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OTIS 1983-1991
Eight years to change

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by Charles CANETTI
Director of Strategy for the SGN-EURISYS Group
Former Director at Otis France

The following account has been prepared by Pascal LEFEBVRE
Translated by B&A Conseil

Abstract

The company is wealthy and dominates its market. A crisis seems distant and yet all the warning signs are there. Should then the decline be managed so as not to make waves, or should changes be brought about at the risk of destabilising the company's jobs, cultures and mentalities? Otis took up the challenge of change and handled a potential crisis before it could happen. The fact that it didn't yet exist did not simplify the issue : it would take one year per hierarchical level for everyone to feel concerned and beginning to act.

Cultures at Otis France

In keeping with the diversity of jobs and the company's geographical dispersion, several different cultures co-existed at Otis in 1983. These cultures had several common elements :

- the primacy of technical factors over marketing : Otis expanded with innovations such as the parachute, the electric motor, manoeuvre controls and electronic applications;
- pride in working for the market leader : Otis represented 40 % of the market in France and 22 % world-wide; "*Otis makes the best lifts*": this feeling of superiority was both a strength (we were bold, not timid) and a weakness (there was a lack of vigilance concerning competitors' progress and insufficient attention paid to customers' opinions);
- the feeling of belonging to a wealthy company, which made investments possible but did not discourage employees from making mistakes since these could be put right without too much difficulty;
- a warm and very festive atmosphere: employee-employer relationships were considered to be very important and preference was given to oral communication.

When I arrived at Otis, the company's weakness was that its culture was based on manufacture and field rather than on service and displayed some strong disparities, each job having its own traditional culture :

- in the factory, the lift cars and prefabricated parts were put together on an assembly line and the process therefore showed a strong degree of Taylorism; each workshop had its own special machines; there was a strong hierarchy and considerable staff loyalty (employees often held down a second job in agriculture);
- on the sites where new lifts were installed, a culture of individual responsibility prevailed, entrenched in the employees' pride in their technical performance ("*I know how to install a lift even if the delivery people make errors!*");
- the culture of individual responsibility also dominated the maintenance of old lifts. This was linked to the prime importance of urgent repairs; the mechanic was in sole charge of his round (about 100 lifts of various ages) and strongly identified the lift as his own. Considering the mobility of each mechanic, it was very difficult to carry out controls on their activity, and this led to a wide variation in the service provided, depending on how interesting the workman found particular tasks: some preferred routine maintenance, others emergency repairs, whilst some liked to talk to clients more than others;
- finally, the head office was seen as being very commercial, money-minded and Americanised.

Why change ?

Between 1973-83, the oil shocks caused a drop in the number of new homes built and consequently a reduction in the sales of new apparatus. The company reacted initially by laying off employees, and then increased its activity in maintenance and modernisation. This quickly proved to be profitable, boosting turnover from FF 2.2 to 3.8 million. From this point on, the company's service activities outweighed production and assembly. However, there were still signs of dysfunction, which were worrying enough for a new management team to be formed, together with a policy for recruiting talented young people. The new managing director had been moulded by a client-oriented culture, and like the president, came from Rank Xerox, where he had had to cope with obsessive competition from the Japanese. His deputy was an Otis man who understood the way the results were slowly sliding. As for my part, I joined the company as a director and was astonished to find that the customers of the world's leading lift company sometimes had to use the staircase, usually when laden down with luggage on a Sunday evening, whereas other companies in the industry were making considerable progress in terms of reliability. At the shareholders' request and thanks to the willingness of the directors, the company embarked on a vast new project programme.

From then on, it was a question of shifting the cultures away from assembly orientation

towards consumer orientation, or from a hunting culture to a farming culture, from heavy-handedness to a softly-softly approach.

