*Heuer-Leonidas**

"A TOUGH YEAR, 1971!" commented Jack Heuer, 38 years old, President of Heuer-Leonidas, and greatgrandson of the original founder of the company. "I sometimes had the feeling that we no longer controlled our destiny. It was discouraging to see our sales shrink. But we have a new line of products for 1972, and electronics should really begin to move. We'll be back on the track in '72. I'd rather forget 1971. We just might have a good year ahead of us."

The year 1971 had been a bad one for the company, located in Bienne, Switzerland. Consolidated sales were off 8.6% from the previous year, and consolidated profit was down 44%. Even so, the final figures were somewhat better than had been feared as the year progressed.[1] The 1971 performance of the company contrasted sharply with steady increases in sales and profits recorded by the company in recent years. Heuer-Leonidas had a reputation as Switzerland's fast-growing, dominant producer of stopwatches and other specialized time-keeping instruments for the measurement of short time intervals. For example, sales of the parent company in 1970 were up 18% from 1969, attaining 17.9 million Swiss francs[2] for a 10-year growth rate in excess of 20% per year. Consolidated sales, which included the sales figures of its U.S. and U.K. sales subsidiaries as well as Sportex S.A., a recently-purchased manufacturer of inexpensive stopwatches, were up 30% to 22.4 million francs. The initial public issue of Heuer-Leonidas common stock had added over 3 million francs for further expansion of the company's operations.

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[1] By comparison, the value of exports by the Swiss watch industry increased 1.1% world-wide, despite a setback of 6.3% in exports to the U.S.

[2] Sfr.4.32 = U.S. $1.00 in 1970 and earlier. In 1971, monetary fluctuations saw the franc at an average of Sfr.4.00 = $1.00, increasing to about Sfr.3.85 = $1.00 by the end of the year.

BACKGROUND

The original company was founded in 1860 by Edouard Heuer, who soon began specializing in the manufacture of stopwatches[3] and chronographs.[4] Technological leadership in the field was not long in coming; in 1867, Edouard Heuer Company obtained one of the first patents for stemwound pocket watches, thus making obsolete the keywound watch. The company's collection of pocket chronographs—put into production in 1882—won a silver medal at the 1889 World's Fair in Paris.

Over the next 50 years distribution, using the Heuer name, was expanded until it became world wide. Family control continued. World War II severely disrupted exports of Heuer products. Unlike ordinary watches, stopwatches and chronographs were considered war material by the surrounding Axis powers, who only permitted their exports with a great deal of difficulty. As a result, Heuer was forced to concentrate on improving its distribution to the Swiss market. (As late as 1971, 14% of Heuer sales were derived from Switzerland, against 3% for the watch industry as a whole.) Distribution after the war expanded rapidly to match the post-war boom in the sale of chronographs. Chronographs became the mark of the physically-fit, dashing Army or Air Force veteran in Switzerland, but by 1949 the boom fizzled, and Heuer sales dropped dramatically.

To utilize unused capacity, company management added a line of self-winding wrist watches, sold primarily to American customers under private label. Sales in this market fluctuated wildly, and proved quite unsatisfactory for the company. In 1958 the family called on Jack Heuer to examine the strategic position of the company. "I had just completed my education as an electrical engineer with a Masters in production engineering," recalled Jack Heuer, "and although I had wanted to enter the consulting profession, I agreed to spend a year working with the family business, to examine the operating strategy and take a look at the organization of operations" (Exhibit 1).

Jack Heuer recommended a curtailment of watch production and return to specialization in the domain of short time measurement. In 1971, Jack said, "It is such a nice niche for our company—it gives us a basis on which to compete. As a watch producer, we would be just another one of 600 or so Swiss companies, never able to establish a reputation or brand name." The family prevailed upon Jack to stay on as company President, and in 1962 he purchased a majority interest in Ed. Heuer Co. from the family, and effective control of total company operations passed into his hands. Sales in that year were 2.3 million francs. By 1970, the company had grown as indicated by Exhibits 2, 3, and 4. (Exhibit 5 gives the 1971 organization chart, and

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[3] **Stopwatch: a watch for short time measurements with no time-of-day reading.**

[4] **Chronograph: a watch with an independent mechanism permitting measurement of short time intervals on a continuous or interrupted basis. In effect, a combination of a normal watch or wristwatch and a stopwatch.**

Exhibit 6 gives background information on the 1971 management group).

MARKETING

Exhibit 7 depicts typical products and retail price ranges for the traditional Heuer-Leonidas stopwatches and wrist chronographs. Their particular characteristics are as follows:

The Heuer line

The jeweled-lever "Heuer" stopwatch is produced for 1/5*th*, 1/10*th*, and 1/100*th* of a second applications, in six basic configurations or functions." The number of stopwatch combinations is further increased by the addition of special dial faces, which permit the "tailoring" of the stopwatch to specific uses. Heuer, for example, has a line of stopwatches for parachutists, waterskiers, referees, rowers, yacht enthusiasts, photographers, TV program directors, nurses, etc. In all, the number of "Heuer" stopwatch models exceed 100. Sales of these models in 1971 were down about 10% from the previous year, reaching almost 90,000 units or 27% of sales.

"Heuer wrist chronographs are offered in self-winding ("automatic") and non-self-winding versions, the self-winding having been introduced in 1969 after an extensive developmental effort with Breitling, another chronograph manufacturer. The automatic wrist chronograph offers a 31-day calendar and stopwatch movement that records elapsed times of either 30 minutes or 12 hours; the non-automatic comes with or without date, and also records elapsed times of either 30 minutes or 12 hours, depending on the model. A summary of "Heuer" wrist chronograph basic models is shown below:

"Heuer" wrist chronograph	*Year of latest model*	*Records elapsed times up to:*		*31-day calendar*	*Switzerland retail price range (Sfr.)*
		30 min.	*12 hrs.*		
Automatic	1969		X	X	550–700*
Automatic	1971	X		X	390–490
Non-automatic	1970		X		350–400
Non-automatic	1970	X		X	220–300
Non-automatic (fibreglass case)	1971	X			195

* Does not include solid 18 k. gold model retailing for Sfr.1,400.

The company sold about 35,000 wrist chronographs in 1971 (1970—50,000), of which 35% were the automatic version. Wrist chronographs represented about 30% of H-L's sales in 1971.

"Heuer" pocket chronographs and dashboard instruments were relatively minor product lines, representing about 5% of sales for the last few years.

The Leonidas line

By 1959, the expansion of commercial activities in Europe and the U.S. had begun to exert pressure on the productive capacity of Heuer. That year the company produced 1,400 wrist chronographs and about 24,000 jeweled-lever[5] stopwatches. By 1963, production was 5,000 and 44,000 units, respectively. Unfortunately, expansion of the factory in Bienne was not deemed feasible.

