

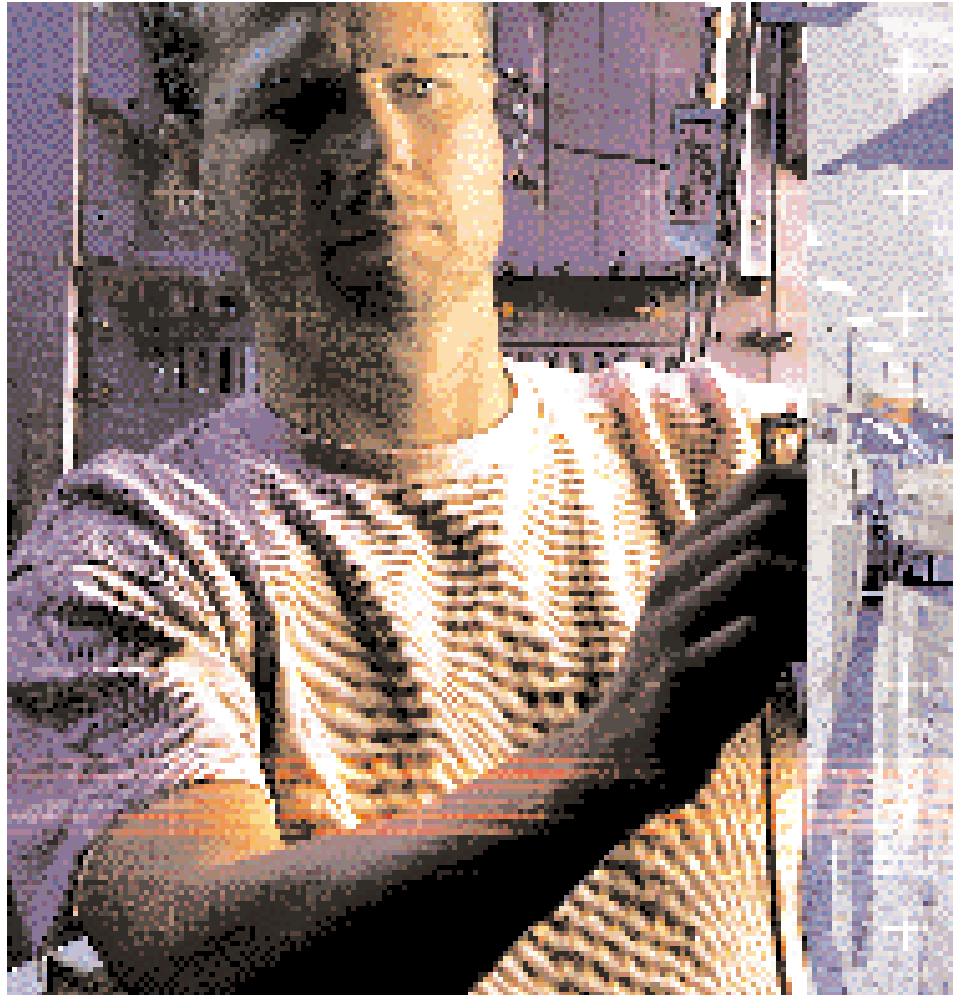


# Process control starts in your mind

Quality management at Rohde & Schwarz



**ROHDE & SCHWARZ**



# Only those who practise qua

Quality plays a key role in our modern industrial culture.

This is especially true of capital goods like high-precision test & measurement instruments, used themselves to ensure the quality of other products, and high-tech communication sets and systems, which are expected to work reliably in every kind of environment.





> ROLAND KONITZ <

Project Integration:

“ When I first came to Rohde & Schwarz, quality for me mainly meant passing tests. Now I know that first of all it's a matter of your own attitude and your relationship with customers. ”



# will attain it

## Recognition worldwide

Quality is a principle that is practised without compromise at Rohde & Schwarz. This is demonstrated by a wide selection of well-known international certifications, from ISO 9001 through AQAP, FAA and other, also military, approvals to numerous supplier audits.