The Gien programme

1983 was, above all, a year in which serious thinking took place. It was a question of reorganising the whole company and its information systems. The most pressing concern was handled immediately with a master plan for modernising the Gien factory. This comprised:

- a clear objective: the factory should deliver complete apparatus to its clients, and on time;
- a simplified product: the catalogue range was reduced, the parts required for the apparatus made fewer and standardised, designed by work groups which combined R&D, production, assembly and maintenance;
- shortened production cycles: dedicated production lines were set up for each range, the stock warehouses were reduced to the bare minimum, the factory's surface area was reduced so that it could be managed more effectively, and the workshops were moved and reorganised;
- jobs were carefully reviewed and adapted in order to improve productivity, enhance safety and comfort, and encourage quality;
- production management switched to just-in-time, which led to an updating of the computer systems and the teams' working patterns;
- and most importantly, the personnel were involved in the factory's modernisation, and were trained in the new principles of the organisation.

FF 50 million were anticipated for the programme, which was presented first of all to the shareholders. Immediately after receiving their approval, the programme was presented to the factory's office staff, and it then filtered down the hierarchy to reach all personnel.

This had an immediate and considerable effect on motivation: employees were both flattered at having been informed so quickly of the management project and reassured about the plans for the factory's future, seeing that production had been decreasing over the years. They were also actively involved in implementing the changes, since they were able to understand the programme, could see that there were prospects for improved working conditions, and were consulted on a regular basis. The first stage of consultation involved each team, led by their supervisor, having free access to a Lego model of the planned future factory, so that they could study, handle and remodel it as they wished.

The initial motivation was therefore obtained thanks to the solid and intelligible nature of the programme, together with the will to involve and communicate with employees which was shown by brochures, booklets and information meetings. Such motivation provided an impetus for the first few years' implementation, up to the first results three years later, which in themselves created a dynamic for success. In 1983, the factory's down time had been regularly over 20 % of each month, reaching over 50 % certain weeks. However, by 1990, this rate had dropped to less than 5 %, with long periods under 2 %. In 1991, the rate increased temporarily with the introduction of a new range.

Conquering the Future

In 1984, an Information System master plan was put to the test with the help of an outside consultant using classic methodology (the MERISE method). It was decided that we should start with the "clients and contracts" data base in order to show clearly where our priorities lay. The thinking we had done beforehand proved to be effective in getting the various head office departments to join in the effort to change old working patterns. In the same year, Otis Line, the national switchboard, was created and the first tests were carried out on the new structure of the maintenance service. It was noticed that the norm of 4 breakdowns per lift per year, which had been generally admitted by the maintenance people, in fact merely represented a compromise between what was acceptable to the customer (more than 4 breakdowns and he would complain) and what was acceptable to management (fewer than 4 would mean a rise in direct maintenance costs and to workforce (fewer than 4 means less interest in the job). As a result, an experiment in routine maintenance was carried out in the city of Epernay with big

customers and champagne producers, and within a few months the rate of breakdowns had halved. A victory, perhaps? It was decided that these new methods should be used more widely. However, the first experiment was confounded by the Hawthorne effect and the results of the widespread implementation were disappointing.

The question was, how to convince 3000 people who were spread out all over the country, to participate in the quality effort ? An answer to this question was attempted in 1986, with the launch of the company ethos, which recalled the company's values and showed the way for the future. The management team worked for six months to write a company charter, and the project was called "Conquering the Future". The management team proudly presented the project to 5000 employees on April 14, 1986 and succeeded in plunging them into doubt: "*Conquering the Future* is all very well, but will this happen with or without me ? And how ?" The problem facing management was to find a way of motivating employees and making the project practical at a local level so that they would be inspired to invent new ways forward.

More practical and universally measurable, the national objective of "zero breakdown" accompanied the project. From this moment on, the way was clear : Otis' customers should never again have to use the staircase. This would be good from the client's point of view and should also benefit the repair person (who would be spared emergency repairs, often at nights and weekends) as well as, of course, the shareholder.

In this way, everyone should have gained from the situation, but in fact nothing happened because the large majority of employees were not convinced that breakdowns could (or should) be reduced: a breakdown made the customer see the emergency repair person as a hero; and the calls which were thought to be an inconvenience were in actual fact a source of income for the younger employees in that they provided bonuses. Moreover, in terms of breakdown prevention, replacing used parts which were still in working order would cause costs to rise sharply in the short-term. Behind these arguments there was also the reasoning that breakdowns create work: people believed that a reduction in breakdowns would eventually cause job cuts. The change needed was genuinely of a cultural nature.

