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This paper was first published in Vol. 7, Issue No. 3 (September 1999) 269-297. An oversight on our part led to an error in the order of the authors' names and a missing punctuation in the title.

FOKKER, A CLASH OF CULTURE?

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What role do cultural factors play in the survival of a company that faces existential problems, especially if these problems relate to co-operation between organisations with different cultures? We try to provide some answers by looking at the decline of the Dutch aircraft manufacturer Fokker. In 1996 this company went bankrupt and among the causes of this event cultural factors rank high, at least at first sight.

We show that differences in national culture could have played a role in one of the defining moments in Fokker's existence: the failed take-over by the German aerospace giant Deutsche Aerospace (DASA). But we also show that an over-ambitious management was responsible for arriving at the situation in which there were no other options to survive besides a take-over by DASA. An increasing gap between the ambitions of the management to be one of the world's prime aerospace companies and the limited resources of what was essentially a second-league player put Fokker in such a bad financial condition that it simply had to become an unbearable burden for DASA. So culture played a role in Fokker's decline, but its influence was most devastating long before the problems that brought the company down were recognised.

INTRODUCTION

How do top management teams take decisions when they have to rescue a firm, or at least save the healthy parts of it? To what extent would this kind of decisions differ from decisions about other, generally less life-threatening

issues, such as investments issues? Such a question obviously relates to, for example, theories of negotiation and conflict management. After all, decisions are taken at the negotiation table or at least in a group of decision making actors. But in this article we will confine ourselves to culture. As an extreme case, we will examine the role of culture in decisions concerning the very existence of a company, and we will illustrate this with a case. What is the role of culture, be it national, professional or corporate, when a national high-tech industry operating in a global environment has to be rescued?

We take as a case the Dutch aircraft manufacturer Fokker. Our method of describing and analysing will be very much a combination of deduction and induction, a little bit in line with the cultural model we propose: the model of the iceberg. In the first section we propose a theoretical starting point (deduction). Then we move on to a qualitative historical narrative about the decline of Fokker in the following two factors, generating suppositions which we use as an illustration also for the theory we propose. We end with bringing it all back to an assessment of validity and usefulness of the iceberg model, developed in 1979 by French and Bell and adapted by Mytrof and Kilman in 1990. This model would suppose that, for instance, in the case of the decline of Fokker the top management team of Fokker would take their strategic choice for new partnering on the basis of financial and technological criteria clearly present in the explicit top of the iceberg, whereas the implicit factors, such as questions about a possible mismatch of national, corporate, and/or professional cultures between potential partners are simply overlooked. This is also our basic research question: if survival strategies for innovative technology, such as the one of Fokker, are taken mainly on the basis of the top of the iceberg, might the implicit bottom with the unspoken unconscious rules explain its failure? Why did this company crash?

Culture might definitely play a hidden, tacit role in decision making about partnering as a way to rescue an innovative firm. Chan (1996) illustrates this with her case study of two SMEs: one in the advertising industry where creativity and conflict are of utmost importance and another in the media buying service sector. The two need each other in a kind of supply chain, the advertisement which is created by the one is placed on the air for advertisers by the other so co-operation is the essential ingredient with an emphasis on efficiency and effectiveness. In our Fokker case this might mean that even different cultures of partners could be supplementary in a win-win situation, without an attempt to generalise a case of two small SMEs to two major industries in a completely different sector, that of aviation. One additional remark should be made. Culture is often narrowed

down to corporate culture in such cases. To what extent might the partnering between Fokker and DASA be susceptible to a wider range of cultural levels, not only corporate, but also national and professional in their possible interaction?

A Cultural Decision Making Approach

Various approaches to decision-making processes are possible. From a cultural point of view, relevant approaches are the participative form (Vroom and Jago, 1988) and the phase system by Verzellenberg (1996), but the latter approach applies more to investments in non profit organisations, such as hospitals. This is because the order of importance of issues usually followed is technical, human, financial, where in the case of rescuing a firm threatened with bankruptcy the order might be: financial, technical, human. So we prefer the selection of the right option approach, since in this case the right choice of the partner in a survival strategy was at utmost importance. To the extent possible we will see if the Fokker case illustrates some of this.

Theoretical Aspects of Culture: National (NC), Corporate (CC) and Professional (PC)

This section tries to give the concept of culture theoretical underpinnings for the next sections reporting the main events in the life of Fokker with an emphasis on the last 9 years out of a total of 86.

The definitions and analyses of the concept of culture have been overwhelming since Kroeber and Kluckhohn (1963) who report 164 definitions. It is a matter of many disciplines, such as history, linguistics, literature, anthropology, sociology, psychology and more recently also economics, business and management science, each with their different approaches and methodology. Multidisciplinary and experimental hypothesis testing work is rare. Hofstede (1980, 1991) is one of the first adopting an engineering-like problem solving approach trying to use sound social science methodology (although meeting criticisms, such in a recent discussion between him and Hampden Turner/Trompenaars in the *Journal of Intercultural Relations*). Culture has been applied to describe and explain all kinds of differences between groups of people, such as nation, ethnicity, gender, generation, region, religion, profession and organisation. They all concern a mental programming of the mind (and behaviour!) which Hofstede merely adopts for national and corporate culture (NC, CC). We limit our definition to those and Professional Culture (PC), a concept

which has not been researched very extensively so far and seems to cross-cut with CC. NC and CC research has been operating so far with different sets of dimensions, both in number and in character. (Hofstede has 5, Kluckhohn and Strodtbeck have 6 and Trompenaars (1993) has 7 for NC, Handy (1993) has 4 and Neuijen (1992) 6 for CC. Elsewhere Ulijn and Weggeman (in preparation) try to disentangle some current culture concepts in a more elaborate way and reach a minimal set of the same elements as building blocks for NC, CC and PC as attributes to a reliable business performance indicator.

In an effort to reduce culture to the bare minimum, there is a "classic" vision of the iceberg with a visible top that represents the facts, technology, the price, the rationale behind things, the brain (and hands of an engineer?), the written contract of a negotiation, etc. and an invisible bottom of emotions, the human relations, the unspoken and unconscious rules of behaviour.

The other classic vision on culture is that of the onion (Schein, 1991) which adds more layers to this metaphor from the visible surface outer layer of artefacts and products (or symbols, heroes and rituals) to deeper layers as norms and values, attitudes and very hidden basic (unconscious) assumptions (see for more details: Ulijn and Weggeman in preparation). However, we will confine ourselves to the iceberg model. If we apply this to the partners Fokker and DASA, it might be that both being firms of a strong technological R & D nature and of neighbouring related national cultures (The Netherlands and Germany) would obviously have the top of the iceberg in common, but underneath at the bottom would differ more unconsciously. What do we expect from this co-operation, what is the role of the Dutch and German government? To what extent did the explicit financial and technical factors of the top of the iceberg dominate over the implicit human aspects related to the NC-, PC- and CC-levels and their interaction?

