BRYAN, GARNIER & CO

INDEPENDENT RESEARCH

Car Part Manufacturers

Innovation: the only way to stand out!

14th September 2016

Car Part Manufacturers

FAURECIA		BUY	FV EUR47
Bloomberg	EO FP	Reuters	EPED.PA
Price	EUR36.29	High/Low	37.295/26.38
Market cap.	EUR5,004m	Enterprise Val	EUR5,808m
PE (2016e)	9.8x	EV/EBIT (2016e)	6.2x

Coverage initiation

HELLA		BUY	FV EUR45
Bloomberg	HLE GR	Reuters	HLE.DE
Price	EUR36.67	High/Low	39.3/27.73
Market Cap.	EUR4,074m	Enterprise Val	EUR4,099m
PE (2016e)	11.5x	EV/EBIT (2016e)	9.2x

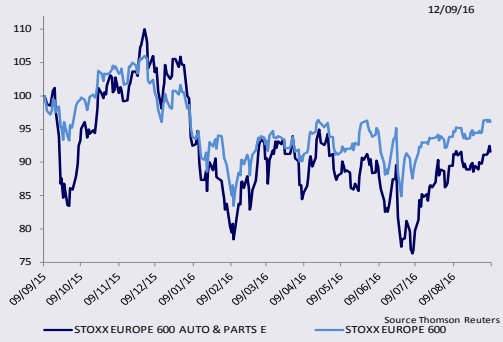
Coverage initiation

PLASTIC OMNIUM		BUY	FV EUR36
Bloomberg	POM FP	Reuters	PLOF.PA
Price	EUR28.605	High/Low	31.185/20.1
Market Cap.	EUR4,362m	Enterprise Val	EUR4,840m
PE (2016e)	13.5x	EV/EBIT (2016e)	9.1x

Coverage initiation

VALEO		NEUTRAL	FV EUR49
Bloomberg	FR FP	Reuters	VLOF.PA
Price	EUR49.74	High/Low	49.74/34.8663
Market Cap.	EUR11,857m	Enterprise Val	EUR13,962m
PE (2016e)	13.7x	EV/EBIT (2016e)	11.4x

Coverage initiation



We are initiating coverage of the automotive sector with car components manufacturers Faurecia, Hella, Plastic Omnium and Valeo, four players present on high growth potential markets. Previously considered to be ageing and with low value added, the sector is currently entering a structurally transforming cycle for historical players in favour of more innovative and more technological groups and in favour of their "pricing power" and their margins.

- **Heading for a slowdown in the cycle…** Although the automotive sector is entering a period of slowdown after delivering a CAGR in volumes of **3%** over 2007-15, we estimate that the market should continue to grow over the next three years, albeit at a slower pace *(+1.9%)*. This growth should primarily be driven by the **expansion of middle classes in emerging markets**, whereas mature markets are set to suffer gradually from the cultural change in mind-set relative to car travel (*ride sharing, car-sharing*), after enjoying a catch-up phase since the crisis.

- **…but more contents and more technology …** After entertainment, information and services, the auto industry is now set to suffer from **the digital era**, which is altering the way cars are used and the sector business model. Carmakers now have no other choice but to invest alongside components suppliers in connected and autonomous vehicles implying **more contents and more technology** per vehicle than previously (*more cameras, sensors, radars and driver assistance systems)*. The development of **lower carbon or carbon-free vehicles** should also play in favour of car parts suppliers offering **weight-reduction solutions** and/or lower **CO_2/ particle emissions**.

- **…In favour of parts manufacturers:** As such, we believe certain components makers should benefit from the **higher value of contents per vehicle** enabling them to outstrip market growth and widen margins. With prospective sales CAGR of **7.4%** and margin improvement of **30bp** over 2016-2018, **Faurecia, Hella, Plastic Omnium** and **Valeo** fit perfectly into this category. In this report we initiate coverage of **Faurecia** (*FV of EUR47*), **Plastic Omnium** (*FV of EUR36*) and **Hella** (*FV of EUR45*) with **Buy** recommendations and **Valeo** (*FV of EUR49*) with **Neutral** recommendation*)*.

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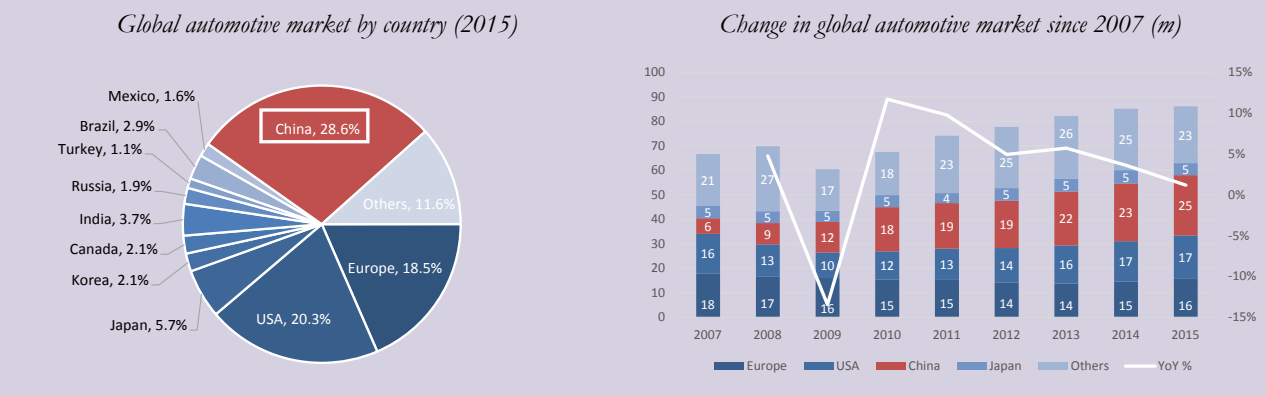
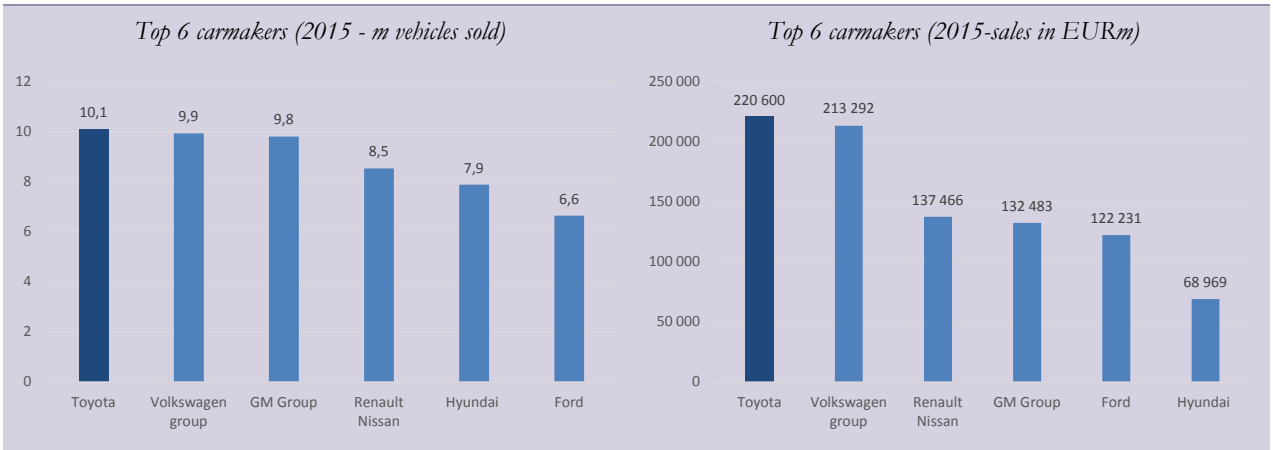
1. The automotive market in six charts

Fig. 1: A market growing since 2009, primarily driven by China



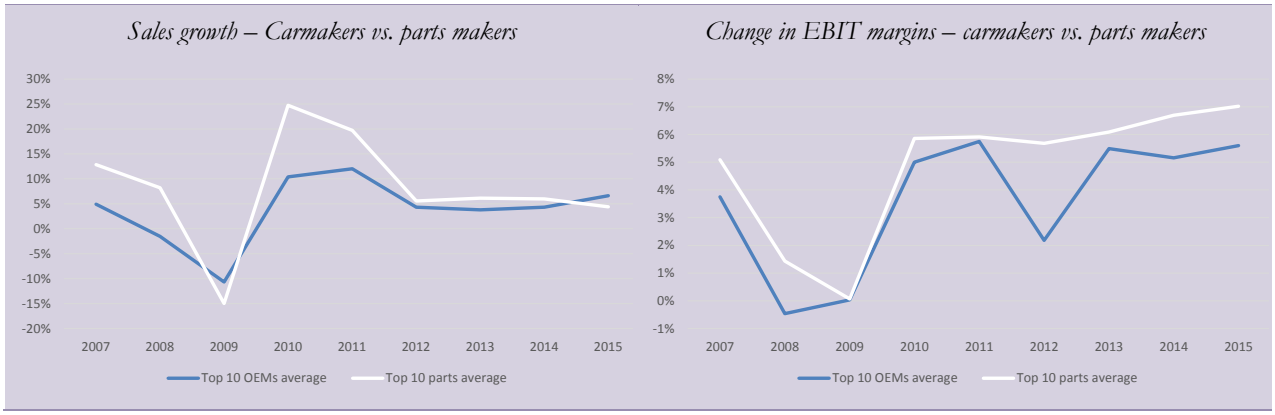
Source: Renault; Bryan, Garnier & Co ests.

Fig. 2: Top 6 carmakers, in terms of vehicles sold an sales



Source: Statistica 2016; Bryan, Garnier & Co ests.

Fig. 3: Value creation at a standstill for parts makers



Source: Reuters; Bryan, Garnier & Co ests.

2. An equation with three unknowns

Like many other B2C industries, it is important to bear in mind that sales at the various players belonging to the automotive industry, and therefore logically EPS (*beyond EPS growth drivers specific to the company's structure*) are dependent on **three unknown factors**: **volumes of vehicles, parts and equipment sold,** the **average price at which the vehicles, parts and equipment is sold** and **changes in the model mix.**

As such, depending on a group's geographical positioning, price positioning and product strategy, sales growth at each player (*carmakers, parts makers and tyre makers*) can be higher or lower than for rivals and the sector average, and determines whether the group in question has won or lost market share in a market that we expect to grow in coming years.

In this report initiating coverage of the automotive sector and more specifically of automotive components manufacturers **Faurecia, Hella, Plastic Omnium** and **Valeo**, we study these three unknowns in detail in order to better assess sector trends, but also to position the various sector players relative to these growth themes.

Given the **roll-out of connected objects in the automotive sector** and the significant innovations at the root of development in **connected vehicles, autonomous vehicles and carbon-free cars,** technological innovation is playing an increasingly important role in a sector that is as old and industrial as this one.

As such, we estimate that the automotive sector in general should mainly be driven by a **more beneficial model mix and price effect than during the previous cycle,** whereas growth stemming from **volumes is likely to be lower than over the past six years.** Groups that are the least innovative, least technological and with low pricing power, are therefore set to suffer from the slowdown in global demand obliging them to optimise their cost bases and especially their R&D spending budgets, to the detriment of future innovation. In contrast, we estimate that a number of more innovative and technological players, **especially car parts suppliers,** should continue to outperform the market in coming years. Previously high entry barriers in the sector now seem to be less restrictive and less capital intensive, enabling new players to take positions in this growth market.

With an expected sales CAGR of **7.6%** on average for **Faurecia, Hella, Plastic Omnium** and **Valeo** and an average EBIT margin gain of **30bp** over the next three years (2016-18e), we estimate that the four stocks should benefit in full from technological developments in the sector as well as considerable requirements for solutions helping to reduce the weight of vehicles as well as CO_2 and NOx particle emissions.

Within this sector report we are initiating the coverage on **Faurecia** (*FV @ EUR47*), **Hella** (*FV @ EUR45*) and **Plastic Omnium** (*FV @ EUR36*) with a **Buy rating** while are initiating on **Valeo** with a **Neutral rating** and a FV @ EUR49.

3. Fairly anaemic growth

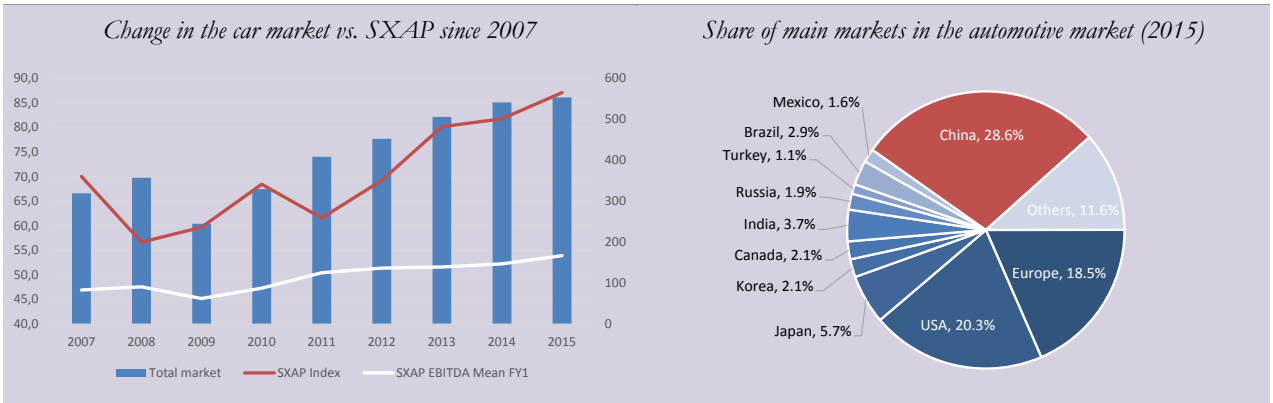
The automotive market has always been considered highly cyclical and very representative of the state of a country's economy and was traditionally very exposed to the US and European markets, in line with the respective weight of these countries in global GDP.

Logically, since Asia, and more particularly China, are significant drivers behind global growth, the same goes for the global automotive market, in terms of market share but also in terms of the growth rates posted. At end-2007, the new car market only represented **67 million** vehicles, **61%** of which were registered in mature countries (*Europe, Canada, US and Japan*) whereas at end-2015, the market represented **86 million** vehicles, of which just **47%** was registered in these same mature countries. Following changes in the middle classes and the catching up in China's equipment rate per capita relative to mature countries, the Chinese automotive market has posted a CAGR of **17%** compared with **-1.5%** in Europe, **+1%** in the US and **+3.3%** on a global level since 2007.

The automotive sector is a growth sector on a global level, but remains very sensitive to economic changes in mature countries and the development of middle classes in emerging countries

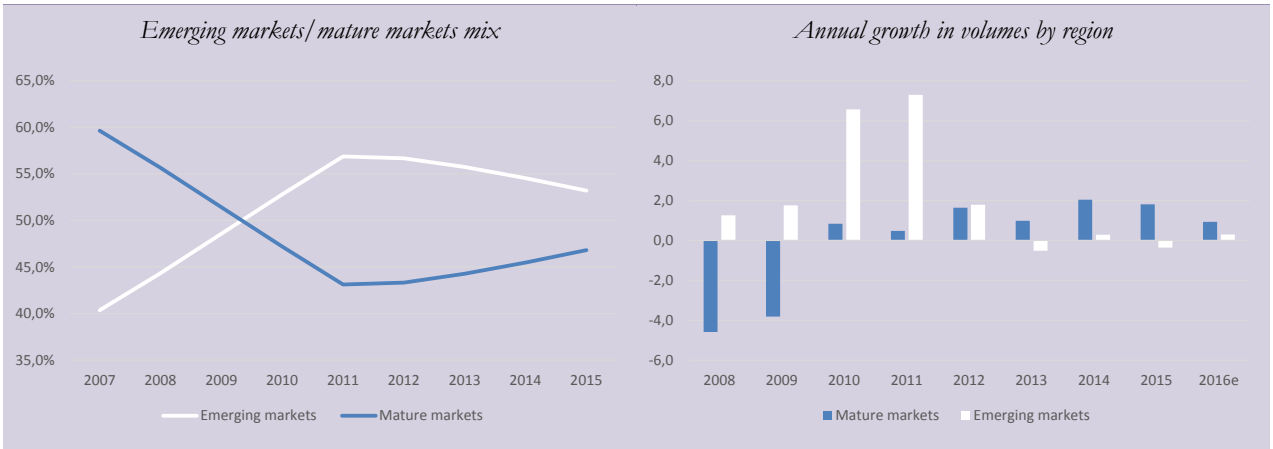
The automotive sector is therefore a **growth sector on a global scale**, but remains very sensitive to economic changes in mature countries and now in emerging countries, with the crisis affecting the renewal of the existing fleet, but also the ramp-up in the equipment rate per capita. The recent crisis in the oil sector has therefore had massive repercussions on the Russian automotive market and on car markets in other oil producing and exporting countries, reducing the share of emerging markets in the mix during 2015 and 2016. This crisis combined with the recession affecting Brazil and the slowdown in China due to its industrial stabilisation, has therefore stabilised the share of emerging markets in the total market mix, to **the benefit of mature markets**, which have been enjoying a recovery since 2009-10.

Fig. 4: A growth market, now dominated by emerging markets...



Source: Reuters; Renault; Bryan, Garnier & Co ests.

Fig. 5: …but which is benefiting from a recovery effect in mature countries



Source: Renault; Bryan, Garnier & Co ests.

In our models, we assume annual growth of 2.4% for 2016 and 1.4% for 2017

This turnaround in growth between emerging markets and mature markets is likely to last in 2016 but is likely to inverse in 2017 thanks to the rebound stemming from South American countries and potentially Brazil and Russia *(advantageous comparison effect)*, whereas we expect lower growth in mature markets *(Europe and US)* than in 2015 and 2016 given the slowdown in the recovery effect relative to 2009-10. **In our models we have assumed an annual growth assumption of 2.4% on a global level for 2016 and 1.4% for 2017.**

Fig. 6: Global automotive demand - BG estimates (thousands of vehicles)

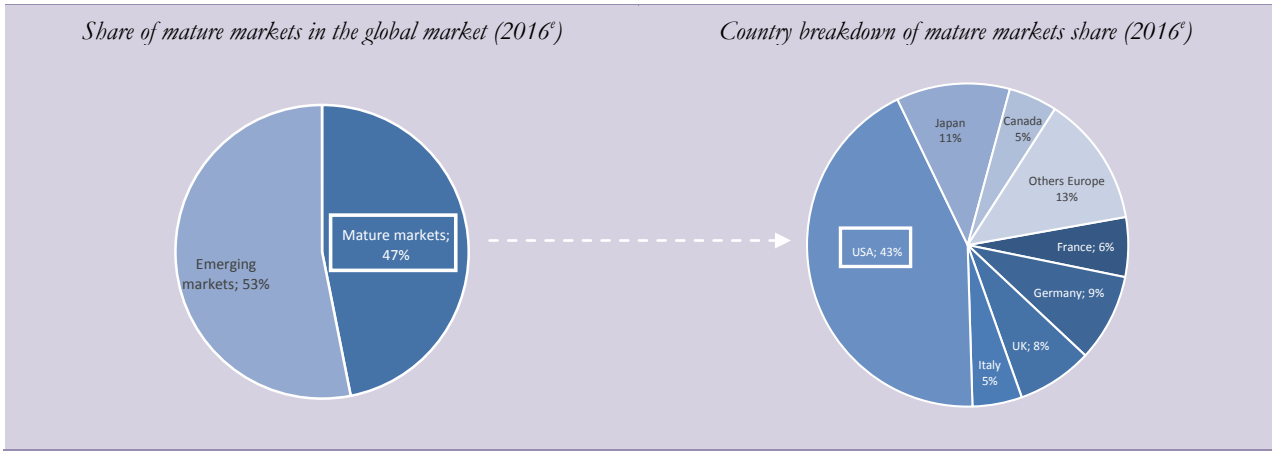
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016e	YoY	2017e	YoY
Total Europe	**17 926**	**16 574**	**15 998**	**15 305**	**15 247**	**14 102**	**13 737**	**14 544**	**15 910**	**16 625**	**4,5%**	**16 875**	**1,5%**
o/w Germany	3 376	3 320	3 982	3 119	3 413	3 170	3 271	3 271	3 449	3 604	4,5%	3 658	1,5%
o/w UK	2 752	2 431	2 190	2 262	2 208	2 544	2 806	2 086	3 014	3 120	3,5%	3 151	1,0%
o/w France	2 525	2 510	2 644	2 652	2 633	2 282	2 155	2 168	2 295	2 433	6,0%	2 481	2,0%
Total Eurasia/Euromed	**4 669**	**5 041**	**2 908**	**3 504**	**4 522**	**5 836**	**6 478**	**5 885**	**5 057**	**4 692**	**-7,2%**	**4 828**	**2,9%**
o/w Russia	2 497	2 896	1 585	1 898	2 678	2 905	2 763	2 471	1 606	1 413	-12,0%	1 484	5,0%
o/w Turkey	594	494	452	765	862	780	853	769	968	920	-5,0%	938	2,0%
Total Americas	**5 394**	**5 484**	**5 128**	**5 524**	**6 503**	**6 993**	**6 478**	**6 495**	**5 664**	**5 072**	**-10,5%**	**5 252**	**3,6%**
o/w Brazil	2 340	2 661	2 702	3 329	3 424	3 589	3 576	3 341	2 479	1 859	-25,0%	1 952	5,0%
o/w Mexico	1 108	1 025	758	820	906	968	1 070	1 135	1 352	1 487	10,0%	1 561	5,0%
o/w Argentina	534	574	519	634	818	819	917	656	626	638	2,0%	651	2,0%
Total Asia/Africa	**23 079**	**23 079**	**27 180**	**33 087**	**36 444**	**38 477**	**38 094**	**39 173**	**39 931**	**41 780**	**4,6%**	**42 771**	**2,4%**
o/w China	6 354	8 614	9 433	14 062	16 700	18 209	20 586	22 395	23 609	26 565	8,0%	27 097	2,0%
o/w Japan	5 072	4 849	4 574	4 907	4 130	5 138	5 272	5 490	4 943	4 695	-5,0%	4 766	1,5%
o/w South Korea	1 271	1 214	1 366	1 554	1 577	1 522	1 528	1 636	1 805	1 869	3,5%	1 906	2,0%
o/w India	1 674	1 710	1 968	2 649	2 879	2 995	2 960	2 931	3 118	3 258	4,5%	3 339	2,5%
Total North America	**17 837**	**14 826**	**11 863**	**13 056**	**14 374**	**16 147**	**17 361**	**18 373**	**19 371**	**19 834**	**2,4%**	**19 508**	**-1,6%**
o/w Canada	1 717	1 613	1 404	1 480	1 596	1 650	1 779	1 850	1 902	2 016	6,0%	2 046	1,5%
o/w USA	16 121	13 213	10 460	11 576	12 778	14 497	15 582	16 524	17 469	17 818	2,0%	17 462	-2,0%
Total PC & LCV market	**66 609**	**69 782**	**63 078**	**70 476**	**78 257**	**81 679**	**82 148**	**84 471**	**85 933**	**88 004**	**-**	**89 223**	**-**
YoY growth	-	4,8%	-9,6%	11,7%	11,0%	4,4%	0,6%	2,8%	1,7%	**2,4%**		**1,4%**	

Source: Renault; Bryan, Garnier & Co ests.

3.1. Mature markets growing since 2009-10

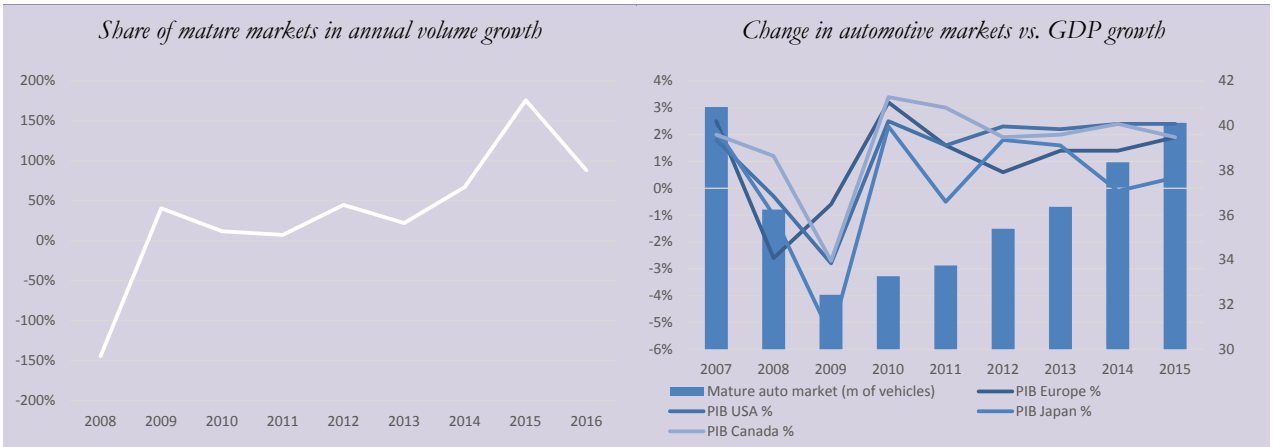
As indicated previously, although mature countries now represent less than half of the global automotive market, a hike in car registrations has been noted since 2009-10 (*Europe, US, Canada and Japan*), in line with the recoveries in their respective economies. Whereas over 2007-10, mature countries were the main source of the decline in global growth, they contributed **22%, 67% and 175%** to annual growth in market volumes in 2013, 2014 and 2015 respectively. **Over 2016, the contribution to growth should remain higher than that in emerging countries (>80% BGe).**

Fig. 7: Mature countries account for less than 50% of the global market …



Source: Renault; Bryan, Garnier & Co ests.

Fig. 8: … but contribute strongly to growth in the market since 2009-10



Source: Renault; Bryan, Garnier & Co ests.

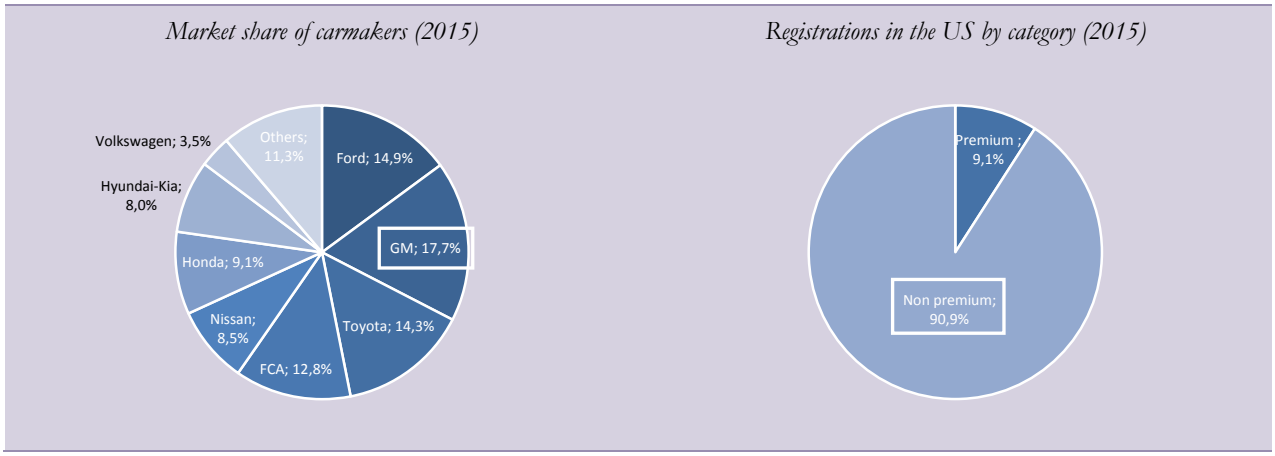
3.1.1. US market close to its historical peak

Until 2009, the US was the largest auto market in the world in terms of the number of registrations before being exceeded by China in **2010** following the financial crisis that affected the main mature countries. With a motorisation rate of close to **809 vehicles for 1,000 inhabitants**, the country has the highest equipment rate in the world and therefore remains a key market for carmakers and parts makers, even if long-term growth potential in volumes remains low.

A market open to foreign carmakers

Contrary to other automotive markets, the US market is not dominated by local brands and groups, but more by foreign carmakers, especially **German** and **Japanese** groups. The two last US groups **Ford** and **GM** represent a combined level of registrations of just **33%**, allowing Japanese (*Toyota, Nissan, Honda and Hyundai-Kia*), German (*Volkswagen, BMW, Mercedes*) and Italian groups (*FCA*) to rank among the Top 10 carmakers. After suffering harsh failures, especially during the 1990s, the two French brands **Renault** and **Peugeot** have never succeeded in developing a genuine franchise in this market, even if Renault is indirectly present via Nissan. The arrival of **Carlos Tavares** at the head of PSA group could help redefine the group's strategy in this market with a potential roll-out of the premium brand **DS** in the US.

Fig. 9: Market dominated by foreign brands



Source: GoodCarBadCar; Bryan, Garnier & Co ests.

Market share of US carmakers is set to continue falling gradually in coming years

So far, only four **groups have market share of more than 10% with GM** at the top of the list being the historical market leader with almost **18%**, followed by **Ford** (*15%*), **Toyota** (*14%*) and finally **FCA** with **13%**. Although the large vehicle segment (*four-wheel drives, pick-up trucks, D segment cars*) has declined to the benefit of smaller segments such as medium-sized cross-over vehicles, carmakers mainly present in smaller segments are struggling to survive this market. Strict regulations concerning CO_2 and Nox emissions should continue to favour foreign carmakers less present in SUV and high cylinder vehicles than US carmakers. **Market share of US carmakers is therefore set to continue falling gradually in coming years.**

An ageing fleet with little diesel…

The **US fleet of vehicles in circulation is constantly ageing,** with the average age of passenger cars rising from **10 years** in 2007 to **11.5 years** in 2015. As an example, IHS points out that the average duration for ownership of a new passenger car bought in 2015 has increased from 25 months to 63

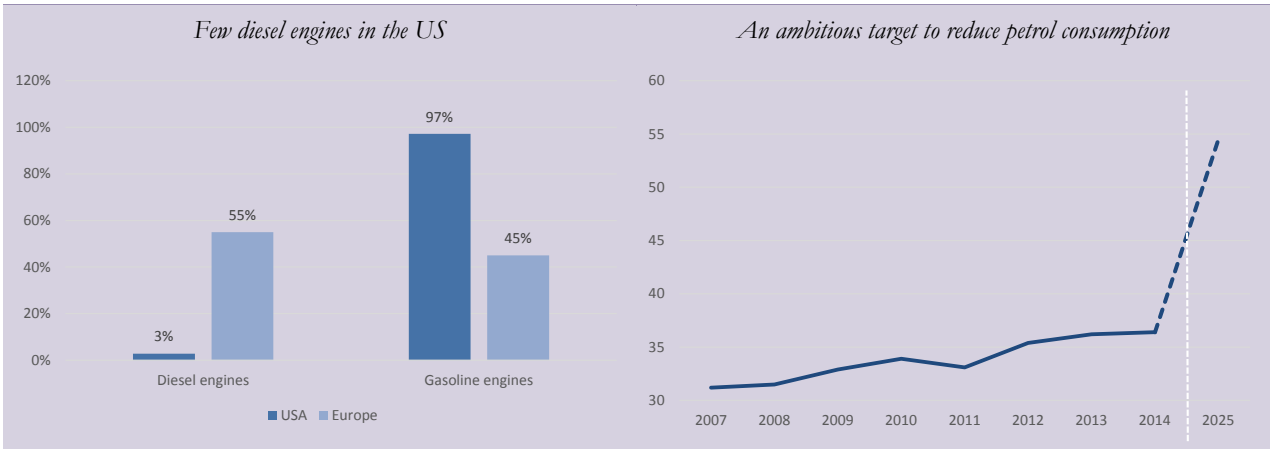
months, relative to a car bought in 2006. The **premium segment has lost market share** in new car registrations and dropped below the **10%** threshold in 2015 to **9.1%**, in a sign that the US market, which already has a low premium content, is **investing further in low and mid-ranges** in favour of Japanese and US carmakers.

Unlike Europe, **diesel is little developed** in the US in view of penetration rates of diesel engines in the fleet of vehicles in circulation, even though it has gained momentum in recent years. In 2015, diesel vehicles accounted for less than **5%** of car registrations and are still primarily operated by **Volkswagen**. This **low historical availability of diesel engines** follows the difficult launch of the first diesel models in the 1970s and 80s, but is also due to the low diesel distribution rate with only one petrol station in two offering a diesel pump, and by the higher price per litre *(+10-15% on average)*. **The recent scandal at Volkswagen is likely to have a negative impact on diesel engine vehicles in general, in addition to taking a toll on sales of the VW brand in the country, even if a number of German carmakers, especially BMW, consider that market share for diesel vehicles could climb to 10% by the end of the decade.**

… and less fuel-greedy?

In 2012, the US **Environmental Protection Agency and the Transport Department implemented a law on fuel consumption for new car sales, setting a minimum threshold to reach in 2025.** This plan is directly destined for carmakers and targets energy efficiency in new cars of at least **54.5 miles per gallon** by 2025 (*of 4.3 litres/100km*). An ambitious target which has recently been questioned by the authorities given the sales mix turned towards SUVs which are high fuel-consuming, a new indicative corridor has then been mentioned between 50 and 52.6 miles per gallon *(i.e. 4.7 to 4.47 litres/100km)*. Note that in 2014, US car registrations showed average efficiency of 36 miles per gallon i.e. **6.5 litres/100km**, still higher than the European average of **5.3 litres/100km**.

Fig. 10: A market dominated by foreign brands



Source: GoodCarBadCar;ACEA; Bryan, Garnier & Co ests.

Imposing these standards with a view to reducing fuel consumption and the country's dependence on oil, is set to increase pressure on carmakers to improve vehicle aero-dynamics in order to produce lighter vehicles and/or smaller sized engines that consume less fuel.

Technologies in which European groups have already developed significant expertise. These targets could also be reached thanks to the roll-out of electric and hybrid cars in the US car fleet.

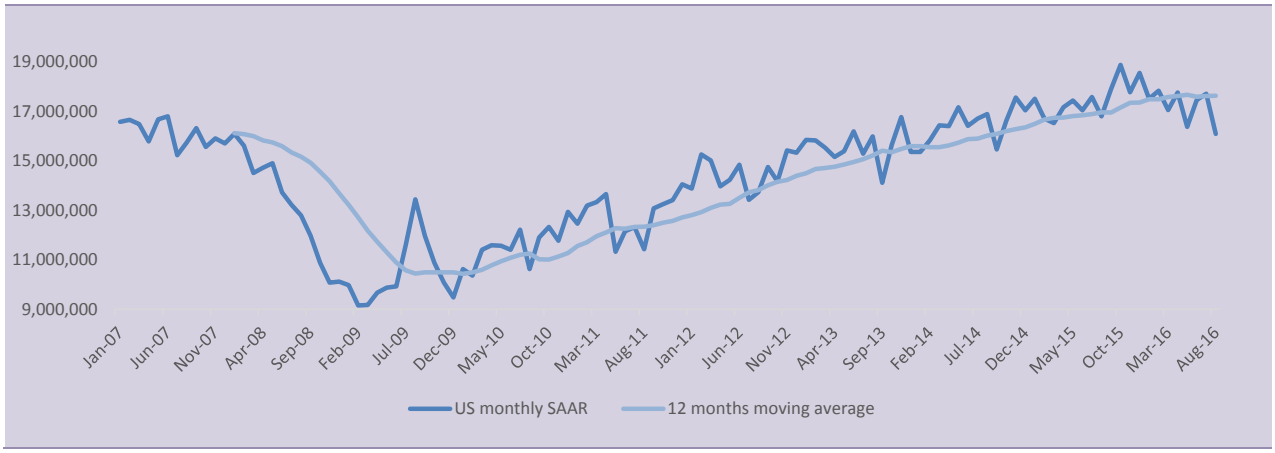
The green car segment is growing in the US with both **hybrid vehicles** and **electric vehicles** to the extent that they now represent almost **3%** of new car registrations (*compared with just 2% in Europe*). Their number and market share has nevertheless fallen since 2013, primarily due to the plunge in oil prices, which has made purchases of these vehicles less attractive in the eyes of consumers. The niche segment remains dominated by **Toyota** and its **Prius, Prius C and Camry** models as well as the **Prius rechargeable car,** which still accounts for more than 37% of electric and hybrid car sales. Tesla's arrival upset the market with the roll-out of **100% electric premium vehicles**. US group **Elon Musk** now boasts **5%** of sales with its **Model S**. The group's recent **USD1.5bn** fund-raising operation, destined to finance its target to increase production capacity at its Californian site to **500,000** vehicles in 2018, is a sign of a ramp-up in development in the electric segment and Tesla's rise in momentum in the market.

The US market offers little medium-term volume growth

The market offers little additional growth

Despite two years of harsh decline in 2008 and 2009 following economic difficulties in the country, the US automotive industry gradually picked up as of 2010 with double-digit growth in new car registrations in 2010, 2011 and 2012. This recovery enabled the **market to exceed its pre-crisis level of more than 16 million vehicles** (*passenger and ultra-light*) with **17.5 million** car registrations noted in 2015. This faster catch-up compared with Europe was mainly driven by the shorter use of market support measures than in Europe (*scrappage premiums*), which accentuated the plunge in the US market (*low-point in 2009*) whereas the European market hit its low in 2013. The recovery was therefore faster in the US than in Europe and was accelerated especially by the plunge in oil prices, prompting a significant nosedive in the overall consumer usage rate (*no tax on pump prices contrary to Europe*).

Fig. 11: Monthly change in US market – SAAR (2007-16)

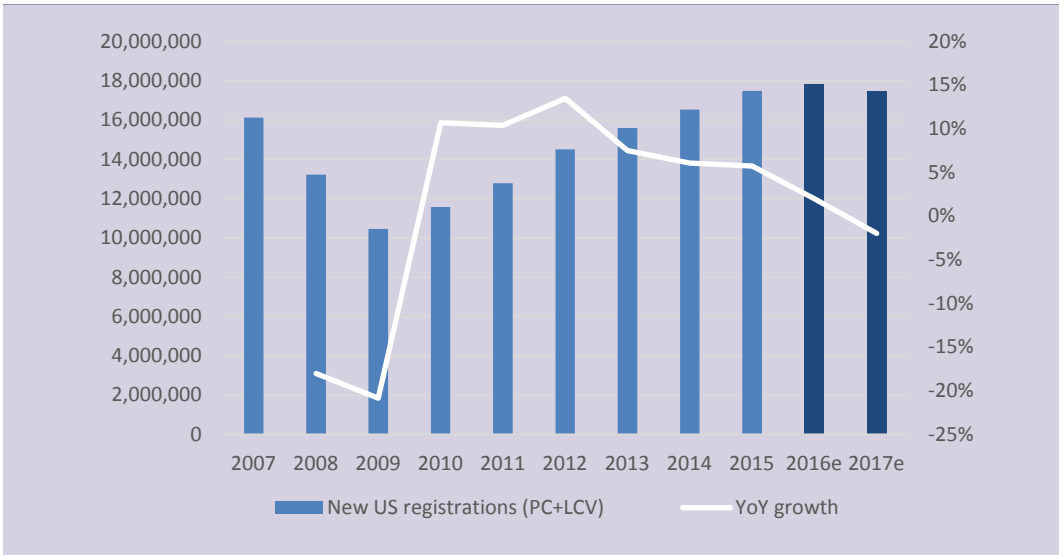


Source: GoodCarBadCar; Bryan, Garnier & Co ests.

As in Europe, but with a few years lead, **sales growth has slowed year after year since 2012**. With the pre-crisis level restored and a slowdown in US economic growth, questions concerning the end of the automotive cycle in the US are legitimate, thereby undermining the strategic relevance for a number of carmakers to start developing in the US. In order to remain competitive, carmakers need to continue efforts to improve their model offer, without increasing prices, thereby potentially placing their margins under pressure, as well as those of components makers. **A wave of concentration is also possible, especially among the smaller players.**

This problem goes hand in hand with **potential over-production** in the future. Although production is not structurally sufficient to satisfy national demand and that imports take over as a more flexible mechanism in the event of a slowdown in demand, **US vehicle stocks are constantly growing.** Having been on an uptrend since 2009, stocks rose from **1.9 million** (*all vehicle types*) to **4.4 million at the end of 2015.** The ratio of stocks to car registrations (*stocks/sales*) has also increased, reaching **2.77x** in 2015, admittedly still below the 2009 figure of **3.26x** in the midst of the automotive industry crisis.

Fig. 12: Is growth a thing of the past?



Source: GoodCarBadCar; Bryan, Garnier & Co ests.

In our models, we have a cautious view on growth in the US automotive market in 2016 and 2017 and estimate that the market is only set to increase by **2%** in 2016e and then fall **2%** in 2017e.

3.1.2. European market still catching up, but until when?

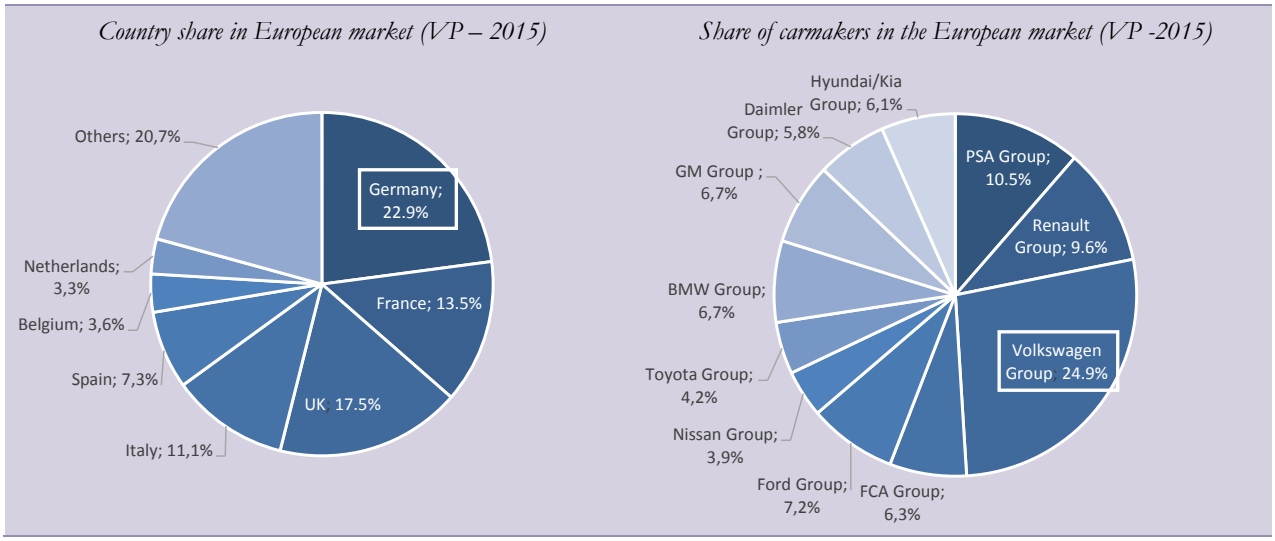
Market dominated by local carmakers

Europe is the third-largest global automotive market in terms of car registrations with almost **16 million** new car sales in 2015, or **18.5%** of the global market, including passenger cars (*for 89%*) and light trucks of more than five tonnes (*for 11%*). **Historically, three national markets support the region, namely Germany, the UK and France,** which account for a combined **54%** of new car registrations in the EU.

The motorisation rate stands at **574 vs 538 in 2007**. This ratio has increased slightly over several years with a CAGR of just below **1%**, driven both by major mature markets in Western Europe and still little developed eastern markets.

The market is relatively focused on **local carmakers**, primarily German, French and Italian, which account for almost two thirds of passenger car sales. This trend is increasing with European groups that have constantly eaten into market shares of foreign groups, rising from **60.3%** in 2007 to **63.7%** in 2015. Among the major carmakers, **Volkswagen** leads the pack with market share of **25%**, followed by the two French groups **PSA** and **Renault** with respectively **10.5%** and **9.6%.** Only US group **Ford** has managed to get into the European Top 5 with around **7%** market share, ahead of Italian group **FCA**.

Fig. 13: Market dominated by Germany and the UK



Source: CCFA; Bryan, Garnier & Co ests.

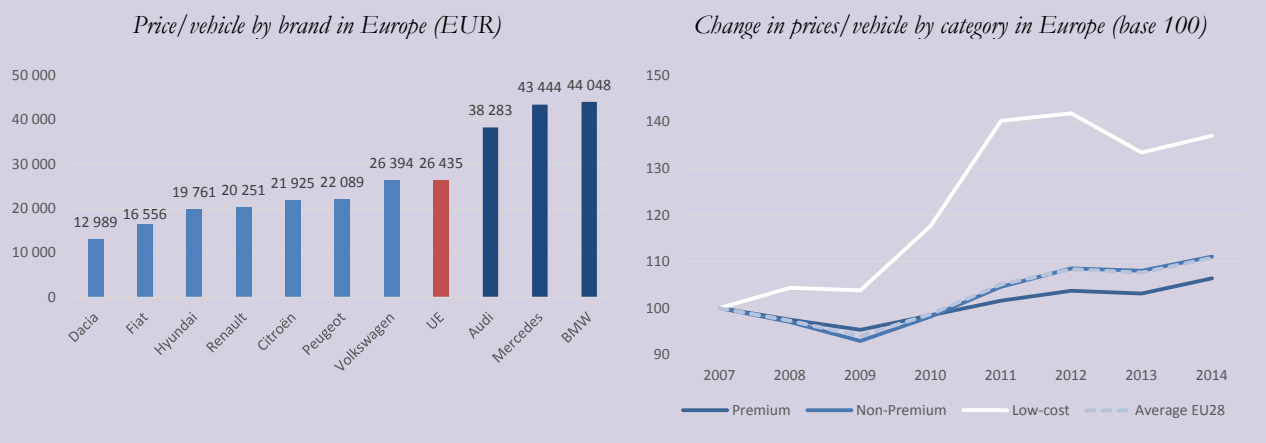
An ageing fleet, but more focused on the premium segment

Following the plunge in new car sales over several years, owners or would-be owners have delayed car purchases or replacements. As such, the **European fleet of passenger cars has automatically tended to age since 2007**, rising from **8.4 years to 9.6 years** in 2014 despite the hike in registrations in 2014 *(+5.5%)*.

For new car purchases that have not been delayed or cancelled, these are increasingly **focused on the upscale segment** via sales of premium cars which represented almost **19%** of registrations in 2015 compared with **16%** in 2007. This **"premiumisation"** has gained momentum, especially on the back of German saloon cars, namely from **Audi, BMW** and **Mercedes,** which have strengthened their

market share via brand image and reliability. These gradual moves upscale seem to have been one of the **only catalysts behind an increase in prices by carmakers in Europe,** albeit very limited with average prices up slightly (*adjusted for inflation*) since 2010 and negative in 2013. Only premium brands lift the European average upwards (*average of EUR26,435 per vehicle*) thanks to **Audi** (*EUR38,283/vehicle*), **BMW** (EUR44,084/vehicle) and **Mercedes** (*EUR43,444/vehicle*), whereas entry-level brands generate average unit sales lower than EUR20,000 such as **Dacia** (*EUR12,989/vehicle*), **Fiat** (*EUR16,556/vehicle*) and **Hyundai** (*EUR19,761/vehicle*). Interestingly, the moves upscale (*towards saloon and SUV models in particular*) that took place in 2010/11 enabled low-cost brand Dacia to post the highest growth in its average price per vehicle over 2007-14.

Fig. 14: Pricing power remains in the hands of premium brands

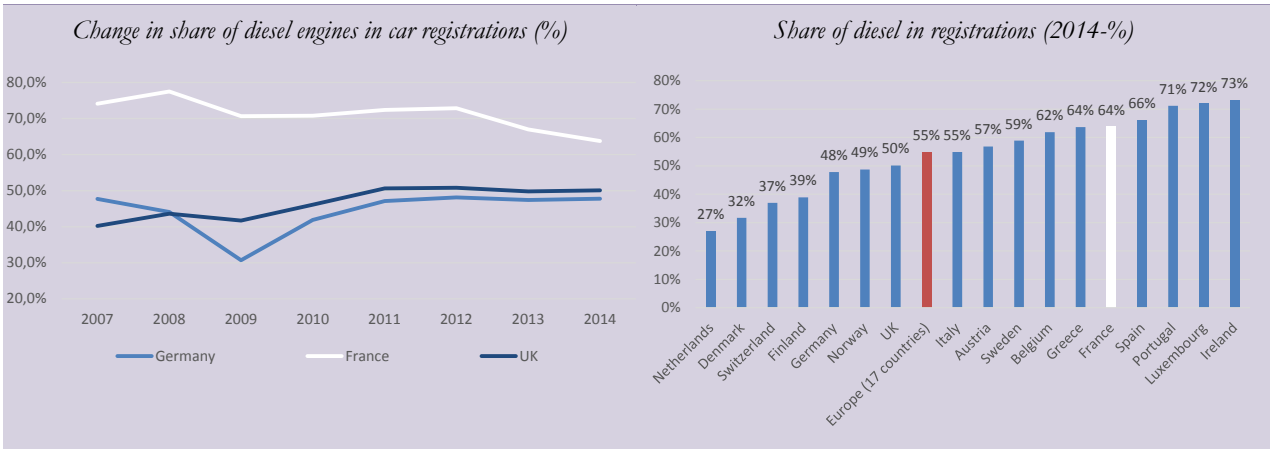


Source: ICCT; Bryan, Garnier & Co ests.

The end of diesel?

Diesel engines are also at a crossroads in Europe with registrations of new passenger cars equipped with increasingly few **diesel engines in favour of petrol engines**. The dieselisation rate for new car sales rose from **58.3%** in 2007 to **54.9%** in 2014 and continued to decline in 2015 and 2016 following the "Dieselgate" episode associated with Volkswagen. This is a hefty about-turn for European countries (*four out of the five largest markets*), which had until now massively backed diesel with tax incentives for the purchase of the vehicle and at filling stations. A number of countries are now considering reviewing these measures in favour of diesel while over-taxing purchases of the most polluting vehicles (*France in particular*). Whereas sales are shifting in favour of petrol engines, production in the main car producing countries (*Germany, France, the UK, Italy and Spain*) is nevertheless ramping up year on year in diesel engines, against the market trend. This position is all the more worrying in that models that benefit from the highest growth at the moment, namely SUVs, have an average dieselisation rate of **70%**.

Fig. 15: Heading for a European market without diesel engines?



Source: CCFA; Bryan, Garnier & Co ests.

Following the Volkswagen scandal that highlighted the fact that health risks associated with diesel engines had been underestimated by carmakers, a number of governments such as France have radically changed their political view on the subject by questioning the various incentive schemes for this technology, in favour of petrol engines. France, for example, recently **halted the tax incentive that diesel engines benefited from over petrol engines** in order to bring prices of the two fuel types closer within the next five years.

This decline in the share of diesel in Europe is likely to have a fairly negative impact on carmakers that chose this technology or that were late in the post-diesel transition started in other countries. French carmaker, **PSA** is the most exposed to this technology and recently announced it was abandoning its **hybrid diesel technology launched in 2011** and is now aiming to develop **a hybrid petrol and rechargeable engine by 2020,** implying two years delay relative to Renault.

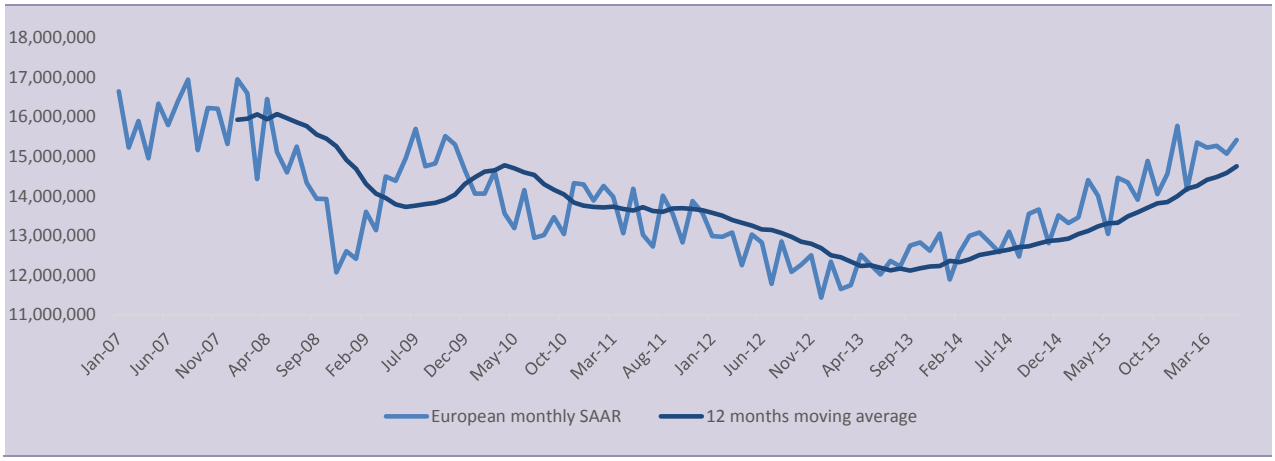
Despite these scandals and political changes, we believe that diesel should remain a technology developed by carmakers since it is currently a perfect solution to regulatory requirements concerning CO_2 emissions.

A catching up phase underway, but until when?

Since its peak in 2007 with almost **16 million registrations**, the European automotive market suffered fully from the 2008 crisis, witnessing six years in a row of decline (*CAGR of -4.7% over 2007-13*). This downturn seemed to have set in but nevertheless masked differences within the EU, with the German and UK markets suffering less than the Italian and Spanish markets.

With 2014 and 2015 showing growth of **4.8%** and **9.7% respectively,** the industry seems to be moving onto an **uptrend that even gained momentum in 2015**. Last year was characterised by a sharp rebound in the market with a jump in passenger car registrations of **9.7%**, a constant trend over the full year with quarterly sales almost all showing double-digit increases. 2016 nevertheless seems until now in lign with this trend with **sales in H1 to +9.1% vs. 9.1% in H1 2015.** In terms of models, sales were above all **driven by SUVs as well as mini models,** which have performed well in Europe since 2007 whereas the **luxury and medium segments have deteriorated**.

Fig. 16: Monthly change in the European market (EU28) – SAAR (2007-16)



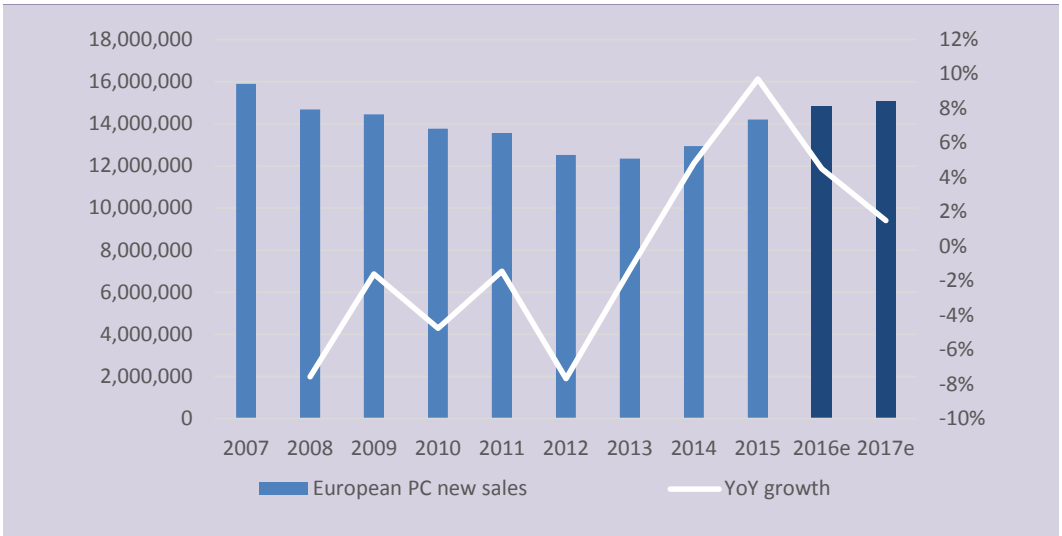
Source: ACEA; Bryan, Garnier & Co ests.

The recovery period in the European market is behind us and not ahead of us, implying a slowdown in the cycle for carmakers and components makers highly exposed to the European market

These two past years of growth *(+15%)* have not been enough to make up for the more than **22%** plunge seen between 2007 and 2013. As such, the **European market has not restored its pre-crisis level yet,** with **13.7 million** new passenger car registrations in 2015 compared with **15.5 million** in 2007, thereby leaving room for a potential catch-up effect of **12.8%** or almost **1.7 million** registrations.

After forecasting an increase of **2%** in the European market (*passenger cars*) for 2016 at the start of the year, in June, the European Automobile Manufacturers Association (**ACEA**) increased its estimate to **5%** implying a 2016 market at around **14-14.3 million** vehicles.

Fig. 17: A growing market, but offering increasingly less potential

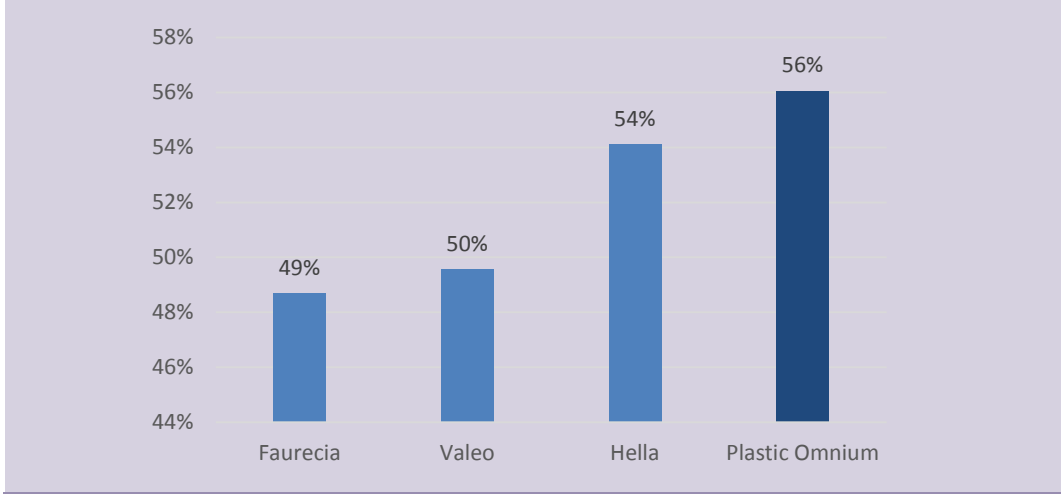


Source: ACEA; Bryan, Garnier & Co ests.

In our models, we have a more cautious vision and only expect the market to grow by **4.5%** in 2016e followed by **1.5%** in 2017e. The recovery period in the European market is therefore behind us and not ahead of us, implying a slowdown in the cycle for carmakers and parts suppliers highly exposed to the European market. The impact of **Brexit** could also be felt in new registrations in the UK (*17.5% of the European auto market*), especially if the country enters a period of recession. The impact on production could be even more significant if an import tax scheme is reinstated, since a number of carmakers such as **Nissan, Toyota and BMW** have production plants to serve the European market.

Among the four car parts makers we are initiating coverage of in this report, **Hella** and **Plastic Omnium** are the most exposed to the European auto market with respectively **54%** and **56%** of their sales generated in the region.

Fig. 18: Share of sales generated in Europe in 2015



Source: Companies data; Bryan, Garnier & Co ests.

3.1.3. Japanese market

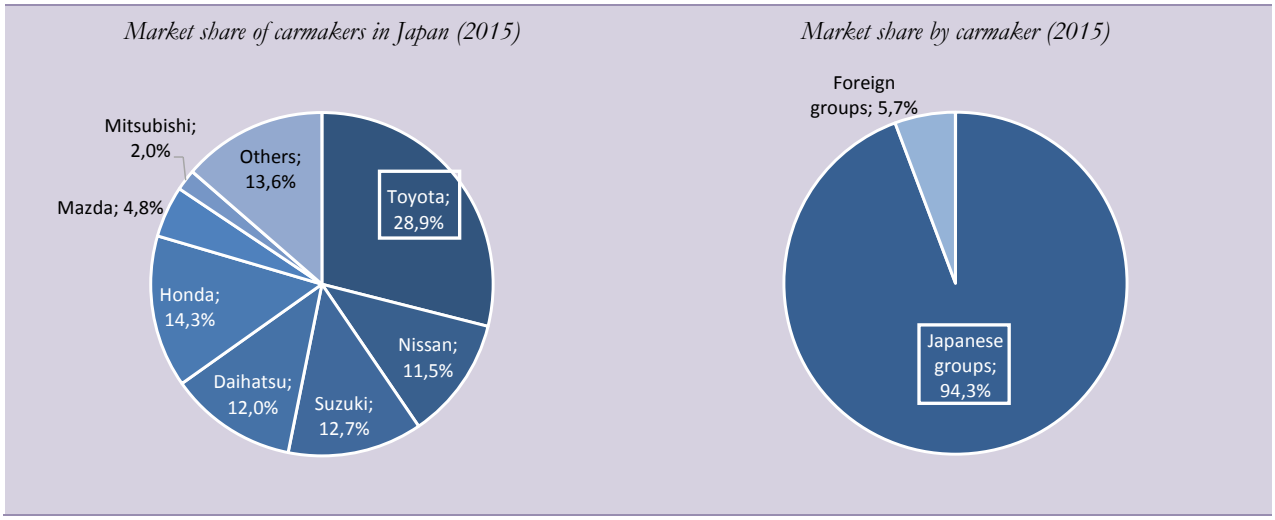
Japanese brands for Japan …

With more than **five million new cars registered in 2015,** including a large majority of passenger cars (*84%*), Japan is the fourth largest global auto market, representing **6.1%** of the global market. Like other mature markets, Japan has a high motorisation rate with **607 light vehicles for 1,000 inhabitants,** one of the highest in the world after the **US and Canada**. In addition, the **fleet of passenger cars in circulation is tending to age,** rising from seven years in 2007 to more than eight years on average in 2014.

The Japanese market is very closed to foreign carmakers, but open to parts suppliers

Contrary to the US automotive market, which is very open to foreign carmakers, **the Japanese auto market** is a highly local market, if not entirely closed, with registrations focused mainly on Japanese carmakers, in view of the government's **intentionally protectionist** stance (*as in other sectors*). This market closure is also reflected in low imports, restricted to **2-3.5%** of total production. Indeed, the share of new car sales generated by national carmakers has crossed the **94%** threshold, historically fluctuating at around **95%**, thereby leaving very little room for foreign manufacturers. In addition, **no non-Japanese group ranks in the Top 5**, which is made up of **Toyota**, clearly leading the pack with around **30%** market share, **Honda, Suzuki, Daihatsu and Nissan**. All of these top five groups have minimum market share of **10%**, thereby accounting for almost **80%** of sales in a very concentrated and very local market.

Fig. 19: A market in the hands of Japanese carmakers



Source: JAMA; Bryan, Garnier & Co ests.

… produced in Japan for export afterwards

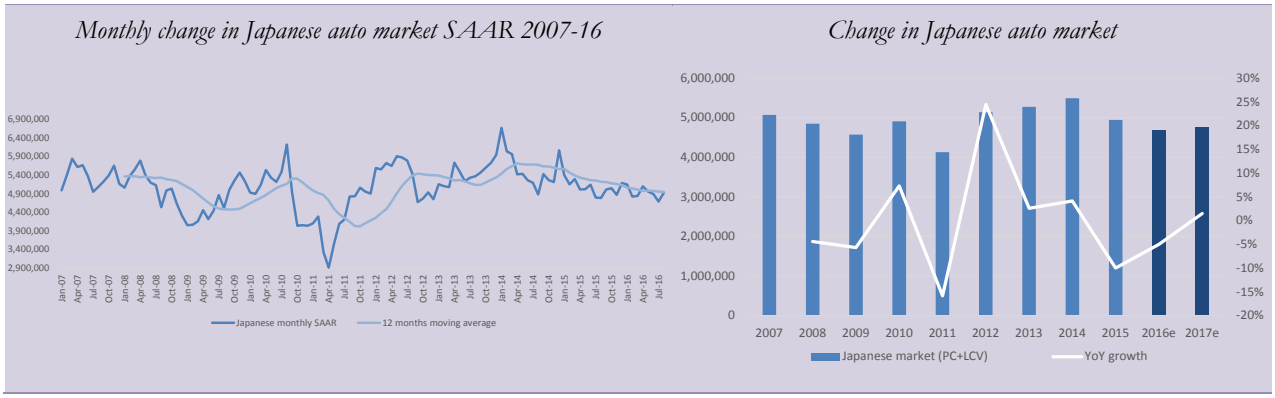
Japan is a **massive car exporting country** relative to the amount it produces. For more than **nine million vehicles produced** in the country, almost **4.6 million** were exported in 2015, representing **49%** of production. These vehicles are above all **destined for the US market**, which accounts for more than a third of Japanese exports, as well as **the EU and China**. The Middle-East has recently increased its weight in Japanese exports with imports to the **United Arab Emirates** and **Saudi Arabia**. The US market is therefore very significant for Japanese groups with Nissan generating **30%**

of sales in the country, and especially since any slowdown or ramp-up in the market has a huge impact on utilisation rates at Japanese plants and hence on local employment.