However, Heuer had recently entered into a joint venture with Leonidas Watch Factory, Ltd., of St. Imier, for the development and production of a special stopwatch. Leonidas, a family-owned business of approximately the same size as Heuer, produced a line of wrist chronographs, jeweled-lever stopwatches, and inexpensive Roskopf[6] stopwatches. A merger seemed to be in the best interests of both companies and after a period of difficult negotiations, it was completed at the beginning of 1964.

Production was reallocated between the two factories, the total number of models of chronographs and stopwatches was reduced, and the company put into effect the brand-name policy that continues today: the use of "Heuer" on all wrist chronographs and jeweled-lever stopwatches, and "Leonidas" on all pin-lever products.

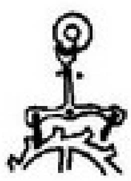
In the "Leonidas" line are the following products:

"Leonidas" pin-lever, 7 jewel stopwatch has been a staple item in the Heuer-Leonidas product line since the merger, with a peak sales volume of 44,500 units in 1967. Unit sales declined significantly to 12,000 units in 1971, however; the result, no doubt, of the success of the "Trackmaster" stopwatch (below).

"Leonidas" Trackmaster, introduced in 1968, is a stopwatch utilizing a simple, mass-produced movement in a brightly-colored plastic case. Unit sales reached 108,000 in the first year; by 1970, sales peaked at above 190,000 units, declining to 168,000 units by the end of 1971. Despite the decline, Trackmaster continues to provide a substantial proportion of sales, representing close to 18% in 1971.

"Easy Rider" wrist chronograph, also a Leonidas product, was introduced in December, 1971, as the world's first Roskopf wrist chronograph, recording elapsed times of up to 15 minutes. The colored fibreglass case and low price were both expected to prove attractive to the youth market. Heuer-Leonidas was anticipating a success with "Easy Rider" that would rival the figures of "Trackmaster."

[5] Jeweled-lever: the classical Swiss movement uses an escapement mechanism equipped with jewels to protect the lever from wear (see illustration). In addition, a number of other jewels are provided at points of high friction to serve as bearings.



[6] Roskopf: The Roskopf movement is a simpler and less accurate watch movement, using considerably fewer parts than the classical jeweled-lever movement. Few, if any, jewels are used. The escapement mechanism uses two steel pins instead of jewels. Often called *pin-lever* movement.

The Sportex line

Finally, the 10 "Sportex" models, similar to the traditional "Leonidas" stopwatches in design, but somewhat lower in price, added 75,000 units to the Heuer-Leonidas totals for 1971. The Sportex Company at Arogno had been purchased in 1970 and continues to be operated separately from the Heuer-Leonidas operation.

Distribution

Between 70% and 80% of Heuer-Leonidas' sales were made through the wholesale trade, with the remainder sold direct to large customers under private label. Ordinarily, the private label sales were below 25%, but a large Sears, Roebuck order in 1970 for the Trackmaster boosted this percentage above 30%. By the end of 1971, however, the private label sales were back down to 25%.

Independent wholesalers in 96 countries carried Heuer-Leonidas products on an exclusive basis, reselling to the jewelry trade and other outlets for a margin that averaged between 25% and 35%. The wholesalers carried other watch and jewelry products as well, using a salesforce averaging 1–5 men to visit the retail outlets.

The retail outlets could be of one type, as in Switzerland, where 100% of the wholesalers' sales were to jewelry stores; or highly varied, as in the U.S., where less than 30% of sales were to jewelry stores—the rest being divided among sports stores, laboratory suppliers, government agencies, auto accessory stores, and the like. Retailers typically took a 40–50% margin on sales.

Heuer-Leonidas encouraged retail variety, and worked to increase the importance of its products to the wholesaler. Wide differences existed in this area; for example, H-L products were less than 5% of the Portugese wholesalers' sales in 1970, while in Switzerland H-L products represented over 75% of the Swiss wholesalers' volume.

Geographically, North America and Western Europe dominated as the two significant markets for stopwatches and wrist chronographs. One of Jack Heuer's first moves to increase company sales had come in 1959 as a serious effort to penetrate the U.S. market for stopwatches and chronographs. Heuer invested an initial sum of Sfr.200,000 to create Heuer Time Corporation, a U.S. sales subsidiary, in New York.

HTC began operations in 1959 with a director/salesman, secretary, watch repairman, and warehouse man. The subsidiary's goal was a 20% share of Swiss exports of stopwatches and chronographs to the U.S.—the same export share enjoyed by Heuer in Western Europe. Between 1959 and 1963, Jack Heuer spent two-thirds of his time in the U.S. overseeing the subsidiary's operations.

Following the successful increase in sales in the United States—sales had reached U.S.$675,000 or Sfr.2.9 million by the end of 1967, about ⅓ of Heuer-Leonidas' total sales—the Board of Directors approved the establishment of a sales subsidiary in the U.K., in London. The cost of setting up Heuer-Time Limited was 78,000 francs, plus working capital of Sfr.300–400,000; first year operations in 1968 produced a sales volume of £41,000 (Sfr.430,000). (See Exhibit 8.)

Compared to the watch industry, H-L was relatively absent in the less-developed countries, but most industry observers reasoned that the market for stopwatches and chronographs was virtually limited to economically advanced countries.

	Percent of Sales			
	Heuer-Leonidas		*Swiss Watch Industry*	
Market	*1971*	*1970*	*1971*	*1970*
U.S., Canada	35	43	18	20
Switzerland	14	11	3	3
Other Western European	33	28	34	34
Rest of the world	18	18	45	43
Total	100%	100%	100%	100%

Walter Hunsperger, the H-L sales manager, and Jack Heuer considered the distribution network as one of the company's major strengths. According to Mr. Hunsperger:

> Our distributors have been doing a great job for us over the years. We feel that they are extremely loyal and act as if they are a part of the H-L organization rather than independent businessmen. They help us every year, particularly in the preparation of our sales budget by indicating how their markets look in every product segment. I don't think many watch manufacturers enjoy this type of cooperation.

JACK HEUER: We have always encouraged our distributors to innovate in their sales of Heuer products by prospecting unusual retail outlets: auto and boat accessory shops, hospital and laboratory suppliers, sports stores, etc. Their response to this has been very encouraging—their sales increase, they are less tied to the traditional jewelry trade, and they start to think in true marketing terms.

We, of course, benefit as well—once a distributor has opened up a new channel, we can think in terms of new products to fill the channel. Having traditional products in boating stores encourages us to develop specialized products for the boating enthusiast, and so forth. This need not be limited to watch-type products—we are beginning to think in very nontraditional ways about potential products.

One of the major concerns of the distribution system was retailer motivation: how to motivate the retailer to push Heuer products more aggressively. Jack Heuer discussed the basic problem:

> This has always been a tough issue. The average jeweler understands watches, but he is afraid of stopwatches and chronographs because the movements are complicated. He may feel inadequate to give advice to a potential customer on what product to buy—explaining the differences between products and prices, for example—or he may be worried about the quality of our repair services and fear the consequences if a product sold on his recommendation breaks down.

