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## AN INDUSTRIAL ETHIC : THE BOSCH MODEL

by

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#### **Overview**

Having worked in French, American and Japanese companies, Guy Maugis found that the corporate structure of the German company Bosch was suitable for industry. The Bosch group employs 300,000 people in 135 countries. It has no shareholders and is owned by the Robert Bosch Stiftung GmbH, a charitable foundation. It is the largest non-listed company in Europe. Profits are reinvested in the company which consistently demonstrates its ability to conduct long-term and ambitious projects. Enthusiasm about the company's products and fine knowledge of the industry extends to the members of the board of directors. According to the company's ethics, the company's financial result is really a result and not an aim. Similarly, employees are considered to be a resource and not a variable, even during the 2009 economic recession. What lessons can be learned from this model which industrial experts regard so highly?

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### TALK : Guy Maugis

During my career, I have had the opportunity to work for Amercian, Japanese and German groups as well as the French government. Consequently I can compare different industrial models and different national cultures.

Because Germany is in fashion at the moment, Michel Berry suggested that I present Bosch as a model of an 'SME' (small and medium enterprise) which has now become a large industrial group. I shall attempt to explain the reasons for its success.

#### A variety of activities

The Bosch company was created in 1886 by 25-year-old Robert Bosch. In 2011 we celebrated the 125th anniversary of this 'start-up' which has become a worldwide group employing 300,000 people with a turnover in 2011 of 51.4 billion Euros.

Today Bosch is the world leader in automotive components specialising in the drive train (petrol, diesel and soon electrical propulsion), the braking system and navigation. This sector alone represents a turnover of 30 billion Euros.

Bosch is the world number one in power tools such as drills, jigsaws, screwdrivers and other garden tools. We are also the European leader in gas heating, which exists in France under the brand name Elm Leblanc and fifteen or so other brands. We are number one in Europe, and globally number two in the consumer goods sector. We have had a 50/50 partnership with Siemens for the manufacture of our washing machines and dishwashers for the past forty years. We are also the European leader in hydraulic and pneumatic automation with our subsidiary Rexroth, and we have manufactured both the large screwjacks of the Mont St Michel locks as well as the lifts in the Eiffel Tower.

Bosch is on its way to becoming the European number two in the solar photovoltaics sector, and we have just created a factory in Vénissieux which will be the largest site in France for the manufacture of photovoltaic panels.

Finally, we are a leading company in the video surveillance sector and also in public address systems. Our products range from small microphones installed in meeting rooms in the French Prime Minister's offices or the European Parliament to the PA systems at the Parisian Stade de France used for pop concerts. Finally, we also operate call centres : ticket reservations for the performances at the Paris Opera House are handled by our call centre in Forbach.

It is apparent that we are nothing like the corporate model with a well defined core business which financial analysts love to extol. I will discuss the reasons for our broad spectrum of activities later.

#### An original form of governance

Robert Bosch stipulated in his will that the group should be the property of the Robert Bosch Stiftung GmbH foundation which owns 92% of the capital, but has no voting rights. Descendants of the founder's family own 7% of the capital and voting rights. The company Robert Bosch Industrietreuhand KG, made up of former members of company management and staff representatives, has 93% of voting rights, but no shares. Finally, 1% of the capital is owned by the Bosch company which carries out its activities.

This legal model is totally incomprehensible to French analysts. When we celebrated the group's 125<sup>th</sup> anniversary in Stuttgart last May, the speakers included Christian Wulff (the German President), Franz Fehrenbach (President of the Bosch Group), Hermann Scholl (President of the board of directors), Christof Bosch (grandson of the founder), and Alfred Loeckle (representing the IG Metal trade union). Some managers of French companies who were invited to the celebration questioned the presence of a trade unionist. It is a fact that in France it would be hard to imagine the main French trade union representative of a large group speaking on this kind of occasion. I had to explain to them that this person was the number two on the board of directors, and that it was not a token role, and that he actively took part in meetings and decisions. In France, we tend to discuss everything which is important between managers before summoning the personnel representatives and informing them of decisions which have already been reached.