So, this article addresses culture from three sources of variation: the nation, the corporation and the professional or industrial sector. It uses the iceberg model to verify the role of the cultural layers. The order of presentation in the next sections will be NC, CC and PC, because in the aviation industry we expect the most differences between nations and the least in the profession of the aviation engineer who blends his/her professional background with a given culture of an aircraft manufacturer. Professional and corporate culture might unite more than national cultures can divide. What happened in the decline of Fokker?

A SHORT HISTORY OF FOKKER

The Early Years

The young Anthony Herman Gerard Fokker, son of a wealthy Dutch businessman, started building aircraft in 1910. During the First World War, he built aircraft for the then German Imperial Air Service (Dieriks, 1997). His most famous creation was the Dr. I fighter, flown by Manfred von Richthofen, the Red Baron. Von Richthofen downed eighty Allied aircraft and hence was the most successful fighter pilot of the Great War. The best fighter of the war built in large numbers was the Fokker D. VII. Its thick, wooden wing and steel-tubed, fabric-covered fuselage were to be emulated in the passenger aircraft that Fokker built during the 'twenties. These years were the heyday of Dutch aircraft building. Sometimes it is estimated that at one time some 80% of the dedicated passenger aircraft during that period were Fokker's. At this time, Fokker had some success on the military market, but not nearly as much as on the commercial market.

But at the other side of the Atlantic, young entrepreneurs were developing revolutionary all-metal aircraft with novelties like retractable undercarriages, flaps to decrease the landing speed and modern electrical navigation and landing aids. The transition from steel-and-wooden aircraft to aluminium machines proved to be too much for Fokker. His designers, welders and carpenters were not used to the peculiarities of metal construction and the tools and jigs that were needed were so expensive that Fokker hesitated to follow his American competitors. Within five years, Fokker was a second-tier manufacturer from which no advanced aircraft were to be expected. Just when Fokker, aided by the Dutch Government, began the development of advanced planes that would be capable of, for example, crossing the Atlantic, World War II broke out.

After the war, the Dutch aviation industry was in ruins. The Dutch government saw the industry as a catalyst for technological innovation and economic growth and thus proceeded to support the development of new aircraft. In order to avoid costly duplications, what is now called the Nationaal Instituut voor Vliegtuigontwikkeling en Ruimtevaart (NIVR, or Netherlands Agency of Aerospace Programs) was formed. This body co-ordinated the development of aircraft and channelled government funding to the industry. Furthermore, all pre-war aircraft manufacturers in the Netherlands were either absorbed into Fokker or made into component suppliers.

This approach paid off when in 1955 the first F27 Friendship flew. Conceived as a successor of the legendary DC-3 Dakota, it still ranks as the most successful turboprop airliner ever. From 1955 onwards, 786 F27's

were built, including more than 200 in the United States by Fairchild. The success of the F27 demonstrates the wisdom of not trying to compete on the market for large, long-distance planes, in which the Americans enjoyed a virtual monopoly.

In 1967, the F28 Fellowship twin-engined jetliner flew for the first time. It was not a big success. Only 241 Fellowships were sold and it is unclear whether Fokker recouped the development cost (Postma, 1979).

Because the F28 had a lower order intake than the Friendship Fokker was faced with the challenge to replace both aircraft on the production lines almost simultaneously in the beginning of the 'eighties. The company did not have the financial means to develop two new aircraft. The results had not been very good in the past years and, in any case, developing a new aircraft is a risky and expensive business, even for large aircraft builders like Boeing. Going on with just one programme was not really an option. If there would have been technical problems with that one programme, or a temporal lack of demand for the plane, there would have been no other programmes with which to generate money. The Dutch government, who had financed the development of the F27 and F28 for about 90%, wanted to reduce government support for private companies. The government would shoulder only 50% of the development cost of the new planes. Furthermore, whereas in the past development loans had been repaid on a royalty basis, the new loans would have to be repaid regardless of the number of planes sold. All this made Fokker's financial problems worse. After a short liaison with McDonnell Douglas from the USA, it was decided to upgrade the F27 and F28 with new engines, avionics (aircraft electronics) and structural improvements. This was a sensible approach, also adopted by Boeing with, for instance, the 737 jetliner. The new planes became the Fokker 50 and Fokker 100, respectively (Heerkens, 1989).

On the military market, Fokker had had only one successful product since World War Two: the S.11 primary trainer of the early 'fifties. After that, Fokker largely confined itself to licence-building of foreign aircraft like the meteor, Hunter, Starfighter and F-16 fighters. It was not to any significant degree involved in the development of new military aircraft, but the licence production brought a steady and secure stream of high-profit work, often compensating for dips in the business cycle of civil aviation.

1987: Almost Out of Business

The new planes took longer to develop than was anticipated, and the development cost rose from Dfl. 900 million to Dfl. 1.5 billion. At the same time, delays in development and preparation for production meant that delivery

payments from customers were not forthcoming. In 1987, banks no longer extended their credit lines and bankruptcy loomed. The Dutch government bailed the company out with Dfl. 212 million cash in exchange for shares. Also, Dfl. 433 million development credits were converted into delayed loans and the Government would guarantee Dfl. 460 million of bank loans.

This support put Fokker back in business again, but at a price. The government demanded a 10% lowering of cost and a serious search for international partners. That had also been a condition when the development of the F28 was subsidised, leading to a merger with VFW (Vereinigte Flugtechnische Werke) in Germany in 1969. Ten years later, the merger was dissolved and VFW became a part of what is now Daimler-Benz Aerospace (DASA).

In 1988, the technical and financial problems had been largely solved. There was even a profit of Dfl. 13 million. In 1989, the profit increased to 42 million, with sales of Dfl. 2.8 billion. Customers and the aviation press praised the new aircraft and in 1989 American Airlines bought 75 Fokker 100's, with options on 75 more - the biggest Dutch export order ever. There were plans for 130- and 70-seat versions of the Fokker 100. In the end, only the 70-seater was built.

1992: Back to Germany

But the euphoria was short-lived. The invasion of Kuwait by Iraqi forces marked the beginning of an economic downturn that led to the first negative growth in the volume of air transport since the Second World War. Sales plummeted. Boeing and McDonnell Douglas in the USA and British Aerospace in Europe eventually managed to slash their production cost by sometimes as much as 50%, but Fokker had difficulties achieving 30% and in any case, airline orders did not recover even as aircraft prices were lowered. Furthermore, since the good times of F27 and F28, competition in the market for short-range aircraft had increased dramatically. Fokker plunged into losses once again, and it became more clear than ever that, even if the economic downturn was bound to end eventually, the company would never have the financial strength to develop successors for the Fokker 50 and Fokker 100.