> We try to develop materials to educate the jeweler to our products, and we continually strive to upgrade our after-sales repair service, but the jeweler remains timid. The only time he really seems to push our products is when he is loaded down with an inventory of Heuer products. This requires an extensive distributor effort and is not without a number of risks.

Private label sales

H-L's private label business—representing on average one-quarter of yearly sales—involved sales of pin-lever stopwatches directly to a few major clients, thus bypassing the wholesaler and the system of traditional margins. Each private label customer could represent as little as 1% or as much as 12% of sales, depending on the year. Sears, Roebuck and Co., the huge U.S. retailing chain, went from 2% of sales in 1969 to 12% in 1970 on Trackmaster orders, only to fall back to 5% in 1971.

Five to ten private label customers were served in any given year, falling among the company's twenty most important customers (which included Heuer Time and Electronics Corp. as number 1 and Heuer Time Limited as number 5). The percentage of private label business was monitored closely by Jack Heuer and Walter Hunsperger to gauge the risk profile of the company and the strength of the branded products in the marketplace.

Publicity

The company had increased the overall level of publicity expenditures since the merger with Leonidas in 1964. Advertising at that time was slightly over 3% of sales, but recent expenditures had more typically been in the range of 6%. The bulk of the increase went to general company-wide publicity; in 1964, about 25% of the advertising budget was spent for general publicity, the rest being used for wholesaler advertising support. By 1970, 45% of the budget was being used for general publicity, although this percentage was reduced in half in 1971. Wholesaler publicity support nevertheless increased from over 500,000 francs to 600,000 francs from 1970 to 1971.

The general publicity focused on improving public awareness of the brand name and logo "HEUER," which was associated with sporting themes—particularly in the domain of auto racing. Two well-known European racing drivers, Jo Siffert and Clay Regazzoni, were sponsored by the company, their cars displaying the logo during races. Heuer point-of-display posters carried the pictures of Siffert and Regazzoni with their cars, and the theme was extended to the "Easy Rider" wrist chronograph, which featured a blue display of four Easy-Rider chronographs and a bright red Formula 1 racing car.

The company received an unexpected boost to its publicity efforts when the American movie actor Steve McQueen decided to wear a prominent Heuer patch on his racing coverall in the recent film *The 24 Hours of Le Mans*. The point-of-display publicity for the film showed McQueen and the patch clearly, and millions of round self-adhering stickers of McQueen were distributed world-wide by the film producers to promote the film; these, too, displayed the Heuer patch clearly below McQueen's right shoulder.

The theme of auto racing was not without its risks. Jo Siffert was killed in a fiery crash in England in late 1971, raising editorial concern about the morality and safety of auto racing. The company nevertheless decided to continue this campaign, but cautiously and only after a year-by-year review of the policy. To avoid the risk of sponsoring only individual drivers, though, Heuer decided to sponsor several factory car teams as well. Beginning in 1972, the factory cars of Ferrari, BRM Formula 1, and Lola would all carry the Heuer logo. Clay Regazzoni, Jacky Ickx, and Ronnie Peterson, all of whom were Ferrari team drivers, would be the individual drivers sponsored by the company.

Competition for world markets

The competition among stopwatch and chronograph manufacturers was considered by Heuer-Leonidas to be less severe than the competition among world watch manufacturers. In jeweled-lever stopwatches, fifteen companies (ten Swiss) competed for the world market. Besides Heuer-Leonidas, the major well-known names for these products were Omega (Swiss) and Hanhart (German).

Eleven companies (ten Swiss) produced Roskopf stopwatches of a competing nature, while in wrist chronographs, over fifty companies were involved. Among these latter companies, however, only six marketed an automatic wrist chronograph: Heuer, Seiko (Japan), Zenith-Movado, Breitling, Hamilton, and Kelek.[7] Omega, Bulova, and Zodiac were expected to begin marketing automatic wrist chronographs in 1972.[8] The Swiss competitors sold automatic wrist chronographs at prices equivalent to those of Heuer; Seiko, on the other hand, sold its chronographs at prices approximately 40–50% below the Heuer prices.

World production statistics were not available for these particular products. To measure relative market share, Heuer-Leonidas and other Swiss manufacturers utilized Swiss export statistics to compute the percentage of Swiss exports enjoyed by the company. Heuer-Leonidas saw its overall export share increase from 15.9% in 1966 to 27.3% in 1971, although not all products shared equally in this growth.

While little was known about the purchaser of any particular H-L product, the company had conducted a mail survey of 475 purchasers in 1970. This study indicated that the average purchaser was likely to be over 30 years of age, in middle or top management, who bought the product for fun or sports usage. The company planned to retain the services of a marketing research firm in 1972 to determine the consumer profile of the potential "Easy Rider" purchaser.

PRODUCTION

As was the case with most Swiss watch manufacturers, Heuer-Leonidas was an assembler of its products rather than a fully-integrated

[7] Of these companies, all except Seiko and Zenith-Movado used the automatic movement developed jointly by Heuer and Breitling in 1969.

[8] Bulova and Zodiac would use the Heuer/Breitling movement.

manufacturer. The basic parts that went into the complete stopwatch or chronograph were purchased from Swiss companies that specialized in the production of watch parts. The parts suppliers were highly specialized, each of them usually producing only a few specific parts for the watch assembly. Major parts and sources of supply for Heuer-Leonidas were as follows:

1. *Unassembled movements ("ébauches" in French).* The plates, bridges, mainspring, barrel drum, wheels, gear train, direct and indirect drive mechanism for the hands—the major parts of the watch—were purchased principally from *Ebauches S.A.*, which supplied movements to the entire (non-integrated) industry. The specialized movements required for stopwatches and non-automatic chronographs were produced by specialized subsidiaries in the Ebauches holding group. The movement for the automatic chronograph, by contrast, was purchased from a non-Ebauches company that produced the movement exclusively for Heuer-Leonidas, Breitling, and a list of clients approved by the two companies.
2. *Hairsprings, balances, escapement mechanisms.* The "regulating" mechanisms that released the energy of the mainspring at a controlled rate—were purchased from specialized companies in the *ASUAG* holding trust (Allgemeine Schweizerische Uhrenindustrie Aktiengesellschaft).
3. *Jewels, faces, hands, cases, bracelets, etc.* These accessories were purchased from parts manufacturers that formed a part of the *UBAH* holding group (Union des Branches Annexes de l'Horlogerie)

Ebauches S.A., ASUAG, and UBAH had a virtual monopoly on the production of parts for Swiss watch assemblers. Only the few fully-integrated manufacturers (Rolex, SSIH [Omega and Tissot], *et al.*) had an alternate source of supply. This constraint made the parts purchasing decisions extremely important for Heuer-Leonidas, both from the standpoint of cost (raw materials represented about 70% of the manufacturing cost of H-L products) and scheduling.

In addition to supplying the unassembled movements for H-L products, Ebauches S.A. also undertook the development work on new products, either at its own initiative or at the specific request of Heuer. Since practically every watch innovation required a unique movement, due to changes in the shape, size or operating characteristics of the product, Ebauches occupied a position of central importance.