The advantage of this governance, apart from its intrinsic qualities, is the fact that 99 % of the profits are reinvested in the group. This means that more than 4 billion Euros could be spent on R&D in 2011, and on average sixteen patents could be registered every day.

The remaining 1 % of the profits is given to the Bosch Foundation which manages its own activities. These include particularly research into cancer carried out at the Bosch Hospital in Stuttgart, as well as bringing countries closer together. This is an approach which was started after the Second World War and initially was focussed on relations between Germany and France, then between Germany and Turkey and other Eastern European countries, and today between Germany and African countries.

#### The principles of the founder continue today

Even today, the spirit of Robert Bosch, who used to say 'I owe more of my success to my character than my skills', lives on, and has a strong influence on the group's performance. Robert Bosch also said 'Making business in an honest way will prove in the long-term to be the most profitable method. The business world holds this premise in greater estime than one might think.' This principle continues to guide us today.

The car industry was particularly badly hit by the 2009 economic recession. This was the most serious crisis that the group had faced, and it was the first time that Bosch had lost money since the Second World War. We lost 30 % of our turnover (12 billion Euros) in a few weeks, and we discovered this loss unexpectedly during the Christmas holidays. The teams rallied round, united behind a remark made by Robert Bosch in 1921 in the company's internal newspaper : 'I always reacted according to the principle that it was better to lose money than people's trust. The integrity of my promises, faith in the value of my products, and my word of honour have always been more important to me than short-lived profit.' In the light of the financial crisis, this remark struck a chord.

On Jaunary 15th, 2009, the group president said 'we will work our way out of this crisis if we keep all our skills because we will need them when things improve. This is why there will be no lay-offs.' In our German factories, we have reduced work time and salaries, but we have kept all our employees. We congratulated ourselves for this decision in 2010 when business picked up again, and even more so in 2011 when our business boomed. This type of conduct is only possible in a company which has strong values and is protected from certain stock market variations. I do not know a single president of a listed company who could have said this in January 2009 without being sacked by his board of directors in the hours which followed.

I admit that at the time there were a certain number of employees who did not agree with this decision. We thought that certain activities were in difficulty and that the decision to close them was 'now or never'. However, the managers maintained their position, hammering home the slogan that 'our number one resource is our employees', which is a very overworked phrase, but is taken seriously at Bosch.

Two years later, in September 2011, a staff satisfaction survey showed that 90 % of the employees were proud to work for Bosch, and recommended the group to their friends as a good employer. This is a noticeable asset to have at a time when it is hard to find skills that one needs in the industry. We would prefer the world hole-drilling champion to work for us rather than our rivals, and would hope that he would be sufficiently happy to work for us and that he would want to devote 25 years to the same speciality because one does not become an expert by changing one's profession every three years.

#### Four important principles

As president of the Franco-German Chamber of Commerce and Industry, I realised that a certain number of principles developed at Bosch were also implemented by numerous German SMEs, and especially by intermediary companies which are admired throughout the world.

By analysing these principles, I can pick out four main principles : innovation, obsession with quality, desire for international growth, and consideration of employees and their skills. There is nothing original about this : these are more or less the same recommendations that one can find in Jim Collins' books 'Built to Last' and 'Good To Great', and they work. In France, people prefer more innovative and brilliant ideas, but they tend to change them very frequently. One of the characteristics of German culture is to show consistency in the application of simple and efficient principles.

#### Innovation

Innovation is an integral part of the group even though Robert Bosch did not really consider himself to be an inventor, and in fact did not invent anything. However, he had a flair for understanding how new technology would help his clients, and he thought that his main quality was knowing how to surround himself with competent people.

#### Magneto ignitions, spark plugs, the diesel engine

During the company's first ten years, it manufactured a bit of everything ranging from pens to cameras and cigarette holders. Robert Bosch came close to bankruptcy three times in fifteen years, but he showed amazing tenacity in the face of adversity. The invention which brought him success was the miniaturisation of the magneto ignition which he produced for stationary engines manufactured by Deutz. By reducing their size, he was able to equip vehicles with them, and this is what contributed to the boom in car manufacture. Bosch then started making spark plugs and later diversified its products.

