Hyundai / Kia - on their way to the top of the industry

The Korean tiger's six secrets to success

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Hyundai/Kia are revolutionising the industry, offering cars in the same segment as the VW Golf in comparable quality for more than €4,500 less than their European competitors; at the same time, they can point to rampant growth and high profit margins. This combination has made the Korean concern the talk of automotive, and everyone is desperate to learn more about how they work. Observing Hyundai/Kia is difficult, though, because this automotive giant is shy of publicity. In this study, we take up this challenge and will explain how these manufacturers work and what makes them so dangerous.

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Figure 1: Hyundai / Kia Towers, Seoul

Executive summary

1. Efficiency and an unforgiving focus on costs: building on foundations of hard work and thrift

In 2012, Hyundai/Kia is on course to sell seven million vehicles and is growing at almost the same rate as Volkswagen. With an estimated nine percent of the worldwide market in 2012, the Korean manufacturer is one of the top five carmakers on the planet, and although it positions itself in the low-price segment, its products continue to sport impressive quality as the concern keeps on growing and increasing its profitability.

The central foundation for this success is the Korean concern's pronounced culture of hard work and thrift. With 60-hour weeks as standard and lower monthly wages than the competition, taken against German car manufacturers, Hyundai/Kia saves €860 per vehicle on direct labour costs alone. They are also keeping up with the Germans in terms of rationalising their technical processes, having recently reduced their range of platforms from 18 down to 8 and sunk development times from 30 to 26 months. This has resulted in a considerable lead in productivity: whereas at Toyota 25 and at Volkswagen just 17 cars leave the factories per year and per member of staff, at Hyundai, this figure is 48.

2. National interests are decisive: Korea copies Japan's export model

South Korean economic policy, too, follows the Japanese example, placing emphasis on a strongly export-orientated economy with protectionist import tariffs. The Korean central bank plays a role, too, in supporting exports by systematically intervening to keep the Korean currency down, heightening its competitive advantage - especially against Japan. Once trade agreements were made with China, exports to this neighbouring market grew strongly, with Korean goods and services sold into the People's Republic now at US$140 billion - i.e. the same as the value of exports to China from the USA and Europe. Hyundai/Kia has benefited from this and now has three factories in China with a combined yearly production capacity of around one million vehicles.

In order to make sure that South Korea is not just the workshop of the world, but also a place that produces its own brands, the government offers targeted support to large-scale concerns orientated towards the international markets, e.g. Samsung, LG, and Hyundai/Kia. These global concerns are in turn owned by family conglomerates, the "chaebols", the 20 largest of which generate 80% of the South Korean gross national product, commanding broad company portfolios and wielding political clout to match.

3. The chaebol families: military precision and patriarchal management styles.

The Hyundai Motor Company (HMC) is led by the family patriarch Mong-koo Chung and is, after Samsung and the LG Group, the third largest of the South Korean conglomerates. Made up of over 60 different companies, it is held together by a highly complex series of mutual ownership links and supply deals; this structure allows the different companies in the group under Chung's leadership to keep an eye on each other and fend off attacks from outside. The management style in chaebol companies is, in keeping with Korean culture, hands-on and power is exercised directly by the "patriarch" himself.

One of the central planks in the Hyundai/Kia network of companies is Hyundai Mobis, a parts supplier which does not just deliver crucial modules (e.g. cockpits, chassis, front-ends) ready-made, but also offers state-of-the-art electronic security and assistance systems. Several interests important to the Chung family are gathered in Mobis, which also handles Hyundai/Kia's worldwide after-sales operation. Mobis owns shares in both Hyundai and Kia and, in terms of turnover, has advanced to one of the top-ten suppliers over the past decade.

4. Integrated production system: speed and low costs thanks to a lean, tight supply chain.

A defining feature of the Hyundai chaebol is the strategy of producing as much of its products itself as possible and exercising control over suppliers. As a manufacturer, it has a direct say in process, target prices, or adaptations to the supply chain. This is a different approach to the Euro-American model of manufacturers putting out supply contracts to tender; rather, this model relies on permanent relationships based on running at capacity.

In order to secure maximum control over the supply chain, all products are sourced from chaebol companies; if the chaebol is unable to supply an important technology, a new company is founded and added to the network. This ties down a lot of capital, but keeps costs structures slim due to economies of scale and low overheads. One way to understand how this works is to imagine two Golfs, one sold on a European model and one following the Korean way: by bringing together and tightening the entire supply chain and by factoring in all the local cost advantages, the Korean model produces a vehicle with an approximately €4,500 saving for the end customer; in the Golf segment, that is almost a quarter off the price of a new car.

5. The aggressive gene: management by ambition and determination

Speedy implementation and growth whatever the cost are the guiding principles of Korean conglomerates, especially Hyundai/Kia. The concern learns at an extremely fast rate, and justifies its need for speed and size with the feeling that "Big Brother" – i.e. China – is hot on its heels. The "aggressive" attention of management falls on good design and, increasingly, on modern marketing techniques to spearhead an ambitious attack on the premium segment. Recently revealed high-end models and the success the Korean concern is having in the USA are proof that the Hyundai/Kia managers are as good as their word: following a period of rapid growth, the Korean concern is selling more vehicles in the United States than all of the German OEMs put together, and have kept their position throughout the recession, during which they have proven more than at any point before just how determined they are to succeed in competitive, price-sensitive market segments.

6. Investments in R&D: beyond copying

Although Hyundai and Kia have attracted attention with their good designs, they have done so with comparatively low investment levels in research and development. This is set to change, however, with higher budgets for R&D slated to improve the quality and innovativeness of the concern's vehicles. While Kia is orientating itself to BMW and aiming to conquer the hearts of young professionals worldwide, Hyundai is counting on mature and luxurious design to help it into the Audi and Mercedes segment. Despite the fact that these entries into the high end of the passenger vehicle market are still clearly very much that - entries - the speed with which this manufacturer can bring cars onto the roads should not be underestimated. This ambition in terms of "time to market" is also clear in alternative engines, with Kia researching into purebred electric vehicles for intra-city use while Hyundai looks to combine the success of plug-in hybrids with hydrogen fuel-cells.

Too good to be true? The risks of ruthless expansion

One of the major risks for Hyundai/Kia is the lack of genuine fundamental innovation coming from their own labs, and this is something Chung plans to compensate for by being very active in "harvesting" ideas from other areas and by being even quicker to market. Yet this acceleration could prove a dangerous strategy if it leads to quality problems and expensive vehicle recalls in the same way as it did for Toyota. In addition to this, the Japanese competition should never be underestimated, and in the wake of the natural catastrophes which struck the country in 2011, Toyota above all is doing all it can to pull ahead of the Koreans. Danger lurks on the other side of Korea, too, with the Chinese car industry waiting for its chance to enter into the export markets, a scenario which Chung quite rightly fears.

Back-story: Hyundai/Kia, a meteoric rise

- *Hyundai/Kia - the new kids on the block*
- *From a building firm to a global OEM*
- *Early ambitions to go worldwide*
- *High quality for the lowest price - a recipe to growth*
- *Hyundai/Kia come out of the crisis in the lead*
- *Global production basis for the next round of growth*

Hyundai / Kia - the new kids on the block

For around a decade now, both Hyundai and Kia have been the shooting stars of the car industry, enjoying the honour of being singled out as a "key opponent" for Volkswagen[i]: to date, the only other carmaker named at Wolfsburg had been Toyota, and now the whole automotive industry was watching as Martin Winterkorn, head of the Volkswagen Group, unwillingly paid the Korean manufacturer a rather spectacular tribute at the Frankfurt IAA in 2011. A video of his outburst was soon doing the rounds on the internet[ii], with millions of hits on YouTube, and suddenly new-comers Hyundai/Kia were the centre of the attention of automotive experts. It has been quite a journey for this comparatively young concern, whose products offer an ambitious synthesis of Japanese efficiency and European design, and now everyone is looking to see just how far this momentum will propel them.

Little over a decade ago, Hyundai's reputation in the USA had been ruined due to poor product quality deliveries and its sales in this market hit rock bottom. At the same moment, its Korean compatriot Kia was going bankrupt and was only saved at the last minute by joining the Hyundai concern. The stereotype born at the time of cheap Korean cars manufacturers as second-rate imitators of Japanese management techniques did not give much grounds to predict the speed with which these two OEMs would become serious threats to the established car industry, but serious threats they indeed became. The world over, the constancy, discipline, and sheer determination of the Koreans was underestimated, while all the while they were tackling quality issues and modernising the exteriors of their vehicles, creating a manufacturing conglomerate of imposing dimensions and using the 2008/2009 sales crisis to reposition themselves on the market. While the other OEMs were busy keeping themselves afloat, Hyundai/Kia began their dash to victory; the current European crisis is again giving Koreans the opportunity to grab market share from the continent's traditional manufacturers, and they seem to have very little to strike back with.

What is the secret behind the strong growth and success of the Korean car manufacturer? How has the new kid on the block been able to slip so easily into the niche for good-value compact car which was once the exclusive preserve of the Japanese manufacturers? And why should the most recent announcements regarding an entry into the premium segment, into this most German of domains, be taken so seriously? These are the questions we will be looking to answer in this article.

From a building firm to a global OEM

Hyundai means "modern" or "up-to-date", and was chosen as a name for a construction company founded in 1946. One company had soon become an almost impenetrable conglomerate, the Hyundai chaebol, and in 1968, the Hyundai Motor Company was founded as one of its manifold subsidiaries to produce Ford vehicles under licence. In the mid-seventies, Hyundai's first in-house design, the Pony, came onto the market, driven by a Mitsubishi engine. Kia, meanwhile, was founded in 1944, and went from producing bicycles to making motorbikes, commercial vehicles and, as of the mid-eighties, passenger cars. Kia was also supported by Ford.

In 1998, Hyundai acquired shares in the smaller Kia company which had, due to the Asian financial crisis, fallen on hard times. Around two years later, Hyundai entered into a now almost completely forgotten link-up with DaimlerChrysler, which had taken shares in Hyundai with the aim of developing and producing engines and commercial vehicles together; within a few short years, the project was ended due to differences in corporate strategy with no concrete results. Koreans are reputed to be difficult to work with and are highly self-reliant; they have probably, very much like Toyota, learned to limit their energies to planning their own growth rather than wasting time with matters outside of their control. Bosch recently had a similar experience with Hyundai after the Kefico joint-venture to produce electronic components for cars hit the wall[iii]. Here too, Hyundai was aiming for technological independence and wanted to exercise sole control of this important parts supplier rather than accepting any form of permanent influence from abroad.

Early ambitions to go worldwide

Hyundai's first export successes were in Ecuador, Benelux, and Canada; following the Japanese example, the Korean concern was anxious to get onto the inexhaustible US market as soon as possible, and in 1986 it managed exactly this with the Excel, the front-wheel-drive follow-up to the Pony. The US market at the time seemed to have an insatiable appetite for cheap compacts, and the first 100,000 Excels went in just over six months. Nevertheless, the reliability and durability of these first export models were poor, and by the early nineties, the Hyundai brand was close to disappearing from many of these markets. Through to the end of the decade, Hyundai undertook no proactive measures, until Mong-koo Chung, son of the founder Ju-yung Chung, succeeded his father and prescribed the company a radical course of treatment, forcing Hyundai to improve quality and escape its cheap and nasty image.

High quality for the lowest price – a recipe to growth

The Korean car industry is the youngest on the international scene (leaving China aside for the moment) and is a result of the stubbornness with which Mong-koo Chung insisted on high quality at low prices as the guiding principle of Hyundai/Kia. As early as 2006, the Koreans had beaten Toyota in the annual J. D. Powers and Associates quality study, with only Porsche and Lexus ahead of them[iv]. This jump in quality is almost unparalleled in the automotive industry, with a whole host of traditional car manufacturers showing little improvement despite years of quality offensives.

Hyundai/Kia come out of the crisis in the lead

As far as Hyundai/Kia was concerned, the world economic crisis of 2008/2009 was a stroke of luck: customers started looking for cheaper alternatives, and the guiding principle of "good quality at a lower price" was suddenly striking chords everywhere. As American manufacturers suffered the effects of the Lehmann crisis and the Japanese cock of the roost Toyota was suddenly deposed by its quality issues and the natural catastrophes in Japan, Hyundai and Kia were on hand with a young range of freshly-designed, low-price vehicles. With modern exteriors, high quality standards, long guarantees, and the ability to deliver while factories in Japan were shut for months of 2011, the Korean models started to sell like never before.

This momentum was backed by a creative and contemporary marketing style, a prime example of which was promising Americans during the 2009 recession that they would take back the car if the owner lost their job[v]; observers saw in this move signs of true marketing genius.

