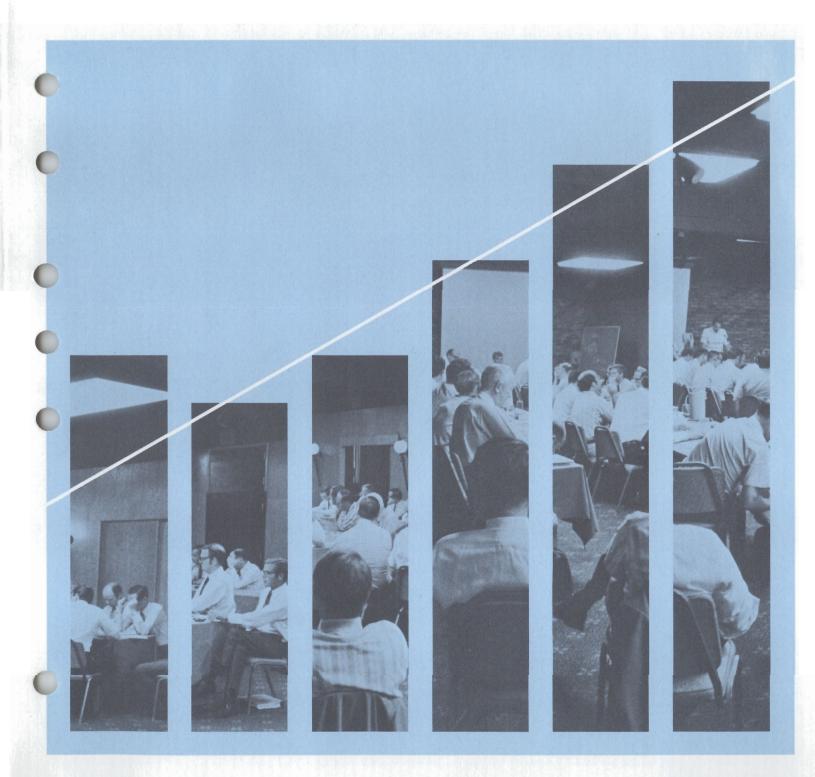
Measure

For the men and women of Hewlett-Packard/JULY 1972



The challenge of growth and

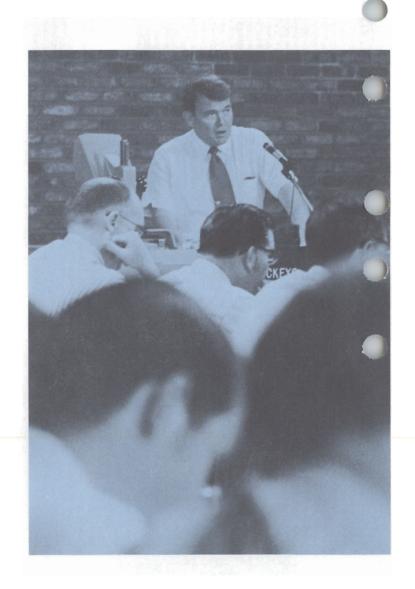
At their annual meeting in Palo Alto last month
62 HP managers from around the world
reviewed the state of the company and attempted to see what lies ahead of it.
The following reports are based on those discussions:

President Bill Hewlett

"While in Europe recently, we had talks with a number of the management teams there that covered a whole range of subjects. One of the things that came out was the fact that HP, as we know it, has become an incredibly complex operation. It arises from our own growth and from the demands that come to us from outside the company.

"At the same time, we are a highly interactive organization. We have this great diversity of talent and technology—just look at the way our technological developments are passed on and used from one division to another and throughout the entire corporation.

"This is one of the great advantages we have in our industry. So, while complexity is not something to cultivate for its own sake, we should look on it as the product of one of our important strengths."



complexity...



Austin Marx, manager, Planning & Economics

Austin Marx noted that HP now sells it products in many more sectors of business and industry than ever before. We are therefore more subject to floations in the total economy:

After a difficult period, the Free World economy is looking up again.

"In the U.S., where we now have a gross national product of over \$1.1 trillion, we are definitely on a recovery trajectory from the recent economic recession. But it also looks as if the recovery period will peak out in mid-1973 and we will face some leveling off from the present rate. However, there may be some further stimulation from government, civil and R&D spending programs.

"In the nine other countries that make up the largest share of our international business, the pattern of recovery is somewhat the same as for

J.S.—an upward move after bottoming this year and last."



