

# The Spaghetti that became Revolutionary

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When Lars Kolind, CEO at Oticon, returned from his Christmas vacation in January 1990, he may have looked a little more enthusiastic and self assured than usual.

Lars Kolind had spent his vacation trying to conceptualize an idea he had gotten during his first year at Oticon; he wanted to create a company that was open, transparent and mobile. Kolind believed this was the only way for Oticon to regain its positioning back from the seventies as the world's leading hearing aid manufacturing company. Because Lars Kolind's way of creating such a company would involve drastic changes, he had coined his idea: "Think the Unthinkable."

## What made Kolind think of spaghetti?

The overriding idea of Kolind's "Unthinkable Thoughts" was to promote the co-operation between the different departments at Oticon.

In the seventies, Oticon was the world's largest hearing aid manufacturing company. The company's success had turned Oticon into a proud and tradition bound company, dominated by an engineer's culture. The company had used its audiological knowledge to develop ever more advanced products without considering whether clients were actually interested in the improvements. At the end of the eighties technology changes had made it imperative to integrate the individual customer's demands into the hearing aids, and service had become at least as important as production itself. Oticon had fallen behind, and the company's internal communication problems had made coordination difficult and new product launchings rare. As a result, Oticon had overlooked the importance of the new, modern In The Ear hearing aids that had become very popular among customers.

Hoping to change the situation, a new CEO, Lars Kolind, was appointed in 1988. At the end of 1989, Lars Kolind had turned Oticon's deficit into a profit, but he was still not satisfied. Kolind wanted to regain Oticon's positioning back from the seventies and this could not be done with Oticon's current structure.

Oticon's employees were all well-educated and had the required knowledge for producing the new In The Ear hearing aids. But coordination was difficult in Oticon's functionally defined organizational structure where each department was striving to fulfill its own goals rather than those of the organization. According to Kolind, Oticon had to integrate its audiological knowledge base into the work of all employees, and at the same time co-ordinate the work of its employees so that everyone would become more customer oriented and service-minded. "The competitiveness of companies will depend on their ability to generate knowledge, to utilize knowledge in new products and services and to turn such products and services into profitable business" (Lars Kolind).

## Holly, Ivy and Unthinkable Thoughts

Lars Kolind was happy. During his Christmas vacation 1989, he had managed to conceptualize his idea of turning Oticon into a knowledge creating organization. Kolind's idea was to promote the co-operation between the different departments by creating a firm that was open, transparent and mobile. "The vision was to develop a truly knowledge based company, which could make a difference in the form of a breakthrough in user satisfaction with hearing aids. This not only requires a creative combination of technology, audiology and psychology, but also a much closer co-operation between the different professionals involved in the actual selling, fitting and fine-tuning of the hearing aid to the needs of each individual user" (Lars Kolind).

Part of the credit for Lars Kolind's "Unthinkable thoughts" probably goes to Lars Kolind's older brother Peder Kolind who is known internationally for several successes with entrepreneurial firms. For several years, the two brothers had toyed with the idea of designing the "company of the future." Lars Kolind had also stated how important it was for Danish firms to understand how to use new technology intelligently. Kolind did not see new technology as a threat but, on the contrary, as a valuable opportunity.

The mission of Oticon would still be to compensate for hearing loss, but seen in a broader perspective than the technological products as such. A new important part of the company's profile would be to increase service towards a new group of collaborators that had become increasingly important over the eighties: the private hearing clinics.

Paramount to Oticon's new organization structure was that the whole company, and not just the individual department, should benefit from each individual's knowledge and qualities. Technology would not only have to be built into Oticon's new products but also be used daily by employees who should all be connected by a large computer network. In order to become more service and customer oriented, employees should in the future work across the organization, and all assignments should be carried out in project groups. In this way it would be easier to integrate the different parts of the firm, thereby developing and implementing product concepts faster and in better compliance with the demands and needs of the customers. Kolind believed this would enable Oticon to improve its competitiveness: "Competitors will always be capable, without much ado, of copying products. But if we create an organization that can react very quickly and change to comply with demands of customers and competitors' moves, Oticon will be hard to beat" (Lars Kolind).