When the diesel engine appeared, Bosch instantly realised that this new technology was a threat to the spark plug because a diesel engine works on self-ignition. Instead of trying to compete against this innovation, Bosch joined forces with the inventor of the diesel engine and perfected the first injection pump. This contributed to a boom in diesel engines. This attitude illustrates one of the characteristics of German culture, the *Angst*, a permanent fear of the unknown and the unforeseen which makes people aware of all changes and new trends. Today Bosch is the leading global manufacturer of components for diesel engines, and its Diesel Systems division is one of the most profitable of the group with a turnover of 8 billion Euros.

#### Permanent anticipation

Anticipating events has become one of the characteristics of the group. All those who work for Bosch (the "Boschler") know that a company which does not grow and constantly develop is doomed, and only innovation can ensure profitable growth. In the power tools division,

more than half of our sales are from products which have been launched in the past two years. The slogan of this division which sells 100 new products every year, is 'Less than 5% growth, there is no life ; less than 10%, there is no fun.'

In the car sector, because we know that prices fall between 2.5 and 3 % per year, we have no choice but to increase our turnover by at least 5 % each year if we want to keep our structures and personnel, and continue to increase salaries by about 3 %. The other solution, which would consist of putting in place planned redundancy schemes and reducing costs, would not allow our employees to remain enthusiastic or to maintain their creative talents.

#### **Electronics**

In 1950, the group changed direction in car electronics by producing electronically injected petrol engines, the ABS (Anti-lock Braking System), the SatNav and, more recently, the ESP (Electronic Stability Programme). This last feature involves a device which is able to brake one of the four wheels of the vehicle and put it in the trajectory indicated by the steering wheel. This system helps to reduce the number of people killed on roads by 25 %. Not only did Bosch make history in car technology at the end of the 20th century and the beginning of the 21st, but the sensory device for detecting bends, developed for the ESP, is today miniaturised in the form of a MEMS (Micro-electromechanical system) and has been fitted into mobile telephones and Wii game consoles to calculate angles. The new generation of these sensors is sufficiently precise that if, for example, one points one's Smartphone towards the floor of a building on the other side of the road, one can discover the name of the person who lives on that floor. Telephones are manufactured by companies in the mobile telephone sector, but the sensor is made by Bosch, and we produced our two billionth MEMS last week.

Currently, we are also researching opportunities in the web 3.0 and what the 'Internet of things and services' could bring.

#### The three S's

In 1972, research was concentrated on the 'three S's', 'sicher, sauber, sparsam', in other words, security, cleanliness and the preservation of resources. Forty years later, these themes remain relevant whether it is in relation to security in cars, reduction in pollution or the scarcity of natural resources. They explain a certain number of diversifications of the group which may seem a little surprising such as the photovoltaics sector. Since we are the leading manufacturer of car semi-conductors, and have a large number of patents for the manufacture of silicon, we thought it would be interesting to develop the knowledge already acquired in this area. We still need to build a business model which would enable us to withstand the current fall in prices. The passage of time will tell us if this will be possible.

Currently there is a great deal of discussion about electrifying vehicles. We think that sooner or later between 5 and 10 % of vehicles on the road will be electric and that, as leader in the drive train sector, we ought to take part in this innovation. Since we do not do things by halves, we intend to invest about half a billion Euros each year in this sector over the next ten years. In 2009, in the middle of the economic recession, we even exceeded one billion Euros.

#### **Obsession with quality**

Robert Bosch was obsessed with quality. He said 'I think it is completely unacceptable if someone inspects one of my products and shows that it is of mediocre quality. This is why I have always tried to supply products which satisfy all objective tests, in other words, the best of the best.' A former employee said that when he noticed a fault 'a storm crossed the workshop'. Bosch thought that one should always 'strive to improve. No-one should be

satisfied with what exists, but should always be trying to improve.' This was how, in 1921, he defined the 'Kaisen', in other words, the art of continuous improvement which was the key to the success of Japanese industry fifty years later.