Jean Chognard, general counsel

"Looking at all the new things affecting the corporation that involve the law, one might conclude that the 70s are going to be the decade of the lawyer.

"Indeed, we do face a growing number of new areas of legal concern—new requirements, new regulations, and a greater willingness to litigate against business organizations.

"One kind of action that businesses face now is the class-action suit. This is where many small potential claims are represented in one large suit. Up until recently judges generally did not allow class action suits, but now they do, and the aggregate impact can be very high in terms of cost and public confidence.

"Our size today makes us more visible and more subject to legal actions. Moreover, because of our size we can expect less sympathy from the courts.

"Some things we can do to avoid legal action are: Be very careful in how you reply to written ideas submitted by outsiders; avoid unfair practices in making sales or advertising claims; seek out legal assistance very early in any negotiated agreement.

"Win or lose, the cost of litigation is very high."



Ray Wilbur, vice president—Personnel

"We have talked about affirmative action many times. Now let's see what our progress has been in recent years in this important economic, social and human relations program.

"One way of reviewing progress is to look at our U.S. employment figures since 1966. Here we find total employment has gone up 65 percent. The employment figure for women has



Ralph Lee, executive vice president, reviewed 1972 performance and outlook.

Important new facets in our marketing were discussed by Bob Boniface, vice president—Marketing.



remained close to 38 percent of the total. That of Blacks has risen 170 percent, Spanish Americans 244 percent, American Indians 360 percent, and Orientals 200 percent.

"These figures reflect a real effort in most parts of HP to go beyond identifying the problem and doing something about it. What must we do to maintain our momentum?

"In some cases we still need to initiate a real live affirmative action program.

"We can continue to find ways of upgrading all employees desiring development with particular emphasis on those minorities and women who wish to better their position. Some of our minority people have told us they believe their reviews are treated too lightly, tending to slight how they can develop. Although they feel welcomed on the job, they feel their need for a challenge and an opportunity is sometimes ignored.

"We can recognize that each of us has a responsibility to pitch in and help in this area. As Bill Hewlett made clear in his most recent Equal Employment Opportunity policy, every member of HP management is expected to adhere to our policy, and performance evaluations in the future will reflect their degree of participation and effort.

"We can also make greater efforts to recruit and upgrade women on the job. We must stop thinking that certain jobs are for 'gals' and others just for men. We must assure equal pay for the same work.

"Other directions we can take on behalf of minorities and women include more active college recruiting, increased use of summer jobs and co-op possibilities, more participation in training and apprentice programs, and improved maintenance of records for training activities and job applicants.

"At work we can do a better job of communicating our affirmative action goals and how these will affect the individual. And finally, we can all avoid generalities about women, about Blacks, Mexicans, Indians, or WASPS. Each is an individual to be treated as such."



Ed van Bronkhorst, vice president and treasurer

In commenting on the company's financial position, Ed van Bronkhorst

emphasized the importance of financing our growth from profits:

"After two years of modest growth it looks like we are now in for a period of substantial growth. The question is—where are we going to get the money to finance that growth?

"Back in the 'good old days'—up to 1966—we had substantially higher profit margins, and higher returns on investment and assets.

"We've got to go back and work hard at raising those numbers again. One way we can go is to get prices back up to the relative levels they were; there's a lot of room for improvement there.

"If we don't get our profit margins up then we may have to go to outside financing. I'd much rather not have to do that."

Dave Kirby,

director of Public Relations

In his discussion of the way HP is viewed by the public, Dave Kirby described how growth and external forces were presenting new challenges to HP and, indeed, to the entire business community. He outlined a number of steps we can take in preparing ourselves for these challenges, including a new way of looking at corporate social responsibility:

"Somehow our social responsibility has come to be interpreted as some form of charity. It involves the contribution of corporate funds to organizations, or the loan of executives,



Tom Perkins, director of Corporate Development, described new tools for use in planning corporate resource allocations.



or the involvement of people in while community projects.

"All of this implies a separation. We, as a business firm, are over here and society is over there. And, if we are being socially responsible, we frequently transfer resources from here to there.

"Well, I think we need to re-examine this concept of social responsibility. We need to recognize that HP and society are one and the same. Perhaps this was best summed up by Pogo, the comic strip character, when he said: 'We have met the enemy and they are us'.