The following graph shows how Hyundai/Kia have caught up to other manufacturers:

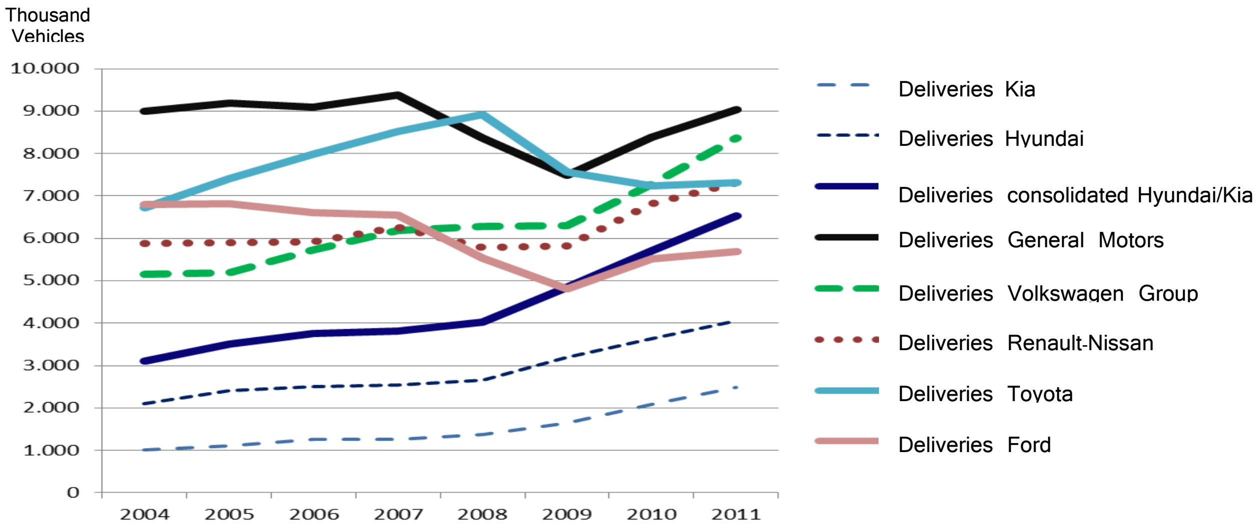


Figure 2: Growth in Hyundai/Kia sales compared to peer-group [vi]

The sales figures speak for themselves. While Hyundai alone was selling 2.6 million vehicles in 2008, the forecast for 2012 of 4.3 million looks set to break all existing records. With Kia, which is planning to sell over 2.7 million units, the concern looks set to break the seven-million-mark in 2012. This represents an increase in worldwide market share from 6.5% in 2008 to 9% just four years later in 2012. This makes Hyundai/Kia one of the global top five automotive manufacturers.

(as at 31/12) Thousands of vehicles sold	2004	2005	2006	2007	2008	2009	2010	2011
Hyundai and Kia consolidated sales (€ millions)	48,479	67,033	68,143	65,251	55,436	72,531	99,006	116,071[1]
Profits (finalised, € millions)	1,634	2,534	790	583	536	3,037	7,126	9,542[2]
Profit as % of turnover	3.37%	3.78%	1.16%	0.89%	0.97%	4.18%	7.20%	8.22%
Kia vehicles produced	1,011	1,105	1,259	1,269	1,375	1,651	2,088	2,478
Hyundai vehicles produced	2,100	2,400	2,497	2,540	2,650	3,200	3,626	4,059
Hyundai/Kia consolidated production	3,111	3,505	3,756	3,809	4,025	4,851	5,714	6,537

Figure 3: Key performance data for Hyundai / Kia[vii]

In terms of its strategy, the Korean concern followed its Japanese competitor Toyota, which had demonstrated how high quality and very low prices could open up a path to the top of the automotive industry. The Japanese also showed how factories could be localised to important markets to make them a crucial part of the national economy, even if the series of recalls led to serious set-backs in Toyota's quest to become an "American" car company. Hyundai/Kia have been, however, far quicker than their competitor in reaching each of the stages on which Toyota's journey had taken them: the Korean concern did in 15 years what it had taken the Japanese 25 years to achieve.

While all of the other major manufacturers have, at some point in the last decade, been close to utter disaster, and while Toyota, once seen as completely unassailable, has had to accept defeat after harsh defeat, Hyundai/Kia has positioned itself as the winner that nobody has noticed. The speed and the global presence of the concern are the most important competitive advantages it has, and it has been very good at applying them during crises.

Although the clouds on the automotive horizon have receded, allowing the established manufacturers something of a rest-bite and the opportunity to make profits even during the Euro debt crisis, the Korean concern certainly seems better prepared for any approaching worldwide slowdown than its competition, with the French and Italian manufacturers now feeling the full force of the chaebol challenge as they suffer from chronic over-capacity.

[1] Sales 2011: estimate from K-GAAP data correlated directly with IFRS data.
[2] Net income 2011: estimate from K-GAAP data correlated directly with IFRS data.

The development in the value of the company (shown in the following graph compared to other manufacturers and to the German DAX30 index over a five year period) shows very clearly just how successful the Korean concern has been.[viii]:

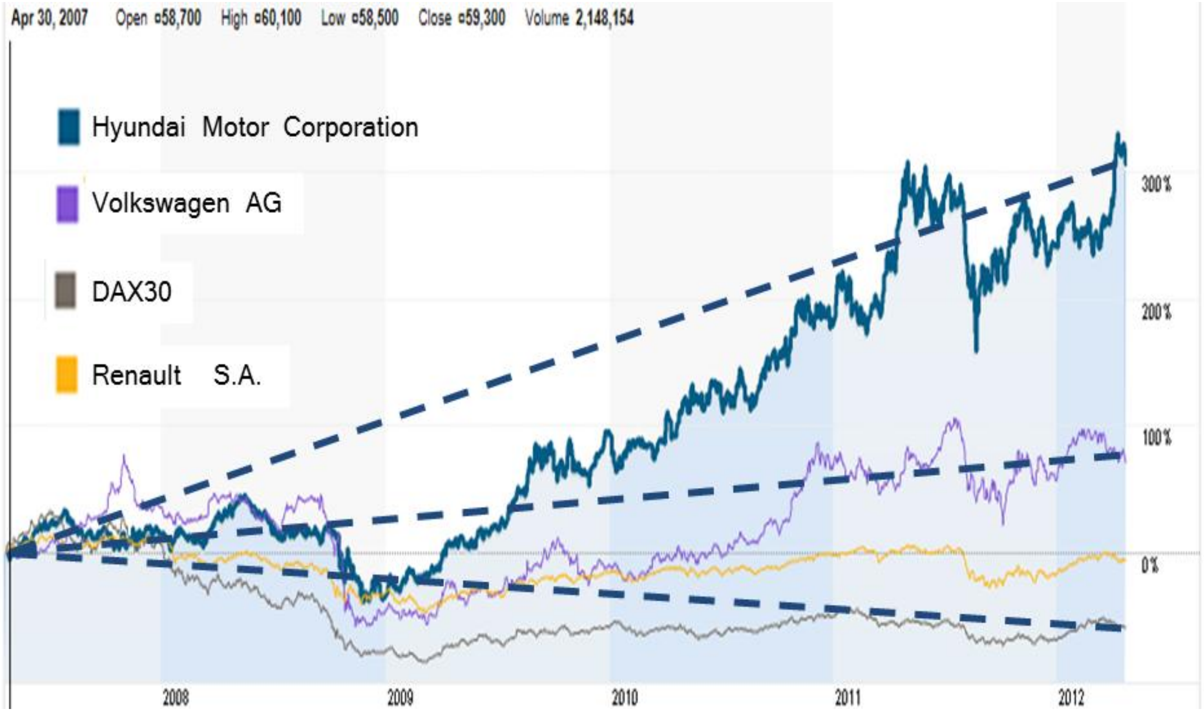


Figure 4: Stock-performance Hyundai Motor Company and competitors

Global production basis for the next round of growth

During the growth spurt described above, Hyundai/Kia was far-sighted enough to make their production network as global as their sales. Today, the concern is manufacturing outside of Korea across North America and China, in the Czech Republic, Pakistan and India, and in Turkey too. Plants currently under construction include Piracicaba, 150km south of Sao Paulo in

Brazil, and another factory in India (Gujarat). The fact that the Korean concern, no matter which continent it settles on, always looks for the cheapest country, says a lot about its focus on costs.

This by itself does not make Hyundai/Kia hugely different to other car manufacturers, with cost-cutting having become the norm across the industry. Yet the sheer extent of supplier integration and the extremely tight organisation of the value creation chain makes for a strategic difference of no small measure; we are convinced that Hyundai/Kia's success can be explained by a very clever and culturally deep-seated combination of fundamental "secrets":

The Korean tiger's six secrets to success:

1. Efficiency and an unforgiving focus on costs: building on foundations of hard work and thrift.
2. National interests are decisive: Korea copies Japan's export model.
3. The chaebol families: military precision and patriarchal management styles.
4. Integrated production system: speed and low costs thanks to a lean, tight supply chain.
5. The aggressive gene: management by ambition and determination.
6. Investments in R&D: beyond copying

1. Efficiency and an unforgiving focus on costs: building on foundations of hard work and thrift

„Often, it is not in talent that there is a difference, but rather in diligence and character!“
Theodor Fontane, German writer and apothecary, (30/12/1819 – 20/09/1898)

- *Korea's competitiveness lies in hard work*
- *Savings based on economies of scale across high-unit platforms*
- *Education, education, and education again*

Korea's competitiveness lies in hard work

The Koreans are a proud people, and are especially proud of having managed to push their national champions Samsung, LG, and Hyundai into the top league of international industry. Through their hard work, in recent years they have been able to increase their income almost to Western standards, and to secure this progress, they are ready to work more than 60 hours a week - which in turn would be unthinkable in the West. They do not take much holiday, either, with a legal requirement to between 12 and 20 days of annual leave according to the amount of time they have been employed at any one company; nevertheless, many only take 4 or 5 of these off.

Although there were recent moves to reduce the statutory six-day week down to five days, this is at best a distant goal at many companies. The reality is quite another matter, with OECD figures revealing that the Koreans work an average of 2,193 hours a year while Americans, by comparison, work 1,778 hours annually, and Germans do 1,419; after years of concessions to staff, many German car manufacturers have annual working hours per employee that are actually far below the overall national figure. When lower average Korean incomes are factored into the equation (Koreans earns roughly the same as Slovakians) along with the longer working hours, then Hyundai's labour cost saving per vehicle as against German car-makers totals around €860, as we detail in our example later on. This is a huge advantage when negotiations and large-scale projects elsewhere are often held up by single Euro cents.

The hunger at Hyundai/Kia was felt as they implemented Toyota's continuous improvement principle. Now both the Japanese methods and the American six-sigma quality assurance six-sigma model are standard practice across the entire Hyundai concern, from parts suppliers to the car sales arm. The Koreans learn quickly and precisely, and are now in control of a modern, highly-automated production base and speedy, robust product development processes; in terms of employee productivity, they have already exceeded Toyota.

Even if it is not always as reliable as many think, the industry-wide comparative statistics regarding vehicles produced per worker per year[3] would tend to confirm that Hyundai has the lead: between 2009 and 2011, Hyundai churned out around 48 vehicles per employee annually; at Renault Nissan, this figure was 26, 25 at Toyota; Volkswagen lagged behind at 17[ix].

This kind of productivity did not come without its price-tag, with Korea's unions being well organised and representative. During the years of rapid growth, management had to learn to keep its staff happy satisfied with acts of generosity, and the result is that Hyundai workers today earn far more than the Korean average per-capita income. The relationship between management and the very left-wing Korean unions was difficult at one stage, but can now be described as stable; nevertheless, the situation could well change now that what is considered to be a more aggressive labour leadership has been elected and, after years of industrial peace, union bosses are threatening strike action on a massive scale.

Savings based on economies of scale across high-unit platforms

It is not just workers at Hyundai that are thrifty and efficient, but the products too have been mercilessly trimmed to make them competitive: the concern's vehicles today use as many common components as possible and can be put together quicker than ever before. The number of models has been drastically reduced with the overall aim of concentrating on the mid-segment of the market, just as Toyota had already done as its core strategy for exponential growth. From 18 production platforms in 2008, Hyundai and Kia have slimmed down to just eight; from 2012 on, both will be using these eight platforms to produce more than seven million new vehicles, meaning that each single vehicle architecture will be built more than 800,000 times. Even for the likes of Volkswagen, General Motors, and Toyota, this would be a hard task.

Similarly to their established competitors Volkswagen and Toyota, Hyundai/Kia is now able to use its high-unit-volume platforms to crank out endless streams of "fresh" vehicles perfectly trimmed to suit the needs and preferences of the local market, and in a foretaste of what is to come, the concern has already announced a veritable slew of new products. At the same time,

[3] Correlating vehicles produced to staff numbers ignores differences in the depth of in-house production and the value of the vehicles; it is a rough guide at most.

in order to keep its models up to date and make sure that the latest technology available (especially in terms of electronics, passenger safety, and media/entertainment) in included, the vehicle development cycle has been reduced from 30 to just 26 months. There is almost nothing as telling about the Korean concern's mindset as the speed with which it implements ideas and plans.