A return to pre-crisis levels

After its low points of 2011 with just **4.2 million new car registrations, compared with 5.3 million in 2007,** the Japanese market rapidly caught up and exceeded the threshold of **five million new car sales** as of 2012. However, 2015 was far more mixed with a **9.3%** decline in sales and H1 2016 hardly looks better with a further fall of almost **5%** compared with an already low H1 2015. Like all mature markets, the auto industry is highly correlated with growth in GDP, whereas economic growth is pretty flat in Japan and the IMF is only forecasting **0.3%** growth in Japanese GDP for 2016 and **0.1%** for 2017.

Fig. 20: Market offering little medium and long-term growth



Source: JAMA; Bryan, Garnier & Co ests.

In our models, we expect a 5% decline in the Japanese market in 2016 and a slight restart to 1.5% in 2017

In our models, we are forecasting a decline of **5%** in the market in 2016 and a slight restart to **1.5%** in 2017. This very mature market is unlikely to generate much growth in coming years despite the ageing fleet. Only a significant economic recovery could have a positive impact on local demand, and we do not expect this in the short term (*IMF forecasts remain cautious for Japan*). A genuine growth driver could stem from exports to China and the US, which should enable local production to resist more to demand in the short term, to the benefit of components makers very present in this market.

3.2. …but not for much longer

3.2.1. China, the new dominant market

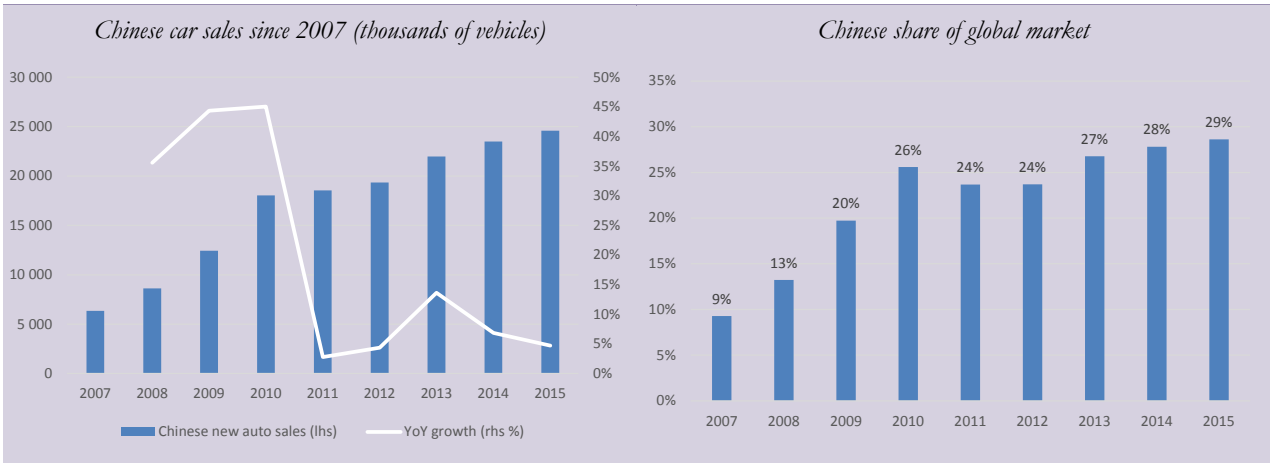
The largest global automotive market

Between 2007 and 2015, the Chinese market outperformed the global market by 15pp a year

2009 saw the advent of China as the **world's leading auto market,** whether in terms of new vehicle sales or production, exceeding the US, Germany and Japan, the three largest markets in mature countries. This ascent was achieved during the crisis period when all the other major markets saw new car registrations decline. The Chinese market has been **growing constantly since 2007**, when sales totalled almost **seven million vehicles**, and now stands at **almost 27 million vehicles**, or a third of the global market. China therefore showed a CAGR in sales of **18%** over 2007-15, compared with just **3%** for the global market over the same period.

This sharp market growth is closely correlated with **the boom in the Chinese middle classes from 66 million people to 109 million over 15 years.** The increase in the middle class, driven by power and recently, reforms by president Xi Jinping aimed at rebalancing Chinese growth in favour of so-called popular classes, has seen modest if not poor Chinese people gain in wealth to now have the financial means to purchase a car. Note that these middle classes remain highly concentrated in major cities and coastal towns, rather than the countryside, given that wealth-creating potential is higher. Moreover, the now largest middle class in the world is expected to grow at **a CAGR of 15% between 2015 and 2022 to reach 220m.**

Fig. 21: The Chinese market, an increasingly heavy-weight growth market



Source: CAAM; Bryan, Garnier & Co ests.

With a motorisation rate including both passenger cars and light trucks of **104 vehicles for 1,000 inhabitants**, China remains well below other major mature markets such as the **EU** (*574/1,000*), **Japan** (*607/1,000*) and the **US** (*809/1,000*). This ratio has nevertheless rocketed in China in recent years, rising from **33 in 2007 to 104 at present** (*18% CAGR*) in line with growth in demand noted over the same period.

Given that the market is still very recent, the fleet of vehicles in circulation is extremely young with an **average age of four years**, a virtually new fleet and almost exclusively **focused on petrol cars** and on the saloon segment, even if demand for SUV ranges has expanded massively in recent years.

Market primarily dominated by foreign carmakers

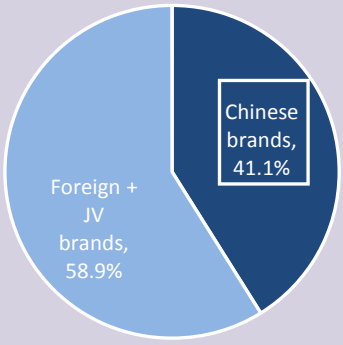
By obliging foreign carmakers to form partnerships with local manufactures in order to penetrate the market and by imposing dissuasive import prices (*25%*), the Chinese government has therefore made the main foreign carmakers transfer significant technological skills to local carmakers, to the benefit of end-consumers, who have been rapidly offered well-equipped vehicles at affordable prices.

In 2015, foreign brands had almost 60% of the market. But the trend could reverse in coming years.

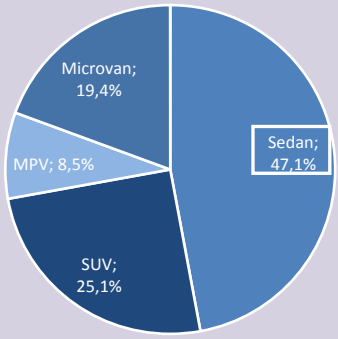
Apart from this restriction, China remains fairly open since foreign brands had **market share of almost 60%** in 2016. **General Motors** and **Volkswagen** are the two dominant players with **17%** and **16%** of the market, followed closely by **Hyundai-Kia** with **8%**, **Nissan** with **6%**, Toyota with **5%**, and **Ford** also with **5%.** French carmakers still have fairly low market shares: **PSA** only has **3.5%** and is targeting **5%** notably with the roll-out of new models in the DS brand, whereas **Renault,** which has only just opened its first plant in the country is targeting market share of **3.5%** within a few years. Premium brands are also well presented in this market with Audi still dominating in the segment, up against BMW and Daimler.

Fig. 22: Foreign brands dominate a market that is very difficult to assess

Market share in China by national origins



Model types sold in China in 2015



Source: CAAM; Bryan, Garnier & Co ests.

The Chinese auto market **has undergone significant changes over several years.** Consumers that previously wanted saloon cars (*also known as three-body cars*) are increasingly attracted by more western models such as cross-overs and SUVs, making the task difficult for carmakers, which were obliged to promote models typically specific to this market in order to develop in the country. Since first-time buyers in China are younger on average than in other mature markets, they have a very poor car culture for the moment and no real loyalty to a single brand. This recent change in demand in favour of SUVs should be beneficial to local carmakers, who have succeeded in developing a range of quality products (*thanks to the technology transfer*) that are cheaper than foreign car brands, thanks in particular to the various joint-ventures set up.

In addition, these difficulties in following changes in ways of consuming made the various international carmakers install their R&D centres in the country and also obliged them to stop launching global models in this market.

Market close to bursting point or just a mature market?

2015 was particularly violent for the sector, which suffered from a sudden slowdown in car registrations for several months especially due to stock rundown moves by a number of car dealers. The market is complex since it is divided between the large coastal towns that are saturated with vehicle renewals and provincial China that is beginning to buy cars and is underpinning growth. This makes it fairly volatile and places the global market under pressure when a slowdown is felt.

The market has picked up slightly since the fears of 2015, thanks especially to the government's intervention to boost small cylinder vehicle purchases (*tax rate slashed from 10% to 5% on 1st October*) until end-2016. This cut in tax for passenger cars was already implemented in 2009 in order to face the global financial crisis and the tax was restored to its original level in 2011. Although this measure is positive for the short term, it is likely to have a damaging impact on the Chinese automotive industry since growth in 2016 is set to be artificial, thereby making carmakers' forecasts for 2017 difficult in particular.

We opt for an optimistic point of view for the short term on the Chinese market and are forecasting growth of 8% for 2016 and just 2% for 2017

The Chinese automotive market is clearly a growth market for the sector, but increasingly resembles more traditional mature markets, although the equipment rate remains fairly low relative to countries in this category.

We opt for an optimistic point of view for the short term on the Chinese market, following the strong start in 2016 (registrations up +11% YTD 2016), and are forecasting growth of 8% for 2016 and just 2% for 2017.

3.2.2. Brazil and Russia, two high-growth but very volatile countries

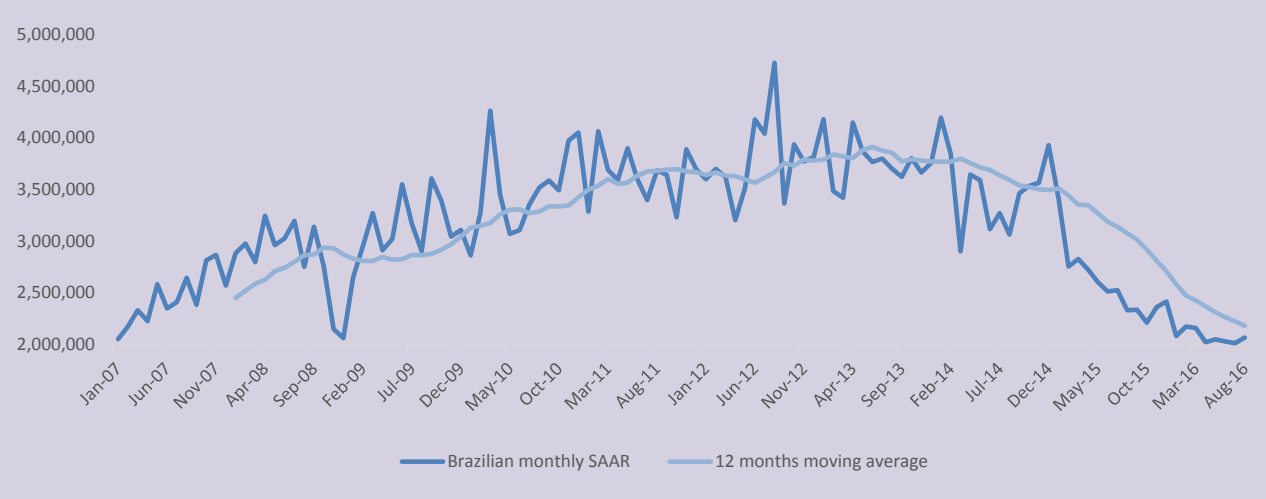
Brazilian market in crisis since 2013

As the **sixth-largest** global automotive market in terms of car registrations with almost **2.6 million** in new car sales in 2015 (*or 2.9% of the global market*), behind China, the US, Europe, Japan and India, in recent years, Brazil has been an Eldorado sought after by carmakers in emerging countries. The country's still-low motorisation rate with just **203 light vehicles for 1,000 inhabitants**, indeed leaves high development potential for the automotive industry. However, double-digit growth rates then left room for a plunge in the sector.

Brazilian car registrations fell by **7.1% in 2014 and 26.6% in 2015**, in a **sudden nosedive reflecting the political and economic situation in Brazil** with political concerns, household debt, a slowdown in investments, the plunge in oil prices, high inflation, and the recession that has lasted more than two years. However, in a market where economic growth and the state of the automotive sector are closely tied, the decline in consumer purchasing power and economic uncertainty have caused upheaval in the auto industry. The situation is unlikely to improve in the short term with the IMF's GDP growth estimate at **-3.8%** for 2016 and dismal H1 auto sales for the start of 2016 (*-25.4% compared with an already sluggish H1 2015, down 21%*). As a result, the fleet of vehicles in circulation has aged to now stand at virtually **nine years, or a level not far from those in mature regions** such as the EU.

The extent of this market decline, **back to the low points of 2007,** nevertheless suggests a **swift catching up in the medium term** with better visibility on the economic situation in the country and a move out of recession.

Fig. 23: Monthly change in the Brazilian auto market – SAAR (2007-16)



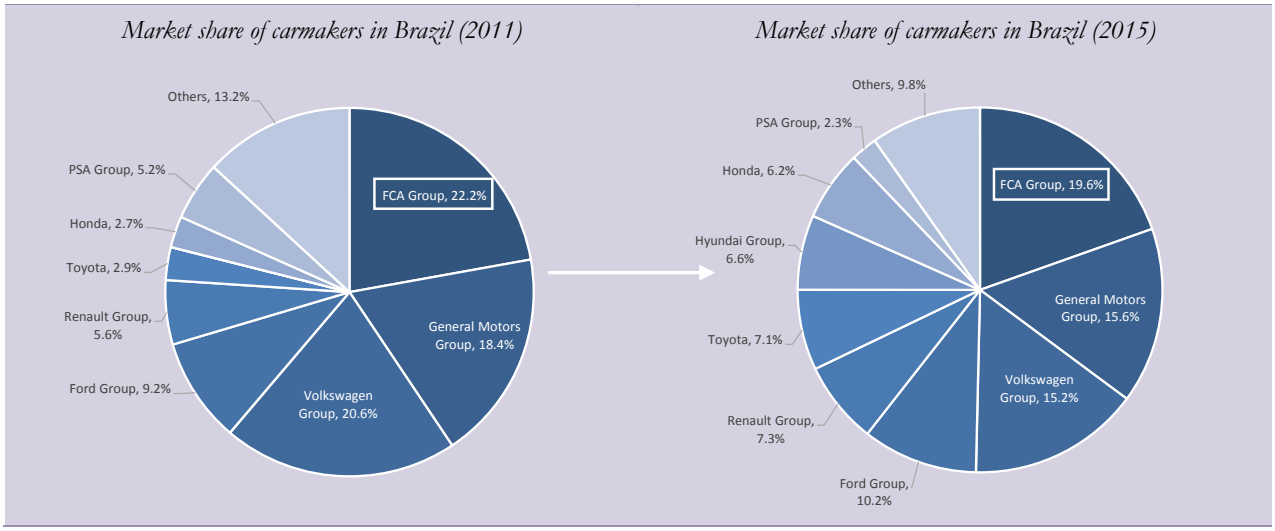
Source: ANFAVEA; Bryan, Garnier & Co ests.

Brazil is not very open to international trade with exports and imports only accounting for **16%** each of car registrations and bearing in mind that trade flows are primarily generated with other South American countries, namely **Argentina** and **Mexico**.

Brazil has also implemented **price barriers** on vehicle imports (*rising from 25% to 55%*) as well as **non-price barriers** by deliberately extending time-frames for obtaining import permits.

All of these measures are destined to protect the local market and have encouraged foreign **carmakers to set up directly in the country** and therefore increase their presence in the Brazilian market in order to make newly-built production sites profitable. The top four carmakers **Volkswagen, Ford, General Motors and Fiat** have since seen their market shares narrow to the benefit of new entrants made up mostly of Japanese groups **Honda** and **Toyota** as well as French group **Renault.** Italian group FCA nevertheless remains the main leader in the market with almost **20%** of sales. Whereas the Top 3 had **61%** of the new car market previously, they now only have **50%**. The situation is more mixed for French players historically present in Brazil with PSA having witnessed a decline in sales in recent years (*2.3% market share in 2015 compared with 5.2% in 2011*), whereas Renault has strengthened its position in the country (*7.3% market share in 2015 compared with 5.6% in 2011*).

Fig. 24: An increasingly tough competitive environment for the top players



Source: ANFAVEA; Bryan, Garnier & Co ests.

The Brazilian market is one of the most expensive markets in the world in tax terms

In addition to import taxes, Brazil also has a number of other taxes on new vehicle purchases, making the country **one of the most expensive markets in the world from a tax perspective** (*taxes account for between 20 and 50% of the end price of a car*) not to mention annual taxes for actually owning a vehicle. This fiscal burden prompts local consumers to seek cheaper cars, namely **smaller compact models produced locally.** As such, the 10 most sold car models in Brazil only concern vehicles made in the country and only one model (*the Strada pick-up*) stands out from other small compact models in the Top 10.

As the popular and middle classes have increased their wealth and urbanisation has prompted road developments, pick-up models have been neglected in favour of **less imposing models that are cheaper and consume less fuel.**

In terms of engines that have historically been petrol run, the country switched into ethanol during the 1980s and into **flexible fuel** in the 2000s (*an engine capable of running on a mixture of petrol and ethanol*). Ethanol has proven to be up to **50%** cheaper than petrol at the pump, especially in view of tax incentives. Since then, flexible engines have accounted for almost **90%** of sales. Meanwhile diesel engines have been banned from the passenger car market.

This market is very sensitive to the country's economy and also to the various changes in tax regimes and should continue to suffer in 2016, although it remains a very important market for the main global carmakers given the increase in size and wealth of the middle class.

In our model, we are forecasting a 25% decline in new registrations for 2016 and estimate that the market should recover by 5% in 2017.

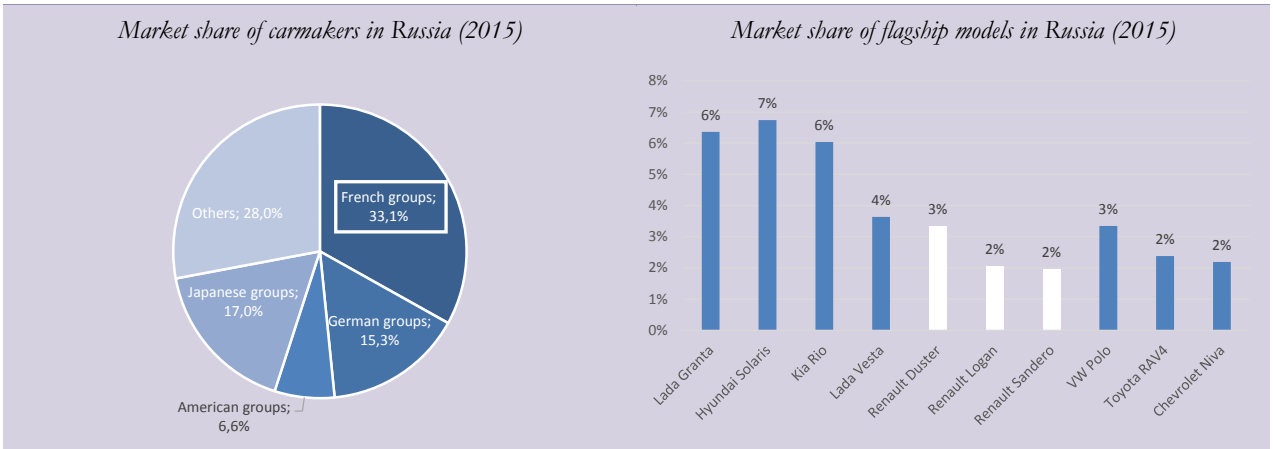
Russian auto market still dependent on changes in the oil price

Russia is the **seventh-largest** global auto market in terms of car registrations with more than **1.6 million** new light vehicle sales in 2015 (*or 1.9% of the global market*), behind Brazil. The country has long been a source of fresh growth for foreign carmakers, especially in view of its low motorisation rate of **351 light vehicles for 1,000 inhabitants** (*half the rate of the rest of Europe*).

This appeal has resulted in a **high level of penetration by foreign groups** in new car registrations, especially for **German groups** *(around 15% market share*) and **Japanese groups** (*more than 17%*). The Russian brands have not dominated the market since 2010, allowing Hyundai/Kia and Volkswagen to dominate the market and only Avtovaz is an exception, positioned as the number two carmaker thanks to its emblematic brand Lada.

At the French carmakers, only **Renault** boasts strong presence in this market, thanks in particular to the capital ties created with **Lada-Avtovaz in 2008, the first Russian national carmaker.** This operation has lifted market share of the new **Avtovaz-Renaut-Nissan** alliance to more than **32%**, making it the **top player in Russia**. The PSA group only has market share of **2.7%.**

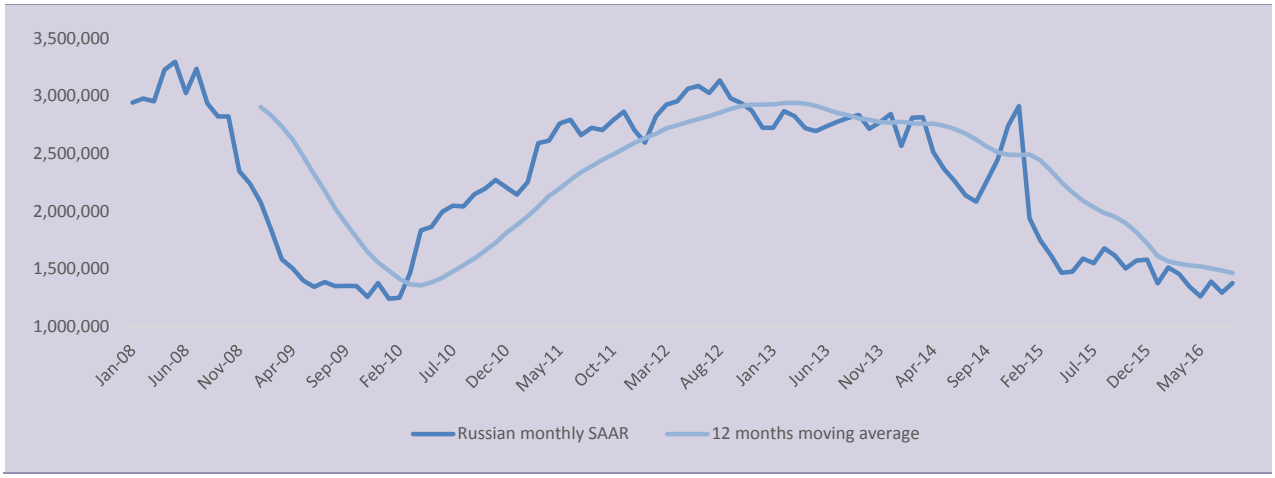
Fig. 25: An increasingly tough competitive backdrop



Source: AEB; AOR; Bryan, Garnier & Co ests.

The Russian car registrations market has been **extremely volatile** since 2008 with downward phases *(-49.4% in 2009*) and recovery phases (*+30% in 2010, +39% in 2011*). However, and more generally, the Russian market has suffered from: **1/** the financial crisis in 2007-08 like the majority of mature markets and emerging countries, **2/** the European embargo put in place against the Russian economy in 2014, and finally, **3/** the plunge in oil prices in 2014-15. Therefore, after a near **36%** nosedive in 2015 for **1.6 million car registrations,** the Russian market seems to **have reached its low point of 2009 with 1.5 million new car registrations.**

Fig. 26: Monthly change in the Russian market – SAAR (2008-16)



Source: AEB; OAR; Bryan, Garnier & Co ests.

This shock has caused an **ageing in the fleet of vehicles in circulation** in Russia, with passenger cars showing an average age of **12.5 years** with a significant difference between Russian models (*16 years*) and foreign models (*9.9 years*) reflecting **a neglect of local brands** in sales in recent years. In order to counter the decline in sales, in 2015, the Russian government implemented a number of incentive measures including preferential car loans and preferential leasing programmes, concerning almost a third of sales in 2015.

Despite this, H1 2016 sales fell **14%** on already undemanding comparison with the **36%** drop in Q1 2015, whereas the IMF is still forecasting a further recession in Russia with **-1.5%** in 2016 (*vs. -3.7% in 2015).* Players present locally are nevertheless fairly optimistic in terms of a **turnaround in the market and a return to profit in 2018,** like Renault-Nissan with their joint venture Avtovaz, suggesting a still difficult backdrop, or at least flat for coming years, even if the IMF is forecasting a **1%** increase in GDP in 2017.

In our models, we are forecasting a 12% drop in volumes in 2016 and a 5% increase in 2017 in the Russian market.

3.3. Lower growth and little pricing power

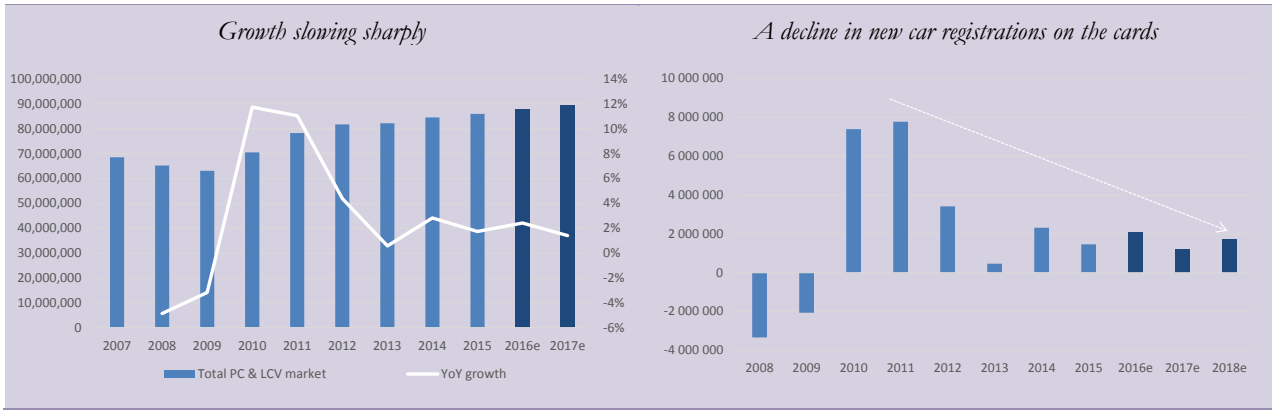
3.3.1. Heading for a slowdown in the cycle?

Our 2016 and 2017 estimates imply a **slowdown in the cycle in the automotive sector**, at least in terms of growth in demand and production. The recent Brexit vote could have a hefty negative impact on demand in the UK and in Europe, albeit difficult to assess for the moment.

Note that between 2008 and 2011, growth in demand was primarily driven by emerging markets, whereas over 2012-16, growth stemmed from mature markets. For 2017-18, we estimate that global growth could slow in view of **1/**the crises affecting emerging markets and which could delay the increase in middle class motorisation rates and **2/**the end of the recovery phase in markets in mature countries following the 2008 crisis.

Demand for new vehicles should therefore slow and stabilise at around **2.4% in 2016e** and then **1.4% in 2017e and 1.9% in 2018e**. Note importantly that although growth is set to be lower, in absolute terms we expect the market to continue growing by at least **one million units a year**.

Fig. 27: A fairly mature global sector in the end

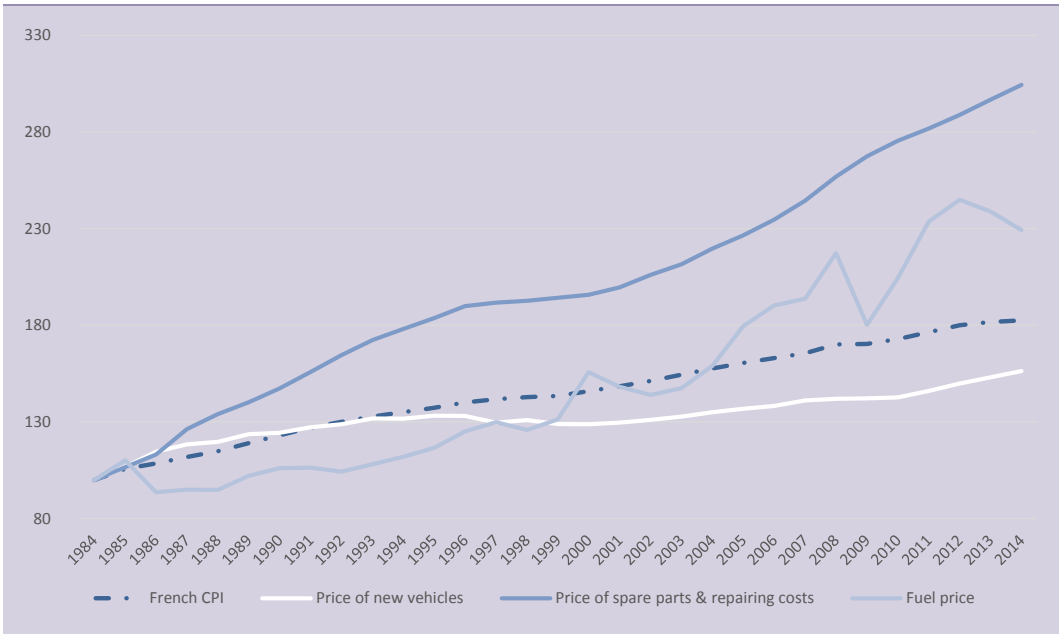


Source: Renault; Bryan, Garnier & Co ests.

3.3.2. Increasingly high content for an increasing low price

Like a lot of industries considered as commodities, the auto industry does not escape the rule of deflationary pressure despite significant moves upscale over the past 30 years. Comparison of price indices in France since **1984** shows that consumer prices have generally risen by **83%** whereas new car prices (*comparable model over time in terms of category*) have only increased by **56%** due in particular to competitive pressure, but also the roll-out of market support measures (*bonus/malus system and scrappage premium since 2008*). **This trend was also observed in Europe with a 25pp difference between the two indices between 1996 and 2015 with base 100 in 1996.** Although part of this decline in value in real money terms was indirectly financed by tax payers via incentive schemes, sharp competitive pressure clearly implied a narrowing in carmakers' margins, and especially those with the weakest **pricing power**.

Fig. 28: Change in price indices since 1984 in France



Source: Insee, CCFA; Bryan, Garnier & Co ests.

The other restriction weighing on carmakers' margins concerns the increase in R&D costs and unit production costs in order to **1/**integrate differentiating innovations relative to competitors and **2/**respect regulatory restrictions, especially concerning safety and emissions of polluting substances. The restrictions imposed in Europe by the **European Commission** and in the US by the **Environmental Protection Agency** (*EPA*), have obliged carmakers to invest in equipment that helps reduce **CO_2 emissions and NO_X** particles that are mostly damaging to production margins. The risk of margins being squeezed is therefore very high for carmakers, especially since a large share of their cost bases are fixed, thereby limiting flexibility and adaptability when demand varies significantly.

Today in the majority of mature countries, consumers require increasingly few months' worth of wages in order to buy a car compared with beforehand, adding weight to the idea that deflationary pressure takes a toll on the sector. Based on INSEE figures, less than one year of minimum wage is now necessary in France (*11.2 months of minimum SMIC wage more specifically*) to buy a **Clio Zen TCE90** compared with almost **15 months of the minimum wage at the time** to buy a **Renault 5 in 1980**.

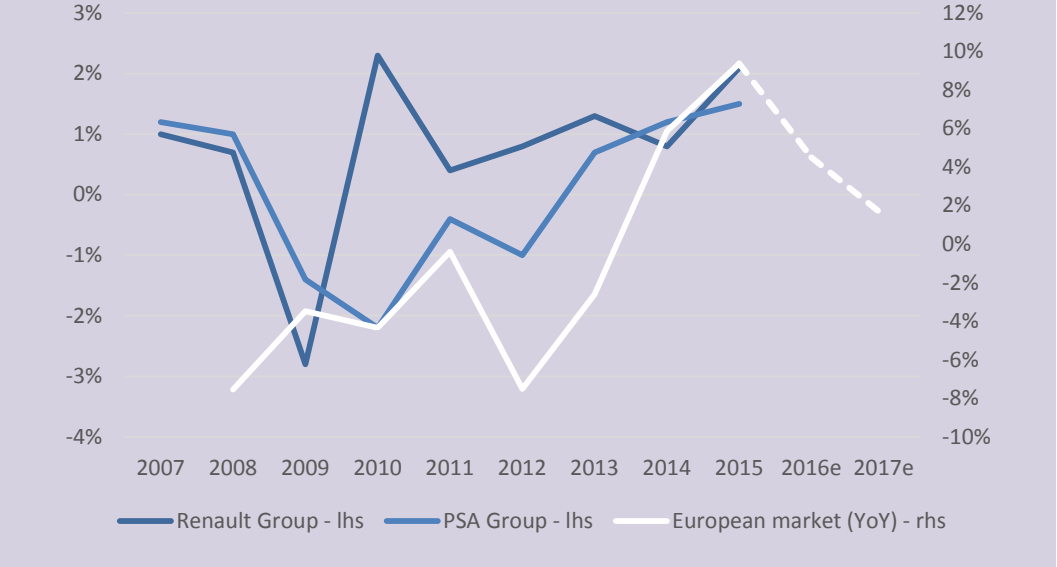
Whereas the category is identical, the Clio Zen's on-board equipment and performances are far superior in 2016 for a lower price-tag.

3.3.3. The traditional price war is no help

The auto sector is generally very exposed to the price component, particularly due to production upstream of demand and not downstream and hence, due to stock effects that oblige carmakers, dealers and resellers to adjust prices downwards in order to run down their stocks.

Although the price effect is difficult to analyse since the promotional offers made by the various sector players remain local and therefore ephemeral, it is interesting to compare the two figures (*price effect independent of forex and mix effects*) published by the two French mid-range carmakers, **Renault** and **Peugeot since 2007** with volume changes in the European auto market which still accounts for more than two thirds of their volumes. Here we can clearly see the correlation between the level of car registrations and price, with carmakers having the lowest pricing power given that they are obliged to adjust their vehicle prices downwards in order to attract customers. **These values are therefore doubly affected by the market decline.**

Fig. 29: Price effect at Renault and PSA vs. change in the European market



Source: Renault, PSA; Bryan, Garnier & Co ests.

Upscale and premium carmakers suffer less from the price war than mid-range carmakers

In mature markets that we believe could come under pressure over **2016, 2017** and **2018**, it seems clear to us that pressure on prices is likely to amplify in order to absorb as far as possible production costs at plants and in order to reduce the rising levels of stocks. As indicated previously, the price war is more intense in the mid-range segment than in the upscale segment since **1/**the upscale end-client remains less affected by the crisis and **2/**upscale carmakers can protect their pricing power more easily and hence their margins, in particular thanks to technology and product quality.

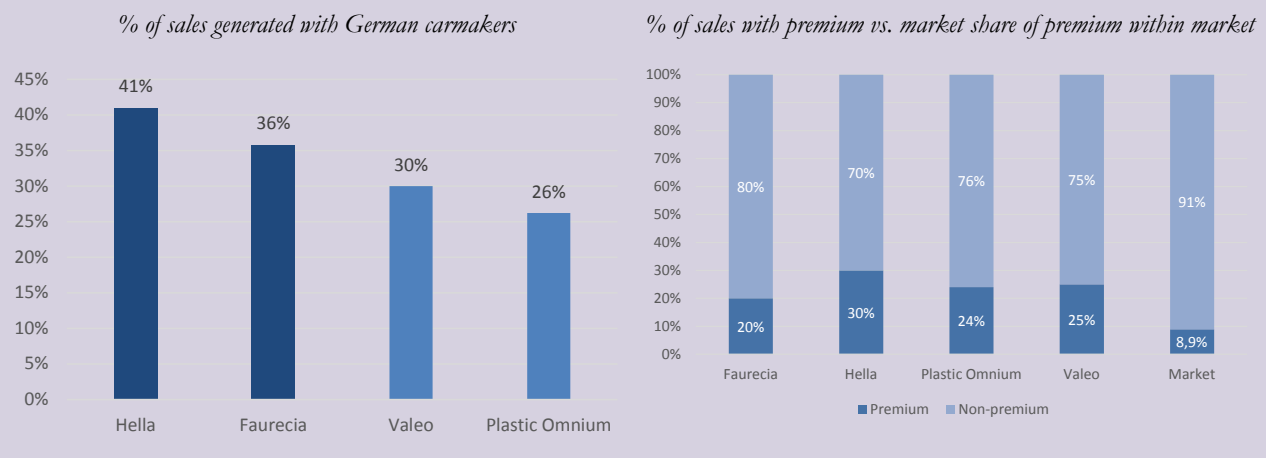
As such, we expect pressure on prices in the main European countries in 2017, as well as in the US where the market is in the cycle high and showing signs of a slowdown. Trends look even more alarming in China since 2015 when the auto market began to slow, discounts began to multiply hand-in-hand with lower insurance costs and zero-interest loans.

Faurecia and Hella are the two players offering the highest exposure in terms of sales with German carmakers

Carmakers with extensive model portfolios for the coming three years, should resist better than the average player. Premium carmakers such as **BMW, Daimler**, **Volvo**, **JLR** and **Ferrari** (*luxury*) should also perform better than more generalist carmakers such as **Renault, Peugeot** and **FCA**.

As such, we favour components makers that are highly exposed to groups and premium brands where the negative price effect reflecting stock rundowns should be lower. Among the three French parts makers, **Faurecia** and **Hella** are the two groups that offer the highest exposure in terms of sales with German carmakers, and more specifically, with **Daimler** and **BMW**. Valeo communicates on its exposure to German carmakers without providing a breakdown by carmaker.

Fig. 30: High exposure to premium carmakers points to resilience for parts makers



Source: Faurecia; Plastic Omnium; Valeo; Hella; BMW; Bryan, Garnier & Co ests.

4. Innovation: the only way to stand out

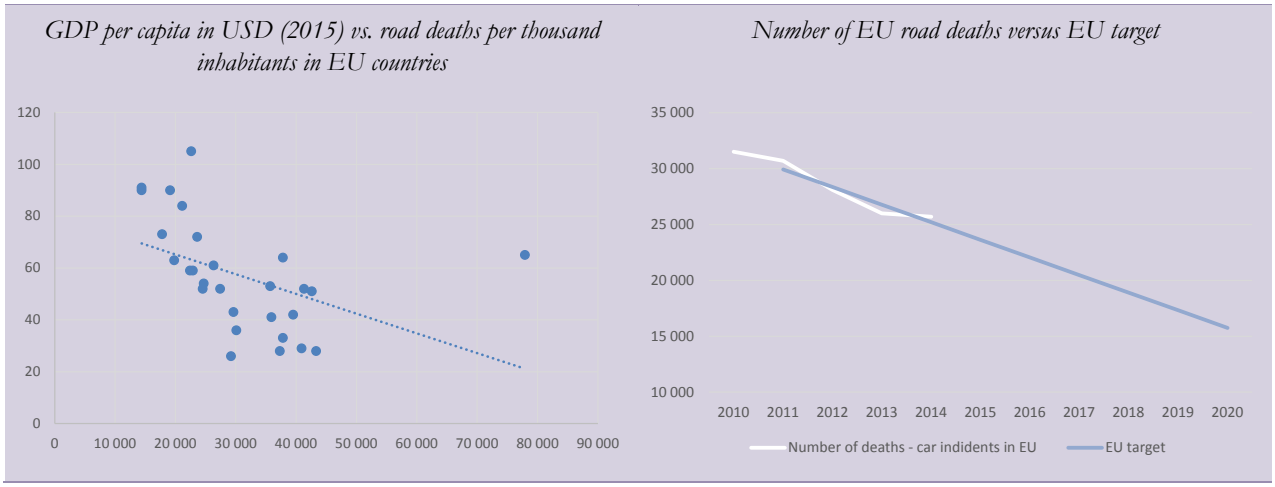
In this deflationary context combined with tight regulatory restrictions, carmakers have no choice but to continue fuelling the vicious circle of offering more content for the same price, by increasingly building innovative features into their products. This explains the shift seen in the global automotive market over the last 10 years or so, with entry-level and mid-range segments increasingly using premium parts (*albeit of lower quality and efficiency*), with a time-lag relative to their introduction by luxury carmakers, and high-end manufacturers increasingly taking positions in smaller categories.

Recent technological advances through the deployment of connected devices have also affected the automotive industry over the last few years. While the race for innovation previously focused more on **motorisation and passive safety**, it has now moved onto a new stage with the ultimate goals of making vehicles **1/**as safe as possible for drivers, passengers and pedestrians, **2/** more connected to the outside environment to make them totally autonomous and **3/**as clean as possible (*less polluting or carbon free*).

4.1. From passive to active safety

Road safety is becoming increasingly important in certain emerging countries and remains a government priority in mature markets such as Europe, the US and Japan. In the European Union, **25,700 people were killed in road accidents** in 2014 (*down 1% versus 2013*), representing a rate of **51 deaths** per million inhabitants. The EU has set the target of **halving the number of road deaths** recorded in 2010 by 2020 (*to 15,750 fatalities*) by adopting new road safety rules and encouraging carmakers to include pedestrian detection systems in their new models. EU statistics show **a clear correlation between GDP per capita and the death toll on roads.** This suggests that, as well as improvements in the cars in circulation in countries or regions with lower GDP per capita, we are also likely to see an improvement in the model mix (*newer, better quality and better equipped vehicles*). In this scenario, automotive parts manufacturers stand to benefit on two fronts.

Fig. 31: Strong correlation between GDP per capita and road traffic deaths



Source: European Commission; Bryan, Garnier & Co ests.

Originally, the focus was on passive safety

In mature countries, improving vehicle safety has become **a real priority, with governments imposing ever stricter regulations.** Carmakers need to develop cars that are safer for both drivers and pedestrians, or risk being unable to market them.

In France, **safety belts** became compulsory in **1972.** In Europe, **ABS** (*anti-lock braking system*) and **ESP** (*Electronic Stability Programme)* were made compulsory for new vehicles in 2003 and 2012, respectively.

In Europe, **Belgium**-based **Euro NCAP**, founded in **1997**, performs crash tests to assess vehicles' passive safety. Through its various tests (*frontal impact, lateral impact, collisions with poles and pedestrians*), it awards vehicles a rating from **0 to 5 stars**, on the basis of which unsafe vehicles can be kept off the market and consumers can assess car safety levels. The tests have become more demanding over time, as have the related analyses (*more sensors*), forcing carmakers to spend more on R&D. The aim is not so much to make vehicles sturdier, but to make vehicles with bodywork that crumples so as to absorb the impact of a crash (*only the survival cell must remain resistant*).

Car component suppliers clearly play a key role in vehicle safety. Their input is set to gain in importance as the regulations facing carmakers become increasingly demanding. **Euro NCAP's** tests only assess the ability of vehicles to withstand different types of impact (*frontal, lateral, etc.*) and maximise the **survival rate of passengers and pedestrians**. Passive safety is now fairly well developed and seems to offer limited growth potential, except in emerging markets. The future of vehicle safety now lies in the development of active safety systems.

We are now entering the age of active security, or ADAS

Today, innovation in the field of vehicle security is geared towards **active safety, with the aim of avoiding accidents**. This market, driven mainly by the premium segment, covers a wealth of safety features: breathalysers to prevent drivers under the influence of alcohol from starting their vehicles (e.g. *Volvo's Alcoguard*), cameras to detect sleepy drivers, intelligent speed limitation or adaptation systems, blind spot detection systems (*cameras showing blind spots on a vehicle's in-dash screen, making use of rear-view mirrors unnecessary*), and laser lights which have longer ranges without dazzling drivers approaching in the opposite direction.

Research by carmakers and parts suppliers for the development of autonomous vehicles should also improve the level of active security in new models thanks to the use of sensors, cameras and other on-board electronic systems using **Advanced Driver Assistance Systems** (*ADAS*). This market is likely to be a major growth platform for component suppliers operating in this segment *(Bosch, Valeo, Autoliv, etc.*), especially if regulations are tightened, particularly in mature markets, as happened a few years ago with passive safety rules.

4.2. From connected to autonomous cars

The automotive industry is in the throes of a massive transformation, like many other sectors, following the widespread deployment of connected devices and in-vehicle infotainment (IVI). Carmakers are working directly with traditional parts suppliers, as well as with new players in the high-tech sector, to develop connected vehicles (navigation, multimedia, telephone, service systems, etc.) and autonomous cars. Players from outside the automotive sector, such as **Google** and **Apple**, are also developing their own automatic control systems, relying on their technological expertise to get ahead of traditional carmakers.

This shift, which increases the number of features needed in a vehicle, is likely to benefit automotive suppliers (*and other equipment suppliers*) without necessarily benefiting manufacturers to the same extent. The impact is likely to be felt in terms of market share rather than average car prices: we believe that, despite the improved mix in the car market, manufacturers' pricing power will remain unchanged because carmakers will have to adapt their prices to changing demand.

A few words on connected vehicles…

A connected or communicative vehicle is a vehicle that is connected to its environment, through **radio reception, smartphone** connections (*Wi-Fi, Bluetooth, NFC Near Field Communication*), infrastructure connections (*GPS positioning, GSM networks, etc.*) and **Car2X** technology (*car-to-car or car-to-infrastructure communication*). Connected vehicles interact with their environment (*emergency calls, hands-free kits, etc.)* and form an inherent part of an ecosystem in which all objects will be able to communicate with each other. They mark the transition from "closed-off" vehicles to extended vehicles with connections to the cloud and mobile devices.

The major carmakers joined the race for connectivity a few years ago by developing systems to enable their vehicles to connect with other connected objects and/or the cloud. These developments are managed either internally or via partnerships with technology companies offering expertise in the area of connectivity.

According to a number of studies, the market is set to grow by more than **30%** a year from 2014 to 2020, reaching overall sales of **USD120-140bn** at the end of 2020.

This growth is likely to be driven by needs in six key areas: **1/** assisted driving *(>40% of the potential market*), **2/** safety (*29%*), **3/** leisure (*8-9%*), **4/** wellbeing (*7%*), **5/** vehicle management and **6/** mobility management.

Carmakers and car parts suppliers have developed **tactile dashboard, 2G, 3G or 4G communication modules**, and smartphone/vehicle **interfaces** and are integrating them into the production of an increasing number of models. As often happens in the industry, the trend initially takes hold in premium brands and models with the strongest pricing power, before filtering down to mid-range then low-cost ranges. Communication systems with an emergency call function will be required by law in Europe from **April 2018.** This feature, enabling the vehicle to contact emergency services directly, should be a major source of growth for equipment suppliers active in this segment of the market.

In France's top three parts suppliers, Valeo is the most present in the connected vehicle market

Out of France's top three automotive parts suppliers, **Valeo** is the most active in this segment, notably thanks to its partnership with **Capgemini** for the development of virtual keys, but also through its recent acquisition of Peiker, Germany's leading player in on-board telematics and connectivity. **Faurecia is also present in this market via its dashboard activity, while Hella is through its electronic components. Plastic Omnium is however fully absent from this trend, as of now.**

Fig. 32: Example of systems/applications developed for connected cars

Connected cars by Valeo

Apple CarPlay system

Source: Valeo, Apple; Bryan, Garnier & Co ests.

The market for connected cars is constantly evolving and covers a **wealth of different interfaces/systems** to connect vehicles to network and telephone infrastructures. However, most traditional car parts suppliers are not currently involved in collecting data compiled by their products in order to process it *("big data")* even though this field provides a huge opportunity to develop a multitude of services for a potentially enormous market. We believe that this market is likely to remain dominated by carmakers or technology companies such as Google and Apple. **Automotive part suppliers are likely to limit their activities to developing channels that will subsequently be used by other players to analyse data.**

…and autonomous vehicles

The boundary between connected cars and autonomous cars is very blurred, since autonomous cars need to be connected to other cars and their environment in order to become fully autonomous.

In this market, vehicles gradually become autonomous **in three broad stages:**

- **Assisted driving:** a system which manages either the vehicle's longitudinal control or lateral control on the road, via automatic cruise control (*ACC*), lane keeping or traffic jam assist functions. **With these technologies, the driver must hold the steering wheel.**

- **Automatic or automated driving**: a system that simultaneously manages the longitudinal and lateral control of the vehicle without the driver having to operate the steering wheel (*drivers are allowed to let go of the wheel*) or pedals. **However, drivers must continue to supervise the system in real time** and must not do any tasks other than those related to driving the vehicle.

- **Fully autonomous vehicle**: with this type of driving, **the driver no longer has to supervise the system**, at least during certain phases. Drivers can temporarily carry out other tasks not related to driving.

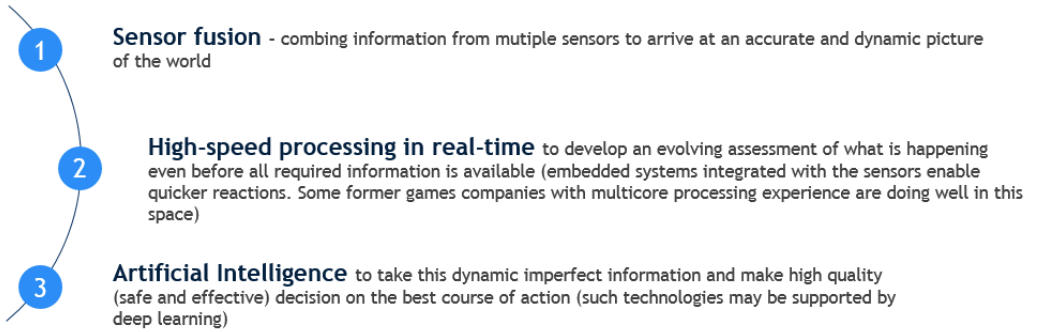
The connected autonomous vehicle poses a major technological challenge for such an automated and global industry and calls for substantial changes in the way that in-vehicle systems are designed. Connected services also create a new market in which automotive and consumer electronics players still need to build up their positions, while societal challenges also lie beyond these business or technological considerations. **Acceptance of the various levels of vehicle automation by consumers and governments will also be achieved in stages and this could limit growth in the market in the short and medium terms.**

At present the **Vienna Convention** (*which has set out global road traffic principles since 1968*), as interpreted by EU member states, does not authorise the use of autonomous vehicles on Europe's roads, unless their systems can be controlled and deactivated by the driver. This condition was only approved on **23rd March 2016** (*previously autonomous cars were totally banned*) and authorises the use on European roads of **systems for lane-keeping, respecting safety distances, driving in traffic jams, assisted parking and automatic emergency braking**. Although the regulator has begun to embrace technological progress, it has not yet opened the gates to the widespread use of self-driving cars. The amendment approved by the UNECE does not alter **article 8 of the Vienna Convention**, whereby vehicles must have a driver, and as such limits the benefits of self-driving vehicles (*enabling drivers to work, rest, read, etc.*). Drivers using assisted driving systems must continue to concentrate on the road and be ready to take the wheel.

In the US, a frontrunner in this field, a lack of consistency and uniformity in the legislation brought in by the different states could limit potential growth in autonomous vehicles. Over the last two years, **23 US states** have adopted various laws that could affect this market if they contradict each other. That said, legislative constraints in Europe and the US have not prevented **Google, Tesla, Delphi, Valeo, BMW, Volvo** and **PSA** from testing their prototype autonomous vehicles in real driving environments. Partnerships between carmakers, part suppliers and technology companies have clearly been strengthened thanks to the development of this market.

We assume the development of this type of vehicle within the entire worldwide automotive fleet will require the deployment and the combination of three types of technology: **1/** the multiplication of the number of sensors (*connected together*) integrated within the car body to better apprehend the exterior environment of the vehicle, **2/** the development and the integration of systems allowing high-speed processing in real-time, and finally **3/** the incorporation of artificial intelligence systems giving the ability of the vehicle to take decisions based on intelligent memory. Most of the recent partnerships and acquisitions in the sector were actually made within these three type of technology.

Fig. 33: The autonomous vehicle needs these three key technologies



Source: Bryan, Garnier & Co ests.

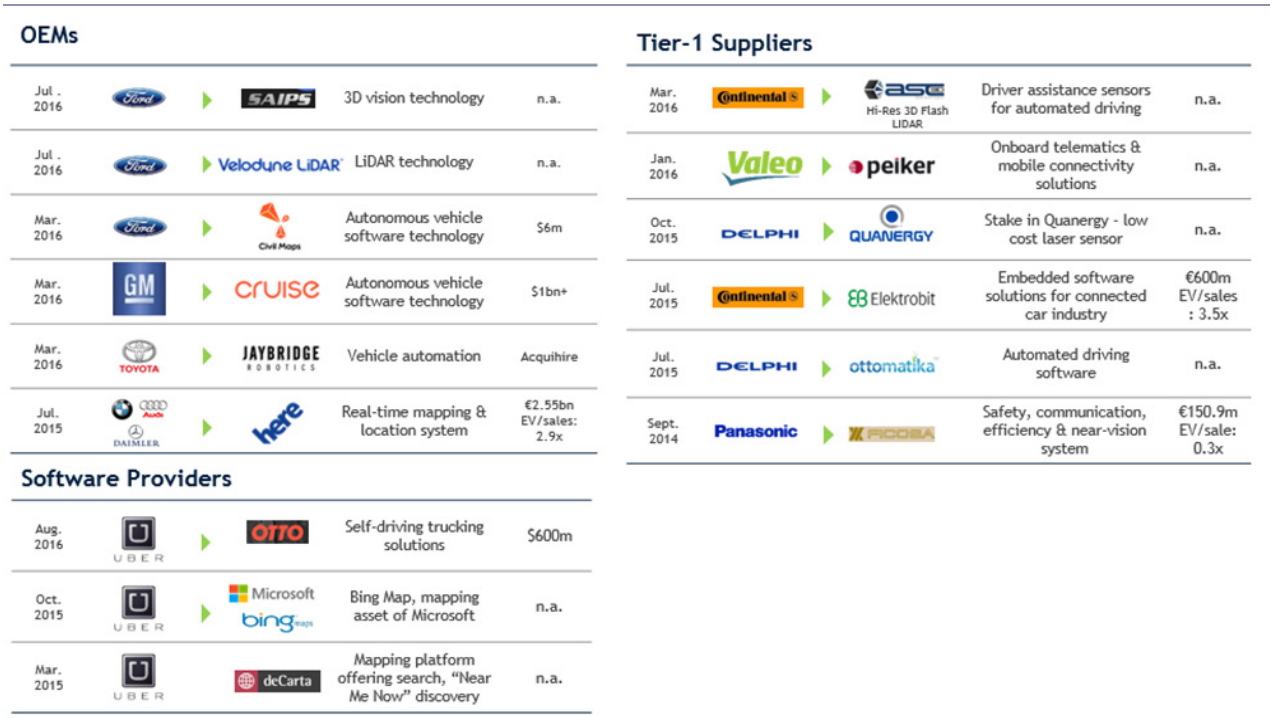
Fig. 34: Partnerships between OEMs, suppliers & external technological players

Source: Bryan, Garnier & Co ests.

The sector was also driven by numerous M&A deals, completed essentially by dominant players interested in reinforcing their expertise within this high growth potential market.

In our BG auto coverage, only Valeo is quite active in terms of industrial partnerships or M&A, especially in this market. Beside its two partnerships with **Mobileye** and **Safran**, signed respectively in **March 2015** and in **September 2013**, the group recently acquired (*January 2016*) **Peiker**, a German major supplier of on-board telematics and mobile connectivity solutions.

Fig. 35: A dynamic M&A market in the sector



Source: Bryan, Garnier & Co ests.

Beyond legislation, which clearly continues to limit the development of autonomous vehicles, the question of who is responsible in the event of accidents involving self-driving cars poses another problem. As regards the semi-autonomous vehicles currently in circulation, the driver is responsible unless the vehicle is parking autonomously, in which case the component supplier is liable. In terms of responsibility for accidents involving fully autonomous vehicles, several solutions can be envisaged but decisions remain to be taken: **1/**manufacturers and parts suppliers could take out insurance policies with major insurance companies to cover their entire self-driving fleet or **2/**an insurance fund could be set up by the profession as a whole in order to fund compensation payments in the event of accidents. **In both cases, the aim would be to shift responsibility away from the driver.**

According to a survey by the University of Michigan, only 15.5% of those polled could see themselves using a **fully autonomous** car

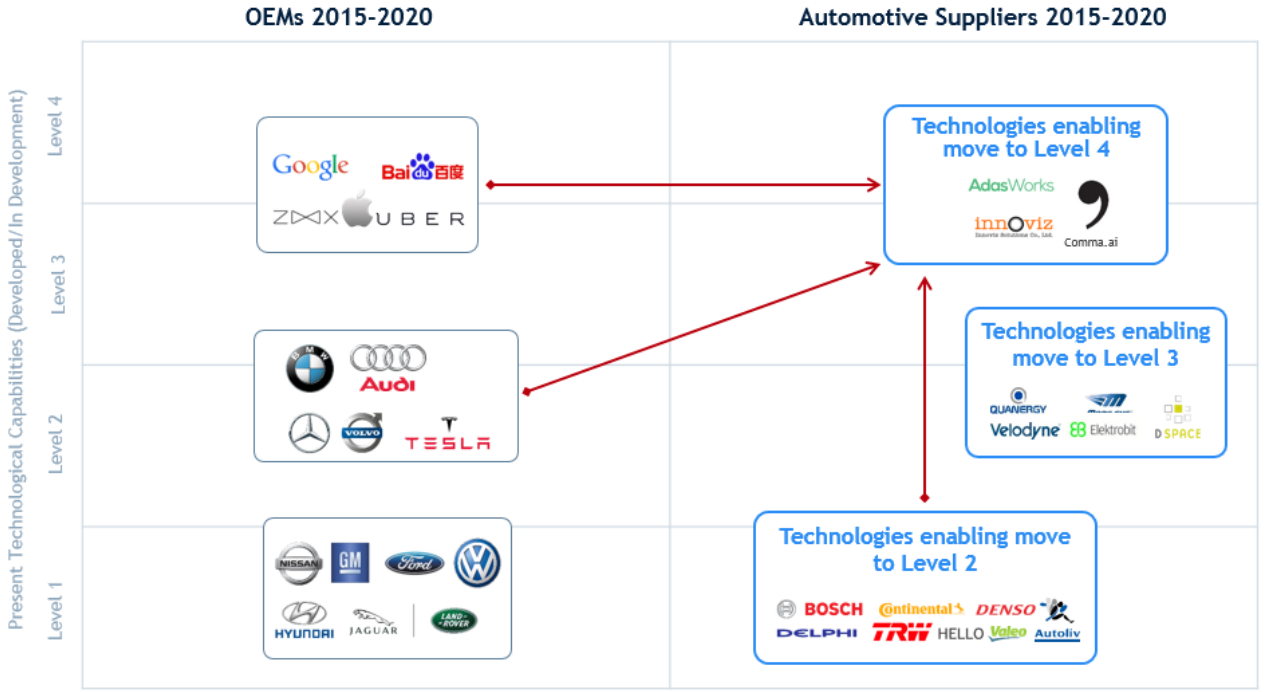
Moreover, despite the increasing appeal of the latest technologies among the general public, not everyone is in favour of self-driving cars. According to a recent survey by the **University of Michigan**, **45.8%** of drivers prefer to keep total control of their vehicles when driving while **38.7%** are interested in the semi-autonomous functionalities already in use (*such as assisted parking and cruise control*). Only **15.5%** of those polled could see themselves using a **fully autonomous** car.

The importance of autonomous cars in the automotive industry will clearly increase in the coming years, although cultural and legal obstacles are likely to continue to slow down their development in the short and medium term. However, we believe that the use of semi-autonomous vehicles is set to enjoy exponential growth over this same period, to the benefit of component suppliers which develop **sensors, radars, cameras, LiDAR (*laser detection systems*) or automatic braking systems.**

We then do not exclude further new acquisitions in the sector given the strong interests from OEMs or suppliers to expand within the ADAS market. We also assume specialists suppliers as **Innoviz,**

AdasWorks or **Comma.ai** could potentially become interesting targets for new technological entrants as **Google** or **Uber** considering the strong appetite from these big firms for LiDar/GPS technologies.

Fig. 36: Further acquisitions to come ?



Source: Bryan, Garnier & Co ests.

In our universe of car components makers, only **Valeo** and **Hella** (*through electronic components*) offer carmakers innovative solutions *(ADAS)* for use in the development of semi-autonomous or fully autonomous cars.

Impact on the Insurance sector: the distant menace

Written by ***Olivier Pauchaut****, equity analyst - Insurance (+33 1 56 68 75 49 - opauchaut@bryangarnier.com)*

Two figures:

- **40%:** motor insurance premiums as a percentage of total P&C insurance activities, making it one of the largest branches of the insurance scope

- **90%:** the share of road accidents caused by human error.

These two figures are enough to highlight the potentially disruptive nature of the advent of fully-autonomous vehicles. At this stage, visibility is lacking as to how car insurance would look in the autonomous vehicle era, but the first studies suggest an **80%** decline in the amount of claims and a **60%** decline in the cost of claims (*increase in average claim due to more complicated and costly repair work).* Is this excellent news for insurance groups? Not really since the decline in risk in a branch as competitive as car insurance is automatically set to result in a decline in insurance premiums, thereby making fixed cost structures unsustainable in a segment that is already structurally loss-making (*combined ratio > 100%*). In all, there is little doubt that consumers should come off better, but this is not necessarily the case for insurers.
In addition to potentially massive financial impacts, the very way of apprehending car insurance could be thrown into question. Today, car insurance is essentially (*85%*) a retail business, in which the notion of the driver's responsibility is central (*1968 Vienna Convention*). In the future, with the inevitable extension in the notion of responsibility (*to carmakers, suppliers of embedded technology, algorithm designers, companies responsible for transmitting data, users?*) the market physiognomy could change. We could imagine that autonomous carmakers might insure the cars they sell or rent themselves, thereby transforming car insurance into a wholesale business based on the notion of product responsibility.

The advent of fully autonomous vehicles is nevertheless not for tomorrow. In the shorter term, the reality is more likely to resemble a long phase of ramp-up for semi-autonomous vehicles. However, the development of this type of vehicle does not require a change in the regulatory framework and the notion of responsibility since the semi-autonomous vehicle must by nature remain permanently under the driver's control. The implications for car insurance are therefore more limited, albeit not zero, and insurance companies are currently looking for an experience curve that would enable them to better assess changes in risk, and hence in pricing. For example, Allianz, whose European research centre on automotive risks has shown the efficacy of certain systems, has just launched a contract in France for vehicles equipped with at least one emergency braking system, an automatic parking system (*management of steering, acceleration and braking*) or an adaptive speed regulator *(enabling safety distances to be respected*), which notably plans for a **25%** cut in the insurance premium. A similar offer is thought to be in preparation for Germany. It would nevertheless be mistaken to conclude that car insurance is set to witness sharp deflationary pressure in the short term. Indeed, French insurance groups estimate that semi-autonomous vehicles currently represent **3-4%** of vehicle sales but **< 0.5%** of vehicles in circulation. Assuming that the share of semi-autonomous vehicles rises rapidly in terms of sales (*30% out to 2020?*), their share in the overall stock is unlikely to exceed 5% by this date. **As such, while the ramp-up is unavoidable, it is set to be very slow and will leave insurance groups enough time to adapt. In short, this again testifies to the fact that in insurance, the notion of stock is stronger than that of flows.**

In the majority of major European countries, mutuals traditionally boast high market shares that can exceed **50%**. This is notably the case in France, where bancassurers are also sizeable rivals. For the composite insurance companies we cover (**Allianz, AXA, Zurich**), motor insurance represents **25-40% of P&C premiums**.

4.3. Shifting towards ever cleaner cars

Lower CO_2 emissions

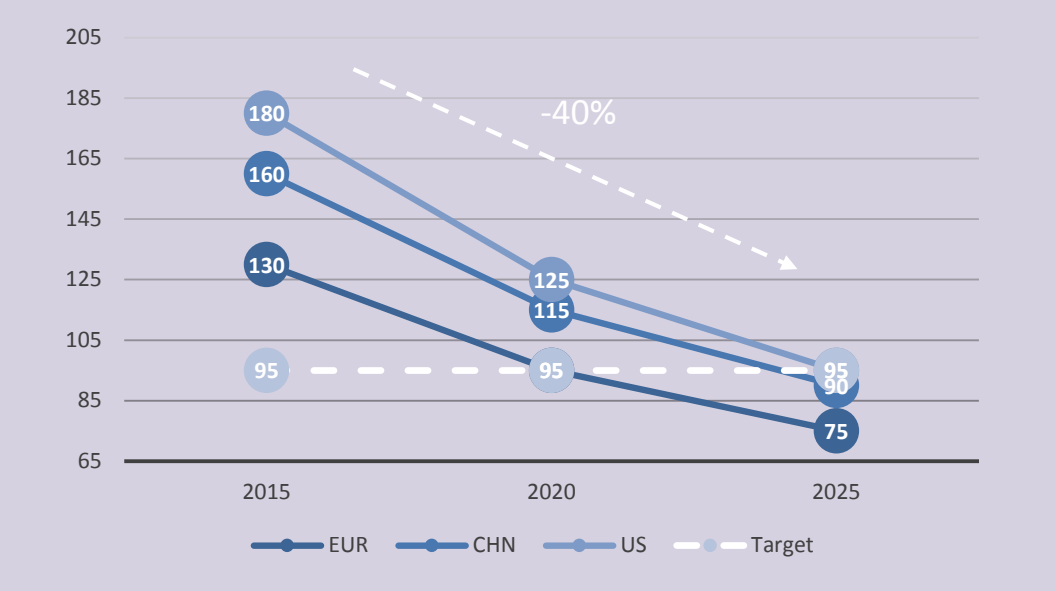
The need to reduce fuel consumption has become a priority for carmakers as the **European Union, Japan and the United States** have gradually brought in stringent standards for CO_2 emissions/km. With the transport sector representing around one third of global CO_2 emissions, governments in mature countries have been swift to impose regulations to limit its impact on the environment and the population's health.

