whole and compared to the previous year's figures and the budget. The budget, which represents the first year of a four-year plan for each subsidiary, is examined in the form of a feasibility forecast based on quarterly results.

Each month, the Chief Executive Officer provides the Board of Directors with a written report on business performance and budget compliance.

### Executive Board

#### Management organization

The Board of Directors has appointed an Executive Board under the chairmanship of the Chief Executive Officer. Its powers and duties are set out in the Regulations Governing Organization and Operations and in the description of the functions of the Chief Executive Officer. The Divisional Heads report to the Chief Executive Officer, who is responsible for overall

management and cross-divisional co-operation.

The CEO, Divisional Heads, Head of Group Services, Chief Financial Officer and Head of Human Resources sit on the Executive Board (8 members).

### Chief Executive Officer

The Chief Executive Officer manages the RUAG Group. He submits the strategy, long and medium-term objectives and management guidelines of the RUAG Group to the overall Board of Directors for their approval. At the proposal of the Chief Executive Officer, the overall Board of Directors decides the four-year corporate plan, the annual budget, individual projects, individual and consolidated statements as well as human resources issues. At the request of the Chief Executive Officer, the Compensation Committee approves the remuneration of the members of the Executive Board as well as insurance issues.

The Chief Executive Officer regularly provides reports to the overall Board of Directors on business performance, anticipated business matters and risks, as well as changes at the more junior management level. The members of the Board of Directors may request and examine additional information. The Chief Executive Officer must inform the Chairman without delay of any significant unexpected developments. The Chief Executive Officer regularly monitors whether the Articles of Association as well as the regulations and signatory

powers issued by the Board of Directors require amendment and applies for such amendments to be made.

### **Members of the Executive Board**

The list on page 9 provides information about the name, age, position, date of joining and remaining period in office of the individual members of the Executive Board.

### **Management contracts**

No management contracts have been concluded by RUAG Holding and its subsidiaries with any third parties.

### **Compensation, profit-sharing and loans**

#### **Compensation and determination thereof**

For their services, the members of the Board of Directors receive compensation, which is proposed from time to time by the Compensation Committee, submitted by the overall Board of Directors for approval and ratified by the annual shareholders' meeting.

The senior managers of the RUAG Group are compensated according to their performance. The variable components of overall emoluments are based upon the achievement of pre-agreed, individual performance targets and upon the consolidated results. At the request of the Chief Executive Officer, the Compensation Committee approves the remuneration of the members of the Exe-

cutive Board. There are no profit-sharing schemes that allow for the purchase of shares or stock options.

### **Compensation for incumbent company officers**

The overall emoluments (excluding employer contributions to statutory retirement and survivors' insurance) paid to non-executive members of the Board of Directors in the 2004 financial year amounted to CHF 0.5 million (previous year: CHF 0.5 million).

The overall amount (including all employer contributions to pension funds, excluding employer contributions to statutory retirement and survivors' insurance or similar statutory social insurance contributions) paid to the executive member of the Board of Directors and the other members of the Executive Board in the 2004 financial year amounted to CHF 3.4 million (previous year: CHF 3.0 million).

In the 2004 financial year, no severance compensation was paid to non-executive members of the Board of Directors or members of the Executive Board having terminated their function with the company.

### **Maximum overall compensation**

The highest total compensation (including all employer contributions to pension funds, excluding employer contributions to statutory retirement and survivors' insurance) paid to the executive

member of the Board of Directors in the 2004 financial year was CHF 0.7 million (previous year: CHF 0.6 million). The variable portions of both the overall compensation paid to the Executive Board and the highest total compensation have changed from the previous year owing to the business result.

### Compensation for former company officers

No compensation was paid during the financial year to non-executive members of the Board of Directors or members of the Executive Board having departed during the financial year, the prior-year period or previous to that after the departure of such members.

### Additional fees and remuneration

During the 2004 financial year, the members of the Board of Directors and Executive Board and/or closely connected individuals received no appreciable fees or other remuneration for additional services provided to RUAG Holding or one of its subsidiaries.