But the beginning of the nineties had not been all bad news. After reunification, the German aerospace industry prepared to become a European leader once more. Until then, it had been almost entirely a junior partner in European programmes like Airbus. The only sector that had not yet largely been rationalised on a European scale was the short-distance or "regional" aircraft sector. So that was the sector in which German industry could still

become a leader. But how to get there in a hurry? By taking over an established manufacturer of regional aircraft and integrating the development, marketing and support capabilities in DASA, the aerospace decision of the high-tech conglomerate Daimler-Benz.

So Fokker was taken over by DASA, to the delight of Dutch minister of Economic Affairs Koos Andriessen. He stated that the responsibility for keeping Fokker afloat was now firmly in the hands of DASA. And to add to the general feeling of relief, DASA's boss Jürgen Schrempp stated that Fokker would have the "systems leadership" in the development of new jet aircraft with 65 to 130 seats (Heerkens, 1992).

1996: The End

But the market remained depressed and Fokker's losses showed no sign of diminishing. In 1995, a staggering Dfl. 1.4 billion was lost, about a third of turnover. DASA itself also had its problems, being faced with losses from its Dornier aircraft-building operation and with funding difficulties for the new EF2000 fighter. In January 1996, Schrempp, now head of the entire Daimler-Benz conglomerate, announced that no further guarantees for Fokker debts would be forthcoming. This was the end of Fokker as an independent designer and producer of aircraft. Despite several frantic rescue attempts and talks with Russian, Chinese and South Korean aerospace companies Fokker was declared bankrupt. Ironically, the subsidiaries that had been producing components and providing product support had been profitable for years and were purchased by the Dutch machine-building company Stork (Heerkens, 1997).

Could Fokker's fate have been avoided? And if so, what went wrong? In this article we will focus on cultural elements that influenced both the objective position of Fokker in the aerospace market and the decision taken by stakeholders like the management of the company and government officials and politicians. In the next section, we will show how decisions of various actors influenced Fokker's fate, as a prelude to conclusions about the role of culture.

THE ACTIONS OF STAKEHOLDERS

1987: Almost Out of Business

In 1987, the basic problem was a liquidity problem. At one time, there was even the danger that salaries could not be paid at the end of the month. The

reasons for this lack of cash were the higher than expected development cost and the delays in delivering the new Fokker 50 and Fokker 100, so that instead of receiving payments from customers, Fokker had to pay penalties for late deliveries. Other causes that were mentioned at the time were the low value of the U.S. dollar, the decision to develop two aircraft at the same time (with as a consequence a shortage of experienced engineers) and the fact that the government was reluctant to provide money. But these factors had either little to do with the most acute problem at the time, the lack of cash, or were not new and hence could - and should - have been taken into account years earlier. The low value of the dollar might make sales more difficult as a higher price in dollars has to be asked from the customer in order to make a reasonable profit. But the problem at the time was not a lack of orders, nor the price as set against the originally projected development and production cost. There were enough customers for the time being, but their orders could not be fulfilled. The decision to develop two aircraft at the same time had been taken years earlier, essentially in the beginning of the eighties, so there should have been enough time to anticipate potential difficulties like a shortage of engineers. That the government did not provide the money that Fokker needed could also have been anticipated. Later, it has been suggested that the development cost for the new aircraft had deliberately been pegged unrealistically low by Fokker, for it was thought that a more realistic estimate would have discouraged the government to sanction the projects at all. This may or may not be true.

What were the alternatives that the management of Fokker had? Not many. Giving up one or both of the increasingly expensive programmes would have done little to bring in fresh money in the short term. It would have meant a tremendous loss of capital and the virtual end of the company as an aircraft builder. The aerostructures and product support units might have survived, but in retrospect it must be said that letting Fokker go bankrupt over a perceived short term cash problem was unacceptable for the management and for the Dutch government. The government was aware of long term problems that will be addressed later, but these had no direct relation with the desperate need for cash. A bankruptcy would eliminate any possibility of solving these long-term problems altogether. The only advantage of a bankruptcy was that the government would not in the future have to invest money in Fokker. But, given the investments made in the new planes, it is understandable that this was not an argument that was taken seriously. Clearly, finance played a major role as part of the tip of the iceberg of culture.

Although Fokker seemed to come perilously close to bankruptcy in 1987, its rescue didn't turn out to be all that difficult. But worse was to come

in 1992.

1992: Back to Germany

The problems in 1992 were vastly more complex than those in 1987. There was no acute short term problem. Rather, there was a long-term problem that had been there ever since the development of the F28, but had only now become acute. This problem was that it looked increasingly unlikely that Fokker could survive as a stand-alone developer and builder of aircraft. There were several reasons for this:

1. The development cost for even one new aeroplane had risen to far beyond the three billion guilders mark. When DASA and the Franco-Italian Avion de Transport Regional (ATR) consortium announced in 1991 that they planned to develop a new jet aircraft, which was to be built in a 90-seat and a 120-seat version, the development cost were estimated at 2 to 3 billion dollar (3.5 to 5 billion guilders). It seemed extremely unlikely that the Dutch government would want to support the development of a successor of the Fokker 100, by that time the more successful of the two Fokker planes. There was even the possibility, although it does not seem to have been generally recognised at the time, that Government aid for development of regional aircraft would be capped by international trade agreements. At present, the direct government support for development of large airliners is limited to 30% by an international treaty, to be enforced by the World Trade Organisation (WTO).
2. Even if a successor to the Fokker 100 would be developed, it would still leave Fokker with just one aircraft programme. Furthermore, the success of such a programme would be far from assured. In the beginning of the nineties, Fokker, DASA and British Aerospace predicted a market for two- to three thousand 80- to 130-seat aircraft until 2010. At the time, there were seven planes, one of them in two versions, that were already on the market or in an advanced stage of development. Also, not only DASA, but also Industri Pesawat Terbang Nusantara (IPTN) from Indonesia and companies in Japan and South Korea harboured ambitions to enter the market with new and advanced designs. So, Fokker could soldier on with the Fokker 100 or develop a competitor for the new aircraft for which their developers claimed, for example, a reduction in fuel burn of at least ten percent. Either way, it would become crowded on the market for 80- to 130-seaters.