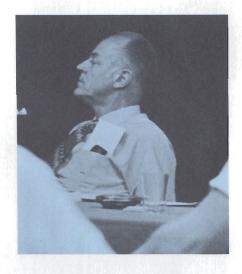
"We also tend to view the institutions in our society as quite so rate entities. There's business, of se, and that's us. Then there's government; those are frequently the

bad guys. Then over here are educators, and those are the 'impractical dreamers'. And so on down the line.

"The big challenge of the 70s and the years beyond is for all institutions, including Hewlett-Packard, to recognize that they are all part of society. And that the great social needs of our times can be met only by all institutions taking a vital role and working together for the common good.

"I believe HP is uniquely qualified to help lead our society to higher ground. Certainly there is an abundance of much-needed technology here. And an abundance of much-needed organizational and management skills.

"Even more important are certain human qualities that continue to flourish in our company despite its rapid growth and change. These include a sense of decency, a sense of pride, a sense of humor, of enthusiasm and compassion. These are the elements that we need to preserve at all cost. For they assure a bright future for our company and, through our interaction with others, a brighter future for the world around us."



The world view...

Bill Doolittle, vice president—International

"Over the years we have made considerable progress in developing as a multi-national company. Today, all of our managers do their planning on a world-wide basis.

"In my view, two big decisions were of great importance in our achieving this global view.

"One was the change from a strictly 'legal' style of accounting to 'management' accounting on a world-wide basis for each product line. This gave the various product organizations a feeling that responsibility was not being taken away from them when they embarked on overseas manufacturing and selling. They got credit for sales of all products in their area. This helped greatly to weld us together.

"The other major decision was that of realigning the sales forces along lines of product responsibility. This again extended the concept of



How product groups and HP Labs are interacting more efficiently via the HP Labs Advisory Council was reviewed by Barney Oliver, vice president—R&D.





Group marketing managers Al Oliverio (EPG—domestic) and Bill Nilsson (Data Products) reported resolution of some "gray-area" marketing problems between instrument systems and data systems.

partnership all the way from factory to the field around the world.

"As we continue to grow, it is going to be necessary to be flexible in our approach and to provide policies that are in keeping with our position around the world."



Carl Cottrell,
deputy director—International

"In this rapidly changing world, it is no longer a seller's market for U.S. companies.

"Growth and prosperity outside the U.S. are providing other strong sources of competition and funds.

"Simultaneously, there is a trend of protectionism in the developing and smaller-developed countries that raises barriers to free trade and investment.

"The result could be a slow but steady erosion of our freedom to sell and grow in certain world markets.

"To combat this erosion, we must understand the socio-economic process by which countries develop.

"After we have done our homework, we can develop the new, modern strategies necessary to meet the challenge presented by each developing country.

"If HP is to meet these challenges, we must come up with a variety of manufacturing approaches, just as we have come up with a variety of marketing approaches. We must consider the quiver full of strategies that are available to us. These include various types of assembly or manufacturing operations, working within trade blocs, and the development of products tailored to the needs of developing nations,"

Dennis Taylor, managing director, HP Ltd., South Queensferry, Scotland

"Over the past years, the existence of two separate trading blocs in Europe made it useful to produce the most popular HP products at both our German and United Kingdom facilities. Each was then able to serve the trading area to which it belonged.

"Now, thanks to the enlargement of the European Economic Community covering most of our markets in Europe, we need to adopt a different rationalle in our manufacturing



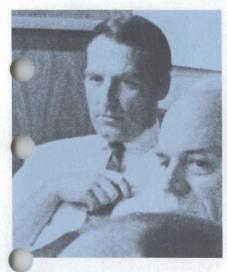
operations. Basically, over the next few years, it will come down to a reshuffling of product lines between the plants, including the new facility at Grenoble, France.

"This will enable us to take maximum advantage of the new economic and trading conditions in this giant market, while also resulting in some distinct savings in our plant operations.

"We describe this process as "product rationalization." The goal will be to achieve the most efficient manufacturing while maintaining employment levels at each plant and providing continuity of growth and opportunity along with a balance of product diversification. At the same time, local nationalism will probably prevail in some areas, and we may want to maintain duplicate product the European plants for political of economic reasons."

Need for more overall planning and interchange in our information systems was described by Cort Van Rensselaer, Corporate Information Systems manager.





What's doing in the product groups?

vice president, general manager of Electronic Products Group

After presenting a detailed review of performances of the instruments, systems and components areas, John Young said the group as a whole is relatively close to its targets for the year. He then noted some landmarks along the way:

"To strengthen communications, we thought it would be important during 1972 to develop a series of functionally oriented meetings that would attempt to focus on communications across organizational lines throughout the company.