### Company loans

The members of the Board of Directors or Executive Board and/or closely connected individuals are not, or were not, involved in transactions outside the normal business activities of RUAG Holding or one of its subsidiaries, or in any other transactions which are in some shape or form unusual yet significant for RUAG Holding, during the current or preceding financial year.

As at 31 December 2004, RUAG Holding and its subsidiaries had not pro-

vided any securities, loans, advances or credits to the members of the Board of Directors or Executive Board and/or closely connected individuals.

### Capital structure

The share capital of RUAG Holding amounts to CHF 340,000,000, comprising 340,000 fully paid-up registered shares, each with a par value of CHF 1,000. As at 31 December 2004, RUAG Holding did not have any conditional or authorized capital, nor had it issued participation or dividend-right certificates. The registered shares of RUAG Holding are not listed.

### Changes to capital in the last three financial years

No changes to capital were decided.

### Shares

At shareholders' meetings of RUAG Holding, each registered share carries one vote. The voting right may only be exercised if the shareholder is registered in the RUAG Holding share ledger as a shareholder with voting rights. The registered shares carry full dividend entitlement.

### Share ledger

The Board of Directors keeps a register of shareholders.

### Shareholder structure

#### Shareholders

The Swiss Confederation owns 100% of the share capital and all the voting rights in RUAG Holding. The Federal Department of Defence, Civil Protection and Sport represents the shareholder

interests of the Swiss Confederation, under the terms of the Federal Act on State-Owned Armaments Companies, art. 3, section 2.

### Owner's strategy of the Federal Council

The owner's strategy of the Federal Council creates the transparent, binding framework conditions which enable RUAG Holding and its subsidiaries to fulfil their duties on a commercial basis while taking account of the broader interest. The owner's strategy is anchored in the Articles of Association of RUAG Holding.

In its owner's strategy the Federal Council lays down strategic objectives in the interest of Swiss national defence, expectations regarding cooperation and joint undertakings as well as human resources policy and financial objectives.

The Federal Council amended certain points of the owner's strategy and extended its validity to 2006 in November 2002.

### Swiss Confederation representation on the Board of Directors

In addition to the representative of the Department of Defence, Civil Protection and Sport (post currently held by Jakob Baumann), a representative of the Federal Finance Administration (post currently held by Peter Saurer) sits on the Board of Directors of RUAG Holding.

### Cross-shareholdings

The RUAG Group has not entered into any cross-shareholdings with other com-

panies, either in terms of capital or votes.

### **Codetermination rights of shareholders'**

### **Voting right restrictions and representation**

At shareholders' meetings of RUAG Holding, each registered share carries one vote. A shareholder may be represented by another shareholder only by written proxy.

### **Statutory quorums**

The following resolutions are subject to statutory quorums in accordance with the Swiss Code of Obligations (art. 704):

- Changes to the object of the company
- Introduction of voting shares
- Restrictions on the transferability of registered shares
- Approved or conditional capital increase
- Capital increase out of own resources, in return for contribution in kind or for the purpose of acquisition in kind and the granting of special benefits
- Restriction or abolition of subscription rights
- Relocation of the company's registered office
- Dissolution of the company without liquidation procedure

### **Convening of shareholders' meetings and setting of agenda**

The convening of the shareholders' meeting and setting of its agenda are conducted in accordance with statutory provisions.

### **Change in control and defensive measures**

#### **Obligatory offer for sale**

There are no statutory provisions concerning opting-out and opting-up (Stock Exchange Act, art. 22).

#### **Change in control clauses**

Under the terms of the Federal Act on State-Owned Armaments Companies, any disposal of the capital or voting majority of the Swiss Confederation to third parties requires the approval of the Federal Assembly. That aside, there are no specific clauses consequent upon a change in control of RUAG Holding.

### **Auditors**

#### **Duration of mandate and term of office for lead auditor**

PricewaterhouseCoopers AG, Berne, have been auditors to RUAG Holding since 1999 and Group auditors to the RUAG Group since 1999. The senior auditor has been responsible for the audit mandate since 2000 (RUAG Holding) and since 2000 (RUAG Group).