Education, education, and education again

This dizzying pace and gigantic growth is supported by the huge reservoir of young, hard-working Koreans, a generation which has an astonishingly high average level of education: around half of all Korean school leavers go to university, and in international studies such as Pisa, Korean schoolchildren have been near the top of the table for years. Despite criticism of the way in which Korean children are pushed by their parents, the nation's hunger for education is laudable; even children in kindergartens are put through what by Western standards would be an unacceptably harsh routine, and the highly-structured educational style grows stricter and stricter through to university. Although Korea is traditionally a country of humanities and classics degrees, in which the importance of academic engineering courses is only slowly being recognised, Korean students are some of the world's most curious. They are unparalleled in participation rates for foreign exchange programmes, and this has cultivated an elite of highly-networked, highly-educated professionals which is easily the equal of what is found in other leading nations.

As well as the country's excellent cost structure, intelligently managed human capital is quite probably the most important resource for Korea's future. It is this highly-educated workforce which is helping to counter the country's image to date as a typically cheap manufacturing location. More simple tasks are cleverly outsourced by the Koreans to their Chinese neighbours, in whose hinterlands inexhaustible armies of workers can carry out production for a fraction of the cost.

2. National interests are decisive: Korea copies Japan's export model

- *Powered by nationalism*
- *Weak currency, strong exports*
- *Koreans buy "Made in Korea"*
- *China is a double edged sword*
- *Network of politicians and businessmen*

Powered by nationalism

Korean peninsula, today divided, has spent more than 1,000 years wedged between the spheres of influence of China, Russia, and Japan; for the last century, the United States too has played a role in the region. As a potential battlefield between these powers, Korea has always had to be extremely strong-willed in order to survive as a nation, and in the continuous struggle, often under foreign occupation, has imprinted a deep-set nationalism onto its people; the last fifty years of independence from Japan and the division between North and South has made this nationalism stronger rather than weaker.

In this geopolitically difficult region, its trade routes often limited, lacking natural resources, and with hostile military force rarely far off, the post-war South Korean government recognised in the Japanese strategy of state-run industrialisation the only option open to offer the predominantly agricultural population a long-term perspective for higher incomes. The success of this move has proved the Koreans right as the country's GDP is currently over one thousand times higher than it was at the beginning of the 1960s. Yet despite this, this hungry Asian tiger has always wanted to be more than just a workshop for the world, and South Korea has always seen its comparatively low wage costs as being under threat from even cheaper Asian competitors; this led to the country investing heavily in a Japanese-style export policy, counting on a small range of large, internationally orientated companies. This decision explains why the state has helped to create and support domestic companies that are big players on the global markets, even at the cost of almost wholly neglecting a small-to-medium-sized business sector.

While in the West to some extent - and above all in Germany - a culture of romantic scepticism has developed with regards to technological innovations and their consequences, in Korea any form of high-tech progress is directly linked to the way out of poverty, giving it an instantly positive connotation. For Koreans, growth is a national priority and holds a key place in the cultural debate there; more than anything else, the government's job is to bring growth and to make sure that Korea climbs higher and higher in the international rankings – for Koreans are nothing if not interested in keeping up with the Jones.

Weak currency, strong exports

In principle, Korea's monetary policy is a matter for the free market and the state only intervenes to control the high volatility of the national currency, the Won, or to protect the economy in times of economic crisis. An example of this kind of emergency intervention occurred in the fourth quarter of 2008 as investors worldwide pulled their money away from foreign markets and in under the year the Won lost more than 45% of its value against the Dollar at its highest point. Yet in practice, as in other export-orientated economies, national interests play a strong role in Korea's monetary policy. While South Korea's trade surpluses lead to growing foreign currency reserves, which pushes the exchange rate up, the Korean central bank increases the amount of money in circulation to pull it back down and so for years now, Korea has had currency that is weak by international comparison, and this is very much in the interests of the exporting industry.

It is by no means just Korea that has recognised the potential in an artificially low rate of exchange in increasing competitiveness on the export markets; China, especially, has been practicing massive intervention for years. With the USA looking to decrease its sovereign debt and Japan trying to get over its notorious growth problem, there is no shortage of large economies intervening frequently to their own advantage, and so nobody can point the finger comparatively small Korea for looking out for its own interests, even if Japan above all complains about the comparative weakness of the Won to the Yen from time to time. Over the last ten years, the Won has lost a third of its value against the Yen, which represents a significant disadvantage for Japan going into most export destinations. The Korean way to success is no small way paved by export-friendly economic policy at a national level, which intervenes quickly when needed as in 2008-2009.

Koreans buy "Made in Korea"

Today, Koreans are proud of concerns such as LG, Samsung and Hyundai, which have earned their place in the top league of international industry. Above all, the Korean elite concentrated on creating concerns of international importance in automotive manufacturing, which is a labour-intensive sector with huge job-creation potential. Car companies were not just given cheap government money, but were protected on the domestic market from foreign competitors.

Even today, around 80% of the cars sold in Korea today are Hyundai/Kia models, despite the removal of former barriers to imports. The Korean market remains as closed to foreign manufacturers as the Japanese market was for so many years: vehicle pools for public companies are all bought from domestic manufacturers, and this practice is even enshrined in law. In 2010, European Union OEMs managed to export around 32,000 vehicles to Korea, which has a total yearly sales volume of around one million; at the same time, Korean OEMs sold 400,000 cars into EU markets. This one-sided policy has not gone unnoticed, and so free-trade agreements were signed with the USA in 2010 and the EU in 2011, the aim of which was to open up the Korean market step-by-step and dismantle the range of import barriers such as high customs tariffs and restrictive authorisation practices. Although this has had a limited effect for German premium manufacturers, the fundamental imbalance has remained – and remained a problem. Companies exporting into the Korean market have trouble getting their vehicle approved as roadworthy, getting authorisation certificates is still difficult; yet the importance of the international markets to Korea means that the country's government will always return to the negotiating table, even if each international partner on its own is less influential than China.

China is a double edged sword

As the following diagram makes clear, the volume of trade with Korea's gigantic neighbour China, at US$140 billion (import and export) is far higher than that of trade with any other country: taken together, all EU countries account for only US$80 billion, while the USA makes up US$86 billion. China and South Korea have only had normalised diplomatic relations since 1992, and whenever there is talk about the future of the region, the two countries have very different opinions about the Korean peninsula. Economically, however, the two countries have become very dependent on one another, a trend which has only been increased by the chronically weak growth in the "old" Western markets over the last few years.

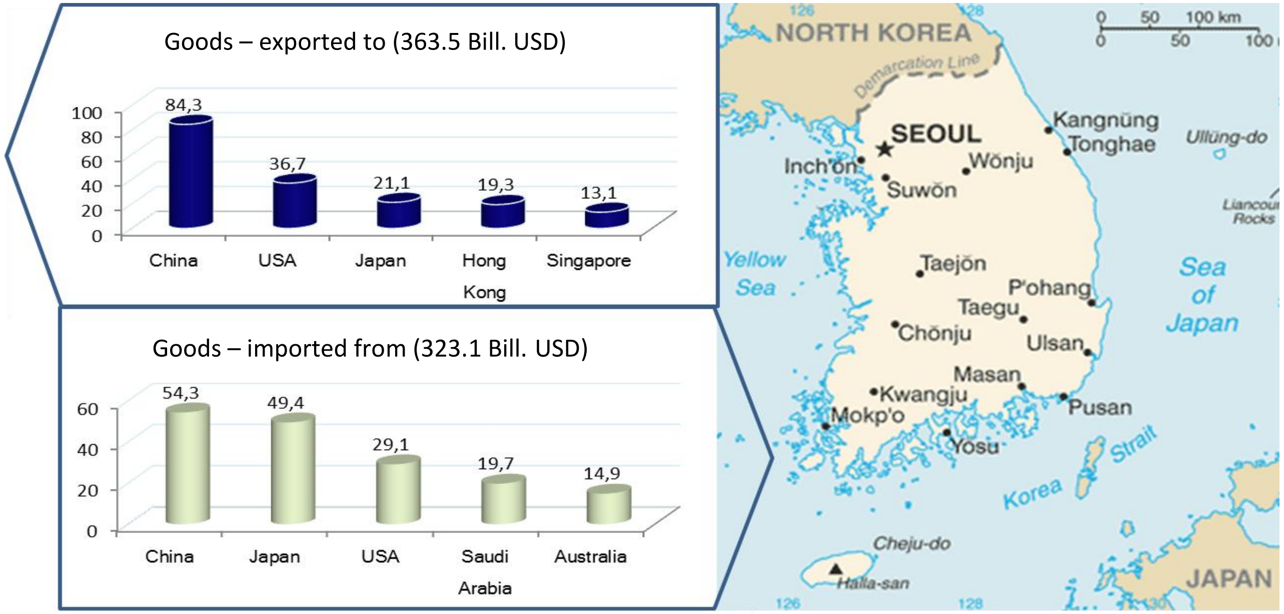


Figure 5: Korea's top trading partners, 2009[x]

One result of the mutual trade ties between South Korea and China is that both cooperation and competition between the two countries will increase: with China entering into more and more of the same industrial and export markets as Korea, the need for an agreement governing both countries' economic policies can only become more and more acute. There is already a design for a free-trade agreement which both sides are working towards and has been described in negotiations at the highest level, but it is likely to be a few years yet before these two former enemies actually sign; yet the economic potential of a successful pact between the two should not be underestimated elsewhere, and it would only become more potent if Japan and other east Asian countries were to be accepted into it.

Surprisingly enough, it took until 2002 for Hyundai/Kia to recognise the strategic potential of cooperating with its northerly neighbour. Yet the concern has made up for lost time, selling over one million Hyundai/Kia vehicles in China as early as 2010, and making daring advances to the Chinese capital, where it found the Beijing Auto Group more than willing to cooperate - and blessed with a state order of mammoth proportions emanating directly from the highest echelons of the Party. The Korean concern now has three plants in China spread across two joint ventures and a local production capacity of around one million vehicles per year; with more than nine percent combined market share in this important growth market (Hyundai had 5.8% and Kia 3.6% in 2011), the concern is third behind Volkswagen and General Motors.

The close cultural ties between Korea and China were undoubtedly of some help in creating this growth and smoothing over political differences. Although Korea has a fiercely independent culture and history, both the role of Confucianism and the similarity of the Korean and Chinese languages (with over 50% of Korean vocabulary coming from Chinese) shows that the two share common roots. Both cultures accord a high level of meaning to families and clans, and even the speedy switch from agricultural to knowledge economies has done little to break that. Even today, many Koreans are still capable of reciting their genealogy and the role their family has played in society over hundreds and hundreds of years.

Network of politicians and businessmen

A further boost for the Korean economy has been the importance of a small range of crucial family-run companies, a structure established by the Japanese during their brutal occupation of the peninsula: the chaebols. These clans are not only economic entities, but also have an important say in government and at an administrative level, with the relationship of dependency between chaebols and politicians being mutual and going deep. An example of this system is president Myung-bak Lee, in office since February 2008: before his election as president, he was not only the mayor of the South Korean capital, Seoul, but also the managing director of several Hyundai companies.

The Korean political elite has had to learn the hard way that this kind of "interaction" between politics and business can go too far, as the case of Hyundai CEO Chung showed: he was found guilty of having bribed government officials using a system of undeclared cash pools to secure construction permits[xi]. Nevertheless, given Hyundai's importance to the Korean economy, he was spared incarceration and allowed to make a donation to charity in lieu of serving his time.

3. The chaebol families: military precision and patriarchal management styles

"Family-run businesses have one very important advantage and one very important disadvantage: in both cases, it is the family itself. A peaceful family is the best thing a company can have behind it, and a family dispute is the worst."
Dr. Peter Zinkann (1928), Managing Director and Partner at Miele & Cie

- *The richest clan leads*
- *Power is inherited - and this can destroy families*
- *A thick mesh of mutual stakes*
- *"Self-regulation" is the watchword*
- *Years of hard apprenticeship*
- *Mobis - the wealthy spider in the web*

The richest clan leads

Telling enough, the Korean word chaebeol, which literally means "wealth clan", is often applied *toto pro pars* to the rich man at the head of the clan. At the core of a chaebol is a group of companies owned by a given family, and this group is usually a cross-sector industrial conglomerate. As with the Japanese equivalent, kairetsu, the chaebol is almost completely closed to the outside, with each part protected using a criss-cross of mutual stakes.

Yet despite comparisons to its Japanese roots and kairetsu companies such as Toyota, the chaebol has very different structures and is dominated by another company culture altogether. With ownership and management hardly separated at all in Korean chaebols, the influence of external management professionals in chaebols is very limited, quite in contrast to the Japanese model. The rule of the family, and especially the family patriarch, is far more direct than in a kairetsu, and there are very few layers of management. Power in the companies is highly centralised, the importance of the "line of succession" comparable with that of a royal house, and the rule of the family in all parts of the chaebol absolutist in character.