3. Not only was the number of competitors increasing, but the competitors were also getting stronger. The planned tie-up between DASA and ATR was an indication for what many believed was to come: the consolidation of European manufacturers of smaller aircraft. The Airbus consortium, led by Aérospatiale (France), DASA (Germany), British Aerospace (BAe) and CASA (Spain) had shown that Europe could compete with the USA on the market of large aeroplanes. Now, many believed that consolidation was also the way to go for the manufacturers of smaller aircraft if the competition from countries like Indonesia, Canada, Japan and Brazil was to be countered. In the market for 50-seaters, Fokker already had lost its position as a leader to ATR, producing the successful ATR42/72 family of regional turboprop aircraft.. Furthermore, the threat of new entrants on this market seemed acute, as countries like Indonesia, Israel and South Korea saw the development of relatively unsophisticated propeller aircraft as a sensible first step in entering the civil airliner market. If Fokker was to remain a player in the market for regional aircraft, it could not stand on the sideline if DASA, ATR and perhaps even British Aerospace (BAe) joined forces.
4. Even in 1990, the year in which a record profit of Dfl. 83 million was recorded, the profit was less than 3% of turnover. This indicates that the company could not possibly have generated a remotely acceptable average profit/turnover ratio in the near future.

So, the long-term prospects of Fokker being able to develop new aircraft on its own looked bleak. The short-term results did little to brighten the picture. Generally, airlines did not start to recover from the economic downturn until in 1994. So in 1992, the Fokker management had to prepare itself for a few more hard years. Indeed, no profit was made in the few years that were to be the last in the company's existence.

One cannot say that the management of Fokker sat idle. The CEO, Mr. Nederkoorn, was a staunch proponent of close co-operation with a partner, necessarily foreign, preferably with an abundance of cash. There were several partners that seemed appropriate, although only DASA seems to have been under serious consideration.

All in all, the tie-up with DASA could reasonably be expected to assure the continuity of Fokker in the long run. Together, the two firms had the muscle to be dominant players in a consolidated European regional aircraft industry. Furthermore, DASA could rely on a number of military programmes to keep its engineers and designers at work and to keep cash coming in if things went bad on the civil side. With Daimler-Benz, the rich

mother of DASA, providing development money and Fokker as a systems leader, the future of the company seemed to be assured. One would almost forget to look at alternatives that might have been there. Teaming with ATR or BAe, for example, which in fact later formed the Aviation International (Regional) (AI(R)) consortium. The problem was that both companies had aircraft programmes that were competing with the Fokker 50 and Fokker 100. So they probably wanted to take the lead in designing the next generation of aircraft, which was not at all what the management and engineers of Fokker wanted. DASA seemed not to have such pretences, and anyway built no competitors of either the Fokker 50 or the Fokker 100. It must be assumed that DASA, because of its position as the eternal junior partner in European aerospace programmes, saw Fokker as a much more important partner than ATR or BAe ever could have done. They did not seem to need Fokker. DASA did.

Of course, close co-operation with partners outside Europe also might have been a possibility. But what partners would have been appropriate? Aircraft builders in the US did not seem to be interested because they either wanted to devote their resources to large passenger aeroplanes and military programmes or because they were no players in the markets in which Fokker was active. The same goes for many manufacturers in Asia, the only other region where the capital, the technology, the motivation and the market to support aircraft programmes existed. And aligning itself with a partner that was not yet active in the regional aircraft market would not have helped Fokker to lessen the competition from established aircraft builders. Those competitors could be found primarily in Europe. It seemed to make sense for European companies to work together. They were located relatively close to each other and together had to defend the leading position of Europe in the regional aircraft market. In theory they could one day operate within the same financial EU-regime with regard to R&D-funding. Of course, manufacturers in countries like Taiwan perhaps could have drawn on large sums of government money for the development of new regional aircraft. But generally, the amount of work that a participant in an aircraft programme gets is in line with its investment. In other words: it would have been by no means certain that Fokker would benefit sufficiently from such a programme, while the financial and technological risks would have been high. To date, none of the prospective partners of Fokker in 1992 has been able to enter the regional aircraft market.

In conclusion, it can be said that in 1992 the take-over of Fokker by DASA seemed a sensible move. But the ambitions of the participants were out of touch with reality. DASA wanted to be the leader in the development of European regional aircraft whereas ATR, soon to become

AI(R) had a decidedly better founded claim. Fokker wanted to assume the leadership that DASA claimed, an ambition obviously at odds with the motives for DASA to take over Fokker in the first place. Even at that time, one of the authors (Heerkens), in a private conversation with a senior Fokker manager, asked the question what was, according to DASA, the difference between “system leadership” and just “leadership”. No answer was given. One could imagine that DASA would claim the overall or strategic leadership in aircraft development programmes, that is: converting customer demands in general aircraft specifications and deciding whether an aircraft was to be developed at all. Systems leadership would then mean: the authority to design the aircraft according to the specifications set by DASA. It is hard to believe that this was the kind of leadership that Fokker wanted, and perhaps it is understandable that no-one wanted to spoil the party by raising the subject.

The position of the Dutch government is of special interest in this period. It supported Fokker, but expected DASA to provide the necessary funding for new development programmes. Eventually, a bitter disillusion for all parties involved could not be avoided.

With the benefit of hindsight, 1992 offered a last, best chance to save Fokker. As we shall see in the next section, this chance was allowed to slip by.

1996: The End

As in 1987, the basic problem of Fokker in 1996 was a short-term lack of money. But there were differences. In 1996, the lack of cash could not be attributed to one or two causes that would go away in time, like delivery delays or development cost overruns. On the contrary, the losses were made on aircraft production. And whereas AI(R) and the relatively junior competitor Bombardier from Canada seemed to improve their performance, albeit slowly, Fokker seemed to go downhill. The Bombardier Regional Jet, a 50-seat jet, seemed set to become a strong competitor for the Fokker 50. Embraer from Brazil was working on a similar plane. Fokker's losses increased. Cost-cutting measures were taken, such as the re-negotiation of prices for subsystems like the fuselage, produced by DASA. The low dollar was blamed, but other European companies showed this to be a manageable problem. In 1996 Airbus announced that it had for the first time been able to obtain the same number of orders as Boeing. Much can be said of the influence of the low dollar. The authors, without wanting to discuss the subject in depth, believe that the value of the dollar was not so low that the management of Fokker could not have coped with it.

Apparently Fokker was not able to make a profit, despite several cash injections from the Dutch government, the recovery of airlines from the economic downturn and the liberalisation of European air traffic which led to an increase in the number of regional aircraft used on the continent. With the forming of AI(R), it became increasingly unlikely that DASA would be able to claim a leading position in the European regional aerospace industry. It should therefore have come as no surprise that there was an end to DASA's willingness to guarantee Fokker's debts.