Bosch was very demanding of his employees, and he also knew that it is impossible to make good products with used tools or run-down testbenches. His first profits were immediately reinvested in machines and tools, sometimes doing without his own salary. Even today, the group reinvests its profits in research and also in good quality equipment.

The result of this obsession with quality characterises the Bosch brand and encourages our clients to pay a little more for our products. This factor appeared in our brand survey : in France, 92% of spontaneous answers concerning the Bosch brand mention 'a quality product'. If we were to obtain the same result only by using advertising, the necessary budget would be colossal, yet, to the great despair of our sales teams, our advertising budget is ridiculously low.

This penchant for innovative and quality products which cost more than other brands, enables one to invest and to maintain a virtuous circle, and is a characteristic of the Bosch brand and in general of German products.

#### **Desire for international growth**

Robert Bosch created his company in 1886. In 1905, he considered that Germany was not large enough for his ambitions and set up his company in Paris. The first non-German factory was built at Saint-Ouen where we still have a site today. The internationalisation of the company subsequently gathered speed. Sites were built in the United States and South Africa in 1906, Australia and New Zealand in 1907, China in 1909, Brazil in 1910, and Japan in 1911. After a temporary halt during the First World War, this trend continued with sites being established in Korea in 1920 and India in 1922. When one considers the travelling conditions at the time, one cannot but admire this achievement. It took three weeks to travel to Japan and no-one had a mobile telephone to check what was happening in the factories during this time. One hundred years later, at a time when growth prospects are focussed more on Shanghai or Delhi rather than Baden-Württemberg, our long-term presence in Asia and the fact that Chinese or Indian managers have been working for Bosch for 35 years and know the company inside-out, are of incalculable value.

This desire for international growth is undoubtedly what is most lacking in our French SMEs whose managers are reluctant to go abroad, not only because they do not speak English very well, but also because we have a peasant side to us which keeps us attached – probably too much – to our small patch of land. All the German SMEs which are successful have an international presence and are in Europe, the United States and Asia. They know that the main aim is to produce large quantities in order to reduce costs. This means one has to look for new markets all over the world.

#### **Consideration for employees**

The fourth important principle is consideration for employees and their skills. Robert Bosch said the following even though it has been attributed to others subsequently : 'If I pay my workers well, it is not because I make money. It is because I pay my workers well that I make money.' In 1906, he decided to reduce his employees' worktime, and to divide the working day into three 8-hour sections rather than two 12-hour sections. He increased his workforce by 50 %. He considered that 'after eight hours of work, one's attention flags and this becomes apparent in the quality.' As far as he was concerned, when calculating the costs, one should integrate the change in productivity and the less productive hours at the end of a shift. This earned him the nickname 'Bosch The Red' as German employees.

Robert Bosch paid special attention to training his staff. In 1913, he created an apprenticeship section with an industrial workshop for professional training within the company. This allowed workers to familiarise themselves with machining and milling techniques as well as assembly. This apprenticeship tradition is still generally alive in Germany and particularly in our group. Almost all our managers are former trainees. Even in France, the group does not necessarily recruit graduates from the most prestigious universities, but rather those who have the ability to supervise and motivate people, qualities which are not necessarily those requiring the most brilliant degrees.

#### **Continuity in management**

Lastly, I am delighted to mention another characteristic of Bosch's success, continuity in management. Franz Fehrenbach is the 6<sup>th</sup> Bosch president in 125 years, which, apart from the founder, represents an average time in office of about fifteen years. This length of time enables managers to develop a sense of responsibility. In 15 years, one has the time to observe and come to terms with the results – good or bad – of one's decisions. In some large groups, the average length of time in office for managers is no more than two or three years, and yet everyone knows that in heavy industries, like the car industry, one needs five years to start to change things and ten years to leave one's mark.