The management team therefore fine-tuned its sales pitch. Four breakdowns couldn't be beaten ? Success stories were highlighted. But if there weren't any breakdowns, the client would wonder why he was paying for a contract. The 'invisible' services were thus made visible by informing the client of any work carried out and the progress made in terms of lift reliability. From then on, the cultural revolution concerned the supervisors and salesmen who had to talk to the client about technical matters. In the same spirit, the emergency repair people were renamed "maintenance agents" in order to accentuate the importance of routine maintenance, and the maintenance budgets were increased. The whole workforce was trained in total quality. 1988 was also the year when the first results were to be seen, helped by the economic recovery and the sudden boost in the construction industry. However, the breakdown rate remained at 5.38 %. These fairly unsatisfactory results were partly due to the influx of untrained young workers who had been taken on for the company to cope with the economic upturn. 1988 saw the launch of a new range of lifts and the first results in the provinces, as well as the definition of a new objective: "zero call".

"Field 2000"

However, measurable progress was still desperately weak, despite the improved quality of the new apparatus, the efforts being put into training staff, the bonus systems and the target given to all managers and administrative staff of registering a reduction in breakdown calls. What could be done about this ?

Since pressure from the top was not managing to stir the workers at the bottom of the hierarchy, we suggested giving some freedom for the 300 local teams to act. Why not ask each

team to carry out its own progress project however it likes, provided that the projects contributed in some way to achieving the company's overall objective ? Such projects were made compulsory, but in return management guaranteed to fund the reasonable projects and organised a central team to be in charge of managing, assisting and co-ordinating local projects, as well as preventing the intermediate levels of the hierarchy from slacking. The idea was to force teams to realise that they were capable of making progress.

The traditional pyramid was partly upturned in that managers still imposed decisions, but this time the local teams had the freedom to decide how to act and their hands-on skills were acknowledged as providing them with the best tools to respond to the local situation. This requirement for taking responsibility was received favourably by the supervisors, who could see the opportunity being offered for taking the initiative once again, as well as the subsequent increase in their power. They also liked the management training they received for the occasion. The project was launched in 1989 under the name "Field 2000" ("Chantiers 2000") and was accompanied by the arrival of a new management team. This time, the results were significant: in the two years which followed, there was a noticeable drop in the number of breakdowns in many regions, with certain teams achieving a Japanese-style rate of close to one breakdown per lift per year. Apart from the fact that the supervisors were newly motivated, a positive role was played by several other factors, as follows :

- the commitment of the project's co-ordinators;
- the allowances made for local constraints, respecting each area's own pace;
- the fact that success is a powerful springboard for further success;
- the modifications to the criteria for evaluating supervisors' performance, with managers now placing more importance on the progress made than on the absolute value of the results.

Location-based privileges was cut out in one blow, meaning that the teams which had struggled to keep lifts working under difficult conditions in the poor residential areas could finally feel that they were at least as useful to the company as the teams in charge of maintenance for buildings in the elegant 16th district of Paris or the Elysée Palace.

Why did it take 8 years ?

To briefly summarise, after 8 years' effort, the company achieved some very clear results in its manufacturing and installation activities, with more varied results in maintenance. Why did it take so long ?

Simply, the management team took one year to analyse the problem, start consultations and introduce the work groups. Another year was needed to launch a feasibility study of the new objectives and work methods, and to see the first results of the changes. It took the third year to decide to generalise the changes, prepare the new objectives, methods, information packs and training programmes, as well as to launch the project on a national scale. A fourth year was necessary for noticing the inertia of Otis' geographical structure, which was linked to poor understanding and a lack of motivation for changing old working patterns, sometimes for important reasons, as well as the caution of the field workers, who were used to seeing management trends and new projects come and go. Finally, another year was needed in order to step up the pressure which was filtering through the hierarchy, and to obtain not negligible results. The following years served to consolidate the new habits and overcome the last traces of resistance from employees.