The impending bankruptcy left the Fokker management only three options. Firstly: to try and find another partner. It goes beyond saying that Fokker was even less attractive as a partner than it had been in 1992. Still, partners were sought. Samsung from South Korea was the frontrunner. But it never became clear how a newcomer in the regional aircraft market and a virtually bankrupt company could have hoped to survive in a marketplace where even giants like McDonnell Douglas could not. Time went by and in November 1996 Shorts of Northern Ireland announced that it was no longer prepared to keep the production line for wings for the Fokker 100 going. After that, selling Fokker as a going concern was no longer a realistic possibility. The second option was to just let Fokker go bankrupt and try and give the shareholders their money back. But DASA had already made provisions to absorb any further losses that it expected from Fokker into its profit and loss account for 1996. The Dutch government still had shares. But getting any money back was far less important than saving as many jobs as possible and preserving the technology base of the company. So it was no surprise that a third option was chosen: the healthy parts of Fokker were taken over by engineering firm Stork. This happened even before it had become absolutely certain that no partners would be found.

There is another important strategic factor that undoubtedly played a role in the decline of Fokker. In October 1995, the Minister of Economic Affairs was considering supporting Fokker once again. He asked Fokker and DASA for a strategic plan and was told that two weeks would be needed to prepare it. So, we have to assume that Fokker and DASA, three years after the merger, still did not have a strategic plan. It is difficult to have faith in the future of a company if there is, even in troubled times, no strategy.

Fokker's problems, their causes and the available alternative solutions may now be clear, but they only explain what happened in each of the three periods discussed. As we do not believe that a company goes from crisis to crisis by accident while its competitors prosper, we aim to find root causes that link the causes of the problems during the three periods. This will be the subject of the next section.

What Went Wrong?

If we look at culture as a more or less “constant” factor in a country, sector or company, than we can not relate culture to the problems of Fokker by just looking at each of the three crucial periods that we identified separately. So, can underlying causes for the problems in those periods be identified?

In fact, if we look at the three periods, at first there seems to be a clear distinction between 1987 and the nineties. In 1987, the problems seemed to be - and were presented as - mere short term “operational” problems. The causes were clear and would be overcome as soon as deliveries of the Fokker 50 and Fokker 100 started. Of course, money from outside the company was needed, but the problems that caused the shortage of cash could be solved internally. The problems in the nineties were much more strategic. Simply said, aircraft were sold at a loss that threatened not only the solvability of the company in the short term, but also made it impossible to invest in future products. Furthermore, these problems would only get worse since the competition was getting stronger by the year. So, Fokker would have to depend more and more on outside sources of money, sources that were to be increasingly difficult to find.

But there are, in the view of the authors, common causes for the problems in the three periods, causes that help to explain why Fokker failed where others succeeded. The first is the decision to develop two new aircraft. Not only did this lead to the problems in 1987, but it also laid a heavy claim on the resources of the company and on the Dutch government. Now it can be argued that the mission of an aircraft builder is to build aircraft. But to do so, the resources need to be there. Fokker was the smallest manufacturer of 100-seat jet airliners. All its Western competitors (Boeing, McDonnell Douglas, Airbus and British Aerospace), and even companies in the former Soviet Union like Tupolev and Yakovlev, were either larger or had huge military programs. Military programmes provide resources for research and generally a stable workload which can offset the fluctuations in demand on the civil market. Fokker admittedly had some military work, but it contributed for only about 30% of company sales (against 60% or more for other companies at that time) and the work mainly involved licence-building and hardly any development. Certainly, Fokker earned much money by licence-producing the F-16 fighter. But that source of income started to diminish in the beginning of the nineties. It would not be until the next century before a large-scale military programme would be undertaken.

As far as the market for turboprop aircraft is concerned, most companies the size of Fokker, like Dornier, either are part of large industrial conglomerates or confine themselves to only one aircraft programme on which

all resources can be concentrated. And even for those companies, it is risky to have just one programme. That is why they either are heavily supported by their national governments (like, until recently, IPTN in Indonesia), confine themselves to niche markets (like Fairchild), have been absorbed by larger companies (like Dornier) or rely heavily on military programmes (like Saab). And this brings us to the second and third main cause of Fokker's failure.

At the time when Fokker produced the F27, it was the undisputed market leader for civil turboprop aircraft. The F27 was especially successful in underdeveloped countries with little ground infrastructure and limited maintenance facilities. But the Fokker 50 was a very sophisticated plane, aimed not at the market of developing countries but at regular commuter airlines in Europe and North America. Besides, a Fokker 50 cost \$12 million dollar in 1989, whereas an ATR42, with 48 seats against the 50 of the Fokker plane, cost only \$8 million. Whereas the F28 effectively had a (albeit not very large) market of its own, the Fokker 100 entered a market in which giants like McDonnell Douglas and British Aerospace were already established. It can be assumed that the bargaining power of prospective customers for the new aircraft was much larger than that of the erstwhile customers for the F27 and F28. Also, Fokker planes were no longer being bought in ones and twos. Now, airlines wanted ten, twenty or in the case of American Airlines 75 planes at a time. From sources inside Fokker it even has been suggested to one of the authors that the salespersons of Fokker were not that much interested in prospective customers that would only buy one or two planes. Almost all effort seems to have gone into enlisting the big airlines.

Although it has never been established exactly what the effect of all this was on the prices for which the aircraft were sold, it is likely that the bargaining power of the larger airlines led to lower prices. There are not many large airlines, and hence not many chances for large orders. This means that every order is important. The number of potential clients has steadily decreased as in the US smaller airlines were taken over or otherwise came under control of a few giants as a fallout of the deregulation of the domestic air transport market.

The last main cause for Fokker's decline, as the authors see it, is Fokker's desire to defend its leading position as a regional aircraft builder. Despite the problems outlined in this article, Fokker, even after having been taken over by DASA, continued to claim leadership in regional aircraft programmes. There were alternatives, like joining the bid of AI(R) to develop a new 100-seater with China. Fokker could also have taken a bigger stake in Airbus programmes and hence act as a supplier of subsystems. But even if all the money that Fokker has spent on the Fokker 50 and Fokker 100 had

been invested in just a single Airbus programme, Fokker still would have been a junior partner, if only for the desire of DASA, Aérospatiale and BAe to defend their own positions. Still, producing subsystems can have its merits. In 1995, one of the authors asked the marketing director of Fokker's product support operation what was more lucrative and less risky: developing an aircraft or developing subsystem. The answer came without hesitation. Developing subsystems was the better option in both respects.