This continuity in management might be regarded as showing great caution in decisionmaking which some people might consider as slowness or inertia. This is also one of the characteristics of German culture, devoting a great deal of time to thinking in the initial stages, and then wholeheartedly implementing a decision which was taken and maintain it even when the expected results do not materialise. This may appear surprising compared to other methods of governance where a decision may be taken in a few days, and one is neither concerned about implementing it nor checking to see if it has been implemented. Currently the Bosch group intends to create test zones in some parts of the organisation because in a world which is increasingly unpredictable and even improbable, it seems necessary to progress through trial and error.

#### DISCUSSION

#### **Decision-making**

## **Question :** *How would you compare decision-making in a German company with that in a French company ?*

**Guy Maugis :** Germans spend a lot of time discussing and thinking. Then, once all the consequences of the various possible choices have been thought through, they take a decision and stick to it unless a catastrophic event takes place which casts doubt on the decision. In France, discussion only begins when the person in charge announces his decision. To tell the truth, this method can be very valuable in pressing circumstances as I noticed, for example, when we took part in salons. Our stands are meticulously prepared well in advance so that when the salon opens, everything is ready. We smile privately when we see colleagues from other companies running around in all directions because they have not prepared themselves adequately in advance. However, if an unexpected event takes place (for example, the organisers' original plan of the stands has been changed or the electric sockets are not working), German teams are paralysed : they all look at each other, not knowing what to do. The French, on the other hand, handle the situation much better when they are faced with the unexpected or a demanding situation.

In our sessions to help employees to cope with other cultures, we try out role-plays which prove to be realistic on every occasion. We give the German team and the French team one hour to create an object out of pieces of cardboard, and we film what takes place. On the German side, initially there is no action : they discuss and then, suddenly, three minutes before the end, they get going and make the object immediately. As far as the French team is concerned, one member of the team starts working straightaway while the other two criticise what he is doing. Everyone starts talking and after a while, someone pushes the first person aside and takes his place to show him how it is done. Ultimately, the two teams manage to resolve the problem in the same length of time, but using very different methods.

## **Q.:** *I* heard that at Bosch, a document must have more than one signature. What is this all about ?

**G. M.**: This is true. It is a legacy of the war. Germans are very worried that somebody might force others to do what he wants and take the organisation into an undesirable direction. The German army is the only army in the world which authorises its soldiers to disobey when they think that an order that they have received is inappropriate. This is the price that they have to pay for the remarkable obedience shown by German soldiers once a decision has been taken. A French soldier shows much less reluctance to disobey...

Fear of reaking the rules is apparent in numerous German companies, and is the reason behind the so-called 'principle of four eyes' ('Vier Augen Prinzip'). One sees better with four eyes than with two, and consequently not only cheques but all other documents, whether they are for internal or external use (such as the appointment of an executive, a commercial offer, a reply to the Administration and so on), must have two signatures. Very precise rules stipulate who must sign which type of document. This clearly makes the bureaucratic process rather weighty. When I was recruited, I was given a guide of the group's procedures : there are about one hundred pages ! But you get used to it very quickly.

#### **Return to a 40 hour-week**

**Q.**: Can you tell us more about what happened in a Bosch factory in France where you negotiated with the employees the return to a 40-hour week ?

**G. M.**: Our Vénissieux factory produced components for diesel pumps. This is a very competitive market in which it is necessary to reduce the prices by 3 to 4 % every year.

Furthermore, every seven or eight years, as in the entire automobile industry, one must think about changing the manufacture of the products and consider the future use of relevant manufacturing lines. When this time comes, all the factories in the group compete against each other to get the order to manufacture the new generation of products. In 2004, the so-called 'low-cost' countries such as Poland or the Czech Republic were booming. So it was decided that the product which was going to replace the pump, previously manufactured at Vénissieux, would be made in our Czech factory where salaries were six to seven times lower, amounting to a annual saving of more than ten million Euros.

We negotiated with the Vénissieux factory's trade union representatives and presented the management board with a scheme to reduce costs based on a three-year salary freeze, changes in the organisation of work, a reduction in the allowance of the works council, and also the decision to take two weeks off the holiday time allowed without increasing salaries. In return, it was guaranteed that no jobs would be lost over the next seven years. 80 % of the employees approved these measures in a secret ballot. This negotiation was exemplary, and allowed us to bring to France a manufacturing line which should have been set up in the Czech Republic (where most of the components were already on site in their boxes) to invest nearly 30 million Euros, and to keep nearly 500 jobs.