In stark contrast to the Japanese, Korean chaebols have very little to do with banks, drawing their capital from the stock markets; this gives an idea of how small the role of the banks is in the system. The chaebols' importance for Korea can be summed up by mentioning that the 20 biggest of them generate around 80 per cent of the South Korean gross national product.

The original idea of using family conglomerates supported by the state as a growth factor for Korean industry dates back to the Japanese occupation at the start of the twentieth century. Yet by the time the Japanese had withdrawn, Korean GNP was the same level as other, poor Asian and African countries and the country did not have any kind of manufacturing industry or international trade worth mentioning.

In the 1960s, order to encourage capital-intensive industrialisation, president Chung-hee Park - something of a paternal De Gaulle or Adenauer figure - offered a group of larger family firms a packages of privileges and credit agreements: the ensuing appetite for growth financed by borrowed money suddenly seemed to have become entirely insatiable. With money available cheaply and with little by way of financial resources required as collateral for it, there was almost no field of business in which these families were unwilling to invest; yet when growth suddenly stopped, these mixed conglomerates imploded like so many houses of cards. The first large-scale Asian financial crisis at the end of the 1990s revealed the extreme extent to which the country was dependent on exports and just how eye-wateringly indebted these family groups were following their expansionist rampages. In the two years between July 1997 and June 1999, eleven of the thirty biggest chaebols collapsed, led by the Daewoo Group, which became the largest bankruptcy in history. Korea's economy started to totter, and with trust in the currency disappearing, the government appealed to private households to sell their gold stocks to the national bank in order to pay debts abroad. The Koreans loyally followed this request in their droves.

Power is inherited - and this can destroy families

For Western observers, the durability of family power structures in Korean society as a whole, and especially within chaebols, can appear astonishing. Nevertheless, it has a solid basis in Confucian values, which revolve around respect for one's elders, loyalty to superiors, accepting one's own role, and the high importance attached to obedience and harmonious relations. This philosophical approach makes Koreans willing and able to suppress their own interests and make a decisive contribution to the success of their companies.

Inside the chaebols, the power of the family patriarch is expressed in thoroughly monarchical adoration and respect for the man who founded the company, a loyalty which is transferred to his bloodline. This is the reason why the Chung families can do practically as they wish with the Hyundai/Kia concern, or why the Lees do as they see fit with Samsung, despite only holding very small shares in the actual companies (the capital, as described above, comes from the stock market, not them); this multitude of minority stakes, almost impossible for outsiders to fully grasp is used to exercise power, and although there are, for instance, Hyundai Motor Corporation shares which are traded on the stock market, the patriarch Chung and members of his family have an unquestioned final say over everything in their empire. To Westerners trained in good corporate governance, this almost feudal set-up can seem to be nothing short of an attack on everything the West stands for. Yet this does nothing to change the fact that, despite these intransparent company structures and going against pretty much everything in the standard MBA programme about specialisation and shareholder value, a number of these families have built up very successful mixed conglomerates - including the Hyundai Motor chaebol under the Chung family.

In much the same way as the Lehman bankruptcy caused an earthquake on the global financial markets, the portentous decision of the Thai central bank to remove the country's currency, the Baht, from the fixed exchange rate mechanism, initiated a dramatic chain reaction. The Baht's value plummeted overnight and set off the pan-Asian financial crisis on 2nd July 1997, dragging the economies of much of south-east Asia, including Hong Kong and South Korea, down in flames with it.

The Hyundai chaebol did not make it through this crisis unscathed: as a consequence of a policy of rapid expansion, the company was heavily indebted, and although founder Ju-yung Chung was able to steer against the tide and report profits again as early as 1999, his death in March 2001 opened up a serious conflict between the rival heirs within the family over control of important chunks of the concern. With the economic situation still difficult, the banks wanted collateral and turned much of the debt burden into stakes in the company, which swallowed up a substantial portion of the Hyundai group. With the succession as yet undecided, the family leadership was weakened, and some of the Hyundai companies were shared out between different branches of the family. More than anyone else, the young Mong-hun Chung, who had been dedicated to his father beyond measure, had been considered a candidate with great potential to succeed the founder; he was promoted to group co-chairman while his father was still alive. The drama began when Mong-koo Chung, who would later make it to the top of the concern, tried to remove his brother from all his functions in a "putsch" that, with all its twists and turns, would have made a great film. Mong-koo Chung did not get his way the first time round, and needed several attempts to concentrate all the power in the concern on himself: the pinnacle of the feud was reached as the younger brother killed himself, due both to this situation and a host of other issues. In retrospect, the Asian crisis was a healing shock, and the chaebols that survived it are in ruder health than ever. The Hyundai Motor Corporation took over a part of Kia during the Asian crisis and is today, along with its subsidiaries – which include the supplier Mobis, the steelmaker Hyundai Steel, and the logistics company Glovis – one of South Korea's most important industrial entities.

A thick mesh of mutual stakes

Following Samsung and LG Group, the Hyundai Motor Company, led by Mong-koo Chung, is South Korea's third largest conglomerate; it is composed of more than 60 different companies, each with strong mutual ties both in supply and ownership.

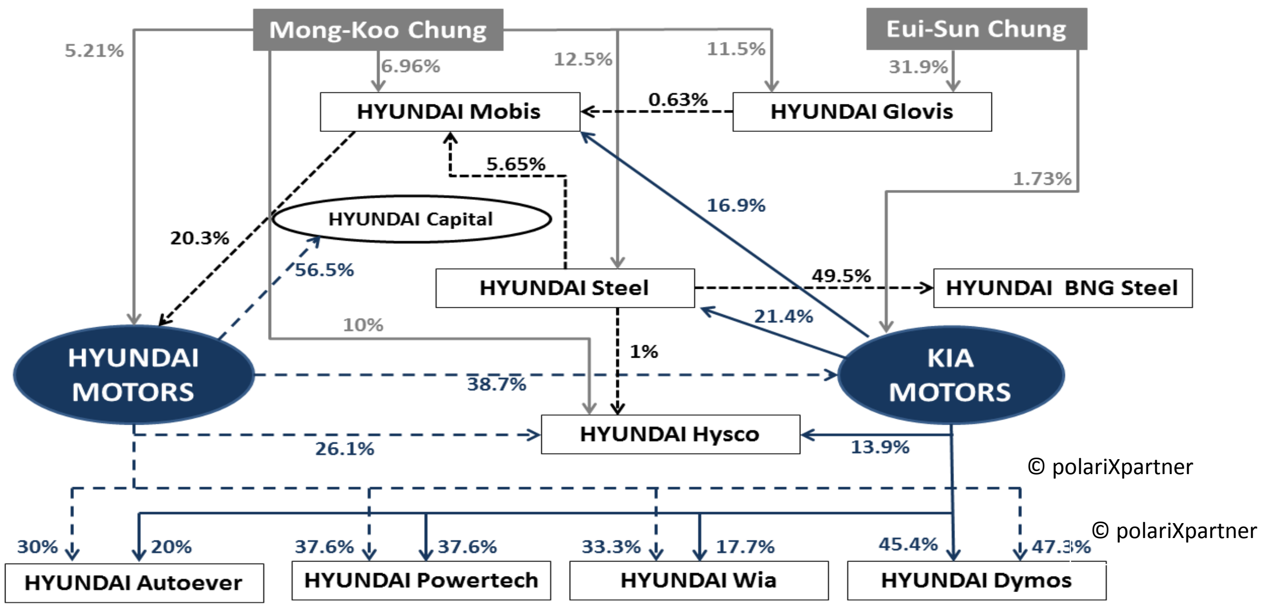


Figure 6: The Hyundai Motor Company network

"Self-regulation" is the watchword

Just as Henry Ford used to, the Chung family also swear on keeping as many steps of value creation within the company as possible, to the point where they actually run their own steel works to avoid being dependent on the local steelmakers, Posco. The entire Hyundai empire, however, with its network of mutual dependencies, would be the subject of an entire book, and is as such beyond the remit of this study; even an examination of the mesh around the core of the Hyundai Motor Company, which has a far higher profile, is enough to give an outsider headaches.

As the complex relationships in the diagram above show, the companies in the group can, using the mutual stakes they hold in one another, "keep an eye on each other" too. The board of each company is populated with a tight network of people the family can trust, and these board members can influence company decision making to the benefit of the family far beyond the measure in which the capital stake held would lead an outsider to think. The overriding principle is simple: wherever there is money to be earned, it should be earned within the chaebol, and any external partners who are involved must not be allowed to question the structure of power. While outsiders can of course purchase a stake in the company on the stock exchange, the structure of the companies means no shareholders from outside the chaebol are able to elect board members of actually have any kind of real influence on the group as a whole. It would be too much to suggest that Mong-koo Chung believes he is immortal, but he is of the opinion that there can be no doubt that power will remain within the family; his son Eui-sun Chung has already been made vice-chairman of Hyundai Motors.

Another indication for the importance of family to the elder Chung was the extremely expensive re-integration of an important arm of the chaebol, sold off during the Asian crisis: the Hyundai Engineering & Construction Company. This company was once the mother from which all other Hyundai companies sprang, founded by Mong-koo Chung's father in 1947 as the first Hyundai company. Although Chung has taken a big step towards recreating the fully diversified Hyundai empire of yesteryear, the average Western business studies graduate would find this acquisition completely impossible to explain.

Years of hard apprenticeship

In accordance with Korean family culture, Eui-sun Chung still regularly travels with his father to the airport to send him off on his journeys abroad while generally being seen to be full of Confucian deference and obedience. The extent to which the father Chung taxes his son became clear in 2010 when the subsidiary Kia reported reductions in profits and had to recall vehicles due to quality issues: the son was unceremoniously pulled out of his role as chairman of the Kia board, and this is a lesson he is sure to never forget.

The experience Chung the younger had of his father in 2001 must have similarly educational, if in a different way, as the pair founded a logistics company together by the name of Glovis. The company was intended to deliver car components and finished vehicles worldwide, receiving - to nobody's surprise - a large number of very important contracts from Hyundai / Kia. The company grew at a blistering pace, and the value grew to match; by selling some of his shares in Glovis, Eui-sun Chung became a rich man and this, in turn, allowed him to acquire shares in Kia, guaranteeing the family's power at the sister brand to Hyundai and giving him at the same time a personal say somewhere within his father's empire.

Chung the younger's training appears to have been long planned to lead to him taking on the company, keeping it in family hands for a third generation. His career has led him through each part of the car-making process, and he has already held management positions at the supplier Mobis, has been on the management boards of Kia and Hyundai, and was recently vice-chairman of the group's steelmaking company Hyundai Steel.

Mobis - the wealthy spider in the web

It seems to be a matter of principle at Hyundai/Kia never to allow an external supplier to take on a long-term position of power over the concern which could lead to it being dependent or needing to pass on any of its profit margins. While other car-makers share about half of their their manufacturing depth, and a corresponding proportion of their profits, with suppliers, within its empire, the Hyundai Motor Company is only happy to share its margins with one parts supplier: Mobis.

This could be because the Chung and his family hold important strategic stakes in Mobis (a portmanteau of "mobile" and "systems"), which in turn controls substantial shares in both Hyundai and Kia, and this circular construction has been extended in recent years, with Mobis becoming more and more important for the family. To the untrained eye, it looks as if the supplier is in control of the manufacturer, and competitors often talk about the tail wagging the dog. Yet any suspicion that Mobis the supplier is getting overly rich on the back of the OEM really cannot be substantiated, at least not at first glance, because both companies have comparable profit margins. Chung, as a patriarch, will most likely have made sure that there is nowhere in the company in which the omnipresent savings drive does not make itself felt, for any such islands could make the cars more expensive than they should be. As a key supplier for Hyundai/Kia, Mobis has roughly the same importance to Korea as Bosch does to the German car industry[xii]. The supplier manufactures several important modules (e.g. whole cockpits, chassis, or front ends) both to Kia and Hyundai in an almost vehicle-ready state. Mobis also delivers state-of-the-art applications such as active safety and assistance systems (systems to keep drivers in lane, parking aids) and has got itself a solid reputation for high quality and good functionality in this area. Protected by the influential family, Mobis also handles the worldwide after-sales operation for the parent company, which usually provides thoroughly impressive margins.

Whenever Hyundai/Kia's automotive production operation requires components from suppliers to be produced in country, Mobis goes with. This requires investment on a huge scale, and in order to spread these costs, Mobis has been trying to attract business from other OEMs over the past few years; this adds an interesting shading to Mobis' strategy inasmuch as the company is clearly aiming to offer the results of its huge expansion in development capacity to manufacturers outside of its parent company (to American customers above all), whom it is aiming to woo with a complete component development and production package. Just recently, multi-billion dollar deals were signed with both General Motors and Chrysler, and observers expect more business of this kind to follow. Nevertheless, it ought to be mentioned that GM is certainly more open for this kind of deal than many an OEM due to closer relations with Korea (GM has one of the remnants of the Daewoo chaebol in its portfolio), meaning that the American carmaker is not at all afraid of making deals with Koreans.