A flexible and an adaptable organization would require quicker decision making processes. Titles would be abolished. Decisions were to be made by those influenced by the decisions. "When in doubt - then do it. If it works it's good, if not you're forgiven" and "It's easier to be forgiven than to get approval". These new mottos made clear that decision making authority would be delegated to employees. Kolind described the meaning by using the following metaphor: "The employees' hidden resources are brought out so they can play together like an efficient football team where each individual knows the objectives and the strategy and can kick the ball immediately without having to look up the rules and ask why."

Lars Kolind was not afraid to give employees responsibility as he had seen, through his many years as a boy scout, that good results could be achieved through co-operation and delegation of responsibility: "No one can resist confidence. That is the greatest thing a manager can give an employee, and it most certainly activities creativity" (Lars Kolind):

## Realizing the Unthinkable

This time, Lars Kolind did not aim at the company's two factories and their total of 570 employees, as he had with many of the cost reductions during Lars Kolind's first two years. Nor were

the changes aimed at the 500 employees in Oticon's foreign subsidiaries. 145 employees at the company's head office were affected.

On April 18, 1990, Lars Kolind sent out an informal eight page letter in which he introduced employees to his new project: "Think the Unthinkable." Everybody would need to think a little non-traditionally to make the idea come true. Kolind called his project "Project 330;" it aimed an improvement of the efficiency by 30% over 3 years.

Later in April 1991, the public was at a press conference arranged together with the Ministry of Industry and Business. Oticon had been chosen by the Industry's Employees as one of five companies to participate in a project: "Company of the Future." Oticon received DKK 2.5 million from the Ministry of Industry and Business. The idea of the project was to create Danish role models and experiences by implementing new technology and efficiency improvements of 20-30%. For economic support, Oticon agreed to publish results of the project.

The press conference was covered by most Danish newspapers, and from then on, Oticon was frequently mentioned in the Danish press.

## Implementation of the Indefinable

For all changes, employees were invited to take part in the discussion of how changes should be implemented. Lars Kolind set the general framework. Then employees were encouraged to fill out the frame themselves. "He is extremely ... that is one of the really nice things about him ... he is extremely good at letting people do the things themselves" (Torben Petersen).

As an example, the employees were to find a way to implement the Unthinkable Thoughts. Two overlying projects were established: one group with responsibility of the physical arrangements and information flow between top management and employees, and another group, the so-called IT group, with responsibility for the company's computer system. Mr. Torben Petersen was appointed at Oticon in 1990, and his first role was to function as leader of the IT group. Torben Petersen describes his first year: "I started in 1990, and of course I had talked to Lars prior to that, and people had told me that he traveled a lot. But I did not expect him to be absent three weeks from the day I started! But, anyway, we had talked about me having to make this office paperless. And he had told me how it had to be, that we needed a computer system so that the office could be made paperless. So, when I arrived, people showed me where my desk was, and then it was all up to me what to do with the office. And then, two or three weeks later, I heard somebody whistling in the corridor, back then Lars always whistled, he doesn't really do that now. But he came into my office and said: 'Oh hi, good to see you're here.' And we talked a little and then he said: 'There's just one thing you need to remember, no matter what, I don't want you to say that this isn't feasible' And then I didn't see him for the next couple of months ... I did of course have some meetings with him but during that first year but only very few - and I spent DKK 25 million! That's pretty much Lars' management style I think" (Torben Petersen):

Lars Kolind's way of managing the changes was indeed different from what employees had seen before. By practicing "management by walking around," and by moving his own desk away from the CEO's office and into the middle of the organization, Lars Kolind gave employees a chance to talk to him in an informal way rather than walk all the way up to the top floor to the CEO's office to ask a question: "That's the idea of Oticon's management - that the management works with the employees at the same level as the employees" (Lars Kolind).

A great effort was made to inform employees of the new ideas and visions. Messages and letters were regularly sent out, keeping everybody up to date. Lars Kolind held a lot of informal meetings and speeches in order to communicate his goals to employees.

Because some of the employees had never even worked with a computer, Oticon's new information system was expected to be difficult for them. Therefore, to familiarize everybody to

computers, everyone was offered a home computer. Eighty percent of employees accepted this offer, and many of those who did not probably already had a computer at home.

Another element in the new strategy was the idea of co-ownership. The capital stock was increased from DKK 20 to 50 million in 1990 and another capital infusion saw Kolind subscribe DKK 26 million shares, and the employees DKK 2,5 million. This was not only done to rise the capital of the company but also because Kolind believed that: "People playing with other people's money do not feel the same responsibility as those who have something stuck financially. It is not tenable if e.g. a manager comes to a point where he is more interested in his own career and less in the survival of the company" (Lars Kolind).