"We started early in the year by taking a longer-range look at our fabrication strategy. In our printed circuit activity, for example, this "sulted in a task force assigned to "k out current problems that were defined in this area."

"Next we held a seminar for QA and service managers. This was the first time we ever had a group like this together. It turned out to be a great opportunity for about 70 guys to come face to face and talk about common problems and an opportunity for many to contribute to solutions in a real way.

"Most recently we set up a meeting of manufacturing managers. It was the first time some of these men had met each other, and again there was much fruitful discussion.

"Other programs on the agenda include a meeting of the engineering managers, and another by members of the logistics council. This council is something we've put together to coordinate our activity in the data programming area and to share many of the programs that have been developed by the individual departments.

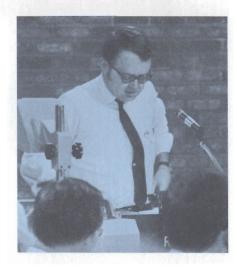
"Building projects now in construction, purchased or in planning for EPG divisions amount to some \$15 million.

"R&D programs have created a wide range of exciting and significant new products. Among these are several instruments that represent low-cost solutions to customer problems, including DVMs, modular power supplies, pulse generators and X-Y recorders. New state-of-the-art components include the CATV amplifier and LED displays as well as plastic parts used in the HP-35.

"Several instruments, such as the

18 GHz counter and the new microwave signal generator, offer very elegant problem-solving capabilities. Total problem-solving systems are represented by automatic network and spectrum analyzers, and a calculator-controlled counter-plotter system.

"All of these products are being well received in their markets."



Bill Terry, vice president, general manager of Data Products Group

In reviewing the past year, Bill Terry reported some very encouraging landmarks. These included the reorganization of the Cupertino and Mountain View divisions along functional lines, good progress in defining the role of the computer in



Recent trends to activism by professional engineering and technical societies were outlined by Don Hammond, director of HP Labs' Physical Electronics Lab.

HP and resolving the "gray area" problem between instrument systems and computer systems, and very good customer reception of new products:

"The reorganization came about when we concluded that we could no longer operate effectively at two product divisions, each with its own marketing, engineering and manufacturing. By merging these into functional divisions we have become very strongly oriented to building computer systems that combine the best computer/peripheral technology and market knowledge. I can report that our people have accepted this change and believe in it, and morale is very high.

"We are working very hard and achieving dramatic results—to reduce a backlog of orders for 2100A computers. The new disc drive is also in high demand, and orders are up.

"Our program of marketing to the education field has been very successful, and this summer's selling season promises to be hot and heavy for us in this market.

"We feel very good about progress toward delivery of the new HP 3000 later this year. This is a highly complex computer system, and in many ways the most complex project HP has ever undertaken. We think it is going to be very rewarding, but at the same time it will impose a whole new higher range of responsibility in service and support of customers.

"In spite of the deserved recognition and publicity accorded the HP-35 'mini calculator,' it's worth noting just how successful the 'big calculator' series continues to be. After a dip in sales between the phasing out of the 9100s and the introduction of the 9810, sales took off again. The 9820 introduced in February represents another great technological contribution in this family of products. Competition in scientifically oriented programmable calculators still is very dynamic, but in many ways 1972 is proving to be 'HP's year'.

"The HP-35 is a total HP contribution involving HP Labs, Corporate Design, Manufacturing Division, HPA, Santa Clara Division, Cupertino, the entire HP field sales group, and top management. It has the potential of generating more dollar volume and unit volume than any HP product, and also of spreading the HP name around the world."

Dean Morton,

general manager, Medical Electronics Division

Reporting "another very interesting year" in the making, Dean Morton, general manager of Medical Electronics, said profits at MED had been improving steadily over the past few years. He attributed this to better efficiency overall and increased productivity in field sales—more sales per salesman, with the advent of even larger systems supporting this trend in the future.

"The acquisition of Vertek, Inc. with its line of pulmonary function and respiratory care equipment gives us



a real leg up in an area of great potential.

"External forces have a very important influence on our performant. For example, spending on health care in the U.S. has gone from about 5½ percent of gross national product in 1966 to about 7.4 percent in 1971 and it looks like it will continue to rise to something like 8½ percent by 1975. In 1971 the spending figure was about \$75 billion.