The European Union has set a CO_2 emission target of 95g/km for each carmaker producing and marketing new vehicles in the EU

For example, the European Union has set a **CO_2 emission target of 95g/km** for each carmaker producing and marketing new vehicles in the EU. As this standard refers to the average level of emissions, manufacturers wishing to continue producing heavy-duty vehicles must compensate by selling models with much lower CO_2 emissions, i.e. either cars with very small engines or hybrid or electric vehicles. As well as complying with this average for their overall production, by 2020 carmakers must ensure that **95%** of all new cars launched do not exceed this target. The restriction will be extended to **100%** of cars at the end of 2020. In order to arrive at a **CO_2** level of **95g/km** in 2020, manufacturers can use a calculation system whereby they can give greater weight to vehicles emitting less than **50g of CO_2/km.** As such, each low-emission vehicle counted as **3.5 cars in 2013** and should count as **two in 2020 then as one from 2023** for cars emitting less than **35g of CO_2/km.**

Similar regulatory constraints exist in other mature countries such as the **US** and **Japan**. China also recently joined the fight against emissions, obliging its carmakers to change the way they design vehicles. These regulatory restrictions force carmakers and therefore auto parts suppliers to innovate in order to make their vehicles as clean as possible.

Fig. 37: Demanding targets for reductions in CO_2 emissions (CO_2 g/km)



Source: Faurecia; Bryan, Garnier & Co ests.

Carmakers have a number of ways in which to meet the requirement to reduce **CO_2 emissions**, most of which involve equipment provided by car parts suppliers. Here are the **six main** options:

- **Reducing the vehicle's weight**: using lighter materials such as **carbon** or **composite materials** for vehicle floors or rear hatches drastically reduces a vehicle's weight. Propylene can also be replaced by plant fibre, to give another example. Every **10kg** reduction in a vehicle's weight reduces its **CO_2 emissions/km by 1g**.

- **Hybrid conversion**: by combining a combustion engine with an electric motor or compressed air motor and an energy storage system, manufacturers can dramatically reduce petrol/diesel consumption per km *(-25%)* and therefore **CO_2 emissions.**

- **Downsizing the engine**: reducing the capacity of the engine without reducing its power enables carmakers to lower petrol/diesel consumption and reduce the size and weight of the engine, thereby cutting the vehicle's **CO_2 emissions.**

- **Energy recovery**: thanks to the **Kinetic Energy Recovery System** *(KERS)* used when an electric vehicle brakes, it is possible to recover energy and increase the vehicle's range. This system is also used to recharge the battery in a combustion-powered vehicle, as well as powering restarts under a Stop&Start system.

- **Aerodynamics**: the more aerodynamic the vehicle's design, the better it moves through the air and the less fuel it consumes, therefore improving its **CO_2 emissions.**

- **Rolling resistance**: if a vehicle's rolling resistance is reduced - thanks in particular to the use of fuel-efficient or low-rolling resistance tyres - less energy is lost, less fuel is consumed and less **CO_2 is emitted.** Bear in mind that **20%** of a vehicle's energy consumption is due to its tyres.

We have identified a number of innovative products that help carmakers meet restrictions on weight and **CO_2** emissions in the product portfolios of **Faurecia, Hella, Plastic Omnium** and **Valeo**. These products are likely to generate a substantial share of the three companies' growth in coming years.

Fig. 38: Solutions offered by some equipment suppliers

Supplier	Product/Solution to meet restrictions on vehicle weight and CO_2 emissions
Plastic Omnium	Rear hatches made of composite materials (30% lighter than steel)
	Structural parts made of composite materials (25-30% lighter than metal)
	Truck body and structural parts (10-30% lighter than steel)
	Spoilers and body parts (wings - 40% lighter than steel)
	Plastic fuel systems (30% lighter than steel)
	Fuel systems for hybrid vehicles
Faurecia	Exhaust heat recovery systems - EHRS (70% of fuel energy recovered - 2kg)
	Magnesium alloy seat structures (15% lighter than steel)
	Lighter exhaust system (20% lighter than the old version)
Valeo	More efficient Hybrid4aLL propulsion systems (15% reduction in fuel consumption)
	Stop-Start system (15% reduction in fuel consumption in dense urban traffic)
	AquaBlade wiper system (half the amount of liquid required -2 kg)
	Dual Direct Drive motors for wiper systems (30% weight improvement - 1.7 kg)
	Double clutch gearboxes (6-10% reduction in CO_2 emissions)
Hella	High performance DC/DC converter (0.5l/100km fuel saving)
	Steering control module (up to 0.8l/100km fuel economy)

Source: Companies data; Bryan, Garnier & Co ests.

And less nitrogen oxide particles

Carmakers also have to meet increasingly demanding standards for emissions of fine **particulates and nitrogen oxide (NOx**) notably for vehicles with diesel engines (*diesel engines emit more toxic gases than petrol engines due to their higher compression rate*).

Unlike **Switzerland** and the **US** and given their overexposure to diesel engines, **European countries**, have been extremely slow to implement mandatory legislation. For example, **catalytic converters** (*anti-pollution devices in a vehicle's exhaust system*) were made compulsory in California in 1975. They became the norm in Switzerland in 1985 and gradually appeared in Europe in heavy duty vehicles at the end of the 1980s, but only became compulsory for all new cars on 1st January 1993 under the **Euro 1 standard**, 18 years after they became mandatory in California. The latest standard, in force since September 2014 for new vehicle approvals and since September 2015 for new registrations, is the **Euro 6 standard**.

Since **1st September 2015**, all new private vehicles produced in EU member states are subject to the **Euro 6 standard**. This standard limits nitrogen oxide emitted by diesel vehicles to **80mg/km**, representing a reduction of more than **50%** versus the previous standard, **Euro 5,** and more than **80% versus Euro 3**. However, these emission ceilings are based on tests performed on vehicles during the **official approval process, i.e. not in a real driving environment**.

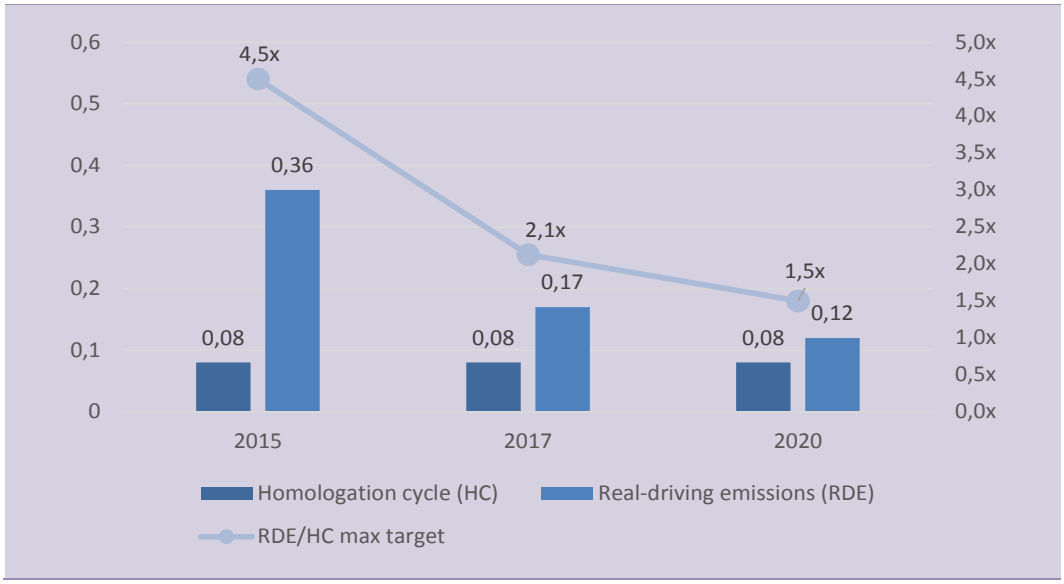
Fig. 39: EU standards for polluting emissions from diesel and petrol engines

g/km		Carbon monoxide (CO)	Hydrocarbons (HC)	Non- methane hydrocarbons (NMHC)	Nitrogen oxide (NOx)	HC+Nox	Particles
Euro 1	*Petrol*	2.72				0.97	
	Diesel	2.72				0.97	0.140
Euro 2	*Petrol*	2.20				0.50	
	Diesel	1.00				0.70	0.080
Euro 3	*Petrol*	2.20	0.20		0.15		
	Diesel	0.64			0.50	0.56	0.050
Euro 4	*Petrol*	1.00	0.10		0.08		
	Diesel	0.50			0.25	0.30	0.025
Euro 5	*Petrol*	1.00	0.10	0.068	0.06		0.005
	Diesel	0.50			0.18	0.23	0.005
Euro 6	*Petrol*	1.00	0.10	0.068	0.06		0.005
	Diesel	0.50			0.08	0.17	0.005

Source: Company Data; Bryan, Garnier & Co ests.

Following the **VW scandal** and the various disclosures of major discrepancies between actual emissions and those recorded during tests (*in France, tests carried out in Q1 2016 by an independent commission appointed by the Ministry of the Environment showed that out of the 52 vehicles tested, two out of five had nitrogen oxide emissions five times the authorised limit and three out of five emitted 20% more CO_2/km than authorised*), the European Commission approved the use of emission testing in a real driving environment (*RDE*) while allowing carmakers time to comply with the new tests. As such, discrepancies between theoretical and actual emissions (*as per RDE testing*) must not surpass **110% in 2017** (*representing a maximum 2.1 compliance factor*) and then must not exceed **50% in 2020**. This new measurement system, which requires nitrogen oxide emissions to be reduced by **70%** over the period concerned, represents a major opportunity for equipment suppliers operating in the emission reduction market.

Fig. 40: A less demanding, more easily achievable European standard



Source: Faurecia; Bryan, Garnier & Co ests.

There are currently several anti-pollution techniques available to reduce emissions of polluting particles by more than **90%**. As well as **particle filters**, which are essential to contain emissions of fine particles from cars with diesel engines, new diesel cars will now have to be equipped with either a selective catalytic reduction system (**SCR**) or a **NOx-trap** system in order to comply with the Euro 6 standard in force in Europe since end-2015 for new registrations, together with the more restrictive **EPA** (*Environmental Protection Agency*) standards. The **EGR system** (EGR valves), which was sufficient to comply with Euro 5 and the preceding standards, is no longer suitable under the new regulatory restrictions. **This system alone is no longer adequate, as it only reduces NOx by 85% at source. It must therefore be combined with a SCR or NOx-trap system.**

The SCR system: more efficient but also more expensive and restrictive for users

Of the two solutions mentioned, the most sophisticated and efficient is without contest the **SCR system,** which, through the pulverisation of liquid urea, converts nitrogen oxide into nitrogen and water vapour. This technology boasts an effectiveness rate of **90% to 95%** in the best case scenario but costs **EUR100-200** more than a traditional **NOx-trap** system (*a complete SCR system costs EUR300-500 per vehicle*). The system is also restrictive in terms of the vehicle's use, as every **20,000km** users must fill the **AdBlue** (*aqueous urea solution*) **tank** in order for the system to work effectively.

Less efficient, the **NOx-trap** system is only **70%** effective: it is used less often than the SCR system due to the EGR valve becoming clogged. Because of this problem, carmakers have to reduce the number of recirculation processes. This in turn raises the temperature, increases the NOx rate and results in quantities of NOx exceeding the level that the NOx-trap can process. As the SCR system can process a higher volume of exhaust gas, it is less sensitive than the NOx trap to a reduction in the exhaust gas recirculation rate. Unlike PSA, which uses SCR technology, Renault opted for the alternative technology, like many VW vehicles, which explains why its vehicles, when tested, surpassed the level imposed by European standards.

We therefore believe that all diesel carmakers will gradually adopt the SCR system. At its 2016 Investor Day, Faurecia said that the global emission control market should grow by **4%** per year between 2015 and 2025 to reach **EUR66bn** thanks to changes in vehicle regulations, together with

the development of hybrid vehicles and the emergence of regulations on commercial and more powerful vehicles (*tractors, buses, trucks, etc.*).

In the market for SCR systems, **Bosch, Plastic Omnium** and **Faurecia** are competing fiercely for market share. **Plastic Omnium**, which develops tanks, mixer and other systems for AdBlue, currently has 13 partnerships with carmakers but does not supply the VW brand. Faurecia, which also produces and markets complete SCR systems boasts a leadership position in this segment. Note that those two French actors develop simultaneously and separately alternatives to the traditional SCR system using urea.

As innovation is the one factor that should enable companies to meet the various government targets for CO_2 and NOx particle emissions, we believe that the role of component manufactures in value creation is set to last. The products and solutions offered by Faurecia, Plastic Omnium, Valeo, Continental and Hella are a step in this direction and should enable these groups to continue to outperform the sector in the coming years.

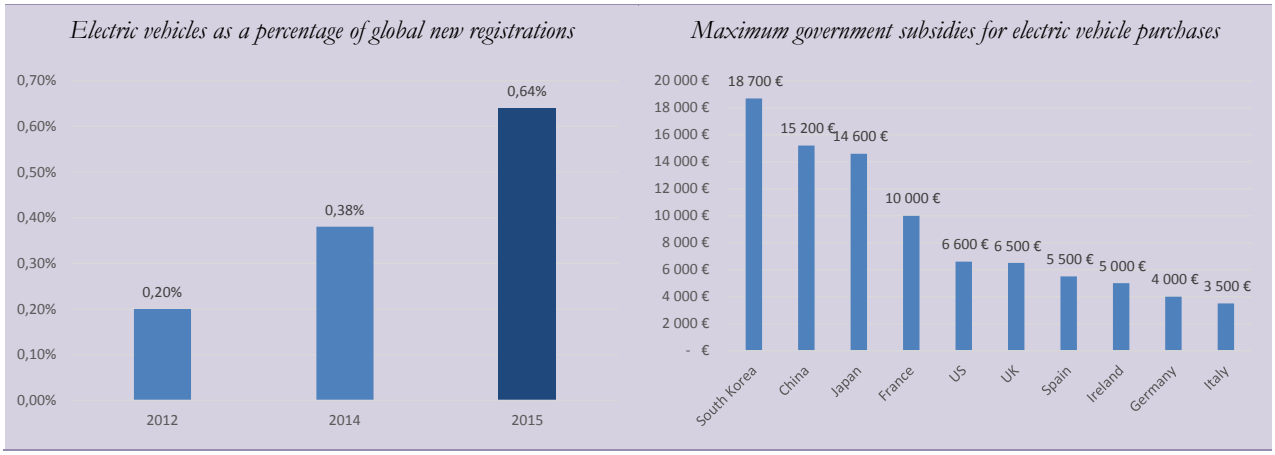
4.4. Is there a future for carbon free vehicles?

At a time when the global automotive market is tending to slow down, there is one niche which stands out against the traditional combustion engines developed by all the carmakers: **carbon free or low carbon vehicles**.

These vehicles include: **1/ hybrid vehicles** (*which have a combustion engine combined with an electric motor powered by a small battery that only allows the electric motor to kick in at certain times - when stopping and starting - and recharges during driving*), **2/ plug-in hybrid vehicles** (*based on the same concept but with a higher capacity battery that needs to be recharged at a charging point, offering real autonomy for the vehicle with the combustion engine kicking in only at high speeds or when the battery needs charging*) and **3/ electric vehicles** (*which only have an electric motor powered by a high capacity battery that must be recharged at a charging point*).

Representing around **550,000 registrations** out of the **86 million new light vehicles sold** worldwide in 2015 *(i.e. 0.6% of the global market versus 0.38% in 2014)*, electric vehicles remain a niche market. Hybrid vehicles have a higher penetration rate among vehicles in circulation, while fully electric models, with just **2-3%** market share, have yet to win over consumers, who are put off by their low battery life *(70 to 200km road range)* and very high price *(due to the battery)*. The market share of this type of vehicle remains very low. However, the "fashion" factor, increasing awareness of environmental impacts and, above all, government incentives, mean the market has expanded more than three-fold in just three years, reflecting in particular the broadening of the model range. Beyond the range on offer, the **development of these vehicles also depends on subsidies** offered by most governments in the key auto markets *(incentives to buy, tax exemptions and other non-financial advantages)*. These subsidies will be needed until the technology becomes more mature and its costs move into line with those of combustion engines *(following the trend seen with renewable technology in the energy market)*. Renault's asking price for its Zoé model, without subsidies, is still **31%** higher than that of the new Clio 4, its combustion-engine equivalent in Renault's range, whereas its road range is **three/four times shorter.**

Fig. 41: The technology is taking hold in the market thanks to subsidies



Source: US Department of Transportation Bryan, Garnier & Co ests.

Keen to take advantage of these government incentives, all the major manufacturers have developed their own models of hybrid and electric vehicles, with certain companies leading the way in Europe *(Nissan, Renault and Volkswagen for electric vehicles and Mitsubishi for hybrids)* and the US *(Tesla, Toyota and Nissan)*.

US group Tesla is emerging as one of the only pure players in electric vehicles, offering models with a road range of 500km per charge

US company Tesla is emerging as one of the only **pure players** in electric vehicles, offering models with a range of **500km per charge**, well ahead of rival models which tend to have ranges in the region of **150-200km**. It recently raised **USD1.5bn** *(announced in May 2016)*, which should enable it to increase its production capacity to **500,000 vehicles per year from 2018** *(67% of the current global electric vehicle market)* and strengthen its leadership position in the short term. Its leadership could however be challenged by **Audi** *(VW Group)* which has recently unveiled its **2025 plan** in which it expects to allocate a third of its R&D budget *(i.e. >EUR1bn)* for electric and autonomous car and digital services in addition to generate **25%** of its revenues from electric vehicles by 2025.

Japan is a forerunner in this field: electric or hybrid vehicles have already gained significant ground *(hybrid vehicles representing 20% of new registrations and almost 7% of vehicles in circulation)* and the related infrastructure is well developed *(40,000 electric charging points versus 35,000 petrol stations)*. That said, development potential remains weak in the short term due to the general fall-off in registrations across all types of vehicle.

In Europe, **Norway** *(where hybrid and electric vehicles represent 17% of registrations thanks to VAT exemptions on clean vehicle purchases, together with free parking and toll exemptions)* and **Germany** show strong potential. Norway is considering bringing in a law **prohibiting the sale of petrol-fuelled vehicles by 2025,** while Germany recently introduced subsidies for zero emission vehicles and wants **all new registrations to be for this type of vehicle from 2030**.

China harbours the highest growth potential, with **331,000 hybrid electric vehicles registered in 2015**, triple the previous year's figure thanks to government incentives *(with central government subsidies often being doubled by local authorities and registrations available immediately without having to use the lottery system)* to combat pollution levels in major cities. These benefits only apply to Chinese brands, so at present only car parts suppliers exposed to Chinese carmakers are set to benefit from this strong growth market. The government target is **5 million hybrid and electric vehicles in circulation in 2020,** but

local players such as **BYD, BAIC and Geely** expect their product portfolios to see much stronger exposure to these new technologies.

All considered, the future looks bright for car part suppliers, whose technological expertise will be leveraged by carmakers to design new modules to enhance the performance of hybrid and electric vehicles (*by reducing their weight, boosting their power and extending their battery life*).

4.4.1. A tentative start which is benefiting car parts suppliers

Although the electric vehicle market has been developing for a decade, its growth has been very slow despite carmakers' efforts to develop and market a wide range of hybrid and electric vehicles and the incentives offered by European, US and Asian governments.

As mentioned above, in 2015 electric vehicles represented only **0.6%** of the global auto market versus **0.2%** in 2012. This implies that, despite everything, the number of vehicles produced and sold tripled over four years, while the global auto market edged up only **5%**. Although this market is still in the early stages of development and depends heavily on government incentives, it undoubtedly offers substantial growth potential for carmakers and parts suppliers in coming years.

Low battery life is the main roadblock preventing electric vehicles from commanding a greater share of new registrations. This is why car parts suppliers are set to play an increasingly important role in the market for carbon free vehicles in coming years.

Currently, one tonne of battery is needed to take a vehicle as far as 40kg of petrol.

To increase the road range of electric vehicles, a manufacturer can: **1/**increase the battery's storage capacity *(by using a battery with higher energy density or a larger battery)* at the risk of increasing the vehicle's weight or **2/**reduce the vehicle's weight by using lighter electronic or body parts. The need to reduce vehicle weight is even more important for electric vehicles than for those using combustion or hybrid technology since it is one of the key ways in which carmakers can increase the vehicle's road range. **A one-tonne battery is currently needed to take a vehicle as far as 40kg of petrol.**

Among the four car parts suppliers that we are starting to cover, **Valeo** is exposed to several segments of the hybrid and electric vehicle market via transmission systems and weight reduction solutions, while **Faurecia** offers mainly weight reduction solutions, as does **Plastic Omnium**. Faurecia's strong exposure to the exhaust system market *(25% of finished product sales and 40% of operating profit)* would put the group is in a riskier position if the electric vehicle market were to enjoy a surge in growth in the next 10-15 years to the detriment of hybrid vehicles. However, we do not anticipate such a scenario developing at present. **Hella**'s headlamps also meet automotive manufacturer's' request for their hybrid and electric segments.

4.4.2. Ongoing disagreement over the technology of tomorrow

Although hybrid technology is emerging as the green technology of the future and pure electric vehicles remain a niche market *(mainly due to low battery life and high prices, which remain overly dependent on government incentives)*, there is no consensus as to the best type of battery for these low emission vehicles. Carmakers positioned in hybrid electric vehicles continue to differ in their preferred type of technology, although two types of battery are commonly used: **1/ nickel metal-hydride batteries**, which are inexpensive but have low energy density *(90Wh/kg)* and are used mainly in hybrid vehicles; **2/ lithium-ion batteries**, which are more expensive but offer a better energy performance *(150Wh/kg)* and therefore a lower weight per Wh. These are developed mainly for plug-in hybrid and electric vehicles, for which weight reduction is crucial for maximising range.

In the ongoing quest to increase range, with low battery life being one of the main factors preventing consumers from buying electric vehicles, carmakers are constantly studying and developing new technologies. The latest technology on the market is the **lithium battery powered by a hydrogen fuel cell** which gives a range of around **500km** per charge (*versus 150 to 250km for other vehicles).* Carmakers are still looking for new technologies to monitor: Nissan, a frontrunner in hybrid electric vehicles specialising in lithium-ion batteries, is now developing bio-ethanol fuel cells, Toyota's latest *Mirai* model is powered by hydrogen fuel cells, and Hyundai has followed the trend. All these tentative developments by carmakers bear witness to the lack of visibility in this segment of the auto market. These recent technologies also need distribution networks, in this case for hydrogen and bio-ethanol, and infrastructure remains very under-developed.

This **volatility in terms of technology choices** automatically increases carmakers' **R&D** efforts with respect to models, which are far from certain to be successful and often lack adequate distribution infrastructure. **Car parts suppliers, however, are the main beneficiaries** of the quest to increase battery performance and they already have the technological expertise to cater to carmakers' choices.

The development of **hybrid electric vehicles is therefore a growth driver for car parts suppliers, which are our preferred players**, but a source of costs and uncertainty for carmakers.

4.5. Catalysts also identified at semiconductor manufacturers

In our semiconductors reports, we regularly point out that the automotive sector is a growth sector. Indeed, **autonomous and electric vehicles are both well-identified catalysts for semiconductors manufacturers. Moreover, the role of semi players in the automotive value chain is changing.** Whereas these groups were historically considered as suppliers by car components makers and virtual strangers for carmakers (*apart from via the reliability component*), they are becoming increasingly important in the automotive sector and exchanges between the two industries seem to be multiplying. For a few years now, we have noted that chip manufacturers are regularly consulted by carmakers and car parts suppliers during the development phases for new car models.

In general, chips destined for the auto sector only account for 10% of global semiconductor sales, or around USD30bn in 2015

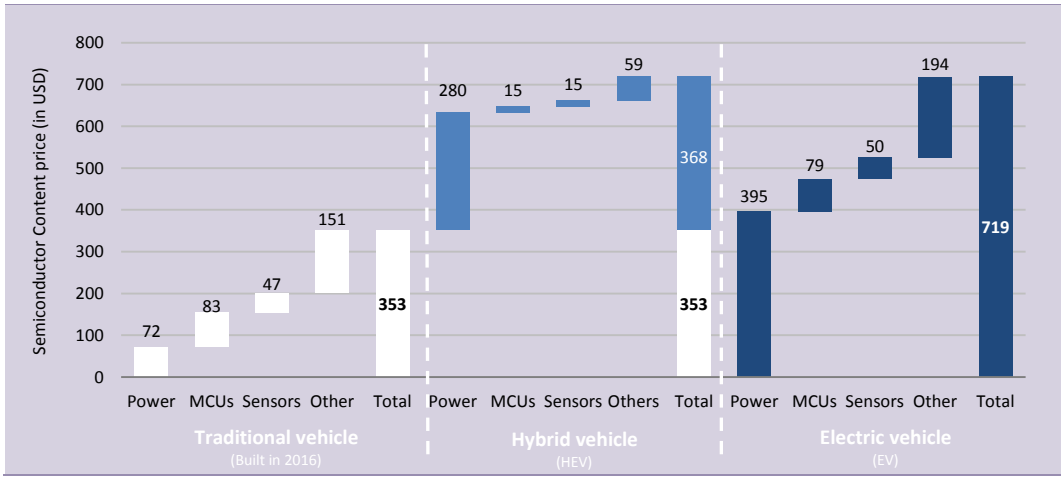
This makes sense since the technologies developed in R&D centres at Infineon, NXP, STMicroelectronics and other are set to determine the technological change provided by each car model. **Historically considered as just another means of improving vehicle performances, technological changes are now a crucial way for carmakers to stand out from the crowd.** At present, we have noted that these ties are rapidly strengthening with the four premium carmakers namely Audi (*VW group*), BMW, Daimler and Tesla.

In general, chips destined for the auto sector only represent 10% of global semiconductor sales, or around USD30bn in 2015. However, this is one of the only segments in the industry offering growth of more than **6.5%** a year for the next three years, especially thanks to the two previously identified catalysts:

This is one of the growth segments we have identified, especially thanks to two catalysts, namely electric vehicles and autonomous vehicles

- **Electric vehicles**: on average, a vehicle sold in 2016 has more than **USD350** worth of electronic components onboard. In a hybrid or electric vehicle, the components bill is closer to **USD720**. This is primarily due to an increase in the number of power semiconductors, namely the components responsible for management of electric engines and batteries (*charging, discharging, conversion etc.)*. However, in the semiconductors industry, the message adopted is that of a constant yet modest increase in volumes out to 2020 before a more visible adoption beyond 2020/22.

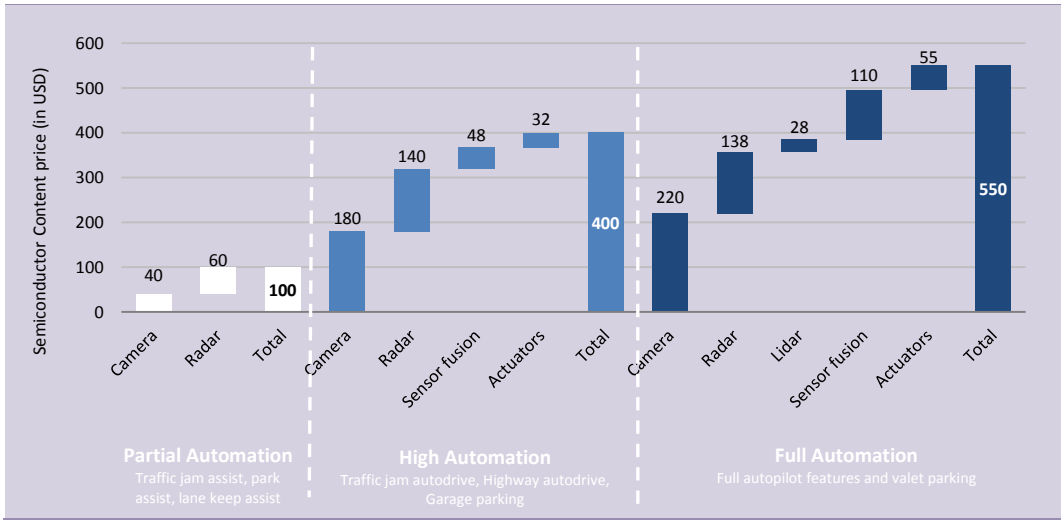
Fig. 42: Hybrid/electric vehicles require double the amount of components



Source: StrategyAnalytics; Infineon;Bryan, Garnier & Co ests.

- **Autonomous vehicles**: in the average price per vehicle described above, the share of electronic components associated with autonomous driving remains marginal in 2016. As such, in order to assess the opportunity, we should bear in mind that a vehicle currently sold as being "partly autonomous" (*such as the Tesla Model S*), only has **USD100** worth of sensors on-board. A fully autonomous vehicle embeds more than **USD550** worth of components for its ADAS systems or more than 5x more components. Similarly, for the electric vehicle, we have noted a degree of caution in messages from components manufacturers concerning the rise in momentum and delivery of significant production volumes (*post-2020*). We share this cautious view which seems coherent to us.

Fig. 43: Autonomous vehicles are also an opportunity for semiconductors



Source: StrategyAnalytics; Infineon; Bryan, Garnier & Co ests.

In the Bryan Garnier semiconductors universe, the stocks most exposed to the auto sector are Infineon, STMicroelectronics and Melexis. Infineon is our Top Pick.

As such, in both cases, **semiconductor manufacturers should benefit from two positive sources of leverage:** that of an **increase in contents per vehicle and hence the average price-tag** and that of **market share gains in electric and autonomous vehicles** in coming years. In all, we value the additional opportunity created by this wave of innovation at almost USD4bn out to 2020.

Within the Bryan Garnier semiconductors universe, the stocks most exposed to the auto sector are Infineon, STMicroelectronics and Melexis. Note that the first two are among the Top Five global players with market share of **11%** and **8%** respectively and **ranking no. 3 and no.** 4 respectively. **We favour Infineon** in the theme of a strong positioning in power electronics (*components used for xEVs*), continuous market share gains, limited exposure to the volatile consumer segment, an exemplary track-record and a still-attractive valuation (*see our recent semiconductors sector report).* **Like the automotive industry (*and on the contrary to the insurance sector*), the semiconductor industry is sensible to the flows and not to the stocks, implying a certain correlation between these two markets.**

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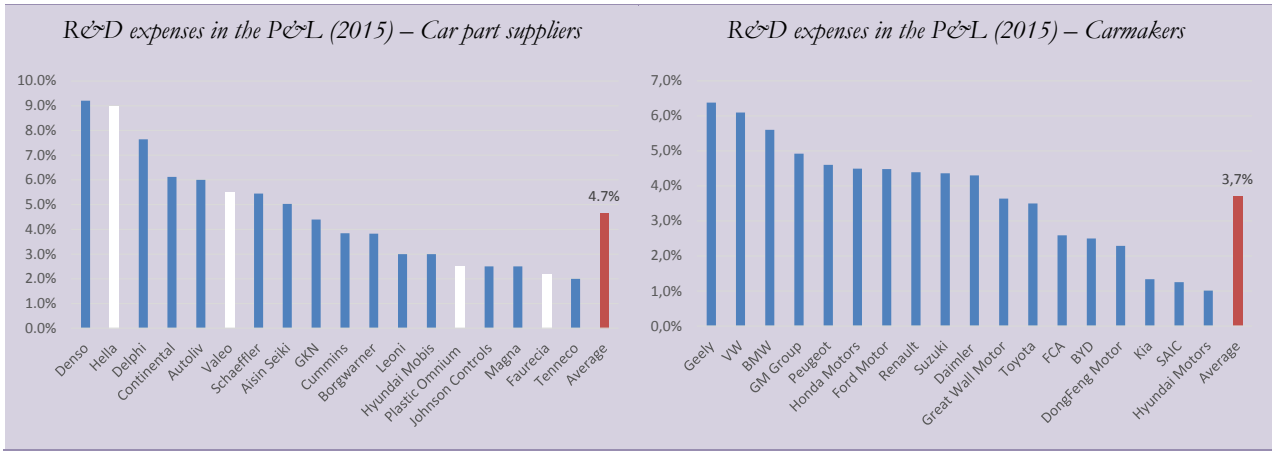
4.6. Innovation lies largely with car parts suppliers

4.6.1. More R&D spending…

Although carmakers are constantly telling consumers they are the driving force behind certain technological developments, **we believe that a large share of a vehicle's added value comes from components manufacturers**. Carmakers manage their vehicles' design and motorisation then assume the role of assembler once the product positioning has been established. A comparison of R&D-to-sales ratios between a sample of carmakers and a sample of parts suppliers shows that: **1/** on average, car parts suppliers spend a higher percentage of sales on R&D than carmakers and **2/**on average, car parts suppliers generate bigger margins than carmakers. This suggests that greater innovation brings stronger pricing power and therefore wider margins.

On average, car parts suppliers *(listed companies, tyre producers)* spent **4.7%** of their revenues on R&D *(not including capitalised R&D expenses)* versus **3.8%** for carmakers.

Fig. 44: On average, parts suppliers spend more than carmakers on R&D

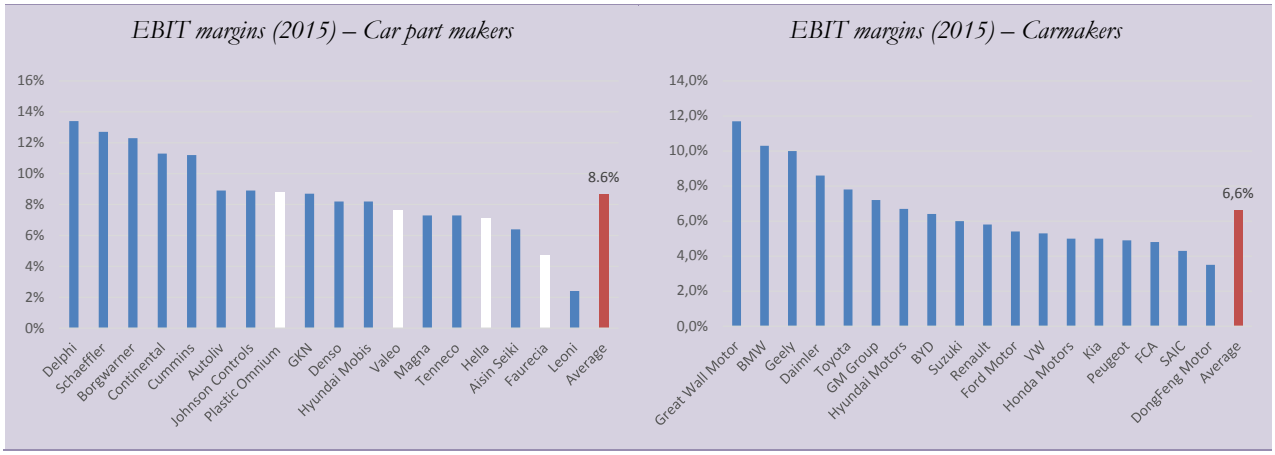


Source: Datastream; Bryan, Garnier & Co ests.

Within our BG auto universe, **Hella** is the supplier spending the most in R&D (*9%*) while **Faurecia** is the supplier spending the less (*2.2%*).

4.6.2. …generating higher margins

Fig. 45: Car parts makers also generate higher margins



Source: Datastream; Bryan, Garnier & Co ests.

This correlation between R&D spending and profit margins clearly shows that **car components makers currently create more value than carmakers**. We believe that the sector's shift towards higher technology content is likely to accentuate this effect to the benefit of the most technologically proficient players.

We believe the global trend to put more technology within a car will further accentuate this effect to the profit of the most technological automotive suppliers. The different speeches from main automotive suppliers clearly confirm this trend given they all target to further raise their profitability over the coming years.

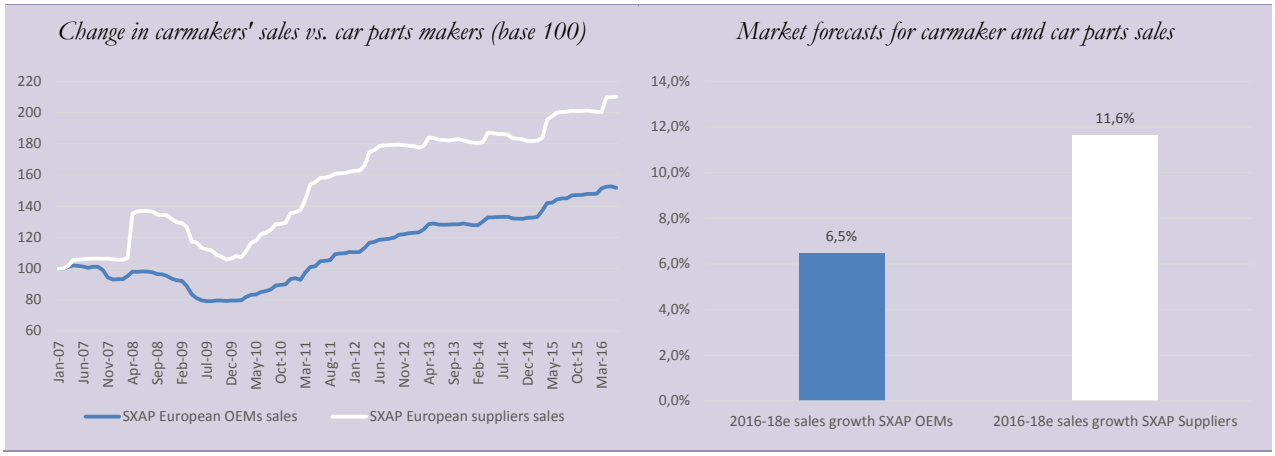
5. Conclusion

5.1. Growth on the cards, especially for parts manufacturers

Although the automotive sector is entering a period of slowdown after delivering a CAGR of **3%** over 2007-15, we estimate that the market should continue to grow over the next three years, but at a slower pace than during the previous period *(+1.5%)*. This growth is primarily set to be driven by the development of the middles classes in emerging markets, whereas mature countries are likely to gradually suffer from cultural changes in terms of car travel (*car-sharing, ride-sharing, development of public transport)*. **Brexit** could potentially change growth in the UK market over the next three years, as well as growth in the European market, although for the moment we continue to estimate that the market should grow by **1.5%** in 2017.

Logically, this lower growth in global demand is set to impact car production in the same way, to the detriment of sales at parts makers. However, their rising exposure **to emerging markets**, combined with **a balanced exposure to the various carmakers** should help them better resist than carmakers (*higher strategic and country risk*), in line with trends seen since 2007. Furthermore, we estimate that the increase in contents per vehicle should benefit parts suppliers present in high potential markets (*carbon-free, connected and autonomous vehicles, reduction in CO_2 and particle emissions*).

Fig. 46: Car components makers should continue to outperform carmakers



Source: Datastream; Bryan, Garnier & Co ests.

The consensus is currently forecasting **80%** more growth in 2016-18e sales for components suppliers (*in the SXAP index*) than for carmakers (in the SXAP index), in line with our view of the sector. **This implies a doubling in the outperformance noted between 2007 and 2016 *(40%)*.**

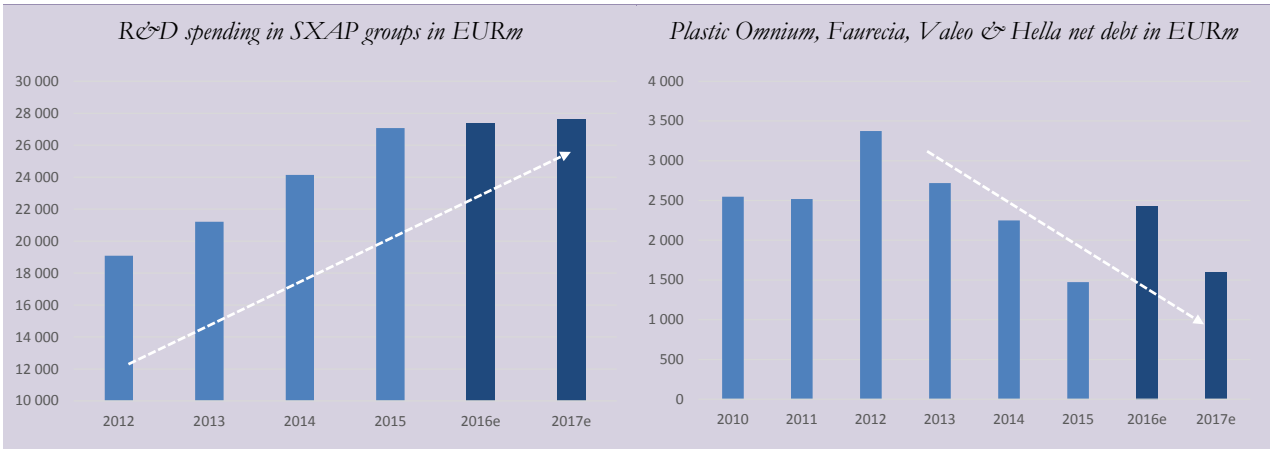
5.2. An increasingly technological sector

The automotive industry is changing its role and relationship with end-consumers and society in general. A new way of travelling is gradually emerging, thereby questioning the logic and bases of this more than 100-year old sector. The current balance between public transport and individual transport is likely to be disrupted in coming years, albeit without questioning the inherent role of cars, but simply the way they are used.

In order to adapt to new consumption methods and new consumer requirements, the sector needs to become increasingly technological and innovative in order to develop **autonomous** and **carbon-free cars**.

We therefore expect fairly extensive expansion in R&D spending not only by carmakers but also by parts suppliers, and are not ruling out waves of M&A activity and partnerships between **traditional players in the sector and technological groups in digitalisation and connectivity.** The much-cleaned up balance sheets of the main sector groups following margin improvement over the past five years should facilitate this trend.

Fig. 47: Even more R&D spending and even more acquisitions



Source: Datastream; Bryan, Garnier & Co ests.

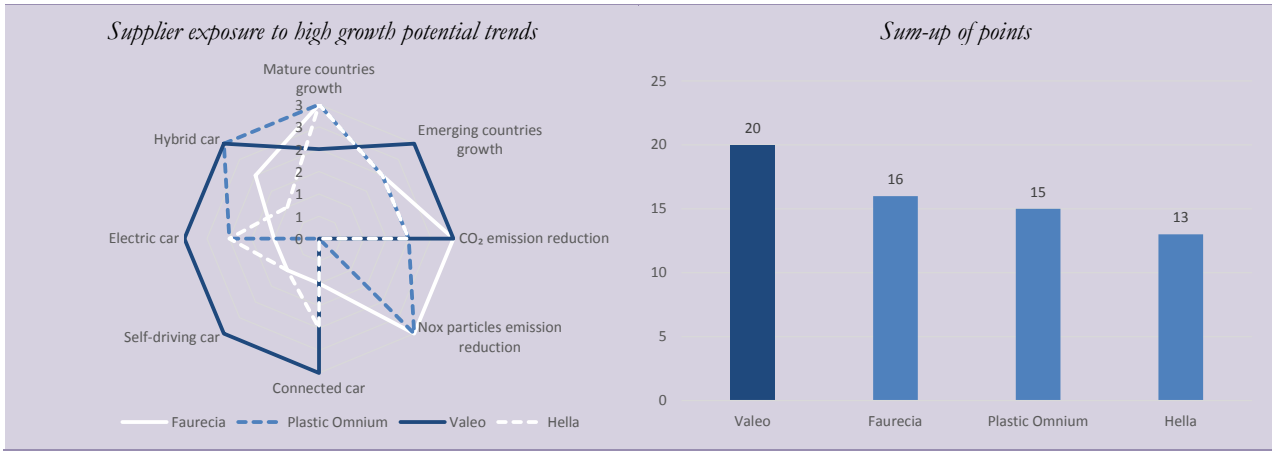
5.3. We have a positive stance on auto parts suppliers

Our report initiating coverage of the sector primarily concerns car parts manufacturers, a sub-segment that should continue to outperform growth in the sector in coming years. We believe that **Faurecia, Hella, Plastic Omnium and Valeo** have a fully-fledged role to play in the transformation of the automotive market, in view of their technological know-how and their presence in high-potential markets.

Although we are generally **NEUTRAL** on the sector following its outperformance relative to the **Stoxx 600** since 2007 *(+60% for the SXAP index compared with -9% for the Stoxx 600 index*) and the lack of short-term momentum in new vehicle demand (*in addition to the risk posed by Brexit*), **we have a very positive stance on the sector from a much longer-term perspective.**

In this report we initiate coverage of **Faurecia** (*FV of EUR45*), **Plastic Omnium** (*FV of EUR36*) and **Hella** (*FV of EUR45*) with **Buy** recommendations and **Valeo** (*FV of EUR49*) with **Neutral** recommendation. We currently favour Faurecia in our coverage, mainly for valuation reason. Valeo is the most technological automotive supplier in our universe and the most exposed to the high growth potential trends we identified in our report, yet seems well valued by the market at current share price.

Fig. 48: In our coverage, Valeo is the most technological supplier



Source: Bryan, Garnier & Co ests.

Fig. 49: Sum-up - BG Auto coverage

	Faurecia	Hella	Plastic Omnium	Valeo	Average suppliers
	Suppliers	Suppliers	Suppliers	Suppliers	
Recommendation	**Buy**	**Buy**	**Buy**	**Neutral**	**-**
Fair Value - (EUR/share)	**47,0**	**45,0**	**36,0**	**49,0**	**-**
Price - (EUR/share)	36,3	36,7	28,6	49,7	-
Upside - %	**29,5%**	**22,7%**	**25,9%**	**-1,5%**	**19,1%**

Source: Bryan, Garnier & Co ests.

Fig. 50: Sales analysis – BG Auto coverage

	Faurecia	Hella	Plastic Omnium	Valeo	Average suppliers
Sales growth – YoY (group)					
Sales growth % 2015	9,9%	8,9%	12,9%	14,3%	11,5%
Sales growth % 2016e	1,8%	4,1%	16,0%	10,3%	8,0%
Sales growth % 2017e	4,2%	5,0%	18,3%	10,0%	9,4%
Sales growth % 2018e	4,3%	5,0%	6,3%	6,3%	5,5%
Average 16-18	**3,4%**	**4,7%**	**13,5%**	**8,9%**	**7,6%**
CAGR 16-18	**4,2%**	**5,0%**	**12,1%**	**8,2%**	**7,4%**
Sales growth - LfL (Auto)					
Sales growth % 2015	6,0%	1,7%	7,3%	8,0%	5,8%
Sales growth % 2016e	2,9%	5,0%	10,6%	10,6%	7,3%
Sales growth % 2017e	5,0%	5,5%	7,4%	6,0%	6,0%
Sales growth % 2018e	5,1%	5,5%	6,5%	6,2%	5,8%
Average 16-18	**4,3%**	**5,3%**	**8,2%**	**7,6%**	**6,4%**
Sales geo split % 2017e					
Europe	48%	46%	59%	48%	50%
North America	28%	22%	23%	22%	24%
Asia	19%	32%	13%	28%	23%
RoW	1%	0%	5%	2%	2%
Sales split by clients % 2017e					
French OEMs	20%	5%	19%	16%	15%
German OEMs	33%	41%	31%	30%	34%
Asian OEMs	10%	29%	20%	26%	21%
US OEMs	28%	9%	27%	22%	21%
Others	9%	16%	3%	6,0%	8%

Source: Company Data; Bryan, Garnier & Co ests.

Fig. 51: Margin & EPS analysis – BG Auto coverage

	Faurecia	Hella	Plastic Omnium	Valeo	Average suppliers
Margin (with restructuring and excluding assoc.) % of sales					
EBIT % 2015	4,1%	5,8%	7,2%	6,5%	5,9%
EBIT % 2016e	4,6%	6,8%	7,5%	7,4%	6,6%
EBIT % 2017e	5,0%	6,9%	7,8%	7,7%	6,8%
EBIT % 2018e	5,3%	7,4%	8,3%	7,8%	7,2%
Average 16-18	**5,0%**	**7,0%**	**7,9%**	**7,6%**	**6,9%**
Net margin %					
Net margin % 2015	2,0%	4,2%	5,2%	5,0%	4,1%
Net margin % 2016e	3,7%	5,4%	5,6%	5,3%	5,0%
Net margin % 2017e	2,7%	5,6%	5,8%	5,7%	4,9%
Net margin % 2018e	3,0%	6,0%	6,2%	5,8%	5,3%
Average 16-18	**3,2%**	**5,6%**	**5,9%**	**5,6%**	**5,1%**
EBIT- growth (with restructuring and excluding assoc.)					
EBIT growth 2015	30,3%	-2,0%	12,8%	16,7%	14,4%
EBIT growth 2016e	14,7%	21,9%	21,4%	24,8%	20,7%
EBIT growth 2017e	13,0%	7,4%	22,8%	14,7%	14,5%
EBIT growth 2018e	11,4%	12,2%	12,4%	8,5%	11,2%
Average 16-18	**13,0%**	**13,8%**	**18,9%**	**16,0%**	**15,4%**
EPS growth %					
EPS growth 2015	98,1%	-6,4%	15,8%	29,0%	34,1%
EPS growth 2016e	42,2%	32,5%	25,7%	16,4%	29,2%
EPS growth 2017e	6,0%	8,4%	23,8%	16,8%	13,7%
EPS growth 2018e	16,3%	13,1%	13,2%	9,6%	13,1%
Average 16-18	**21,5%**	**18,0%**	**20,9%**	**14,3%**	**18,7%**
CAGR 16-18	**11,0%**	**10,7%**	**18,4%**	**13,2%**	**13,3%**

Source: Company Data; Bryan, Garnier & Co ests.

Fig. 52: ROCE & Balance sheet analysis – BG Auto coverage

	Faurecia	Hella	Plastic Omnium	Valeo	Average suppliers
ROCE (after tax, including goodwill & associates) %					
ROCE 2015	12,6%	8,5%	20,0%	16,5%	14,4%
ROCE 2016e	16,7%	9,6%	15,7%	13,2%	13,8%
ROCE 2017e	17,0%	9,8%	19,0%	14,2%	15,0%
ROCE 2018e	17,5%	10,4%	20,0%	14,6%	15,6%
Average 16-18	**17,1%**	**9,9%**	**18,2%**	**14,0%**	**14,8%**
Balance sheet					
Gearing 2015	36%	29%	21%	1%	22%
Gearing 2016e	4%	23%	55%	28%	27%
Gearing 2017e	1%	17%	25%	18%	15%
Gearing 2018e	-3%	12%	12%	8%	7%
Average 16-18	**1%**	**17%**	**31%**	**18%**	**17%**
Net debt/EBITDA					
Net debt/EBITDA 2015	0,7x	0,3x	0,44x	0,07x	0,36x
Net debt/EBITDA 2016e	0,1x	0,2x	1,17x	0,65x	0,53x
Net debt/EBITDA 2017e	0,0x	0,1x	0,49x	0,43x	0,27x
Net debt/EBITDA 2018e	-0,1x	0,0x	0,27x	0,24x	0,11x
Average 16-18	**0,0x**	**0,1x**	**0,6x**	**0,4x**	**0,3x**

Source: Company Data; Bryan, Garnier & Co ests.

Fig. 53: Valuation – BG Auto coverage

	Faurecia	Hella	Plastic Omnium	Valeo	Average suppliers
Dividend Yield 2015	1,8%	2,1%	1,4%	2,3%	1,9%
Dividend Yield 2016e	2,9%	2,6%	1,8%	2,2%	2,4%
Dividend Yield 2017e	3,0%	2,8%	2,2%	2,6%	2,7%
Dividend Yield 2018e	3,5%	3,2%	2,5%	2,9%	3,0%
Average 16-18	**3,1%**	**2,9%**	**2,2%**	**2,6%**	**2,7%**
EV/EBIT 2015	9,1x	11,5x	11,6x	12,0x	11,1x
EV/EBIT 2016e	6,6x	9,2x	11,0x	11,5x	9,6x
EV/EBIT 2017e	5,8x	8,3x	8,2x	9,7x	8,0x
EV/EBIT 2018e	4,9x	7,1x	7,0x	8,7x	6,9x
Average 16-18	**5,7x**	**8,2x**	**8,5x**	**10,2x**	**8,2x**
Premium/Discount	-29,7%	0,7%	4,4%	22,0%	-
P/E 2015	13,9x	15,2x	17,4x	14,2x	15,2x
P/E 2016e	9,8x	11,5x	13,8x	13,3x	12,1x
P/E 2017e	9,2x	10,6x	11,2x	11,4x	10,6x
P/E 2018e	7,9x	9,4x	9,9x	10,4x	9,4x
Average 16-18	**9,0x**	**10,5x**	**11,4x**	**12,1x**	**10,7x**
Premium/Discount	-16,0%	-2,2%	8,7%	9,5%	-
PEG 2015	0,1x	-2,4x	1,1x	0,5x	-0,2x
PEG 2016e	0,2x	0,4x	0,5x	0,8x	0,5x
PEG 2017e	1,4x	1,3x	0,5x	0,7x	1,0x
PEG 2018e	0,5x	0,7x	0,7x	1,1x	0,8x
Average 17-18	**0,7x**	**0,8x**	**0,6x**	**0,9x**	**0,7x**
Premium/Discount	-4%	5,6%	-22,1%	20,5%	-

Source: Company Data; Bryan, Garnier & Co ests.

BRYAN, GARNIER & CO

INDEPENDENT RESEARCH

Faurecia

Transformers

14th September 2016

Automotive

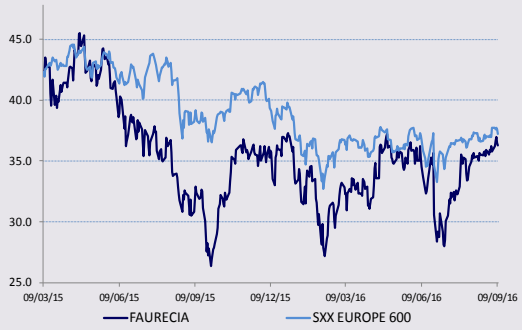
Fair Value EUR47 (price EUR36.29) **BUY**

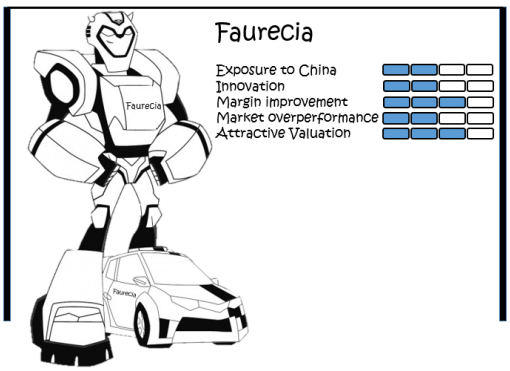
Coverage initiated

Bloomberg	EO FP
Reuters	EPED.PA
12-month High / Low (EUR)	37.3 / 26.4
Market capitalisation (EURm)	5,004
Enterprise Value (BG estimates EURm)	5,808
Avg. 6m daily volume ('000 shares)	557.6
Free Float	48.5%
3y EPS CAGR	20.6%
Gearing (12/15)	36%
Dividend yields (12/16e)	2.85%

YE December	12/15	12/16e	12/17e	12/18e
Revenue (EURm)	18,770	19,103	19,897	20,746
EBIT(EURm)	830.00	934.48	1,041	1,154
Basic EPS (EUR)	2.60	5.18	3.94	4.59
Diluted EPS (EUR)	2.60	3.70	3.92	4.56
EV/Sales	0.37x	0.30x	0.29x	0.26x
EV/EBITDA	4.8x	3.7x	3.6x	3.1x
EV/EBIT	8.3x	6.2x	5.5x	4.7x
P/E	13.9x	9.8x	9.3x	8.0x
ROCE	12.6	16.7	17.0	17.5

Price and data as at close of9th September





Following the sale of its exteriors business (FAE), Faurecia now has a more coherent and technological-based product portfolio. Strengthened by the new management team that has implemented a strategy focused on one of the main growth markets in the sector, the group is one of the rare car components manufacturers capable of increasing its EBIT margin by 150bp over the short term. This growth combined with an attractive valuation explains why we are initiating coverage of the stock with a Buy recommendation (FV of EUR47).

- **A group in a transformation phase…** The disposal of **FAE** to **Plastic Omnium**, an expert in plastic components in the sector, has enabled Faurecia to deconsolidate a **very European business with low margins**, while drastically reducing its debt and leaving the door open to potential strategic and technological acquisitions, especially in the field of connected and autonomous vehicles.
- **…positioned in growth markets:** Via its more coherent and more technological positioning, Faurecia is now aiming to outperform annual automotive production by **4pp**, compared with **2.3pp** on average between 2012 and 2015. The main sector trends (*reducing vehicle weights, reducing CO_2/NOx emissions, electric vehicles, connected and autonomous vehicles*) should be fully addressed by these three segments (*seats, cockpit and emissions control*).
- **Heading for EBIT margin of 6%?** Previously considered as a European car components makers with the lowest value added, the group is now aiming to deliver a **6% EBIT margin by 2018** compared with **4.4%** in 2015, thanks to various sources of leverage to the operating cost base. Improvement potential looks high, especially in view of rival operating performances.
- **High potential, even with cautious 2018 estimates:** Faurecia is still the least well valued car parts supplier, despite high growth potential for EPS over 2016-18 *(+11% CAGR)*. Even though our 2018 forecasts are more cautious than the group's, we consider that the current share price still offers high upside potential. We are initiating coverage of the share with a Buy recommendation and a **FV of EUR47**.

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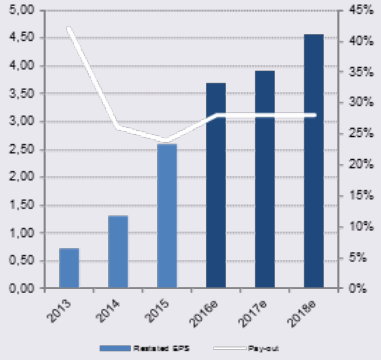


Company description

Faurecia is a France-based automotive equipment supplier. The Company is active in three key business areas: Automotive Seating, Interior Systems and Emissions Control Technologies. The group designs and manufactures instrument panels, and center consoles providing comfort, perceived quality, safety and weight reduction. It also designs vehicle interiors for peak acoustic performance. The Company produces seat components as frames, adjustment mechanisms, foam, covers and others. It is also involved in the emissions control with the acquisition of Emcon Technologies, the group takes care of vehicles' environmental performance against the backdrop of ever stricter legislation. Faurecia SA creates seat blueprints and designs solutions combining safety, new functionalities and weight reduction.

Simplified Profit & Loss Account (EURm)	**2013**	**2014**	**2015**	**2016e**	**2017e**	**2018e**
Revenues	18,029	18,829	18,770	19,103	19,897	20,746
Change (%)	*3.8%*	*4.4%*	*-0.3%*	*1.8%*	*4.2%*	*4.3%*
Adjusted EBITDA	1,070	1,232	1,442	1,552	1,597	1,781
EBIT	538	673	830	934	1,041	1,154
Change (%)	*4.8%*	*25.1%*	*23.3%*	*12.6%*	*11.4%*	*10.9%*
Financial results	(234)	(244)	(207)	(159)	(148)	(136)
Pre-Tax profits	211	344	571	733	856	981
Exceptionals	(5.2)	(81.2)	(65.3)	(57.3)	(50.0)	(50.0)
Tax	(64.7)	(115)	(186)	(201)	(236)	(271)
Profits from associates	14.0	0.80	12.8	14.1	13.0	13.5
Minority interests	(55.8)	(63.2)	(74.1)	(76.3)	(78.6)	(81.0)
Net profit	87.6	166	372	711	541	629
Restated net profit	87.6	166	372	511	541	629
Change (%)	*-38.4%*	*89.2%*	*124%*	*37.3%*	*6.0%*	*16.3%*
Cash Flow Statement (EURm)						
Operating cash flows	927	1,037	1,154	1,159	1,143	1,305
Change in working capital	364	263	(932)	62.5	47.5	50.7
Capex, net	(788)	(932)	(932)	(898)	(935)	(975)
Financial investments, net	(12.3)	(33.3)	(30.9)	0.0	0.0	0.0
Dividends	(47.9)	(57.0)	(77.3)	(89.2)	(142)	(151)
Other	(5.8)	300	(294)	663	(0.69)	0.49
Net debt	1,519	1,388	946	110	45.3	(134)
Free Cash flow	140	197	223	261	208	330
Balance Sheet (EURm)						
Tangible fixed assets	2,028	2,230	2,247	1,773	2,060	2,312
Intangibles assets	686	851	935	1,024	1,116	1,213
Cash & equivalents	711	1,025	939	1,775	1,840	2,019
current assets	3,987	4,284	4,312	5,053	5,305	5,628
Other assets	919	712	719	(141)	(198)	(369)
Total assets	8,331	9,100	9,153	9,484	10,123	10,803
L & ST Debt	2,230	2,412	1,885	1,885	1,885	1,885
Others liabilities	4,459	4,812	4,896	4,857	5,090	5,285
Shareholders' funds	1,502	1,717	2,398	2,785	3,151	3,597
Total Liabilities	8,331	9,100	9,390	9,777	10,416	11,096
Capital employed	4,405	4,543	4,548	4,117	4,486	4,825
Ratios						
Operating margin	2.99	3.58	4.42	4.89	5.23	5.56
Tax rate	30.63	33.46	32.53	28.00	28.00	28.00
Net margin	0.49	0.88	1.98	2.67	2.72	3.03
ROE (after tax)	5.33	8.83	14.25	23.41	15.73	16.03
ROCE (after tax)	8.79	9.88	12.59	16.69	17.00	17.51
Gearing	92.50	73.95	36.24	3.64	1.32	(3.42)
Pay out ratio	41.98	26.18	23.98	28.00	28.00	28.00
Number of shares, diluted	132	133	146	137	137	137
Data per Share (EUR)						
EPS	0.73	1.31	2.60	5.18	3.94	4.59
Restated EPS	0.73	1.31	2.60	3.70	3.92	4.56
% change	*-40.6%*	*78.8%*	*98.1%*	*42.2%*	*6.0%*	*16.3%*
EPS bef. GDW	0.73	1.31	2.60	5.18	3.94	4.59
BVPS	11.39	12.89	16.37	20.29	22.96	26.20
Operating cash flows	7.04	7.79	7.88	8.45	8.33	9.51
FCF	1.06	1.48	1.52	1.90	1.51	2.40
Net dividend	0.30	0.35	0.65	1.04	1.10	1.28

Source: Faurecia; Bryan, Garnier & Co ests.

Table of contents

1. Investment Case

Why the interest now?

The reason for writing now

We are initiating coverage of French automotive components supplier **Faurecia** as part of the publication of our auto sector report. Following the disposal of its auto exteriors business (FAE) to **Plastic Omnium**, the group is now entering a transformation phase aimed at generating higher growth and better margins. While the target for **6%** EBIT margin by 2018 looks slightly ambitious, prospective growth looks very attractive in view of the share's valuation even when applying cautious assumptions.

Cheap or Expensive?

Valuation

As for **Hella, Plastic Omnium** and **Valeo,** we value **Faurecia** via two methods: **historical multiples for EV/sales, EV/EBIT** and **P/E, and** a **DCF calculation**. This yields a valuation for **Faurecia** of **EUR47** per share, reflecting upside potential of **more than 29%** relative to the recent share price. The share is currently trading on a **20% discount** to P/E and EV/EBIT multiples relative to European peers.

When will I start making money?

Catalysts

In our view, the various announcements stemming from carmakers on the development of the **electric** or **autonomous vehicle** are positive. We see no specific catalyst for Faurecia, at least not in the short term. **The Paris motor show could potentially trigger positive newsflow for the entire sector.**

What's the value added?

Difference from consensus

We are currently in line with the consensus in terms of 2016-18 sales as well as for EBITDA, but are **9%** higher in terms of EPS. Like us, the 2018 consensus does not fully factor in the targets for **6%** margin and EPS of **EUR5** per share, implying significant upward revision potential (+19%).

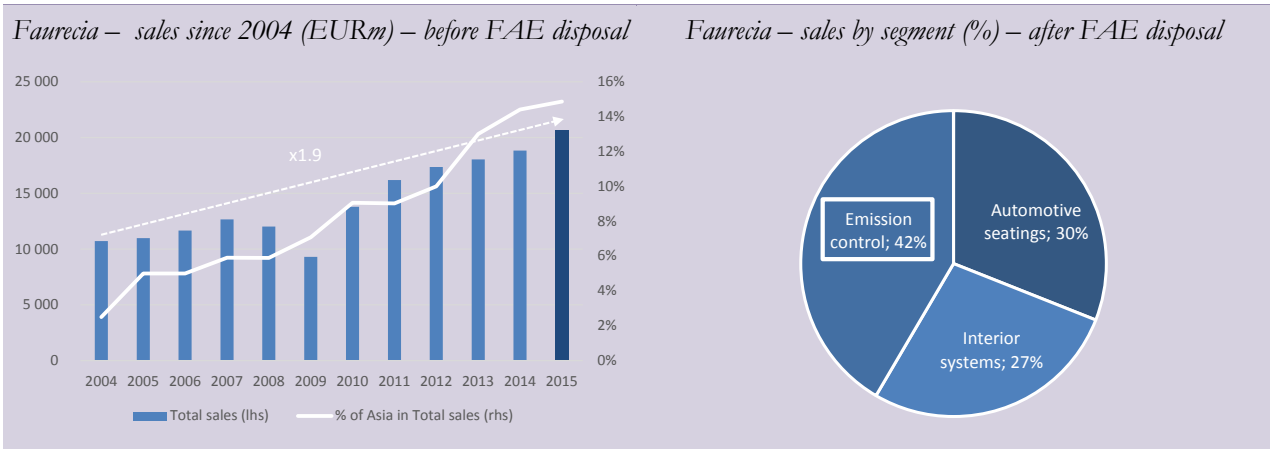
Could I lose money?