One result of these deals is to increase the worldwide volume of business going through – and thus the global dependence on – the Korean car parts supply industry. Mobis is gaining deep insights into the systems, costs, and strategies of important competitors, and by selling engineered parts, i.e. both its development and production capacity, it is putting traditional Western development centres such as Opel at Rüsselsheim under pressure; some would even say it is replacing them in the long-term. By developing and then producing parts for competitors, the Korean chaebol is both making good profits and influencing industrial policy in tomorrow's world: many observers would point out that it is almost unimaginable that Korean OEMs would buy in parts from abroad in anything like the same dimensions as they are selling them there.

4. Integrated production system: speed and low costs thanks to a lean, tight supply chain

- *In-house production as strategic decision*
- *American/European model*
- *Short product lifecycles mean cost advantages for Asian companies*
- *Golf-class vehicles coming it at €4,500 for car-buyers*

In-house production as strategic decision

The strategically high degree of in-house production and the total control of supplier companies characteristic of chaebols is something the Koreans learned from Japanese practices, from Toyota above all. Just like the Japanese, the Koreans have continuously increased the integration of their supply chains, setting up a thickly-woven web of mutual and cross-ownership as a protective shield from unwelcome outside influences: it is a mesh which takes on the strength of a wall and, compared with the Japanese blueprints, the Korean method is even more comprehensive, drawing in everything right through to the production of raw materials and logistics; it is also far more hierarchical.

Looking at Hyundai, the level of control from above is so strong that the carmaker can literally dictate the speed of delivery, the processes involved, and the prices right down the supply chain. It exercises absolute control and can therefore draw large parts of its vehicles (e.g. cockpits that are almost ready-to-drive) from suppliers owned by the chaebol family. As long as the vehicles are selling well across the world, the investors are happy to help finance this in-house manufacturing depth, allowing as it does lucrative secondary profits at other points in the value-creation chain and increasing the influence of the family empire. Yet as Toyota has learned in recent years, unexpected problems can wreak havoc with this kind of system, hitting the chaebol twice - both at manufacturer and at supplier level.

Looking at relationships between car-makers and suppliers generally, there are two dominant archetypes at work today. The first is the American/European "free market model" which pits suppliers against one another to provide better components and better value; in this model, the intense competition is on a project-by-project basis because OEMs are quite happy to switch suppliers with every new vehicle. The Asian model works very differently: in this system, the OEM is not willing to change suppliers on small technical points due to the costs involved, but rather works intensively with the existing supplier to eliminate problems, sometimes even sending a "suitable management team" to the supplier to "help". Overall, it is the relationship that counts more than the individual transactions. Depending on the competitive environment, both systems offer advantages and drawbacks in equal measure.

American/European model

In the American/European supplier system, intensive competition between suppliers is one of the central cost levers for OEMs. In the back of executives' minds is always the possibility of switching suppliers for the next vehicle project, and this possibility - also in the suppliers' minds - means that enormous efforts are made on each project as suppliers look to keep their customers or acquire new ones.

One the other hand, any supplier in this system has to bear all the fixed costs needed to be able to fight for each new piece of business, and must make adequate provision in case they do not attract an order they have tendered for. The costs which they incur across the board are substantial: the continuous innovation and well-developed sales department required to attract business, the cash reserves referred to above, inactive factories (even if down-periods are included in pricing). All of this money has to come from somewhere, and generally tends to come from the price the carmaker pays. In turn, in order to reduce their dependency on a given supplier and make sure that it does not become to comfortable, European and American OEMs often commission several suppliers simultaneously to produce the same components. This in turn reduces the volume produced per supplier and leads to lost economies of scale.

In this paradigm, Western carmakers often overemphasise the interchangeability of suppliers and underestimate the costs and quality risks involved with continually switching suppliers. The mantra of "cost-neutral interchangeability" and "clean interfaces" is repeated and repeated until an actual problem in real production at factories shows that this is not always the case. The paradox is then than this kind of risk often increases for single vehicle projects in an unplanned and short-term way just before production starts, and this can become problematic in periods during which large numbers of new products are being launched.

This system allows wide-reaching innovations to reach the market quickly, and this is shown in developments such as the speed with which the weight of European cars has sunk despite the continuous increase in the level of comfort they offer. Yet taken holistically, the costs all the way down the supply chain are probably higher, although these higher costs produce a system in which problematic suppliers can quickly be replaced - a feature which some of the ever more cumbersome Japanese kairetsus would consider enviable. In the interests of fairness, it is also worth looking not just at the business case, but also the overall economic advantage, which is the higher level of innovation required of suppliers. This leads to national leads and produces high-tech clusters, even if each individual transaction may well have higher costs.

Short product lifecycles mean cost advantages for Asian companies

The Asian models such as kairetsu and chaebol work in a completely different manner. The focus is on obtaining economies of scale and being able to manage the interfaces between carmakers and their suppliers in a long-term, dependable way: this means that manufacturers offer suppliers complete production volumes over a very long period, but at the same time increases its level of influence over the supplier to make sure that it does not become parasitic. In order to stop the supplier resting on its laurels, stakes are bought in it or trusted employees are sent from the manufacturer to occupy key positions, allowing the OEM reach right into the internal business practices of the supplier and amend things like cost structures to suit its own interests.

The power of the Asian model really makes itself felt when production needs to be sped up or increased. This quality assurance across a range of production processes which is provided by the stable supplier-manufacturer interfaces is something that the minimal costs savings made by switching supplier simply cannot compete with, and without it, offensives such as the broad range of tightly-timed product launches recently conducted by Hyundai/Kia would be unthinkable. In fact, the dramatic reduction in development time coupled with a simultaneous internationalisation of production cannot really be done any other way. The long-term, stable, controlling manufacturer-supplier relationship is a way of doing things that helped Toyota enormously during its international expansion, and Hyundai is now using it to achieve the same goal.

In the Asian model, manufacturers also have the advantage of being able to make very exact cost calculations for the components, keep overheads low, and include investments made by suppliers into their own long-term planning. The Korean OEMs have become especially skilled at combining this set of advantages and are now causing disquiet among traditional manufacturers in the same way that Japanese carmakers once did: in fact, even the Japanese are now taking Korean costs structures as their example.

The following calculation is intended to put a figure on the cost advantage the Koreans are working with. It assumes a Golf-class model produced in Germany (e.g. VW Golf, Ford Focus, Mercedes A-Class) is completely uprooted and - along with its supply chain - produced in Korea using the Korean model[4].

Golf-class vehicles coming it at €4,500 for car-buyers

This means factoring in estimate of all of the local cost advantages, and another assumption behind the calculation is that both the German and the Korean system should produce roughly the same end profit margin. Then again, the remarkably low costs the Koreans enjoy for sales (which comes from far lower demands placed on car dealerships, a far weaker service network, and lower margins for importers and salespeople) and in terms of development (Koreans invest roughly €580 per vehicle less than Germans in R&D) are also applied.

In order to make the comparison valid, transport costs for the vehicle from Korea to Europe are included, meaning that the remaining cost advantage is shown after the expensive transport of a finished vehicle. Yet the result remains striking: the car buyer on the forecourt pays around €4,500 for a Korean car; in the Golf vehicle class, this represents a saving of around one quarter of the price of a new car.

The most important factor in the savings shown are labour costs, which break down as follows: one-off costs (launch, development, assembly line, tools) are dependent on labour costs to the tune of 40%, while fixed overheads are made up to about 65% by wage costs. Around a third of process costs such as maintenance and repairs also have a 40% labour costs factor. At the same time, Korean wages[xiii] are around one third lower than comparable European salaries (and may be even lower compared to some German manufacturers), and this is where the largest chunk of the costs saved is to be found.

Savings on materials costs amounting to between ten and twelve percent are also inpart due to the lower labour costs in Korea, but are made more impressive by the lower overheads allowed to the suppliers in the Korean system. Overall fixed costs, in fact, are kept around ten percent lower in Korea than in Europe.

[4] The German "Autozeitung" car magazine also carried out a compact-car comparison in July 2012 in which Kia came first, Hyundai second, and the VW Golf fifth. This placement and the cost calculation tally without figures. [Source: AUTOZEITUNG (25/07/2012): Neuer Kia Cee´d gegen Golf & Co. URL: http://www.autozeitung.de/auto-vergleichstest/kompaktklasse-im-test-neuer-kia-ceed-gegen-vw-golf-und-co]

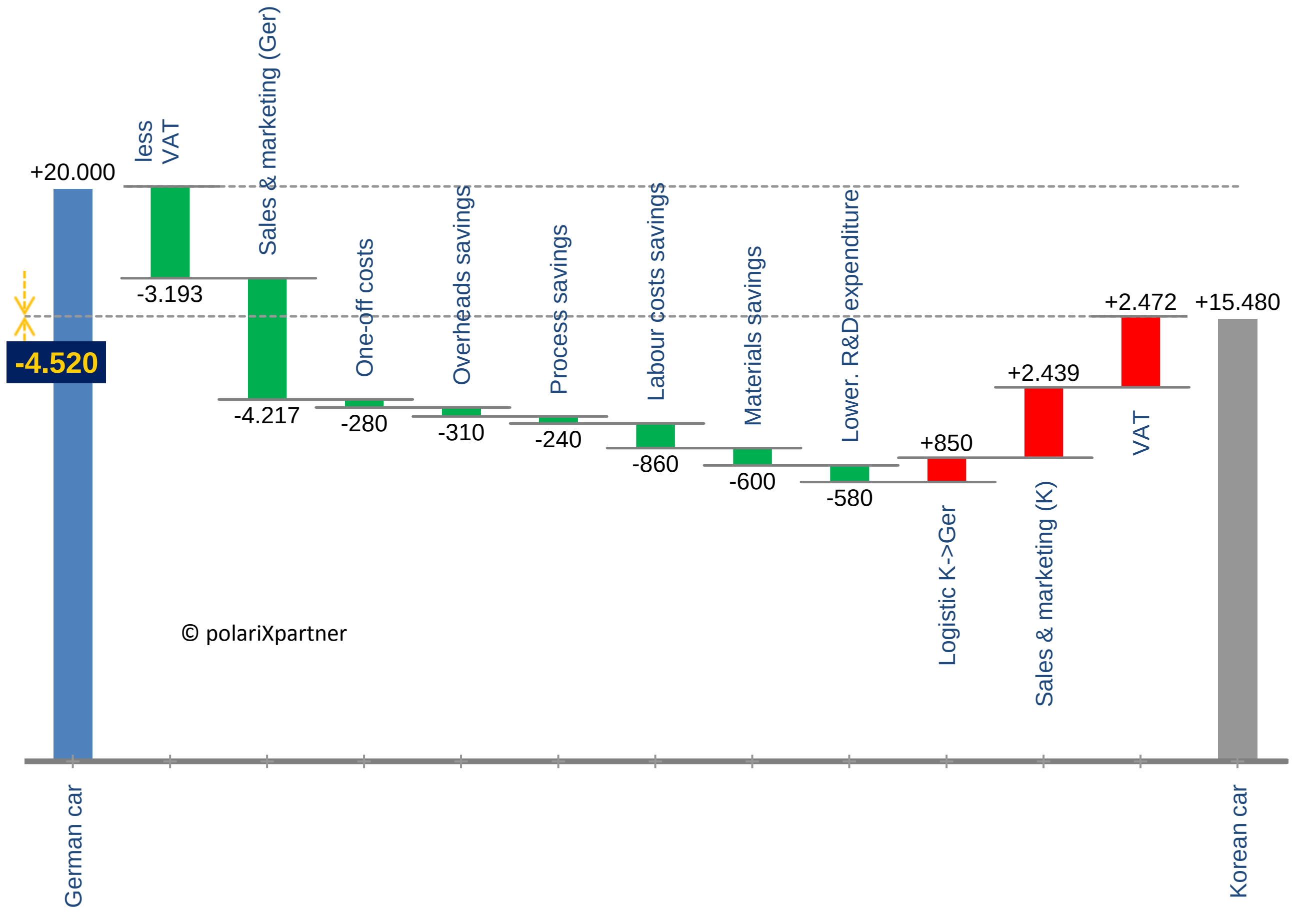


Figure 7: Breakdown of Hyundai's cost advantage

In summary, this means that the same vehicle from Korea can, even after logistics costs, be sold at €4,520 less than its German counterpart - at the same profit margin in terms of percent of sales price.