"Some very important legislation affecting us is also in the works. In particular are programs of prepaid health care, with emphasis on health maintenance.

"For the future, we will continue to emphasize instruments and systems for patient care and related data management. Patient monitoring, diagnostic measurements and screening tests are slated to grow much faster than health care in general, and these are also areas of our greatest strength."

Emery Rogers, general manager, Analytical Products

Good progress in a number of areas was reported by Emery Rogers. He outlined steadily improving sales an and profits and a trend to lower costs



of and production.

s in the case of Medical

Electronics, we are getting more dollar volume per field engineer, and we are also sharing costs a lot better with other groups.

"In product development, we are putting considerable emphasis on new en in 'separation science' at Avondale and on the Scientific Instruments Division programs in Pa'lo Alto. SID now has a substantial order bact ag and is moving rapidly to explaits production capability in mass spectrometers and ESCA equipment. These are very challenging fields for HP, fields in which our technology can make significant conjutions.

"It's indicative of the trend in analytical products that our typical orders today are the kind we would not have run into a few years ago. Recent orders, for example, are for applications in a county department of health, pesticide analysis, on-site analysis of sewage effluents, an epilepsy clinic, alcohol detection, biochemical analysis, drug abuse treatment, and methadone maintenance programs.

"What's happening is that analytical instrumentation is expanding strongly from the laboratory into the clinic. In my opinion, there's great potential here for a real team effort between Archical Products and the other HP product groups."



David Packard, chairman of the Board

"It is very encouraging to be back and to see the progress that has been made since I left just over three years ago.

"Most impressive to me has been the progress in technology. It highlights, again, the fact that we are in a technical business, and that we must maintain our strong position in this area. It is the most important asset we have and we can't afford to lose it.

"Another impressive development has been the expansion into new markets, with new products representing new technologies. It's also good to see the fine progress made in the area of marketing, with sales forces dedicated to the various markets we are now in. This is going in the right direction.

"At the same time, I am very pleased at the recognition our people have given to the fact that the social and human environment in which we operate is changing. All of us need to look beyond the details of our day-to-day jobs for the human values that are involved. It's very important that we understand the changes that are going on.

"We have made good progress in hiring minority people, but we still have a big job to do in moving them up in the company. We have to keep that as a high priority. One way to do it is for all of us to make a commitment that progress in this area will be a matter of importance in evaluating management performance.

"Another question we face as we grow is where are we going to get the resources to support our growth? This is becoming a more complex question as we move into new markets with the need to finance some sales through leases and rentals. A number of alternatives are open. But I would like to see us stick as closely as possible to our traditional policy of financing our own growth from profits. This policy, though it may be considered conservative, has been very helpful in enabling the company to come through a difficult economic period in very good shape.

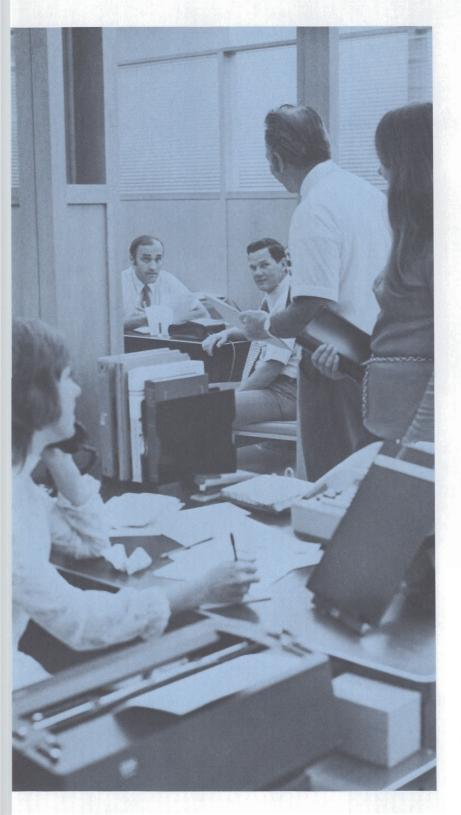
"As we grow we obviously come up against another question, and that is how do we make 'management by objective' work? It is a problem inherent in any program of decentralization.

"The goal, of course, is that the people who carry out a decision should be involved in making the decision. But too many people interpret management by objective as simply having a general objective and then letting everyone operate without control or supervision.

"There has to be some overall central control. There have to be common policies and procedures so that we can conduct business with one another and interchange people more easily.