## The Physical and Psychic Influences

To break old habits Lars Kolind decided that Oticon's entire head office had to move into a new location. Lars Kolind proposed that the entire company, including the company's factories and Eriksholm, should move to Thisted, where he had found an old castle big enough to house the entire organization. After much deliberation, this idea was abandoned because Oticon's employees, particularly the middle managers, strongly protested. Later, it was finally decided that Oticon's head office should move into Tuborg's closed mineral water factory on the Strandvejen in Hellerup.

At 8 o'clock on August 8, 1990, Oticon's new head office opened its doors for the first time.

## The Computer Network and the Paperless Office

"The "moving in day" was an amazing experience. Everybody had been really down and no one felt really safe. But when finally we had packed our boxes and were sure to be "in", we almost got euphoric. Everybody was on his toes, it was really a fantastic experience" (Oticon employee).

If there were any employees left who had not yet understood the comprehensiveness of the changes, the new working environment must have helped. The new organizational structure was very much visualized through the company's new office facilities. Two big pillars ran the length of the ground floor. One of them was engraved with the words: "Cogitate Incognita" as a constant reminder of the importance of thinking the unthinkable. The other pillar was made of glass and was as a powerful symbol of the new paperless office. It functioned as a chute for all paper that had been shredded on its way to the incinerator in the cellar. Departmental barriers had been abolished. Oticon had been made into an open office landscape without individual offices, departments and job titles.

The physical arrangements of the company were designed to keep lines of communication open. The company's lift had been closed to encourage people to use the spiral staircase, because you get to talk to more people on a staircase than in a lift. Further a café and several small cafeterias had been established for employees to hold small, informal meetings over a cup of coffee. PC's were found on every rolling table that constituted the desks of employees. Rolling tables were easily rolled back and forth in the company, depending on where employees worked.

Oticon had been made transparent; information was made equally available to everybody. There was increased communication, increased use of computers and reduced use of paper. Less paper was necessary, as mobility could only be attained once employees were no longer dependent on the information stored in their ring binders behind the desks. However, Oticon was not completely paperless and employees could still work with paper, as long as

everything that needed to be saved was digitally scanned into the network. All PC's were connected to a central computer network which was custom-built for Oticon by Hewlett Packard.

Employees could find the information they needed on Oticon's computer network. They could also find information on what was going on in the rest of the organization. Anybody could log into the management's computer and seek information. On the other hand, the computer network also made it possible for management to login to the employees' computers and see how *their* work was progressing.

## Spaghetti Sometimes Gets Sticky

Ironically, only six months after the introduction of Oticon's new company structure, the informal and flexible structure turned out to be too centralized. With no middle managers, all decision making was put onto the CEO who, in turn, was overloaded with information.

All the same, this gave Oticon its first chance to prove its ability to change. Oticon sorted out the problem by quickly integrating a new level of management, the so-called management group, into its structure. The idea of the management group was to create a forum for discussion and decision making that could relieve the pressure from top management. With the management group being installed, Oticon became a two level organization with top management and project groups. In between these two levels, a more fluid level was acting: the management group.

Members of the management group were going to be two CEO's (discussed later), many of the project owners, project leaders, professional managers, personnel managers, the project coordinator and some project members. With Oticon's new working structure, all of these titles filled out more than one function/role at a time, and could very well participate as project members in one project while being project leaders in another. This gave members of the management group a cross organizational overview which, combined with their professional background, enabled them to decide what projects were important and needed special resources or attention, and also, to keep an eye on the overall situation of the company. Some replacement of members of the management group had to take place every now and then to avoid putting too much decision making authority with a few, particular people. "But because the CEO's are a part of this group it became an organ not an intermediate link (between project groups and top management). Not a three layer system with the CEO, the management group and the projects, but a kind of two layer system, with the CEO at the table's end (of the management group), there is no doubt about that, but more like a level of management and then the projects" (Torben Petersen).

A second element of change was the project recruitment methods. These were changed as it turned out that Oticon's internal communication methods worked *better* than planned!