## Personal responsibility

Our quality philosophy is not limited to rules and certificates, it is deeply embedded in our employees' minds. That shows not just in the care with which every task is tackled but also in the culture of open communication at Rohde & Schwarz, allowing – and demanding – that every problem be addressed frankly. Rohde &



Schwarz practises and promotes quality at all levels. For example by Change, a program aimed at continuous improvement of corporate processes.



# Exceptional performance based

To make a successful contribution to overall objectives, the starting point must be the same for everyone. At Rohde & Schwarz, this is ensured by giving each person a precisely documented system of guidelines and standards.





> RALPH GRIEMERT <  
Quality Management:

“ Quality's not a status. It's a process created and shaped by people. That's why anchoring our quality philosophy in every person's mind is such a vital element of what we do. ”

# on precise rules

Rohde & Schwarz introduced a documented quality management system as early as 1973. From this evolved a comprehensive set of rules covering all operations and processes and conforming to ISO 9000-2000.



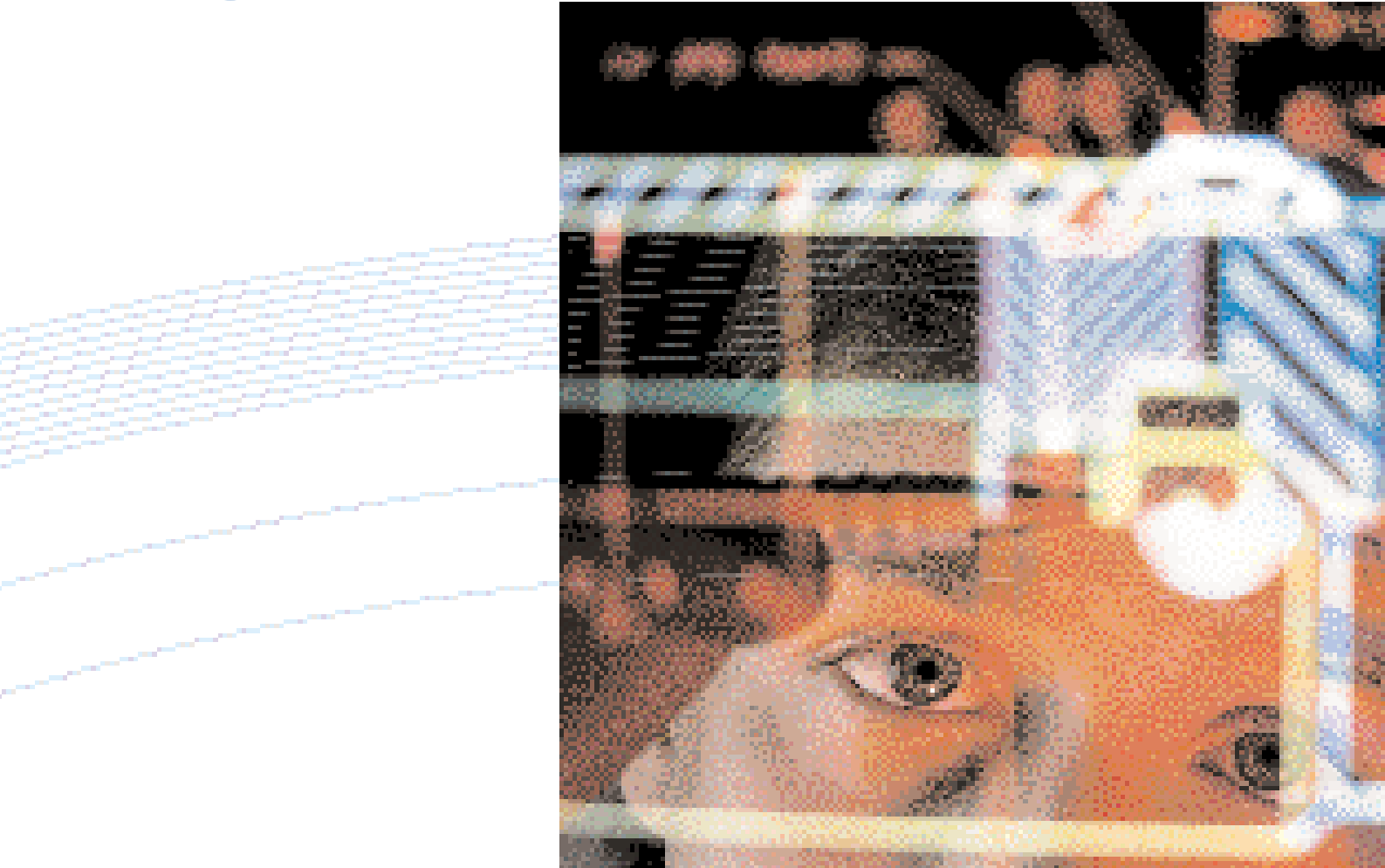
## Quality management manual

The presentation of our quality management system in the QM manual is available to all employees in electronic form or print. It is both a standard and a guideline, stating what processes are defined by rules and what criteria and further guidelines are applicable.



## Documented procedures

Processes are described in detail in quality procedures and organizational directives. There are general guidelines as well as job-related rules that describe, for example, the purchasing, development or market introduction process for new products.



# Even visionaries need orientation

Correcting errors is important – preventing errors in the first place even more. Rohde & Schwarz works with a design steering procedure in the hardware and software development phase already to guarantee maximum quality in each innovation.



> GOTTFRIED HOLZMANN <  
Development of T&M Products:

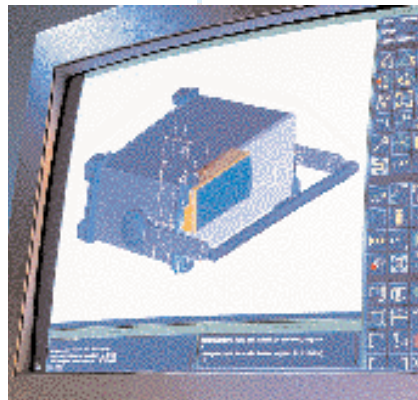
“ At the end of a development project there's a new and innovative product to match our customers' latest requirements. But the milestones to be covered on the way to a successful product are reliable and familiar benchmarks. ”