"The truth is, management by objective works only when people have a firm understanding of the objectives. And then, when they merit your confidence through their performance, you give them ample responsibility to meet the common objectives."

Keeping an open door.



You and I can usually account for our day's efforts: so many units produced, so many decisions made, items purchased, products sold, deadlines met or targets reached. That's the nature of most jobs—measurable, accountable, tangible—and reassuring because of that.

Now step into the personnel manager's office.

He's not in at the moment—got suddenly called managers' meeting. On his desk are three "please call back" notes. To one side is a stack of job applications. Next to them are a bunch of employment requisitions.

In his "in" basket is a thick report detailing some of the many actions required of industrial firms under new health and safety regulations; it will be his job to implement and report on many aspects of these regulations. Underneath it is another report prepared under his direction concerning the division's compliance under equal-opportunity regulations. A wage and salary survey awaits his review. A supervisor walks by hoping to talk to him about a complex personal problem of an employee. Letters from civic organizations await his attention. Chis calendar is a note reminding him of a supervisory training session that evening. The phone rings—again and again; his secretary adds two more "please call" notes to his desk.

Now, returned to his office, he will attend to, o note of, as many of these matters as he can. But in the end he'll wonder where the day went: "All I seemed to do was put out fires."

Is that the way it is in Personnel these days? Is that what's become of that one-time bastion of serenity?—re like hospitals, they used to catch you mainly coming and going? Now their involvement seems much more complete—and much more complex.

To explore this question which has an influence on virtually every job in the company, let's hear what a representative selection of HP personnel managers think about their role—what is changing in it, what they think it should be:

Elmer Luthman, new personnel manager for Microwave Division in Palo Alto, gets a taste of the unscheduled and oftimes uncertain demands that are put on his workday. Keeping an open door is an HP tradition that goes with the job.

L. A. Fulgham, San Diego Division, has made personnel work his career ever since Air Corps service during World War II. Subsequently he graduated from college in personnel a istration. For his first job, L. A. went to work for a chamcal company in a production supervisor capacity just to see if he could put into practice—on that side of the organization—some of the key principles of his profession. He discovered they really do work—and he has been successful applying them within HP for the past ten years:

"It's unfortunately too true that government legislation is becoming a key requirement of the personnel function. It's making it harder for us to say: 'Mr. Operations Man, what can we do to be of more service to you?' Because we shall be looked on as a function that is carrying its own weight, even though it is administrative.

"It's a service function to the total organization—including customers. Our first duty is to the company: How we can help the manager and the supervisor get the best utilization of his people? Next is our obligation to the individual: What are the needs of a particular individual for job satisfaction? And what can we do to broaden the individual's opportunities within the company?

"Sometimes the things we do in this regard are not at all obvious to the individual. It begins with the supervisor. If he's on the ball, he'll know the relative strengths and weaknesses of his people. In this way we get a sharp overall picture of the organization. Then we can make a plan. And if an individual is the kind who can handle growing responsibility then we should take advantage of it and provide him with the training and experience and the plan to permit him to "ow.

"Yet personnel work seems to be one of the most intangible of areas in industry. In the course of a day you've



talked to a lot of people, covered a lot of topics—but it's hard putting your finger on any one concrete thing you've done. Because mostly, you're dealing with people and ideas—not absolute facts and figures.

"For example—how do you measure morale? Or communications? Or ideas? That's why personnel work can frustrate some people. They can't weigh it or measure it, and they don't like that.

"But, actually, personnel plays a very important role in bridging the gap between the expectations of productionminded managers and the needs of the individual. Those people are the ones who brought about the results, and they should never be overlooked.

"What I try to do is to project myself and ask: 'How would I like to be treated if I were in that other person's shoes?' "



open door

Klaus-Dieter Laidig, administration manager at the Boeblingen plant near Stuttgart, Germany, joined the personnel department at HP GmbH in 1967 after an apprenticeship in banking accompanied by studies in economics and personnel. In 1968 he became personnel manager and later took on additional duties in administration and finance while continuing to supervise the personnel function with Rudi Speier as personnel manager:

"In our view, the primary personnel function should be to give people the means to develop themselves in keeping with the overall objectives of the company. This is what we mean by personal development.

"As part of this role it is up to us to train and encourage managers to meet individually with their people from time to time in order to review performance, development and objectives.