However, this negotiation received nationwide attention in France and generated a number of fierce ideological debates.

In 2009, the question of what was going to happen when production of these diesel pumps finished (intended for 2011 following the change in environmental rules) was raised again. A commission was set up to try to find an activity in the group to replace this and, since the photovoltaics sector at this time was booming in France, it was decided to set up a production line of photovoltaic panels in Vénissieux. The decision was taken after eighteen months of discussion and uncertainty, and not a single hour lost to strikes.

#### Diversification

#### **Q.**: *How do you explain the group's impressive diversification ?*

**G. M. :** It is primarily a product of the fundamental concern which characterises German culture, namely that even though we are leaders in the car industry there is no guarantee that the sector will not collapse tomorrow. We are always conscious of the need to develop new areas to deal with every eventuality. Furthermore, it is a tradition at Bosch to look constantly for ways of developing acquired skills, as demonstrated by Robert Bosch, who, having created dynamos, decided to construct engines and to use them to make drills and fridges. The call centre activity may seem odd with regard to our industrial core business. In fact, we have developed an expertise in client relations, both for consumer goods and for heating. Whereas other companies outsource this function, we thought that it was too risky to allow a third party to manage our clients. It was in order to preserve this activity in-house, while making it competitive, that we decided to sell the call centre services to a third party. For ten years, the management of our clients has accounted for less than 20 % of this activity which employs 5,000 people. Similarly, having developed in-house skills for manufacturing lines of high-quality packaging, we have developed this activity especially for the pharmaceutical industry.

#### Is innovation at Bosch an exception ?

**Q.:** A friend who is an engineer works in a French SMI (small and medium sized industry) which was bought by a German group. He complains a great deal about the lack of German innovation. Is Bosch an exception ?

**G. M.**: Germans are innovative, but often not very inventive. When I ask whether I can present some of our patents to the press to show the innovative nature of our group, I always find it hard to find unusual examples. Generally speaking, there are small innovations, for example a device which gives an engine 3 % more power, or a control button which can be

activated when a hedge trimmer gets stuck on a branch and which gets the engine running again in reverse gear in order to free the machine. Compared to brilliant French creativity, this may appear rather dull and not very inspiring...

Germans are extremely concerned about safety standards, procedures and quality, and this may slow down decision-making. I can understand that this may irritate French engineers who, in a SME, are used to going to the workshop, manufacturing a prototype in a few weeks and finishing their project quickly... even though their invention may only be limited to one example and has no future.

#### The French decline

**Q.**: How do you explain the growth of German car manufacturers and the decline of their French counterparts despite the fact that the German success is scrutinised and analysed meticulously by our industrialists ?

**G. M.**: German car manufacturers, whether it is BMW, Daimler, Audi or Volkswagen, are all obsessed by product quality, and try to provide 'the best of the best' which enables them to charge higher prices. In France, our policy tends to be based on purchasing power. We try to give a client the vehicle he can afford. As a result of this, we have become the world leader in category A or B vehicles (small or compact cars), and we are the only ones who have not lost much money in these areas. Unfortunately, manufacturing cheap products in a country where the workforce is expensive is a little complicated.

Furthermore, at a time when Renault and especially PSA have to make enormous investments in China or Brazil in order to grow, a manufacturer like Volkswagen has taken the lead with respect to having an international presence and is making a considerable profit from its foreign sales.

Another difference is that the Germans want their industry and ther manufacturers to do all they can to keep their German suppliers, even if it means making them produce components in Eastern European countries or asking them to go with them to China. Volkswagen assembles its cars in Wolfsburg (Germany), but the engines are made elsewhere. PSA and Renault still make their engines in France and assemble their vehicles abroad.