#### **Audit fees and additional expenses**

In the 2004 financial year PricewaterhouseCoopers billed the RUAG Group CHF 0.8 million (previous year: CHF 0.9 million) for its services in connection with the auditing of the annual accounts of RUAG Holding and the Group companies as well as the auditing of the consolidated financial statements of the RUAG Group.

In addition, PricewaterhouseCoopers billed the RUAG Group CHF 0.3 million (previous year: CHF 0.9 million) in respect of audit-related services, management consultancy, tax advisory and due diligence services as well as other auditing services related to internal auditing.

#### **Supervisory and controlling tools in relation to auditing**

The Audit Committee of the Board of Directors evaluates the performance, fees and independence of the auditors and of the Group auditor on an annual basis and submits to the Board of Directors a proposal as to which external auditor should be recommended to the shareholders' meeting for appointment. The Audit Committee then monitors on an annual basis the scope of external auditing, the auditing plans and the relevant processes and in each case discusses the audit results with the external auditors.

#### **Information policy**

The RUAG Group pursues an open information policy in relation to the public and to the financial markets. The published figures extend beyond the statutory requirements in terms of transparency.

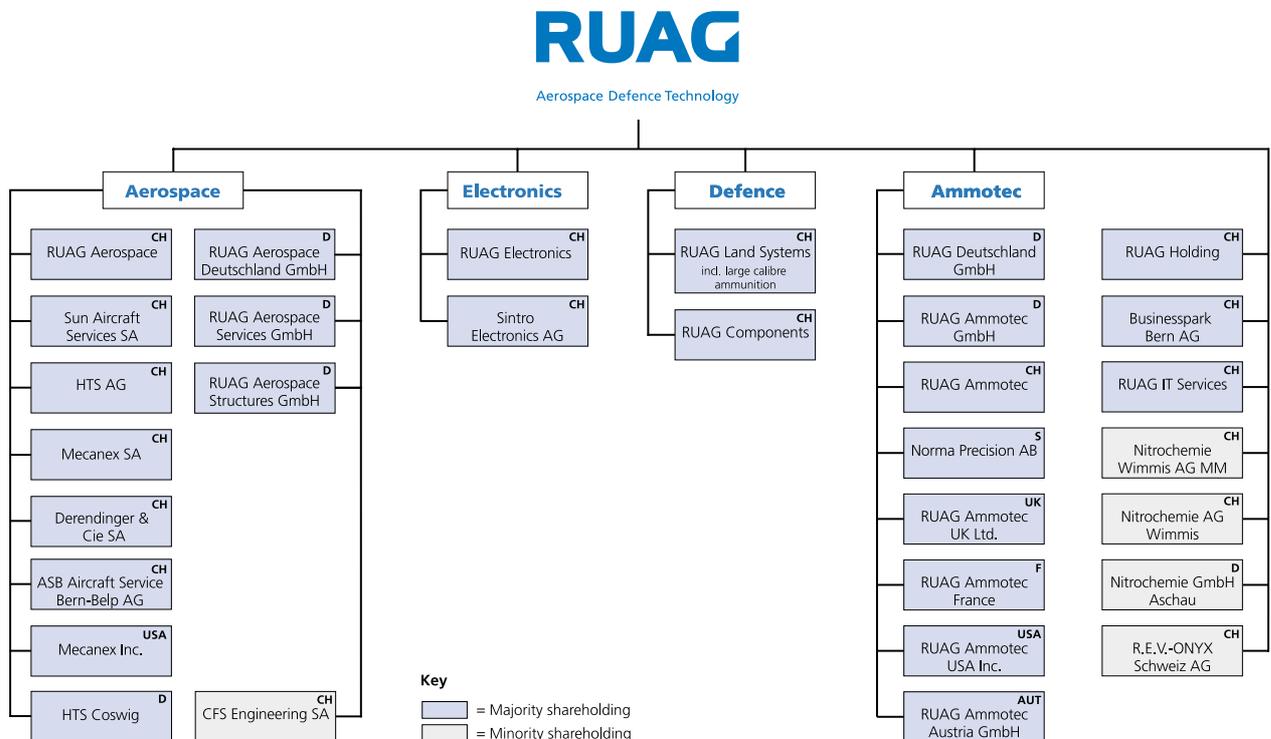
## Important dates

Financial year-end:	31 December 2004
Announcement of annual results:	17 March 2005
Publication of Annual Report:	17 March 2005
Shareholders' meeting:	04 May 2005

The Annual Report, covering the year to 31 December 2004, is sent to shareholders together with an invitation to attend the annual shareholders' meeting.