"Encouraging this kind of advisory role by managers was one of the specific goals of the supervisory development program that we held in Germany last year on behalf of a number of HP organizations in Europe. This included 138 employees from the Boeblingen plant, 54 people from the German sales organization, 7 from the Zurich sales office, 4 from Vienna, and 1 from the new plant in Grenoble. We are continuing this effort on a European-wide basis in the form of various workshops and courses in leadership and development coordinated by Paul Massey, the European personnel manager.

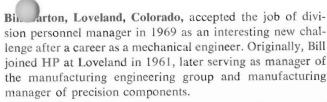
"Part of the development function is training. We have to offer a wide range of training possibilities to enable our people to develop themselves in our growing company.

"This year we will be holding about 40 evening courses covering such subjects as basic electronics, languages, etc. These seminars for our people, inside and outside the plant,

last year attracted about 450 people. In addition, we have an apprenticeship program for test technicians of which we are very proud.

"Personnel is also the intermediary in job rotation and interchange of people. These are very useful development tools in giving people the opportunity to gain experience in different fields.

"Overall, we feel the personnel function in the past ten years has shifted from being more or less administrationoriented to take on more the roles of consultant, adviser and trainer. We like to point to the fifth Corporate Objective which says that the general policies and the attitudes of managers are more important than the specific details of the personnel program."



"Before I took the job, I had worked with personnel as ser—in recruiting, training, teaching classes and the like. So I was familiar to some extent with what I thought I wanted in personnel work.

"However, many people warned me it was going to be ver different from what I was used to. They said it would not like the logical approach we take in engineering. And to some extent that was true. There are quite a number of things—personal situations—that come down to a gut feeling. But logical thinking still is important here. It's just that it has to be more intuitive, more reactive to people. But that log process is still very useful in finding out a few more facts before you react.

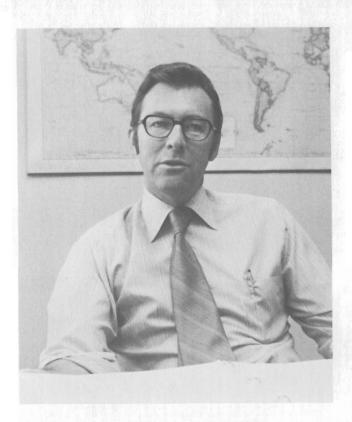
"As I see it now, there is a lot more certainty in the way things are done in manufacturing. There you come to work in the morning and know what you are going to do, even if there are problems.

"In personnel, you come in and suddenly you've got problems you didn't have yesterday. You'll be approached from all sides, and not on any schedule.

"But, of course, that's one of the reasons we're here. Keeping an open door is one of the images we've sought to portray and make real. Anytime anybody has a problem, we're here to talk about it.

"However, it was a bit difficult getting adjusted to being in a service capacity. But there is a lot of satisfaction in working with people, helping them. There's nothing abstract about it."





Lee Seligson has been a member of the personnel profession since 1950 when he graduated from Roosevelt University, Chicago, Illinois, with a major in psychology. Lee joined HP in 1959 reporting to Ray Wilbur as training coordinator, subsequently serving as personnel manager at Waltham, management development manager in Palo Alto, personnel manager in Europe, and presently as International group personnel manager:

"International personnel work is a lot like international relations—very complex and very sensitive. Establishing and maintaining fair and competitive compensation and employee transfer programs is one of the difficult problems we have worldwide. Recently we've spent a great deal of time trying to reconcile the results of worldwide inflation, devaluation, revaluation—maintaining as much equitable treatment as possible among people occupying similar positions around the world under widely differing cultures and monetary systems.

"Another area in which we've been actively involved is employee benefits. As of November 1, 1971 every overseas subsidiary was included in the Corporate cash profit sharing program. This program has been integrated and balanced with any legally required local profit sharing or other bonus type payments.

"For example, a number of countries require an additional one or sometimes two months pay per year. So you have to ask: 'Do we pay eash profit sharing on top of that? And, if so, to what extent? And how about where end-of-year bonuses are culturally traditional and industrially competitive?' Most of all, we look at an employee's total annual cash

open door

compensation whatever the elements, and determine our competitiveness on that basis.

"In addition, we've also implemented stock-purchase programs or comparable savings plans on an international basis. One of our objectives is to introduce Corporate programs where possible worldwide.

"Very often, we encounter local legislation that mapreempt what we are attempting to do in the compensation and benefit areas. The problem then is 'how do we compete for employee loyalty, commitment, and motivation when governments have legislated so many areas of benefits and working conditions?