In short, it is a viable supposition that the desire of the Fokker management to try and maintain the capability to develop and build aircraft forced the company to embark on two upgrade programmes at the same time. The lack of financial success of these programmes, especially on the changing markets during the nineties, dragged the company down and killed all chances of earning enough money to develop new planes. In the meantime, other companies started working together or were taken over, thus strengthening the competition in the long term. Even after the company went bankrupt, efforts were made to find a new partner and restart production.

The explanation of the causes of Fokker's decline seems to be logical, but it is not. In the end, one can wonder how solid Fokker's strategy has been over the years. The problems that led to its decline and that have been discussed in this article were known or at least suspected at the time they appeared. Why did the management not react as seemed appropriate even at the time? This especially applies to the situation in 1992, in the view of the authors the last chance to save the company. Why did it insist on effectively just carrying on building aircraft instead of becoming a partner in a DASA- or AI(R)-led European regional aircraft consortium? Why did Fokker and DASA not have a strategic plan to give to the Dutch minister of Economic Affairs in 1995?

In order to answer this question, it is appropriate to have a look at the company, its management and its employees. We are now at the bottom of the iceberg: no longer concerned about finance, technology and strategy, but with human aspects. From interviews with Fokker employees, we have derived the following characteristics of the company:

1. Employees and management felt a great sense of pride in and loyalty to the company. This can obviously be an asset, as it was when Fokker employees had to work ten-hour shifts in 1988 in order to deliver planes on time. But it can also be a liability. Fokker employees and management took pride in being one of the only five Western builders of large jet airliners, together with Boeing, McDonnell Douglas, Airbus and British Aerospace. But they did not always seem to appreciate the differences between Fokker and those other companies in terms of number

of programmes and the other factors that have been discussed above. It also led to a distorted view of the environment. Mr. Swarttouw, the CEO in 1987, used to say that the Dutch people should take pride in having a national aerospace industry and hence should be prepared to make sacrifices for it. This is in itself a purely emotional and hence doubtful proposition. Not only did Fokker personnel generally have strong views on what the government should do, the views on the real-world situation were often somewhat odd. A market communications officer once gave an explanation for the large difference in price between a Fokker 50 (\$12 million in 1989 dollars) and the ATR42 (\$8 million). He said to one of the authors: "that is logical. ATR is supported by the French government, but Fokker is a purely commercial enterprise so it has to make money on it's own". This view was found widely amongst Fokker-employees at the time.

2. There was a feeling of both engineers and marketing people that communication and understanding between the two groups left much to be desired. Engineers complained that the marketing and sales people promised the customer to incorporate all kinds of customised modifications without worrying about the technical and financial consequences. The sales people on the other hand complained that the engineers made planes that might be technically superior to those of competitors but were too expensive. As a marketing officer once said: "A Fokker 50 is the Rolls Royce of the regional aircraft. But how many people want a Rolls Royce?"

It is highly remarkable that this incompatibility between the engineering and marketing parts of the company has been present under several Boards of Management. From 1987, the backgrounds of the various CEO's were respectively: entrepreneur, top executive of the Phillips electronics company, financial officer and senior manager of the car division of Daimler-Benz. Still, the problem persisted.

3. There seems to have been a strong belief within Fokker that the Dutch government would not let the company down. Many Fokker-employees who were interviewed by the newsmedia even in the final weeks after the withdrawal of DASA continued to believe that the Dutch government would provide financial support once again. This attitude might not have been very much different from that of the workforce and management of, for example, BAe or Aérospatiale, had they been in the same predicament. The difference is that the French, German and British governments have both the resources and determination to keep on

supporting their aerospace industries, and it was clear that the Dutch government had neither. It is distinctly possible that the policy of the Fokker management over the years to keep on trying to remain a stand-alone producer of complete aircraft, or at least the leader in European regional aircraft programmes, was based on the assumption that in the end the Dutch government would support their ambitions.

The government itself has done little to deprive the Fokker management of the illusion that state aid would be available if needed. While the government usually set conditions while providing aid, these meant little more than that Fokker was required to look a foreign partner or that it had to reduce cost. As far as has been made public, Fokker was never required to evaluate its mission of designing and building complete aircraft. Even after DASA pulled out, the Dutch government did not categorically state that it would not support any initiative that was aimed at restarting aircraft production again.

There are several possible reasons for the governments' position (that remained essentially unchanged in the last forty years).

1. There was a common belief that the general public in the Netherlands did not want to see Fokker go down. There even was an expression for national pride that was frequently used in the media and that came to be associated with the desire to keep Fokker afloat. This expression was "Oranjevoel" ("Orange feeling," after the family name of the Dutch Royal Family). Some politicians also seemed to have strong feelings about Fokker. In a television interview an MP of the Christian Democratic Party (CDA), the leading opposition party, even said that his "Oranjevoel" was hurt when it became clear that the manufacturing of Fokker aircraft had come to an end. Be it in 1987, in 1992 or in 1996, whenever Fokker was in problems it figured prominently on the front pages of Dutch newspapers. It is remarkable that the largest number of people employed by Fokker at any one time was about 13.000. In 1996 the number of employees decreased to about 6500. Even if these would all have been fired, the loss of employment would have been far less than that which befell the administrators of Dutch social security laws. Employment of these organisations fell from about 40,000 to about 20,000 from 1992 to 1997 (Volkskrant, 3 October 1997). Still, nearly all the attention that the rationalisation of these organisations got in the media concerned the increased efficiency that was to be the result of it. The loss of employment was not an issue for anyone but those directly involved.

2. Fokker was perceived as an important company for the Dutch economy. It was regarded as a high-tech company that not only provided direct and indirect employment but also generated a spin-off to other industries. In the view of the authors, it might well be the other way around. Our assumption is that Japan has obtained its present status as a major supplier of Boeing by drawing on its strengths in areas like production technology, materials and electronics. This might also mean that spin-off between the aerospace industry and other industries is more important when subsystems are produced than when aircraft are assembled. Ironically, when it became clear that Fokker would not survive in its present form, a report made by the technology research institute TNO indicated that most suppliers were not dependent on Fokker to any great extent.

Fokker was also perceived to generate foreign currency. Indeed, the order from American Airlines for 75 Fokker 100's plus 75 options mentioned earlier was the biggest Dutch export order ever. But it should be borne in mind that most of the parts and subsystems for Fokker aircraft had to be imported. Usually, final assembly accounts for only 5% of the total value of an aircraft. It was estimated that 70% of the value of every Fokker plane consisted of parts and subsystems from foreign sources.