Originally, the idea was that Oticon's computer network should contain a job exchange, where all projects were going to be registered with an explanation of their objectives. Employees were then supposed to apply to the various projects over the job exchange. Nevertheless it turned out that employees did not sign up on the projects. The job exchange did not work.

"People never signed up on the projects, it did not work. We had to go out and tap them on their shoulders. Maybe people were a little afraid. The job exchange has now been replaced by informal job search" (Torben Petersen).

Instead, project recruitment took place in an informal way: Employees all keep an eye on what projects are being established, and when interested, they would contact project leaders informally and ask them for a project membership. When the word of mouth recruiting started replacing the job exchange, it became harder to keep an overview on who was participating in the different projects. To make sure that there was the right mixture of people and skills in the project groups, project leaders needed approval from the management group for the composition of his/her group before starting work.

A third element of change was the constitution of top management. Oticon's restructuring had been connected with a substantial money outflow, and consequently of this, the board of directors had urged Lars Kolind to accept a co-director with financial responsibility. "I was dead scared of the idea that during such an important restructuring process we only had one man at the CEO level. Imagine if one day he would drop dead" (Svend F. Thomsen, now president of Oticon's board of directors).

Niels Jacobsen was appointed CEO at Oticon on January 1st, 1992.

## Spaghetti in Action

From the hearing impaired patients' perspective the first tangible result of Oticon's new organizational structure was Multifocus, launched in 1991. Multifocus automatically adjusted, without any volume control, to the noises of the environment. Actually, Multifocus had already been developed under the old Oticon under the name E36. In 1978, researchers at "Eriksholm" had developed the concept and the product. But due to lack of communication, no one had been asked to finish and market it. It was abandoned and forgotten. In 1991, it was "rediscovered" and its development completed. Only four months later it was introduced on the market with great success.

The launching of Multifocus was only one out of many future episodes at Oticon to catch the public's attention. Much of this attention has been focused on Oticon's economic results since the restructuring (Table 1).

**Table 1. Oticon Holding Group – Financial Ratios, Key Financial Figures 1990-1996**

Million DKK	1996	1995	1994	1993	1992	1991	1990
Net turnover	1.087.266	940.2	750,29	661.28	538.82	476.53	455.93
R & D costs	98.991	78.209	49.415	43.022	39.528	30.422	15.822
Profit before tax	160.252	136.46	134.46	83.738	18.154	5.465	13.127
Net profit	120.286	99.184	88.316	62.305	8.822	.287	40.425
Return on sales	12.8%	12.4%	3.7%	13.1%	5.8%	1,8%	3,7%
Net capital	539.793	448.87	273.43	191.49	146.02	143.5	160.33

Source: Oticon's Annual Report (1994, 1995, 1996), Børsprojekt (1995)

Lars Kolind's personality and untraditional management methods have been ardently discussed: he was the originator of the Unthinkable Thoughts. Nevertheless, not everybody recognized the media's description of Lars Kolind. In 1994, changes were made at Oticon's component factory in Copenhagen. Sixty-three employees were fired. Lone Jensen, Oticon's employee representative, publicly expressed her frustration with Lars Kolind. She did not recognize the media's description of Lars Kolind as the boss she knew: "One night I dreamt that the management had to chase employees around in the departments to get them to accept their redundancy notice."

Shortly after this episode a meeting was arranged, open to public, where Lars Kolind and Lone Jensen discussed their different point of views. At the meeting Lone Jensen wished to discuss Oticon's pointless firings and stingy retirement remunerations. After more than an hour, the two had not reached accord, and the meeting was ended.

This meeting did however not change brokers' positive view of Oticon. In May 1995 when Oticon was introduced on the Copenhagen Stock Exchange its share price rose from 500 to 591 in a single day.

Oticon's introduction at the Stock Exchange was shortly afterwards followed up by another success: in November 1996, Oticon launched a product which, in the world of hearing aids, was considered no less than a sensation. Oticon's new hearing aid had been developed at Oticon's head quarters, and in Cupertino with international researchers and audiologists. How Oticon managed to co-ordinate its actions across the world may have seemed like a bit of a mystery to some people not familiar with the spaghetti structure.

## Questions for Consideration

1. Which changes would you make in running OrgCon for 1990?
2. What were the major changes?
3. What is the relationship between the physical structure and organizational structure?
4. Would you like to work for Oticon? Why/why not?
5. What is the relationship between the organizational/management changes and product innovation?

## References

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