Risks to our investment case

The automotive cycle is on the point of slowing, in both mature countries and emerging markets, and this slowdown could be worse than expected, especially in view of **Brexit** and **international tension**. Like all car components suppliers, Faurecia could suffer from **a rapid slowdown in automotive production.**

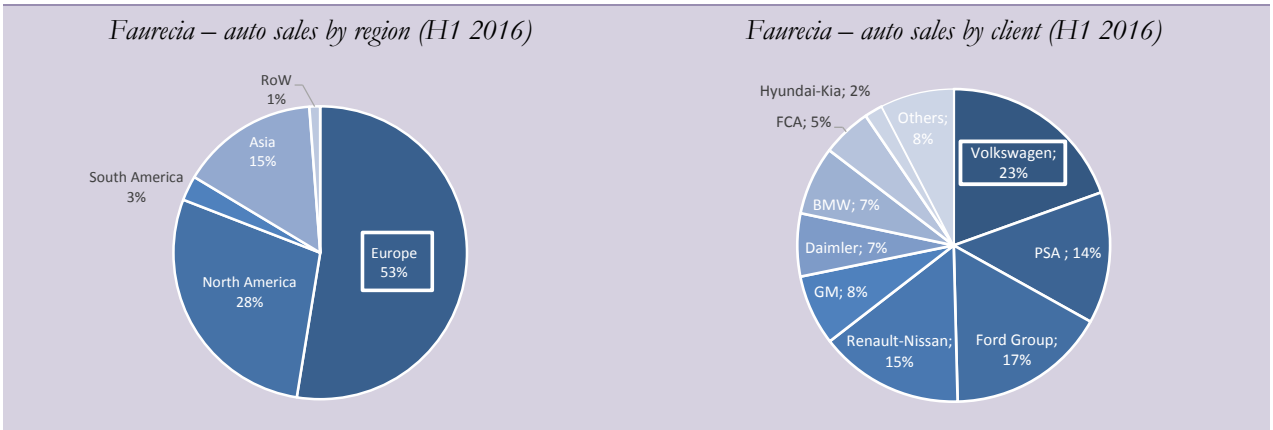
2. Faurecia in six charts

Fig. 1: Growth driven by Asia and the emissions control segment



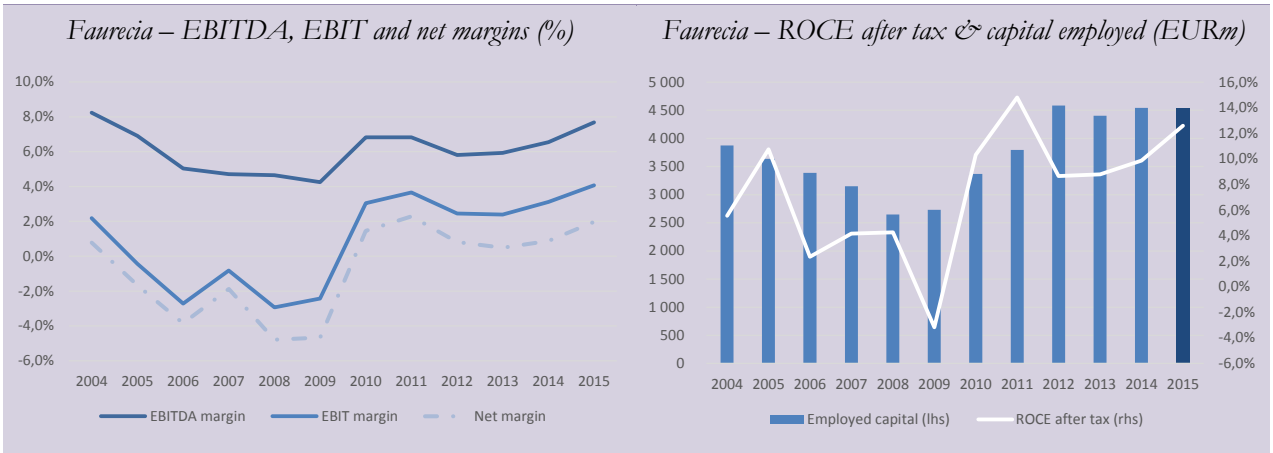
Source: Faurecia; Bryan, Garnier & Co ests.

Fig. 2: A very European and US group



Source: Faurecia; Bryan, Garnier & Co ests.

Fig. 3: Growth in EBIT margin and ROCE



Source: Faurecia; Bryan, Garnier & Co ests

3. "Transformers"

Following the disposal of its auto exteriors business *(FAE)* to **Plastic Omnium,** an expert in plastic components in the sector, car parts supplier **Faurecia** *(former subsidiary of French carmaker **PSA**)*, now boasts a more coherent and technological-based product portfolio. Strengthened by a new management team that has implemented a strategy focused on the main growth markets in the sector, the group is among the car components makers capable of increasing EBIT margin by more than **150bp** in the short term**.**

Previously very European with weak profitability in the US and very exposed to French carmakers, Faurecia was considered as the European parts maker with the lowest value added. The strategic plan presented on **April 19th 2016** by new CEO **Patrick Koller** *(former Head of Operations since February 2016 and former Vice-Chairman of Faurecia Automotive Seating since 2006)*, after the separation of the positions of **CEO** and **Chairman of the Board** *(position still managed by **Yann Delabrière**, former CEO since 2007)*, aims to reposition the group in higher value-added growth activities, while enabling a significant improvement in EBIT margin *(from 4.4% at end-2015 to a prospective margin of 6% in 2018)* and cash generation.

Boasting expertise in **the design and assembly of innovative car seats**, combined with know-how in the **cockpits and interior body parts segments as well as CO_2/NOx emissions**, Faurecia is a player present in all the sector's long-term growth themes enabling not only an outperformance relative to automotive production, but also an improvement in profitability.

Although we consider the 2018 targets **ambitious** (our 2018 EPS estimates are 8% lower than the group's), especially in terms of the sharp increase in the sales performance expected by the group relative to the automotive market *(+4pp annual outperformance between 2016 and 2018 vs. an average over 2012-15 of 2.3pp)* **short-term EPS growth potential nevertheless looks attractive to us *(11% CAGR over 2016-18)*.**

Faurecia remains the least well valued car components maker (discount of 20% to P/E and EV/EBIT multiples relative to European peers), despite strong potential to improve margin and EPS growth over 2016-18 *(CAGR of 11%)*. Despite our more cautious estimates than the group's for 2018, the current share price offers high upside potential *(more than 29%)*.

We are initiating coverage of the share with a **Buy** recommendation and a **FV** of **EUR47**.

4. A disposal that makes sense

In December 2015, Faurecia announced the signing of an agreement with **Plastic Omnium** under the framework of the takeover of its **exterior modules business** for **enterprise value of EUR665m** *(multiples of 7.7x EBITDA and 13.3x EBIT)*. This segment represented **less than 10% of Faurecia's sales** and was present primarily in the European bumpers market, front-end modules, and also tailgates and plastic wing parts on behalf of German premium clients.

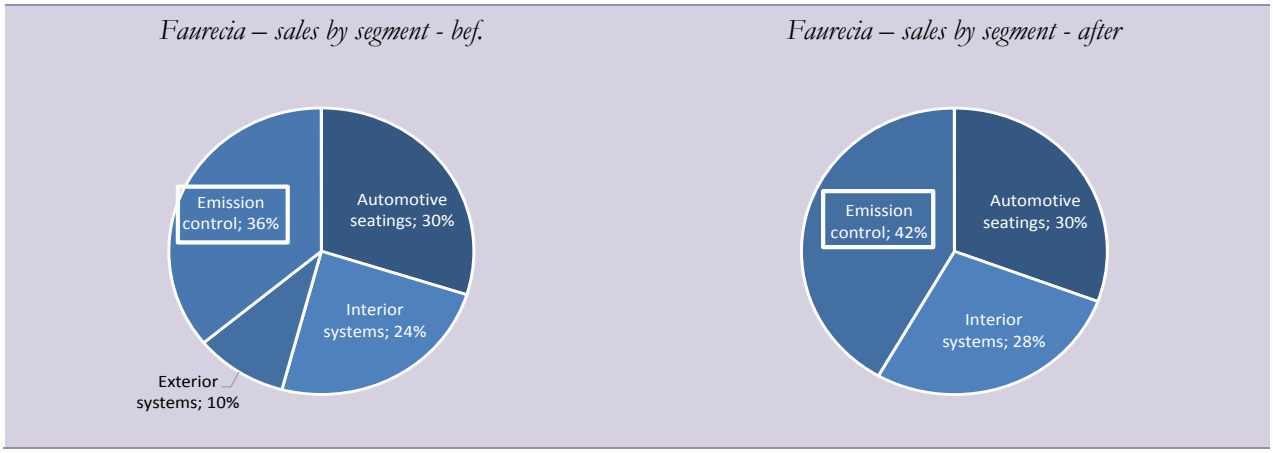
Although the deal was **closed on 29th July 2016**, the final scope of the operation was changed due to competitions requirements by the European Commission and now concerns estimated sales of **EUR1.2bn** for the full-year 2016, **5,500** employees and **14** plants compared with estimated sales of **EUR2bn** for the whole unit signed for in December 2015. The operation is therefore the largest acquisition ever made in the history of **Plastic Omnium** since 2010, when the group bought Solvay's stake in a joint venture for **EUR330m**, and also the largest disposal ever made by **Faurecia**.

This sizeable operation has enabled the group to pay down debt substantially and has a considerable earnings enhancing impact on the group's margin

4.1. A less European group…

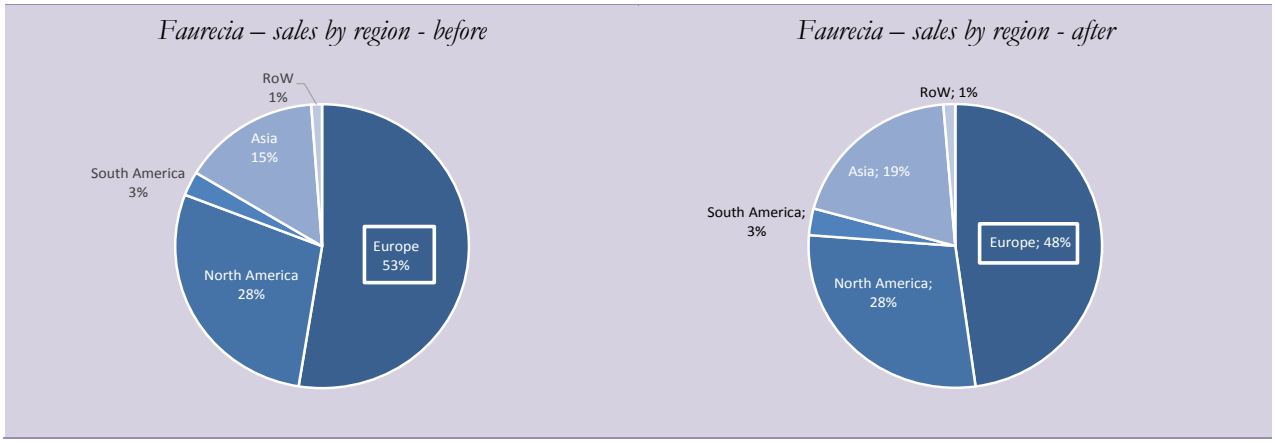
Following this operation, Faurecia is now present in only three businesses compared with four previously: **Faurecia Emissions Control Technologies**, **Automotive Seating** and **Interior Systems**, and generates more than **50%** of sales outside Europe compared with just **46%** previously.

Fig. 4: Faurecia, before and after disposal of its FAE business (sales by segment)



Source: Faurecia; Bryan, Garnier & Co ests

Fig. 5: Faurecia, before and after disposal of FAE business (sales by region)

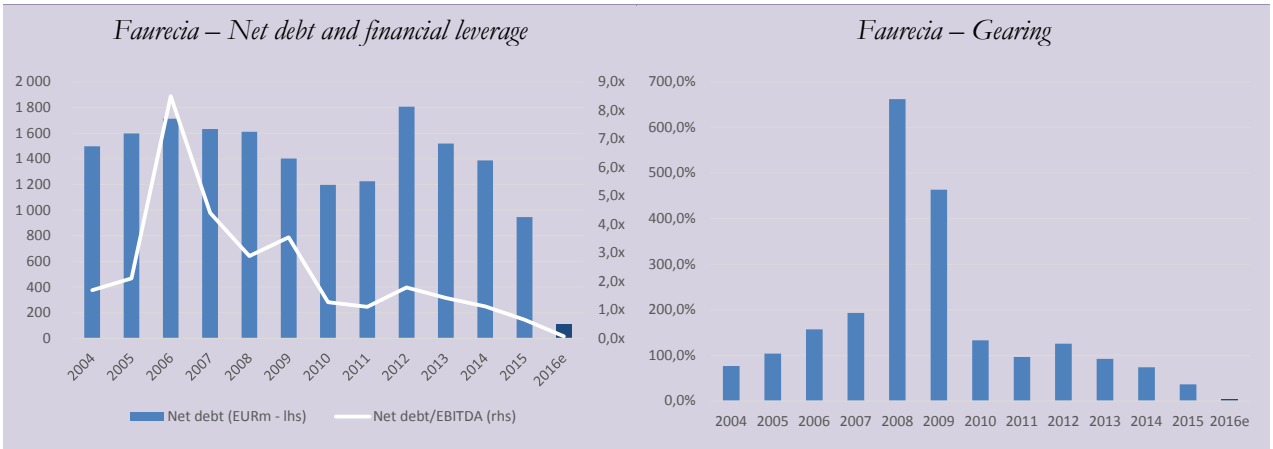


Source: Faurecia; Bryan, Garnier & Co ests

4.2. …and less debt

Via this operation, the group is reducing its net debt to **EUR665m** enabling it to post a net debt/EBITDA ratio of **0.1x at end-2016**, vs **0.7x at end-2015** and **1.1x in 2014,** and to reduce its gearing from **36%** at end-2015 to **3.6%** at end-2016. The impact on the group's net debt should be visible as of H2 2016, after the deal was closed on **29th July 2016.**

Fig. 6: Change in group net debt since 2004



Source: Faurecia; Bryan, Garnier & Co ests

Although Faurecia's leverage was already low in 2015 compared with recent years, but also compared with the covenant of **2.5x** associated with the group's **EUR1.2bn** credit facility, the disposal enables the group to potentially position itself as a consolidator in the sector in the three segments where it dominates the market. Faurecia's aim to increase its exposure to the connected and autonomous vehicle segments could potentially underlie a **very technological acquisition** in the human machine interface (HMI) sector for example. The group has set itself two investment restrictions that limit its growth potential via acquisitions: **1)** acquisitions need to have a **short-term earnings-enhancing impact** on **EBITDA** and **EPS** and **2)** the **net debt/EBITDA ratio** must not exceed 1.0x thereby implying a maximum amount to be spent of **EUR1.4bn.** We estimate that this leverage could have an earnings-enhancing impact of more than **20%** on the group's **2017e EPS** and an impact **of EUR5 on FV**.

5. A group present in growth markets …

5.1. Heading for cleaner and connected vehicles

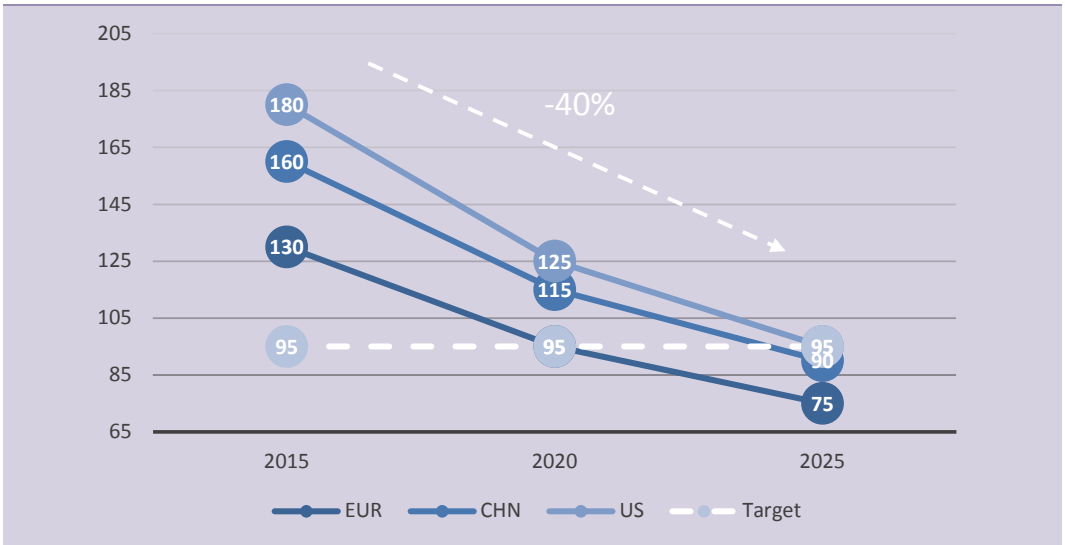
5.1.1. A reduction in CO_2 emissions by reducing vehicle weight

5.1.1.1. Limited solutions for meeting regulatory pressure

Since the early 2000s, carmakers have been subject to two types of pressure, one stemming from **consumers demanding that vehicles consume less fuel** following the surge in oil prices (up to EUR150/b) and the other from **regulatory authorities establishing ever stricter CO_2 emissions standards.**

The need to reduce fuel consumption and emissions has become a priority for carmakers while the **European Union, Japan and the US** have gradually imposed restrictive standards concerning emissions of CO_2 per km. Since the transport sector represents around a third of global CO_2 emissions, regulations in mature countries have rapidly been implemented in order to reduce their impact on the environment, but also on the health of the population. For example, the European Union set a target of **95g/km of CO_2 for 2020** as an average for each carmaker, with a penalty system of **EUR95 per gram for each car** emitting more than the set threshold once the average level for the group is exceeded. This same type of regulatory restriction also exists in other mature countries such as the **US** and **Japan**. China has also recently launched itself in the hunt for emissions obliging carmakers to change the way they design cars.

Fig. 7: Restrictive targets to reduce CO_2 emissions (CO_2 g/km)



Source: Faurecia; Bryan, Garnier & Co ests.

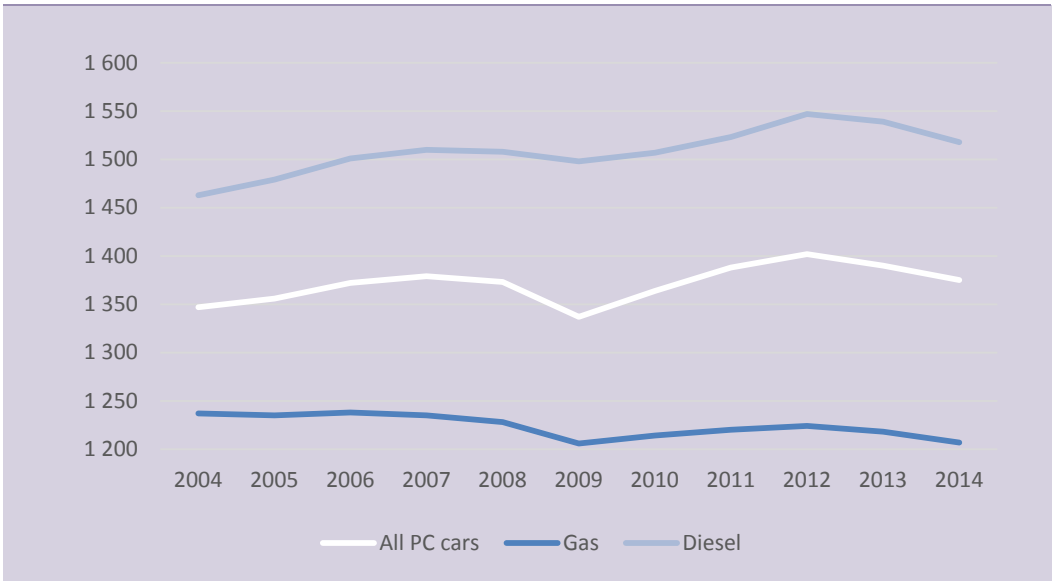
Carmakers therefore have **five solutions** to respond to commercial and regulatory pressure: **1) reducing vehicle weights**, **2) aerodynamics**, **3) emission reduction technologies** associated with the engine and exhaust systems, **4) engine downsizing** and finally, **5) hybridisation of vehicles**.

5.1.1.2. Carmakers looking for innovative products and materials

On a global level, average vehicle weights have not stopped increasing due to safety and acoustics restrictions, to stand at **1.4 tonnes in 2010**, a record level that should now start falling in a car exteriors market that is tending to reduce the amount of parts and components used on-board and gradual increase lighter materials in body-parts. **Note that reducing the weight of a vehicle by 100kg helps generate fuel savings of 0.35l/100km or a 10g/km reduction in CO_2 emissions**.

As the European case shows, carmakers have so far used technological leverage to reduce emissions in order to comply with standards. The new vehicles that came into circulation in the European Union between 2004 and 2014 therefore reduced their **CO_2 emissions by 40g/km,** whereas their weight increased slightly (+2%). A closer looks shows that the weight of petrol engine cars dropped by **2.4%** over the period, whereas for diesel engines it increased by **3.7%**, notably in view of the installation of particle emission reduction systems (NOx trap or SCR system).

Fig. 8: European vehicles slightly heavier in 2014 than in 2004 (kg)



Source: European Environmental Agency; Bryan, Garnier & Co ests.

The real potential to reduce emissions now lies in reducing the weight of vehicles

The **real potential to reduce emissions therefore now seems to lie in reducing the weight of the car,** which notably involves an overhaul in industrial processes for in-car parts and the use of lighter materials such as composites in a move also set to prompt savings in fuel consumption. Note nevertheless that this trend to reduce the weight of vehicles is likely to be hampered slightly by momentum in hybrid/electric cars, given that batteries massively increase the weight of the car *(20% of total weight of a car vs. 12% for combustion engine vehicles)*.

Plastic is not the only material that has gained in importance in vehicle design to the detriment of steel, with **so-called composite materials already shaping up to be the next technological corner**. Composite materials are a combination of a polymer matrix *(i.e. plastic)* and another material,

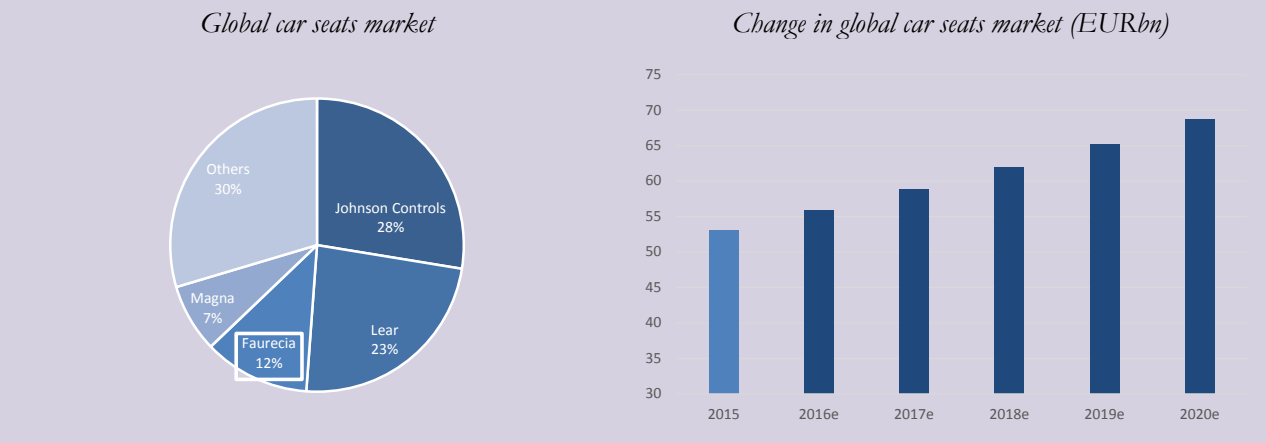
in the form of a woven fibre, thereby forming three main families of composite materials in the auto sector: glass fibres, carbon fibre and natural fibres.

The advantage of associating two materials is the ability to change the characteristics of the association, thereby making the composite material **lighter** *(50% lighter than steel)*, **more malleable** and also capable **of including more functions per part.** This ultralight combination has nevertheless historically remained reserved for single-driver Formula 1 cars, luxury models such as the **Aventador by Lamborghini**, the structure of which is entirely made out of carbon fibre, and more recently, certain electric models such as the **i3 produced by BMW**, primarily due to their **high prices**. At present, consumer cars only benefit from these applications in tailgates, seats and bumpers.

5.1.1.3. Faurecia: a range of products that are lighter and have a higher technological content

Via its **automotive seating** division *(EUR5.8bn in sales generated by 77 production sites and 19 R&D centres)*, Faurecia is notably positioned in this trend to reduce vehicles. In the auto seating segment, the group offers: **1) seat structures and mechanisms** where Faurecia is the global **no. 1** *(17% market share)* and **2) entire seats** including frames, mechanisms, control panels, accessories and coverings, for which Faurecia ranks **world no. 3** *(12% market share)* behind US components makers **Johnson Controls** and **Lear**.

Fig. 9: A global seats market of EUR53bn, still dominated by US components makers (2015)



Source: Faurecia; Bryan, Garnier & Co ests; MarketsandMarket

Fig. 10: Faurecia, in the top league for car seats

Faurecia seat structure and mechanisms - 17% global market share

Faurecia full seat - 12% global market share

Source: Faurecia; Bryan, Garnier & Co ests.

Seats represent 6% of the overall weight of a vehicle and 5% of total production costs

The group's momentum among the global leaders in the car seats market stems in particular from its offering focused on **lower vehicle weights and connectivity**, for a significant part of a vehicle with seats accounting for **6% of total weight and 5% of the total cost of a vehicle**. The group's innovative nature means it is constantly matching its offer to market requirements having filed 489 patents in 2015, with two specific innovations over the year:

- The **Active Wellness smart seat**, the first seat in the world capable of detecting its occupant's tiredness or stress levels via sensors integrated in the seat and capable of detecting the driver or passengers' heart and respiratory rhythms, with a type of specific massage and circulation of air in the ventilation systems then triggered automatically to wake up or relax the driver.

- The **Lightweight & Roominess** seat, which uses a multitude of technologies and new industrial procedures allowing a weight gain of **2.3kg** relative to a classic seat as well as a **3cm** space gain for passengers sitting in the back.

Faurecia should therefore fully benefit from growth in the seats markets in coming years, a market that should grow in value by more than **5% a year by 2020** (*MarketsandMarkets*). Its technological contribution to this segment is also an excellent means of strengthening its pricing power with carmakers, or moving upscale and strengthening its exposure to premium carmakers.

In addition to its other flagship products such as the Global & Modular front seat *(1.6kg lighter)*, Faurecia is also expanding in **composite materials.** Note that this segment was previously part of the **Faurecia automotive exteriors division** but was not part of the disposal to Plastic Omnium. It has one R&D centre and a production plant housed in France. Via its numerous research partnerships, the main one being the R&D agreement signed in 2012 with the Fraunhofer Institut in engineering and prototyping of innovative industrial procedures for the manufacture of composite materials, the group has gradually developed its expertise in composites by offering **composite body parts** *(wings, roofs, doors)*, **semi-structural parts** *(spare tyre bin)* and **structural parts for** truck cabins**.**

The **Faurecia automotive composites business** (*created in 2012*) has nevertheless raised **concerns since the loss of contracts** with **McLaren** (*tailgates*), **Renault** (*trunk floors*) and **Man** (*grills*) in 2015, now obliging the group to restructure its subsidiary. This restructuring includes the closure of the

Redon production plant in France, thereby leaving only the St Malo and Theillay sites operational. We expect Faurecia to slow the development of its composites business, in view of this commercial setback and the very low profitability of this still-emerging business in the auto industry. **Ruling out composites as part of the group's strategy is set to penalise it over the long term, bearing in mind that other components makers such as Plastic Omnium are taking the lead by increasing their investments and extending their ranges.**

A third of the energy produced by a heat engine is lost as heat in the exhaust system

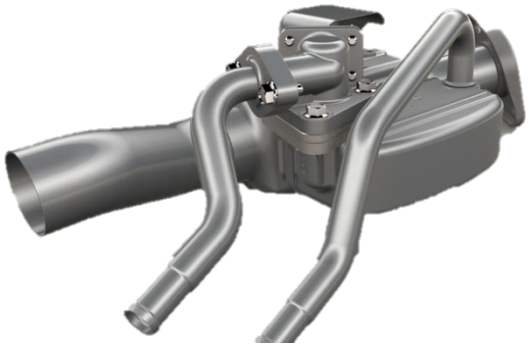
5.1.1.4. Faurecia is targeting hybrid vehicles with energy recovery

Energy recovery is an answer to two issues: **1) reducing CO_2 emissions** and **2) extending the autonomy of hybrid vehicles. Note that 30% of energy generated by the engine is estimated to be lost via the heat in exhaust fumes.** Energy recovery systems can therefore have two functions, either heat-to-heat, whereby the heat recovered is destined to heat the inside of the vehicle and therefore replace the heating system, or heat-to-electricity whereby the heat recovered is used to recharge the battery of the hybrid vehicle.

Via the emissions control business, since 2006, Faurecia has marketed energy recovery heat systems (**EHRS)** destined for hybrid engines with the technology capable of clearly boosting energy performances of a vehicle while recovering 40% of lost energy (*up to 5% in fuel savings and a 3g/km reduction in CO2)*. In detail, the heat is recovered by a heat exchanger fitted into the exhaust pipe. The energy recovered is then used to heat the engine and the inside of the car, enabling the car to work for longer in electric mode. The latest generation of this system is more focused on lightening the weight of vehicles, with a **2kg** gain compared with the previous version of the product, bringing the weight of the system to below **3kg**. This latest EHRS system was launched in 2016 and was recently adopted by **Hyundai** to equip its **Ioniq hybrid and electric vehicles.**

Fig. 11: Products focused on hybrid engines

Faurecia EHRS energy recovery system



Hyundai IONIQ Hybrid – the first car equipped with the latest EHRS

Source: Faurecia; Bryan, Garnier & Co ests.

Strengthened by this expertise, Faurecia is currently developing even more innovative systems such as the exhaust heat power generation device **EHPG** and the thermo-electric generator **TEG**, innovations that help convert lost heat in the exhaust pipe into mechanical power or electricity. Mass production and marketing of these products are nevertheless not expected before **2020**.

Faurecia's positioning in the heat-to-heat energy recovery segment, where it aims to obtain a **30%** market share looks **beneficial and capable of generating growth over the long term**. Although the automotive segment is gradually moving towards electrification, hybrid vehicles are likely to enjoy the highest growth *(longer-autonomy and more affordable than 100%-electric models)*. However, **energy recovery systems are one of the means for hybrid vehicles to present characteristics that are increasingly comparable to heat engines and which are currently the major brake on their purchase.** Faurecia expects an extension in the energy recovery market of around **EUR1bn** by 2025.

5.1.2. SCR system in hand, eliminating NOx emissions

5.1.2.1. Faced with regulatory pressure …

Like Europe where standards for emissions of polluting substances have become constantly tougher since the first one was introduced in 1993, regulatory bodies throughout the world, whether in mature or emerging countries, are increasingly focusing on **emissions of CO_2 and NOx particles in new vehicles.** Whereas Europe has recently committed itself to **Euro 6** standards that are soon to be strengthened with a **Euro 6 d** norm, the basis of which is still being studied, the **US** has not been inactive with the **Tier 3 Standards** set to be applied as of **2017.**

Fig. 12: Emissions limits for polluting substances in European standards for diesel and petrol engines

g/km		Carbon monoxide (CO)	Hydrocarbons (HC)	Non-methane hydrocarbons (NMHC)	Nitrogen oxide (NOx)	HC+Nox	Particles
Euro 1	*Petrol*	2,72				0,97	
	Diesel	2,72				0,97	0,140
Euro 2	*Petrol*	2,20				0,50	
	Diesel	1,00				0,70	0,080
Euro 3	*Petrol*	2,20	0,20		0,15		
	Diesel	0,64			0,50	0,56	0,050
Euro 4	*Petrol*	1,00	0,10		0,08		
	Diesel	0,50			0,25	0,30	0,025
Euro 5	*Petrol*	1,00	0,10	0,068	0,06		0,005
	Diesel	0,50			0,18	0,23	0,005
Euro 6	*Petrol*	1,00	0,10	0,068	0,06		0,005
	Diesel	0,50			0,08	0,17	0,005

Source: ACEA; Bryan, Garnier & Co ests.

5.1.2.2. … a technology that stands out: SCR

Carmakers now have two depollution means/systems in order to face recent regulatory pressure concerning NOx particle emissions from their diesel engines: **1) SCR** systems (*Selective Catalytic Reduction*), **2) NOx-trap systems**.

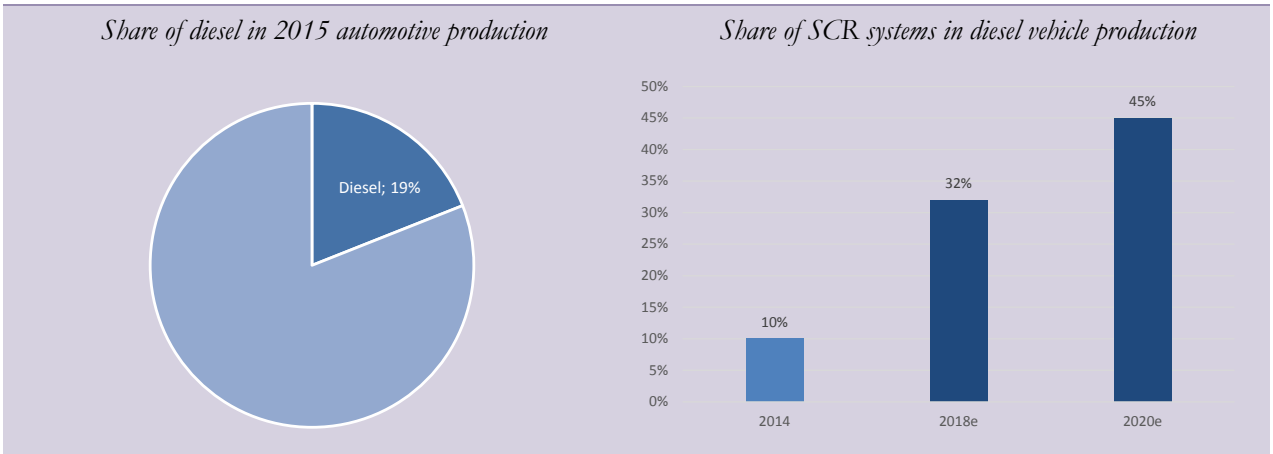
Of the two solutions, the most sophisticated but also the most efficient is clearly the **SCR system**, which enables a chemical conversion *(reduction)* of nitrogen oxide into diatomic nitrogen and water vapour by pulverising liquid ammonia.

This technology claims to have an efficacy rate of **90-95%** in the best cases but costs **EUR100-200** more than a traditional **NOx-trap** system *(a full SCR system costs between EUR300 and EUR500 per vehicle).*

The less efficient **NOx-trap** system *(70% efficient)* is used less than the SCR system due to a clogging problem that blocks the EGR valve. This problem means carmakers are obliged to reduce the number of recirculation processes, thereby implying an increase in temperature and hence, a rise in the rate of NOx particles to exceed the amount of NOx that the NOx-trap can handle. Since the SCR system is capable of handling a higher volume of exhaust fumes, it is less sensitive than the NOx trap to the decline in the gas recirculation rate.

Faced with the rapid tightening in regulations on emissions, carmakers are now increasingly inclined to fit their new models with SCR systems, which are admittedly more expensive, but which drastically reduce nitrogen oxide waste. Furthermore, this **fundamental trend is accompanied by a catching-up effect** for European carmakers historically positioned in NOx-trap systems such as Renault, which is likely to shift to SCR following the diesel scandal at Volkswagen. **Volkswagen** still has a large share of diesel production and is partly equipped with NOx-trap systems and is also planning to gradually abandon this technology in favour of SCR in order to reduce emissions and restore its image. As such, out of a global market of **3-4 million units of SCR systems,** Plastic Omnium as a player active in the depolluting technology ecosystem, estimates that the figure could reach **10 million by 2020/21**, driven by **both regulatory trends and a catch-up effect stemming from Volkswagen**.

Fig. 13: Heading for more SCR systems in diesel vehicles



Source: Faurecia; IHS; Bryan, Garnier & Co ests.

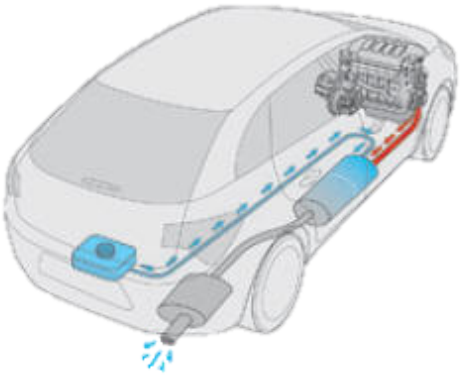
5.1.2.3. Faurecia, a precursor in new generation SCR systems?

In the market to reduce NOx emissions, Faurecia is historically positioned in the technology linked to AdBlue liquid with its **Blue Box SCR mix system,** currently used for **trucks** (*under the name Nitro*) and for PC & LCV segment (*with PSA notably*). The Blue Box system fitted with a vortex module mixes urea *(AdBlue liquid)* with the gases to then project the mixture obtained on the nitrogen oxide. It has the feature of fitting into the SCR architecture close to the engine, enabling faster start-up and a quicker reduction in NOx emissions. In addition to its full insulation enabling good heat management, the mixer helps reduce the vehicle's weight by **3-4kg** *(i.e a reduction in CO_2 emissions of 0.3-0.4g/km)*.

Faurecia is also active in the segment of **heavy commercial vehicles** in the US *(especially trucks)* via the exclusive commercial agreement signed with the leading global diesel engine manufacturer for commercial vehicles, **Cummins**. Under the framework of this agreement, Faurecia is the exclusive supplier of SCR mixer systems for trucks with **Cummins** *(US diesel engine manufacturer)*, which offers a cylindrical **EcoFit Single Module** system assembling four emissions reduction products in one module *(a diesel oxidation catalyst, a particles filter, Faurecia's SCR mixer and a SCR system)*. This all-in-one product offers space savings of **50%** and a **30%** decrease in weight relative to the previous model. Note that the commercial partnership between **Faurecia and Cummins** is currently preparing a new product due to come on the market in **2017**. However, although emission standards in the US are destined to become increasingly restrictive for trucks, the **truck market is currently in decline** *(Volvo is forecasting a 14% plunge in North America and Brazil)*. Cummins is forecasting a decline of **6-10%** in components sales in 2016 *(including its emissions expertise, energy recovery and filters)*, forecasts **that are likely to hamper truck production and take a negative toll on Faurecia's deliveries to Cummins**.

Fig. 14: SCR system (Selective Catalytic Reduction) and Blue Box mixer

Functioning of Plastic Omnium SCR with AdBlue liquid



Faurecia SCR Blue Box

Source: Faurecia; Plastic Omnium; Bryan, Garnier & Co ests.

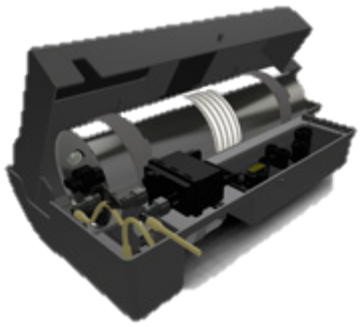
However, like other components makers *(Plastic Omnium in particular)*, Faurecia has already started development of other alternative SCR technologies not requiring AdBlue liquid. Announced at the motor show in Frankfurt in 2011, Faurecia's Ammonia Storage Delivery System **(ASDS**) looks to be the most promising given its advanced state of progress and the result of its test phases presented at the end of 2015.

ASDS is a selective catalytic reduction system that diffuses very precise quantities of ammonia stored in solid form in cartridges full of salt in the exhaust pipe catalyst. This procedure uses a chemical reaction to efficiently eliminate nitrogen oxides in exhaust fumes from diesel engines by transforming the nitrogen oxides into nitrogen and water.

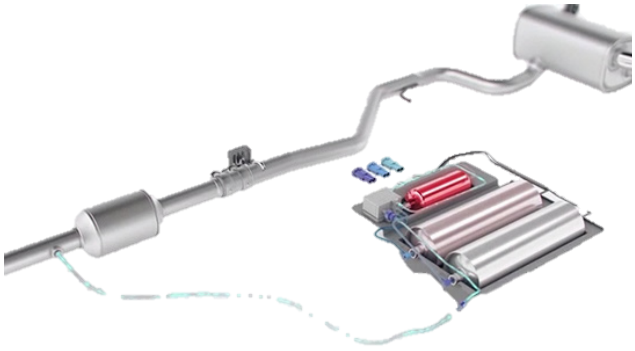
Among the tests carried out on buses in several cities, those in London showed a conversion rate of **85%** of NOx particle emissions into water over a 10-month trial period *(compared with 32% for classic SCR systems)*. Tests on buses in Copenhagen carried out over 15 months showed that vehicles fitted with the technology only emitted 1.5g/kWh of NOx vs. 6g/kWh previously *(i.e. a 75% reduction)*. The results from a bus in Copenhagen *(conversion of 95% of NOx emissions over 11 months)* **therefore suggest that the new technology is perfectly capable of presenting conversion performances at least the equivalent to systems based on AdBlue urea.** Note also that these tests were carried out in real driving conditions and over a long period.

Fig. 15: ASDS: ammonia now stored in solid form

Ammonia cartridge



ASDS system architecture



Source: Faurecia; Amminex; Bryan, Garnier & Co ests.

In addition to its conversion performances in trucks *(in which classic emission reduction systems seem little suited)*, Faurecia's ASDS has a number of competitive advantageous of a technical nature: **1) faster distribution** of the product to convert NOx particles *(the ASDS functions fully as of 150°C vs. 180°C for the classic SCR, with its conversion ability reaching 50% at this optimal temperature vs. 28% for urea systems)*, **2) a better resistance at low temperatures** *(urea freezes below -11°C, thereby requiring more time to heat and up make the system work)*, **3) increased density of ammonia** per litre *(2-3 litres of AdAmmine required to store 1kg of ammoniac compared with 5.4 litres of AdBlue)*, requiring a less frequent refilling of the system, **4) a lighter weight** given that the reservoir is replaced by a cartridge, **5) less maintenance for cleaning** the particles filter bearing in mind that the ASDS system does not produce deposits.

Faurecia positioned itself in this technology as of 2011 when it took a **21%** stake in **Amminex** *(the Danish group that invented the procedure to contain ammonia in solid form known as AdAmmine)* for EUR19.6m. This capital operation went hand in hand with a strategic partnership with the group to develop the ammonia cartridge as well as the associated distribution system.

Even if this product developed by the partnership between **Faurecia and Amminex** is still in the test phase and only in the segment of buses and commercial vehicles, we estimate that its development and potential penetration of the light vehicles market should rely on its numerous technical advantages relative to the AdBlue urea systems**. If the ASDS system proves to be successful for trucks, the transposition of this technology to the mass passenger car segment would therefore be more than likely and beneficial for Faurecia, ensuring it a leadership position in a rapidly expanding market.**

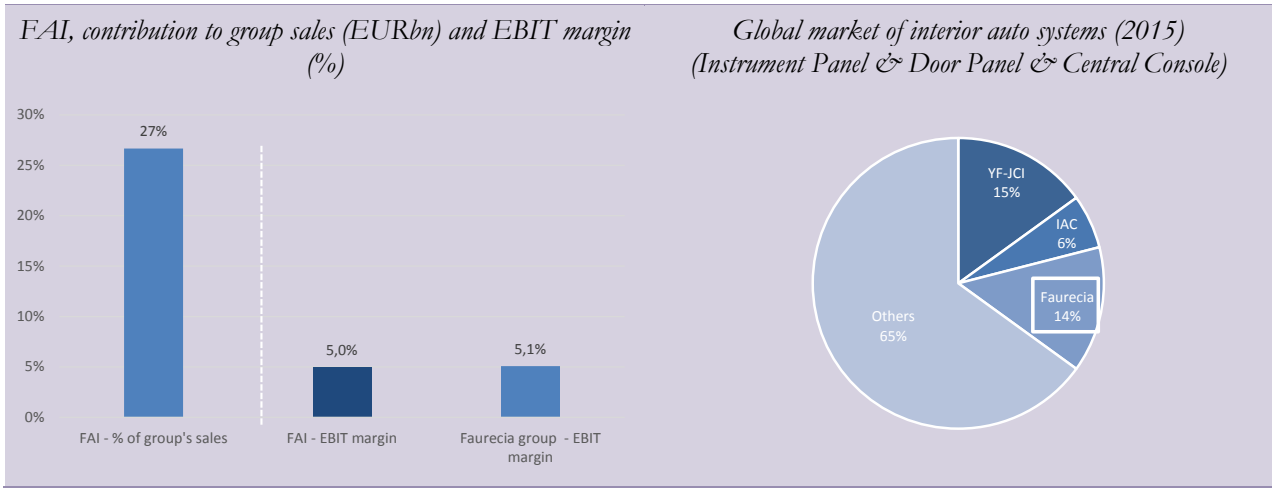
5.1.3. Focus on connected and autonomous vehicles

5.1.3.1. Beneficial momentum and a change in strategy...

Faurecia has only **very recently positioned itself in the connected car segment** via its division **Faurecia Interior Systems**, a business that contributes significantly to the group's sales *(around 27%)* but which remained on the side-lines of the group's major strategic plans. A few years ago, the interior systems market was still very competitive and lead by five global-class players whereas the rest of the ecosystem remained very fragmented in a difficult environment, making the business fairly unprofitable *(1.8% EBIT margin vs. a group average of 3%)*. The shift into the **"cockpit of the future"** as the group calls it *(connected or autonomous in-car environment)* only really took place in **2015** when the competitive backdrop became less intense with three major groups leaving the market and profitability on a group level enabling higher capex allocation to this division and promising market prospects in connected and autonomous vehicles. As such, the group's investments in the division jumped **20%** yoy in 2015 to **EUR190m**.

Note that the FIS division currently generates **EUR5bn** in sales via **85 production sites** and **eight R&D centres** in the world. Its margin generation nevertheless remains structurally lower than the group's seats and emissions control divisions *(3.9% EBIT margin vs. respectively 4.9% and 4.8%)*, whereas the **division's profitability should improve over the short-term with an offer tending towards more technological content and pricing power.** Faurecia's division offers a range of modules and systems destined to equip the vehicle interior: flooring, central consoles, door panels and modules, acoustic modules and products, decorative parts. The group already boasts a strong competitive foothold with a **14% market share on a global level behind YF-JCI but ahead of IAC.**

Fig. 16: Faurecia in the auto interior systems market



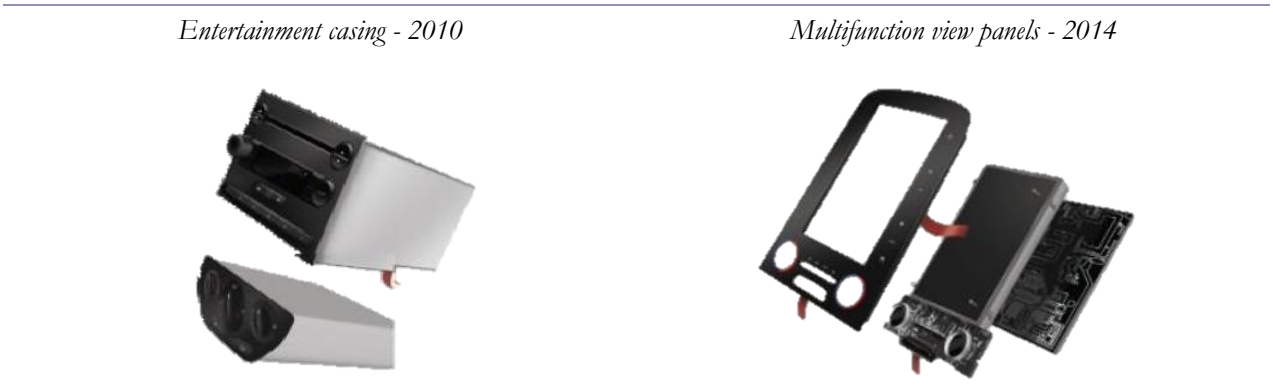
Source: Faurecia; Companies data; Bryan, Garnier & Co ests.

5.1.3.2. … in favour of HMI systems

The advent of the connected and autonomous vehicle, already visible via numerous technological partnerships created between carmakers, components suppliers and technological player, as well as the amounts invested in R&D, implies a radical overhaul of the vehicle interior and more precisely, the cockpit. **New materials** are necessary and the **architecture needs to be rethought in order to integrate smartphones and tablets**, while the installation of **sensors for data collection** is also vital, therefore requiring far more electronics components.

Long-term technological trends represent a growth factor for **HMI** systems (human machine interface), potential development areas for which include doors, the driver's side, the passenger's side and finally the central controls zone. The aim of this technology is to optimise the connectivity between the driver and the vehicle and the driver and the carmaker, by using applications and smartphones. The most visible technological shift in HMI is in central control panels. Indeed, since 2010 and the era of car radio casing and air-conditioning/heating control panels, systems have evolved towards ever larger screens that are more tactile and centralised. The next few years should see the emergence of tactile digital keyboards integrated into the car cockpit, for greater interaction with the driver and the vehicle as well as the integration of smartphones into the relationship.

Fig. 17: From casing …



Source: Faurecia; Bryan, Garnier & Co ests.

Fig. 18: … to an integrated smart surface

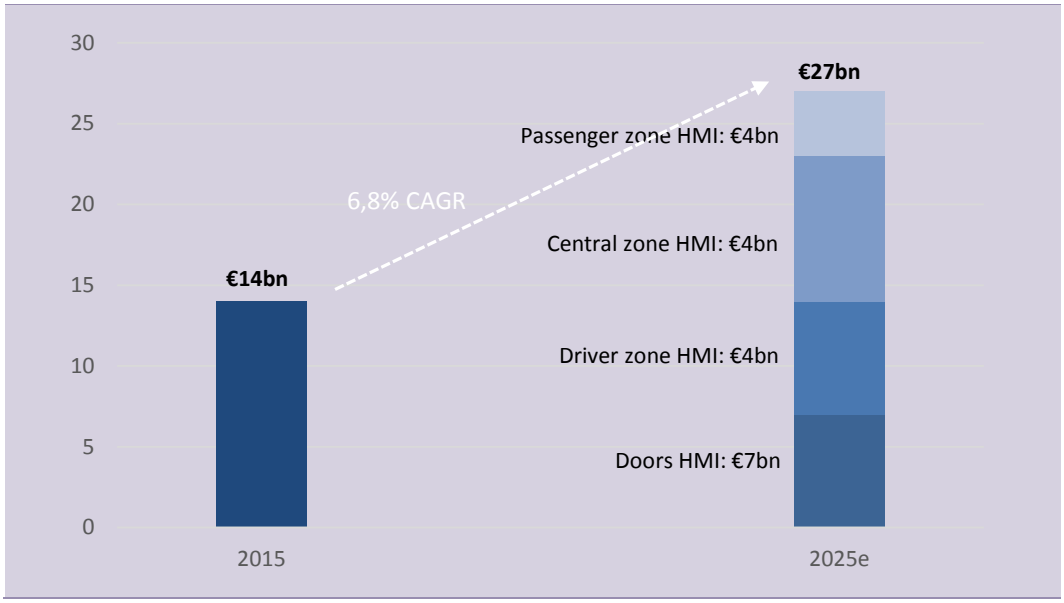
Fully tactile viewing screens - 2016

Viewing integrated directly into the smart surface decor - post 2018

Source: Faurecia; Bryan, Garnier & Co ests.

In this market, Faurecia is forecasting a **CAGR of 6.8% out to 2025 to reach EUR27bn**, with the central control zone and driver zone to take centre stage. The group is also aiming for a 10-20% global market share out to 2025 *(EUR2.7bn to EUR5.4bn)*, **a sizeable strategy focused on an increasingly technological portfolio, thereby breaking with the division's history in recent years**.

Fig. 19: Growth forecasts for the global auto HMI systems market (EURbn)



Source: Faurecia; Bryan, Garnier & Co ests.

5.1.3.3. Higher value added for greater pricing power

For the moment, Faurecia is above all **positioned in cockpit design and architecture** via interior mechanical components, decoration and control panel surfaces. To underpin its strategic plan to strengthen the HMI systems segment, the group has launched an innovation programme focused on its expertise in central commands, tactile films for screens and more widely, everything related to tactile devices. This plan also concerns acquiring new skills in central, driver and passenger smart screens, doors and seats also integrated in the cockpit decoration. **This welcome trend to move towards more electronic and technological know-how and hence more value-added for increased pricing power is set to be the main catalyst behind margin improvement in coming years**.

In terms of interior decoration, Faurecia's expertise in high-end materials such as leather, aluminium and wood, which remains an extremely difficult material to make lighter and more flexible, ensures it an **increasingly wide exposure to premium carmakers** with Audi, **Mercedes-Benz** and **Alfa Romeo**. This portfolio of premium clients for decoration is certainly a privileged client base for addressing future HMI systems in which Faurecia intends to focus as of present. Among the projects concerning HMI systems, two seem particularly buoyant and technological:

- The **Intuition** demonstrator, covering an entire range of innovations and developments destined to improve in-car connectivity was presented at the Frankfurt motorshow in 2015. It includes invisible screens integrated into the cockpit that merge into the car interior when not in use, curved tactile and high-definition central console screens, as well as smart tactile surfaces in aluminium serving as a control panel.

A number of elements presented in the cockpit were also the object of a commercial agreement following the motorshow, like the **Black Panel** screen adopted by **Alfa Romeo** for its **Giulia** model and **BMW** for its **Series 7 model**. This control panel is located in front of the driver and stands out for the elegance of its mat black surface when the car is switched off. Once the ignition is started, the indicators and lights that the driver considers to be the most important light up.

Fig. 20: Faurecia Intuition demonstrator

Source: Faurecia; Bryan, Garnier & Co ests.

- The **First Inch demonstrator** is a module that includes a central command panel, a recharge dock and the central front arm-rest, **all destined to integrate smartphones and tablets.** The module also integrates a dock and wireless charge system for smartphones and tablets via induction technology. The smartphone screen can also be projected onto the tactile screen on the central console.

The main screen was created from a "plastronics" system associating plastics and electronics in order to allow the creation of an ultra-slim tactile screen covered with a curved transparent decorative surface. This optical collage improves performances and life-span of the screen by reducing reflections while increasing resistance to vibrations and humidity. Note that a **DecoDisplay** screen already equips the **Giulia model by Alfa Romeo** since the end of 2015.

Fig. 21: Faurecia First Inch demonstrator

Source: Faurecia; Bryan, Garnier & Co ests.

5.2. Conquering China

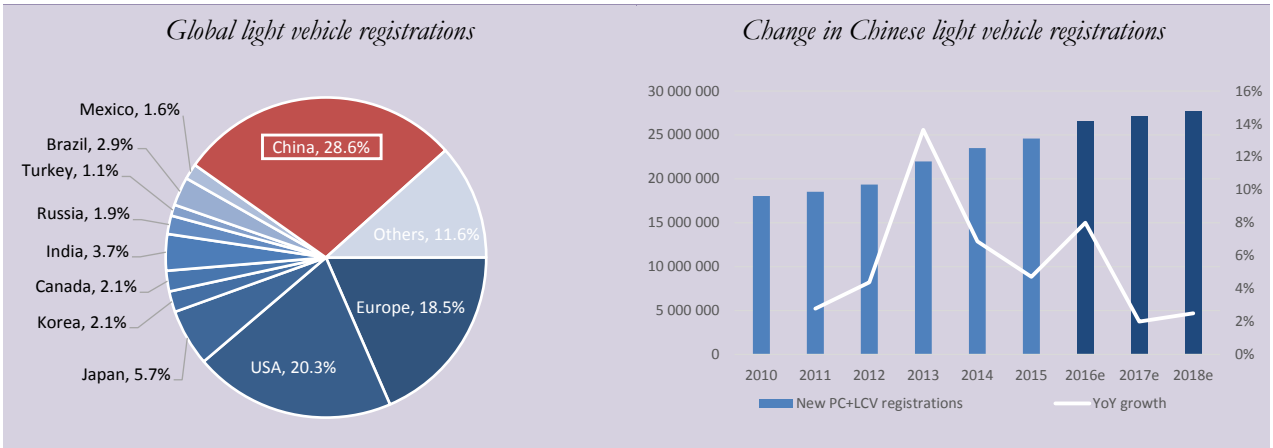
5.2.1. The automotive eldorado

Currently representing more than **40%** of new car registrations and more than **50%** of global automotive production, it is indeed vital for all sector players to be present locally in Asia and more precisely in China, a country representing alone **29%** of sales and **26%** of global automotive production.

China alone accounts for 29% of sales and 26% of global automotive production

Although very different from mature markets *(lower average age of buyers, slow share of financing in purchases, low market share of local carmakers)*, this market remains very buoyant and should continue to grow substantially in coming years, with the move in the vehicle ownership rate to join levels in Europe, Japan and the US being the main catalyst, driven primarily by the increase in size and wealth of the middle classes. **As such, we are forecasting growth of 8% in car registrations in China for 2016 followed by a return to normal at 2.5% further out.**

Fig. 22: The Chinese automotive market as a global locomotive



Source: Renault; Bryan, Garnier & Co ests

Faurecia has been present in China since **1994** when it opened the Faurecia Emissions Control Technologies (FECT) business in the country, followed by the arrival of Faurecia Automotive Seating (FAS) in 2002 and then Faurecia Interior Systems (FIS) in 2005. Note that the group also has an exterior modules business located in a plant that was finally not included in the disposal of **Faurecia Automotive Exteriors** to Plastic Omnium. Faurecia exceeded the symbolic threshold of **EUR1bn** in overall sales in China as of 2010 and now generates almost **EUR2.6bn** *(15% of sales)* in the country, primarily via its three core businesses.

The group currently has around **40 production** sites in China *(12% of total)*, **four R&D centres** *(13% of total)* and engineers present in the country account for **17%** of the group's research headcount. The country is therefore a priority focus for the group and should continue to generate a large share of its future growth in view of the orders taken in 2015 *(20% of the group's order intake concerns China)*.

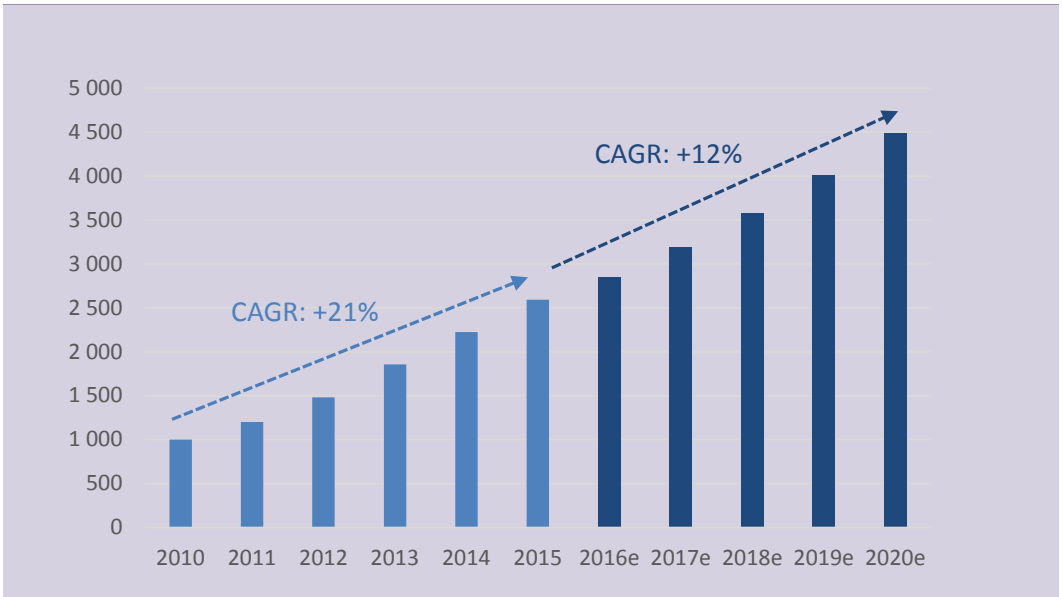
Among our universe of car parts makers (Faurecia, Hella, Plastic Omnium and Valeo), Faurecia is the most exposed to the Chinese automotive market.

5.2.2. A strategic plan focused on China and local carmakers

Initially, the positioning in China was destined for mass production of innovations designed in western countries in order to make the most of cheaper local supply of raw materials and manual labour. Since then, Faurecia has gradually left more autonomy to its Chinese subsidiary *(to the point that 100% of managers at the company are now Chinese)* up to launching in 2010 a vast local innovation programme in order to meet the specific needs of the Chinese market and increase its exposure there.

Via a strategy to **multiply partnerships in the country and strengthen its three key businesses organically,** Faurecia is targeting sales of **EUR4bn** in China in 2018 and **EUR5bn** in 2020 *(compared with EUR2.6bn at end-2015)*. This target implies a CAGR in sales of around 14% over the period, a pace far higher than growth in auto production in the region *(5% in 2016 then 2% according to IHS)*. This guidance, which would bring the weight of China in the group's overall sales to **19%** in 2018 and **22%** in 2020, nevertheless looks **realistic in terms of a portfolio tending towards more technological know-how that Chinese carmakers will require in order to catch up their technological lag in models from Chinese/foreign joint ventures.** Only a total shift in the market that could potentially result in a halt to tax incentives by the Chinese central government for small cars implemented at end-2015, would be capable of genuinely questioning the group's targets in China.

Fig. 23: Faurecia is aiming to double its sales in China over five years (EURm) - BG estimates - EURbn



Source: Faurecia; Bryan, Garnier & Co ests.

Faurecia has multiplied the number of strategic alliances in China by creating joint-ventures with local players, among which **Dongfeng** and **Geely primarily concerning its skills in interior systems**, a segment in which Faurecia still needs to ramp-up with market share of just **4%** behind the leaders *(Yanfeng, Johnson Control and Mobis)*. This partnership approach enables Faurecia to indirectly strengthen its ties with Chinese carmakers while showing them its expertise.

Note that the group generated **12%** of its sales with these same local carmakers during H1 2016 and that it is targeting a share of **20%** in 2018 followed by **30%** in 2020.

Gaining greater exposure to local carmakers is an efficient means of **warding off political risks weighing on Chinese/foreign joint ventures already set up** and which could be thrown into question at any moment by the Chinese government. Furthermore, the market concentration likely in coming years, combined with the rising momentum of local carmakers in the **SUV** *(Sport Utility Vehicle)* and **MPV** *(Multi-Purpose Vehicle)*, segments that are set to grow massively in coming years, shows the wisdom of this strategic choice.

Fig. 24: Multiple joint-ventures created in interior systems

Partner	Structure	Date	Field of activity
Geely	50/50	Dec-2010	Interior systems, bumpers
Ningbo Huazhong Plastics Products	50/50	Jan-2011	Exterior systems
Changchun Xuyang	50/50	Jun-2011	Interior systems, seats
ChangAn	50/50	Apr-2013	Interior systems
Dongfeng	50/50	Mar-2015	Interior systems
Dongfeng	50/50	Mar-2015	Exterior systems

Source: Faurecia; Bryan, Garnier & Co ests.

In view of prospective organic growth, Faurecia aims to strengthen its positions in its three main businesses with a particular emphasis on **seat systems** *(35% of sales in China)* and **emissions control** *(44% of sales in China)*. **Faurecia Automotive Seating** intends to develop its expertise in whole seats via new joint ventures while seat structures and mechanisms for which Faurecia has market share of **13%** and **16% respectively** should benefit from this leadership and the acquisition of new clients *(Renault, FCA, Hyundai etc.)*. The group therefore intends to generate **EUR1.7bn** in sales in this segment by 2018, bringing the FAS division's exposure to China to **29%** *(vs. 15% in 2015)*.

Given its leadership position in emissions control systems in China *(27% market share in 2014 ahead of Tenneco, Sango and Sejong)*, Faurecia is almost uniquely exposed to light vehicles and very little to commercial models. This shortfall is about to be made up for with the strengthening of the **Cummins-Faurecia** partnership in the trucks segment in China as well as the marketing of the NOx emissions reduction system **ASDS** planned for 2017. The addition of this product to Faurecia's offer should help it increase its exposure by 2018 with **EUR1.6bn** in sales *(bringing the share of China in Faurecia Emission Control Technologies above 20%)*.

The group's high exposure to China should last over coming years, adding weight to its no. 1 position in our coverage for this market.

6. Heading for a margin of 6%?

During the investor day organised by the group on 19th April 2016, Faurecia unveiled a number of ambitious 2016-18 targets, for both sales growth and margins, and cash generation.

Via its presence in these three businesses, the group is therefore aiming to outperform the market by **four points on average between 2016 and 2018**, thereby enabling it to generate a CAGR in sales of around **6%**. Note that over 2012-15, the group generated a CAGR of **5-6%** in sales, outperforming the market by **2.3pp** on average, and published an EBIT margin of **3.5%**, below the sector average.