When the new product idea was generated by the company, the three basic issues to be discussed with Ebauches concerned *design, delivery,* and *cost* (including tooling expenditures). Other watch companies could be brought in on the design to spread the tooling expenditures, if the company so desired.

When the product idea was generated by Ebauches design engineers, as was the case with the Trackmaster and Easy Rider movements, the additional issue of *exclusivity* was added to the previous three. Whether the new movement would be sold to the company on an exclusive basis or made available to the entire watch industry was an issue to be negotiated by Ebauches and the company.

In Heuer-Leonidas' case, exclusivity was granted on the Trackmaster, based on H-L's participation in the idea and design and the company's perceived ability to develop sales of high volumes. The "Easy Rider" movement, on the other hand, was sold to Heuer on an exclusive basis for six months only; after this period, it would be sold to any interested customer. Jack Heuer described the negotiation process as follows:

> I can't even describe how tough the discussions can be. They can't be delegated to anyone; Ebauches won't talk to anyone but the man in charge. The results of the negotiations are absolutely critical to the success of a company; if you want exclusivity, or if you are pushing for certain delivery deadlines, you have to be as tough and confident as Ebauches. The talks are friendly—we've all been in this business a number of years—but behind the friendliness a very serious game is being played.

Delivery problems with the "Easy Rider" had been a concern of 1971. With only six months of exclusivity, Jack Heuer wanted to be assured of strong Christmas sales. The company worked closely with Ébauches S.A. on technical problems that developed with the movement, hoping to speed up final delivery. Despite these efforts, a delay in delivery of the movement permitted the company to assemble only 8,000 Easy Riders by the end of the year, barely in time to display the product in jewelry store windows by Christmas.

Assembly operations

The fabrication of stopwatches and wrist chronographs was conducted by the Technical Department under the direction of Mr. André Meylan. Mr. Meylan's other responsibilities entailed the purchasing of materials and coordination of new product development with Ébauches S.A. and other suppliers.

The factories at St. Imier and Bienne were organized by product assembly responsibilities, with product sections headed by experienced watchmakers who reported directly to Mr. Meylan. Under these section heads were the factory workers, who assembled, tested, adjusted, and packed the products for storage and shipment.

Each worker performed a limited number of operations on each piece, working in front of an individual, revolving worktable equipped with tools, testing equipment, and lighting. Each worker was licensed to work in the watch industry and was classified according to his proficiency and professional knowledge in the field. Simple assembly operations were performed by the lowest level licensee, while the delicate testing and final calibration operations were performed only by Master watchmakers.

H-L had worked during the past few years to reduce the complexity of assembly to permit greater utilization of lower-level licensees. "Watchmaking has always been a family tradition," stated Mr. Meylan, "but fewer and fewer sons are following their fathers into the trade. The supply of high-level watchmakers is dwindling every year. This is why a product like Trackmaster becomes so important to us: it has a simple movement that can be assembled on an assembly-line basis by relatively unskilled workers. We simply have to reduce our skilled labor input."

The present system of revolving worktables was installed in 1966. A measurable result was a reduction in the direct labor percentage of the cost of the final product:

	Direct product costs	
	1971	*1965*
Labor	17.5%	22.5%
Materials	71.0%	66.0%
Production overhead	11.5%	11.5%

In this same period of time, the sales per employee increased from Sfr.40,700 to Sfr.89,260. "We've had some real productivity increases during the past five years," stated Mr. Meylan. "But I don't know how much further we can go."

Heuer-Leonidas employed a total of about 255 persons, including overseas subsidiaries.

ELECTRONICS DIVERSIFICATION

Two major factors led the company towards the development of an electronic product line in 1965. The first was the growing competitiveness of amateur and professional sports, particularly skiing, which began to demand greater precision in timing to differentiate among competitors at the finish line. Precisions of 1/10th of a second were used until the early 1960's, but tie finishes occurred so frequently that 1/100th of a second precision was becoming a necessity.

Another influence was the direct relationship that existed with the Austrian ski team through the promotional efforts of the Heuer agent for Austria. In 1964, the agent donated a wrist chronograph to each member of the Olympic ski team as a goodwill gesture. In the relationship that subsequently developed, some members of the ski team pointed out the deficiencies in the present timing equipment and helped to define the hardware requirements for a line of up-to-date ski timers.

Heuer Electronics Corporation

One such device—an electro-mechanical actuator for a standard 1/100th of a second stopwatch—was designed and produced in Switzerland. The other proposed timers appeared to be beyond the electronic state-of-the-art in Europe. As a result, the company turned to the U.S. and in 1965 located three "moonlighting" engineers from an electronics company who agreed to design and produce the required timing devices, which would have an accuracy of 1/1000th of a second.

In 1966, the engineers incorporated as Heuer Electronics Corporation (HEC), with Heuer-Leonidas retaining 51% of the voting shares and 30% of the capital. In 1970, following an agreement whereby H-L relinquished majority control, Heuer Electronics Corporation forfeited the "Heuer" portion of its name, becoming "Electrodata Concepts, Inc."

The Electronics Division

The Electronics Division in Bienne was formed in 1968 when Christian Nitschke, a young German electrical engineer, was hired to sell the products being produced by Heuer Electronics Corporation. Mr. Nitschke had helped to finance his university degree by timing automobile races and designing equipment to be used for this function. Before long, he came into contact with Jack Heuer, who proposed that Nitschke head an Electronics Division for Heuer-Leonidas.

The products at Nitschke's disposal were the electro-mechanical stopwatch actuator "STARTOMAT," and the electronic $\frac{1}{1000}$th of a second "BCD Timer" produced by HEC. In addition, HEC had recently completed work on a $\frac{1}{1000}$th of a second timer that *printed,* rather than merely displayed its results: the "Centigraph" timer.

The sales effort for these products was difficult to formalize, since it was not entirely clear where to make direct sales calls. The regular H-L wholesalers were encouraged to keep their "ears to the ground" and pass on any potential sales leads; Nitschke followed up on the leads himself and sent out a large number of direct mailing brochures explaining the line of Heuer electronic timers.

Electronic product development

While the sales effort was developing, the company increased its product development activity in this division for industrial and sports applications. Two industrial products were developed:

IC Tester, a production-line test device that tested integrated circuits. Developed by ECI in the U.S. Price: about Sfr.7,500.

Data Printer, an output device for digital instruments. The printer was designed for use in industrial, laboratory and field applications, where it would accept the outputs of counters, voltmeters, process control devices, or small computers and provide a printed record of the data and its time of occurrence. Developed by the Electronic Division in Switzerland. Price: between Sfr.4,000 and 5,000.

The sports developmental effort, which involved only the Electronics Division, concerned the design of a complete, portable system for automobile timing, using as a base the previously-developed Centigraph printing timer and a series of photocell actuators. Several automobile racing teams were contacted about the developmental effort, and Ferrari was sufficiently interested to request a timing system that would permit "pit" crews to time Ferrari and competitive cars. The basic objective was to reduce the number of personnel required to time the race crews by hand.