This seems to follow an empirical law which predicts that in order to change an organisation's behaviour, one year per level of the hierarchy is needed. Are there any explanations for this law ? It seems to me that this delayed effect is made up of several components :

- time for the people whose behaviour needs to change to understand the objectives; this period is variable, depending on the length of the information chain between sender and receiver; clearly, it is much quicker to get a team of workers to understand a project concerning

workshop installations than to make an abstract goal (for example, "to be Number One" or "Zero breakdown") comprehensible to a scattered population; the greater the number of hierarchical levels, the longer the time needed for the information to filter down;

- time for caution: before people lend their support, they wait to see if the management project is serious, know the position of shareholders and see what the budget forecasts; employees often also wait for the director to leave (the average time a company's directors survive is a vital clue for the whole of the middle hierarchy and also helps the current director to assess his credibility and the degree of risk involved for others to help him.)

- time for introducing the new policy: this includes objectives, procedures, organisation equipment and incentive schemes, as well as systems for evaluation and control.

- time for learning these new elements, similar to the learning time for new production lines.

One important consequence of this empirical law is that the management team must steer the same course for as long as is necessary for seeing the changes adopted by the whole personnel. Nothing is worse than going back to discuss the initial strategy under the pretext that the first visible results are slow in coming. This obtains the opposite to the desired effect: the personnel comfort themselves with the idea that they were right not to apply the first instructions, since they have been replaced by a new directive.

Some luck with the current situation is also required. In Otis' case, the company experienced a five-year period in which factors were generally favourable and this eased the project's progress :

- the company was structurally profitable;
- the economic situation was favourable;
- the management team was stable;
- the weakening of the dollar helped negotiations with American shareholders concerning the expected dividends.

To conclude, I would like to quote a Chinese proverb: *"Three years for a small success, ten years for a big one !"*

II - DEBATE

0 breakdown or 0 call ?

Participant : *Were policy changes made for maintenance and emergency repairs ?*

Charles Canetti : There was continuing pressure for more routine maintenance and fewer emergency repairs, and employees gradually integrated this into their working patterns. For example, breakdowns used to be perpetuated by workers replacing faulty parts with new parts of much the same reliability. By circulating around the whole company the fact that breakdowns were no longer desirable meant that some people eventually wondered *"What would happen if I replaced a part not with one of the original components but with one of a better quality ?"* In this way, the whole policy on replacement parts was reviewed, with frequent interaction between the field sites and the work groups who thought about how to make the replacement parts more reliable.

Progress was also made in terms of organisation. We progressively focused more on results than on checking that the correct methods were being used. For this to happen, we had to acknowledge that Otis employed some professionals of considerable merit and that from the moment that their work reduced the number of call-outs, all the safety and quality controls must be right, no matter which methods were used.

During this same period, the site managers worked on preventive maintenance. All Otis lifts are now standardised by computed-assisted production, and I believe that in ten years' time, Otis will be able to carry out preventive maintenance by tele-surveillance.

Participant : *What does "0 call" mean to the financier ?*

Ch. C. : As soon as calls are dissociated from breakdowns, any client who calls threatens a contract. "0 breakdown" is a merely technical term, whereas "0 call" is a much wider goal. A client who calls about a billing error poses a threat to the relationship and this is worrying to someone from Finance. Similarly, "0 call" means something to someone from Sales. The salesperson must not sell apparatus which are unsuitable for the purpose intended, i.e. undersized because of a buyer wanting to reduce his construction costs. One of the trade's major difficulties is that the buyer is not the end-user.

The salesperson's task is therefore to convince his client to buy a lift which is suitably sized for the use it will be put to, and therefore more expensive. If the salesperson gives into the easy option, breakdowns will occur, since the equipment will be used beyond its limits. "0 call" for a salesperson also means that he must have been told *"You have (almost) the right to refuse an order if you think that the client is not buying what he should, considering how the lift will be used"*.

"0 calls" is a wide measure because it applies to every department in the company. When a goal is specific to one group of employees, it is not respected by the others.