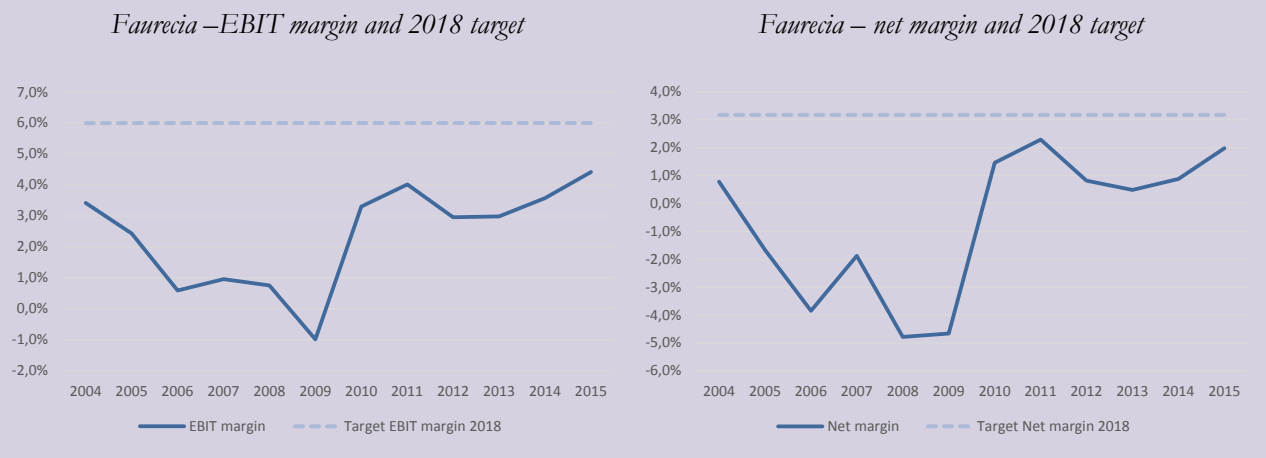
Whereas the aim to outperform the market seems feasible to us, a **6% margin target looks ambitious**, especially since the group has never reached this level of profitability in more than 10 years.

Fig. 25: Faurecia 2016-18 targets vs. 2012-15

	2012-15	2016-18	Change
Sales CAGR	**6,0%**	**6,0%**	**0,0%**
Market growth CAGR	3,7%	2,0%	-1,7%
Outperformance	2,3%	4,0%	1,7%
EBITDA margin	6,5%	10,0%	3,5%
EBITDA margin (on value added sales)	7,3%	12,0%	4,7%
EBIT margin	**3,5%**	**6,0%**	**2,5%**
EBIT margin (on value added sales)	3,9%	7,0%	3,1%
Net cash flow	84,8	> €500m	-
Net margin	**1,0%**	**3,2%**	**2,1%**

Source: Faurecia.

Fig. 26: Change in Faurecia EBIT margin and net margin



Source: Faurecia; Bryan, Garnier & Co ests

Various sources of leverage should help the group delivers its targets for EBIT and net margin improvement:

- The disposal of FAE
- The improvement in the product mix, to the benefit of innovative products and margin
- Optimisation of the cost base
- Optimisation of financial expenses and tax
- Investments under control

6.1. Disposal of FAE, a boost to margins relative to 2015

By selling off its least profitable business, the group's margin should logically improve considerably relative to the 2012-15 average of **3.5%**, to **4.4%**, implying just a **+150bp improvement to be found over** 2017 and 2018 to reach group's guidance. Although Faurecia's margin improvement guidance already reflects this boost *(2016-18 guidance with 2016 already adjusted for the disposal)*, the operation is clearly positive and should contribute to its transformation.

6.2. Improvement in the product mix, to the benefit of innovative products and margin

As indicated previously, the increase in R&D spending in recent years mean the group's product mix should improve over coming years, to the benefit of margins and cash generation. The various innovative solutions offered by Faurecia to carmakers, combined with its rising exposure to premium carmakers *(25% of sales)* should have a substantial impact on its pricing power. Although this improvement is difficult to quantify and analyse, for several years now we have nevertheless noted an improvement in the group's margin combined with higher sales growth compared with the global auto market. **This commercial outperformance relative to the industry therefore benefits Faurecia's EBIT margin.**

6.3. Optimisation of the cost base

Faurecia has always had a higher cost structure than other car components suppliers, especially in terms of **SG&A spending and production costs.** Compared with direct rivals **Plastic Omnium, Magna, Lear** and **Johnson Controls**, Faurecia spends an average of **5pp more of sales per year** on its production costs, to the detriment of operating margin.

Potential to adjust the cost base and SG&A expenses therefore looks possible in the short term.

As such, in order to reach a margin of **6%** by **2018**, Faurecia is aiming to **1)** optimise its materials consumption in order to reduce spending on raw materials and production costs *(reduction potential estimated at EUR80m)*, **2)** improve its industrial processes by integrating a higher share of automation and digitalisation *(reduction potential also estimated at EUR80m)*, **3)** reduce the development time per

module by **30%** to the benefit of development costs and R&D spending, and **4)** reduce SG&A spending by around **EUR100m** by 2018 relative to 2015.

The improvement in EBIT margin in the US, a region that has long penalised the group's profitability with an average margin of around **2.5%** over 2012-15 *(vs. 3.5% on average for the group)*, should be a considerable source of leverage to the group's margin over 2016-18. Since the nomination of a new vice-president to head the group's US unit *(Mark Stidham)*, in March 2015, profitability has increased, thanks especially to a reduction in quality defaults. The unexpected halt to production of the **Chrysler 200** imposed by the FCA is clearly set to have a negative impact on margins in the region in 2016, although compensations by the Italian group could take place in coming years for other orders.

The group expect these optimisation plans could have a combined impact of around **EUR250-300m** on its cost base relative to 2015 *(adjusted for the disposal of FAE)*, or **1.5%** of 2018e sales, in line with the target to widen the margin from **4.4%** to **6%.**

6.4. Optimisation of financial expenses and taxes

Thanks in particular to the disposal of FAE, which should help the group recover **EUR665m**, reduce its financial leverage *(net debt/EBITDA)* and reduce overall gross debt, Faurecia's financial expenses should fall by around **EUR50m** over 2017-18 relative to 2016.

The group recently issued two seven-years bonds with coupons of **3.125%** and **3.625%** respectively, compared with an average interest rate on debt of **5.1%** in 2015 and **5.4%** in 2014, and also redeemed two bonds with coupons of more than **8%** (for a total of **EUR740m**).

Fig. 27: Faurecia – Recent bond moves

Issue date	Due date	Bond type	Amount	Annual interest	Implied coupon in EURm
Recently redeemed bonds	-	-	-	-	-
May 2012	15 June 2019	Bonds	250	**8,75%**	21,9
November 2011	15 December 2016	Bonds	350	**9,38%**	32,8
February 2012	15 December 2016	Bonds	140	**9,38%**	13,1
Recently issued bonds	-	-	-	-	-
March 2015	15 June 2022	Bonds	500	**3,125%**	15,6
April 2016	15 June 2023	Senior notes	700	**3,625%**	25,4

Source: Faurecia; Bryan, Garnier & Co ests.

The group is therefore guiding the market on a decline in net financial expenses of **EUR100m** vs. **>EUR160m** in 2015 implying a positive impact of **EUR0.26** in EPS, or **13%** of the EPS improvement target *(of EUR3 in 2015 and EUR5 in 2018)*.

Concerning taxes, thanks to the carry forward of tax losses in France and South America, the group should benefit from a tax rate of below 30% over 2016-18 vs. **>32%** in 2015 and **>33%** in 2014.

6.5. Investments likely to remain under control

In the same logic of optimising the cost base, like a number of car components players, the group aims to keep a tight rein on investments and R&D spending.

Faurecia intends to maintain its investments and capitalised R&D spending at below **5%** between 2016 and 2018, as in 2014 and 2015, a ratio below the sector average and below the average noted at Hella, Plastic Omnium and Valeo. In our view, this difference in investment policy stems partly from the group's previous commercial underperformance relative to the global automotive market compared with other car components makers.

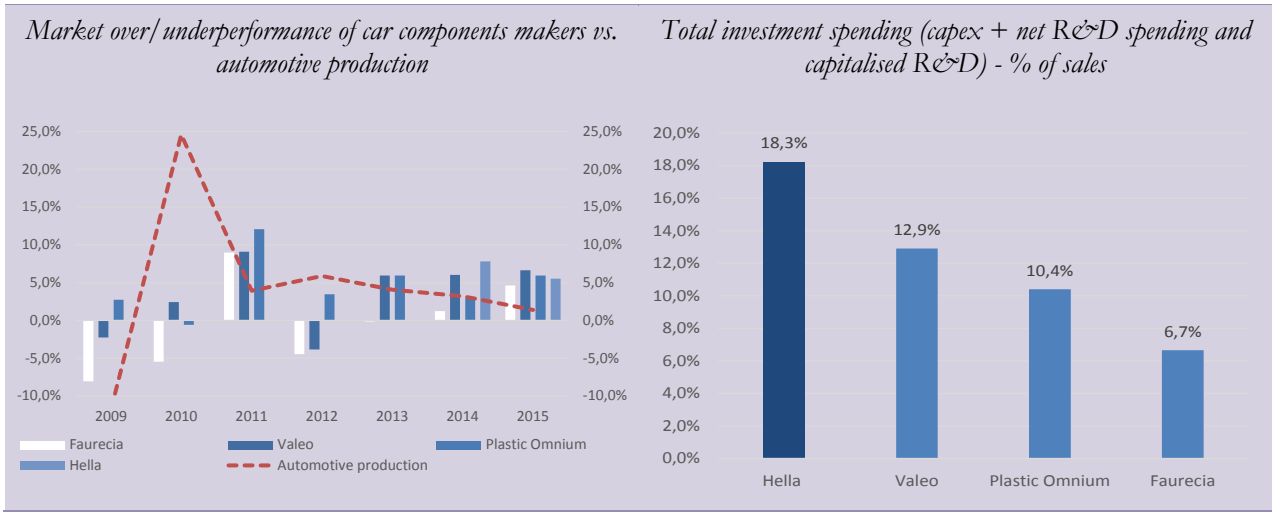
Fig. 28: Faurecia – change in investment spending since 2005 (EURm)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Capex	(434)	(302)	(307)	(329)	(169)	(323)	(451)	(557)	(518)	(519)	(621)
Capitalised R&D	(216)	(208)	(159)	(145)	(104)	(153)	(180)	(267)	(270)	(322)	(311)
Capex on sales	4,0%	2,6%	2,4%	2,7%	1,8%	2,3%	2,8%	3,2%	2,9%	2,8%	3,3%
Capitalised R&D on sales	2,0%	1,8%	1,3%	1,2%	1,1%	1,1%	1,1%	1,5%	1,5%	1,7%	1,7%
Total investment on sales	**5,9%**	**4,4%**	**3,7%**	**3,9%**	**2,9%**	**3,5%**	**3,9%**	**4,7%**	**4,4%**	**4,5%**	**5,0%**

Source: Faurecia; Bryan, Garnier & Co ests.

In addition, when compared with the level of total spending by Faurecia for investments and research *(R&D spending in the P&L account and capitalised R&D spending)*, with spending at other components makers, this difference is all the wider.

Fig. 29: More investment spending for more outperformance?



Source: Company data; Bryan, Garnier & Co ests

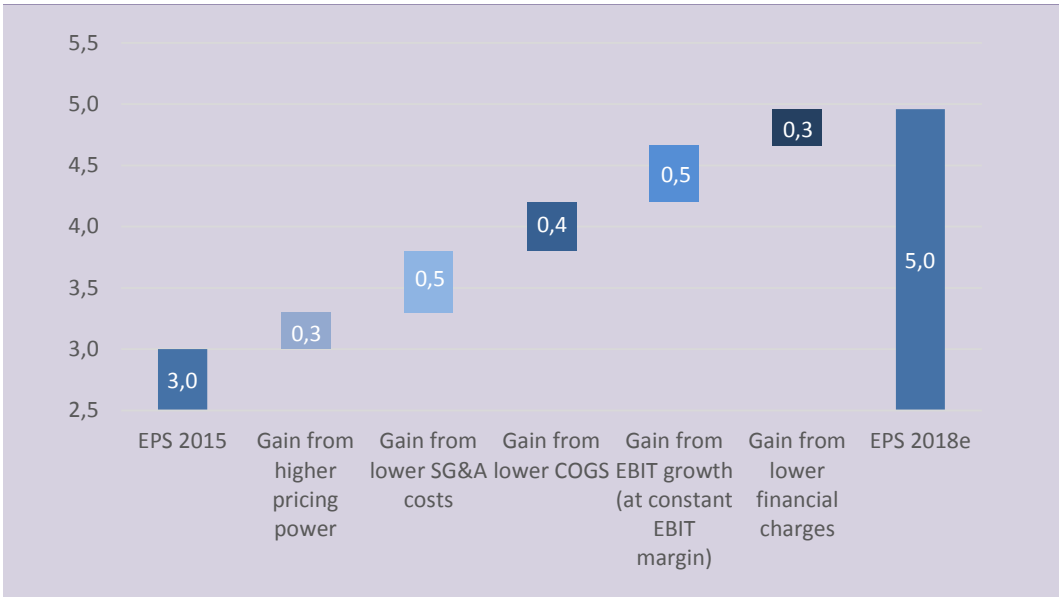
This strategy to optimise and control investment spending is unlikely to have a positive impact on the group's margin or cash generation relative to 2015 given that this optimisation already existed, **although it seems to contradict the group's aim to outperform global automotive production by 4pp per year over coming years.**

As such, in our Faurecia model, we do not forecast an organic outperformance of **4pp** relative to global auto production over the 2016-18 period, but of **3pp since we estimate that maintaining the level of investments at 5% of sales should limit the group's growth, even if the group's orderbook is at a peak level of EUR54bn and that new orders reached EUR21bn in 2015, up 16% relative to 2014.**

6.6. Heading for EPS of EUR5 in 2018?

The various sources of leverage presented above should help Faurecia reach its 2018 target to generate EPS up **67%** between 2015 and 2016, **to EUR5 per share**.

Fig. 30: Faurecia – group forecast for change in EPS between 2015 and 2018



Source: Faurecia; Bryan, Garnier & Co ests.

The 2015-18 EPS growth estimate that **we consider ambitious**, is currently the highest among the four car components players for which we are initiating coverage in our sector report, excluding Plastic Omnium which is to benefit from the integration of FAE.

However, like the market, we currently believe that this target will not be fully delivered. Our % sales growth estimates for the period **are 30% below** the group's targets *(CAGR of 4.2% for 2016-18 vs. a target for 6%)*. This difference is partly due to our lower growth estimates for global auto production, but also to the lack of acceleration in investment spending, which is set to penalise the group's organic growth between now and 2018. We are currently forecasting EPS of **EUR4.6/share** for 2018, compared with **EUR4.2/share expected by the market.**

7. Our estimates

As for **Hella**, **Plastic Omnium** and **Valeo**, our **Faurecia model** includes auto production estimates of **+2.4%** for 2016, followed by **+1.7%** for 2017 and **+1.7%** for 2018. We then expect market growth of around **+1.5%** over 2019-2025.

In our Faurecia model, we have factored in the disposal of the Faurecia auto exteriors businesses (*EUR1.2bn in sales and EUR50m in EBIT)* as of **29th July 2016** *(closing date*) for an overall amount of **EUR650**.

Fig. 31: Faurecia – Income statement – EURm

	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e
Revenues	**13 796**	**16 190**	**17 365**	**18 029**	**18 829**	**18 770**	**19 103**	**19 897**	**20 746**
Change (%)		17,4%	7,3%	3,8%	4,4%	-0,3%	1,8%	4,2%	4,3%
Adjusted EBITDA	941	1 105	1 009	1 070	1 232	1 442	1 552	1 597	1 781
EBIT	**456**	**651**	**514**	**538**	**673**	**830**	**934**	**1 041**	**1 154**
Change (%)		42,9%	-21,1%	4,8%	25,1%	23,3%	12,6%	11,4%	10,9%
Financial results	(116)	(118)	(196)	(234)	(244)	(207)	(159)	(148)	(136)
Pre-Tax profits	330	522	265	211	344	571	733	856	981
Exceptional	(36)	(58)	(87)	(5)	(81)	(65)	(57)	(50)	(50)
Tax	(98)	(108)	(78)	(65)	(115)	(186)	(201)	(236)	(271)
Profits from associates	27	46	34	14	1	13	14	13	14
Minority interests	(31)	(42)	(42)	(56)	(63)	(74)	(76)	(79)	(81)
Net profit	**202**	**371**	**142**	**88**	**166**	**372**	**711**	**541**	**629**
Restated net profit	202	371	142	88	166	372	511	541	629
Change (%)		84,1%	-61,7%	-38,4%	89,2%	124,4%	37,3%	6,0%	16,3%

Source: Faurecia; Bryan, Garnier & Co ests.

Fig. 32: Faurecia – Cash flow statement – EURm

	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e
Operating cash flows	**749**	**726**	**25**	**927**	**1 037**	**1 154**	**1 159**	**1 143**	**1 305**
Change in working capital	31	(184)	(387)	364	263	(932)	62	48	51
Capex, net	**(476)**	**(632)**	**(824)**	**(788)**	**(932)**	**(932)**	**(898)**	**(935)**	**(975)**
Financial investments, net	0	(66)	(71)	(12)	(33)	(31)	0	0	0
Dividends	0	(54)	(66)	(48)	(57)	(77)	(89)	(142)	(152)
Other	22	51	688	(6)	300	(294)	663	(1)	0
Net debt	1 197	1 226	1 807	1 519	1 388	946	110	45	(133)
Free Cash flow	**273**	**94**	**(799)**	**140**	**197**	**223**	**261**	**208**	**330**

Source: Faurecia; Bryan, Garnier & Co ests.

Fig. 33: Faurecia – Balance sheet – EURm

	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e
Tangible fixed assets	1 576	1 733	1 972	2 028	2 230	2 247	1 773	2 060	2 312
Intangibles assets	435	464	588	686	851	935	1 024	1 116	1 213
Cash & equivalents	606	630	629	711	1 025	939	1 775	1 840	2 019
current assets	3 052	3 566	3 935	3 987	4 284	4 312	5 053	5 305	5 628
Other assets	812	871	937	919	712	719	(141)	(198)	(368)
Total assets	**6 480**	**7 265**	**8 062**	**8 331**	**9 100**	**9 153**	**9 484**	**10 123**	**10 803**
L & ST Debt	1 803	1 856	2 436	2 230	2 412	1 885	1 885	1 885	1 885
Others liabilities	3 780	4 142	4 150	4 459	4 812	4 896	4 857	5 090	5 286
Shareholders' funds	811	1 154	1 306	1 502	1 717	2 398	2 785	3 151	3 596
Total Liabilities	**6 480**	**7 265**	**8 024**	**8 331**	**9 100**	**9 390**	**9 777**	**10 416**	**11 096**
Capital employed	**3 369**	**3 794**	**4 584**	**4 405**	**4 543**	**4 548**	**4 117**	**4 486**	**4 825**

Source: Faurecia; Bryan, Garnier & Co ests.

Fig. 34: Faurecia – Ratios – %

	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e
Operating margin	**3,3%**	**4,0%**	**3,0%**	**3,0%**	**3,6%**	**4,4%**	**4,9%**	**5,2%**	**5,6%**
Tax rate	29,6%	20,7%	29,4%	30,6%	33,5%	32,5%	28,0%	28,0%	28,0%
Net margin	1,5%	2,3%	0,8%	0,5%	0,9%	2,0%	2,7%	2,7%	3,0%
ROE (after tax)	22,5%	29,3%	9,9%	5,3%	8,8%	14,2%	23,4%	15,7%	16,0%
ROCE (after tax)	**10,3%**	**14,8%**	**8,7%**	**8,8%**	**9,9%**	**12,6%**	**16,7%**	**17,0%**	**17,5%**
Gearing	133%	97%	126%	92%	74%	36%	4%	1%	-3%
Pay-out ratio	13,4%	10,4%	0,0%	42,0%	26,2%	24,0%	28,0%	28,0%	28,0%
Number of shares, diluted	113	126	120	132	133	146	137	138	138

Source: Faurecia; Bryan, Garnier & Co ests.

Fig. 35: Faurecia - Per share data – EUR

Data per Share (EUR)	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e
EPS	**1,82**	**3,00**	**1,24**	**0,73**	**1,31**	**2,60**	**5,18**	**3,94**	**4,59**
Restated EPS	1,82	3,00	1,24	0,73	1,31	2,60	3,70	3,92	4,56
% change		65,0%	-58,8%	-40,6%	78,8%	98,1%	42,2%	6,0%	16,3%
EPS bef. GDW	1,82	3,00	1,24	0,73	1,31	2,60	5,18	3,92	4,56
BVPS	7,20	9,17	10,87	11,39	12,89	16,37	20,29	22,82	26,04
Operating cash flows	6,7	5,8	0,2	7,0	7,8	7,9	8,4	8,3	9,5
FCF	2,4	0,7	-6,7	1,1	1,5	1,5	1,9	1,5	2,4
Net dividend	**0,25**	**0,35**	**0,00**	**0,30**	**0,35**	**0,65**	**1,04**	**1,10**	**1,28**

Source: Faurecia; Bryan, Garnier & Co ests.

Fig. 36: Faurecia - Valuation – EURm

	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e
Market capitalization	**1 716**	**2 526**	**1 675**	**2 225**	**3 546**	**5 046**	**4 980**	**4 980**	**4 980**
Net debt	1 197	1 226	1 807	1 519	1 388	946	110	45	(134)
Pensions	157	162	172	150	200	188	178	169	161
Minorities	261	286	496	1 417	1 352	1 006	749	727	644
Financial assets	0	162	171	171	199	233	233	233	233
EV	**3 332**	**4 037**	**3 979**	**5 140**	**6 287**	**6 952**	**5 784**	**5 689**	**5 418**
EV/Sales	24%	25%	23%	29%	33%	37%	30%	29%	26%
EV/EBITDA	3,5x	3,7x	3,9x	4,8x	5,1x	4,8x	3,7x	3,6x	3,0x
EV/EBIT	**7,9x**	**6,8x**	**9,3x**	**11,9x**	**10,7x**	**9,1x**	**6,6x**	**5,7x**	**4,9x**
P/E	8,7x	7,6x	29,3x	49,4x	27,6x	13,9x	9,8x	9,2x	7,9x
Dividend Yield (%)	**1,6%**	**1,0%**	**0,0%**	**0,8%**	**1,0%**	**1,8%**	**2,9%**	**3,0%**	**3,5%**

Source: Faurecia; Bryan, Garnier & Co ests.

8. Valuation

As for **Hella, Plastic Omnium** and **Valeo**, we have valued **Faurecia** using two methods: **1/historical multiples** and **2/ DCF**. In all, the combination of the various methods *(three FVs stemming from multiples and one from DCF, with a weighting of 25% for each method)*, implies a **FV of EUR47** per share, thereby implying upside of **>29%** relative to the last listed share price.

As for other car parts suppliers, we have decided to **overweight the multiples valuation *(75% of FV)* to the detriment of the DCF valuation** *(25%)* in order to reflect the cyclical nature of the segment and the industry, and sharp volatility in the sector.

Although we consider Faurecia's 2018 targets ambitious with our estimate for 2018 EPS 8% lower the group's guidance, our valuation method points to more than 25% upside relative to the recent share price. The group's transformation is underway.

We are therefore initiating coverage of Faurecia with a Buy recommendation.

Fig. 37: Attractively valued relative to peers...

Valuation	Faurecia	Hella	Plastic Omnium	Valeo	Average suppliers
EV/EBIT 2015	9,1x	11,4x	11,6x	12,0x	11,1x
EV/EBIT 2016e	6,6x	9,2x	10,8x	11,7x	9,6x
EV/EBIT 2017e	5,7x	8,3x	8,0x	10,0x	8,0x
EV/EBIT 2018e	4,9x	7,1x	6,8x	8,9x	6,9x
Average 16-18	*5,7x*	*8,2x*	*8,5x*	*10,2x*	*8,2x*
Premium/Discount	**-29,7%**	**0,4%**	**4,4%**	**25,0%**	**-**
P/E 2015	13,9x	15,2x	17,0x	14,2x	15,1x
P/E 2016e	9,8x	11,5x	13,5x	13,7x	12,1x
P/E 2017e	9,2x	10,6x	10,9x	11,8x	10,6x
P/E 2018e	7,9x	9,3x	9,6x	10,7x	9,4x
Average 16-18	*9,0x*	*10,5x*	*11,4x*	*12,1x*	*10,7x*
Premium/Discount	**-16,2%**	**-2,4%**	**6,0%**	**12,7%**	**-**
PEG 2015	0,1x	-2,4x	1,1x	0,5x	-0,2x
PEG 2016e	0,2x	0,4x	0,5x	0,8x	0,5x
PEG 2017e	1,4x	1,3x	0,5x	0,7x	1,0x
PEG 2018e	0,5x	0,7x	0,7x	1,1x	0,8x
Average 17-18	*0,7x*	*0,8x*	*0,6x*	*0,9x*	*0,7x*
Premium/Discount	**-4,0%**	**5,6%**	**-22,1%**	**20,5%**	**-**

Source: Company Data; Bryan, Garnier & Co ests.

The Faurecia share is currently trading on a discount of **30%** relative to peers on EV/EBIT multiples and of **16%** relative to P/E multiples whereas the difference in terms of EPS growth over 2016-18 only stands at **1-2pp** with Hella and Valeo *(Plastic Omnium benefits from a positive scope effect on EPS)*.

Fig. 38: …Despite EPS growth similar to rivals

	Faurecia	Hella	Plastic Omnium	Valeo	Average suppliers
EBIT growth 2015	30,3%	-2,0%	12,8%	16,7%	14,4%
EBIT growth 2016e	14,7%	21,9%	21,4%	24,8%	20,7%
EBIT growth 2017e	13,0%	7,4%	22,8%	14,7%	14,5%
EBIT growth 2018e	11,4%	12,2%	12,4%	8,5%	11,2%
Average 16-18	**13,0%**	**13,8%**	**18,9%**	**16,0%**	**15,4%**
EPS growth 2015	98,1%	-6,4%	15,8%	29,0%	34,1%
EPS growth 2016e	42,2%	32,5%	25,7%	16,4%	29,2%
EPS growth 2017e	6,6%	8,4%	23,8%	16,8%	13,9%
EPS growth 2018e	16,3%	13,1%	13,2%	9,6%	13,1%
Average 16-18	**21,7%**	**18,0%**	**20,9%**	**14,3%**	**18,7%**
CAGR 16-18	**11,3%**	**10,7%**	**18,4%**	**13,2%**	**13,4%**

Source: Company Data; Bryan, Garnier & Co ests.

Fig. 39: Faurecia – FV @ EUR47

Faurecia - FV sum-up	**Multiples**	**FV**
EV/Sales *(2016-25) - 25%*	**35%**	**€40,9**
EV/EBITDA *(2016-25) - 25%*	**7,0x**	**€47,6**
P/E *(2016-25) - 25%*	**13,0x**	**€50,1**
DCF model *(2016-25) - 25%*		**€48,7**
o/w WACC	9,1%	
o/w LTG	2,0%	
o/w Average EBIT margin	5,3%	
o/w LT EBIT margin	5,0%	
Implied FV		**€47,0**
Current price		€36,3
Upside		29,7%

Source: Bryan, Garnier & Co ests.

8.1. Valuation via historical multiples

We have taken into account the group's historical **EV/sales, EV/EBIT and P/E** multiples to value **Faurecia.** Our FV's are calculated over the 2016-2025 period *(discounted by WACC each year)* implying respectively **EUR40.9**, **EUR47.6** and **EUR50 of FV**. We value Faurecia with **35%** sales, **7.0x** EBITDA and **13.0x** EPS multiples, slightly below European peers to reflect notably the lower than average margin generated by the group.

8.2. DCF valuation

We have also valued **Faurecia** via a DCF model, based on the following estimates.

- **WACC** of **9.1%**
- **A growth rate to infinity of 2%,** implying a slight outperformance by **Plastic Omnium** relative to the auto market (+1.5%).
- **EBIT margin** (with restructuring and without joint ventures) of an average **5.3%** and a margin to infinity of **5.0%**.

Fig. 40: Faurecia –DCF estimates – EURm

	2016e	2017e	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e
Revenues - Core business	**19 103**	**19 897**	**20 750**	**21 662**	**22 638**	**23 390**	**24 190**	**25 041**	**25 948**	**26 916**
Revenue Growth Rate	0,0%	4,2%	4,3%	4,4%	4,5%	3,3%	3,4%	3,5%	3,6%	3,7%
Operating Margin	4,6%	5,0%	5,3%	5,7%	6,0%	6,2%	6,4%	6,6%	6,9%	7,1%
EBIT *(excluding JVs & Associates, with restr. Charges)*	**877**	**991**	**1 104**	**1 225**	**1 353**	**1 450**	**1 553**	**1 663**	**1 781**	**1 907**
Adjustment for provisions	(7)	(1)	0	1	2	0	1	2	3	4
(-) Taxes on EBIT	(246)	(277)	(309)	(343)	(379)	(406)	(435)	(466)	(499)	(534)
(+/-) Movements in working capital	62	48	51	54	58	45	48	51	54	58
(+) Depreciation and amortization	618	556	627	695	747	811	858	903	947	990
(-) Capital Expenditures	(573)	(597)	(622)	(650)	(679)	(702)	(726)	(751)	(778)	(807)
(-) Intangibles	(325)	(338)	(353)	(368)	(385)	(398)	(411)	(426)	(441)	(458)
Free Cash Flow	407	381	498	614	718	801	888	976	1 066	1 159
Present Value of Free Cash Flow	**395**	**339**	**406**	**459**	**492**	**503**	**511**	**515**	**516**	**514**

Source: Faurecia; Bryan, Garnier & Co ests.

Fig. 41: Faurecia – DCF @ EUR49

PV of Free Cash Flows	4 651
PV of Terminal Value	3 948
EV implied - EURm	**8 600**
- Net financial debt (N-1) - EURm	946
- Pensions Liabilities (N-1) - EURm	188
- Minority Interest value - EURm	1 006
+ Financial assets - EURm (N-1)	233
Value of Equity	**6 694**
Value of Equity per share	**48,8**
Price	36,3
Upside/Downside	34,5%

Source: Bryan, Garnier & Co ests.

We are initiating coverage of the share with a FV of EUR47.

9. Faurecia – SWOT

Fig. 42: Faurecia – SWOT analysis

Strengths	Weaknesses
• Core skills in **vehicle weight reduction**, long-term growth trends in the automotive sector • A product portfolio widening to include hybrid vehicles and rechargeable hybrid vehicles • Diversified geographical exposure in the automotive segment with **Asia** (15% of sales) and **the US** (28% of sales) • Rising exposure to **German carmakers** (>33%) • A refocusing on the most profitable businesses following the disposal of the FAE activities	• Weak presence in the connected and autonomous car segment • Product offering still limited to the composites segment • Low operating margin relative to other auto parts makers
Opportunities	**Threats**
• **Disposal of the FAE division** in favour of acquisitions, with the group having received **EUR650m**, enabling it to reduce its **net debt/EBITDA multiple to 0x** • Commercial development of the **ASDS** depollution systems with individual carmakers.	• A slowdown in the global auto market would directly affect **100%** of Faurecia's sales • Confirmation of a Chinese market slowdown in the event of a halt to government incentives • Momentum in the **solid SCR depollution** systems (**DINOx solid**) at Plastic Omnium, at the same time as the Faurecia ASDS system

Source: Bryan, Garnier & Co ests.

10. Faurecia in short

10.1. A bit of history

Now ranking among the few listed French car components makers *(Faurecia, Plastic Omnium, MGI Coutier, Plastivaloire, Valeo)*, **Faurecia** was created in **1997** from the merger of **ECIA** *(Equipements et Composants pour l'Industrie Automobile)*, the then subsidiary of French carmaker **PSA Peugeot Citroën,** and the car seats supplier **Bertrand Faure**. The group has since relied heavily on acquisitions to expand, especially thanks to the takeover of car components maker Sommer-Allibert in 2001, three years after the group was created. The trend gained momentum in the 2010s with the acquisition of Plastal Germany and Plastal Spain, specialised in plastic body parts, as well as the takeover of Sora Composites' auto businesses in 2012, when it was positioned in composite plastics, and finally, Plastal France during the same year. Although carmaker PSA group was historically **Faurecia's** leading shareholder with a stake of more than **50%**, this has now dropped below the **50%** threshold, diluted by convertibles operations, prompting questions that the carmaker would withdraw entirely as was the case in the past with the majority of carmakers and their former subsidiaries.

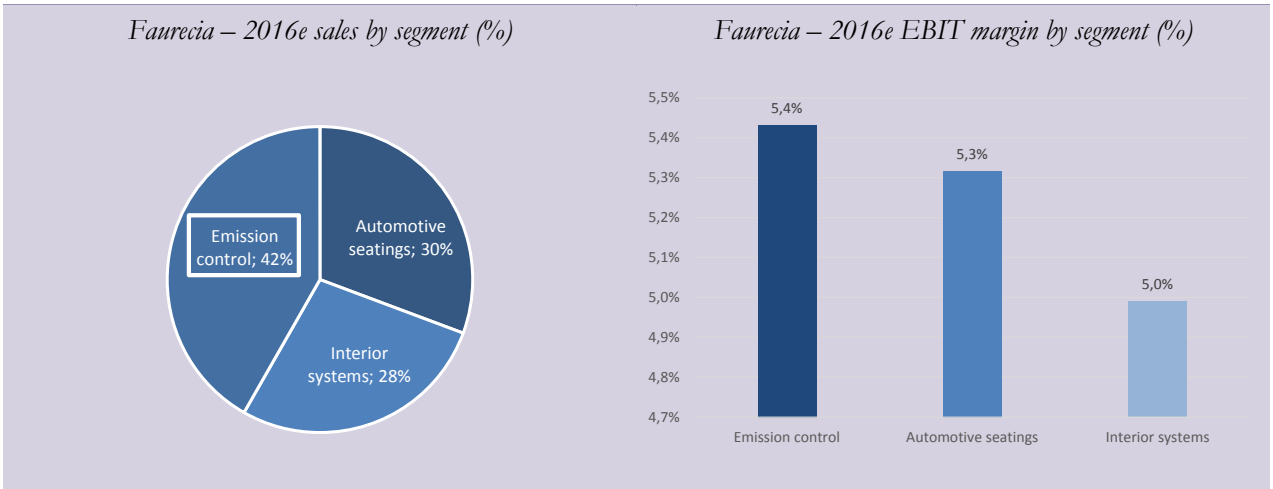
With sales of **EUR18.7bn** at end-2015 *(excluding businesses being sold)*, generated entirely in the OEM market and hence, focused on carmakers, Faurecia is now the leading components maker in France. More generally, prior to the disposal of FAE, the group was **no. 7** in the global ranking of car components suppliers, ahead of **Valeo** *(no. 11)* as well as **Plastic Omnium** *(no. 40)*. Faurecia has embarked on a reorganisation of its business portfolio following the signing of a definitive disposal agreement for the exterior modules segment ***(sales of EUR2bn and EBIT of EUR49 sold for EV of EUR665m)*** to Plastic Omnium. The deal materialises the group's aim to rebalance its geographical exposure and client portfolio.

10.2. Refocusing on three businesses

Historically positioned in four businesses, the group's future is now set to focus on three flagship activities in the automotive market: **1) automotive seating**, covering all stages of seat assembly, **2) emissions control**, which consists of developing and producing exhaust systems, **3) interior systems,** housing cockpit modules *(dashboards and central consoles)* and decoration. These three businesses are fairly balanced pillars in Faurecia's portfolio, although the emissions control activity nevertheless stands out for its contribution to sales and even more so to EBIT margin *(42% of group EBIT margin before adjustment for IFRS5)*. Note that each business also benefits from tool sales, R&D and prototypes businesses in their sales destined for carmakers.

The exterior modules business is currently being solid off *(including bumpers and front-end modules)* to French components maker **Plastic Omnium**. This was the business that contributed the least to group sales and generated the lowest EBIT margin *(9.8% of sales, 2.4% of EBIT margin prior to adjustment for IFRS5)*.

Fig. 43: Group now focused on three businesses



Source: Faurecia; Bryan, Garnier & Co ests

10.2.1. Automotive Seating - 33% of sales - 35% of EBIT

Faurecia's interior seating activity designs and manufactures **whole interior seats** as well as all seat parts including **structures, mechanisms, mousses, seat coverings and electronic systems**. Faurecia is the number three player in the global car seats market with **sales of EUR6.2bn** and no. 1 in the seat structures and mechanisms segment.

Focused on car seats, this division can either manufacture and deliver a whole seat or more simply, supply the majority of components making up the seat. The group is better positioned in the manufacture of components and individual mechanisms with market share of **17%** compared with market share of **12%** in whole seat sales. Design of the parts is based on three major subjects, namely their lightness in a bid to reduce the overall weight of the car and fuel consumption, a constant improvement in comfort via electronics, pneumatics and fillings, and finally, the development of the module-based character of seats made possible by mechanisms and new structures.

Development of the seats division is set to focus on two themes: **1) "premiumisation"** and **2) China**, both of which are powerful growth drivers for delivering a CAGR in organic growth of around **6%** for Faurecia in this segment. Since the group already has German manufacturers of major saloon brands among its customers, the business should benefit from new contracts with other specialised brands in upscale cars. This strategic positioning means premium brands could account for more than **20%** of the group's overall sales further out.

Accounting for almost a third of production starts in 2015, China is easily one of the group's favourite zones for the development of its business. However, all of the contracts won concern only seat structures in a sign that local Chinese carmakers and joint ventures still prefer to use other components suppliers for other seats components such as coverings and electronic systems. Note that Europe also accounts for a third of production starts during the year.

10.2.2. The emissions control division – 40% of sales – 42% of EBIT

Faurecia's **emissions control** business is the largest segment in terms of both sales and EBIT margin *(EUR7.4bn in sales for EUR360m in EBIT)* and focuses on the development and production of exhaust systems. Faurecia is the global no. 1 *(27% market share)* on PC & LCV market. Note that almost half of these sales concern **monoliths**, components bought for catalytic pipes by the car components maker from a supplier designated by the carmaker beforehand and whose supply cost is invoiced directly to the carmaker with no margins.

In an increasingly demanding backdrop for control and reduction of greenhouse emissions, the product range has been constantly renewed in line with regulations and now **includes all components associated with exhaust pipes** *(silencers, collectors, catalysers, depollution systems and exhaust pipes)*. The group is focused on three innovation sources: **1)** weight reduction as part of the aim to reduce the overall weight of vehicles, with a 50% reduction in the weight of valves, **2)** control of polluting emissions in order to meet ever-tougher regulatory conditions by placing systems as close as possible to the engine in order to reduce nitrogen oxide emissions, and **3)** energy recovery, which is a genuine concern for the automotive industry. Faurecia is already working on internal combustion engines equipped with technologies capable of recovering some of the thermal energy created by the engine and lost in the exhaust pipe in the form of heat, and the group estimates that mass marketing of these engines is likely in around 2020.

This division is above all driven by the multitude of new and tougher regulations constantly implemented throughout the world, affecting both developed and emerging countries. On the one hand, new individual cars need to meet drastically lower requirements in terms of CO_2 emissions within the next few years with a minimum reduction planned from **6L/100km in 2015 to 3.3L/100km in 2025**. Efforts in terms of NOx emissions in real driving conditions for diesel engines are likely to be similar *(-70%)* as soon as the **RDE** regulation comes into force **in 2017** *(European Real Driving Emissions Regulation)*. Off-highway vehicles equipped with powerful engines are also set to face stricter regulations on their emissions, contrary to practices so far. On the other hand, with the same aim of reducing emissions, internal and hybrid combustion engines are set to ramp-up. **These trends should generate EUR16bn in additional sales for car components makers out to 2025.**

Strengthened by these fresh sources of growth, the emissions control market should reach **EUR66bn** in 2025 at a **CAGR of 5%**. Faurecia already has technologies capable of limiting CO_2 emissions and complying with **Euro6.c in 2017 and Euro6.d in 2020** and has embarked on the development of technologies for internal combustion engines. These skills meet new regulatory requirements and the market opportunities that these open. All of these assets play in favour of the group's target for market share of **30% further out**, especially as **Hyundai Kia** gains momentum in its client portfolio, with sales to the group set to double.

10.2.3. Interior systems – 27% of sales – 23% of EBIT

The **interior systems division** includes the design and manufacture of all decoration systems making up the vehicle cockpit segment. Faurecia is the **world no. 2** in the business behind **YF-JCI** with sales of **EUR5bn**.

Faurecia's offer concerns the **front segment of the vehicle interior**: flooring, central consoles, panels and door modules, acoustic modules and decorative parts. This genuine living area is increasingly subject to style and comfort requirements. In line with this trend, the group is one of the most upscale suppliers in the segment, enabling it to sign contracts with German brands in particular *(BMW, Porsche, Audi)*. The design of connected and autonomous vehicles is also set to oblige components makers to review all of their modules over the medium-term **with a far greater electronic component.** In a segment currently in the throes of consolidation around the world, Faurecia boasts market share of **14%**.

The division's development strategy is based on two factors: **1)** diversification in the product portfolio as the group strengthens its positions in interface screens, central consoles, driver, passenger and doors, in which the offer is currently limited *(activities with the highest electronics know-how)*, contrary to design and architecture in which the group has developed significant expertise, **2)** China. Penetration of the Chinese market is also at the centre of the group's attention having multiplied partnerships with local carmakers and components makers in the country. In 2013, a joint venture was created with **Chang'An** in order to work on flooring, door panels and acoustic modules, a segment then rounded out with the creation of another joint venture with **Dongfeng** in March 2015. We estimate that these two joint ventures should generate **EUR2.5bn in consolidated sales in 2020.** Note finally the most recent partnership signed with Chinese group **Beijing Automotive Parts** at end-2015, concerning the manufacture of aluminium decorative parts.

The auto interior systems market is therefore set to show a **CAGR** of **6.8% between 2015 and 2025 to reach EUR27bn.** Divided into four sub-segments, central consoles are set to remain the largest part with **EUR9bn**, following by systems associated with doors and the driver (**EUR7bn each),** and decoration systems destined for the front-seat passenger for **EUR4bn**. Faurecia is generally targeting market share of around **20% in this market**.

BRYAN, GARNIER & CO

INDEPENDENT RESEARCH

14th September 2016

Hella

In the headlights

Automotive

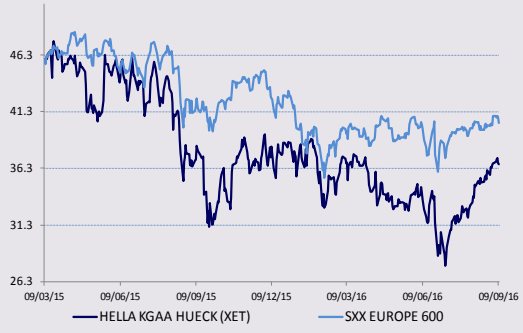
Fair Value EUR45 (price EUR36.67) **BUY**

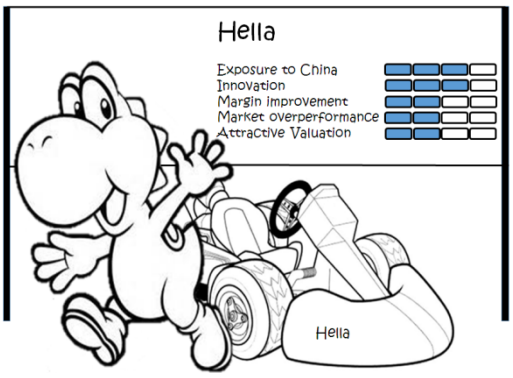
Coverage initiated

Bloomberg	HLE GR
Reuters	HLE.DE
12-month High / Low (EUR)	39.3 / 27.7
Market capitalisation (EURm)	4,074
Enterprise Value (BG estimates EURm)	4,099
Avg. 6m daily volume ('000 shares)	127.5
Free Float	2.3%
3y EPS CAGR	17.5%
Gearing (05/16)	29%
Dividend yields (05/17e)	2.62%

YE May	05/16	05/17e	05/18e	05/19e
Revenue (EURm)	6,352	6,611	6,940	7,288
EBIT(EURm)	366.51	446.66	479.59	538.33
Basic EPS (EUR)	2.42	3.20	3.47	3.93
Diluted EPS (EUR)	2.42	3.20	3.47	3.93
EV/Sales	0.66x	0.62x	0.57x	0.53x
EV/EBITDA	5.1x	4.7x	4.2x	3.7x
EV/EBIT	11.4x	9.2x	8.3x	7.1x
P/E	15.2x	11.5x	10.6x	9.3x
ROCE	8.5	9.6	9.8	10.4

Price and data as at close of 9th September





We are initiating coverage of Hella with a Buy recommendation and FV of EUR45. The group's innovative positioning in the lighting and electronic components segment should help it outperform automotive production in coming years, while guaranteeing an improvement in margins and ROCE to the benefit of shareholders.

- **Hella, a family group now gone global:** Created in **1899** to address the lamp and lights market for bicycles, carts and cars, the group rapidly specialised in the automotive segment and more precisely in the German market. After being bought by industrial family **Lüdenscheider Hueck in 1923** (*72.3% stake*), Hella then extended its international presence as of the 1960s enabling it to now generate **54%** of sales outside Europe (*in the OEM auto segment*).
- **Present in growth markets:** Hella's expertise in **LED** lights (*European leader with market share of 35%*) and **OLED** in the auto lighting sector, combined with its presence in the **electronic components** market (*15% global market share in Hella's segment*) should help the group benefit from the huge need for solutions enabling a reduction in vehicle CO_2 emissions as well as the development of autonomous vehicles.
- **Enabling it to outperform the market in coming years:** after outperforming automotive production **over the past seven years** (*+13% CAGR in sales vs. 7% for production*), this performance should last for the next five years *(+5% vs. +1.7%)*. Thanks to innovative products and control of distribution and R&D costs, we believe Hella should be able to improve EBIT margin by **90bp** to **8.4%** and **ROCE by 200bp** to **10.4%** by 2020.
- **A good entry point: we are initiating coverage of the stock with a Buy recommendation**: Hella is currently trading on a discount of **>15%** relative to historical multiples and **10%** relative to rivals, offering an excellent entry point to play long-term growth themes in the sector. **We are initiating Hella with a Buy recommendation and FV of EUR45 (+22%).**

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Company description

Hella is a Germany-based manufacturer of lightening and electronic components and systems for automotive industry. The group divides its business into the Automotive Original Equipment and Aftermarket segments. The Automotive OE segment comprises the Lighting and Electronics Business Divisions. The customer base for this segment is made up of automakers and other automotive suppliers. The product range of the Company embraces headlamps, multi-function lamps, light emitting diodes (LED), interior lighting, lighting electronics, vacuum pumps, sensors, central control units and access systems. The Aftermarket segment includes the Independent Aftermarket (IAM) and the business with Special OE suppliers (SOE) such as manufacturers of buses, caravans, and agricultural and construction machinery. The Company operates approximately 70 locations in approximately 30 countries.

Simplified Profit & Loss Account (EURm)	31/05/14	31/05/15	31/05/16	31/05/17e	31/05/18e	31/05/19e
Revenues	5,343	5,835	6,352	6,611	6,940	7,288
Change (%)	*6.9%*	*9.2%*	*8.9%*	*4.1%*	*5.0%*	*5.0%*
Adjusted EBITDA	656	766	816	875	944	1,037
EBIT	306	374	367	447	480	538
Change (%)	*3.8%*	*22.1%*	*-2.0%*	*21.9%*	*7.4%*	*12.2%*
Financial results	(35.6)	(35.7)	(39.2)	(37.2)	(33.0)	(26.8)
Pre-Tax profits	308	394	380	409	447	512
Exceptional	(24.1)	16.3	13.9	(10.0)	(10.0)	(10.0)
Tax	(79.2)	(98.2)	(108)	(106)	(116)	(133)
Profits from associates	37.8	55.3	53.0	56.1	58.6	61.1
Minority interests	(6.7)	(8.5)	(3.4)	(3.4)	(3.5)	(3.6)
Net profit	223	287	269	356	386	436
Restated net profit	223	287	269	356	386	436
Change (%)	*10.5%*	*29.0%*	*-6.4%*	*32.5%*	*8.4%*	*13.1%*
Cash Flow Statement (EURm)						
Operating cash flows	535	560	602	722	800	876
Change in working capital	(71.3)	(97.4)	(27.6)	(58.5)	(46.7)	(54.9)
Capex, net	(516)	(498)	(561)	(589)	(618)	(649)
Financial investments, net	(0.13)	(0.41)	0.0	0.0	0.0	0.0
Dividends	(55.3)	(59.1)	(86.6)	(85.6)	(107)	(116)
Other	218	(37.0)	27.3	1.7	1.7	1.8
Net debt	425	131	238	189	113	0.07
Free Cash flow	18.9	62.0	41.6	132	181	227
Balance Sheet (EURm)						
Tangible fixed assets	1,430	1,612	1,698	1,800	1,900	1,996
Intangibles assets	127	393	447	499	549	598
Cash & equivalents	637	603	585	634	710	823
current assets	2,412	2,636	2,635	2,768	2,924	3,127
Other assets	(148)	(327)	(370)	(406)	(472)	(573)
Total assets	4,459	4,917	4,995	5,294	5,611	5,971
L & ST Debt	1,418	1,139	1,152	1,152	1,152	1,152
Others liabilities	1,699	1,868	1,865	1,892	1,928	1,966
Shareholders' funds	1,312	1,880	1,973	2,243	2,522	2,842
Total Liabilities	4,459	4,917	4,995	5,294	5,611	5,971
Capital employed	2,759	3,121	3,622	3,653	3,873	4,074
Ratios						
Operating margin	5.73	6.41	5.77	6.76	6.91	7.39
Tax rate	25.67	24.94	26.00	26.00	26.00	26.00
Net margin	4.17	4.92	4.23	5.38	5.56	5.98
ROE (after tax)	16.96	15.26	13.61	15.86	15.29	15.34
ROCE (after tax)	8.19	8.90	8.50	9.61	9.78	10.36
Gearing	58.15	28.09	28.63	23.01	17.45	11.52
Pay-out ratio	24.71	29.81	31.86	30.00	30.00	30.00
Number of shares, diluted	100	111	111	111	111	111
Data per Share (EUR)						
EPS	2.23	2.58	2.42	3.20	3.47	3.93
Restated EPS	2.23	2.58	2.42	3.20	3.47	3.93
% change	*10.5%*	*16.1%*	*-6.4%*	*32.5%*	*8.4%*	*13.1%*
EPS bef. GDW	2.23	2.58	2.42	3.20	3.47	3.93
BVPS	NM	NM	NM	NM	NM	NM
Operating cash flows	5.35	5.04	5.42	6.49	7.20	7.89
FCF	0.19	0.56	0.37	1.19	1.63	2.04
Net dividend	0.55	0.77	0.77	0.96	1.04	1.18

Source: Hella; Bryan, Garnier & Co ests.

Table of contents

1. Investment Case

Why the interest now?

The reason for writing now

We are initiating coverage of German automotive parts supplier **Hella** under the framework of our report on the automotive sector. Created in 1899 but only listed on the stock market since 2014, Hella should benefit in coming years from expansion **in the headlights market,** thanks especially to its presence in the LED segment, as well as from robust demand for solutions and innovations helping to reduce **vehicle CO_2 emissions** (*by reducing the weight of vehicles*). We estimate the group should continue to **outperform global automotive production over the next five years.**

Cheap or Expensive?

Valuation

As for **Faurecia**, **Plastic Omnium** and **Valeo,** we value Hella via two methods, namely comparison of peer **EV/sales, EV/EBIT** and **P/E** multiples and **DCF**. Our valuation puts the Hella share price at **EUR45**, pointing to upside of **>20%** relative to the recent share price, despite the healthy performance since the stock was floated in **November 2014** (+19%).

When will I start making money?

Catalysts

We consider the various announcements made by carmakers concerning the development of **electric** and **autonomous cars** as positive for the sector and for Hella. In the shorter term, we see no catalysts for the share apart from the publication of quarterly earnings (*Q1-16/17*) on **28th September 2016.**

What's the value added?

Difference from consensus

We are currently in line with the consensus in terms of attributable net profit. However, in terms of **EBITDA**, we are **5%** and **7%** lower for 2016/17 and 2017/18 estimates in view of restructuring costs *(factored into our estimates but not the consensus*).

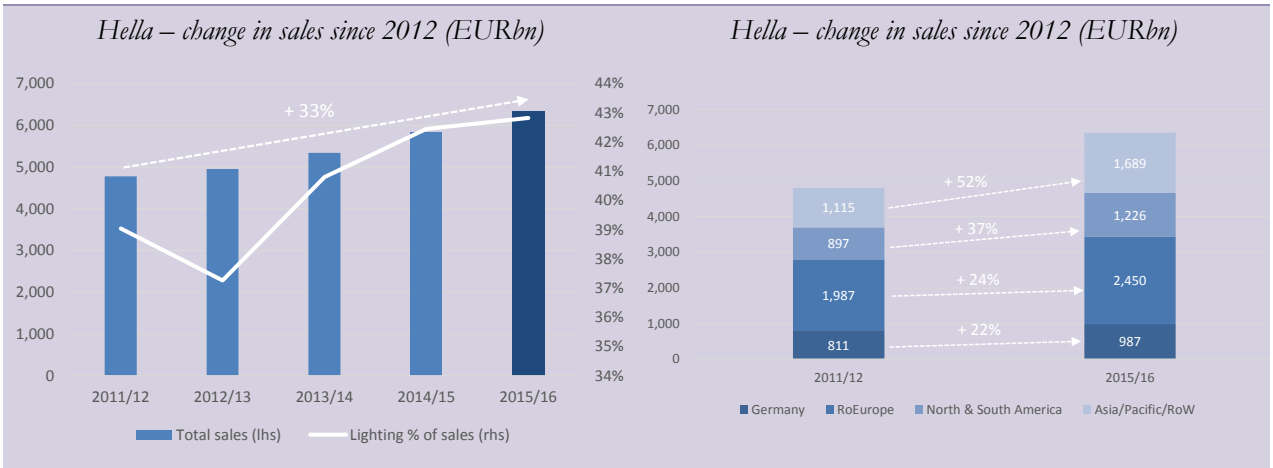
Could I lose money?

Risks to our investment case

The automotive cycle is about to slow both in mature and emerging countries, and this slowdown could be worse than expected, in particular due to **Brexit** and **international tension**. Like all car components makers, Hella could suffer from a **rapid downturn in automotive production.**

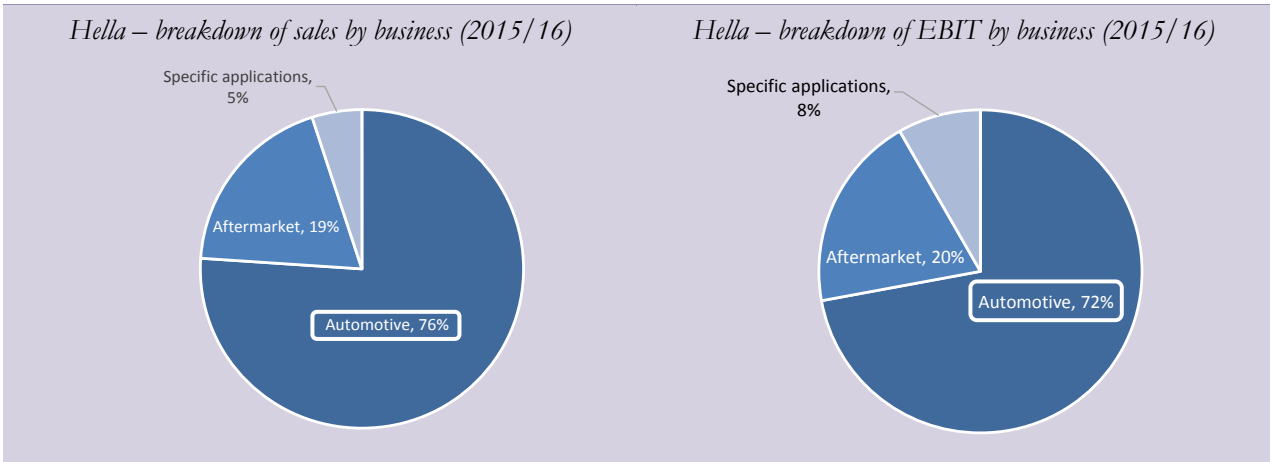
2. Hella in six charts

Fig. 1: Growth driven by Asia and north/south America and by the lighting segment



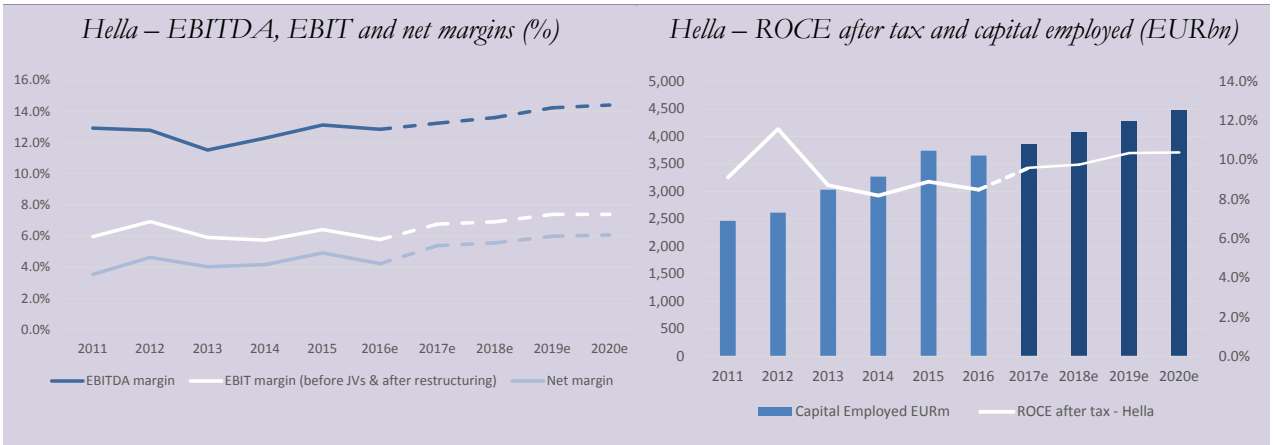
Source: Hella; Bryan, Garnier & Co ests.

Fig. 2: Product portfolio very exposed to the auto sector



Source: Hella; Bryan, Garnier & Co ests.

Fig. 3: Sharp improvement in ratios



Source: Hella; Bryan, Garnier & Co ests.

3. Under the headlamps

Following the **deployment of connected objects in the auto sector** and the significant innovations at the root of the development of **connected, autonomous** and **carbon-free vehicles**, technological innovation is playing an increasingly important role in a sector as old and industrial as the auto industry.

We estimate that the automotive sector in generally is primarily set to be driven by a more beneficial **model mix and price effect than during the previous cycle** whereas growth stemming from **volumes is likely to be lower than over the past six years**. The least innovative and least technological players with lower pricing power are therefore set to suffer from the slowdown in global demand, obliging them to optimise their cost bases and especially their R&D spending to the detriment of future innovation. In contrast, we estimate that certain more innovative and technological players, **especially car components makers such as Hella,** should continue to outperform the market in coming years.

Created in **1899** in order to address the lamps/lights market for bicycles, carts and cars, the German group rapidly specialised in the auto segment and more specifically, the German market. Bought in **1923** by **industrial group Lüdenscheider Hueck** (*which owns 72.3%*), Hella then extended its international presence as of the 1960s, enabling it to now generate **54%** of sales outside Europe (*in the auto segment OEM*).

The group's expertise in **LED** (*European leader with 35% market share*) and **OLED** in the auto lighting sector, combined with its presence in the **electronic components** segment (*15% market share on a global scale for Hella's segments*), should help the group to surf on the huge need for solutions enabling a reduction in vehicle CO_2 emissions while benefiting from the development of the autonomous car.

After outperforming global auto production over the past seven years (*CAGR of 13% in sales vs. 7% for production*), we estimate this performance should last over the next five years *(+5% vs. +1.7%).* Thanks to innovative products and control of the base of distribution and R&D costs, we also believe that Hella should be capable of improving EBIT margin by **90bp to 8.4%** and **ROCE by 200bp to 10.4%** by 2020.

Following the group's problems with a Chinese outsourcer that prompted it to reduce 2015/16 margin estimates, the Hella share underperformed the sector and its main rivals on the stock market yet recently picked-up (*share being down 4.5% YTD vs. -12.5% for the SXAP and 0% for other suppliers*). We missed the perfect entry price at **EUR28** in early July but still see upside on share price.

Hella is currently trading on a **15%** discount relative to historical multiples and 1**0%** relative to rivals.

Buy, FV of EUR45 *(+22%).*

4. An ideal product positioning for outperforming the sector...

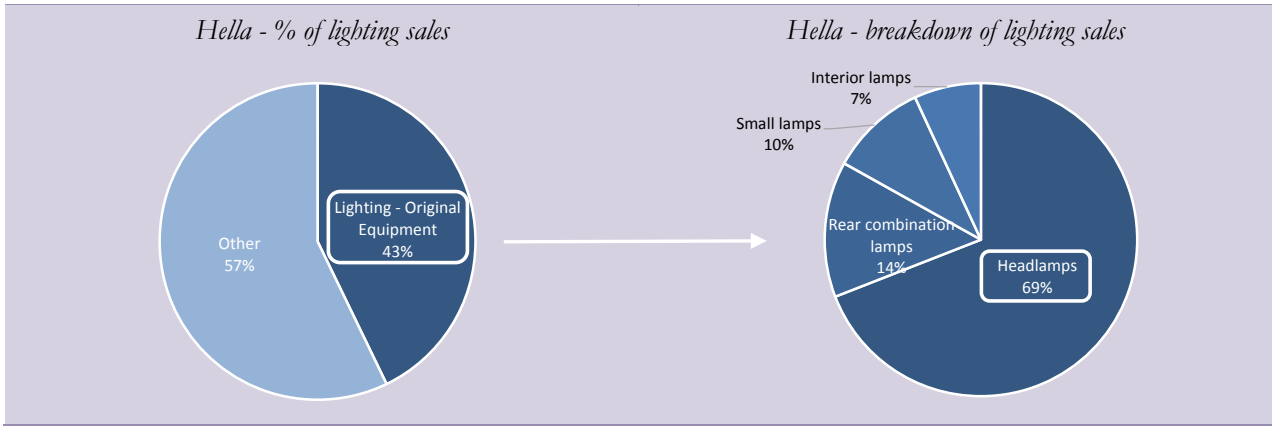
4.1. Let there be light! And there was light!

LED technology should gradually take over from halogen and xenon technologies, which currently account for 98% of the global lighting market

Although vehicles were first fitted with lighting systems such as headlights and rear-lights more than a century ago, and that the purpose of these systems still seems to be the same (***to see and to be seen***), technological progress has multiplied in this field and should continue to develop in coming years. **Halogen headlights** gradually replaced electrical lights in the **1970s**, whereas **xenon lights** have been equipping upscale vehicles since the **1990s** (*while remaining a minority on a global market scale*). Finally, **LED** lights emerged and began to equip certain vehicles as of the **2000s**. New regulatory restrictions in Europe (*reduction in CO_2 emissions and diurnal lights obligatory in the EU for new cars registered since 2011)*, should increase the need for LED technologies in favour of players such as Valeo, Hella and Osram etc.

Hella's lighting business represents 43% of the group's sales and **57%** of its OEM auto sales and offers its clients products using **halogen, xenon, LED, OLED** and **laser** technologies. It is constantly innovating to offer ever-more innovative technologies/solutions. The technological assets of LED should gradually take over from halogen and xenon technologies, which currently account for **98%** of the global auto lighting market.

Fig. 4: Hella derives 43% of sales from lighting, of which 69% from headlights

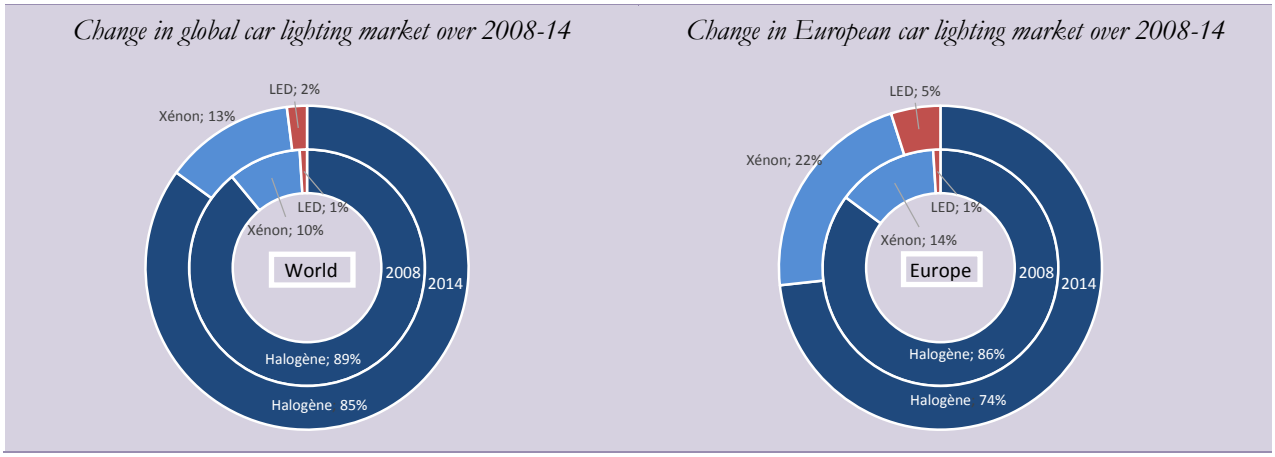


Source: Hella; Bryan, Garnier & Co ests.