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### Milestone model

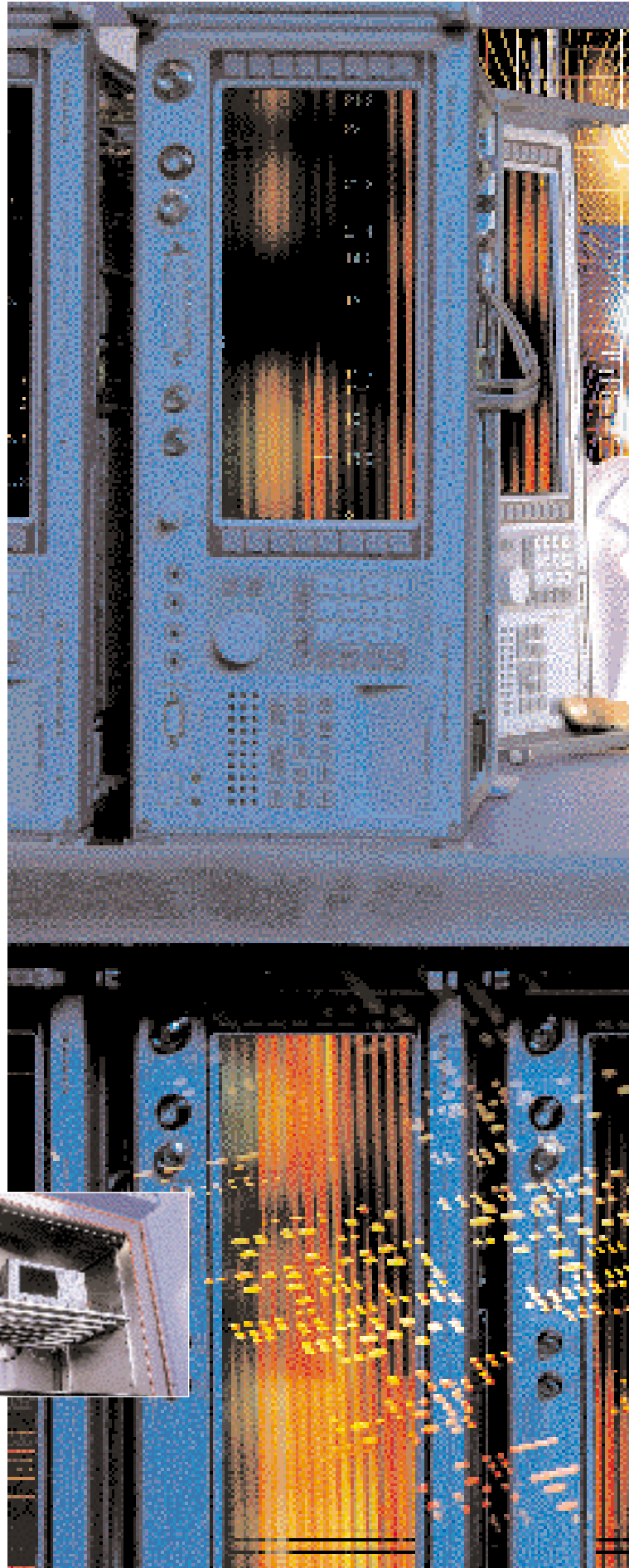
Product development at Rohde & Schwarz is based on a standard phase model. For each phase (selection, preliminary and main definition, implementation) it defines exactly what subprocess steps are to be implemented and what tasks are to be performed for each step. So each new product is subjected to a series of QM acceptance tests, validations and verifications before it is launched on the market. This is how we lay the foundations for high innovation rates, efficient development processes, smooth production operations and reliable products that contribute to our customers' success.