Participant : *The rate of breakdown has only dropped from 5.32 to 4.80. Is this result significant ?*

Ch. C. : When we're talking about 120,000 lifts, this represents 60,000 causes of breakdown permanently eliminated. What is significant is the "0 fault" norm which is implied. We had some intense debates in order to define how progress should be measured. Should we have said *"You're at 6.78. You must get down to 6.28" ?* Which figures would spur people into action ? This needed a lot of time, because people were saying *"0 breakdowns" is out of our reach, so there's no point even trying"*. The total quality attitude of "0 faults" consisted of setting clear objectives and giving ourselves the means to achieve them, as well as wanting to succeed. This wasn't in our culture at the outset.

We could rewrite the events and say *"We were marvellous. We acted very quickly."* The truth is that there was a great deal of trial and error before we found the right line of attack to achieve maximum support. I remember that around 1986, we didn't have all the experience in carrying out changes that there is today.

Otis' values

Participant : *You talked about the festive spirit in Otis' culture. What sort of communication did you use for managing this process ?*

Ch. C. : This festive spirit was linked to Otis' culture on the field sites, whereby there was an enormous amount of complicated and difficult work to be done, but everyone pulled together and progress was made. Work was done around the clock, including on Sunday. When a job was finished, people were happy and celebrated. Therefore each advance was celebrated very spontaneously with a party. For example, in Brittany, a region which is characterised by a stable, competent workforce and good quality, hardly-worn apparatus, the regional manager set up a prize for the round without any breakdowns. Every Friday he presented the cup to the winner and drank champagne with the team. In this way, a little party was given every Friday. Parties are also interesting for a different reason: a lift not breaking down means that some guy has spent time on such obscure tasks as fine-tuning the mechanics, oiling the necessary parts and checking for wear and tear. But the customer doesn't notice this maintenance work: nothing is more normal than a lift which works. A party is therefore a way of making invisible progress visible. It sets a pace to the action and allows progress to be measured.

Participant : *How does one go about changing rituals in such a structure ?*

Ch. C. : Rites build up over the years, but I'm not sure that a management team can create

new ones. In fact, what happened was that we selected rites which already existed and seemed the best suited to conditions at the time, like the festive spirit. This also worked because the richness of the cultures allowed us to prune back some rites and allow the best to flourish.

If people are conscientious and competent, which is the case in the majority of long-running companies based on technical expertise, they are quite pleased when top management abide by their opinions: at Otis, people said right from the beginning that good quality products were what was needed. Finally, top management's attitudes progressed to the same extent as those of the workers. What was lucky with the project was the fact that we succeeded (a rare achievement) in finding the company credo a solid objective which would apply to everyone: the "0 call". When you manage to find this objective, you're onto a winner. By contrast, participative management was not already seeded in the culture. The employees came from a generation used to authoritarian management. This was perhaps the only part of the culture that had to be imposed.

Participant : *Six months of intense work by top management is a long time for one slogan, "Conquering the Future". What did the work involve in practical terms ?*

Ch. C. : Top management wanted Otis to have a charter of values, and we had differences about every word. For example, what did customers want? Former salespeople who were on the management committee said, *"What customers want are the best salespeople"*. We interviewed some customers and were told that what they wanted above all were lifts which worked. This fact was not obvious to everyone at Otis.

There was also lots of debate in order to harmonise fundamental ideas such as our relationships with clients, our in-house rules, whether priority should be given to shareholder dividends or customer service, and so on.

Participant : *The management committee finally managed to reach a consensus, but were there not any problems getting the rest of the company to agree ?*

Ch. C. : Yes, indeed. We thought that after having spent six months finding a brilliant formula, it would only take an hour for the others to understand it. However, since the formula turned out not to be as brilliant as we had thought, the slogan "Conquering the Future" was abandoned after 2 years.

In other words, what remained of the company project were its practical elements: the "0 call" goal, the tools for solving problems, and so on. Ideas that represented a challenge, such as "Conquering the Future" and "Onward" ("en avant") flopped because they lacked resonance and people didn't understand them. In fact, there was a lot of trial and error.

Living the changes

Participant : *What sort of training went with the 1989 spirit of "upturning the pyramid" ?*

Ch. C. : The training consisted first and foremost of making the foremen aware of their responsibilities. In an organisation like Otis, it is very important for the foremen to support the management team because they are the only link between a base of people who are never seen since they always work on different sites, and the rest of the company.