3. The way the Dutch government operated might be derived from the personal experience of one of the authors (Heerkens). In May 1996, he approached the managing directors of the NIVR and the National Aerospace Laboratory (NLR), the co-ordinator of the Netherlands Aerospace group (NAG), an association of aerospace companies, and the Faculty of Aerospace Engineering of the Delft University of Technology. His idea was to set up a conference of all the major Dutch aerospace organisations and to try and formulate a policy for preserving the cohesion in the industry now that no complete aircraft would be built anymore in the Netherlands. The idea was rejected because those involved wanted to see what policy the government would come up with first. In June 1997, the idea was again rejected on the same grounds. In the meantime, the author had also queried a high ranking official of the Ministry of Economic Affairs who was an advisor to the minister, about the idea. Finally, in September, the NIVR and the Ministry of Economic Affairs organised an informal conference on their own account to investigate the views and opinions within the industry. In October 1999, when this article was written, no government policy had been made public. Our conclusion is that the government, at least in 1996, did not have a contingency plan in case Fokker would go bankrupt. One could speculate

that this might also have been the case on earlier occasions. It can be considered remarkable that there was still no government policy one year and a half after DASA pulled out. After all, there was a real possibility that the various Dutch aerospace companies each would go their own way and, for example, join different and perhaps competing international programmes. This need not be a bad thing, but according to the authors it should not happen by default.

If indeed the government did not have a viable contingency plan at times when the existence of Fokker was in jeopardy, it seems logical to assume that this made for a strong influence of the Fokker management on government action. It is interesting to see that, by 1999, both Saab and British Aerospace have given up the production of regional aircraft, but by doing so in time saved the rest of their companies (particularly the military divisions) from being bled dry by losses on the civil side.

WHAT ROLE MAY CULTURE HAVE PLAYED IN THE DECLINE OF FOKKER?

In this section the national cultures (NC) of the main players in the aerospace industry are reviewed. In the following sub-section we examine the concepts of professional culture (PC) and CC through the example of an aviation engineer affiliated with Fokker Aircraft.

The NC of Some Major Players in the Aerospace Industry

The main players in the civil aviation industry at the time of Fokker's decline were the French Aérospatiale, the German DASA, British Aerospace, the Spanish CASA, the Italian Alenia, the Swedish SAAB and the American McDonnell Douglas and Boeing. The first four also participate in Airbus headquartered in Toulouse (France) with the following shares respectively: 2 x 37,9%, 20% and 4,2%. Since 1982 Fokker was involved in several (potential, sometimes indirect) partnerships with them. Some smaller players in this field became relevant later: Canada (Bombardier), Russia (Tupolev, Ilyushin and Yakovlev) and South Korea (Samsung). In this comparison a few striking observations can be made:

1. Russia has the highest power distance (PWR 95). This is not a result of the political influence of a totalitarian communist regime, since this figure has been confirmed later, recently for instance with Russian

students (Heinonen and Ruhland, 1998).

2. South Korea scores the highest on collectivism (lowest on individualism: IND 18) and the Confucian dynamism index (CDI 75). The country next on CDI was NL (44). It is not known whether this ability to adapt was used during the negotiations concerning the take-over of Fokker after the bankruptcy as a common starting ground in the relation. Anyway, we have to bear in mind that by the time Samsung, Bombardier and others became interested in Fokker, the company was but a shadow of its former self. So explanations why Fokker was not saved by Samsung or another company do not explain its decline, which started long before.
3. Both Sweden and NL are the highest on femininity (=lowest on masculinity: MAS 5 and 14), Italy is the most masculine (70) and Sweden is the lowest on uncertainty avoidance (29).

To what extent might those observations on the NC-values of Hofstede have effected the decline of Fokker? Points 1 and 3 probably didn't, but point 2 did. Since a country such as South Korea with its specific government-business networking (Chaebol) requires long-time harmony between actors seeking patient relationship building embedded in a high CDI, this possibility just came too late for Fokker. Fokker's decline was already in process and there was no time anymore to build up any trust at all. Finally the rescuer appeared to be in a financial crisis itself as well. Even if the above players could have rescued Fokker, there seems to be no reason to believe that NC-differences would have been the major obstacle. If used carefully in the negotiation process, NC-differences can be used to mutual benefit, for instance:

1. A much higher PWR of a Russian partner may help as well in taking quick decisions (cfr Italy, which has a high PWR as well or France, if Airbus would have been a candidate partner), as opposed to the consensus-driven polder culture of the Dutch.
2. A much stronger LTO of a South Korean partner, such as Samsung, might take much longer to prepare a partnership, but once established: "friends for ever".
3. Sweden being very similar on the Hofstede scores could have been a success also on mere NC-grounds.

We pinpoint here, however, the NC-characteristics of Germany and The Netherlands, as home countries for DASA and Fokker.

Not surprisingly there is a lot of NC-similarity between the two countries. Those neighbouring countries have a common Germanic origin, speak related Germanic languages, Holland (the Western part of the Netherlands) being the market place with its harbours) and Germany a country with strong market supply and demand, both are NATO- and EU-members and have strong trade relations. But there are (hidden?) differences as well, not only because The Netherlands obtained its independence already in 1648, whereas Germany became a national state more than 200 years later. The Netherlands is the biggest of the small EU-member states (15 million inhabitants), Germany is the biggest EU-member (80 million), so like in some families there is this small/big brother effect. Hofstede's scores mark one big difference as well, The Netherlands has a low MAS index, that means as opposed to Germany it is a highly feminine country with a strong welfare system, taking care of others, being a combination of a priest who knows it so well for everybody and a trader, "What can I earn from you?" This has led also to the consensus-driven polder model of economics: everybody has to agree before a decision is taken. In the case of the government-unions-employers consultation this has worked well in recent years: labour was to large extent deregulated and political parties of conservatives, liberals and socialists work together in the government. Why did this not work in the case of Fokker in connection with DASA? On the basis of the narrative of Fokker's decline NC as part of the bottom of the iceberg seemed to "overruled" by possible other cultural factors hidden in the following:

1. Only a small military role for Fokker. DASA still had a big military interest, hence a German government would still see national security commitments and needs as a big NATO-country, whereas the Dutch government had to play the role of the caring mother (in line with a low MAS). In this sense it is curious that the German, Mr. Schrempp, would say: "Fokker is my love baby," but the big/small brother effect might explain some of this.
2. DASA claimed the strategic leadership, including the market leadership in the co-operation, whereas Fokker was given the engineering-driven systems leadership. On the basis of an interaction approach of NC and CC, Schneider and Barsoux (1997) would predict the opposite for success: a German firm being the engineering-like well-oiled machine with a high specialist, technical competence and a Dutch

firm from a generalist, flexible and entrepreneurial village market. DASA and Fokker seem to have reversed those roles. Was Fokker so successful as an engineering company and was DASA able to predict market needs in this highly turbulent sector? Were they the ideal partners on the basis of their CC x PC interaction?