Traditional hand timing, though relatively accurate, was costly in terms of personnel. One timer with three stopwatches could check only one car, and the results he obtained were incomplete, since they had to be checked against the results of other timers.

Nitschke and his design engineer spent four–five months timing automobile races to determine the basic needs of the timing crews. Out of this effort grew the Centigraph Le Mans, a timing system that permitted one timer to check 10 cars simultaneously.

The Le Mans installation was a small computer about the size of a desk adding machine that gave the time of day or elapsed time from the start of the race. It also printed the car and lap numbers, the time between cars, the lap time, and the length of pit stops for each car. The Centigraph operator punched a button representing the car number as the car crossed the photo cell actuator, and the Centigraph would do the rest: perform the calculations, store the data, and print all the information in one line of print.

The Le Mans version was the most sophisticated product in the complete Centigraph product line. Less sophisticated versions were available for amateur automobile racing clubs, and a variation of the system was produced for manufacturers' car testing tracks:

Model	*Use*	*Approximate price (Sfr.)*
Centigraph Standard	Amateur racing clubs	10,000–20,000
Centigraph Le Mans	Professional pit crews	27,000
Centigraph Car Test	Manufacturers' test tracks	30,000 and up

Special accessories: electric eyes, digital display boards, etc., added to the basic price of the models.

"Our interest was in developing salable equipment for amateur and professional groups," explained Chris Nitschke. "We had no interest in the expensive, single-event timing situations performed by Omega and Longines. We think we're plugging an important gap. The real problem is in reaching the market."

Efforts in 1970 were directed towards identifying potential customers. Rolf Gasser, the Sales Manager employed by the division, put together a list of amateur automobile clubs and racing associations to be contacted by mail. In the meantime, leads from the field continued to be forwarded from wholesalers and interested parties.

The company was also looking forward to active involvement in ski racing. The expected development of the professional skiing association with professional-size purses appeared to make this a potentially exciting market.

Electronics results

Electronic sales increased from about Sfr.350,000 in 1969 to 650,000 in 1970 and 710,000 in 1971. Nevertheless, actual results were disappointing when compared to Jack Heuer's expectations when the division was formed:

> We put together a 5-year financial plan in 1969 for the period 1970–1974. I must say we were pleased when Electronics made its 1970 forecasted sales figure. But we were overly optimistic in 1969; we thought

> Electronics would hit a minimum of Sfr.1.85 million in 1971 and Sfr.4.65 million by 1974. We'll have to lower our sights a bit. We'll also have to work harder to sell the products we have and spend less of our time in development until they begin to move.

FINANCE AND CONTROL

The most significant event in the company's recent financial history was the initial public offering of Heuer-Leonidas common stock in 1970, which offered 4,000 shares (Sfr.250 par value) for Sfr.925 per share. According to the prospectus:

> The new funds will be used to intensify research and development in the electronics sector, in view of a diversification in this direction. They will also permit the company to purchase land for the construction of a factory, and to enlarge the distribution organization by the foundation of new sales subsidiaries and the strengthening of those already in existence.

The public offering was rather unique in Switzerland, since only one other watch company—Girard-Perregaux—had ever taken this step, despite the fact that the industry association had long been advising "concentration and capital" as two remedies for the weaknesses of the Swiss watch industry.

Heuer's capital needs became apparent following the preparation of the five-year financial plan in 1969. The company anticipated doubling its sales by 1974, which would have severely strained its liquidity. "We had the choice of slowing down growth or finding new capital," declared Jack Heuer. "For a while we considered going public in the U.S. with our U.S. sales subsidiary—everyone was making a killing on the N.Y.S.E. with new issues during 1968—but the market began its long slide, and I'm just as glad we changed our mind."

The financing of sales subsidiaries by the parent company was an important funds use during recent years, particularly in the U.S. Heuer-Leonidas' direct investment in HTEC mounted to Sfr.500,000[9] in share capital and about Sfr.400,000 in long-term loans. In addition, accounts receivable from HTEC averaged about Sfr.2.5 million. The U.S. practice of granting extensive credit to retail jewelers ("dating" plans) made collection periods long—123 days for HTEC—and this burden was inevitably carried by the parent company.

Funds from the public offering were used in part to purchase the factory and some extra land at St. Imier, thus permitting future expansion but changing the company's long-standing practice of renting its facilities. The planned creation of a German sales subsidiary was delayed.

Despite the increase in the number of shares, Jack Heuer continued as the majority shareholder in the voting stock of the company. He discussed the effect of going public in the following way:

---

[9] Book value of the investment in 1971, net of a substantial amount of additional investment that had been written off directly against income during the past 10 years.

> A number of things have changed for me since the public issue. Before, if we had a good end-of-year, it was good for the family and we all felt happy; now, my responsibilities have been expanded and we have a *moral* obligation to perform. We *owe* it to our shareholders, who invested because they had faith in our ability to grow.
>
> Another fact of going public is that we have to consolidate our accounts for financial reporting purposes. This makes us focus more attention on the performance of our overseas subsidiaries than was the case in the past. If they mismanage their inventories or fail to produce sales and profits, our financial statements will tell the unhappy story. This causes me and my Board a great deal of concern, and I must admit it is a consequence of going public that we hadn't really considered before the offering.

Exhibit 3 shows the company's consolidated income statements for the years 1969–1971.

The company had practiced a policy of paying a 15% dividend on the par value of its stock. In 1971, the dividend was reduced to 12%, with Sfr.360,000 being paid out on the share capital of Sfr.3 million.

Management control

Budgeting and financial control of operations were monitored by Mr. Willy Monnier, the company's controller, who became a part of Heuer-Leonidas in 1964 following the merger. Mr. Monnier described his role as follows:

> The last few years have been a bit hectic, particularly with the public issue and the need to consolidate accounts for the first time. With that period behind us, however, we can get back to the business of focusing on the performance of our current operations.
>
> Like most watch companies, we have always been able to know our production costs and control them within fairly precise limits. Watchmaking has always been fairly production-oriented, which means production cost conscious.
>
> This company is a bit different, though, in that the management—except for Mr. Meylan—is so marketing oriented. The fact that we control production costs is taken for granted; for the rest, growth in sales seems to be the center of attention. You'll never know how crushed Mr. Heuer was when we didn't increase our sales in 1971. For my part, though, I'd be a bit happier if the word "profit" was used more frequently.
>
> I feel my job is to prod everyone to think more about profits. The U.S. subsidiary is a case in point. Sales have been growing rapidly (Exhibit 8), but where are the profits? Growth is fine, but when the return on investment is below average, what have we gained?
>
> Mr. Heuer is becoming more conscious of this problem. So is the Board of Directors. Perhaps the 1971 experience was really a gift in disguise.