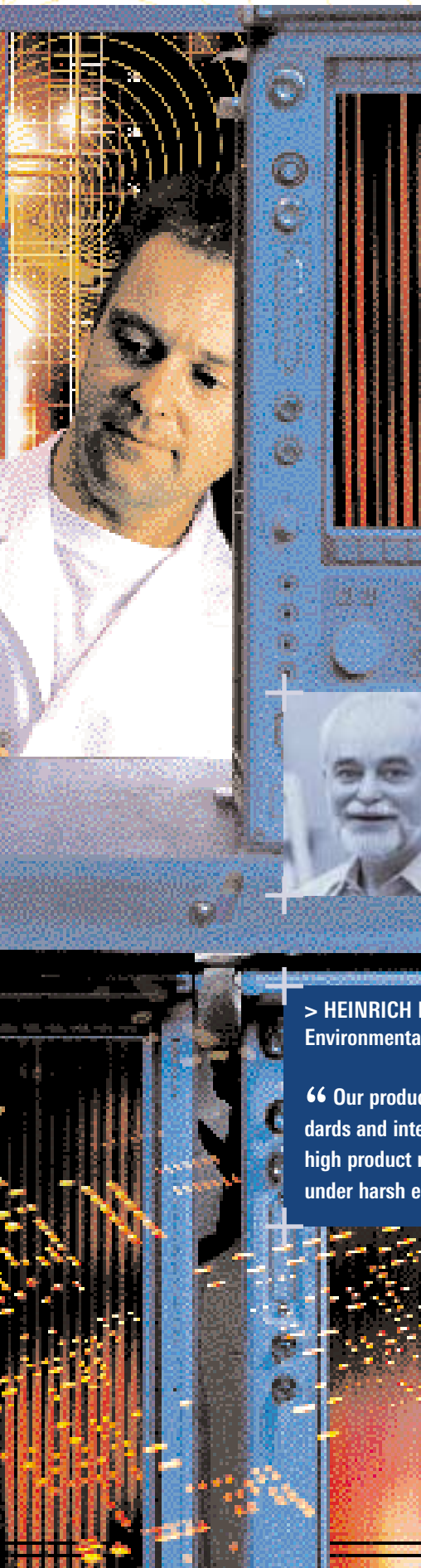


# Our products are put to the acid test

Our products must meet stiff demands during their service life. So we carry out intermediate tests during production to verify that our products satisfy expectations in each and every one of these early phases. Moreover, each unit is subjected to a 100% final test prior to delivery. The results of this test are fully documented.







**> HEINRICH LÜTKEMEIER <**  
Environmental Test Lab

**“ Our products are subjected to strict standards and intensive tests. That guarantees high product reliability during service even under harsh environmental conditions. ”**

### **Purchasing**

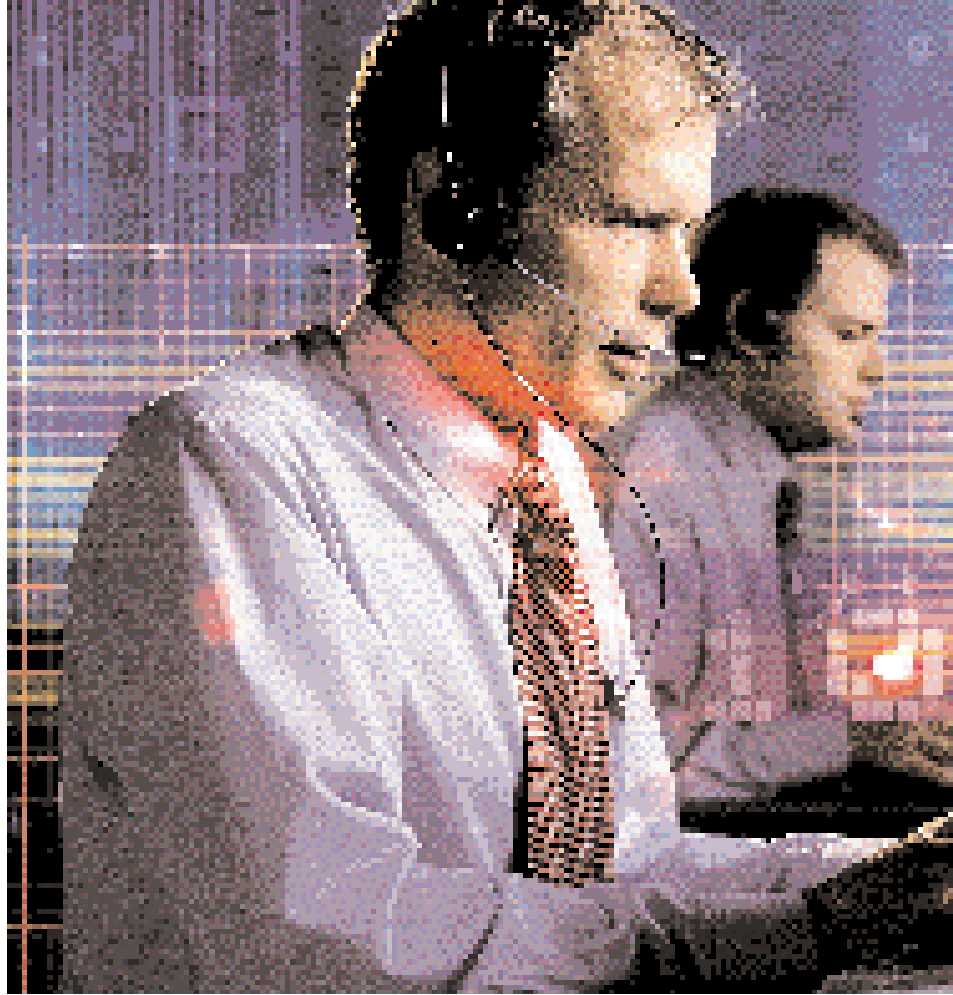
Consistent supplier management at Rohde & Schwarz guarantees that only high-quality materials are used in production. This process consists of procurement research, strategic selection of production materials and incoming goods inspection, long-term contractual agreements with suppliers and manufacturers, as well as qualified approval procedures and supplier audits.