The following diagram shows how the savings break down:

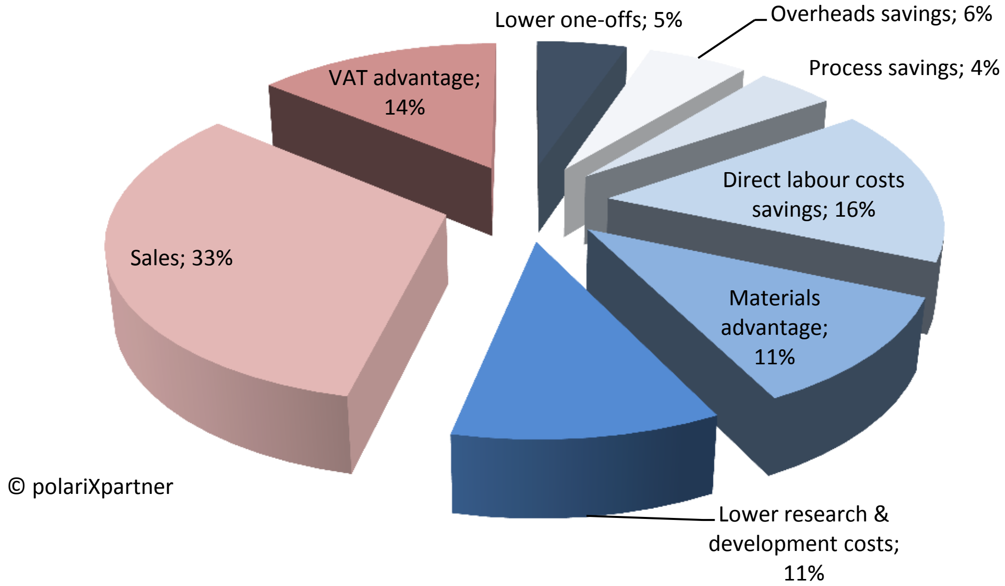


Figure 8: Hyundai's cost levers

The noticeable cost differential in sales can be explained by clear differences in sales policy that can be experienced at dealerships. This is one area where the Korean grip on costs makes itself felt: Hyundai and Kia do not go in for palatial sales sites, keep their dealers on a short leash, and strangle costs at otherwise expensive national sales organisations.

What is surprising is the extent to which less is spent on research and development after Hyundai/Kia had made very public announcements about increases in expenditure in this area (more on this later) - and this increase is already factored in. The principal area in which savings are made is, however, in labour costs, and these savings are spread across the each and every other cost area. It is the importance of this difference which explains where Daimler is outsourcing the new C class to Hungary and why increases in VW production are being made in the cheaper region of Eastern Europe. All OEMs are looking for similar costs savings, but Hyundai's situation is especially advantageous in that it does not have an expensive home-production base to subsidise with its labour costs savings.

Hyundai/Kia has kept this tried-and-tested recipe for low costs in each and every one of its new sites across the globe. New works are to be found in Czech Republic, Slovakia, and Turkey, as well as in America with an assembly plant in Alabama and current investment in Brazil on a huge scale: not just a plant, but an entire supply city is being built there, known locally as "Hyundailópolis".

The Korean manufacturer is now in second place on the promising Indian market behind its Japanese competitor there, Maruti-Suzuki, and it is getting closer and close to Volkswagen on the Chinese market quarter for quarter. In Russia, a new plant was opened at St. Petersburg in September 2011, but in expensive markets like Japan, which would require huge investments, the Koreans are happy to stand back. Hyundai stopped selling passenger vehicles in Japan back in 2009, and it is this calculated use of effort and power that allows the Korean concern to excel.

This enormous cost differential is what allows the Koreans to confidently plan further growth and to enter into the commercial vehicles market: after all, the overall business case for Korean cars is already made more or less by the savings on the price tag alone. The comparative advantages of Korean vehicles in terms of economic running have also been proven in a range of car magazines and are causing real trouble for European manufacturers on the value end of the scale from Italy and France. According to press releases, Volkswagen too can feel the Koreans hot on their heels, and yet Hyundai is not content just to use its structural costs advantage. As well as improvements to the brand (discussed later), the next logical step for the ambitious Korean concern is an attack on the profitable light commercial sector.

5. The aggressive gene: management by ambition and determination

"The world is populated by sharks and shark feed. We've always been sharks."
*Klaus Kleinfeld (*06/11/1957), former member of Siemens management board, quoted in Siemens-Welt Nr. 4-5/2006, page 4*

- *"More! Now! Hurry!"*
- *Sport marketing to reach key customer demographics*
- *The i20 cleans up*
- *I Like Hyundai*
- *Hyundai/Kia goes Premium*
- *Driven by boundless self-confidence*

"More! Now! Hurry!"

Hyundai CEO Mung-koo Chung is a classic patriarch who has no problem telling people what he thinks and is possessed of an iron will to leave behind a victorious empire. In terms of his power and status, he is very much comparable with Volkswagen's Winterkorn or Piëch, who have both had a very personal effect on the German group. In fact, Chung does not even have any of the balancing limits on his power such as Volkswagen's works council or, in the American system, the shareholders; and his hard-edged, top-down decision-making has clear advantages in speeding up the entire organisation and focussing all of it on clear goals, from the manufacturer up the chain to the suppliers. Yet at the same time, the concern is entirely dependent on him and his words. This strongman has already made it very clear what his wishes are: profits - at any price. If there is one thing he cannot stand, it is the idea of coming second in the long run, of ending up with the silver medal.

The race to catch up in China is one place where Hyundai's huge appetite for going on the offensive becomes visible. This hunger is characteristic of the company, and the US trade publication *Automotive News* recently titled the breakneck expansion in China simply as "More! Now! Hurry!" The fact that Chung does not have to waste time negotiating with external suppliers, but can simply force maximum performance out of his own family firm and use it to make dizzying investments is of course one of the concern's secret weapons: resistance from within is pretty much unthinkable.

Sport marketing to reach key customer demographics

The concern's *faible* for coming first becomes clear in its decision to concentrate on a broad campaign across the sports sector. Of course, the rational case for doing so is also convincing, with sports reaching a wide cross-section of the car-buying public; but the psychological angle should not be neglected.

Football especially has taken on a crucial significance for Hyundai/Kia after the Korean-Japanese-hosted soccer world cup of 2002; since this tournament and the growth in international brand recognition it brought for the concern, Hyundai has become a part of the football world, having become the main sponsor of FIFA worldwide and the European UEFA, as well as securing pride of place at every world and European cup since[xiv]. By sponsoring the European cup in Poland and the Ukraine in 2012, Hyundai/Kia brand recognition is bound to increase even further in Europe across the broad range of customers attracted by this kind of event. Booking space on the edge of the pitch has turned out to be not just a great way to push the Hyundai/Kia brand, but also works well as a springboard for a whole range of more developed campaigns around sporting events, allowing the concern to directly address Europe's economically squeezed middle.

The i20 cleans up

Regardless of the concern's clear enthusiasm for football and other kinds of athletic sports, in terms of carmakers and sports marketing, there is no way around motorsport. Even though Hyundai withdrew from rally racing in 2003 after years of mediocrity, there are rumours going around that Hyundai is looking to stage a comeback in motorsports, with plans mooted to return to rallying in 2013 with the i20: this vehicle would be in direct competition with the Volkswagen Polo, and as such is to be read as more than just a technical glove thrown at Wolfsburg's feet. Viewers can be sure that all of the warning lights in VWs pit-stop are blinking red.

I Like Hyundai

Further to this, Kia, Hyundai's smaller brother, has been particularly skilled at developing its profile in the next-generation media. There is hardly another brand which places the same emphasis on interactive dialogue and brand community activities and uses social media and its communication opportunities to place its brand as skilfully as Kia. The body of social media competence built up at Kia and its ability to communicate with the young seem to have spread through the whole concern with remarkable speed, and in 2012, Hyundai became the main sponsor of the MTV Music Awards while moving into the youth market with a whole range of marketing measures. The concern's Facebook page offers the chance to win concert tickets or entry to the awards, wants to find new bands, and is becoming very popular among its target group.

The Korean concern is already staking out its territory in the virtual world while other concerns are still looking at business cases or trying to find the right technological solution for the move into social media; Hyundai is experimenting and adapting fast, while other concerns such as General Motors are making big mistakes: GM recently made waves by cancelling an advertising deal with Facebook, rather than trying to renegotiate it, leaving the field to companies like Hyundai.

One of the key consequences of the high degree of in-house manufacturing at Hyundai is the possibility to noticeably increase vehicle quality while building the very latest technology into new models. In terms of electronics, the Hyundai product range has almost every state-of-the-art feature out there, and this shows how the concern's ambitions are in no way limited to football marketing and to offering good quality for the lowest possible price. Whether twin clutch transmission or vehicle telematics, the Korean concern is anxious not to be bringing up the rear in development terms; it wants to shake off the widespread reputation as a typical Korean "fast follower" whose strength lies in speedy adaptation and judiciously applying of economies of scale. This is a new feature of the last ten years, but Hyundai is now aiming to innovate more and enter into competition with other manufacturers across the globe in this field.

Hyundai/Kia goes Premium

As early as the late 1990s, Hyundai built a luxury model for its own executives and for the crème-de-la-crème of Korean society. The aim was to offer a full range of automotive products with the "made in Korea" stamp because the Korean elite wanted to buy Korean without having to do without Western-style premium class luxury. The new vehicle - the Equus - had a domestic logo and helped research and development efforts, is now already on its second generation, and is being produced under licence in (yes, you guessed it) China. The model has even made it to Europe, where it was seen cruising around the home of the premium car, Germany, during the 2006 world cup. It is certainly luxurious enough to succeed in its segment, and can even be ordered as an armoured executive limousine.

Focussing too strongly on the extremely luxurious vehicle, however, would mean ignoring the actual aim of the Korean carmaker: after presenting the Genesis as a demonstration of its technical prowess in the classic premium segment, Hyundai has declared open war on Lexus, BMW, Audi, and Mercedes. In the future, anyone looking for an iconic representation of the pinnacle of human technological development or just a status-symbol on wheels, will have the choice not just between Volkswagen's pride and joy, Audi and Toyota's "we can do it too" Lexus, but of models from Hyundai and Kia.

Just as the Korean concern has carried out a very close analysis of the Japanese cost-cutting competence, it has also studied the brand strategy and technical performance of German OEMs and now wants to show that it can do exactly the same itself. Although it is as yet unofficial, Hyundai has declared that its real opponent from now on is Mercedes, while Kia will be measuring itself against none other than BMW: this is not exactly a self-effacing statement, and shows that the Korean concern has worked out how Volkswagen was so successful in setting up its portfolio of brands. Just as Piëch once did it at Wolfsburg - encouraging the various brands to go their own way while assigning each one of them an opponent, introducing an overall platform architecture and purchasing structure across the entire group - Chung is now setting up his company to offer a full range of vehicles while keeping economies of scale.

Although the concern has yet to communicate clearly on this issue, Hyundai's new initiative is likely to keep running under the name Genesis, so it does not look as if the concern is planning to introduce whole new brands. At Kia, observers are expecting a whole range of vehicles in the style of the Kia GT, a concept car shown at the Chicago Auto Show and aimed squarely at the BMW 3 series.

In typical Chung style, this offensive is planned at lightning speed. While Japanese manufacturers spent 20 to 30 years perfecting their costs structures and continuously improving their quality rates until they were finally happy with their own product and had won over critical foreign customers before launching brands like Infiniti (Honda) and Lexus (Toyota) in the premium segment, Hyundai/Kia wants to go premium almost overnight.

Driven by boundless self-confidence

As difficult as it will doubtless be for the Korean concern to catch up so fast in the premium segment, the worst thing for makers of luxury models today to do would be to underestimate the speed and intelligence of the new competition. With Korean concerns like Samsung having struck fear into the likes of Nokia and even Apple, the country's companies are not short on self-confidence, and there is not a Power Point presentation given in the whole land that does not have at least one reference to "expansion", to "progress", or to "exploiting the full potential of the market." The not-so-quiet Korean confidence took the rest of the car industry by surprise in the dark days of 2008 and 2009, and it was actually during this crisis that Hyundai/Kia was able to book serious growth in market share in every key region. Currently, the concern is selling more vehicles in the USA than all of the German OEMs put together, despite being relatively new to this market. With success stories like this behind them, the Korean carmakers are filled with confidence and pride.

Even if the Korean concern is still a newcomer to the world of branding, it is learning at a rapid pace and implementing what it learns with lightning speed. It is not just the higher margin that German and Japanese premium manufacturers can demand that interests the *parvenu* Hyundai/Kia, but the prospect of securing its place in the top league of automotive manufacturers worldwide. What the concern seems to have understood is that this place will not be earned by ever-faster product launches and ever more agile adaptations to local tastes: if it really wants to take the big step forward, it will have to stake out its territory in terms of innovation.

Just as the Beetle and the Golf became symbols of their age, or the Prius hybrid a byword for new motor technology, Hyundai/Kia too understands that only a real technological statement will help it break through the last big barrier. This means that the concerns future is tied up with a clear focus on research and development.

6. Investments in R&D: beyond copying

- *The decade of design*
- *Focussing on what customers want locally*
- *The importance of what drivers **don't** need*
- *An explosion of new models*
- *Secret weapon: good design to market in the shortest time*
- *More money for innovation*
- *Convinced of a hydrogen future*

The decade of design

The most noticeable feature of Hyundai/Kia's rise to prominence was the striking design of their vehicles; about ten years back, Hyundai took the lead in presenting a series of cars that simply grabbed people's attention.