The political context has played an important role. Gerhard Schröder's Agenda 2010 stipulates reduction in salaries, massive cuts for unemployment protection and social security cover, lower expenses for companies, transfer of a part of the expenses which weighed down the cost of work onto VAT, and so on. I encourage you to read Henri Lagarde's talk in June 2011<sup>1</sup>. Broadly speaking, Germany concentrates on the offer and competitiveness, whereas France focusses on demand and maintaining purchasing power.

Will the German model manage to survive for a long time in a period of global recession ? The debate is open and we will have to assess it in ten years' time. For the time being, it is clear that there are an increasing number of very rich people who want to buy very expensive cars, and that the R&D financed by this sector may be redistributed throughout the range. A Volkswagen Golf looks a great deal like a Renault Mégane, but it can provide more options because these were financed by high-end models.

# **Q.**: *The difference in productivity between France and Germany dates back precisely to 2000. Why this date ?*

**G. M.**: Gerhard Schröder implented his Agenda 2010 in 2000. When Germany was reunified, the Germans understood that the former East Germany would no longer constitute competition for their companies because the wage costs in this area would be aligned with the previous situation in West Germany. Subsequently, these companies took a series of drastic measures, incorporating their obsession for competition and the desire to conquer booming international markets.

<sup>&</sup>lt;sup>1</sup> Henri Lagarde, Clément Kopp, *Les charges en Allemagne et en France : les vérités qui dérangent*, Vie des Affaires seminar at the École de Paris du managment, Ref VA100611.

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At the same time, the French approach, focussed on purchasing power, encouraged us to import large volumes of cheap products instead of manufacturing them in France. Let me remind you of the bywords at this time about 'companies without factories', and the fact that one had to abandon industry which was considered too 'dirty' and to move forward into the new digital economy.

One can also mention the establishment of the 35-hour working week, and, more broadly speaking, the desire to preserve employees' purchasing power by always thinking that 'the company can pay'. This increased the costs of work in France whereas the costs in Germany decreased.

#### **Convictions and responsibilities**

## **Q.**: Drawing on your professional experience, do you think that at Bosch, one is faced with fewer ethical dilemmas than, for example, in an American company ?

**G. M.**: Yes, quite simply because the non-listed Bosch group is not subject to the threat of sanctions when the results come out every quarter. The need to have a short-term policy, which weighs heavily on listed companies, is an aberration in an industry where the length of time is not every three months, but every three years. However, for the president of an industrial company, it would be suicidal to stand up infront of analysts and explain that in less than three years he was incapable of changing anything in his company.

Working at Bosch, I am lucky to be satisfied with about 90 % of the decisions that I take. I do not say 100 % because nothing is perfect. I have known companies where this is the opposite, and I am very happy not to be working for them any longer.

# **Q.:** What do you advise executives who work for one of the top 40 companies in the Paris stock exchange and who are faced with the daily dilemma of choosing between their personal convictions and their professional responsibilities to do ?

**G. M.**: It is very difficult to know how to behave when one's environment, bosses, and shareholders ask you to do something which is contrary to your ethics. Should one obey ? Or should one hand in one's notice and run the risk of endangering one's career and the future of one's family ? I do not know a manager who has not been faced at any time with the order to close a factory even when all the other solutions have not been exhausted, or has been forced to defend a project for which he has little enthusiasm in front of his employees. One should think oneself lucky if one has escaped these sorts of situations, and I for one would certainly not criticise someone who has been there. However, I would be more critical about people who are 'overly zealous' : we all know people like that.

Presentation of the speaker :

Guy Maugis : President of Robert Bosch France SAS since January 2004. Graduate of Ecole Polytechnique and engineer (corps des Ponts et Chaussées). He also has a law degree. He worked for several years at the Ministry of Equipment. Subsequently, he worked for Pechiney where he managed their lamination factory at Rhenalu Neuf-Brisach. Afterwards, he worked for the American company PPG and was in charge of Glass (Europe). When PPG was bought by ASAHI Glass, he became vice president in charge of business development and the European activities of the automobile sector of the Japanese group. He is also president of the Franco-German Chamber of Commerce and Industry.

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