### **Process steering**

High production quality at Rohde & Schwarz is achieved through the use of first-class components, state-of-the-art, standardized procedures, precise production control, coordinated documentation, clearly defined responsibilities and process steering aimed at optimum results.

### **Tests and inspections**

Tests and inspections are carried out at every level of production to eliminate any nonconformities as early and effectively as possible. All results are logged on modern media and can be recalled for evaluation at a keystroke. After extensive burn-in, temperature and other stress tests, our measuring instruments are calibrated to international standards already during final testing, so that each unit is fully operational right from the very first day.



# Doing it better, doing it best

Nothing is so perfect that it could not be done better. That is why Rohde & Schwarz has adopted a variety of measures to ensure that every pointer to improvement is followed up immediately, and every chance of design optimization is utilized without delay.





> **CHANTAL BLANC** <

**Queries Management:**

“ If a customer from Singapore reports a defect, the responsible development engineer is sent an e-mail the very same day. ”

**Quality improvement process (QIP)**

Rohde & Schwarz products are in use all over the world. In the event of one of our products going wrong at any time, our service organization is at your disposal at more than 60 locations worldwide. Naturally we regard every fault as a valuable clue for further product optimization. To continuously improve product quality, we have created a worldwide information system allowing our service centers to report defects online and serving as a decision base for our QIP teams from development, production, service and quality management.



**Training programs**

Especially in the field of technology, knowledge rapidly becomes obsolete. To remain competitive, constant vocational training is a must. Rohde & Schwarz has devised a special method called “Qualiteam” to determine the training requirements of its employees and teams. The findings made with the aid of this method are translated



into specific training programs. Quality management plays a key role and is consequently promoted by a whole number of lectures and seminars.



> HANS-JOACHIM MANN <  
International Service:

“ Full commitment to quality management also means that we're much tougher in how we audit ourselves and our subsidiaries than any outside organization would be. ”

# Without the slightest deviation

For precision engineering to bear its name rightly, binding standards are required. Rohde & Schwarz has set up a global network to ensure that measuring equipment operates equally reliably all over the world.



### Calibration

Highly sensitive measuring instruments have to be calibrated at regular intervals. Rohde & Schwarz has the required know-how to provide this service worldwide: our service centers – many of them with nationally accredited calibration labs – calibrate your instruments in conformance with international guidelines and traceable to national and international standards. With the aid of an automatic calibration system at more than 30 locations worldwide, we reduce the downtime of your test equipment and ensure that results are comparable worldwide.