The company budgeted on a yearly basis, using sales estimates supplied by wholesalers in January as the basis for projections. The budget covered the period January–December, but as a rule the final document was not completed until late February. "I have discussed this problem with Mr. Hunsperger," stated Mr. Monnier, "but he doesn't think we can get the wholesalers' sales estimates any earlier. I wish something could be done, though."

Mr. Monnier regularly prepared a number of reports for Jack Heuer and the Board of Directors, focusing attention on sales, profits, accounts receivable, and inventory levels. In addition, Mr. Monnier worked closely with the controllers of the overseas subsidiaries in an effort to improve reporting, collection of accounts receivable, and inventory management.

Board of Directors

The Board of Directors grew in size and importance since the Leonidas merger and the public offering. Previous to 1964, the Board and management of the company were one and the same, but the two above events—and particularly the public offering—saw the Board begin to play a more independent role.

The backgrounds of the Board members are given in Exhibit 9.

A smaller Executive Committee of the Board was established in 1969 to prepare the bulk of the work requiring Board decisions. Composed of Jack Heuer, Dr. W. Ryser, and Thüring von Erlach, the Committee met formally once each month but kept in contact informally on a more frequent basis.

According to Mr. von Erlach, an occasional lack of information increased the difficulty that the Board otherwise incurred in executing its responsibilities:

> We're quite dependent on the information we get from Jack in order to make our decisions. Sometimes the information is complete, but at other times we're a bit left in the dark. This doesn't make it easy when it comes to criticizing Jack or the other managers. Jack is a great guy, but you have to watch him: he's quick, and he's sometimes ready to say that "everything is under control" when we have the feeling that it may be otherwise.

LOOKING AHEAD

The management team had a formal opportunity to discuss the company's management and strategy during a 2½-day seminar held during 1971. The discussions treated new product development in the watch and electronic sectors, opportunities and resources for expansion, and the particular strengths and weaknesses of the various departments.

Out of the discussions came a new draft of the company's objectives, which included the following:

1. Our primary objective remains to continue as one of the world's leading specialists in the domain of short time measurement, and to continue to develop our specialty. The pursuit of this goal, however, should not become a detriment to the rational utilization of our resources.
2. This implies for our product policy:
   a) A sustained effort in the development of our current program of traditional stopwatches;

b) The accelerated development of our diversification into the electronic measurement of short time intervals;
c) Diversification into the sector of measurement instruments, if we master its technology;
d) Improvement of the utilization of our existing distribution channels by increasing our product range.

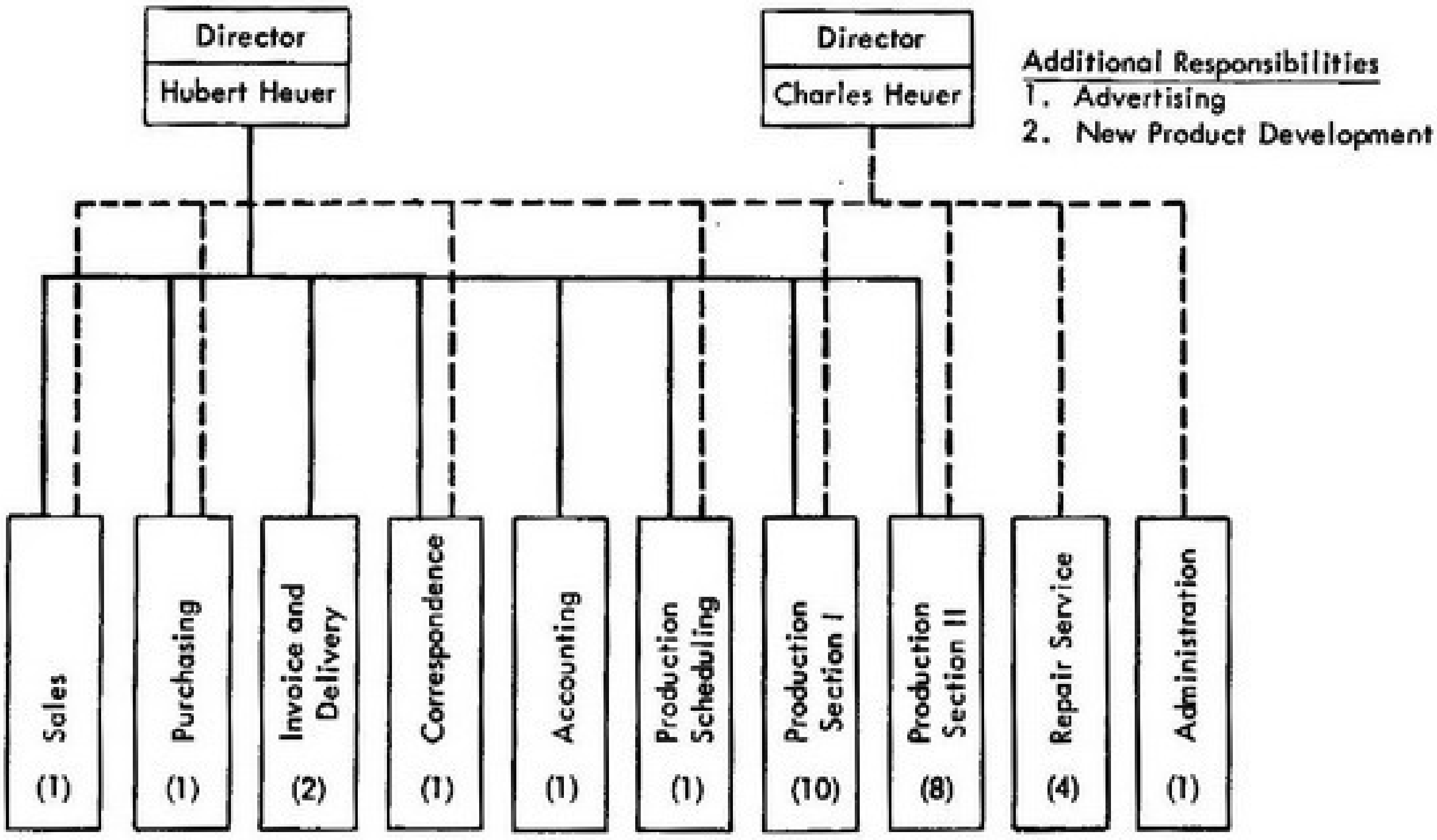
Jack Heuer felt justified in being optimistic about the future, despite the setback of 1971:

> We lost a bit of faith in ourselves in 1971, but we learned some valuable lessons. One of them is profit-consciousness. Mr. Monnier has been trying to teach that lesson for a number of years, but 1971 put some teeth into his arguments. We are taking a harder look at the profitability of our operations, particularly in the U.S., where strong measures need to be taken.
>
> As for the future, we are well-placed to succeed. The capacity of our management has yet to be tested. We could manage a Sfr.50 million business with our current management—we have the flexibility and the market orientation, and we work together well. I know my deficiencies, but I have good men backing me up in every area. Our strengths and weaknesses mesh like teeth on a gear.
>
> We expect results from new products. We can exploit our flexibility in distribution. In addition, our flexible attitude towards distribution permits us to change with the times.
>
> European distribution is changing, and I think we'll see mass merchandising on a grand scale. Sears will move to Europe. Intersport (a multinational distributor of sports equipment) is growing and will bypass the wholesalers who think only in terms of national boundaries.
>
> We've come a long way since 1958, and I'm pleased with our progress. Now we're solidly in electronics, and I think we can develop some unusual products that will create real growth. We're publicly-owned, and we have a responsibility to create and manage our growth. We won't let the shareholders down.