4.1.1. LED, the technology of tomorrow

Today still, the global lighting market remains dominated by the **xenon** and **halogen** technologies, despite their low level of efficiency relative to new technologies.

Fig. 5: LED technology only represents 2% of the global market



Source: Hella; Bryan, Garnier & Co ests.

Halogen headlamps are based on the following principle: an electric current is sent to the metal filament that heats up and creates a light source. These lights are the **most widespread** in the fleet of vehicles in circulation and remain dominant in new car registrations despite their **technical obsolescence** (*weak luminosity, limited projection, low lifespan and fragility*) and their power consumption. The very basic reason for this is their very low price (*between EUR25 and EUR30 on average for a pair*), stemming directly from the low manufacturing costs itself. The affordable nature of halogen headlights and their ability to adapt to virtually all car models on the market make them virtually unavoidable for mass carmakers and their entry and mid-range cars.

Xenon headlamps, in which an electric current is sent into xenon gas in order to stimulate and generate its light source, are more recent and less widespread in vehicles despite their low power consumption. Firstly, the **higher price** (*around EUR100*) of xenon lights compared with halogen headlamps, given the rareness of xenon gas, is the first barrier to the widespread expansion of this technology. However, the main brake remains the very nature of the **light emitted, which tends to blind** other drivers. Xenon headlamps are therefore restricted to the **upscale and sports categories**. Indeed, the fact that many consumers dislike this blue light explains the lower penetration rate of xenon in the US and in China, relative to Europe.

LED lights (*Light Emitting Diode*) have only been used recently for headlamps and remain marginal for new models (*5% in Europe according to Hella*). In this technology, the beam is not generated by the heat of an electric current, but by the semiconductors making up the light. The strong heat created when the system is lit could set an electrical wire on fire in the event of prolonged use (like side lights or full-beam) and for years, has obliged carmakers to place LED lights only in rear lights needing less brightness, and in indicators. This technology has now been underscored for its **low power consumption,** its conversion rate (*80% of electrical power used for a LED is transformed into light compared with 20% for a conventional lamp*), as well as its lifespan **equivalent to that of a car (***around 6,000 hours)***.** In contrast, the light generated by a LED lamp is less intense, thereby obliging carmakers to multiply

the number of LED lamps in the car light for an already-high price per vehicle (*between EUR150 and 300*), thereby meaning the technology is primarily destined for **premium and electrical vehicles**.

Fig. 6: Overview of technological characteristics of car lighting

Technology	Light colour	Luminosity (mcd.m²)	Projection (m)	Lifespan (h)	Average price (EUR)	Intensity (lumens)	Power consumption (W)
Halogen	White yellow	30	150	1 000	25-30	1 600	55
Xenon	Blue	70	220	2 000	100	3 200	35
LED	**White**	**75**	**300**	**6 000**	**150-450**	**7 800**	**35**
LED laser	White	-	600	30 000	> 2 000	-	-

Source: Hella; Bryan, Garnier & Co ests.

Fig. 7: Luminosity differences depending on technology used

Source: Hella; Bryan, Garnier & Co ests.

Lifespan of LED Laser lights beats all records at around 30,000 hours, although price restricts it to use to very upscale vehicles

4.1.2. New applications for the future

LED technology is now accompanied by several derivatives such as **OLED** *(Organic Light Emitting Diode*) and **LED laser** highlighted by certain **specialist components makers such as Hella, Valeo or FCA's supplier, Magnetti Marelli**. OLED lighting functions in the same way as LED except that the diodes are made of more flexible superposed organic semiconductor materials, therefore enabling far greater **freedom of creation** and a virtually unlimited choice of colours for a far more modern if not futuristic style. Furthermore, these diodes require even less space than classic LED lights. The most recent innovation is the LED laser, a procedure enabling a **doubling in the light projection distance** (*up to 600m*) relative to classic LED while gaining in luminosity and precision. In fact, the headlights convert the beams emitted by the tiny laser diodes to produce a very intense white light similar to daylight while consuming **30% less energy than LED headlamps** considered themselves as more economical. Their lifespan beats all records at around **30,000 hours** but the price (*more than EUR2,000 a pair*) restricts it to **very upscale cars**, as is the case at present with certain **Audi** and **BMW** models.

Fig. 8: OLED headlights and rear lights in BMW M4 Iconic Lights

Source: Hella; Bryan, Garnier & Co ests.

4.1.3. Development of Hella portfolio focusing on LED... …

The Hella portfolio includes a very wide range of lighting systems (*lighting is the group's main business accounting for 42% of overall sales and headlamps are a key business representing more than 29% of consolidated sales*), offering all types of interior and exterior lighting types as well as all technologies (*hydrogen, xenon, LED, OLED and laser*), **albeit with a clear focus on recent LED technologies and their derivatives.**

Fig. 9: Hella: a portfolio focused on the LED technology

	Halogen	Xenon	LED	OLED	LED laser
Headlamps	x	x	x		
Intelligent headlamps		x			x
Rear lights			x	x	
Other outside lights			x		
interior lamps			x		

Source: Hella; Bryan, Garnier & Co ests.

According to NHTSA, almost 49% of accidents in the US take place at night

As a parts supplier with a strong technological expertise, Hella is one of the precursors in the LED headlamp segment and intelligent laser lights equipped with a system capable of adjusting intensity and projection angles depending on the environment. Road safety associations such as the National Highway Traffic Safety Administration (NHTSA) regularly warn the public of the dangers of driving, especially at **night, when the risks of an accident are twice as high** than during the day. The NHTSA estimates that almost **49%** of accidents that take place in the US occur at night and almost **38%** of these have proved to be fatal for those in the cars concerned. Indeed, during the night, drivers not only have reduced vision but are frequently dazzled by overly-bright or badly adjusted headlamps in oncoming vehicles. Given this fact, **lighting systems exceed their simple framework, and are becoming systems associated with safety and driver assistance.**

Hella's recent offers in automated, smart and adaptive lighting systems are in line with this trend for further safety and autonomy of cars in circulation. Adaptive headlamps made up of **25-80 independent LED light bulbs** (*or xenon in the case of smart lights offered in the US market*) and a range of sensors and cameras, are capable of adapting, with very sharp angle precision, the intensity and projection of the light beam, via the multiple light components making up the light depending on the vehicles present on the road and other factors that could interfere:

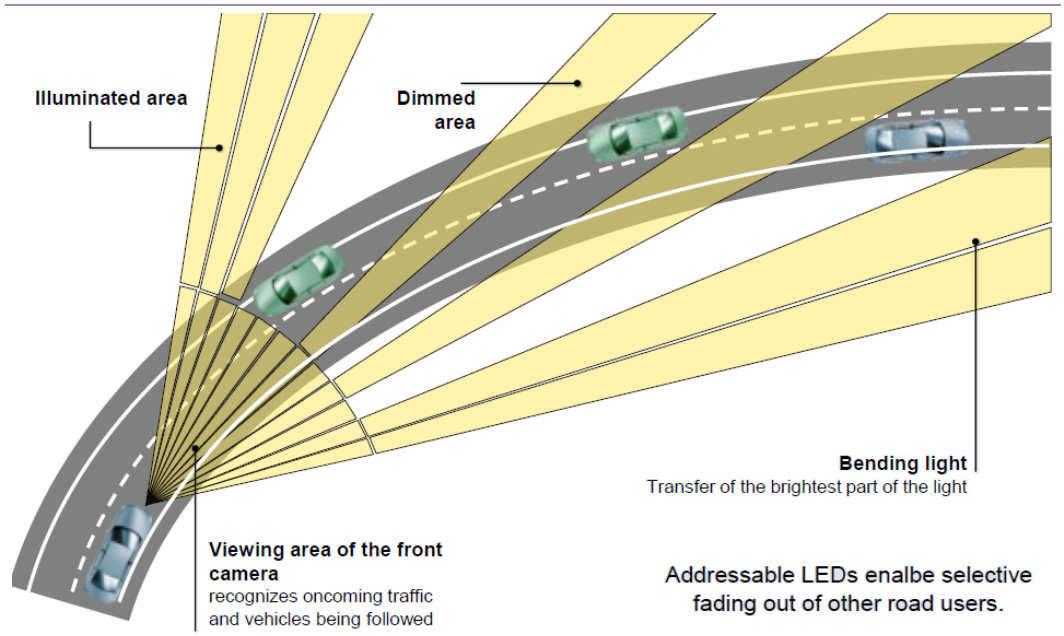
- **Adaptive Frontlighting System (AFS),** helps increase visibility on zones that are generally not very visible at night (*pedestrians on the side of the road in rural zones, on pavements in urban zones or driving and side lanes when driving around bends and corners*).

- **Adaptive cut-off line**, uses the AFS characteristics described previously but by adding additional functions. This automatically adapts the scope of the light projected in order to stop just behind the vehicle ahead or just before the vehicle coming in the opposite direction.

- **Vertical cut-off line**. This is the same procedure as the adaptive cut-off line, but with a smarter system functioning by segment, such that the lights are capable of reducing the intensity of the light beam or cutting it just for specific corridors corresponding to the trajectory of the vehicle followed or the cars coming in the opposite direction while continuing to light up the rest of the road and surroundings (*contrary to the vertical cut-off line which reduces the scope of the projection to the same extent in all directions*).

- **Led matrix beam** is the most advanced system in the range, covering all the options stated above while including the LED laser technology, which automatically increases the scope of the projection (*600m vs. 300m for classic LED bulbs*). This was the first system of its kind to be installed for the first time on the **Audi A8** model in 2014. Since then it is also an optional fitting on the **Audi R8** and **BMW i8 models,** thereby remaining restricted to very upscale models given the average price of the **Audi R8** (*EUR185,200*) and **BMW i8** (*EUR142,400*). Audi bills the option at **EUR3,960 per model for the R8 and BMW EUR6,500**. Interestingly, these automatic systems are still banned in the US, with a regulation dating from 1968 stipulating that an on-board command must exist enabling the driver to switch from one lighting method to the other.

Fig. 10: Hella's adaptive laser LED lighting system (Led Matrix Beam)



Source: Hella; Bryan, Garnier & Co ests.

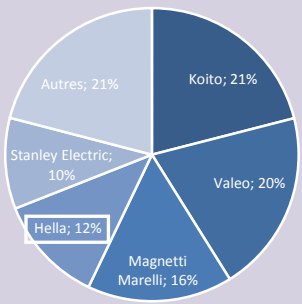
4.1.4. … in response to a sharp increase in demand

Hella's positioning, notably in smart lighting systems, looks coherent in view of current trends placing safety and driver assistance at the heart of concerns. In addition, the automotive lighting market is undergoing a revolution itself with the arrival of LED technology which seems to be the most buoyant market segment.

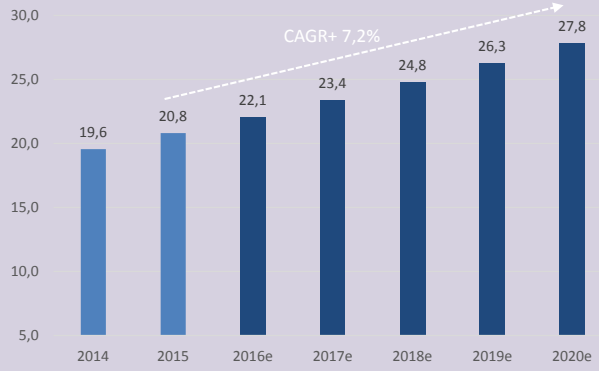
Hella currently ranks **no. 4** in global automotive lighting systems (*EUR2.5bn in sales for market share estimated at 12%)* in a market estimated at **EUR20.8bn** in 2015. Driven by growth in new vehicle registrations as well as the incorporation of an ever higher standard of technology in lighting products such as headlamps, the global market is set to grow at **a CAGR of around 7.2% over 2015-20e.**

Fig. 11: Lighting systems: a concentrated and robust market

Top 5 in the sector in market share (2015)



Change in global auto lighting market (EURbn)

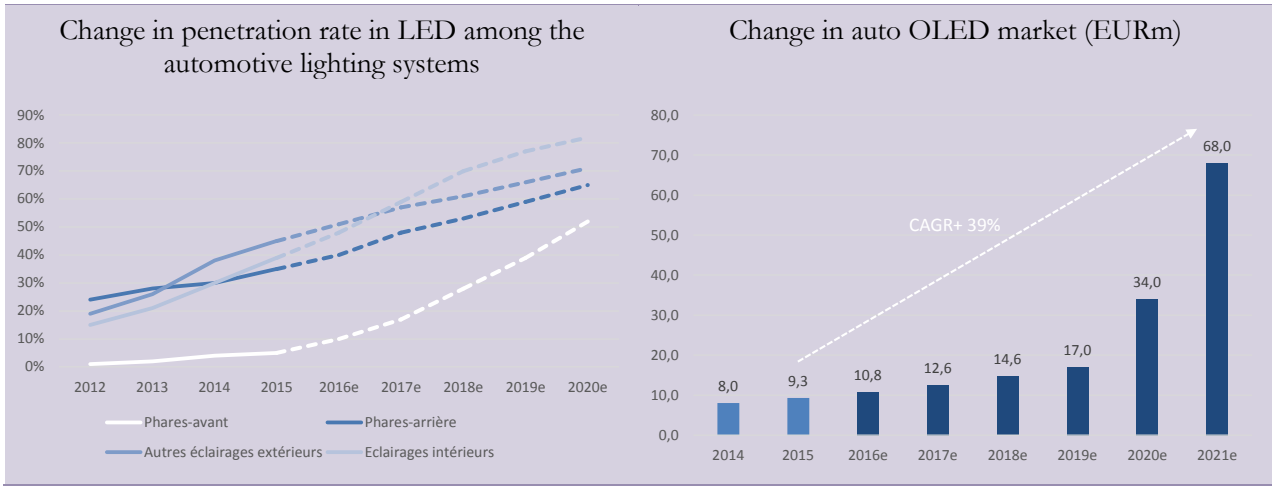


Source: Hella; Bryan, Garnier & Co ests.

In detail, two segments stand out in this market growth in view of their high prospective growth. **LED** is indeed one of the most robust segments in view of its **energy efficiency** (*note that 80% of power used for a LED light is transformed into light compared with 20% for a conventional lamp*), its smaller size requiring less space than other technologies and its lifespan equivalent to that of a car. Paradoxically, LED remains little adopted by carmakers (*2% penetration rate on a global scale*). Its price restricts it to premium and electric segments. However, **economies of scale** resulting from the gradual adoption of the technology by other premium and electric models should be enough to slash prices and make LED accessible to mass markets to the detriment of halogen. A **penetration rate in headlamps of more than 50% can be expected between now and 2020** according to independent institute SNE Research specialised in the environment and energy efficiency. The incorporation of LED in headlamps also suggests a widening in the utility of the light emitted over the medium-term with the possibility of showing figures and messages on the road (*showing speed limits on the road for the driver, interacting by message with pedestrians nearby or with other vehicles etc.*), although these possibilities nevertheless remain in the study phase.

Finally, although **OLED** is a niche market with slightly more than **EUR9m** throughout the world, it is set to grow rapidly (*2015-19e CAGR of 14% according to research institute Technavio*) thanks to the **flexible texture of the lights and the choice of colour they offer.** This technology is already used in other technological domains such as televisions and other touch screens and meets all current criteria: energy efficiency, little space required, greater freedom in design. However, like LED, its development has so far been hampered by its price *(>USD300/kilo-lumens in 2013)*, which has dropped considerably since. Specialists in the sector are expecting the price to fall to below **USD50/kilo lumens**.

Fig. 12: LED and OLED, promising markets in the automotive segment



Source: SNE Research; Hella; Bryan, Garnier & Co ests.

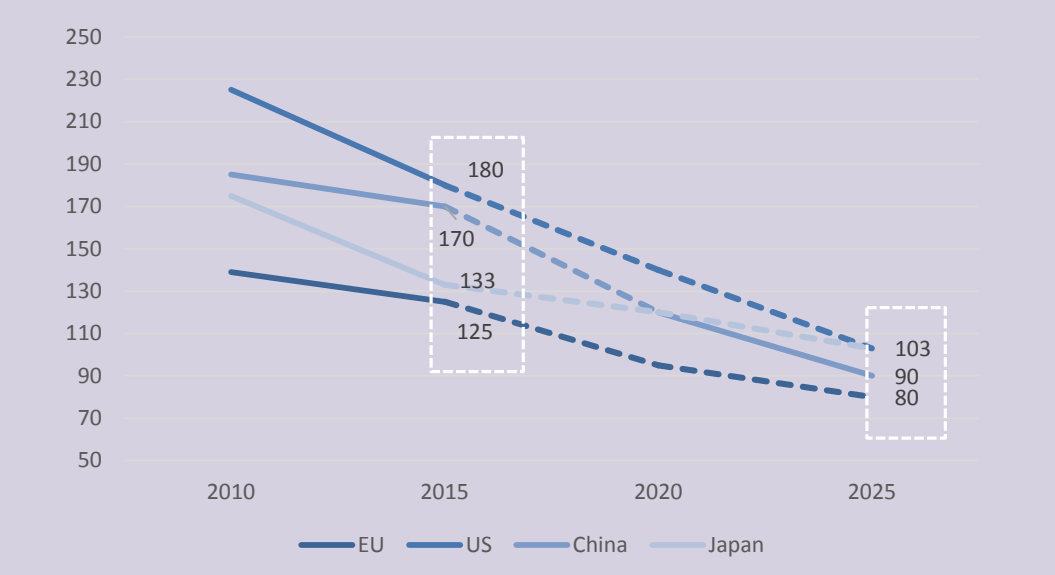
In our model for Hella, we forecast a **CAGR** for sales in the lighting segment of **6%** between 2016 and 2020, with sales in the segment rising from **EUR2.7bn** to **EUR3.4bn.**

4.2. Overhaul of electrical architecture favourable to the electronic components business

4.2.1. Regulatory pressure on carmakers …

Since environmental awareness has taken root, **regulatory pressure** has not stopped rising in the automotive sector, thereby placing **CO_2** emissions and more recently **NOx** (*nitrogen oxides emitted by diesel cars)* at the heart of concerns. These emissions are now regulated and the next decade should see several issue thresholds imposed by the authorities, whether in mature countries such as the US *(-43% in emissions by 2025 for 103g/km*), in the EU *(-36% in emissions by 2025 for 80g/km*) or in Japan (-23% in emissions by 2025 for 103g/km). Emerging markets are not quiet with the case of China where regulatory pressure has proved sharper *(-47% in emissions for 90g/km*) **thereby forcing carmakers to rethink their vehicles.**

Fig. 13: CO_2 emissions under intense regulatory pressure in the future (g CO_2/km)



Source: Local authorities; Bryan, Garnier & Co ests.

4.2.2. … beneficial for components suppliers

Apart from reducing the weight of modules making up a vehicle, engine downsizing and emissions control, targets to reduce emissions are also set to be **reached by installing electronic components that provide increased power management and better transmission**. However, these new energy efficiency components enter the vehicle's assembly at the same time as driver assistance systems and other safety systems, thereby increasing the number of devices that need power in order to work, and thereby questioning the **electrical architecture** (*based on 12V since the 1970s*) put in place by carmakers and the majority of devices and components produced by parts makers.

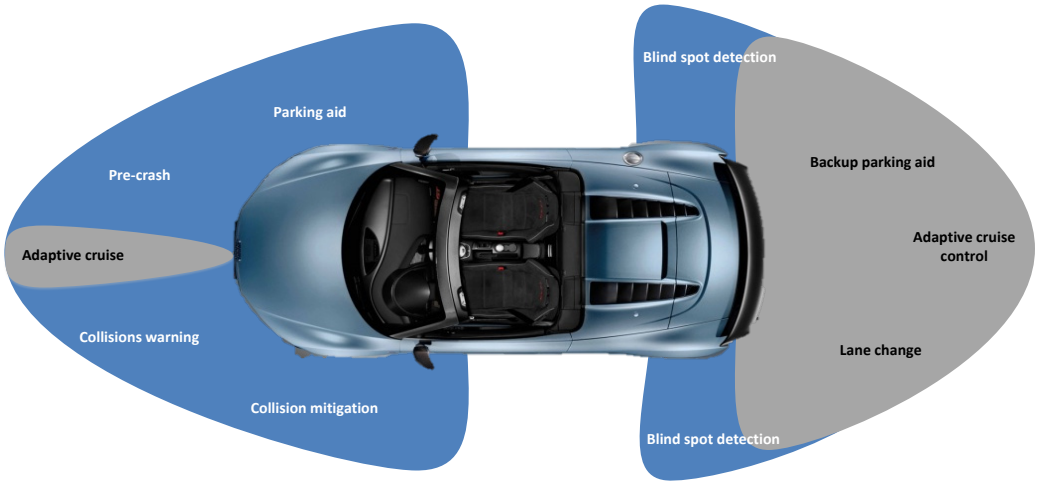
Given that the established **electrical architecture is no longer capable of meeting the needs of embedded devices in all circumstances**, the only solution for conventional vehicles seems to be an overhaul of the vehicle's electrical system (*hybrid/electric vehicles could also use a battery with a greater voltage*). The smarter short-term choice would be a **dual 12V/48V system** with some systems functioning at 12 volts and others at 48 volts in order not to have to change all of the devices and systems in the vehicle.

Hella offers its auto clients voltage stabilisers, energy storage modules and 12-48V transformers

4.2.3. A challenger positioning in ultra high-tech segments: Hella

In line with the trend to overhaul electrical architecture, which nevertheless remains a **niche market** for the moment, Hella offers **voltage stabilisers, power storage modules and 12-48V transformers** enabling 48V systems to fully integrate an architecture designed for 12 volts. In addition to electronic components in transmissions, seat control, car radios and electronic keys for central locking, Hella's products also range in the safety segments. This primarily concerns radar sensors installed right around the car that are capable of warning the driver of dangers, whether on-coming, from the sides or behind, or blind spots.

Fig. 14: Example of extent of radar sensor capacities in a vehicle



Source: Bryan, Garnier & Co ests.

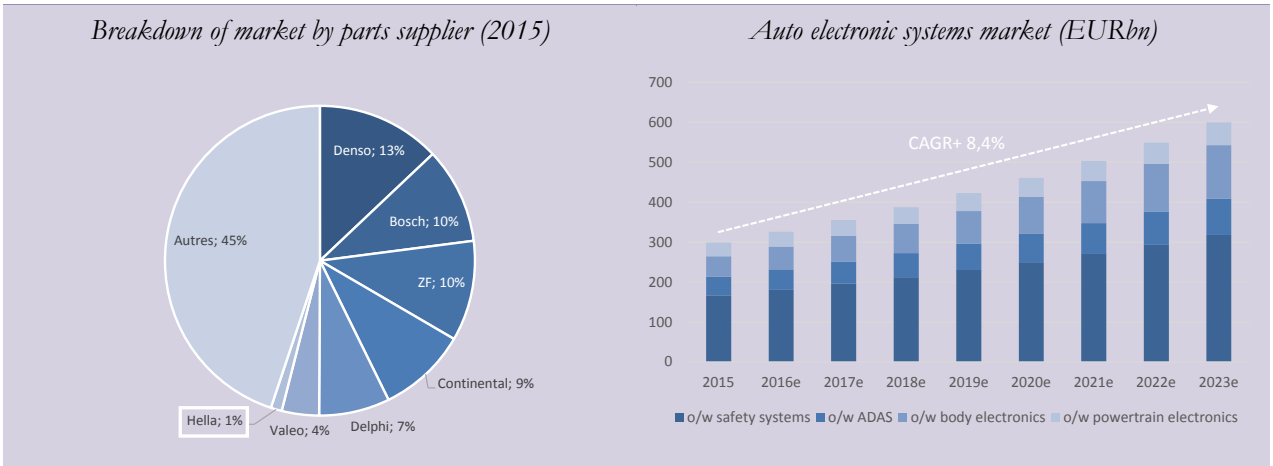
Given its positioning in niche segments (*conversion to 48V, safety sensors*), **Hella** does not seem to be a significant player in the global auto electronics market currently estimated at **EUR167bn** with slightly more than **1%** market share. Note that its very technological positioning is similar to **Valeo's** *(<4% market share*) whereas the rest of the market remains dominated by auto giants such as **Continental**, **Bosch** and Japanese group **Denso**. **As an indication, Hella estimates it has global market share of 15% in segments in which it is present.**

An overhaul of the competitive backdrop is nevertheless possible over the medium-term assuming **Hella** and **Valeo's** exposure to segments that are set to benefit from more robust growth than in classical segments such as transmission electronics and other command modules in which the leaders are very concentrated.

In a sector looking for autonomy and safety, the security and driver assistance segments (*the most technological and the most developed at challengers such as Hella*) are expected to post CAGR **of 8.5%** and **13%** respectively over **2015-23e**.

This rate should be more modest on the transmission side (*5.5%*) and commands *(6.4%)*. More generally, the whole electronics systems market is expected to grow by **8.4%** a year to end up doubling in size between 2015 and 2023 and reach **EUR335bn**.

Fig. 15: Presentation of electronics systems market and growth prospects



Source: Global Newswire; Hella; Companies data; Bryan, Garnier & Co ests.

In our model, we are forecasting a 2016-2020 **CAGR** in sales in the electronics segment of **4%** increasing sales in the segment from **EUR2.1bn** to **EUR2.4bn**. We are more cautious than the lighting segment given the group's lower market share in this market (*1% vs. 12%*).

5. Replacement parts, a defensive but less profitable business, for Hella at least

5.1. Closer to end customers…

Hella has an **unusual strategic positioning** in the replacement parts market *(19% of group sales)* by working with **garages** *(5% of replacement sales)*, **distributors** *(42% of replacement sales)* and above all **end customers** *(42% of replacement sales)* **via sales points.** In reality, the birth of this network of Hella sales points is still recent with the opening of the first stores as of 2010. The extent of its range of customers enables Hella to cover the entire scope of the aftermarket. Only the on-line sales channel does not seem to be fully covered for the moment, an option that management said it was considering at its investor day.

In order to extend its replacement offer, initially restricted to lighting and electrical products also proposed to OEM carmakers, to include more diagnostics tools and services for replacement market professions, Hella has multiplied the number of **partnerships created** over the years. These partnerships concern German and French specialists such as **Behr** in 2005 (*JV in energy management*), Gutmann in 2008 (*JV in vehicle diagnostic products*), **Nussbaum** (*JV concerning products and tools in air conditioning and cooling systems*) and French group **TMD Friction** (*for its expertise in braking technologies*). Hella's replacement parts offering fits with its OEM skills and is above all focused on **lighting, power management, electronic and electrical equipment.**

From a sector perspective, Hella's portfolio is also well-positioned to meet **technological and regulatory trends**. The all-digital era for cars is also leading customers to consult professionals more to help set the parameters for their devices and to update them. At the same time, stricter regulations concerning the environment and safety increase the number of visits and checks needed to be made during a single visit.

Hella's replacement parts offer focuses primarily on lighting, power management systems, electrical and electronic parts, in line with its OEM skills

5.2. … to the detriment of margins

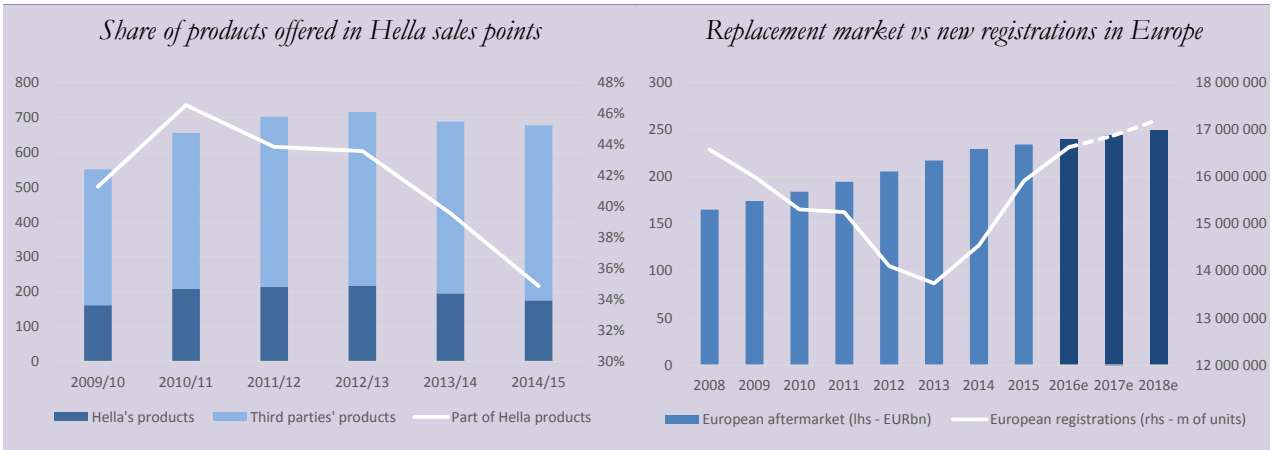
Despite an offer focused on technological trends and niche markets (*vehicle diagnostic systems for garages*) the margin generated by Hella (*6% EBIT*) seems to be below the European sector average (*around 10% for other components makers present in the replacement parts market*). This fact seems even more surprising in that replacements parts manufactured for Europe (*representing 80% of sales in the components segment)* stem from Romania where production costs are competitive.

The group's **low EBIT margin** is a result of its positioning with operated sales points for which critical mass in the products offered is necessary to attract customers (*high level of investments, high level of stocks*). However, Hella needs to offer third-party brand products in order to fill its shelves and provide a credible offering, in a **commercial strategy that is likely to eat into margins that are already low in the end distribution of spare parts**. At present, the share of Hella products offered for sale among all of the parts on sale only stands at **35%** and this share has even tended to decline since the opening of sales points.

However, the positive side to this low profitability compared to other OEM activities lies in its **defensive** nature. Indeed, the replacement parts market is **not at all correlated** to the automotive market.

Once consumers decide to postpone the purchase or replacement of their vehicle, the **fleet in circulation automatically ages with the need to replace aging parts prompting car owners to visit repair and replacement specialists more often.**

Fig. 16: The aftermarket sector, a defensive segment for Hella



Source: Hella; Bryan, Garnier & Co ests.

In a European market with a fleet that has been constantly ageing since 2007 *(+15% over eight years to reach 9.7 years)*, the replacement sector is set to **show a CAGR of 2% in Europe**. The rising number of parts at the end of their lifespan given the age of the vehicle fleet, pressure from environmental standards and awareness of the importance of preventive maintenance should ensure a slight increase in volumes. The most buoyant segment should be that of **electronic products** with a **CAGR of 4.4%**. In addition to this growth factor, we estimate that sales in the sector and at the group should be driven by significant marketing spend as well as higher demand stemming from eastern European countries.

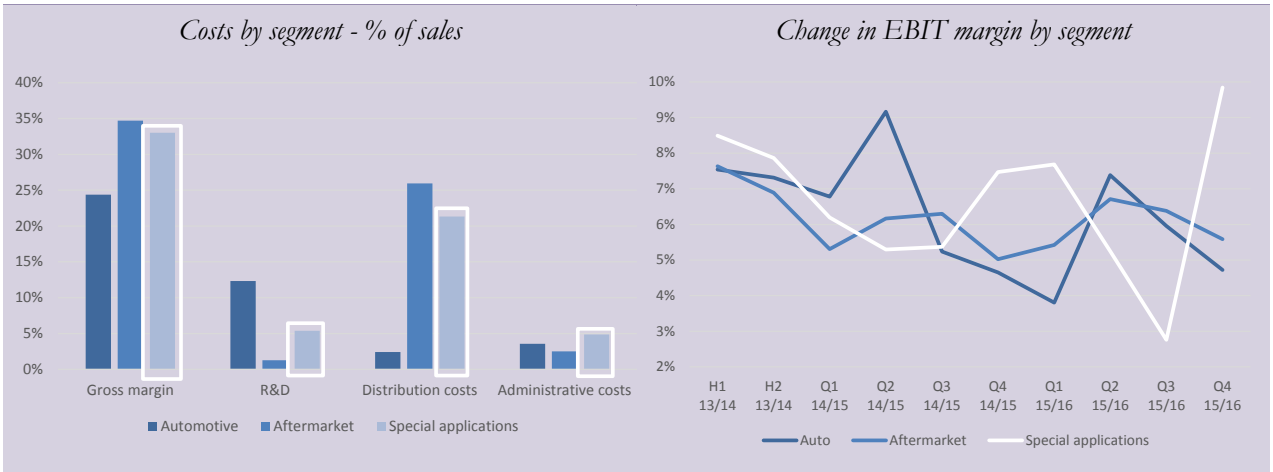
In our model for Hella, we have forecast a **CAGR** for sales in the aftermarket segment of **3.5%** between 2016 and 2020, lifting sales in the segment from **EUR1.25bn** to **EUR1.4bn.** We also estimate that the group's operating margin should improve towards **7%** in 2020, as in 2014, driven in particular by the rising momentum of the LED replacement market following the development of this technology for new vehicles over the past five years.

6. Special applications: low-cost diversification

Via this business, Hella transposes its core skills, originally developed for mass car production, in other auto segments and other industrial sectors in order to meet the needs of more specific clients. For this, the group offers a wide range of **lighting and electronics systems for specific vehicle makers** *(buses, caravans, farm equipment and building engines*), and **other industrialists** *(motorway companies and concessions, local authorities, airports for lamps, various industrial groups for their interior lighting and ship builders).*

This positioning based on innovations developed by the automotive division helps generate **significant synergies,** primarily visible in R&D spending. As an example, the automotive division generates **76%** of sales while consuming **95%** of the group's R&D costs, whereas special applications only account for **3%** of innovation spending but represent **5%** of sales. In addition, this strategy **reduces the commercial and financial risks** associated with the launch of a new product in that the majority of development costs have already been shouldered by the auto division and the product's utility has already been approved by clients in this division. The highest costs for the segment are **distribution costs,** which account for **21%** of sales in the segment compared with **8%** for the group.

Fig. 17: A diversification that costs little in terms of R&D



Source: Hella; Bryan, Garnier & Co ests.

The main production sites are primarily based in **Europe, India and Oceania** and enable Hella to **diversify its customer exposure** by adding specific manufacturers and industrialists not connected to the automotive market such as motorway concessions and local authorities. These players are nevertheless looking for the same type of innovation as carmakers, primarily with **LED** and shortly **OLED,** enabling increased autonomy, lower maintenance and considerable energy savings. Note that the global LED market for all applications is expected to grow sharply with a **CAGR** of **13.5%** a year by 2020 according to Allied Market Research.

For street lighting alone, local authority investment plans could represent an opportunity estimated at **EUR48.6bn** for the sector between now and 2025 (*PR Newswire*).

Having suffered a slowdown in the farming sector, which accounts for an important part of sales generated by the group with specialised clients, growth and margins in the segment have deteriorated

in recent years. The group recently indicated that a recovery in this segment was visible, potentially implying a catch-up effect in sales and in margins in coming quarters.

In our Hella model, we are forecasting a **CAGR in sales** for Special Applications of **2.5%** between 2016 and 2025. We estimate that operating margin in the segment should remain fairly high, and higher than that in the aftermarket segment, at least until 2019.

7. Growth benefiting margins

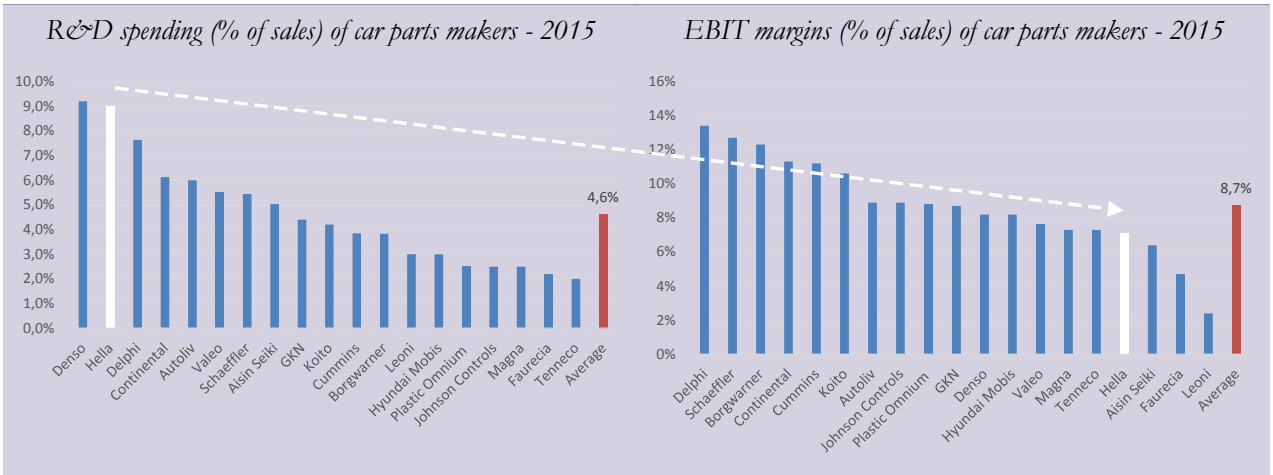
7.1. Heading for higher margins

Thanks to its positioning in growth sectors, we believe Hella is capable of continuing to outperform automotive production by **2-3pp** minimum over 2016-2025. This growth is set to be driven primarily by emerging countries (*volume growth*), but also by an increase in value per vehicle, enabling the group to generate a CAGR of **4.3%** in sales over 2016-25 and widen EBIT margin (*before contributions from joint ventures and after restructuring costs*) of **200bp** to **7.8%** thanks to the control of structural operating costs (*distribution costs and administrative costs*), but also thanks to a reduction in R&D costs to below **9%**.

We estimate Hella is capable of generating a CAGR of 4.7% in sales over 2016-25, implying an outperformance in the automotive sector of 2-3pp.

Note that **Hella** is among the car components manufacturers that spend the most on R&D (*in terms of percentage of sales, 9.8% at the group level and 12.2% at the OEM level*), but belongs to the components makers that generate the least EBIT margin (*7.5% estimated in 2015/16 compared with the sector average of 8.7%).* We estimate that growth potential should therefore stem primarily from better control of R&D spending, as well as distribution costs, with the group having already correctly optimised administrative costs, in comparison with certain rivals.

Fig. 18: More R&D spending for more innovations and more margin



Source: Company Data; Bryan, Garnier & Co ests.

Comparison of the group's cost base with its main listed rivals (*Denso, Valeo, Koito, Continental and Delphi)*, shows that the group - which commands one of the highest pricing powers among the components makers, with average gross margin per employee of **EUR52,000** (*compared with an average of EUR46,000 for its rivals*) - spends an average **5pp** more of its sales on R&D (*as a percentage of sales*). This difference should last over time, although we estimate that the group could reduce the ratio by **50-100bp** in order to approach **8.5/8.9%,** while maintaining distribution spending and administrative spending at around **6%** of sales (*Auto sales with OEM)*

This gain could be achieved thanks to the signing of new partnerships with other parts markets (*in order to share development costs*), thanks to a **better optimisation of engineers dedicated to R&D**.

Fig. 19: Analysis of Hella's cost base relative to rivals (2015)

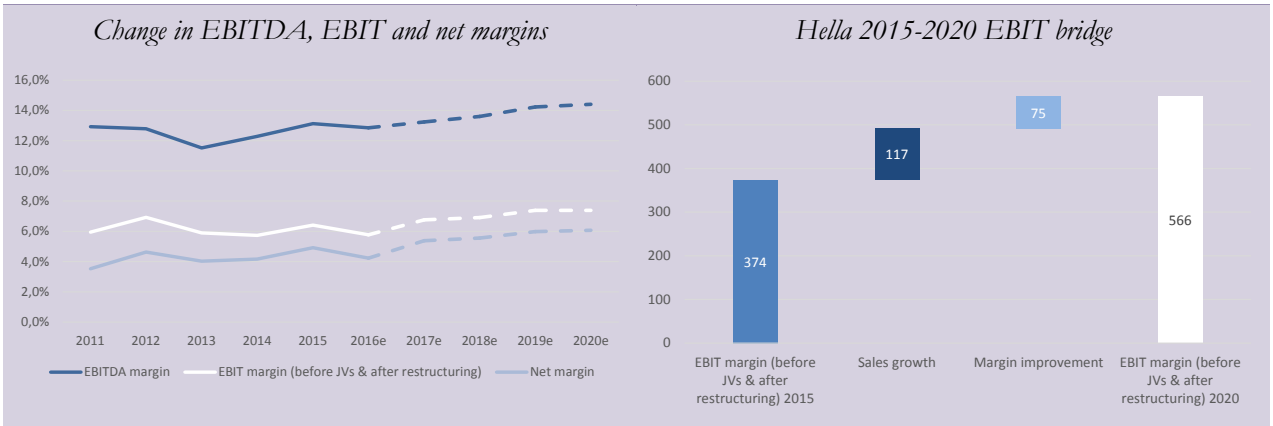
	Gross margin	R&D	Selling/Dist. Costs	Others	EBIT margin
Hella – OEM sales	**23,8%**	**11,9%**	**6,1%**	**0,1%**	**5,7%**
Denso	25,9%	9,3%	9,1%		7,5%
Delphi	27,9%	7,9%	6,7%	1,8%	11,5%
Continental	25,9%	6,2%	7,9%	1,4%	10,3%
Autoliv	20,1%	5,7%	4,5%	2,0%	7,9%
Valeo	18,0%	5,5%	5,2%		7,3%
Koito	20,3%	4,5%	7,3%		8,4%
Average	23,1%	7,3%	6,7%	1,3%	8,4%

Source: Company Data; Bryan, Garnier & Co ests.

In our model, we have assumed that the group manages to reduce R&D spending (*total spending for the group at 9.8% in 2016 compared with 12.2% for the OEM division*) to below **9%** at **8.9%** compared with **9.3%** in 2015 and **9.6%** in 2016, while maintaining other items at similar ratios to those the group published in 2016. A slight reduction in investment spending should also help the group benefit from a decline in D&A in the P&L account, to the benefit of EBIT margin (*with no impact on cash however).*

The high growth in sales over 2016-20, combined with this optimisation of the group's cost structure and R&D costs should help Hella widen its EBIT margin (*before JVs and after restructuring*) from **6.4%** to **7.4%** and therefore increase its net margin from **4.2%** to **6.1%** by 2020.

Fig. 20: Change in Hella margins

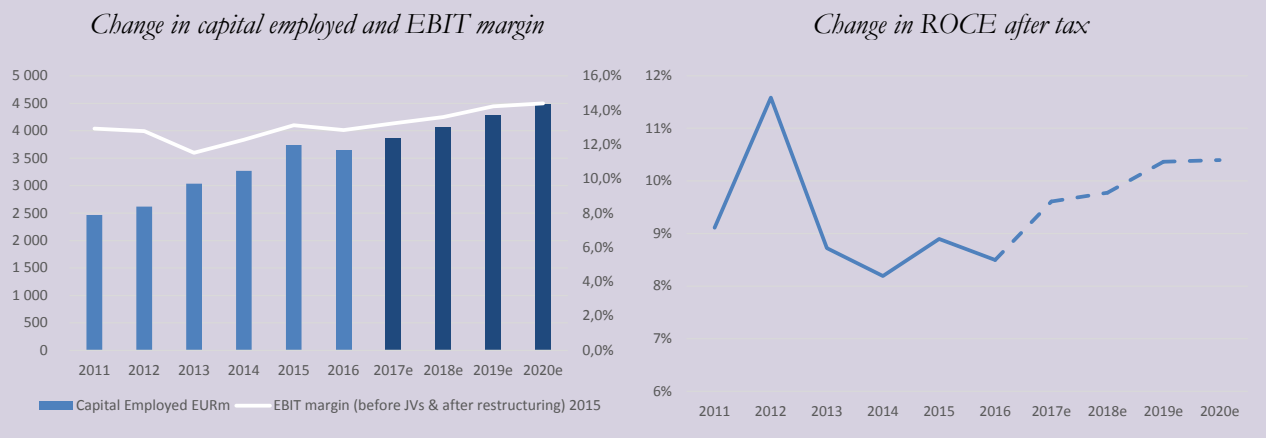


Source: Hella; Bryan, Garnier & Co ests.

7.2. And heading towards better ROCE

We estimate that this improvement in margin combined with strict control of investments should help the group increase its ROCE ratio to the benefit of shareholders.

Fig. 21: Change in Hella ROCE



Source: Hella; Bryan, Garnier & Co ests.

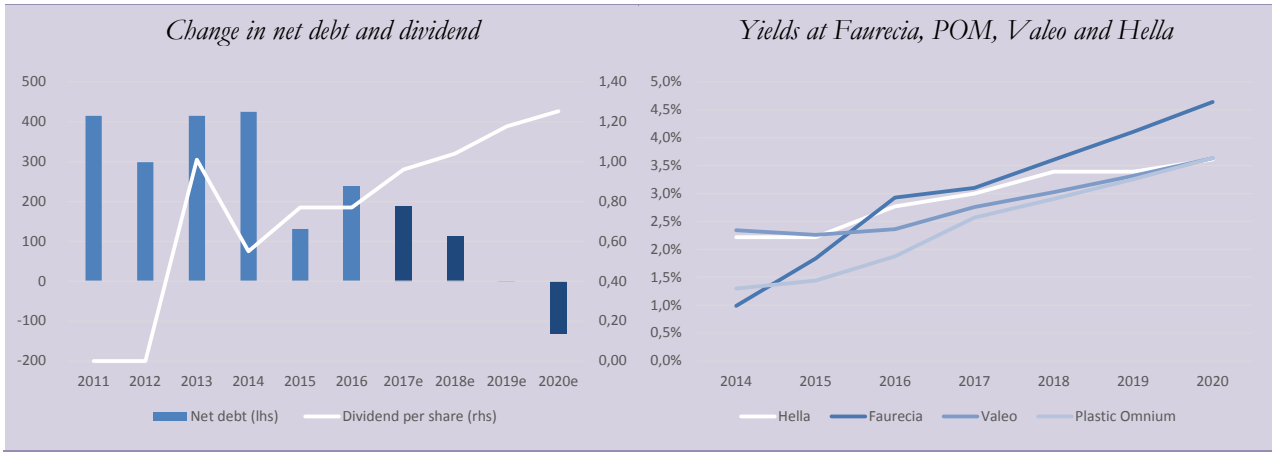
We consider an improvement in EBIT margin and in the ROCE ratio feasible for Hella in view of **1/**a catching up effect in the margin relative to 2015/16 affected by the group's upsets with Chinese outsourcers, **2/** an improvement in the product mix and **3/**control of R&D spending and investments over 2015-20. **The group's ROCE should also rise to 11.8% by 2020, close to the 2012 level (11.6%), whereas dividends should increase by 70% in 2020 relative to 2016.**

Fig. 22: Hella – Cash flow statement

Debt analysis (EURm)	2011	2012	2013	2014	2015	2016	2017e	2018e	2019e	2020e
EBITDA reported	**565**	**615**	**576**	**656**	**766**	**816**	**875**	**944**	**1 037**	**1 102**
EBITDA margin	12,9%	12,8%	11,5%	12,3%	13,1%	12,8%	13,2%	13,6%	14,2%	14,4%
Operating Cash-flow	**391**	**624**	**463**	**535**	**560**	**602**	**722**	**800**	**876**	**943**
Total capex & R&D capitalized	*(350)*	*(423)*	*(541)*	*(516)*	*(498)*	*(561)*	*(589)*	*(618)*	*(649)*	*(682)*
o/w Capex	(315)	(380)	(489)	(463)	(429)	(490)	(510)	(535)	(562)	(590)
o/w R&D capitalized	(34)	(44)	(52)	(53)	(68)	(71)	(79)	(83)	(87)	(92)
Free Cash Flow	**41**	**201**	**(78)**	**19**	**62**	**42**	**132**	**181**	**227**	**261**
Acquisitions/Disposals	35	37	10	17	20	14	0	0	0	0
Dividends	(22)	(40)	(61)	(55)	(59)	(87)	(86)	(107)	(116)	(131)
Others	(89)	(65)	176	201	(57)	13	2	2	2	2
Net debt reported	**415**	**299**	**415**	**425**	**131**	**238**	**189**	**113**	**0**	**(132)**

Source: Hella; Bryan, Garnier & Co ests.

Fig. 23: Change in net debt, dividend and yield



Source: Company Data; Bryan, Garnier & Co ests.

8. Our estimates

As for Faurecia, Plastic Omnium & Valeo, our model for Hella takes into account automotive production growth forecast of **2.4%** for 2016, **1.7%** for 2017 and **1.7%** for 2018. As for 2019-2025 we anticipate a market growth of **1.5%.**

Fig. 24: Hella – P&L – EURm

	31/05/11	31/05/12	31/05/13	31/05/14	31/05/15	31/05/16	31/05/17e	31/05/18e	31/05/19e
Revenues	**4 371**	**4 810**	**4 999**	**5 343**	**5 835**	**6 352**	**6 611**	**6 940**	**7 288**
Change (%)	ns	10,0%	3,9%	6,9%	9,2%	8,9%	4,1%	5,0%	5,0%
Adjusted EBITDA	565	615	576	656	766	816	875	944	1 037
EBIT	**260**	**333**	**295**	**306**	**374**	**367**	**447**	**480**	**538**
Change (%)	ns	28,0%	-11,4%	3,8%	22,1%	-2,0%	21,9%	7,4%	12,2%
Financial results	(45)	(46)	(44)	(36)	(36)	(39)	(37)	(33)	(27)
Pre-Tax profits	229	307	266	308	394	380	409	447	512
Exceptional	21	23	36	(24)	16	14	(10)	(10)	(10)
Tax	(65)	(76)	(60)	(79)	(98)	(108)	(106)	(116)	(133)
Profits from associates	13	20	15	38	55	53	56	59	61
Minority interests	(9)	(8)	(5)	(7)	(8)	(3)	(3)	(3)	(4)
Net profit	154	223	201	223	287	269	356	386	436
Restated net profit	**154**	**223**	**201**	**223**	**287**	**269**	**356**	**386**	**436**
Change (%)	ns	44,3%	-9,5%	10,5%	29,0%	-6,4%	32,5%	8,4%	13,1%

Source: Hella; Bryan, Garnier & Co ests.

Fig. 25: Hella – Cash-flow statement – EURm

	31/05/11	31/05/12	31/05/13	31/05/14	31/05/15	31/05/16	31/05/17e	31/05/18e	31/05/19e
Operating cash flows	**391**	**624**	**463**	**535**	**560**	**602**	**722**	**800**	**876**
Change in working capital	(51)	54	26	(71)	(97)	(28)	(59)	(47)	(55)
Capex, net	(350)	(423)	(541)	(516)	(498)	(561)	(589)	(618)	(649)
Financial investments, net	(3)	(20)	0	(0)	(0)	0	0	0	0
Dividends	(22)	(40)	(61)	(55)	(59)	(87)	(86)	(107)	(116)
Other	(50)	(8)	186	218	(37)	27	2	2	2
Net debt	**415**	**299**	**415**	**425**	**131**	**238**	**189**	**113**	**0**
Free Cash flow	**0**	**206**	**(78)**	**19**	**62**	**42**	**132**	**181**	**227**

Source: Hella; Bryan, Garnier & Co ests.

Fig. 26: Hella – Balance sheet – EURm

Balance Sheet (EURm)	31/05/11	31/05/12	31/05/13	31/05/14	31/05/15	31/05/16	31/05/17e	31/05/18e	31/05/19e
Tangible fixed assets	951	1 093	1 324	1 430	1 612	1 698	1 800	1 900	1 996
Intangibles assets	186	234	242	127	393	447	499	548	597
Cash & equivalents	296	430	477	637	603	585	634	710	823
current assets	1 613	1 783	2 059	2 412	2 636	2 635	2 768	2 924	3 127
Other assets	(120)	(224)	(179)	(148)	(327)	(370)	(406)	(471)	(571)
Total assets	**2 926**	**3 315**	**3 922**	**4 459**	**4 917**	**4 995**	**5 294**	**5 611**	**5 971**
L & ST Debt	771	771	1 100	1 418	1 139	1 152	1 152	1 152	1 152
Others liabilities	1 233	1 479	1 614	1 699	1 868	1 865	1 892	1 928	1 966
Shareholders' funds	889	1 027	1 179	1 312	1 880	1 973	2 243	2 522	2 842
Total Liabilities	**2 926**	**3 315**	**3 922**	**4 459**	**4 917**	**4 995**	**5 294**	**5 611**	**5 971**
Capital employed	**2 148**	**2 292**	**2 759**	**2 759**	**3 121**	**3 622**	**3 653**	**3 873**	**4 074**

Source: Hella; Bryan, Garnier & Co ests.

Fig. 27: Hella – Ratios - %

	31/05/11	31/05/12	31/05/13	31/05/14	31/05/15	31/05/16	31/05/17e	31/05/18e	31/05/19e
Operating margin	**6,0%**	**6,9%**	**5,9%**	**5,7%**	**6,4%**	**5,8%**	**6,8%**	**6,9%**	**7,4%**
Tax rate	28,4%	24,8%	22,4%	25,7%	24,9%	26,0%	26,0%	26,0%	26,0%
Net margin	3,5%	4,6%	4,0%	4,2%	4,9%	4,2%	5,4%	5,6%	6,0%
ROE (after tax)	17,4%	21,7%	17,1%	17,0%	15,3%	13,6%	15,9%	15,3%	15,3%
ROCE (after tax)	**12,7%**	**15,4%**	**11,2%**	**11,0%**	**11,9%**	**11,5%**	**13,0%**	**13,2%**	**14,0%**
Gearing	45%	32%	52%	58%	28%	29%	23%	17%	12%
Pay-out ratio	0,0%	0,0%	50,2%	24,7%	29,8%	31,9%	30,0%	30,0%	30,0%
Number of shares, diluted	100	100	100	100	111	111	111	111	111

Source: Hella; Bryan, Garnier & Co ests.

Fig. 28: Hella – Data per share – EUR

Data per Share (EUR)	31/05/11	31/05/12	31/05/13	31/05/14	31/05/15	31/05/16	31/05/17e	31/05/18e	31/05/19e
EPS	**1,54**	**2,23**	**2,01**	**2,23**	**2,58**	**2,42**	**3,20**	**3,47**	**3,93**
Restated EPS	1,54	2,23	2,01	2,23	2,58	2,42	3,20	3,47	3,93
% change	ns	44,3%	-9,5%	10,5%	16,1%	-6,4%	32,5%	8,4%	13,1%
EPS bef. GDW	1,54	2,23	2,01	2,23	2,58	2,42	3,20	3,47	3,93
BVPS	8,89	10,27	11,79	13,12	16,92	17,76	20,19	22,70	25,58
Operating cash flows	3,9	6,2	4,6	5,3	5,0	5,4	6,5	7,2	7,9
FCF	0,0	2,1	-0,8	0,2	0,6	0,4	1,2	1,6	2,0
Net dividend	**0,00**	**0,00**	**1,01**	**0,55**	**0,77**	**0,77**	**0,96**	**1,04**	**1,18**

Source: Hella; Bryan, Garnier & Co ests.

Fig. 29: Hella - Valuation – EURm

	31/05/12	31/05/13	31/05/14	31/05/15	31/05/16	31/05/17e	31/05/18e	31/05/19e
Market capitalization	**-**	**-**	**3 185**	**4 497**	**4 074**	**4 074**	**4 074**	**4 074**
Net debt	-	-	425	131	238	189	113	0
Pensions	-	-	197	242	243	243	243	243
Minorities	-	-	94	118	47	48	49	50
Financial assets	-	-	200	445	412	456	490	526
EV	**-**	**-**	**3 701**	**4 544**	**4 190**	**4 099**	**3 989**	**3 841**
EV/Sales	-	-	69%	78%	66%	62%	57%	53%
EV/EBITDA	-	-	5,6x	5,9x	5,1x	4,7x	4,2x	3,7x
EV/EBIT	**-**	**-**	**12,1x**	**12,1x**	**11,4x**	**9,2x**	**8,3x**	**7,1x**
P/E	-	-	16,5x	14,2x	15,2x	11,5x	10,6x	9,3x
Dividend Yield (%)	**-**	**-**	**1,5%**	**2,1%**	**2,1%**	**2,6%**	**2,8%**	**3,2%**

Source: Hella; Bryan, Garnier & Co ests.

9. Valuation

As for **Faurecia**, **Valeo** and **Plastic Omnium**, we value **Hella** using two methods: **1/**comparison of peer multiples and **2/ DCF**. In all, the combination of the various methods (*three Fair Values stemming from peer comparison and one from a DCF valuation, with a weighting of 25% for each of these methods*), points to a FV of **EUR45** per share, implying upside potential of **22%** relative to the last listed share price (EUR36.7).

Like for the other automotive suppliers stock we are initiating in our sector report, we decided to **overweight the method by multiple** (*three times 25% each*) to **the detriment of DCF** (*25%*) to reflect properly the high volatility of the sector.

We are initiating coverage of Hella with a Buy recommendation.

Fig. 30: Hella – FV @ €45

Hella - FV sum-up	Multiples	FV
EV/Sales (2016-25) – 25%	**75%**	**41.2 €**
EV/EBIT (2016-25) – 25%	**10,5x**	**42.8 €**
P/E (2016-25) – 25%	**14,1x**	**43.5 €**
DCF model (2026-25) – 25%	**-**	**51.3 €**
o/w WACC	7,4%	
o/w LTG	2,5%	
o/w Average EBIT margin	7,1%	
o/w LT EBIT margin	7,0%	
Implied FV		**45.0 €**
Current price		36,7 €
Upside		22,0%

Source: Hella; Bryan, Garnier & Co ests.

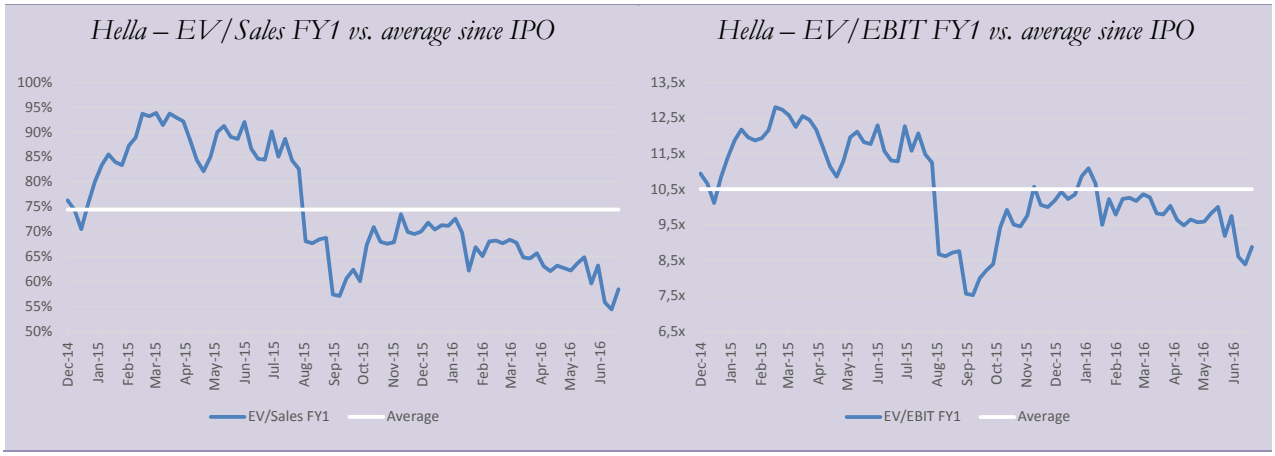
9.1. Valuation multiples

We have used **EV/sales, EV/EBIT** and **P/E** multiples taken from a group of peers in order to value **Hella**, by applying the premiums/discounts historically paid by investors since the IPO in 2014. Our FV's are calculated over the 2017-26 period (discounted by WACC each year) implying respectively **EUR41.2, EUR42.8** and **EUR43.5 of FV**.

We are using current multiples:

- **EV/Sales** multiple of **75%** in line with historical multiple of the group since IPO
- **EV/EBIT** multiple of **10.5x** in line with historical multiple of the group since IPO
- **P/E** multiple of **14.1x** in line with historical multiple of the group since IPO

Fig. 31: Implicit Hella multiples EV/Sales & EV/EBIT since IPO



Source: Datastream; Bryan, Garnier & Co ests.

9.2. DCF valuation

We have also valued Hella using the discounted cash flow model, based on the following assumptions:

- **WACC** of **7.4%**
- **A growth rate to infinity of 2.5%,** implying a slight outperformance by **Hella** relative to the automotive market *(+1.5%)*
- **EBIT margin** (*with restructuring and without the joint ventures*) of **7.1%** on average and a margin to infinity of **7%.**

Fig. 32: Hella – Estimations DCF - €m

	2017e	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	Perpetuity
Revenues - Core business	**6 611**	**6 940**	**7 288**	**7 656**	**8 047**	**8 328**	**8 621**	**8 927**	**9 246**	**9 579**	**9 477**
Revenue Growth Rate	-	5,0%	5,0%	5,1%	5,1%	3,5%	3,5%	3,5%	3,6%	3,6%	2,5%
Operating Margin	6,8%	6,9%	7,4%	7,4%	7,4%	7,8%	7,8%	7,8%	7,8%	7,8%	7,0%
EBIT *(excluding JVs & Associates, with restr. Charges)*	**447**	**480**	**538**	**566**	**595**	**648**	**671**	**695**	**720**	**746**	**663**
Adjustment for provisions	1,1	3,3	3,5	3,7	3,9	2,8	2,9	3,1	3,2	3,3	3,1
(-) Taxes on EBIT	(116)	(125)	(140)	(147)	(155)	(168)	(174)	(181)	(187)	(194)	(172)
(+/-) Movements in working capital	(59)	(47)	(55)	(54)	(58)	(37)	(43)	(45)	(47)	(49)	(49)
(+) Depreciation and amortization	428	464	498	537	578	605	631	670	694	720	845
(-) Capital Expenditures	(510)	(535)	(562)	(590)	(621)	(642)	(665)	(688)	(713)	(739)	(731)
(-) Intangibles	(79)	(83)	(87)	(92)	(97)	(100)	(103)	(107)	(111)	(115)	(114)
Free Cash Flow	112	157	196	222	247	308	320	347	360	373	
Present Value of Free Cash Flow	**104**	**136**	**157**	**166**	**171**	**199**	**192**	**194**	**187**	**180**	

Source: Hella; Bryan, Garnier & Co ests.

Fig. 33: Hella – DCF @ €51

Valuation	
PV of Free Cash Flows	1 699
PV of Terminal Value	4 118
EV implied - EURm	**5 817**
- Net financial debt (N-1) - EURm	238
- Pensions Liabilities (N-1) - EURm	243
- Minority Interest value - EURm	47
+ Financial assets - EURm	412
Value of Equity	**5 701**
Value of Equity per share	**51.3€**
Price	36.7€
Upside/Downside	36.4%

Source: Hella; Bryan, Garnier & Co ests.

10. Hella – SWOT

Fig. 34: Hella – SWOT analysis

Strength	Weaknesses
• A products portfolio in line with the green and autonomous vehicle trend • Strong expertise in **exterior lighting systems** • Among auto suppliers the most advanced and well positioned on LED, OLED and matrix technologies (*European LED leader with 35% market share)* • Solid track-record of outperformance over global automotive production *(+5% in average*) • An increasingly diversified geographical exposure (*49% sales generated outside Europe)*	• Minor position in global electronics components market (*1% market share*) • Low margin generation in the aftermarket business (*6% EBIT margin*) impacting the group profitability • R&D expenses among the highest (*10% of sales*) for lower margins than the sector average
Opportunity	**Threats**
• A continuing regulatory enhancement in **CO_2 and Nox emissions** • Still room for margin improvement through cost structure optimization in R&D (*engineers, rebilling rate*) • Should continue to benefit from the Chinese market growth through local exposure (27% of sales) • Vigorous **autonomous and electric vehicle development**	• Another Chinese supplier failure cannot be exclude • A volatility resurgence in raw materials would highly impact agricultural vehicles sales (*filed in special applications*) • A global automotive market slowdown would directly impact **76%** of Hella's activities

Source: Bryan, Garnier & Co ests.

11. Hella in short

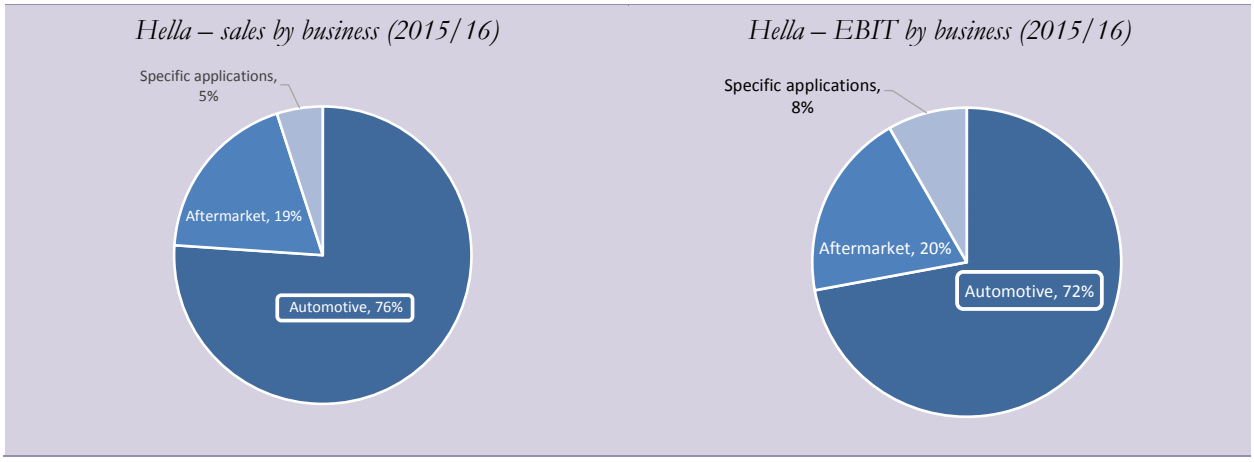
11.1. A bit of history

Hella was created in **1899** under the name of **Westfälische Metall-Industrie Aktien-Gesellschaft** before being renamed Hella and then Hella KGaa Hueck & Co in 1986. The group has managed to carve itself a position among the major names in listed German car components makers (*Continental, BASF, ThyssenKrupp, Schaeffler, Hella KGaa Hueck & Co, Leoni*). The group's **international expansion** was launched as of the 1960s with development primarily concentrated on Europe as well as Asia, with access to this market made possible by the creation of **JVs** in China and South Korea. Its listing on the Frankfurt Stock Exchange is recent, dating back to November **2014**, with a flotation price of **EUR26.5**, valuing the company at around **EUR2.6bn** in terms of market capitalisation. Today, the group is valued at **EUR4bn** with free float of **27%.** With sales of **EUR6.3bn** at the end of 2015-16 (*FYE 31st May*), Hella ranks **no. 35** in the global ranking of car parts makers behind Faurecia (*no. 7*) and Valeo (*no. 11*), but ahead of Plastic Omnium (*no. 40*). Although historically focused on the automotive sector, with recognised know-how in terms of **lighting systems**, the group recently decided to apply its skills in this field to meet the needs of industrial clients excluding auto players, with its subsidiary Hella Industries.