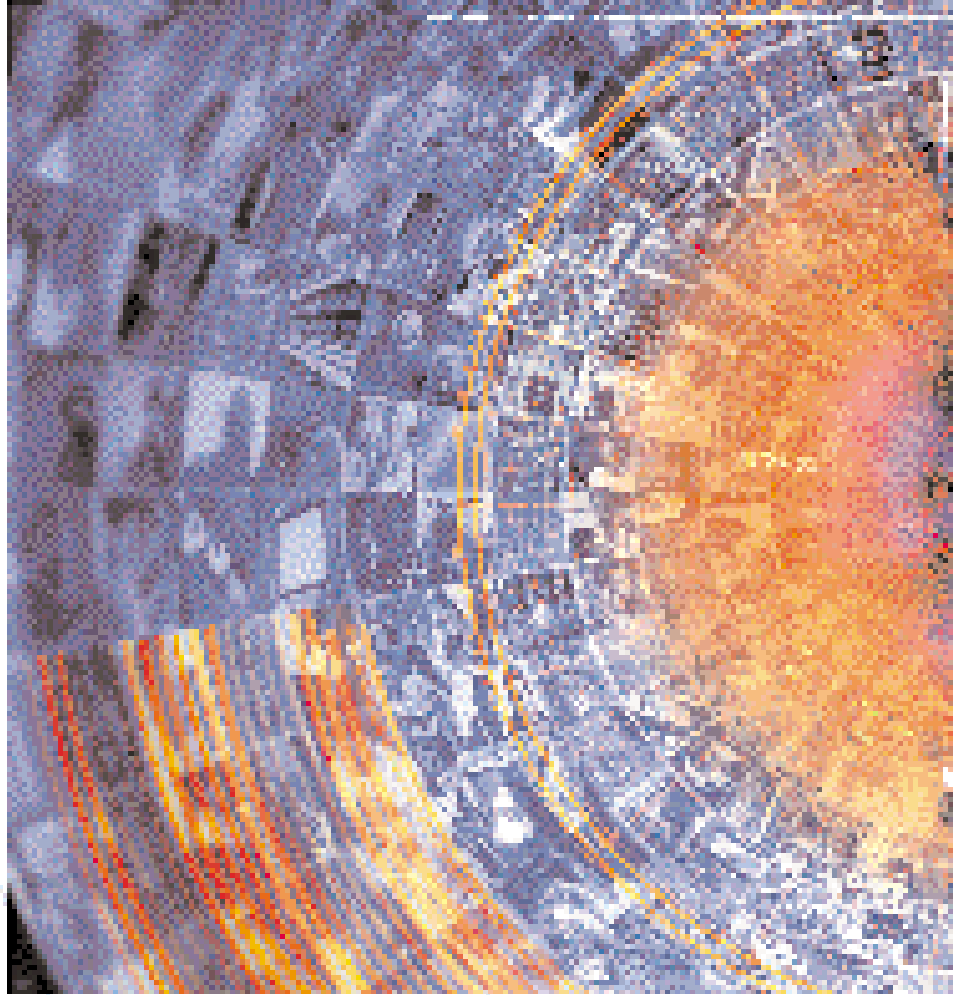


### Auditing

It is our strategic objective to offer our – often internationally active – customers the same top-quality services wherever they may be. We achieve this through continuous training of our people and a corporate auditing system for our international service centers.