3. Last but not least, the “similar, but different” effect, the small and the big brother. The national pride emotion of the “Oranjegevoel” which is visible on soccer fields where the two nations meet might have been a hidden factor of below the seal level of the iceberg: “Fokker a German company, never,” even if this might have never an explicit issue in any negotiation in this survival campaign.

In sum, the NC of none of the Fokker partners (candidates) might have played an overruling role. Fokker did not want to be dominant in contradiction with a low Dutch PWR, indicated by Hofstede, but simply like any player in the aerospace industry would. In the Fokker-DASA-context, CC and PC (of engineering and marketing) intervene as serious cultural layers to look at in the bottom of the iceberg. Did their interaction play a role in this case?

Moreover, in contradiction with the low PWR of the Netherlands, Fokker simply wanted to be dominant, like any player in the aerospace industry would. So it seems that if the sector culture of this industrial branch simply overrules low PWR's of Western NC's involved. Therefore, it is of the utmost importance to look for possible cultural reasons which might have speeded up Fokker's decline, not so much in the NC-context, but in the sector area of aerospace. This sector is simply a combination of CC and PC.

From PC to CC: The Example of an Aviation Engineer Affiliated with Fokker Aircraft

One of us (Hans Heerkens) was able to present his impressions from years of interviewing key figures in the Fokker case (see Table 1).

Table 1. The PC of the Aviation Engineer and the CC of Fokker.

<p>The Engineer</p> <ol style="list-style-type: none">1. Technical problem solving2. Introvert, not very social3. Creative in increasing one's own knowledge, but not from the direct business environment4. Highly specialised, eye for the smallest detail5. No questioning, no doubts <p>Fokker</p> <ol style="list-style-type: none">1. Poor self-criticism as a group: the government has to take care of us2. Not grateful towards the government: if no money, we go to the US!3. Loyalty towards the top management, but4. This was not able to make the bridge between R&D/production and marketing which were on different locations5. Sense of superiority: we are better than the other branches, Dutch pride, no Calimero-effect6. Poor expectations towards each other and from the environment, lack of realism based upon a strategic survival plan
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Most character traits of the aviation engineer might be universal: problem solving, creative, highly specialised, no questions or doubts. This might mismatch not only with market expectations on variety of products, localisation and flexibility, but also a CC which depended financially more on the government than on the market. The engineers did not seem to have the correct picture and interpretation of the situation of their company. Fokker engineers certainly showed no Dutch Calimero-effect (*They are big and I am small*) and were not very grateful for all the financial support given to them by the Dutch tax payer. After all, this PC-CC-government interaction shows some ambiguity and certainly not one way out of the malaise.

The role of the government in this case was special. What is the PC of the government in international co-operation within the aviation industrial sector for both the civilian and military parts and what might be relevant for the Fokker case? Fokker and the Dutch government did not have military concerns. Whereas Fokker produced its last internally developed combat aircraft in 1940 and its targets were civilian aeroplanes, license manufacturing and small shares in international military programs, most "aviation" nations support their civilian products by military ones, combining R&D efforts in an efficient way. The market pull process of a country's national security is, obviously, different from that of the needs of private aerospace companies. This means that the Dutch government viewed Fokker in another way than, for example, the German government

viewed DASA, because of its role in military equipment manufacturing. This automatically would feed the German preference for the technology push aspect of technical innovation. Studies by Ulijn *et al.* (in preparation, a and b) show that both German and Dutch (future) engineers agree on some common part of technology push in a technical innovation process, but that the Dutch are more eager to get in early. The study by Lang (1993) of different PC's, such as engineers, lawyers, economists and politicians, indicate differences in approach which might be counterproductive within the national approach of one country already. Economists deal with costs, prices, payments and are conservative; politicians are the defenders of the public interest, cautious, and like to give approvals and directives. They are mediators and the ultimate decision makers. This leads to different negotiation styles and outcomes which will conflict with the engineer's need of precision, quantification and careful project implementations. If this complicates the military needs of partners of other countries where the government has security interests in co-operation in this sector, this might be another pitfall. What role did this play in the Fokker case, where only a Ministry of Economic Affairs was involved and no Ministry of Defence? We see here that national cultures can have an influence on way professional cultures manifest themselves in a particular company.

CONCLUSION

How did the Fokker story really end? Well, not yet. Happily, as related, the healthy parts were secured within the firm of Stork. When it comes to culture, however, we may conclude that, although the explicit top of the iceberg is always mentioned, a lot of implicit things might have played a role, such as professional, corporate and national culture in this decreasing order of importance in the decision making and implementation process of the actual strategic alliance or merger in question. The Fokker case could only serve as an illustration for this. The suggestions from this should lead to clear-cut hypotheses to tested by in depth interviewing the actual players involved. The actual perception process deserves careful verification in this sense, for instance between Dutch and Germans (NC and CC), as has been evidenced in a recent multicultural study of the perception of the same intercultural negotiation (Ulijn and St. Amant, in press) or between marketeers en engineers (PC).

If the iceberg may serve as an illustration for what might have caused the failure in rescuing a technically highly innovative firm, such as Fokker, we still do not now how the different explicit and implicit levels above and

under the sea level manifest themselves. A lot is still in the air, in particular, we have not the adequate data to find out how the players themselves saw the interaction between hard facts, such as finance and engineering on the one hand and the so called soft human and relational aspects at the other. We think, however, that in decision making the financial aspects overruled the technological and strategic marketing ones in the top of the iceberg. At the bottom there were the competing professional cultures of two engineering firms, one (DASA) being rather supported by national security needs, whereas Fokker had the Dutch government as loving caretaker who says to her child: "Be independent, we no longer can help you, if you do not have a clear business plan to survive without our help in the future." Normally an innovative CC (see Ulijn *et al*, in preparation a) would need a mix of technology push and market pull to be successful. In the Fokker case unconsciously the PC of the technology push of the aerospace sector continues to dominate at the expense of the ability to able to serve a turbulent market of big airlines There was obviously not enough time for a strategic vision on the future market, no CC or PC for that. Happily the healthy parts survive in another CC x PC combination: that of Stork. It would interesting to analyse cultural reason of that success. After all the iceberg allowed us to ascertain a hierarchy of cultural levels in this case: 1. PC, 2. CC and 3. NC. Would this order be different in the case of the Stork success? The main cultural lesson we can draw from this Fokker case is that not only finance and technology are elements for partner choice in such a survival strategy, but also cultural elements, in particular the optimal CC x PC mix of a partner being either MP or TP oriented as a complement to an existing TP or MP corporate culture.

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