11.2. Portfolio focused on the auto industry

Present in the **OEM** segment **(76% of 2015/16 sales)** as well as in the **replacement** market **(19% of 2015/16 sales)**, Hella has developed genuine expertise surrounding **two flagship businesses** in the auto industry: **1/ lighting systems**, whether interior or exterior and **2/ electronics systems** (components, safety, power...) destined to reduce $C0_2$ emissions and improve fuel consumption while increasing safety and comfort for the driver and passengers. These two businesses feed the group's three divisions: **Automotive OEM, Automotive Aftermarket and Specific Applications,** thereby meeting the needs of carmakers, individuals, garage owners and industrialists outside the auto sector. Hella therefore derives a considerable share of its revenues from the auto sector *(>95%)* bearing in mind that the specific applications division also concerns activities linked to the auto sector (*buses, trucks*).

Fig. 35: Dominance of auto activities



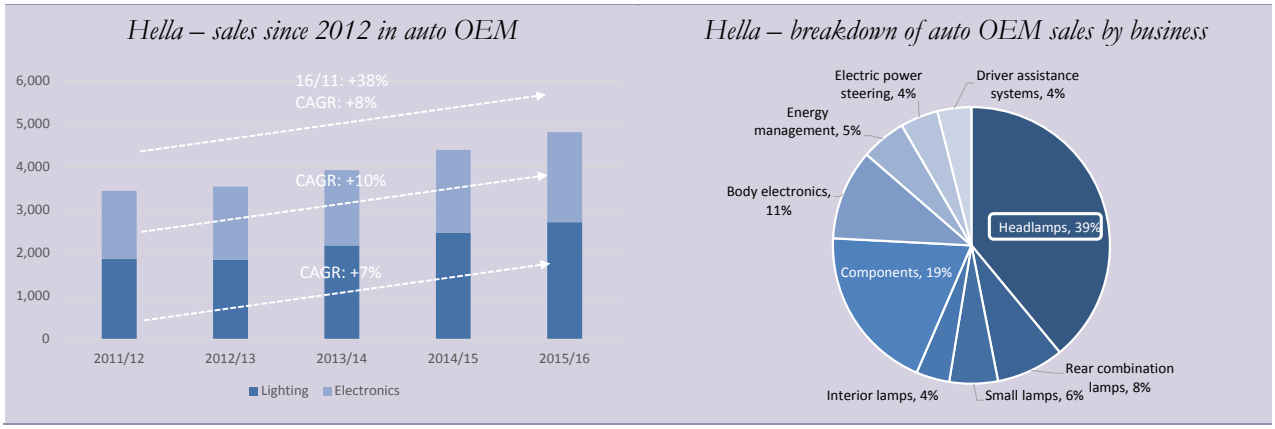
Source: Hella; Bryan, Garnier & Co ests.

11.2.1. Auto OEM - 76% of sales - 72% EBIT

Hella's **Automotive OEM division** develops and manufactures systems and components guaranteeing power management, visibility, in-car comfort and driver assistance. **Hella is the no. four player** in lighting systems with **EUR2.7bn in sales, behind Koito**, **Valeo** and **Magnetti Marelli,** and **no. 4** in electronic systems with **EUR2.1bn** in sales.

This division is divided into **two product groups**: **1/ lighting systems** *(headlights, rear lights, interior lighting, electronic lighting systems*), where Hella has managed to lift itself to the no. 1 position in Europe for **LED headlights** by developing lighting technologies concerning both vehicle interiors and exteriors by focusing on the low consumption of lighting systems, **2/ electronic systems** (*electronic components, power management, driver assistance systems, detectors, steering systems*), destined to reduce the weight of vehicles while accompanying the current trend for more autonomous cars. Over the past four years, we have noted that growth in the auto segment was primarily driven by **lighting** (*CAGR of 10% over 2011/12 – 2015/16 vs. just 7% for electronics*), thanks namely to the strengthening of the LED segment in this market.

Fig. 36: Hella – automotive OEM sales (EURm)



Source: Hella; Bryan, Garnier & Co ests.

The development of this division is set to stem from three major factors, namely **regulations, autonomous cars** and **China.** Whether in Europe or the US, regulations are becoming stricter for $C0_2$ emissions and the trend is likely to continue between now and 2015, with a target of **103g/km** in the US (*vs. 180g/km in 2015*) and **80g/km** in the EU (*vs. 139g/km in 2015*). A possible reduction in emissions prompted by the installation of **LED headlights** requiring less space and consuming less energy, with the low penetration rate of this technology in the fleet in circulation (*around 2%)* making Hella optimistic in terms of its development potential. Electronic components are also tools that help respect new regulatory frameworks (*increased safety, lower CO_2 emissions and less fuel consumption*), although these same electronic components only accounted for **30%** of car production costs in 2010. Hella therefore expects this share to rise to **50%** by 2030.

Momentum in autonomous vehicles and the rising demand for these products (*+19.2% by 2019 according to Hella*), is obliging carmakers to respond by undertaking considerable R&D spending. **A beneficial outsourcing trend** is also underway for car parts makers in general and Hella in particular, with the group having already developed **strong expertise in driver assistance systems and safety systems.** Finally, China is a focus of attention for the group, which has created no less than seven

JVs since the 1990s in order to strengthen its positions in the country. Today, we estimate that China accounts for **15%** of the group's sales.

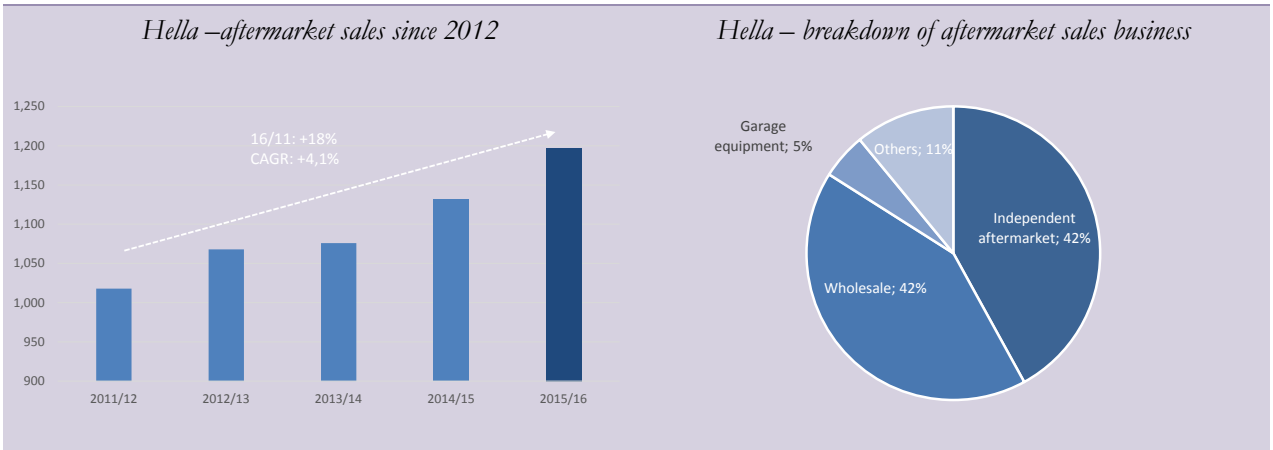
In this segment, we estimate EBIT margin at **5.5%** in 2015/16, slightly below of the group average *(5.8%)*.

11.2.2. Automotive Aftermarket – 19% of sales – 20% EBIT

Via its **Automotive Aftermarket division**, Hella offers replacement parts and accessories for individuals, wholesalers and garages, as well as associated services to professionals in the repair and maintenance sector, such as garages and concessions. This activity generated **EUR1.2bn** in sales in 2015/16, up **18%** relative to 2011/12.

This division is divided into three sub-segments: **1/ retail sales** (*replacement spare parts, accessories, tools, technical services, sales support*) for **42%** of revenues in the division, responding primarily to the needs of independent concessions, garages and even individuals, **2/ wholesale sales** (*spare parts, tools, logistical services*) destined for wholesalers and carmakers and focusing **42%** of sales in the division, **3/ equipment for garages** (*diagnostic tools, online platform aggregating vehicle data as well as repair processes by model, tools, battery*) capturing **5%** of business in the division and specially dedicated to garage owners.

Fig. 37: Sales – Hella – auto aftermarket (EURm)



Source: Hella; Bryan, Garnier & Co ests.

The group intends to make the most of the current recovery in the **repairs** and **spare parts market**, benefiting directly from the **ageing of the fleet** of cars in circulation since 2007 *(+15% to 9.7 years in Europe)*. In addition, the **digitalisation** started with the arrival of new channels and interfaces has obliged garage owners and concession holders to adapt and invest more in new technologies associated in particular with Big Data. Clients now have the ability to compare offers of various professionals and are focusing more on players offering global product ranges and connected services. Indeed, Hella bases its replacement products and services on this principle via its Big Data diagnostic platforms and per model reparation process.

In this segment we estimate EBIT margin at **6%** in 2015/16, slightly ahead the group average *(5.8%)*.

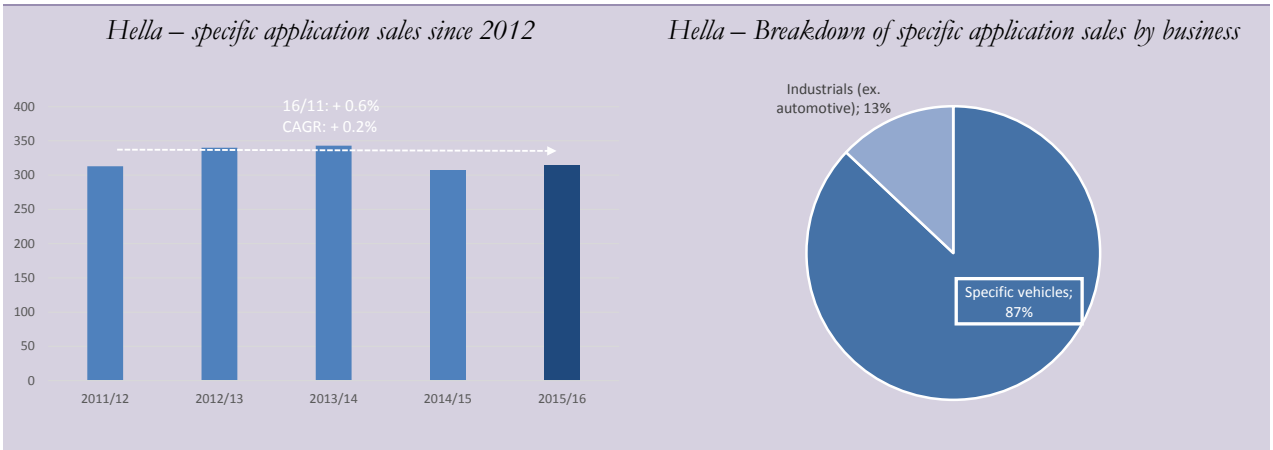
11.2.3. The Specific Applications – 5% of sales – 8% EBIT

Finally, the **Specific Applications division** concerns both the automotive and industrial sectors and replicates the key skills that Hella has managed to highlight in passenger cars, namely lighting and

electronic systems. The group generated **EUR315m** in sales over 2015/16 via this complementary business, in line with 2011/12 sales.

In the speciality market, Hella transposes its automotive know-how to **more specific vehicles** (buses, trucks, vans, farm and building vehicles) and therefore offers similar lighting and electronic systems to those in the auto OEM segment. The auto business accounts for **87%** of revenues in the division and is clearly at the heart of Hella's business. Specific applications destined for **other non-auto industrial segments** therefore remain minor, with just **13%** of sales in the division and **0.7%** of the group's total sales. This concerns primarily street, industrial and shop lighting and light systems for airport runways.

Fig. 38: Hella – Specific application sales (EURm)



Source: Hella; Bryan, Garnier & Co ests.

Here again, the group is expecting a sharp increase in the penetration rate for LED technology in lighting systems installed in industrial complexes, city and airport infrastructure (from a power-saving stance). The segment was recently affected by the slowdown in the farm sector (with a Food Price Index and Cereals Price Index at respectively 155 and 163 hitting record lows since the crisis in 2007), which is a large non-auto industrial client, and potentially offers the group a **catching-up effect** for prices over the medium term, and automatically, momentum in farm equipment investments.

In this segment, we estimate EBIT margin at **9.7%** in 2015/16, ahead the group average (*5.8%*).

BRYAN, GARNIER & CO

INDEPENDENT RESEARCH

14th September 2016

Plastic Omnium

Playing in the big league

Automotive

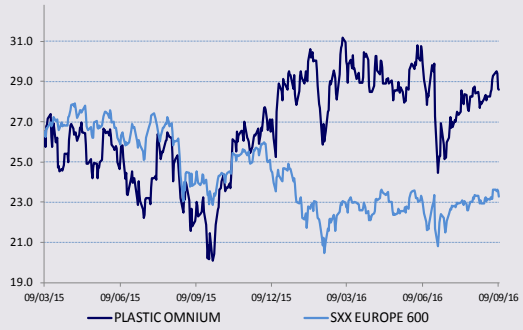
Fair Value EUR36 (price EUR28.61) **BUY**

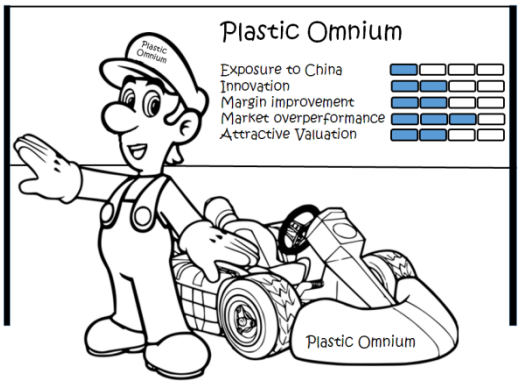
Coverage initiated

Bloomberg	POM FP
Reuters	PLOF.PA
12-month High / Low (EUR)	31.2 / 20.1
Market capitalisation (EURm)	4,362
Enterprise Value (BG estimates EURm)	4,840
Avg. 6m daily volume ('000 shares)	188.6
Free Float	38.7%
3y EPS CAGR	20.8%
Gearing (12/15)	21%
Dividend yields (12/16e)	1.85%

YE December	12/15	12/16e	12/17e	12/18e
Revenue (EURm)	5,010	5,813	6,878	7,310
EBIT(EURm)	470.00	533.28	630.64	701.56
Basic EPS (EUR)	1.68	2.12	2.62	2.97
Diluted EPS (EUR)	1.68	2.12	2.62	2.97
EV/Sales	0.86x	0.83x	0.65x	0.58x
EV/EBITDA	6.2x	6.2x	4.5x	4.0x
EV/EBIT	9.2x	9.1x	7.1x	6.1x
P/E	17.0x	13.5x	10.9x	9.6x
ROCE	20.0	15.7	19.0	20.0

Price and data as at close of 9th September





Previously a very franco-French group with very low exposure to premium carmakers and relatively low profitability levels, the new Plastic Omnium is now on the point of consolidating its leadership position in the segment of bumpers and plastic modules via the acquisition of FAE, while entering the very closed circle of components manufacturers generating margins close to 10%. Buy recommendation with a FV of EUR36.

- **Ahead of schedule for the 2019 plan**: Following the acquisition of Faurecia's exteriors division **FAE** (*bumpers and plastic modules*), the group has become the market leader in Europe and strengthened **its no. 1 global positioning with market share of 15% vs. 11% previously**, three years ahead of schedule of its initial plan based on organic growth. The group now leads its three main markets: *bumpers, front-end modules and plastic fuel tanks.*
- **Targeting EBIT margin of more than 10%?** Although the integration of Faurecia's activities is set to dilute the group's margin in the short term *(-90/100bp)*, we estimate that a return to **9-10%** (*after the 10% reported in H1 2016*) should be possible as of **2018-19** thanks to **synergies and productivity gains** prompted by the acquisition, as well as the roll-out of **new innovative products with high value added** (*SCR, DINOx, composite parts…*). The group should therefore enter the very closed circle of components makers generating margins of close to **10%**.
- **Upside potential remains high:** Despite the share's excellent performance since its low point in early 2009 (*price multiplied by 48x vs. just 3.2x for the SXAP index*), upside potential relative to the current price still looks very attractive *(>25%)*. The 2017-18 consensus has yet to fully factor in the acquisition of **FAE**, and still looks too low in terms of EBIT and net profit *(-7%)*, **implying a very attractive valuation** *(-20% vs historical multiples)*. We are initiating coverage of the share with a **Buy** recommendation and a **FV** of **EUR36**.

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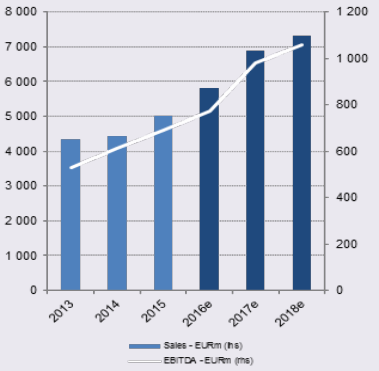

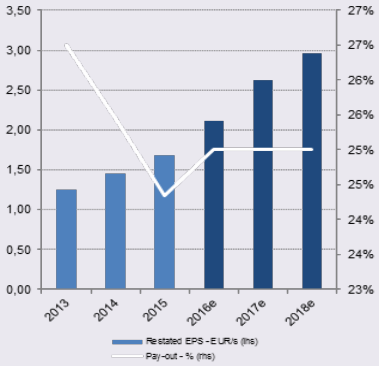

Company description

Plastic Omnium is a France-based plastic processing group with activities in the Automobile and Environment sectors. The Automotive Division comprises two businesses: Auto Exterior parts, offered by Plastic Omnium Auto Exterior, and Fuel Systems provided by Inergy Automotive Systems, among others. The Environment Division specializes in waste containerization, urban and road signage and urban planning, provided by Plastic Omnium Systemes Urbains, SULO and Compagnie Signature. Compagnie Plastic Omnium SA is present in Europe and in the North and South America, including such countries, as Germany, Belgium, Poland, Sweden, Romania, the United States, Canada, Argentina and Brazil. At end 2015 the group generated EUR5bn of sales o/w 92% from its Automotive division. It has recently acquired Faurecia Automotive Exterior business unit to expand its market share in this segment. VW group is first Plastic Omnium's customer (17%).

Simplified Profit & Loss Account (EURm)	2013	2014	2015	2016e	2017e	2018e
Revenues	4,335	4,437	5,010	5,813	6,878	7,310
Change (%)	*-9.8%*	*2.4%*	*12.9%*	*16.0%*	*18.3%*	*6.3%*
Adjusted EBITDA	531	610	691	774	982	1,057
EBIT	339	393	470	533	631	702
Change (%)	*1.0%*	*16.1%*	*19.6%*	*13.5%*	*18.3%*	*11.2%*
Financial results	(64.3)	(56.2)	(53.4)	(47.2)	(45.3)	(43.0)
Pre-Tax profits	254	294	338	422	528	598
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0
Tax	(56.9)	(64.2)	(75.2)	(92.8)	(122)	(137)
Profits from associates	31.2	39.3	34.7	38.3	39.0	39.8
Minority interests	(4.3)	(4.9)	(4.5)	(5.2)	(6.1)	(6.5)
Net profit	193	225	259	324	401	454
Restated net profit	193	225	259	324	401	454
Change (%)	*11.4%*	*16.4%*	*15.0%*	*25.2%*	*23.8%*	*13.2%*
Cash Flow Statement (EURm)						
Operating cash flows	404	409	525	558	742	796
Change in working capital	28.3	(17.0)	33.6	2.5	1.7	(8.6)
Capex, net	(314)	(346)	(378)	(442)	(481)	(512)
Financial investments, net	10.7	12.1	12.6	(632)	200	0.0
Dividends	(37.4)	(50.7)	(57.4)	(60.7)	(78.1)	(96.6)
Other	150	24.2	14.4	2.6	3.1	3.3
Net debt	410	390	268	842	456	266
Free Cash flow	96.6	99.9	203	117	260	284
Balance Sheet (EURm)						
Tangible fixed assets	891	1,008	1,149	1,940	1,812	1,906
Intangibles assets	330	352	381	423	481	543
Cash & equivalents	489	535	663	89.6	475	665
current assets	1,443	1,584	1,867	1,448	2,047	2,334
Other assets	366	419	356	1,604	934	792
Total assets	1,809	2,003	2,224	3,052	2,982	3,126
L & ST Debt	990	995	1,031	1,031	1,031	1,031
Others liabilities	1,376	1,521	1,772	1,932	2,153	2,242
Shareholders' funds	870	1,054	1,266	1,513	1,818	2,158
Total Liabilities	3,252	3,588	4,091	4,499	5,029	5,461
Capital employed	1,517	1,696	1,826	2,642	2,555	2,702
Ratios						
Operating margin	7.81	8.86	9.38	9.17	9.17	9.60
Tax rate	22.37	21.82	22.23	22.00	23.00	23.00
Net margin	4.46	5.07	5.16	5.57	5.83	6.21
ROE (after tax)	22.20	21.34	20.42	21.41	22.04	21.03
ROCE (after tax)	17.32	18.12	20.02	15.74	19.01	19.99
Gearing	46.28	36.38	20.82	54.79	24.75	12.15
Pay out ratio	26.50	25.45	24.34	25.00	25.00	25.00
Number of shares, diluted	147	148	148	147	147	147
Data per Share (EUR)						
EPS	1.25	1.45	1.68	2.12	2.62	2.97
Restated EPS	1.25	1.45	1.68	2.12	2.62	2.97
% change	*11.4%*	*16.6%*	*15.8%*	*25.7%*	*23.8%*	*13.2%*
EPS bef. GDW	1.25	1.45	1.68	2.12	2.62	2.97
BVPS	5.76	7.00	8.41	10.15	12.20	14.48
Operating cash flows	2.76	2.77	3.55	3.79	5.03	5.39
FCF	0.66	0.68	1.37	0.79	1.76	1.93
Net dividend	0.33	0.37	0.41	0.53	0.65	0.74

Source: Plastic Omnium; Bryan, Garnier & Co ests.

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1. Investment Case

Why the interest now?

The reason for writing now

We are initiating coverage of French automotive parts maker **Plastic Omnium** under the framework of our automotive sector report. Previously a very franco-French group with little exposure to premium carmakers and with low margins, the new Plastic Omnium is now on the point of consolidating its global leadership positions in the segment of bumpers and plastic modules thanks to the acquisition of FAE, while entering the very closed circle of car parts suppliers generating margins of close to **10%.**

Cheap or Expensive?

Valuation

As for **Faurecia**, **Hella** and **Valeo,** we value **Plastic Omnium** via two methods: **historical EV/sales, EV/EBIT and P/E multiples** and a **DCF valuation**. This points to a valuation for **Plastic Omnium** of **EUR36** per share, implying upside potential of **>25%** relative to the recent share price, despite its already robust performance over the past 24 months.

When will I start making money?

Catalysts

The group is due to appear for the first time at the **Paris motor show in September-October,** with the event set to generate a huge amount of newsflow for the sector. As for H1 2016, the group should report high organic growth in Q3 sales on 20th October 2016.

What's the value added?

Difference from consensus

Our 2017 and 2018 estimates for the group are respectively **10% higher than the consensus in terms of EBITDA, and 7% to 3% higher for EBIT.** We believe the market has yet to fully price in the acquisition of FAE.

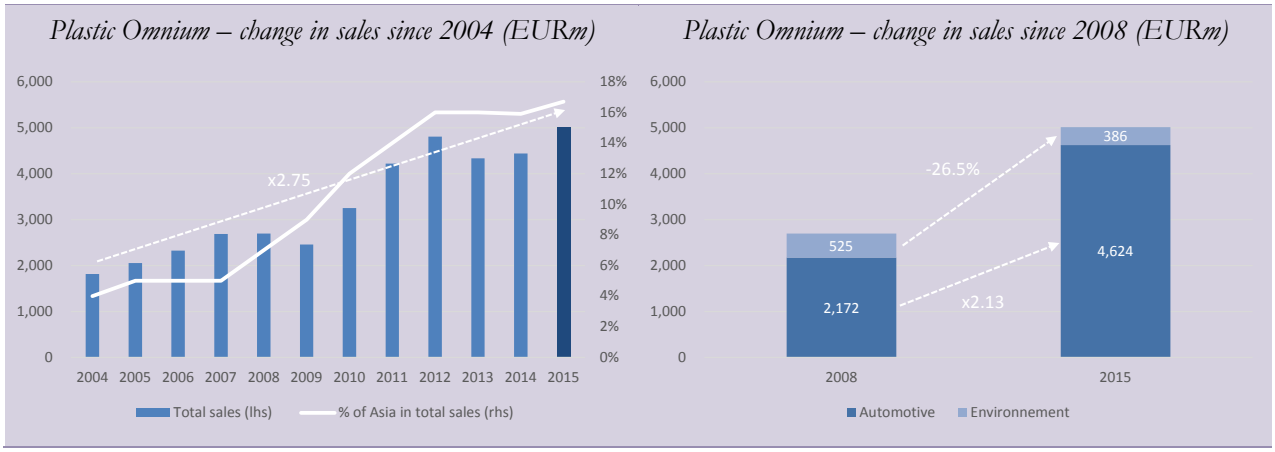
Could I lose money?

Risks to our investment case

The automotive cycle is on the verge of a slowdown in both emerging and mature countries and this downturn could be worse than expected in view of **Brexit** and **international pressure**. Like all car parts suppliers, Plastic Omnium could suffer from a **rapid slowdown in automotive production.** Execution risk is also possible with the acquisition of Faurecia's exteriors businesses, to the detriment of the group's short-term margin.

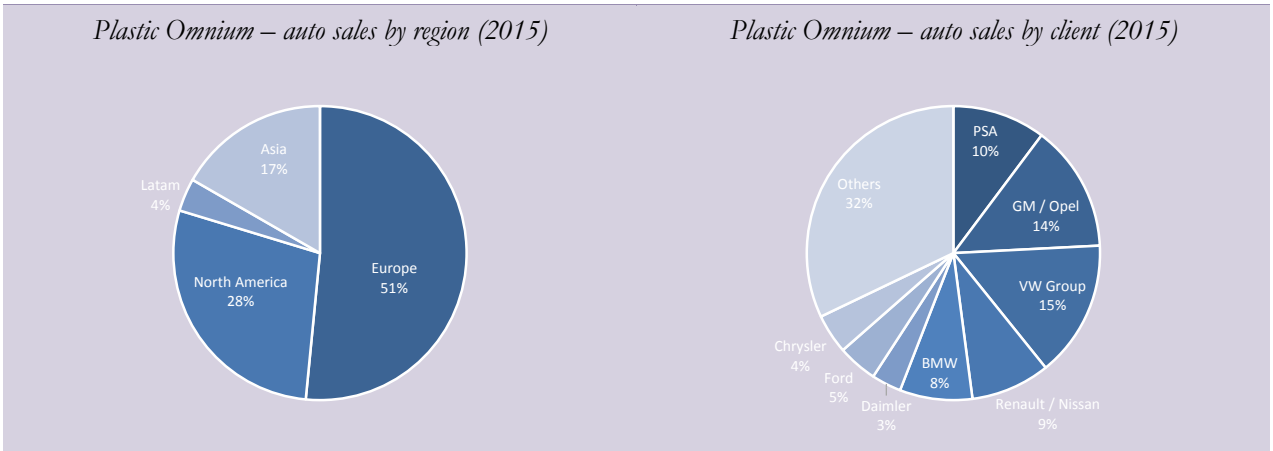
2. Plastic Omnium in six charts

Fig. 1: Growth driven by Asia and by the automotive segment



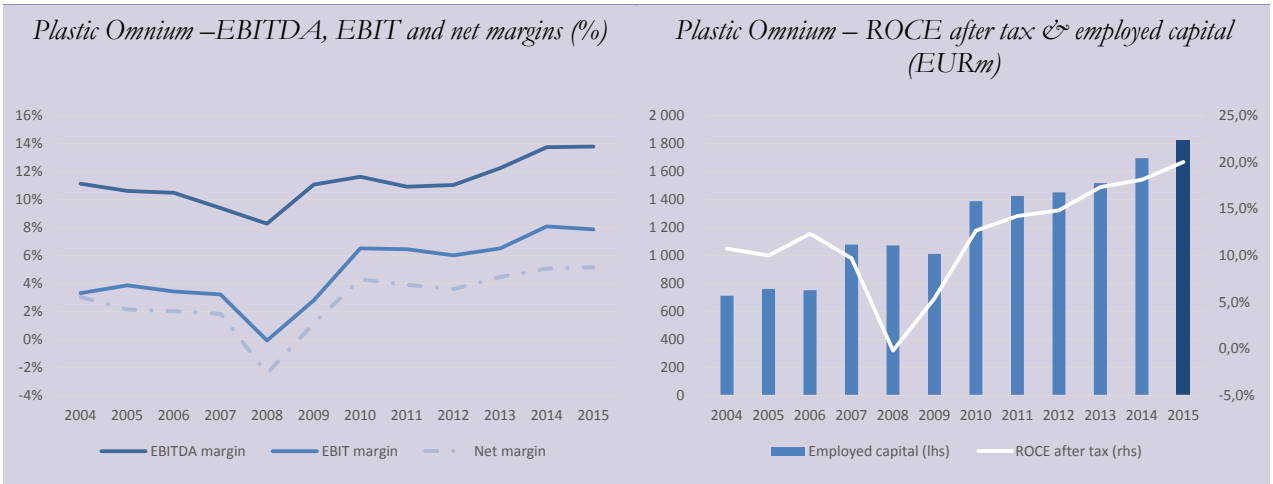
Source: Plastic Omnium; Bryan, Garnier & Co ests.

Fig. 2: A very European and very American group



Source: Plastic Omnium; Bryan, Garnier & Co ests..

Fig. 3: EBIT margin approaching 10%



Source: Plastic Omnium; Bryan, Garnier & Co ests.

3. In the big league

Previously a very franco-French group with little exposure to premium carmakers and with low profitability, the family-owned car components maker **Plastic Omnium** is on the point of strengthening its global leadership position in the bumpers market, thanks to the acquisition of Faurecia's exteriors businesses (FAE), while entering the very closed circle of parts makers generating margins of close to **10%**.

This operation is set to dilute the group's EBIT margin in the short term, but **enhance EPS as of 2016**, and should enable the family-owned group (*the Burelle family still owns 57% of the capital*) to reach its target for global market share of **15%** in the bumpers market, while maintaining its position as the leader in the front-end modules market (*via joint-venture HBPO with Hella and Behr*) and in the fuel tanks market.

With a CAGR in sales and EBIT of respectively **8%** and **21%** between 2007 and 2015, Plastic Omnium has not only outperformed the global automotive sector (*CAGR of 3%),* but also its main rivals (*Faurecia, Magna and Kautex*). This outperformance was made possible by the widespread roll-out of innovative offers enabling carmakers to address regulatory restrictions associated with emissions of CO_2 and NOx particles by reducing the weight of vehicles.

Plastic Omnium's historical presence in bumpers, spoilers, body parts, wings, front-end modules and plastic fuel systems means it can fully respond to carmakers needs given that they have no choice but to optimise vehicle engines, emissions of polluting substances and/or reduce the weight of vehicles in order to respect the restrictions of the **Euro 6 and Euro 7 regulations in Europe** and ARB **Sulev 30 in the US**.

Recent investments made by the group in R&D, especially for strengthening teams at the **Sigmatech R&D centre** (*specialised in exterior modules)* and opening the **Alphatech centre** (*specialised in fuel systems*), have enabled it to sign new contracts in innovative products (*composite flooring, bumper beams*) with PSA and Hyundai Motors. This roll-out of innovative products with high value-added should help the group **generate operating margins of 9-10%,** enabling it to enter the very closed circle of the most value-creating car parts makers on a lasting basis.

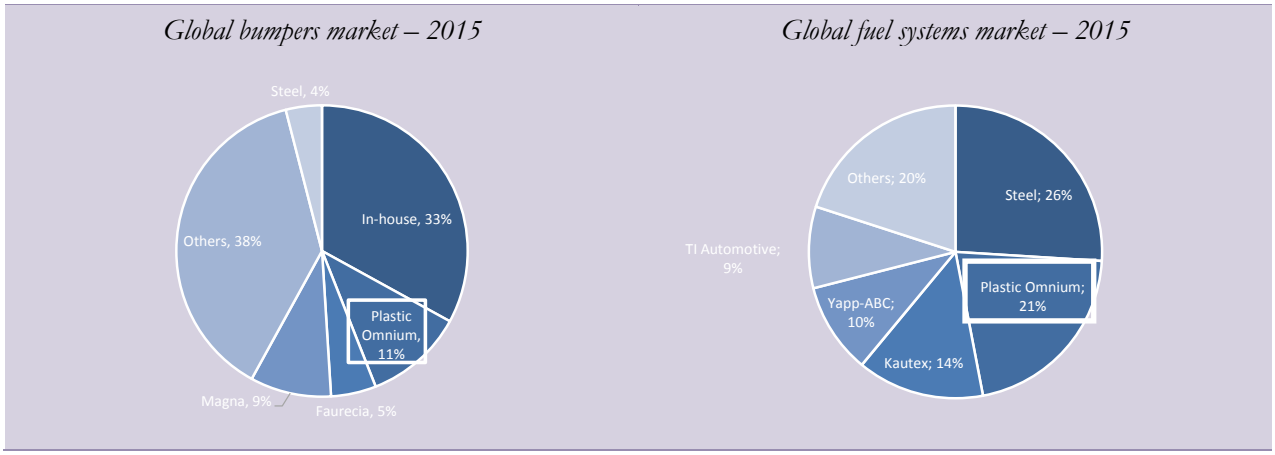
Despite the share's excellent performance since its low-point in early 2009 (*share price multiplied by 48x vs. just 3.2x for the SXAP index*), growth potential still looks attractive at the current price. The 2017-18 consensus has yet to fully price in the acquisition of **FAE** and looks too low still in terms of EBIT and net profit *(-15%),* **implying a very attractive valuation** (*-20% vs historical multiples*). We are initiating coverage of the share with a **Buy** recommendation and a **FV** of **EUR36**. In our current universe, Plastic Omnium is the car components maker that should generate the highest CAGR in terms of EPS over 2016-20.

4. Plastic Omnium, a leader in plastic car parts

4.1. A leader even before the integration of FAE

Boasting an already-solid competitive positioning on a global scale, whether in the **bumpers** segment (*world no. 1 with 11% market share pre-acquisition) or in* ***fuel systems*** *(world no. 1 with 21% market share*), Plastic Omnium is set to emerge even stronger from its acquisition of Faurecia's exteriors business (*FAE*). The operation should put it several years ahead of schedule in its strategic plan in terms of market share gains in the European bumpers market, by providing an estimated share of **15%**, which was the target initially set for 2019.

Fig. 4: Plastic Omnium: global leader in key skills even before the integration of FAE



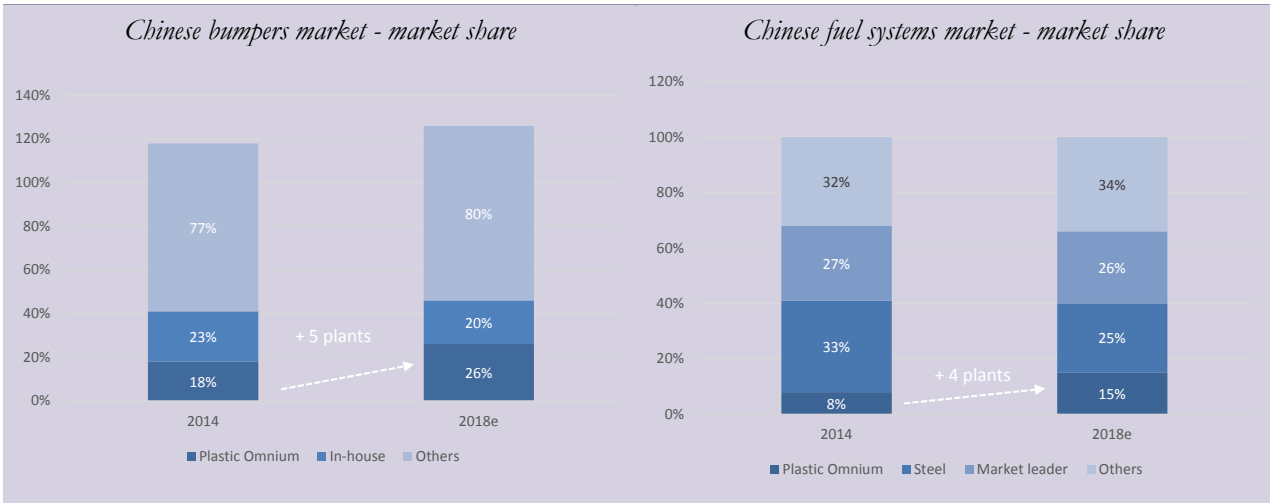
Source: Plastic Omnium; Bryan, Garnier & Co ests.

Plastic Omnium is keen to maintain its leading global position in these two segments and also aims to increase its market share to **25%** in the **fuel systems market by 2019**, thanks especially to the recent contracts signed by the group with new carmakers and the opening of additional production sites.

Since the announcement in 2014 that **20 new production sites would be opened by 2018** *(five in North America, three in Europe and 12 in Asia*), the group has maintained the pace with 14 plants already operational, seven of which specialised in bumpers and five in tanks and associated products. At least three more sites should be operational by the end of 2017, bringing the total number of plants to **126**, vs. **120** in 2015 and **94** in 2012.

Among the plant openings planned since 2014, no less than nine are located in **China**, which has been a particular focus for the group for several years in view of its size and growth potential. This accelerated strengthening of industrial facilities is aimed at underpinning the group's target to capture market share in China in a trend that should enable Plastic Omnium to rank as the **leader** in the country in bumpers and **no. 2** in fuel systems. The group can also count on its joint venture **YFPO** with Chinese components maker **Yangfeng**, specialised in external body parts via its R&D centre and 17 plants based in China.

Fig. 5: A strategic plan also focused on China



Source: Plastic Omnium; Bryan, Garnier & Co ests.

At end-2015, China represented **8.5%** of the group's automotive sales compared with **6%** in 2011, and was at the root of **11%** of sales growth in this segment relative to 2014.

4.1.1. And an offer focused on integrated systems modules

In addition to its flagship bumpers and reservoirs products, Plastic Omnium has also highlighted its offering in **front-end modules** via its plant opening plan, with three sites concerning production of front-end modules (*Germany for BMW, China for BBAC and South Korea for Sangyong)*. These front-end or rear-end modules house a multitude of components *(bumpers, headlights, suspension systems, engine cooling systems, air-conditioning systems*) in order for the items to be better **intertwined and to enable gains in terms of space, weight and performance.** The joint venture, **HBPO,** created in 2005 with German car components makers **Hella** and **Mahle Behr** *(jointly-owned at 33%)* and specialised in front-end modules, underscores Plastic Omnium's commitment in this car body segment, which is ramping up in both technological and value terms. Via its 21 assembly sites, the joint venture generated sales of EUR1.7bn in 2015 *(5.4m modules sold)* for market share estimated at **20%** on a global level. In view of the list of 21 models fitted with HBPO products, this technology meets the needs of various automotive segments: **segment A** (*Fiat 500, Kia Picanto*), **segment B** (*Audi A3, Volkswagen Golf*), **SUV** (*Renault Koleos, Volkswagen Touareg) and even the* ***luxury segment D*** *(Hyundai Equus, Porsche Panamera*).

As a genuine **plastics specialist**, Plastic Omnium is currently a key components market for carmakers, especially in view of its innovations that help gain space and reduce weight.

5. Heading for the biggest acquisition in the group's history…

In December 2015, Plastic Omnium announced it had signed an agreement with Faurecia for the acquisition of its **exterior modules business** for **enterprise value of EUR665m** *(multiples of 7.7x EBITDA and 13.3x EBIT)*. The division represented **less than 10% of Faurecia's sales** and was present primarily in the European market for bumpers and front-end modules as well as plastic tailgates and wings destined for premium German clients.

Although the deal was **closed on 29th July 2016**, the final scope of the operation was changed due to competitions requirements demanded by the **European Commission** and now concerns **EUR1.2bn** in sales estimated for the full-year 2016, **5,500** employees and **14** plants instead of estimated sales of more than **EUR2bn** for the entire unit when the agreement was signed in December 2015. The operation is still the largest ever undertaken in the history of the group and since 2010 when Plastic Omnium bought Solvay's stake in a joint venture for **EUR330m**.

This sizeable operation should be strategic for the group, in terms of both geographical exposure and diversification of the customer portfolio

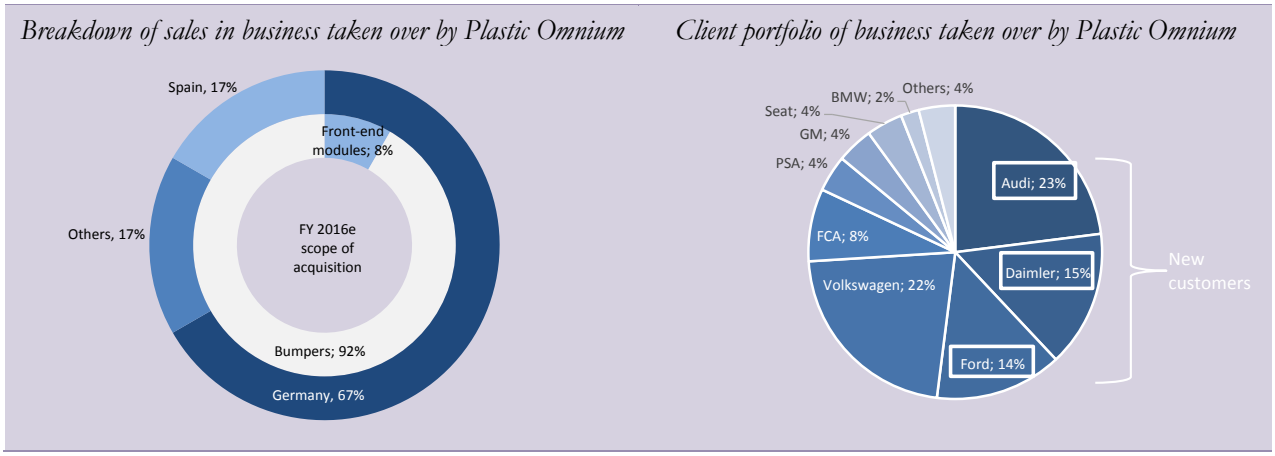
5.1. An operation that makes sense

This sizeable operation should be strategic for Plastic Omnium in terms of **diversification in its client portfolio** in view of the two groups' complementary aspects and historically different choices in positioning.

Historically, Plastic Omnium has focused on international expansion with waves of acquisitions, joint ventures and country openings since the 1970s. This geographical strategy has therefore enabled it to grow rapidly while diversifying its exposure to various automotive markets. At end-2015, **28%** of the group's automotive sales were generated in the US and **17%** in Asia, thereby ranking Plastic Omnium among the most internationally diversified car components makers. However, the group's presence in Europe has tended to narrow, thereby enabling Faurecia, among others, to increase its market share in the region and become the European leader in bumpers, especially thanks to its strong presence in Germany with the main premium carmakers.

However, the acquisition of Faurecia's exteriors modules business *(for which 80% of sales are derived from Europe and more precisely 67% in Germany)*, is an opportunity for Plastic Omnium to **strengthen its presence and its geographical exposure to the European market**, which has been dynamic since 2013 relative to the other main mature countries *(car registrations expected to rise by 4.5% in 2016 and 1.5% in 2017 in Europe vs. 2.4% and 1.4% on a global scale)*. In addition, by taking over **five production sites** located in Germany, Plastic Omnium is officially extending its production capacity in the country since the group so far had no production units in Germany in the exteriors segment *(excluding the HBPO joint venture)*. The move should facilitate the opening of new customer accounts and new contract gains with carmakers that historically perform better than the global market and which are more interested in new technologies than generalist clients.

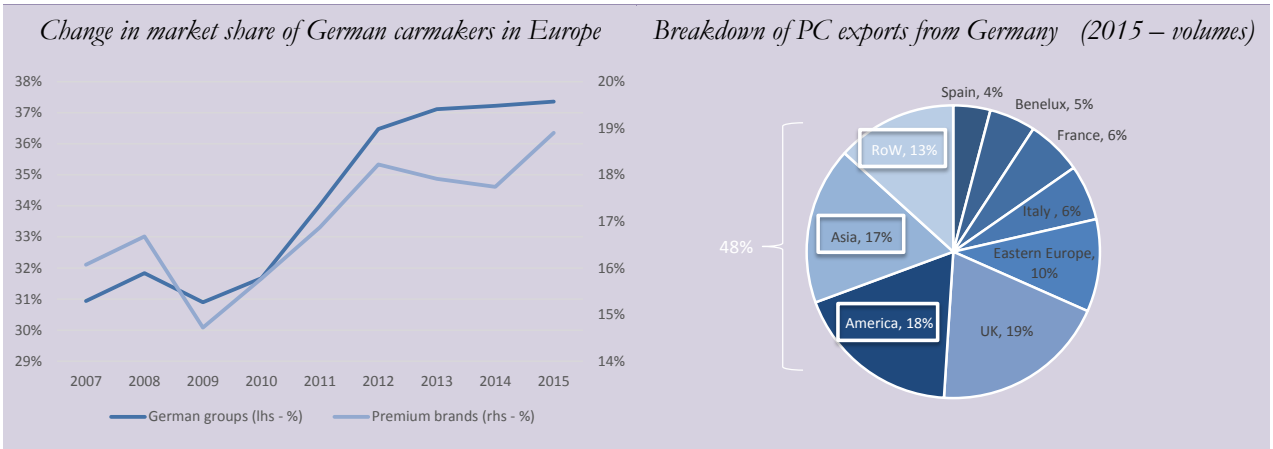
Fig. 6: Integration of a very European business destined for premium clients



Source: Plastic Omnium; Bryan, Garnier & Co ests.

In addition to strengthening its European positions and developing industrial presence in Germany, Plastic Omnium is set to benefit from Faurecia's customer portfolio in exterior models that is widely focused on **premium carmakers**, which account for **40%** of sales in the entity taken over by the group, whereas these carmakers currently only contributed around **20%** of Plastic Omnium's automotive sales before the deal. These upscale carmakers, which had so far been absent from Plastic Omnium's customer portfolio in this segment, like **Audi** *(23% of estimated sales over the full-year 2016 in the division acquired)* and **Daimler with Mercedes** *(15%)*, should therefore **help ensure a lower level of volatility for Plastic Omnium relative to the global auto market, and provide it greater pricing power** in the sense that all so-called premium categories are more resilient to cycles and less subject to price pressure whether for carmakers or parts suppliers.

Fig. 7: The German market, a strategic asset in Europe for a car components supplier



Source: VDA; CCFA; Bryan, Garnier & Co ests.

The presence of production sites in Germany is also a considerable asset for winning new orders from upscale carmakers.

Indeed, bumpers are voluminous and fragile items due to their lightness and are not very well suited for travel. For this reason, the majority of plants concerned are located as close as possible to car construction plants.

Germany belongs to the **ACEA** *(European Automobile Manufacturers Association)* and exports the lion's share of its production outside Europe *(vehicles exported outside Europe account for 48% of the country's exports, which represent 77% of vehicles produced in Germany)*. As such, exposure to this market for a car parts supplier such as Plastic Omnium provides an indirect way of addressing the US and Asian markets, which together represent **more than 60%** of the end-market.

The group was targeting global market share in the segment of 15% by 2019 (vs. 11% at end-2015), but has already reached this target three years early at a lower cost and with a shorter execution time-frame

The group's acquisition of an R&D centre in Germany with **300 staff** is also an innovation driver for offering products in Germany, entirely suited to premium customers constantly on the look-out for innovative factors and prepared to pay the price. **Note finally the acquisition of the car exteriors division includes a new US client, Ford, in addition to Audi and Daimler.**

The deal with Faurecia has therefore enabled Plastic Omnium to rapidly expand its leadership in its core speciality, namely bumpers. The group was aiming to reach a global market share of 15% in this segment by 2019 ***(vs. 11% at end-2015)*** **but has already reached this target three years early.**

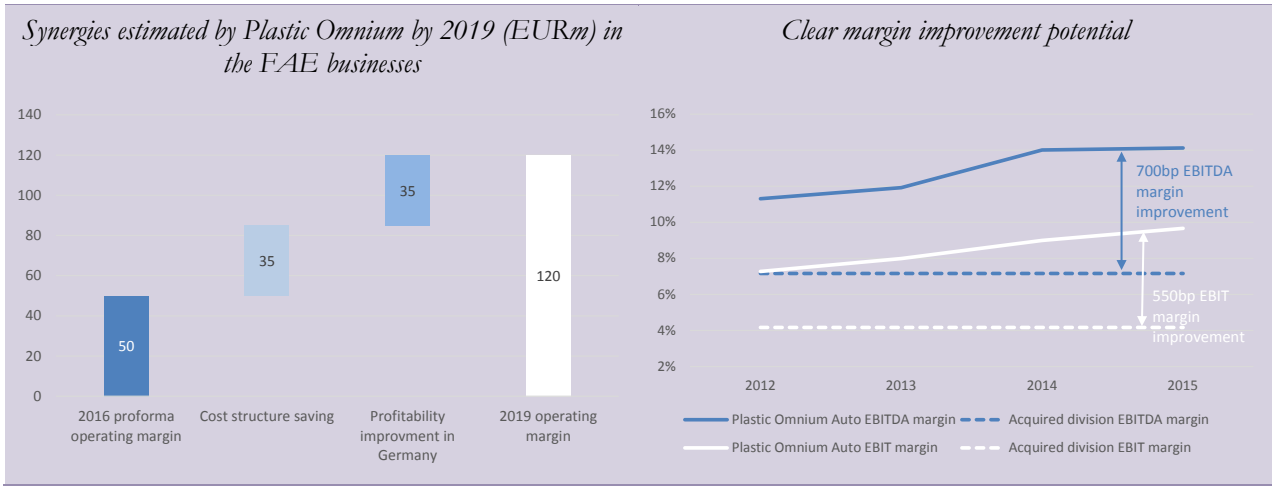
5.2. Clear synergies in favour of the group's margin

In terms of profitability, **potential for improvement** is clear and extensive in view of the low margins generated by exterior models so far *(Faurecia's exterior modules division had an historical EBIT margin of 2.5%)* relative to other players in the sector.

Based on pro-forma estimated EBIT for 2016 of **EUR50m**, Plastic Omnium aims to multiply this margin by 2.4x to **EUR120m** by 2019 in the business taken over thanks in particular to **structural cost savings** *(prompted by the merger of two similar businesses that can be managed by a single administrative team rather than two)* and thanks to the **transposition of Plastic Omnium's industrial know-how** to the plants taken over in order to improve their productivity and profitability.

The group is therefore aiming to double profitability on production in Germany where the sites are the oldest and improvement potential in productivity seems the highest. The biggest challenge will be to roll out Plastic Omnium's own industrial process in the plants *(EUR100m in capex over three years)* while bringing the German plants up to industrial standards *(EUR100m in additional capex)*.

Fig. 8: A recovery in EBIT margin by 2019



Source: Plastic Omnium; Bryan, Garnier & Co ests.

These investments should nevertheless be rapidly turned to profit given the potential to improve margins (*Plastic Omnium hopes to unlock synergies of EUR70m by 2019 in order to reach EBIT margin of EUR120m*). This guidance seems realistic and feasible given the **550 basis points gap** between EBIT margin in Plastic Omnium's auto business (*9.7%)* and that of the division acquired (*4.2%).* This gap widens to **700 basis points** when focusing on the EBITDA margin between Plastic Omnium (*14.1%*) and the division acquired (*7.2%*).

Note also that **the operation immediately enhances the group's EPS,** with pro-forma EBIT set to total **EUR50m** in 2016, although the integration of the business is set to **dilute EBIT margin** at least in the short-term.

5.3. Change in scope not yet fully valued by the market

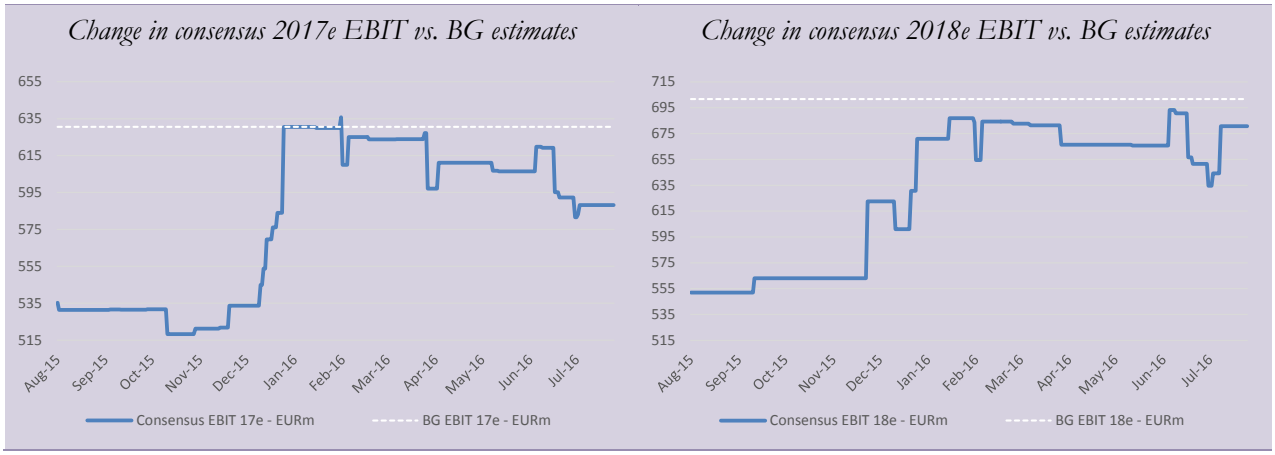
The change in scope imposed by the European Commission obliging Plastic Omnium to sell off around EUR800m in sales from the former **Faurecia Auto Exteriors business**, clearly made estimates models more complex to establish for the consensus for 2017. Nevertheless, now that all the details have been revealed concerning the operation (*closing data, sales and EBIT to consolidate over the full-year*), we estimate that the consensus for 2017 and 2018 has not yet fully priced in the deal.

Our 2017-18 estimates are currently 10-11% higher than the market's

Our 2017 and 2018 estimates are respectively **10% and 11% higher than the consensus in terms of EBITDA and 7-3% higher in terms of EBIT.**

As such, over 2015-18, whereas we are forecasting growth in the group's EBIT of around **EUR230m** (50%), the current consensus is only forecasting an increase of **EUR211m** *(+45%),* thereby implying a lag of around **12%** relative to our estimates.

Fig. 9: A potential upward revision to consensus 2017e and 2018e EBIT



Source: Datastream; Bryan, Garnier & Co ests.

5.4. Execution risk

We would point out **two risk factors** inherent in this operation: **1/ the transposition of Plastic Omnium's industrial processes** to the production sites acquired and **2/ the obligation to sell off a part of the division** acquired in Europe.

As discussed previously, improving margins on the businesses acquired is set to involve a total change in the industrial processes implemented so far and applied in the Faurecia production sites for its exterior modules division. This stage is inevitable in view of Plastic Omnium's ability to generate comfortable margins relative to Faurecia in this field. However, this implies a total reorganisation of the sites and their way of working. Changes of this extent following an acquisition are therefore **likely to affect production and profitability at these industrial sites for a certain time.** From a social viewpoint, discontentment and potential conflicts cannot be ruled out, with all the associated disruption: decline in productivity, increase in turnover or even strike action. It is also important to underline the weight of integrating the **5,500 employees, representing almost a third of headcount at** Plastic Omnium (*20,289*) prior to the acquisition.

The operation initially concerned a scope of **22 production sites** and **six R&D centres** in the world, employing **7,700** people and generating sales of **EUR2bn**. However, the **European Commission** estimated that the competitions conditions associated with the operation were too monopolistic and after negotiations with Plastic Omnium, therefore decided that the sites would have to be sold as quickly as possible to third-party players in Europe. **These disposals concern around EUR800m in sales for 2,200 employees and eight sites as well as an R&D centre.** As such, Plastic Omnium needs to hurry up and find buyers for all the French sites acquired that produce plastic bumpers *(four in all)*, a Spanish site positioned in the same segment, and two German assembly plants for front-end blocks and the associated R&D centre. Meanwhile, the Chinese site is no longer part of the agreement. Note that the plants destined to be sold off for competitions issues will not be accounted for in Plastic Omnium's reports and were not included in our previous reasoning.

This decision by the competitions authorities is also set to slow the integration process, monopolising employees at the group's head offices while they rapidly search for buyers and also placing the group in a position of weakness in disposal negotiations given the time-frame imposed by the European Commission. **The backdrop is therefore set to remain competitive in Europe in the auto bumpers market with the breaking up of the former Faurecia businesses.**

Fig. 10: Acquisition amputated by the European Commission

Initial deal – 22 sites, 7,700 employees for EUR2bn in sales

Final deal – 14 sites, 5,500 employees for EUR1.2bn in sales

Source: Plastic Omnium; Bryan, Garnier & Co ests.

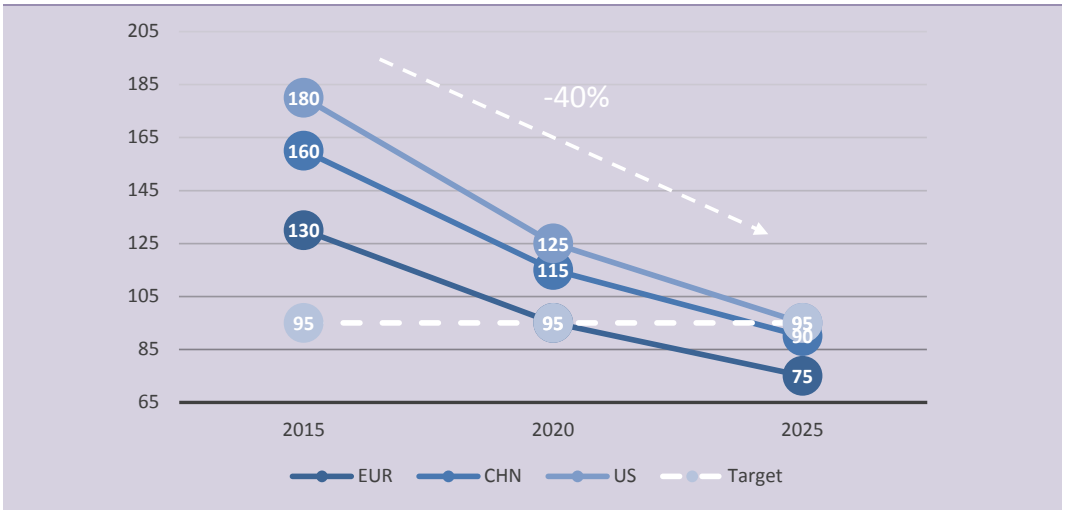
6. … Strengthening positions in the rapidly changing plastic car parts market

6.1. Heading for ever more plastic in vehicles...

Since the early 2000s, pressure on carmakers has been two-fold, on the one hand stemming from **consumers demanding that vehicles consume less fuel** following the hike in oil prices *(up to USD150/b)* and on the other hand, from **regulatory authorities setting increasingly strict standards for emissions of CO_2 and NOx particles**.

The need to reduce fuel consumption and emissions of polluting substances became a priority for carmakers when the **European Union, Japan and the US** gradually imposed restrictive standards concerning emissions of CO_2 per km. Since the transport sector accounts for around a third of global CO_2 emissions, regulations were rapidly implemented in mature markets in order to reduce their impact on the environment, but also on the health of the population. For example, the European Union set a target of **95g/km of CO_2 for 2020** as an average for each carmaker, with a penalty system of **EUR95 per gram for each car** emitting more than the set threshold once the average level for the group is exceeded. This same type of regulatory restriction also exists in other mature countries such as the **US** and **Japan**. China has also recently launched itself in the hunt for emissions obliging carmakers to change the way they design cars.

Fig. 11: Restriction targets to reduce CO_2 emissions (CO_2 g/km)



Source: Faurecia; Bryan, Garnier & Co ests.

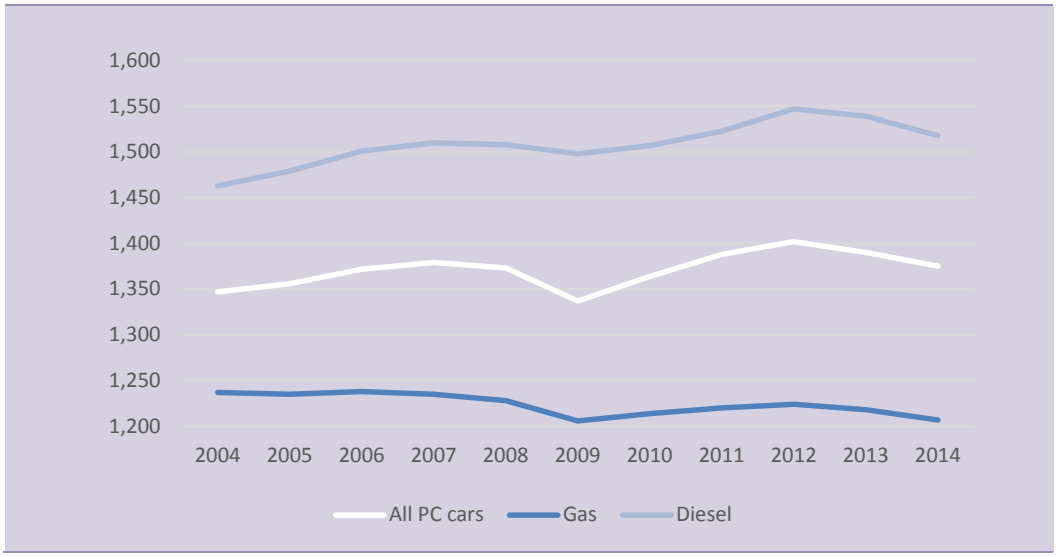
Carmakers therefore have **five solutions** to respond to commercial and regulatory pressure: **1/ reducing vehicle weights**; **2/ aerodynamics**; **3/ emission reduction technologies** associated with the engine and exhaust systems; **4/ engine downsizing** and finally; **5/ development of hybrid motorisation for vehicles**. Plastic therefore looks to be one of the most simple and rapid solutions to implement concerning targets to reduce the weight of vehicles, since plastic is **30%** lighter than other materials such as steel, which remains the most used in car production. In addition to the drop in weight, plastic is more malleable and provides greater freedom of design for carmakers.

Plastic is 30% lighter than other materials such as steel, which remains the most used in car production

On a global level, average vehicle weights have not stopped increasing due to safety and acoustics restrictions, to stand at **1.4 tonnes in 2010**, a record level that should now start falling in a car exteriors market that is tending to use an increasing amount of plastic. As such, whereas plastic represented barely **6%** of the weight of a vehicle produced in **1970**, this share stood at **16%** in 2010 and should increase to up to **18% in 2020**, thereby helping to reduce the average weight of a vehicle to **1.1 tonnes**. **Note that reducing the weight of a vehicle by 100kg helps generate fuel savings of 0.35l/100km or a 10g/km reduction in CO_2 emissions**.

As the European case shows, carmakers have so far used technological leverage to reduce emissions in order to comply with standards. The new vehicles that came into circulation in the European Union between 2004 and 2014 therefore reduced their **CO_2 emissions by 40g/km,** whereas their weight increased slightly *(+2%)*. A closer looks shows that the weight of petrol engine cars dropped by **2.4%** over the period, whereas for diesel engines it increased by **3.7%**, notably in view of the installation of particle emission reduction systems (*NOx trap or SCR system*).