"The best we can do (just as in the U.S.) is to offer excellent management which creates the appropriate climate for individual growth and job satisfaction. There comes point where you just can't give more holidays, or add to pension plans or—for example—increase medical coverage where it's already free as in Great Britain and many other countries.

"What we have done is concentrate on the areas of advancement, training and achievement, giving people the opportunity to fully use their energies and resources.

"At the outset, in some countries there was some natural skepticism among new and prospective employees where our corporate philosophy was discussed.

"When our internationally based employees finally understood why we were in business and witnessed it in practice—that we were not there to make a quick profit then get out—they realized we had made a long-term investment in that country and its people. *Then* we found they accepted our HP philosophy.

"The best evidence of our internationally based employees' attitude and feelings about HP is evidenced by walking into even the smallest HP office anywhere around the world. You'll find all the dedication and loyalty and identification with HP that you expect to find in the top corporate offices."

From the president's desk

Just after the HP Board meeting in May I left for a visit to our operations in Singapore and in Europe. It had been about two years since I visited our Singapore plant and I was greatly impressed with its development. We now employ 675 people there, about 60 percent of whom are assembling core-plane memories for our computers. As you may remember, prior to Singapore we had been buying these core memories on the outside, mainly from companies operating in Hong Kong or Taiwan. By assembling our own memories and by improved design, we have been able to stantially reduce the cost of this important computer component. The remainder of HP Singapore is devoted to the assembly of special diodes and some LED displays. Joe Barr and his group have done a great job.

From Singapore I went directly to Europe, with my first stop at HP Ltd. in Scotland. HP Ltd. now employs about 575 people and is making a variety of HP ducts. One of the most successful of its own developments has been a device to measure the performance of microwave communication links. HP Ltd. has sold these units all over the world, with the U.S. being a very important customer. In general, the R&D program at HP Ltd. is directed toward exploiting this success and is thus heavily concentrated on producing measurement equipment for the communication industry.

The next stop was Germany. HP GmbH in Boeblingen is really humming, with bout 800 people employed there. Like HP Ltd., GmbH makes a variety of HP bducts for the European Common Market. In addition, GmbH has corporate responsibility for the pulse generator program plus some important activities with MED in the field of paranatal care. As you may remember, GmbH designed and produced our first entry into this field, the fetal heart beat monitor—an important tool in the function of the incidence of certain classes of birth defects.

After a brief visit to our headquarters in Geneva and a stop in Paris for the dedication of our new office addition at Orsay, I went down to Grenoble. This is our latest manufacturing plant abroad and is assembling 2100 computers and a metric version of DMI equipment. The assembly of these units in France will allow us to be ch more competitive within the EEC where many tariff and nontariff barriers still and the compositive within the EEC where many tariff and nontariff barriers still and as co-manager of YHP. HP Grenoble now has 30 people working there and is building up rapidly. I was extremely pleased with this operation. Not only have we established a fine cadre of people, but the relations with the community are excellent. We were able to obtain a very attractive site, close to the old Olympic Village. It is well located and has excellent transportation. Our relations with both the mayor of the small community in which we are located, Eban, and the mayor of the greater community of Grenoble are very good. I am most optimistic about the future of HP Grenoble.

Over and above the detailed performance of these overseas plants, there were two points about which I was particularly pleased. First is the quality of the management teams that we have been able to assemble and the second is the high degree of cooperation that is developing between these overseas operations and their U.S. counterparts. Both of these points are most gratifying and can only spell success.





The day time waited

Thanks to the great improvement made in time keeping by the continuing refinements in accuracy and reliability of atomic clocks—notably, HP's cesium standards—the world was able to correct a creeping discrepancy last month. By international scientific agreement, a second was added to the otherwise normal length of day on June 30. Known as "leap second," the addition enabled the world's timekeepers to correct for a lag in time caused by a slight slowing in the Earth's rotation. Such a condition had been suspected by scientific observers for many years, but confirmation awaited the advent of atomic clocks in 1958.

So, at key timekeeping posts around the world, HP cesium standards and master mechanical clocks had their second hands flicked back one full second as June came to an end at the Greenwich Observatory in England. Similar corrections will be needed in future years.

Seen here is Santa Clara's Lee Bodily explaining the intricacies of the correction for local television stations at the division's Frequency Standards lab. One question: What if no corrections were made? Eventually, it seems, far-future generations would find the sun overhead at six in the morning, and darkness at noon. That is, until the Earth speeds up again, which is considered possible.

Measure

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