Current annual reports and press releases may be found at <http://www.ruag.com>. Media conferences are held at least once a year.

## Subsidiaries and affiliates





## Addresses

### **RUAG Holding**

Stauffacherstrasse 65  
CH-3000 Bern 22  
Tel. +41 313 766 450  
Fax +41 313 766 451  
info@ruag.com

### **RUAG Aerospace**

P.O. Box 301  
CH-6032 Emmen  
Tel. +41 412 684 111  
Fax +41 412 602 588  
info.aerospace@ruag.com

### **RUAG Aerospace Deutschland GmbH**

Sonderflughafen Oberpfaffenhofen  
D-82230 Wessling  
Tel. +49 815 330-0  
Fax +49 815 330-2901  
info.aerospace.services@ruag.com

### **RUAG Aerospace Services GmbH**

Sonderflughafen Oberpfaffenhofen  
D-82230 Wessling  
Tel. +49 815 330-0  
Fax +49 815 330-2901  
info.aerospace.services@ruag.com

### **RUAG Aerospace Structures GmbH**

Sonderflughafen Oberpfaffenhofen  
D-82230 Wessling  
Tel. +49 815 330-0  
Fax +49 815 330-2901  
info.aerospace.structures@ruag.com

### **ASB Aircraft Service Bern-Belp AG**

Flughafen Bern-Belp  
CH-3123 Belp  
Tel. +41 319 602 233  
Fax +41 319 617 186  
office@asb-belp.ch

### **Derendinger & Cie SA**

Chemin du Champ-des-Filles 7  
CH-1228 Plan-les-Quates, Genève  
Tel. +41 228 841 950  
Fax +41 228 841 951  
info@dgsa.com

### **HTS AG**

Widenholzstrasse 1  
CH-8304 Wallisellen  
Tel. +41 448 391 214  
Fax +41 448 391 200  
hts@htszh.ch

### **Mecanex S.A.**

Z.I. Nord  
CH-1260 Nyon  
Tel. +41 223 617 733  
Fax +41 223 616 752  
info@mecanex.ch

### **Sun Aircraft Services SA**

Via Aeroporto  
CH-6982 Agno  
Tel. +41 916 119 060  
Fax +41 916 119 065  
agno@sunaircraft.com

### **RUAG Ammotec GmbH**

Kronacher Strasse 63  
D-90765 Fürth  
Tel. +49 91197961110  
Fax +49 91197961151  
info.ammotec@ruag.com

### **RUAG Ammotec**

Uttigenstrasse 67  
CH-3602 Thun  
Tel. +41 332 282 220  
Fax +41 332 282 627  
info.ammotec@ruag.com

### **Norma Precision AB**

S-67040 Amotfors  
Tel. +46 571 315-00  
Fax +46 571 315-40  
info.norma@ruag.com

### **RUAG Components**

Industriezone Schächenwald  
CH-6460 Altdorf  
Tel. +41 418 757 218  
Fax +41 418 757 302  
dir.components@ruag.com

### **RUAG Electronics**

Stauffacherstrasse 65  
CH-3000 Bern 22  
Tel. +41 313 766 666  
Fax +41 313 766 660  
info.electronics@ruag.com

### **RUAG Land Systems**

Allmendstrasse 86  
CH-3602 Thun  
Tel. +41 332 281 100  
Fax +41 332 282 047  
info.landsystems@ruag.com

### **Business Park Bern AG**

Stauffacherstrasse 65  
CH-3000 Bern 22  
Tel. +41 313 766 911  
Fax +41 313 766 909  
info.electronics@ruag.com

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**RUAG Holding**

Stauffacherstrasse 65  
CH-3000 Berne 22

[info@ruag.com](mailto:info@ruag.com)  
[www.ruag.com](http://www.ruag.com)

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SECURITY IS OUR GOAL, QUALITY OUR STANDARD