The foremen's direct superiors were works managers who were in charge of 120-140 people and a geographical sector. These were all people who had extraordinary personal qualities and had nearly all climbed up the hierarchy, but who had difficulty in changing a proven system which had allowed them to advance their careers. They all received management training, because many of them had been rather focused on a hierarchical style which was often authoritarian and sometimes brutal.

Participant : *Was there any special way of making the managerial staff share the new management's vision ?*

Ch. C. : In 1983, the new company president identified the customer as the Number One concern, and introduced a new management team. Whilst he kept a maximum of people from the old team, he chose new managers for their professional skills and their understanding of service culture.

Members of the management committee were then allowed to rub shoulders until they had a minimum of shared ideals; this happened through working on common projects. When we genuinely accepted the fact that the people who best understood the customers' expectations were those who were in closest contact with them, we engaged in a considerable amount of very practical training. This involved human resources, communication, very American style-courses on leadership, positive management, total quality, and so on. When the director said that customers should be served better, the site workers were rather glad to receive our help, since they had for a long time been the only people in contact with the customers !

A little more force was involved at the head office, where the directors told the heads of departments, *"If there are more breakdowns next year, your bonuses will be smaller."* It was as simple as that !

Participant : *What were the reactions from others in the firm ?*

Ch. C. : There were some excellent unions which reacted strongly against the organisational issues which they considered to be linked to working conditions. When we decided to completely reorganise the Paris zone, people were afraid of losing their references, which led to an extremely rare protest: the foremen went on a two-hour strike in front of the head office in order to warn *"Watch out: for the sake of your grand principles you're going to destroy something that works!"*

However, there were no major problems, union membership being moderate and the unions themselves having pride in their company.

Participant : *Where does the shareholder come into all this ? The Americans are not the most patient of shareholders !*

Ch. C. : Otis' shareholder is United Technologies, which comprises several prestigious brands such as Sikorsky, Carrier (the world leader in air conditioning), Hamilton Standard (which produces space suits for astronauts) and Pratt & Whitney (the world leader in jet engines). We were certainly the low-tech member of the group, but we also provided a cash cow with margins of 5-6 %, contrasting with the millions of dollars that Pratt & Whitney represented in losses.

Moreover, the exchange rate of the dollar played a role: at FF 10/US \$, it was easy to make the profits demanded by the shareholder, who needed substantial funds to compensate losses in the high-tech sector which still remained its pride and joy. Nevertheless, it was thanks to this shareholder that we and our suppliers entered into total quality management. Our shareholder was the source of service cultures, participative management and the idea of making employees aware of their responsibilities. And although the financiers only saw the profit potential of Otis France, the forward-thinkers rather liked their good pupil who were often better than the Americans at putting their theory into practice.

The dynamic of change

Participant : *What were the events which really spurred the changes: the project launch, the master plan or the "O call" ? Or was it people on the job noticing a certain number of successes ?*

Ch. C. : There were two factors which concerned the whole company. Firstly, there was the vision of the new managers, who arrived saying *"What is happening at Otis is very surprising. But why is it like this ? And why is it not any other way ?"* The shareholder also

played a very positive role by asking, and at a certain point demanding, us to embark on a process for improving the quality of our service.

In the factory, it was the drop in new home construction in France which provoked reactions, with workers fearing a lack of new sales and job losses. In maintenance, there was considerable staff loyalty, with a mix of attachment to the company and technical pride, some workers having been responsible for their apparatus and rounds for 30 years. But this awareness of responsibility had sometimes been excessive, with technicians going as far as nearly telling clients *"Don't get in my lift: you'll spoil my work."* Attitudes needed to be reoriented in favour of the customer. If Otis hadn't achieved this, I believe that the Gien factory would only be running at half-capacity today, and would doubtless have shed 3-4,000 jobs. Otis might have been able to keep this up for a certain number of years since it is a very wealthy company...