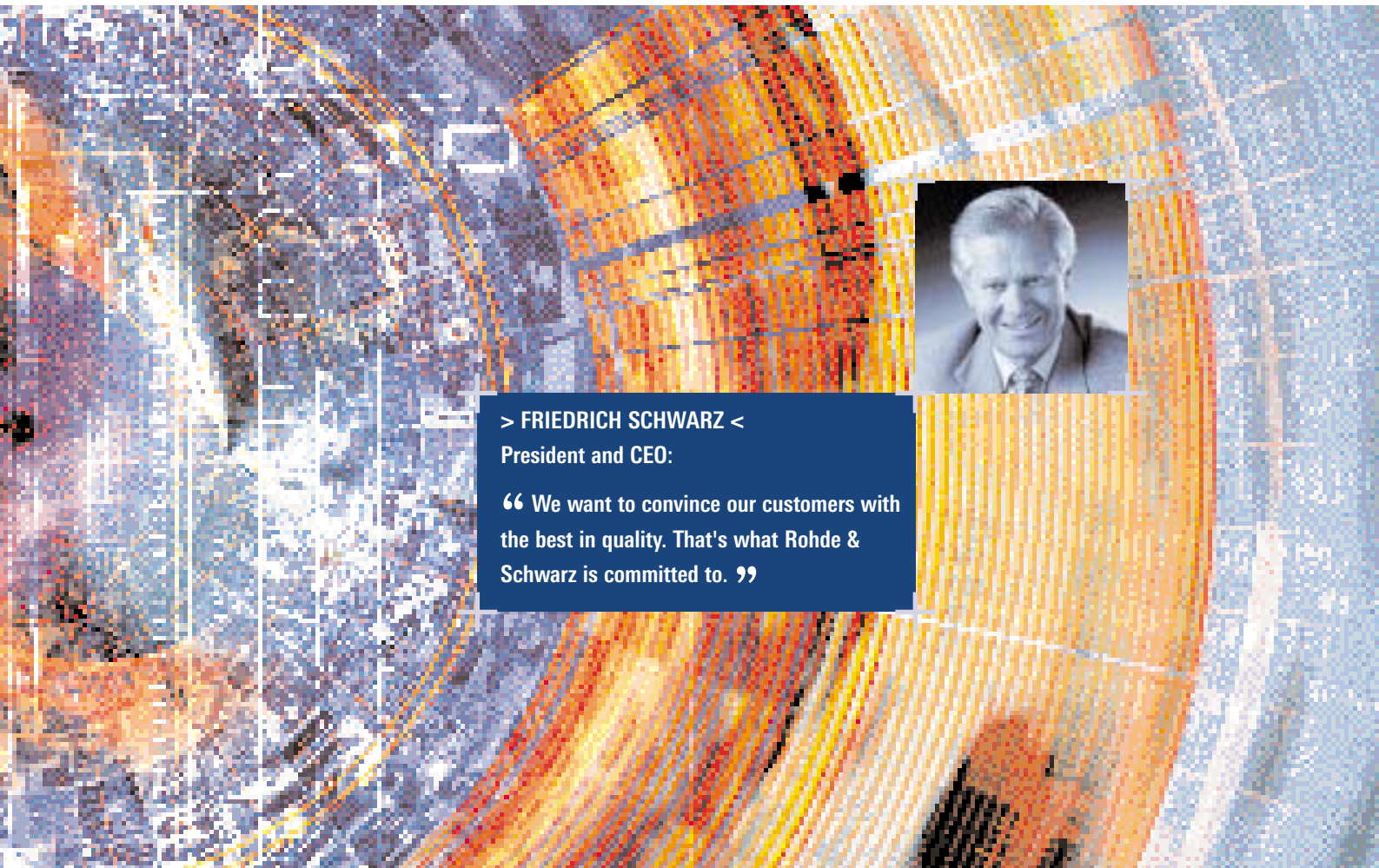


Our service centers must prove their competence and capability in regular quality audits, and only those who qualify are entitled to provide services on behalf of Rohde & Schwarz.



# You can delegate a lot of thi

To ensure that quality is given absolute priority, responsibility for quality management at Rohde & Schwarz lies directly with the executive board.



> **FRIEDRICH SCHWARZ** <  
 President and CEO:  
 “ We want to convince our customers with the best in quality. That's what Rohde & Schwarz is committed to. ”

# – but not quality

## Responsibility of top management

Quality must be affirmed and practised by everyone in the company. But to establish quality as a central corporate mainstay for everyone, unconditional support right from the top is indispensable. At Rohde & Schwarz, that is what it gets. The company's executive board plays a determinant role in shaping the quality process and is involved in this process every day. It does not confine itself to merely setting the broad rules but assumes direct and personal responsibility for the tasks and results of quality management.



## Head of quality management

The head of Rohde & Schwarz quality management reports direct to Friedrich Schwarz, President, Chief Executive Officer and partner of the company. The head of quality management is in charge of all the tasks required for conceiving, implementing and monitoring quality measures. The fact that he reports direct to the executive board not only demonstrates the



eminent importance attached to quality, it also ensures the shortest channels of decision in all matters relating to quality. All equipment bearing our name has to fulfil the most exacting requirements and satisfy the highest expectations. Quality responsibility at Rohde & Schwarz is firmly anchored so that this is guaranteed under all circumstances.





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