Exhibit 1

HEUER-LEONIDAS

Organization in 1958



Notes: 1. The two directors, each holding 50% of the outstanding shares, compose the Board of Directors and General Assembly of shareholders.

2. The figures in parentheses indicate the number of persons in each department.

Source: Company records.

Exhibit 2

HEUER-LEONIDAS

Operating History 1966–1971 (unconsolidated)
(in Swiss francs)

	1971	*1970*	*1969*	*1968*	*1967*	*1966*
Sales	16,601,945	17,993,035	15,267,314	11,392,724	8,460,785	7,339,824
Less Discount	486,561	556,343	504,191	350,708	262,311	233,643
Net Sales	16,115,384	17,436,692	14,763,123	11,042,015	8,198,474	7,106,181
Cost of Goods Sold	11,117,945	12,592,265	11,172,866	8,413,852	6,225,479	5,599,861
Gross Margin	4,997,439	4,844,427	3,590,257	2,628,163	1,972,995	1,506,320
Sales, General, Administrative Expenses	3,452,478	3,705,096	2,899,821	1,997,134	1,544,676	1,124,352
Amortization	873,640	273,096	224,328	275,770	185,675	95,463
Profit from operations	671,321	866,235	466,108	355,259	242,645	286,505
Extraordinary Income	31,062	74,332	26,163	—	—	—
Less Allocation to Reserves	25,000	50,000	40,000	50,000	30,000	90,000
Profit before tax	677,383	890,658	452,271	305,259	212,645	196,505
Tax	209,977	114 218	111.126	77,729	76,395	20,243
Net Profit	467,406	776,440	341,144	227,530	136,250	176,262

Note: Figures may fail to add because of rounding.

Exhibit 3

HEUER-LEONIDAS

Consolidated Income Statements, 1969–1971
(in thousands of francs)

	1971	*1970*	*1969*
Sales	19,302	22,397	17,223
Less discount	539	567	463
Net sales	18,762	21,830	16,761
Cost of goods sold	12,207	14,948	11,615
Gross margin	6,555	6,882	5,146
Sales, General, Administrative	5,268	5,685	4,429
Amortization	304	344	228
Profit from operations	983	852	488
Extraordinary income	6	104	29
Extraordinary expenses	271	56	93
Profit before tax	718	900	425
Tax	293	159	119
Net profit	424	740	305

Note: Figures may fail to add because of rounding.

Exhibit 4

HEUER-LEONIDAS

Balance Sheets, 1966–1971 (unconsolidated)
(before allocation of profits to reserves and dividends)
(in Swiss francs)

ASSETS	*1971*	*1970*	*1969*	*1968*	*1967*	*1966*
Current assets						
Cash	19,686	43,031	22,612	19,016	21,264	64,753
Accounts receivable	5,977,070	5,653,176	3,232,451	1,976,712	1,516,559	1,171,865
Inventories*	4,000,000	4,500,000	2,600,000	1,600,000	1,300,000	900,000
Prepaid expenses & deferred charges	52,342	18,936	30,314	—	—	—
Total Current Assets	10,049,098	10,215,143	5,885,377	3,595,728	2,837,823	2,136,618
Fixed assets						
Cars	1	1	1	1	1	1
Tools & machinery	2	2	2	2	2	2
Furniture & equipment	150,001	200,001	2	2	2	1
Building	440,000	445,000	—	—	—	—
Other assets						
Investments	604,001	1,374,000	618,000	588,000	528,000	202,807
Other	12,000	12,000	12,000	12,000	12,000	12,000
Total Assets	11,255,103	12,246,147	6,515,382	4,195,733	3,377,828	2,351,429
LIABILITIES + CAPITAL						
Current liabilities						
Accounts payable	808,755	1,283,169	1,713,155	1,407,294	839,119	672,509
Notes payable	2,707,946	3,031,147	1,412,279	876,044	623,956	—
Accrued expenses	234,654	155,489	19,459	10,500	141,087	167,405
Total Current Liabilities	3,751,355	4,469,805	3,144,893	2,293,838	1,604,163	839,914
Other liabilities						
Loans	635,000	550,000	250,000	685,000	688,800	682,400
Stockholders capital						
Capital stock	3,000,000	3,000,000	2,000,000	555,000	555,000	370,000
Paid-in capital + reserves	3,361,000	3,417,413	750,700	405,000	371,000	330,000
Open reserves from previous retained earnings	40,342	32,489	28,645	29,365	22,615	5,452
Carry forward net profit (before distribution)	467,406	776,440	341,144	227,530	136,250	123,663
Total Liabilities and Capital	11,255,103	12,246,147	6,515,382	4,195,733	3,377,828	2,351,429
Dividends Paid (based on par value of capital stock)	12%	15%	15%	15%	15%	15%

* Inventories were valued conservatively for book purposes. Accounting practices permitted a direct write-down of up to 35% of the gross inventory value. The gross inventory figures for 1966–1971 were as follows: 1971—5,396,000; 1970—6,418,445; 1969—4,365,391; 1968—2,488,837; 1967—1,811,590; 1966—1,423,175.