Outside competition also had a role to play. Towards 1987, Générale and Lyonnaise des Eaux showed an interest in maintenance contracts with a subsidiary which maintained 5000 lifts. Otis had 125,000 such contracts, but our first reaction was to say *"This is dangerous. We need to act. We've got to be the best in our field so that this other company won't find any customers."*

Participant : *In a previous seminar, Mr. Francony, a EDF-GDF Director, considered that the key to one change process was creating a level of responsibility which integrated both the commercial and technical service elements into a regional framework. At Otis, it seems that the level of responsibility passed directly from the head office to the regional staff.*

Ch. C. : We always noticed that the regional managers and their deputies would follow the top management's decisions to a certain extent. Employees at this level were either in full agreement with management or stalled without ever coming up with new ideas, lacking both the knowledge needed to explain what was happening to top management, and the ability to pick out the rites which were useful.

Moreover, at Otis, regional management functioned as profit centres, each with its own earnings report and a manager interested in the results. Therefore, the "0 breakdown" objective was interpreted as an increase in the operating budget. At the beginning, when top management were giving the instruction *"Spend more on replacement parts in order to improve your maintenance"*, the regional managers found themselves torn between their own interests and those of the company, and replied, *"But that'll blow my annual bonus !"* We therefore progressively introduced quality objectives into every manager's bonus scheme.

It is necessary to know how the intermediate levels come into play under such a system. My experience is that they always slightly side-step what is expected of them.

Participant : *If, as you said, changes require one year per hierarchical level, is reducing the number of levels enough to speed up the process ?*

Ch. C. : It clearly is not enough merely to cut out levels of the hierarchy any old how, without risking a setback. One cannot eliminate an intermediate level without having first given serious thought to the role it plays: the fact that it is intermediate does not make it superfluous.

On the other hand, it is clear that one of the ways of saving a company is to try to define common objectives which will be understood in practically the same way at all levels of the hierarchy. The shorter the chain of communication, the more success there will be in making the objectives coherent.

Participant : *There seemed to be a quite small amount of outside consultancy involved in your change process. Was this enough ?*

Ch. C. : In fact, Otis used many consultants and nearly all the methods in vogue at that time. We used only a few consultants for the strategy, but many more for the actual changes. The "Conquering the Future" project was piloted by 2 consultants assigned by a specialist agency,

who provided us with many new tools and methods. The "quality" project was piloted with the introduction of American methods by an effective consultant and a strong internal structure.

Otis therefore used numerous consultants but also changed many of them. For a while, a particular consultant would seem to provide us with the tool, idea or method which was needed for us to take a step forward. But if a certain number of employees had not wanted to act, resorting to consultants alone would not have helped because they would not have had the necessary impetus backing them. However, the consultants were always useful.

Participant : *It seems to me that one of the keys to the successful changes comes paradoxically from the absence of a major crisis. Were there any job losses ?*

Ch. C. : Between 1979-83, the redundancies forced by the 1973 crisis led to a rebuilding of the company upon principles which were better suited to service. Thus the person who had had the sangfroid to lay off 2000 people managed to clean up the company and was well-chosen and competent, but his objective was not especially to introduce a service culture.

Since 1983 there have been no large-scale lay-offs, although numbers on the payroll are currently decreasing due to poorer demand.

As concerns the management committee, there have been quite a few arrivals and departures. It is interesting to note that many of the professionals who joined the company in 1983 in order to contribute their professionalism, left some time later, having transferred it to people who had been there longer.

All of this was done in a fairly warm atmosphere without any major conflict. The project in itself did not clash with the workers. However, conflict arose at precise moments when we disturbed old working patterns and the people we disturbed were not convinced that there were good grounds for the management's decision. They were sometimes right, but often they were wrong.

Participant : *If you had to do it all again, what would you do ?*

Ch. C. : The only thing that, in retrospect, I would drop would be the company credo with its theoretical, philosophical side. On the other hand, I believe that its preparation was useful to the management committee. As for the evolution in attitudes for moving from a production-based culture to consumer-orientation, I do not think we could have gone any faster.

If I had to manage another change process, I would not want to go much faster. These days there would be less trial and error, since the necessary tools are available and well run-in. But I'm not sure that the behaviour of managers and workers could be changed in much less time.