It was just after the Millennium when Hyundai/Kia, referring to staking out their "own position" and making the "difference" clear, announced what they called "the decade of design". Working with designers of international renown, both the Hyundai and the Kia brand managed to find a strikingly fresh, Western, thoroughly up-to-date form. The motivation behind this new start was the concern's recognition of the fact that in a world in which purchase costs within a vehicle class were becoming more and more unified, design was one of the last variables which carmakers could use to impress potential customers. With this in mind, the concern has kept to its mercilessly lean cost structure and its unforgiving quality standards, but has been investing increasingly in modern vehicle design which is nevertheless adapted to each of its sales regions.

Focussing on what customers want locally

The concern is not alone in talking about "designs adapted to local regions", but each car company has very different ways of actually implementing this agenda item. Hyundai/Kia's approach was to begin with hiring proven European and American designers to create an overall design framework within which all of the vehicles would be visibly related. What was less spectacular than the work with big-name Western designers, however, but at least as effective (if not more so), was to commission completely inexperienced product teams around the world to carry out highly detailed analyses of local customer preferences. While this may sound like standard practice for all automotive manufacturers, the actual difference in the way the team worked could not be greater.

*The importance of what drivers **don't** need*

Instead of using experienced "experts" to help formulate specifications, a process which would have inevitably ended up with a series of perfect cars with everything that automotive experts consider to be "absolute necessities", the "inexpert" teams deployed by Hyundai/Kia approached the task from a completely fresh perspective and ended up delivering somewhat unorthodox sets of vehicle requirements. A key difference was concentrating at an early stage not on what the new cars should be able to do, but what they did *not* need to be able to do and which versions did *not* need to be built. By focussing on which functions might be left out, designers are naturally forced to examine which functions are more important for customers.[5]

At the time, the Korean concern, similarly to Volkswagen, stays flexible with regard to vehicle features in order to be able to add improvements right up to the production stage if it seems opportune to do so. A lot of the Hyundai/Kia approach in recent years is also doubtlessly copied from Toyota, another manufacturer who had learned to focus on what local customers want by observing the market closely. What the Korean concern added to this approach was not just to observe from afar, but actually go to Russia, France, America or Britain and find out what was really important to customers there - and what was not important enough to them to pay for. By concentrating on the lowest common denominator, the number of models would be kept down and volumes high. That was the job assigned to the observers.

This process revealed what was really important and what was dispensable, and several expensive "essentials" were left out: in Russia, as it turned out, start-stop systems were useless; anything over two litres was not popular with a majority of customers. This allowed the number of models to be reduced across the board, and had other odd effects: there is only one door to the back, instead of two, and that saves a lot of money. Many of the concern's vehicles cannot even be ordered with a trailer coupling hitch.

An explosion of models

In fact, the only thing Hyundai/Kia was not willing to compromise on was quality and design. As in the "Winterkorn test" quoted at the beginning of the articles, the aim was to have customers shaking their head in disbelief at how well the cars were put together. The new

[5] In order to answer the question "what do customers find more important/what would they pay more for?", polariXpartner has developed a comprehensive set of methods in which the various options are put through a systematic analysis. Find out more from those experts at www.polariXparter.com.

identity of the young brand as a quality manufacturer would be visible and tangible at every point of contact with the vehicle. At the same time, the broad spectrum of models offered by the concern makes for hard work: from miniscule city cars to premium off-roaders, the concern wanted each vehicle to have the same recognisable signature; and with this comes the risk of appearing either too cheap or too expensive across the whole vehicle range. Nevertheless, Hyundai/Kia seems to have pulled off the balancing act, with quality stamped all over the brands' models.

Confident on the back of this success, the Hyundai concern has thrown itself into the next challenge: by 2015, the Hyundai brand alone is slated to include 16 models, but the number of vehicle platforms will not be increased. For employees in the product development offices, this is tall order, because Hyundai still wants to be best-of-breed in every respect. From stylish coupés to BMW-Mini contenders, the idea is to literally blow apart the market with an explosion of new vehicles that show what the concern is capable of.

Hyundai/Kia has shown real persistence in bringing design on all its vehicles up to speed; from the grille to the lights on the trunk, the clear lines on these cars can take on the very best the traditional carmakers have to offer, and the attention-grabbing silhouettes of the catch-up Korean carmakers are even gaining respect on that the catwalk of automotive design: the German *autobahn*. In coordination with the Hyundai brand, in this product offensive, Kia is aiming at the young professionals demographic, which is very much where BMW is at home, and will soon be lighting its dashboard displays in a testosterone-shaded red. It is setting a signal, as is Hyundai, whose blue-lit interiors are calculated to associate the brand with high-quality, premium, serious manufacturers such as Audi and Mercedes – and, of course, to start attracting their car-buyers. In the future, individual vehicle classes will probably be turned into more subtly differentiated product families with their own characteristic design elements to help customers orientate themselves better in the broad spread of models. Even if the current "i-digit-bracket" around the car names is kept, there is plenty of room to keep developing the brands' portfolio.

Secret weapon: good design to market in the shortest time

Ambitious goals, good design, and the speed with which the concern can put new technologies on the market are the weapons with which Hyundai/Kia are starting to pose a serious threat to other manufacturers. The cost structure, which, as shown above, is an important part of the concern's success, can nevertheless be imitated to a large extent by other manufacturers - and many of them are currently globalising their production base as a matter of top priority.

The unrelenting speed with which the Korean concern develops, tests, and produces high-quality models, however, is the area in which it can shoot ahead of all its competitors. Just as Volkswagen is currently aiming to dominate the automotive industry by producing a wide range of new vehicles on as few platforms as possible, Hyundai too can follow a similar strategy. The decisive difference between the two, however, may well be not just Hyundai/Kia's lower costs, but the systematically higher speed at which it can deliver.

It would of course be foolish to write off other competitors in the race to the top of the automotive world, such as Toyota. Yet with the recalls disaster in mind, Toyota has been forced to slow down the speed of its product cycles in recent years and has become very cautious with new models. All of the other OEMs, too, seem to have more urgent matters to attend to than planning a strike back against Hyundai/Kia. Meanwhile, in Korea, the feeling is that there is not a moment to lose and the concern wants to make the best of the current situation.

More money for innovation

This product offensive has taken many by surprise, awakening curiosity across the board. In recent years, Hyundai/Kia were known for being very economical with their research and development budgets, spending around €580 per vehicle less than there German competitors on innovation. In the long term, that is clearly too little, and although the R&D budget has been increased in recent years, it will certainly need to go up even more.

In order to keep the explosion of new models going, significant increases in R&D investment were made in 2012, and yet the Korean concern is still spending nowhere near what its German and Japanese competitors are on new technology. The following diagram shows the R&D expenditure made by the most important international OEMs relative to their turnover.

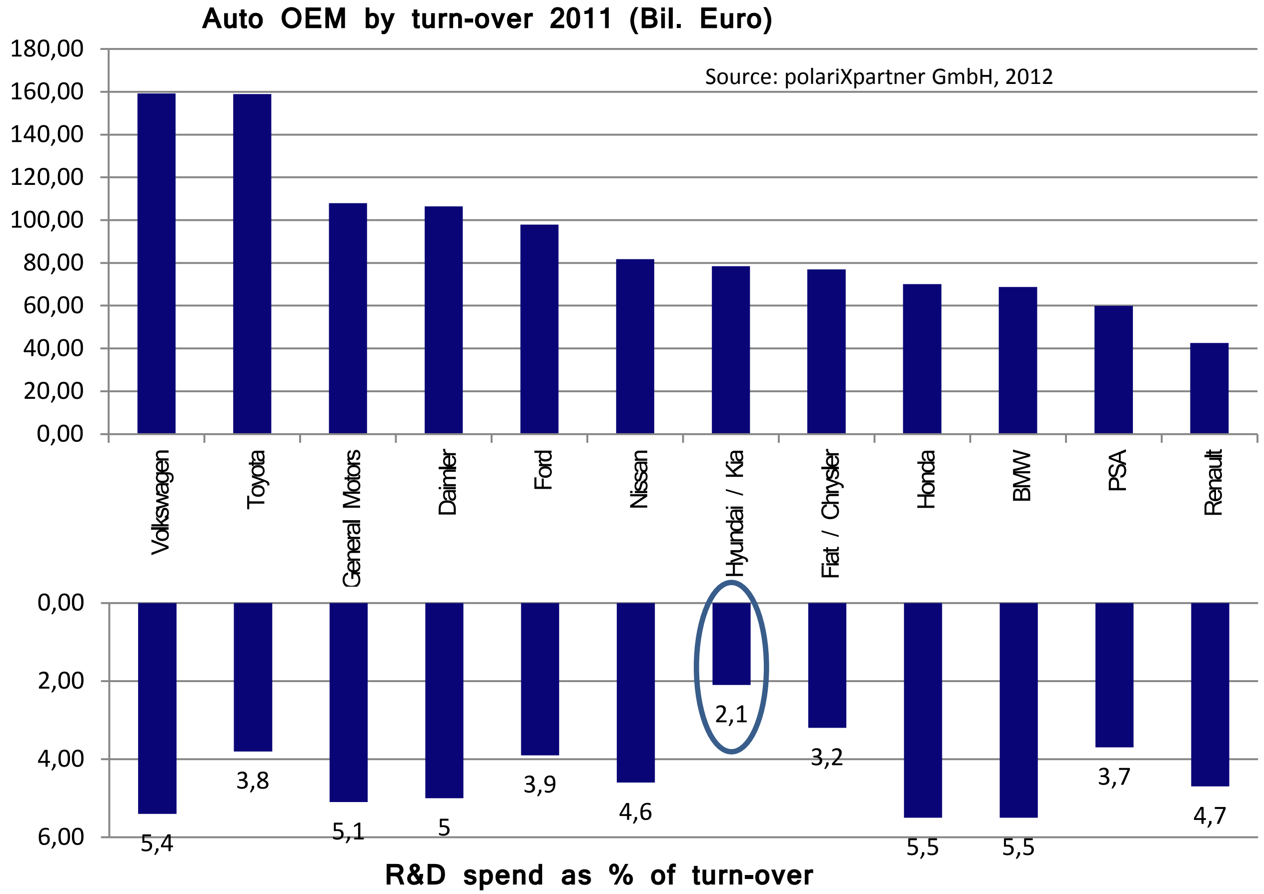


Figure 9: Expenditure on research and development measured against turnover

Expenditure for research and development is set to rise by eleven per cent in 2012 to 3.4 billion Euros.[xv] While that is, compared to Volkswagen, Daimler, or Toyota, a relatively small amount, Hyundai/Kia can get about a third as many working hours for this money as its German and Japanese competitors – and that is not counting the Korean habit of working unpaid overtime. Whether this money is enough to actually produce new vehicles rather than just more of the same is discussed below, but whatever the case, it shows that the concern wants to get itself a profile in terms of an innovative field which, to date, no one would have associated with the Korean newcomers – viz. alternative engines.

Convinced of a hydrogen future

Despite the Korean concern's obsession with keeping not only its results, but its entire research and development facilities, under wraps, there is no way of preventing a rough picture of how Hyundai/Kia view the future of automotive power seeping through to the public sphere. The Korean media, research partners, even job advertisements and the concern's own press releases allow for some level of knowledge, as do rumours, the latest of which is that the two brands have divided the work between them: Kia is said to be researching into pure-breed electro-mobility, above all smaller, battery-powered city models, while Hyundai goes another way altogether in combining electric plug-ins and fuel-cells.

Interestingly, Hyundai does indeed seem to be focussing its energies on an intelligent combination of chargeable electric plug-in technology with a fuel cell. The idea is that the vehicle would be charged on the electricity grid for journeys in the local area, receiving a hydrogen cell for longer trips across country. In the fuel cell, hydrogen would be converted into electricity and water, and the network of hydrogen stations would not need to be as thickly woven as in a fully-electric scenario. At the Namyang research laboratory around 30 miles south of Seoul, around 250 engineers are looking into this field and, just like Daimler and Volkswagen, seem to be making fast progress.

The idea of combining a small battery and a fuel cell seems to be working for Hyundai better than it is for the competition, and the whole industry is already looking forward to seeing the first results from tests in the field.

Too good to be true? The risks of ruthless expansion

- *Innovation, the Achilles' heel*
- *The missing middle*
- *Japan: down, but not out*
- *China: the dragon stretches its wings*
- *Powerful leadership will decide the day*

Innovation, the Achilles' heel

The Hyundai concern can speed up its implementation processes as much as it likes, it can build itself a "Global Command and Control Center" in Seoul and use it to process and analyse even the smallest news item from anywhere in the world: but real innovation is something that comes from hard, grass-roots research that often leads into dead ends. The market-orientated R&D labs of Korea as they are today will not produce game-changers.