Exhibit 5

HEUER-LEONIDAS

1971 Organization Structure

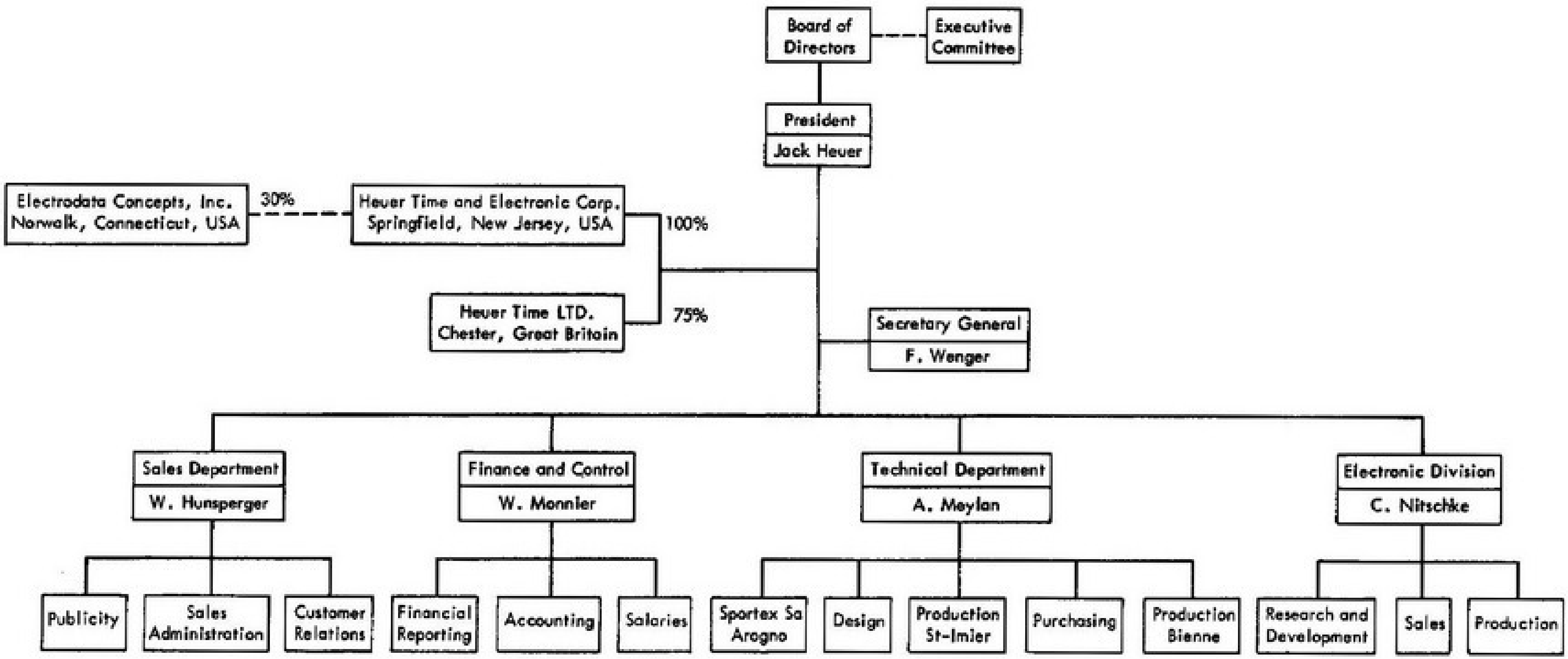


Exhibit 6

HEUER-LEONIDAS

Backgrounds of H-L Managers, 1971

Jack W. Heuer, President, age 39. Swiss Federal Institute of Technology, Zurich. Formerly Executive Vice-President, Heuer Time Corporation, 1959–1963. President, Heuer-Leonidas, 1965-present. With Heuer-Leonidas for past 12 years. Major outside interests: skiing, golf, sports in general.

Frédéric Wenger, Secretary-General, age 34. University of Berne. Formerly legal advisor, Touring Club, Genève. With H-L for 2 years. Major interests: skiing, tennis, horseback riding.

Walter Hunsperger, Sales Director, age 43. Previously Sales Manager, Fabrique Ebel S.A. With H-L for 7 years. Major interests: sports.

Willy Gad Monnier, Finance Director, age 40. Previously with Leonidas Ltd. as Chief Accountant. With H-L for 10 years. Major interests: sports and gastronomy.

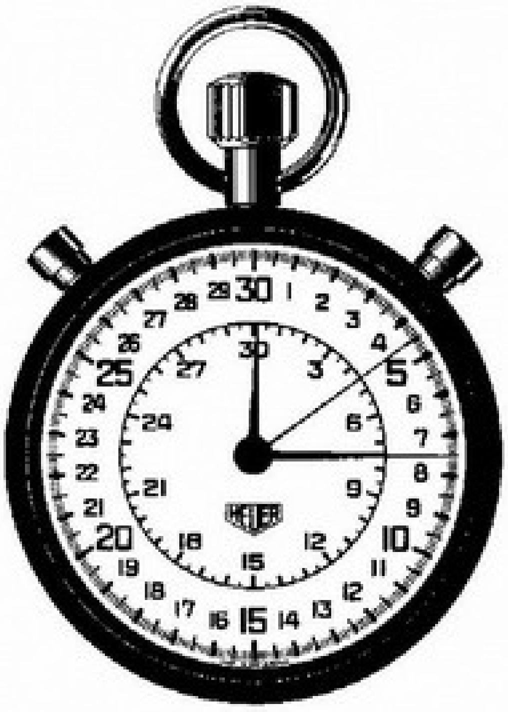
André Meylan, Technical Director, age 44. Formerly Chief of Development, Felsa S. A., a subsidiary of Ebauches S.A. With H-L for 6 years. Major interest: photography.

Christian Nitschke, Manager of Electronics Division, age 37. Technical University of Stuttgart, Georgia Institute of Technology (U.S.), University of Freiburg. Formerly Research Assistant, Arnold-Bergstraesser-Institut, University of Freiburg. With H-L for 3 years. Major interest: social change in industrial and underdeveloped countries.

Exhibit 7

HEUER-LEONIDAS

Typical Products in the "Heuer" Line



Stopwatch
Jeweled-lever, 7–15 jewels
100 + models
Sfr.100.— to 250.—

Dashboard Instrument
Jeweled-lever, 7–15 jewels
11 models
Sfr.195.— to 500.—

Non-automatic Wrist Chronograph
Jeweled-lever, 17 jewels
40 + models
Sfr.195.— to 400.—

Pocket Chronograph
Jeweled-lever, 17 jewels
8 models
Sfr.300.— to 750.—

Automatic Wrist Chronograph
Jeweled-lever, 17 jewels
11 models
Sfr.390.— to 700.—

All prices refer to approximate Swiss retail prices.

Exhibit 9
HEUER-LEONIDAS
Composition of the Board of Directors

* *Dr. W. Ryser, Chairman,* age 46. Lawyer; Vice-President of Fiduciaire Générale; professor of tax law, University of Berne; member of the Board of several Swiss companies and Guyerzeller Zurmont Bank in Zürich. Chairman and member of H-L board since 1968.

* *Jack W. Heuer, President,* age 39.

Charles E. Heuer, Member, age 75. Former president of Heuer-Leonidas, and father of Jack Heuer.

Hubert B. Heuer, Member, age 70. Former president of Heuer-Leonidas, and brother of Charles E. Heuer.

Charles Jeanneret, Member, former Chairman, age 79. Former owner of Leonidas S.A. and Sportex S.A. Owner of Berna Watch Company. On H-L Board since 1964.

Dominique de Charrière, Member, age 47. Mechanical engineer; sales manager of Maillefer S.A. Son-in-law of Charles Heuer. Member since 1968.

* *Thüring von Erlach, Member,* age 38. Lawyer; secretary to general manager of Galenica S.A. Son-in-law of Hubert Heuer. Member since 1968.

Dr. Jean Michel Junod, Member, age 52. Physician, surgeon, heart specialist, and writer. Adoptive son of Charles Jeanneret. Member since 1968.

* Members of Executive Committee.

BUSINESS POLICY

Text and cases

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