Research with real potential costs a lot of money and requires patience and persistence, and as it is, this Asian tiger economy has produced very little of it. The mix of sheer curiosity and iron discipline that drives real researchers can simply not be forced with hyper-aggressive impatience à la chaebol: there needs to be a wider eco-system of schools and universities that have been organised to foster a good research climate, and this can take decades. In society, knowledge needs to be valued for its own sake and not as a ticket to a career, and for all the successes of its educational system, Korea has a lot of catching up to do in this matter.

To date, obedience and diligence have been the qualities rewarded in the Korean academic system, and there is little more to be achieved by increasing the pressure on pupils to succeed. Even as it is today, South Korea has one of the world's highest suicide rates - and terrifyingly enough, pupils and students are important contributors to this sorry statistic. Discovering new technologies and developing new disciplines is something that requires a huge amount of distinctly "un-Confucian" creativity and a strong will, as well as permission to do something unusual rather than just adapting to society as it is. At the moment, Korean society is relying on the government to tackle this problem with billions in subsidies for research centres and lots of expensive foreign academics. The full scale of the dilemma becomes apparent when taking a closer look at the figures behind Korea's manufacturing success: even in electronics, in which South Korea is a worldwide leading exporter, a large number of components still need to be imported. Coming generations of young Koreans will not be able to avoid the question of where the innovations of tomorrow are going to come from - and it is no easy question to answer.

The missing middle

Another point of criticism is the overall structure of the South Korean economy, which suffers from a gaping lack of small-to-medium-sized enterprises. As discussed above, Korean does not have a flexible mesh of smaller businesses: by way of example, outside of the Hyundai chaebol there is not one automotive supplier of any real importance in country. SME in Korea has always had a tough time establishing itself because, as soon as a small company alights upon a niche, the chaebols are always the first to force their way in to it. While the chaebol system was once been a targeted growth policy that gave Korea its own industrial base, it is today little more than the decadent hegemony of a coterie of established concerns who make liberal use of their networks of political lackeys to keep tight tabs on their suppliers and suck in new ideas from the SME sector.

A wave of new, young businesses of the kind needed for the "next industrial revolution" entails by its very nature a measure of creative destruction, and this in turn needs a certain level of freedom to actually create new ideas, models, and products. For all the success Korea has had in making itself the global centre of mobile telephone and flat-screen television manufacturing, there is a real danger that the chaebols will, with their unquenchable thirst for absolute power, strangle any real innovation at ground level.

Japan: down, but not out

If you read the Asian press, you will note a high degree of resentment directed at Chung and the Hyundai concern, especially in Japan. The fear is that Hyundai will do to Japanese carmakers what Samsung has done to Sharp, Sony, and Toshiba: in the consumer electronics industry, product prices - and, as such, profits - have been in freefall for years now, and in a race to the bottom reminiscent of Grimm's hare and hedgehog, the former icons of modern technology are forced to cut their prices regularly just to make sure they do not completely disappear from the marketplace. For the Japanese, the car industry is now at the start of this cycle, and the fight to avoid it has only just begun. The stakes are high: this is a struggle which the Japanese, in view of their own national economic interests, can simply not afford to lose.

The first blows have already been struck: Toyota is "going back to basics" and preparing a slew of low-price compacts for the worldwide market; Japan is closing the barriers on Korean products on its domestic market; and in China, Japan and Korea are in direct competition to gain preferential access to this gigantic market. All of this is little more than first sparring round, however, and the increasingly savage struggle should serve as a warning to Western industry, especially as China is unlikely to be content with its current role and is quietly preparing to enter the ring.

China: the dragon stretches its wings

China. The big brother in the North and an important trading partner, China is a market and a competitor in one. The Middle Kingdom has long been preparing to take on the role of the world's workshop for low-price automobiles, and the pressure recently applied to foreign joint-venture partners to make them invest in new Chinese brands[xvi] shows the bare-faced bravado with which the country's government throws its weight around as a sales market. The cost-differentials between Korea and Germany discussed above can easily be undercut by China – especially in its western provinces – to a tangible extent.

In view of this, the paranoid haste which characterises Chung's management style is by no means unfounded. As Lewis Caroll's Queen says: "It takes all the running you can do, to stay in the same place. Moreover, compared to Korea, China's power as a trading nation is far greater and its strategic access to raw materials, energy, and regional markets is far better organised. Embracing the opponent is a classic Chinese move, and Hyundai has seen itself forced to invest heavily in China: the Korean tiger may well find itself in the precarious situation of flying with the dragon, clinging onto it for dear life.

Powerful leadership will decide the day

There is no other company of comparable size in the car industry which is so defined by its management – and which is so dependent on good management to survive – as Hyundai. Even other competitors with very similar patriarchal structures such as Suzuki pale in comparison to the concentration of every aspect of Hyundai on one single person. There is no other company in which one person manages the manufacturer, the suppliers, and a broader conglomerate of networked companies – and no other in which so many different interests have to be brought together on a very public stage, as the Chung family, South Korea's political parties, and the very future of the country wrestle for pre-eminence in the list of priorities.

In this model, the potential for the right man at the top is unlimited, and at Volkswagen, for example, a very small team of very gifted executives made *the* difference to the groups's fortunes - at General Motors, too, even if here "the" difference meant filing for bankruptcy first and setting in motion the biggest insolvency in business history.

The pressure on the next generation of managers is definitely high (perhaps even higher than it was for the grandson of the founder of Toyota as he took the reins at the troubled OEM), yet at the moment, Hyundai/Kia is at the height of its powers and more than ready to take on the next set of challenges.

For the rest of the automotive industry, it is high time to take a very close look at this silent opponent and learn its own lessons from this Korean success story. Our study is aimed to help readers take the first step in doing just that, but does not purport to be in any way definitive. We look forward to a lively discussion about its contents.

Engelbert Wimmer, Vladislava Benova, August 2012

About polariXpartner

polariXpartner consulting is focussed on the manufacturing industry. Our clients are international companies working in mechanical engineering and construction, aerospace, renewables, medical technology, automotive, and consumer electronics. With our common background in a major international consultancy, we can count on a first-class network in our core industries; you can find us in Germany, based in the towns of Saarburg, Neu-Ulm, Hamelin, and Darmstadt.

Technology AND Management

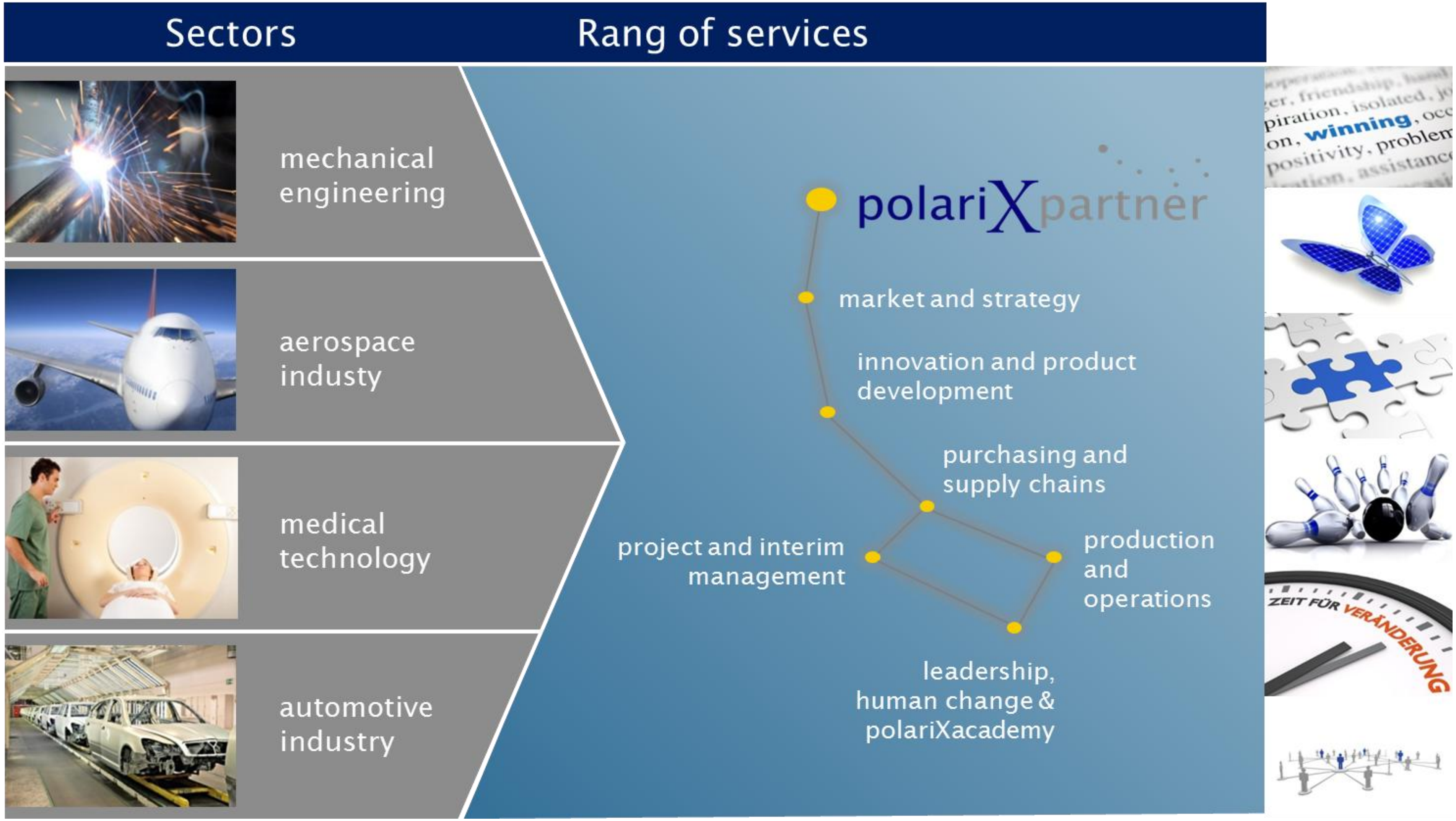
Our clients need agile thinkers who combine a high level of technical understanding with experience of international management in the manufacturing industry, which is reflected in our company concept. You'll find polariXpartner all over the world dealing with product development, unit production and sales - always present and always at the cutting edge.

Concept AND implementation

We support our clients both in producing innovative, analytical concepts and in actually implementing these ideas. While doing so, we make sure to balance analytical inspiration with emotional intuition, and our place on the outside as independent consultants allows us to act completely freely and to commit 100% to your business goals.

Long-term partnership

Mutually beneficial arrangements are based on trust and the ability to count on each other. We believe in agreements sealed with a friendly handshake and enjoy keeping up with our global network of clients and partners. Each project is also a part of a long-term relationship in which we will discuss ideas with, coach, and often become friends with our clients. We also believe in the importance of making connections across sectors to foster a real exchange of ideas.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[vii] Figure 3: Hyundai and KIA consolidated sales, plus sales data for Hyundai and KIA converted into EUR, sales data HYUNDAI: financial statements (25/07/2012). Annual Report. URL: http://worldwide.hyundai.com/WW/Corporate/InvestorRelations/FinancialInformation/FinancialStatements/index.html
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EUR conversion undertaken on date of accounts (31/12/2012); Hyundai and KIA profit consolidated, plus profit data (net income/profit for the year) converted into EUR; net income data HYUNDAI: financial statements (25/07/2012). Annual report. URL: http://worldwide.hyundai.com/WW/Corporate/InvestorRelations/FinancialInformation/FinancialStatements/index.html EUR conversion undertaken on date of accounts (31/12/2012); net income 2011: estimate of K-GAAP data based on IFRS data by direct correlation; net income data KIA: financial statements (25/07/2012). Annual Report. URL: http://www.kmcir.com/eng/library/annual.asp; EUR conversion undertaken on date of accounts (31/12/2012)
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[xii] List of worldwide largest automotive suppliers 2011 (2010) by turnover:

The ten largest automotive suppliers by turnover 2011 (2010)		Turnover 2011/2010 (m. Dollar)	Country
1.	**(1.) BOSCH**	39,753* / 34,565*	Germany
2.	**(2.) Denso**	34,153 */ 32,850*	Japan
3.	**(3.) Continental**	30,521* / 24,819*	Germany
4.	**(5.) Magna International**	28,300 / 23,600	Austria/Canada
5.	**(4.) Aisin Seiki**	27,196* / 24,613*	Japan
6.	**(6.) Faurecia**	22,500 / 18,220	France
7.	**(7.) Johnson Controls**	21,280 / 16,600	USA
8.	**(9.) Hyundai Mobis**	18,864 / 14,433	South Korea
9.	**(8.) ZF Friedrichsshafen**	17,860 / 15,176	Germany
10.	**(18.) ThyssenKrupp**	16,370* / 9,540*	Germany

*estimates
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Average wages before tax: Germany: 3,591 EUR (car industry: 4,683 EUR), Korea: 1,913 EUR (car industry: 2,620 EUR)
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