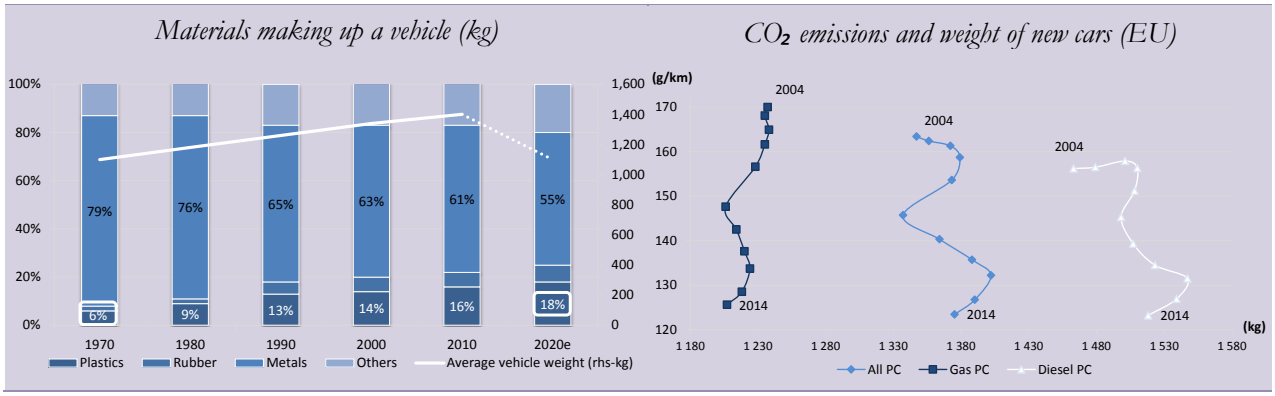
Fig. 12: European vehicles slightly heavier in 2014 than in 2004 (kg)



Source: European Environmental Agency; Bryan, Garnier & Co ests.

The **real potential to reduce emissions therefore now seems to lie in reducing the weight of the car,** which notably involves the use of more plastic and which also prompts savings in fuel consumption. Note nevertheless that this trend to reduce the weight of vehicles is likely to be hampered slightly by momentum in hybrid/electric cars, given that batteries massively increase the weight of the car *(20% of total weight of a car vs. 12% for thermal vehicles).*

Fig. 13: Leverage to reduce emissions now lies in reducing the weight of cars

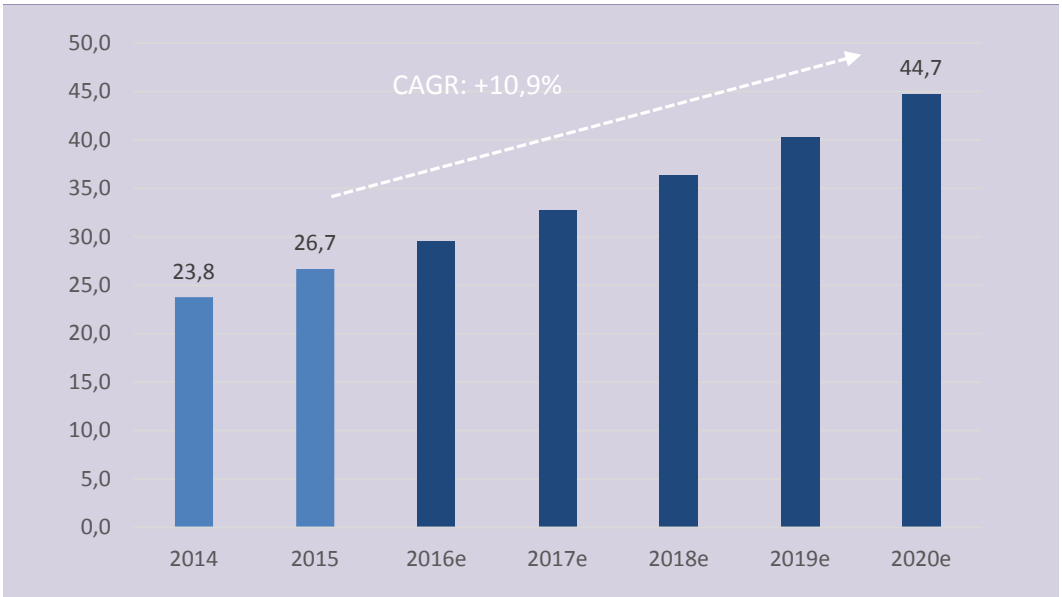


Source: AT Kearney; European environmental agency; Bryan, Garnier & Co ests.

Although growth in the utilisation rate for plastic in cars is hampered by: **1/ volatility in prices** (*closely tied to oil prices*); **2/regular supply shortfalls** (*very low number of suppliers on a global level*); **3/recycling difficulties** and; **4/competition from steel prices** *(>EUR1/kg)*, the automotive plastics market is expected to show a **CAGR over 2015-2020e of almost 11%,** in favour of players such as **Plastic Omnium** and **Faurecia**.

The market should therefore represent almost **EUR45bn** on a global scale, **underpinned by the rising use of plastic in vehicles** *(reduction in emissions, consumption, freedom of design, increased aesthetics, reduction in noise and vibrations*). Furthermore, current barriers to momentum in plastics are the object of numerous works by the chemicals industry, which is developing new types of cheaper plastic, which require less petrol and are more ecological. In geographical terms, the **highest growth potential lies in the US and above all Japan,** where carmakers use the least amount of plastic in the design of their new vehicles. European carmakers are among the most advanced in the field.

Fig. 14: Global automotive plastic market (EURbn)



Source: Marketsandmarkets; Bryan, Garnier & Co ests.

6.2. Composite materials, tomorrow's technology

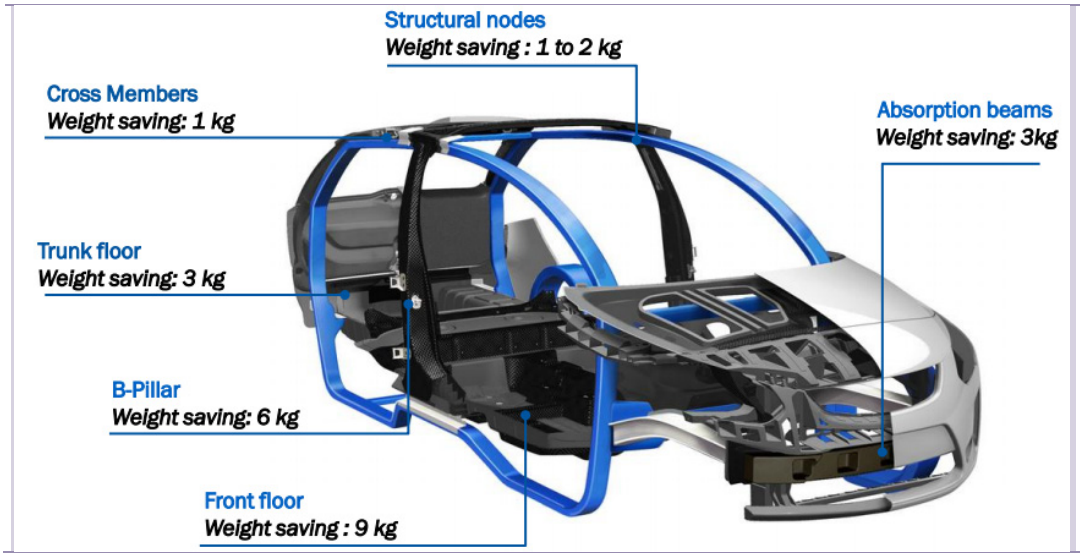
6.2.1. Still a niche market…

Composite materials are the combination of a polymer matrix and another material, in the form of a woven fibre

Plastic is not the only material that has gained in importance in vehicle design to the detriment of steel, with **so-called composite materials already shaping up to be the next technological corner**. Composite materials are a combination of a polymer matrix *(i.e. plastic)* and another material, in the form of a woven fibre, thereby forming three main families of composite materials in the auto sector: glass fibres, carbon fibre and natural fibres.

The advantage of associating two materials is the ability to change the characteristics of the association, thereby making the composite material **lighter** *(50% lighter than steel)*, **more malleable** and also capable **of more functions per part.** This ultralight combination has nevertheless historically remained reserved for single-driver Formula 1 cars, luxury models such as the **Aventador by Lamborghini**, the structure of which is entirely made out of carbon fibre, and more recently, certain electric models such as the **i3 produced by BMW**, primarily due to their **high prices**. At present, consumer cars only benefit from these applications in tailgates, seats and bumpers.

Fig. 15: Main Plastic Omnium offers/developments in plastic/composite materials



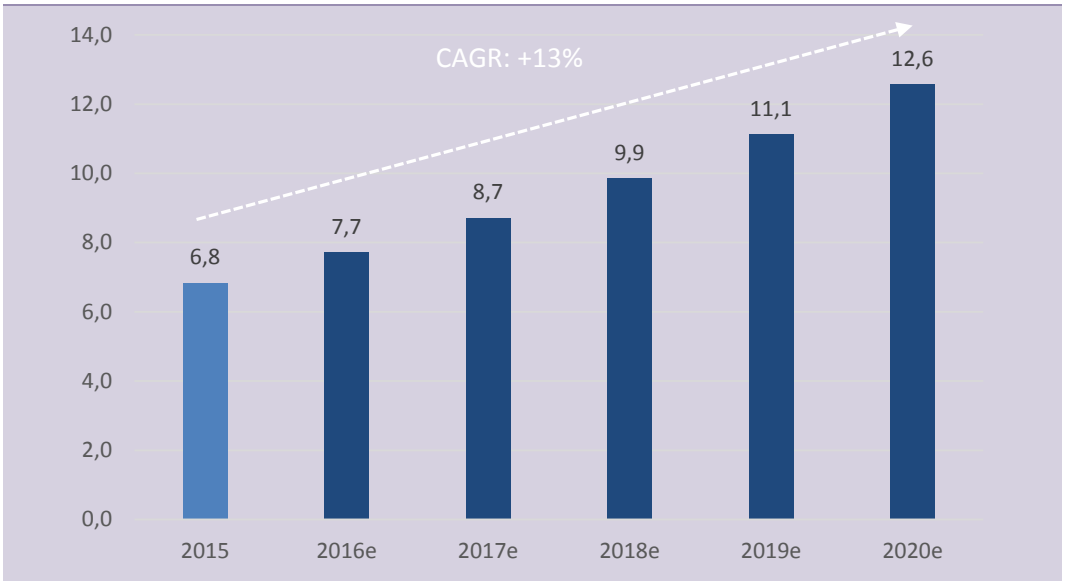
Source: Plastic Omnium; Bryan, Garnier & Co ests.

Although the **100% carbon car** will never exist, apart from certain luxury or sports models, the mixture between metal and carbon fibre should become increasingly common for mass-market vehicles involving an intermediary stage: use of composites for structural parts with increased mechanical restrictions. From a more general stance, **composite materials currently represent a huge challenge in their integration into wide-scale industrial production.** The entire design and industrialisation of a vehicle needs to be reviewed given that design needs to be fully rethought, **assembly times would take longer and** production lines are not adapted to the technology. Design will need to take into account the **difficulty of replacing a metal part by an identical part in a composite material,** enabling the integration of more functions per part. As such, the number of operations practiced on each vehicle would fall, like the size of the assembly line, thereby requiring an overhaul of industrial processes. Finally, whereas on average, an operation on an assembly line should not last longer than one minute, installation of composite parts such as glass fibre combined with thermosetting resins generally requires **30 minutes, although this has been reduced to two minutes** thanks to new procedures and thermoplastics (*still twice as long as the average*).

Despite these industrial barriers, a large number of carmakers are likely to use more composite materials in the design of their vehicles as prices of these materials decline. Note that these **materials are even lighter than plastic and aluminium,** therefore meeting the needs of the auto industry in terms of reducing emissions via the weight of vehicles. The auto composites market is therefore set to grow by **13%** on a CAGR basis over **2015-2020e** to reach **EUR12.6bn**.

In detail, **interior modules** should remain the segment contributing the most with steering wheels, control panels, door and window controls and seat coverings. In technological terms, **carbon fibre** should also remain the segment enjoying the highest growth, in line with all-techno trends in cars.

Fig. 16: Global automotive composites market (EURbn)



Source: Marketsandmarkets; Bryan, Garnier & Co ests.

6.2.2. …in which the group aims to become an expert

Plastic Omnium is gradually developing its skills in composite materials via its research centre at **Sigmatech** located in France, a centre where research has primarily focused on carbon fibre for several years. In 2013 the group equipped the **Peugeot 308** with **mixed thermoplastic tailgates** (*offering a gain of 3kg relative to a comparable steel tailgate weighing 15kg*), the group now has a leadership position in this segment, with a market share of more than **65%** (*1m vehicles fitted with the Plastic Omnium composite tailgates in 2015*) thanks to its two technologies:

Plastic Omnium is the leader in the composite tailgates segment, with market share of more than 65%

- **Hybrid Higate,** which associates an interior trunk unit in a thermosetting composite material with exterior panels in thermoplastic, painted in the body-colour and glued on. This technology is suited to SUV or large estate type vehicles with large-sized tailgates. The solution enables a reduction in the rear part of **7kg** while enabling a **50%** cut in investment costs relative to deep drawing in steel.

- **Thermoplastic Higate,** which helps create a trunk unit by injecting a thermoplastic composite material combined with overmoulded steel reinforcements. Exterior panels are also injected, painted and stuck on the trunk unit. This technology is perfectly suited to requirements for saloon or estate cars with high production rates. It offers a huge freedom in design, combined with a weight saving of almost **4 kg** while increasing the production output cycle by **50%** compared with a thermosetting composite material.

The two solutions are currently marketed to **PSA, Volvo and Jaguar Land Rover**, and should be rounded out with two new versions: the **Higate Premium**, which is a concept for future vehicles such as upscale SUVs (*with carbon fibre*) and the **Higate Entry**, which is to be dedicated to vehicles in the A&B segment.

In an automotive production market that should present around **94m** vehicles by 2018, we estimate that the group could double its composite tailgate volumes to around **2m** units relative to 2015, thereby implying a natural loss in market share due in particular to the opening of the market to competition (*around 40% market share for the group in 2018 vs. 65% in 2013 and 60% in 2014*).

Fig. 17: Forecast contribution of composite tailgate segment at Plastic Omnium

	2013	2014	2015	2016e	2017e	2018e	2019e	2020e
Worldwide automotive production (m) - BG	**84,7**	**87,4**	**88,6**	**90,7**	**92,3**	**93,6**	**95,0**	**96,4**
Non Hatchback	40%	40%	40%	40%	40%	40%	40%	40%
Hatchback	60%	60%	60%	60%	60%	60%	60%	60%
Implied Hatchback volumes (m)	51	52	53	54	55	56	57	58
Steel	97%	97%	96%	94%	93%	92%	91%	90%
Plastic	3%	3%	4%	6%	7%	8%	9%	10%
Implied addressable market for composite tailgate systems	**1,5**	**1,6**	**2,1**	**3,3**	**3,9**	**4,5**	**5,1**	**5,8**
Market share % POM	**65,0%**	**63,0%**	**59,0%**	**54,0%**	**49,0%**	**44,0%**	**40,0%**	**40,0%**
Implied volumes for POM	**1,0**	**1,0**	**1,3**	**1,8**	**1,9**	**2,0**	**2,1**	**2,3**

Source: Plastic Omnium; Bryan, Garnier & Co ests.

The group is also expanding in **100% composite** products. In sales terms, the order book is gradually growing but the business remains in the teething stages with the launch of **production for the first part in recycled carbon fibre in 2015** for the upscale brand **BMW** (*thanks to a new production procedure named Advanced SMC or thermoset sheet moulding compounds*). **2017** should also see the delivery of a structural part in carbon composite for a brand whose name has not been unveiled, as well as the manufacture of glass and carbon fibre bumper beams by Plastic Omnium for a **Hyundai** model.

As such, although the **group's expertise in the composites segment remains in the early stages,** it is interesting to point out that the range of products is already focusing on **structural parts** and that the **R&D centre in Sigmatech** is working on developing vehicle floor units. In addition, these are parts offered by very few other parts makers who focus more on exterior modules such as bumpers or tailgates.

7. Product portfolio focused on other long-term trends

7.1. Gas and particle emissions, a growth market for Plastic Omnium, thanks to SCR

7.1.1. Increased regulatory pressure

Like Europe where standards for emissions of polluting substances have become constantly tougher since the first one was introduced in 1993, regulatory bodies throughout the world, whether in mature or emerging countries, are increasingly focusing on emissions of CO_2 and NOx particles in vehicles for sale. Whereas Europe has recently committed itself to **Euro 6** standards that are soon to be strengthened with a **Euro 6 d** norm, the basis of which is still being studied, the **US** has not been inactive with the **Tier 3 Standards** set to be applied as of **2017**.

Fig. 18: Emissions limits for polluting substances in European standards for diesel and petrol engines

g/km		Monoxyde de carbone (CO)	Hydrocarbures (HC)	Hydrocarbures non méthaniques (NMHC)	Oxydes d'azote (NOx)	HC+Nox	Particules
Euro 1	*Essence*	2,72				0,97	
	Diesel	2,72				0,97	0,140
Euro 2	*Essence*	2,20				0,50	
	Diesel	1,00				0,70	0,080
Euro 3	*Essence*	2,20	0,20		0,15		
	Diesel	0,64			0,50	0,56	0,050
Euro 4	*Essence*	1,00	0,10		0,08		
	Diesel	0,50			0,25	0,30	0,025
Euro 5	*Essence*	1,00	0,10	0,068	0,06		0,005
	Diesel	0,50			0,18	0,23	0,005
Euro 6	*Essence*	1,00	0,10	0,068	0,06		0,005
	Diesel	0,50			0,08	0,17	0,005

Source: ACEA; Bryan, Garnier & Co ests.

7.1.2. SCR systems becoming dominant in reducing emissions

Carmakers now have two depollution means/systems in order to face recent regulatory pressure concerning NOx particle emissions from their diesel engines: **1/ SCR systems** *(Selective Catalytic Reduction)*; **2/ NOx-trap systems**.

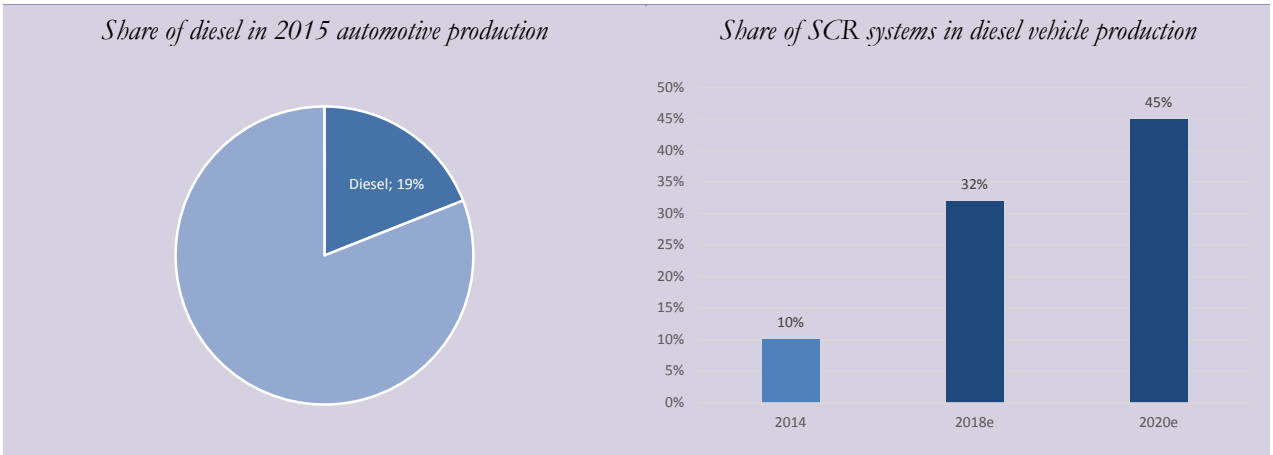
Of the two solutions, the most sophisticated but also the most efficient is clearly the **SCR system**, which enables a chemical conversion (*reduction*) of nitrogen oxide into diatomic nitrogen and water vapour by pulverising liquid ammonia. This technology claims to have an efficacy rate of **90-95%** in the best cases but costs **EUR100-200** more than a traditional **NOx-trap system** (*a full SCR system costs between EUR300 and EUR500 per vehicle).*

The less efficient **NOx-trap** system (**70% efficient)** is used less than the SCR system due to a clogging problem that blocks the EGR valve. This problem means carmakers are obliged to reduce the number of recirculation processes, thereby implying an increase in temperature and hence, and a rise in the rate of NOx particles to exceeding the amount of NOx that the NOx-trap can handle. Since the SCR system is capable of handling a higher volume of exhaust fumes, it is less sensitive than the NOx trap to the decline in the gas recirculation rate.

Faced with the rapid tightening of regulations on emissions, carmakers are now more inclined to equip their models with SCR systems

Faced with the rapid tightening in regulations on emissions, carmakers are now increasingly inclined to fit their new models with SCR systems, which are admittedly more expensive, but which drastically reduce nitrogen oxide waste. Furthermore, this **fundamental trend is accompanied by a catching-up effect** for European carmakers historically positioned in NOx-trap systems such as Renault, which is likely to shift to SCR following the diesel scandal at Volkswagen. **Volkswagen** still has a large share of diesel production and is partly equipped with NOx-trap systems and is also planning to gradually abandon this technology in favour of SCR in order to reduce emissions and restore its image. As such, out of a global market of **3-4 million units of SCR systems,** Plastic Omnium as a player active in the depolluting technology ecosystem, estimates that the figure could reach **10 million by 2020/21**, driven by **both regulatory trends and a catch-up effect stemming from Volkswagen.**

Fig. 19: Heading for more SCR systems in diesel vehicles



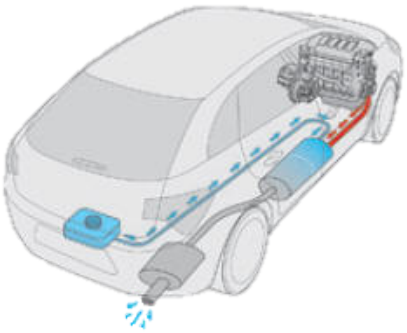
Source: Plastic Omnium; IHS; Bryan, Garnier & Co ests.

7.1.3. Plastic Omnium, well positioned in this market

In the SCR systems market, via subsidiary Inergy, Plastic Omnium manufactures **ammonia tanks** accompanied by the pump that feeds the ammonia to the injector enabling a reduction in NOx particles. Since 2006, Inergy has been developing **AdBlue liquid distribution and storage solutions** for passenger cars and light utility vehicles. The group is now on its **second generation of tanks** with the **DINOx Premium**, a fuel system planned to be directly incorporated into an SCR architecture capable of eliminating **95%** of NOx emissions and up to **8%** of CO_2 emissions. The level of elimination of waste particles is particularly high and combines with a very wide range of functioning from **-40°C to 80°C**. As a result of its offer fully in line with market requirements for lower emissions, Plastic Omnium produced **600,000 SCR systems** in the DINOx range in 2015 (*via two generations of systems*), boasting a **global market share of 15% for sales of around EUR130m.**

Fig. 20: Selective Catalytic Reduction systems (SCR) and Dinox tank

Functioning of SCR system with AdBlue liquid



Dinox Premium tank offered by Plastic Omnium

Source: Plastic Omnium; Bryan, Garnier & Co ests.

In an SCR tank market where volumes are set to rise sharply by 2020 (*10m vs. 4m at present*), especially since the Volkswagen scandal, the group is aiming to **double its market share** (*to 30% on a global scale*) for sales in emissions control rising from **EUR130m** to more than **EUR540m** on our estimates. This target, based on market share gains in an expanding market, is clearly set to be challenged by the two other major players in the sector: French group **MGI Coutier** (*12% market share, primarily with PSA*) and German group **Bosch**. So far, Plastic Omnium already has a customer portfolio of 13 car brands in the tanks segment for reducing emissions, including **Audi, FCA, General Motors, Nissan** and **Toyota**, thereby leaving it room to manoeuvre in terms of acquiring new accounts.

This sales growth target is also set to be driven by the **DINOx Compact** currently being developed. The product is a system that includes the electronic control card and all the sensors in the same module, thereby allowing carmakers to gain time by avoiding the assembly phase for the module and above all enhancing performances in terms of dosages of the AdBlue liquid. Note among other factors that these tanks are produced in plastic by innovative industrial procedures known as **blow moulding**, which enable the creation of very complex shapes in just a few stages and in very little time (*ensuring a 20-30% decrease in weight relative to metal*).

By 2018, Plastic Omnium aims to double its 2014 market share of 15% in the SCR market

The recent opening of a **new R&D centre** in Compiègne at end-2014 (*Alphatech research centre*) specifically dedicated to Inergy fuel systems, confirms the clear need to invest in and develop new innovative products in this segment, as in the bumpers and plastic modules segment (*Sigmatech R&D centre*). Plastic Omnium currently has market share of around 15% in SCR systems (*ammonia tanks for SCR systems*) and on the back of innovation in its **DINOx product**, is aiming to double this level to 30% by 2018 in an SCR market that is no longer set to account for **10% of the OEM diesel market, but more than 30%.**

We therefore estimate that the group's sales in SCR systems could reach more than **EUR500m** by 2020, vs. **EUR130m** in 2015, thereby representing **16.6%** of sales in the Inergy segment and **6.7%** of the group's consolidated sales, vs. respectively **5.4%** and **2.6%** in 2015.

Fig. 21: SCR system sales forecasts

	2013	2014	2015	2016e	2017e	2018e	2019e	2020e
Worldwide automotive production (m) - BG	**84,7**	**87,4**	**88,6**	**90,7**	**92,3**	**93,9**	**95,5**	**97,2**
Share of Diesel (%)	19%	19%	19%	19%	19%	19%	19%	19%
Implied Diesel vehicle production (m)	**16,1**	**16,6**	**16,8**	**17,2**	**17,5**	**17,8**	**18,1**	**18,5**
Share of SCR within Diesel production	*8,0%*	*10,0%*	*15,5%*	*21,0%*	*24,7%*	*32%*	*39%*	*45%*
Implied addressable market for SCR plastic tank systems	**1,3**	**1,7**	**2,6**	**3,6**	**4,3**	**5,7**	**7**	**8,3**
Market share % POM	**12%**	**15%**	**15%**	**20%**	**25%**	**30%**	**30%**	**30%**
Implied volume sold by Plastic Omnium (m)	0,15	0,2	0,6	0,7	1,1	1,7	2,1	2,5
ARPU SCR tank system (EUR)	**220**	**220**	**220**	**220**	**220**	**220**	**220**	**220**
Sales Inergy SCR (EURm)	**33**	**55**	**130**	**159**	**238**	**377**	**461**	**548**
% of Inergy sales	1,9%	2,9%	5,4%	6,4%	9,3%	13,1%	14,9%	16,6%
% of POM consolidated sales	0,8%	1,2%	2,6%	2,7%	3,5%	5,2%	5,9%	6,7%

Source: Plastic Omnium; Bryan, Garnier & Co ests.

In our model for Plastic Omnium, this implies that the SCR segment should represent **14%** of the group's sales growth (*consolidated sales*) between **2015** and **2020** and **29%** of the group's organic growth (*excl. the Faurecia acquisition*). **This market is therefore clearly a significant growth market for the group.**

7.1.4. Is the SCR system-AdBlue liquid duo already obsolete?

Whereas Plastic Omnium seems to focus on equipment associated with AdBlue liquid SCR systems, other players such as Faurecia (*which supplies the SCR system*) are already developing alternative technologies. Announced at the Frankfurt motor show in 2011, Faurecia's **ASDS system** (*Ammonia Storage Delivery System*) seems to be the most promising in view of its advanced development stage and the result of its test phases presented at end-2015. Among the tests carried out on buses in several cities, those in London showed a conversion rate of **85%** of NOx particle emissions into water over a 10-month trial period (*compared with 30% for classic SCR systems*). **ASDS** is a selective catalytic reduction system that diffuses very precise quantities of ammonia stored in solid form in cartridges full of salt in the exhaust pipe catalyst. This procedure uses a chemical reaction to efficiently eliminate nitrogen oxides in exhaust fumes from diesel engines by transforming the nitrogen oxides into nitrogen and water.

The development of Faurecia's ASDS system could potentially harm Plastic Omnium's expansion in the SCR market

This technology is currently destined for commercial vehicles and buses, but is nevertheless a clear threat to Plastic Omnium's liquid distribution and storage tanks that only function with AdBlue, to the extent that its success in trucks could rapidly be transposed to passenger cars. The comparative advantages in favour of ASDS are numerous: **1/faster distribution** of the product to convert NOx particles; **2/ lighter weight** and; **3/ increased density of ammonia** per litre.

Fig. 22: Technical characteristics of AdBlue liquid vs. AdAmmine cartridges

	Liquid SCR - AdBlue	Faurecia ASDS - AdAmmine
Distribution time at engine start	10 mn	2 mn
Distribution time at cool start (>-11°C)	15 mn	3 mn
Weight (full tank/cartridge)	**40 kg**	**27 kg**
Grams of ammonia per litre	185 g/l	450 g/l

Source: Amminex; Bryan, Garnier & Co ests.

Even if this product developed by the partnership between **Faurecia and Amminex** is still in the test phase and only in the segment of buses and commercial vehicles, we estimate that its development and **potential penetration of the light vehicles market represents a risk for Plastic Omnium, which has so far only concentrated on the AdBlue technology** (*a segment that is still small on the group scale but for which management expects robust growth*).

7.2. Hybrid vehicles or nothing

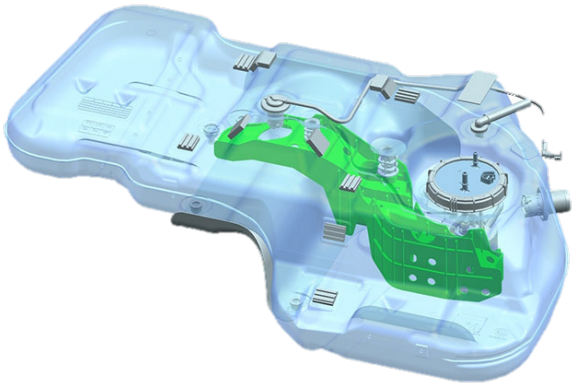
For even longer-term trends, **Plastic Omnium has focused a share of its offer on the hybrid and hybrid rechargeable vehicle segment.** In this category, the question of reducing weight is even more preoccupying since it is vital to offset the higher weight of the battery (*20% of total weight of the car vs. 12% for thermal vehicles*). Faced with this issue, Plastic Omnium has developed strong expertise in **extrusion-blow moulding of plastic tanks,** a procedure enabling the production of tanks equipped with very complex forms in order to optimise the space available in the car and enable the integration of numerous functions and components, thereby providing a fuel system that fits entirely with the current needs of hybrid vehicle carmakers. In addition to their weight gain (*20-30% gain compared with an equivalent tank made out of metal*), these tanks are also anti-corrosive and compatible with all types of fuel such as biodiesels and bioethanols. As a complement to the tank, the group also offers the **Inbaffle** system, which is a range of anti-noise partitions that attenuate the sloshing noises caused by fuel moving in the tank when the vehicle stops and the noise is no longer masked by the noise of the engine.

The segment of rechargeable hybrid vehicles has only very recently been addressed by the group via a **specific plastic fuel tank,** the launch of which was announced in **June 2016** with a first contract with **Hyundai** to equip its rechargeable vehicles. Note that **seven other contracts** have been signed to equip tanks for **seven future models by three carmakers by 2018,** a panel of contracts already ensuring a share of business for coming years and testifying to the relevance of the product. The reinforced plastic tank helps store hydrocarbon vapour without deforming the system until the internal combustion engine starts up and eliminates the vapour. Storage of hydrocarbon vapour has long been one of the major problems for hybrid engines given the risk of explosion.

Fig. 23: Examples of Plastic Omnium products for hybrid vehicles

Fuel systems for hybrid vehicles

INBAFFLE (in green) integrated into a tank



Source: Plastic Omnium; Bryan, Garnier & Co ests.

The battery-operated electric vehicle market is not a priority for the group (*even if it offers exterior module parts for electric cards),* primarily due to the lack of a heat engine and hence of a tank in this type of vehicle. The group is therefore present in this market primarily via its **Plastic Omnium exteriors segment and not via Plastic Omnium Inergy**. However, in a recent interview with BFM Business on 27th July 2016, **Laurent Burelle**, Plastic Omnium's CEO, indicated that the group was taking a close interest in **hydrogen powered electric vehicles**, given the need for carmakers to have a hydrogen tank that is **1/** flame-resistant and **2/** capable of carrying a liquid under high pressure (*700 bars*). Without providing further details, he also indicated that the group had just signed a partnership agreement for a joint venture with a **start-up company in Israel** in order to work on developing a hydrogen tank. At present, only two carmakers offer hydrogen cars, **Hyundai** with its SUV **ix35** (*2015*) and **Toyota** with the **Mirai** saloon (*2016*), and are struggling to win market share in the electric vehicle market, in particular given the very high selling price, as well as the very limited hydrogen fuel station network in France and in Europe.

Plastic Omnium should benefit from the emergence of hybrid vehicles and hydrogen fuel cell cars in coming years

As discussed in our sector report, we expect a surge in the number of registrations of hybrid vehicles and rechargeable hybrid cars in view of environmental awareness, government incentives and the increased autonomy of these vehicles, whereas pure electric cars are likely to remain limited to a niche segment.

As such, **Plastic Omnium's focus on segments that have reached more critical mass seems coherent to us,** especially given that there is a lack of consensus concerning what technology to adopt in batteries for electric cars. **Being present in the hybrid vehicle and hydrogen electric cars seems very relevant to us.**

7.3. And autonomous cars?

Despite the group's clear and coherent strategy in trends to reduce emissions and the ensuing reduction in vehicle weight, the **theme of connected and autonomous vehicles remains extremely vague** at Plastic Omnium. At this stage, we estimate that the autonomous car is **unlikely to prompt a major change in strategy** by management.

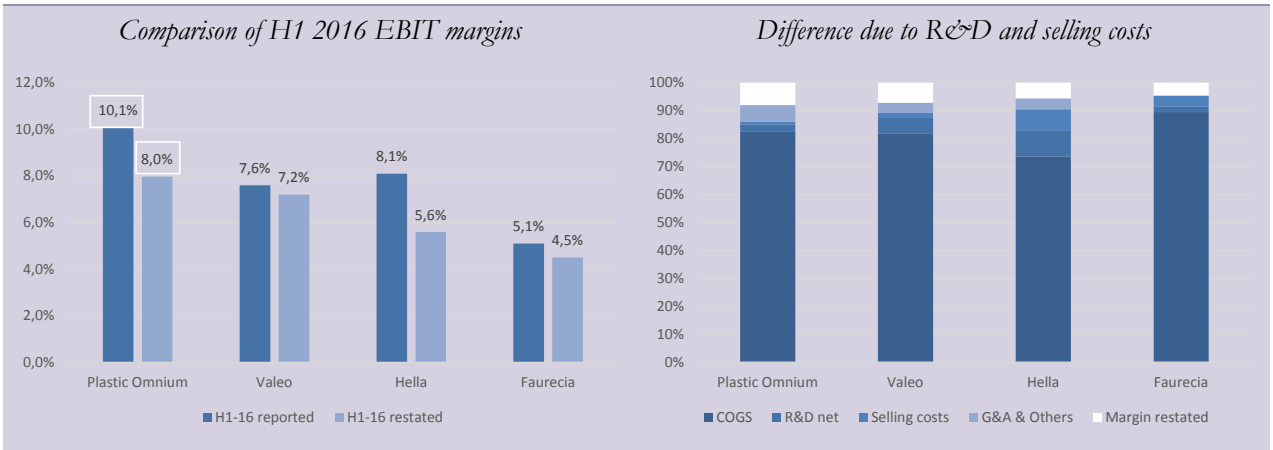
Under this framework, no acquisition or strategic partnership is likely to be signed in order to acquire expertise or invest in R&D on the subject, contrary to Valeo for example, which is multiplying acquisitions and technological partnerships. As such, **innovation is only likely to be shouldered internally and concern interior modules for cockpits and other small exterior modules.** This update to the portfolio is ultimately set to remain very limited relative to the size of the group given Plastic Omnium's very low current exposure to interior cockpits and small exterior modules. In addition, Plastic Omnium's arrival in the in-car connectivity and automation market, dubbed the "cockpit of the future" is likely to be hampered by **Faurecia, which is already well positioned in the field** with strong expertise in the subject and hefty R&D spending.

8. Heading for a lasting margin of 10%?

8.1. Margin higher than the sector average in H1 2016…

On 27th July, the group reported a record high EBIT margin of **10.1%**, vs. **9.4%** in 2015 and **8.9%** in 2014 whereas for the same period, **Faurecia, Hella** and **Valeo** reported margins of respectively **5.1%**, **8.1%** and **7.6%**. Even adjusted for comparison's sake (*including restructuring costs and excluding contributions from joint ventures and associates*), the difference between the group's margins and those of the three other parts makers was still more than **200pb**.

Fig. 24: Margin differential between Plastic Omnium and other parts suppliers



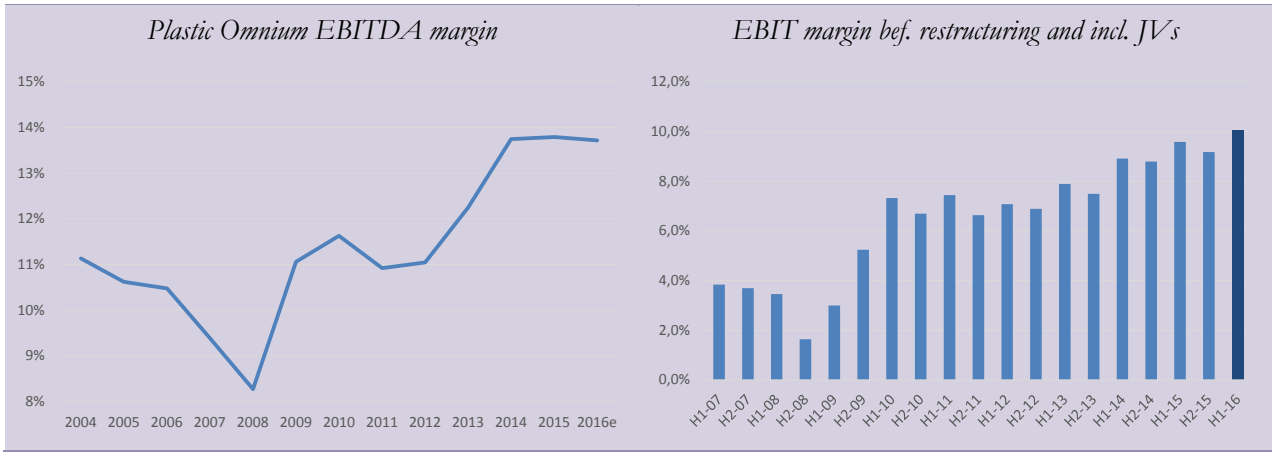
Source: Company data; Bryan, Garnier & Co ests.

Delivering EBIT margin of **10%** on a lasting basis remains an ambitious target for all automotive parts suppliers. Today in the automotive industry, carmakers generate average margins of **6.9%** whereas parts makers generate margins of **8.6%**, **thereby positioning Plastic Omnium among the most profitable groups in the sector.**

8.2. …which should last over time despite the integration of FAE

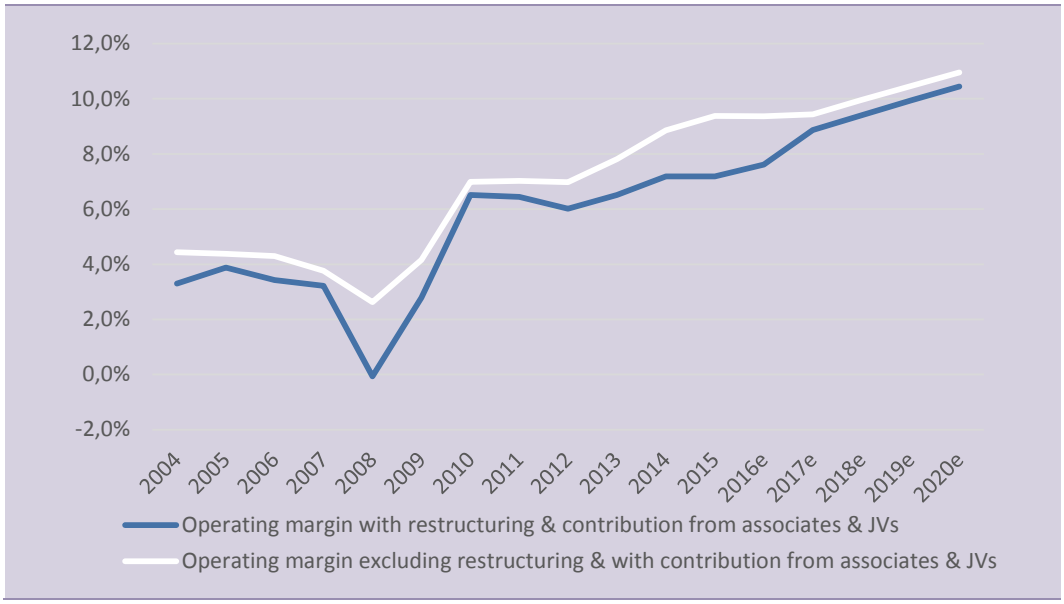
As indicated previously, this margin is likely to be negatively affected by the integration of FAE over the short term, but should gradually widen back to **10% by 2018-19** thanks to synergies and the roll-out of measures to optimise production processes at the sites taken over from Faurecia, as well as the deployment of new innovative and high value-added products. Clearly, changes in the group's margin are also set to be affected by changes in global automotive production, with the group having operating leverage of close to **15%**, with EBIT margin set to widen more in a context of high growth in global automotive production.

Fig. 25: EBIT margin at a peak level



Source: Plastic Omnium; Bryan, Garnier & Co ests.

Fig. 26: Margin set to narrow in the short term before picking up in 2019-20e



Source: Plastic Omnium; Bryan, Garnier & Co ests.

In our model, the two margins are set to join paths as of 2017e when we no longer factor in restructuring costs. The difference between the two curves then primarily stems from the contribution from joint ventures and associates, which are included in the group's definition of EBIT margin (*net profit of entities included in EBIT*).

8.3. … benefiting cash generation and dividends

This healthy growth in EBIT that we expected over 2016-20 *(CAGR of +13% over the period at the EBITDA level and of +16% for EBIT)* should contribute massively to the group's cash generation even if an increase in investments is to be expected with the integration of FAE.

Fig. 27: Plastic Omnium – Cash flow statement - EURm

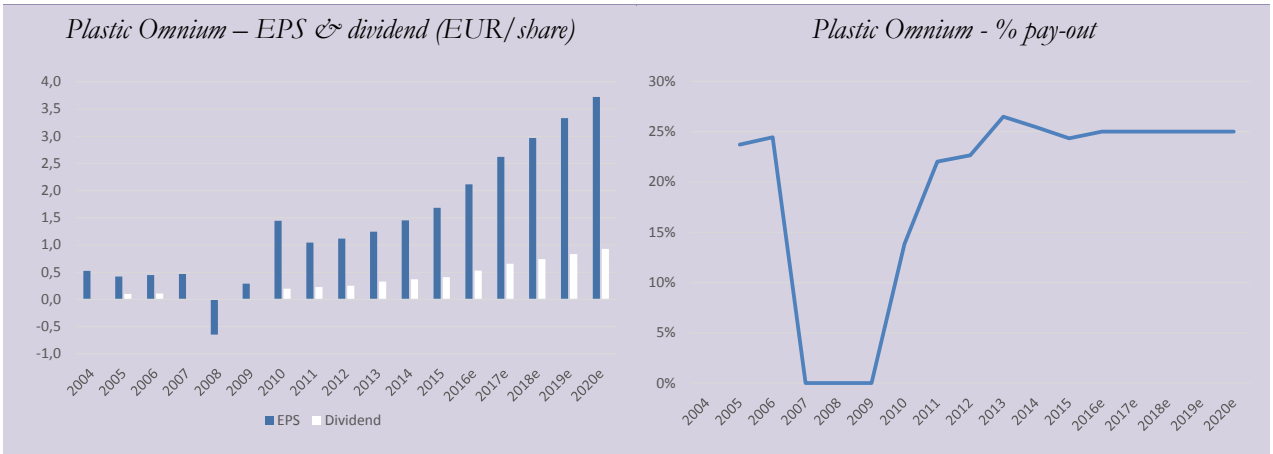
Funding analysis	2008	2009	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e	2019e	2020e
EBITDA reported	**223**	**272**	**378**	**461**	**531**	**531**	**610**	**691**	**774**	**982**	**1 057**	**1 151**	**1 251**
EBITDA margin	2,6%	4,2%	7,0%	7,0%	7,0%	7,8%	8,9%	9,4%	9,2%	9,2%	9,6%	10,0%	10,4%
Operating cash-flow	**100**	**265**	**332**	**382**	**429**	**404**	**409**	**525**	**558**	**742**	**796**	**870**	**950**
Capex (before M&A & disposals)	(170)	(103)	(155)	(265)	(310)	(314)	(346)	(378)	(442)	(481)	(512)	(543)	(576)
(-) Capital expenditures	(95)	(68)	(95)	(170)	(214)	(236)	(254)	(269)	(320)	(344)	(365)	(388)	(411)
(-) Intangible assets - R&D capitalized	(75)	(34)	(59)	(95)	(96)	(78)	(93)	(109)	(122)	(138)	(146)	(155)	(164)
FCF before dividends & M&A	(70)	162	177	117	119	91	63	146	117	260	284	328	374
(-/+) Acquisition & proceeds from disposals	11	29	16	13	22	11	12	13	(632)	200	-	-	-
Dividends	(13)	(8)	(18)	(31)	(39)	(37)	(51)	(57)	(61)	(78)	(97)	(109)	(123)
Cash flow post dividends & M&A	(71)	184	176	99	103	64	24	102	(576)	382	187	218	251
Net financial debt reported	**598**	**535**	**538**	**471**	**390**	**410**	**390**	**268**	**842**	**456**	**266**	**44**	**(211)**
Net debt reported /EBITDA ratio	2,7x	2,0x	1,4x	1,0x	0,7x	0,8x	0,6x	0,4x	1,1x	0,5x	0,3x	0,0x	-0,2x

Source: Plastic Omnium; Bryan, Garnier & Co ests.

Despite the acquisition of FAE's businesses for a net amount estimated at around **EUR450m,** increasing the group's financial leverage to **1.1x at end-2016e vs. 0.4x at end-2015**, we estimate that the group's financial leeway remains unchanged. The increase in the group's net profit, combined with control of investment spending should help reduce the debt ratio as of 2017-18.

This growth in EPS combined with a rapid reduction in debt should enable the group to continue paying an attractive dividend. We even estimate that Plastic Omnium could increase its pay-out ratio by **25-30%** in line with other car components makers such as Valeo and Hella.

Fig. 28: A record high EBIT margin



Source: Plastic Omnium; Bryan, Garnier & Co ests.

9. Our estimates

As for **Faurecia, Hella** and **Valeo**, our model for **Plastic Omnium** takes into account auto production estimates of **+2.4%** for 2016, followed by **+1.7%** for 2017 and **+1.7%** for 2018. We then expect market growth of around **+1.5%** for the 2019-2025 period.

In our Plastic Omnium model, we have integrated the acquisition of the **Faurecia exteriors business** (*EUR1.2bn in sales and EUR50m in EBIT*) as of **29th July 2016** (*closing date*), and have factored in the disposal of the two environment division subsidiaries (*EUR60m in sales combined for Emballagen GmbH and Signature Limited*), as of **3rd August 2016**.

Fig. 29: Plastic Omnium – Income statement - EURm

	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e
Revenues	**3 250**	**4 220**	**4 806**	**4 335**	**4 437**	**5 010**	**5 813**	**6 878**	**7 310**
Change (%)		29,9%	13,9%	-9,8%	2,4%	12,9%	16,0%	18,3%	6,3%
Adjusted EBITDA	378	461	531	531	610	691	774	982	1 057
EBIT	**227**	**296**	**335**	**339**	**393**	**470**	**533**	**631**	**702**
Change (%)		30,5%	13,0%	1,0%	16,1%	19,6%	13,5%	18,3%	11,2%
Financial results	(27)	(42)	(59)	(64)	(56)	(53)	(47)	(45)	(43)
Pre-Tax profits	182	229	244	254	294	338	422	528	598
Exceptional	0	0	0	0	0	0	0	0	0
Tax	(30)	(58)	(62)	(57)	(64)	(75)	(93)	(122)	(137)
Profits from associates	(2)	(1)	0	31	39	35	38	39	40
Minority interests	(11)	(7)	(8)	(4)	(5)	(4)	(5)	(6)	(7)
Net profit	140	165	173	193	225	259	324	401	454
Restated net profit	**140**	**165**	**173**	**193**	**225**	**259**	**324**	**401**	**454**
Change (%)		18,0%	5,3%	11,4%	16,4%	15,0%	25,2%	23,8%	13,2%

Source: Plastic Omnium; Bryan, Garnier & Co ests.

Fig. 30: Plastic Omnium – Cash flow statement - EURm

	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e
Operating cash flows	**332**	**382**	**429**	**404**	**409**	**525**	**558**	**742**	**796**
Change in working capital	10	53	62	28	(17)	34	3	2	(9)
Capex, net	**(155)**	**(265)**	**(310)**	**(314)**	**(346)**	**(378)**	**(442)**	**(481)**	**(512)**
Financial investments, net	16	13	22	11	12	13	(632)	200	0
Dividends	(18)	(31)	(39)	(37)	(51)	(57)	(61)	(78)	(97)
Other	(114)	(101)	57	150	24	14	3	3	3
Net debt	538	471	390	410	390	268	842	456	266
Free Cash flow	**193**	**153**	**168**	**97**	**100**	**203**	**117**	**260**	**284**

Source: Plastic Omnium; Bryan, Garnier & Co ests.

Fig. 31: Plastic Omnium – Balance sheet - EURm

	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e
Tangible fixed assets	673	771	897	891	1 008	1 149	1 940	1 812	1 906
Intangibles assets	285	331	320	330	352	381	423	481	543
Cash & equivalents	193	205	328	489	535	663	90	475	665
current assets	1 059	1 157	1 408	1 443	1 584	1 867	1 448	2 047	2 334
Other assets	432	453	335	366	419	356	1 604	934	792
Total assets	**2 551**	**1 610**	**1 743**	**1 809**	**2 003**	**2 224**	**3 052**	**2 982**	**3 126**
L & ST Debt	852	792	802	990	995	1 031	1 031	1 031	1 031
Others liabilities	1 093	1 276	1 532	1 376	1 521	1 772	1 932	2 153	2 242
Shareholders' funds	527	648	775	870	1 054	1 266	1 513	1 818	2 158
Total Liabilities	**2 551**	**2 792**	**3 152**	**3 252**	**3 588**	**4 091**	**4 499**	**5 029**	**5 461**
Capital employed	**1 387**	**1 426**	**1 450**	**1 517**	**1 696**	**1 826**	**2 642**	**2 555**	**2 702**

Source: Plastic Omnium; Bryan, Garnier & Co ests.

Fig. 32: Plastic Omnium - Ratios - %

	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e
Operating margin	**7,0%**	**7,0%**	**7,0%**	**7,8%**	**8,9%**	**9,4%**	**9,2%**	**9,2%**	**9,6%**
Tax rate	16,3%	25,3%	25,6%	22,4%	21,8%	22,2%	22,0%	23,0%	23,0%
Net margin	4,3%	3,9%	3,6%	4,5%	5,1%	5,2%	5,6%	5,8%	6,2%
ROE (after tax)	26,5%	25,4%	22,4%	22,2%	21,3%	20,4%	21,4%	22,0%	21,0%
ROCE (after tax)	**12,7%**	**14,2%**	**14,8%**	**17,3%**	**18,1%**	**20,0%**	**15,7%**	**19,0%**	**20,0%**
Gearing	89%	65%	48%	46%	36%	21%	55%	25%	12%
Pay-out ratio	13,8%	22,0%	22,6%	26,5%	25,4%	24,3%	25,0%	25,0%	25,0%
Number of shares, diluted	16	48	48	147	148	148	147	147	147

Source: Plastic Omnium; Bryan, Garnier & Co ests.

Fig. 33: Plastic Omnium - Per share data – EUR

	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e
EPS	**1,45**	**1,04**	**1,12**	**1,25**	**1,45**	**1,68**	**2,12**	**2,62**	**2,97**
Restated EPS	1,45	1,04	1,12	1,25	1,45	1,68	2,12	2,62	2,97
% change		-27,9%	7,2%	11,4%	16,6%	15,8%	25,7%	23,8%	13,2%
EPS bef. GDW	1,45	1,04	1,12	1,25	1,45	1,68	2,12	2,62	2,97
BVPS	5,28	4,33	5,32	5,76	7,00	8,41	10,15	12,20	14,48
Operating cash flows	3,4	2,7	3,0	2,8	2,8	3,5	3,8	5,0	5,4
FCF	2,0	1,1	1,2	0,7	0,7	1,4	0,8	1,8	1,9
Net dividend	**0,20**	**0,23**	**0,25**	**0,33**	**0,37**	**0,41**	**0,53**	**0,65**	**0,74**

Source: Plastic Omnium; Bryan, Garnier & Co ests.

Fig. 34: Plastic Omnium - Valuation EURm

	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e
Market capitalization	**565**	**735**	**984**	**2 231**	**3 213**	**4 244**	**4 219**	**4 219**	**4 219**
Net debt	658	471	390	410	390	268	842	456	266
Pensions	47	63	80	65	93	102	99	97	95
Minorities	156	93	114	60	69	63	73	86	91
Financial assets	(26)	(8)	3	436	550	486	536	546	557
EV	**1 453**	**1 370**	**1 565**	**2 330**	**3 214**	**4 190**	**4 697**	**4 312**	**4 113**
EV/Sales	45%	32%	33%	54%	72%	84%	81%	63%	56%
EV/EBITDA	3,8x	3,0x	2,9x	4,4x	5,3x	6,1x	6,1x	4,4x	3,9x
EV/EBIT	**6,9x**	**5,0x**	**5,4x**	**9,3x**	**10,1x**	**11,6x**	**10,8x**	**8,0x**	**6,8x**
EV/Operating margin	6,4x	4,6x	4,7x	6,9x	8,2x	8,9x	8,8x	6,8x	5,9x
P/E	1,4x	6,2x	8,5x	22,9x	19,7x	17,0x	13,5x	10,9x	9,6x
Dividend Yield (%)	**10,2%**	**2,4%**	**2,7%**	**1,2%**	**1,3%**	**1,4%**	**1,9%**	**2,3%**	**2,6%**

Source: Plastic Omnium; Bryan, Garnier & Co ests.

10. Valuation

As for **Faurecia**, **Hella** and **Valeo**, we have valued **Plastic Omnium** using two methods: **1/historical multiples** and **2/** a **DCF calculation**. In all, the combination of the various methods (*three Fair Values stemming from historical multiples and one from DCF with a 25% weighting for each method*) yields a **FV of EUR36** per share for Plastic Omnium, thereby implying **>25%** upside potential relative to the recent share price (*EUR29).*

We are therefore initiating coverage of Plastic Omnium with a Buy recommendation.

Fig. 35: Plastic Omnium – FV @ EUR36

Plastic Omnium - FV sum-up	**Multiples**	**FV**
EV/Sales *(2016-25) - 25%*	**95%**	**€37,2**
EV/EBIT *(2016-25) - 25%*	**10,5x**	**€36,1**
P/E *(2016-25) - 25%*	**14,5x**	**€34,5**
DCF model *(2016-25) - 25%*		**€36,2**
o/w WACC	8,6%	
o/w LTG	2,5%	
o/w Average EBIT margin	8,7%	
o/w LT EBIT margin	9,1%	
Implied FV		**€36,0**
Current price		€28.6
Upside		25,9%

Source: Bryan, Garnier & Co ests.

10.1. Historical multiples

We have taken into account the group's historical **EV/sales, EV/EBIT and P/E** multiples to value **Plastic Omnium**. Our three FV are based on our 2016-25 estimates (*discounted at the WACC every year*) and imply respectively **EUR37.2**, **EUR36.1** and **EUR34.5** per share and value Plastic Omnium at 95% its sales (*this multiple assumes a rerating compared with historical 89% EV/sales multiple given the group's target to maintain its margin close to 10% compared with an historical average of 5.4%)*, 10.5x its EBIT and 14.5x its earnings.

10.2. DCF valuation

We have also valued **Plastic Omnium** via a DCF calculation based on the following assumptions:

- **WACC** of **8.6%**
- **A growth rate to infinity** of **2.5%,** implying a slight outperformance by **Plastic Omnium** relative to the automotive market *(+1.5%)*
- **EBIT margin** (*including restructuring and excluding the joint ventures)* of **8.7%** on average and a margin to infinity of **9.1%** implying under the Plastic Omnium definition margins of 10.2% and 10.8%.

Fig. 36: Plastic Omnium – DCF estimates – EURm

	2016e	2017e	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e
Revenues - Core business	**5 813**	**6 878**	**7 310**	**7 752**	**8 224**	**8 489**	**8 764**	**9 049**	**9 345**	**9 652**
Revenue Growth Rate	-	18,3%	6,3%	6,1%	6,1%	3,2%	3,2%	3,3%	3,3%	3,3%
Operating Margin	7,5%	7,8%	8,3%	8,7%	9,1%	9,1%	9,1%	9,1%	9,1%	9,1%
EBIT *(excluding JVs & Associates, with restr. Charges)*	**437**	**537**	**603**	**673**	**748**	**780**	**813**	**847**	**882**	**919**
Adjustment for provisions	22	24	19	20	20	20	20	20	20	20
(-) Taxes on EBIT	(96)	(123)	(139)	(155)	(172)	(179)	(187)	(195)	(203)	(211)
(+/-) Movements in working capital	3	2	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)
(+) Depreciation and amortization	241	351	356	375	396	418	440	461	483	504
(-) Capital Expenditures	(320)	(344)	(365)	(388)	(411)	(424)	(438)	(452)	(467)	(483)
(-) Intangibles	(122)	(138)	(146)	(155)	(164)	(170)	(175)	(181)	(187)	(193)
Free Cash Flow	165	308	320	362	407	435	463	491	518	546
Present Value of Free Cash Flow	**161**	**278**	**265**	**276**	**286**	**281**	**275**	**269**	**261**	**253**

Source: Bryan, Garnier & Co ests.

Fig. 37: Plastic Omnium – DCF @ €36

Valuation	
PV of Free Cash Flows	2 607
PV of Terminal Value	3 383
EV implied - EURm	**5 990**
- Net financial debt (N-1) - EURm	268
- Pensions Liabilities (N-1) - EURm	102
- Minority Interest value (N-1) - EURm	63
+ Financial assets - EURm (N-1)	486
- Cash used to acquire Faurecia Auto Exterior not included into 2015 net debt	632
Value of Equity	**5 392**
Value of Equity per share	**€36,3**
Price	€28,6
Upside/Downside	27%

Source: Bryan, Garnier & Co ests.

We are initiating the coverage on Plastic Omnium with a FV of EUR36 per share.

11. Plastic Omnium – SWOT

Fig. 38: Plastic Omnium – SWOT analysis

Strengths	Weaknesses
• Core expertise in **vehicle weight reduction,** a long-term growth trend in the automotive sector • An expansion in the product portfolio to include hybrid and rechargeable hybrid vehicles • Diversified geographical exposure with **Asia** (17% of sales) and the **US** (28% of sales) • Increasing exposure to premium carmakers • Refocusing on the most profitable businesses (automotive, 14% EBITDA margin) via disposals in the environment division • A solid competitive positioning in bumpers (11% global market share) amplified by the acquisition of Faurecia's exteriors division	• Lack of presence in the connected and autonomous vehicle segment • A still limited product offering in the composites segment despite the signing of a few contracts • Acquisition of Faurecia division amputated by the European Commission (EUR1.2bn in sales acquired vs. EUR2bn for the division)
Opportunities	**Threats**
• Penetration of the **German market** and acquisition of OEM premium clients thanks to the operation with Faurecia • Sizeable improvement potential for margins in businesses acquired from Faurecia thanks to **synergies in terms of structural costs** • A technological shift at European carmakers towards **SCR systems**	• A slowdown in the global automotive market would directly impact **92%** of Plastic Omnium's sales • Confirmation of a slowdown in the Chinese market in the event of a halt to government incentives • Plastic Omnium is preparing to integrate the largest acquisition in its history (reorganisation of industrial processes and risk of social conflict) • Momentum in **Faurecia's ASDS depollution** systems could make Plastic Omnium's SCR tanks obsolete

Source: Bryan, Garnier & Co ests.

12. Plastic Omnium in short

12.1. A bit of history

Plastic Omnium was created in **1946** and belongs to the very small group of French carmakers listed on the stockmarket (*Faurecia, Plastic Omnium, MGI Coutier, Plastivaloire, Valeo*). Its listing dates back to the company's merger with Union Mutuelle des Propriétaires Lyonnais (*a listed water cleaning and treatment company*) in **1965**. The group's development then took place in three phases: **international expansion** of the businesses during the 1970s with the penetration of the Spanish, German, UK and US markets, **acquisitions** with the takeover of Landry and Techni-Plaste in 1986 (*enabling Plastic Omnium to double the size of its automotive businesses*), the acquisition of Reydel Industries specialised in interior fittings in 1995, and **partnerships** with the creation of joint-venture Inergy Automotive Systems specialised in fuel systems, jointly owned with Solvay in 2000 then exclusively as of 2010, as well as several other joint-ventures set up in China, India and Russia with local players. Only the acquisitions of Ford and Plastal Poland's fuel systems businesses were an exception in 2011.

As a genuine **plastic specialist**, the group's businesses have never been restricted to the auto industry, with the development of a subsidiary entirely dedicated to the environment and more precisely to the production and sale of waste containers. With sales of **EUR5bn** at end-2015, **92%** of which was generated in the OEM automotive sector with carmakers (*the rest stemming from waste container sales)*, Plastic Omnium currently ranks **no. 40** in the global listing of car components makers behind Faurecia (*no. 7*) and Valeo (*no. 11*).

12.2. Increased exposure to the automotive sector

Plastic Omnium is an industrial group specialised in plastics and addressing two types of player in distinct markets: local authorities in the **environmental sector** (*8% of 2015 sales*) and carmakers in the **automotive sector** *(92% of 2015 sales)*. The automotive sector accounts for a clear majority of sales and EBIT margin, and has gradually gained momentum in the group's business portfolio following numerous acquisitions in fuel systems and interior systems as well as the creation of Inergy, which now houses all of the fuel systems businesses. These automotive activities are divided into two divisions: **1/the automotive exteriors division** whose expertise is based on manufacturing car-body parts and modules and; **2/ the Inergy automotive division** housing fuel systems. **Unlike Faurecia, the group is not present in the cockpits and interior modules segment.**

The bias of the group's business portfolio is again set to favour automotive segments with the acquisition of Faurecia's exterior modules division, confirmed at the end of 2015 when the definitive disposal agreement was signed (*sales of **EUR1.2bn** and EBIT of **EUR50m** sold for **EV** of **EUR450m***). This transforming operation for the group is due to be completed by the end of 2016 and should have a full impact on the group as of 2017.

12.2.1. The exterior modules division – 44% of sales

The **exterior modules** division designs and produces car-body modules and parts (*bumpers, energy absorption systems, front-end modules)* manufactured primarily from injected polypropylene and composite materials. **Plastic Omnium** generates overall sales of **EUR2.6bn** and is **the global leader** in the car-body modules and parts market. The group boasts **solid positions in bumpers** with **18 million parts delivered in 2015** (*11% market share*), ahead of its two main rivals, Canadian group Magna (*8%*), and Faurecia (*6%*).

The range of products marketed by the group is sub-divided into **six categories**: bumpers and fascias, body panels and spoilers, body and structure parts for trucks, tailgate modules, front-end modules and structural and semi-structural parts. In these exterior parts, innovation is based on the light weight of parts enabling a reduction in the overall weight of the vehicle and in the aerodynamics of the same parts, all of which belongs to the constant aim to reduce vehicle fuel consumption.

The **car body parts sector is increasingly moving towards more plastic parts** given their lighter weight than steel (*plastic is 30% lighter than steel*), with the same aim of reducing the weight of vehicles. As such, the amount of plastic used in the overall weight of a vehicle has been constantly increasing to the detriment of steel since 1990 and now represents **16%**. In addition, plastic is more malleable than steel, thereby leaving more freedom in the design of the vehicle.

This shift in the market towards plastic is clearly beneficial to **Plastic Omnium** and points to market share gains primarily driven by China. The group already accounts for **18%** of bumper sales in the country and intends to increase this figure to **26%** in 2018 with the opening of five new production sites. The **acquisition of Faurecia's exteriors businesses** should also further consolidate Plastic Omnium's strategic positioning. Note that Faurecia had a **6%** global market share in bumpers and more generally manufactures all types of painted body parts (*bumpers, tailgate, wings, spoilers*), front-end modules and structural parts in composite materials (*floors, roof structures, rear ring and crash absorption systems*) via its 32 production sites spread over nine countries.

12.2.2. The fuel systems division – 48% of sales

Plastic Omnium's **fuel systems** division designs and manufactures fuel tanks and all related injection lines and pumps, in addition to the technologies aimed at reducing emissions of polluting substances such as CO_2 and NOx particles. **Plastic Omnium** generates sales of **EUR2.4bn** in this type of business, making its Inergy division the **world no. 1** with market share of more than **20%**.

The group has developed its expertise in the manufacture of these plastic products by innovative industrial procedures capable of moulding and blowing parts with very complex shapes in few stages and hence in a short time-frame. Among its range of products are plastic fuel systems, multi-layer fuel systems reducing permeability, fuel systems for zero emission vehicles, fuel systems for electric and hybrid systems, pipes used for fuel filling-extrusion, systems for reducing emissions and finally, the Inbaffle noise reduction systems.

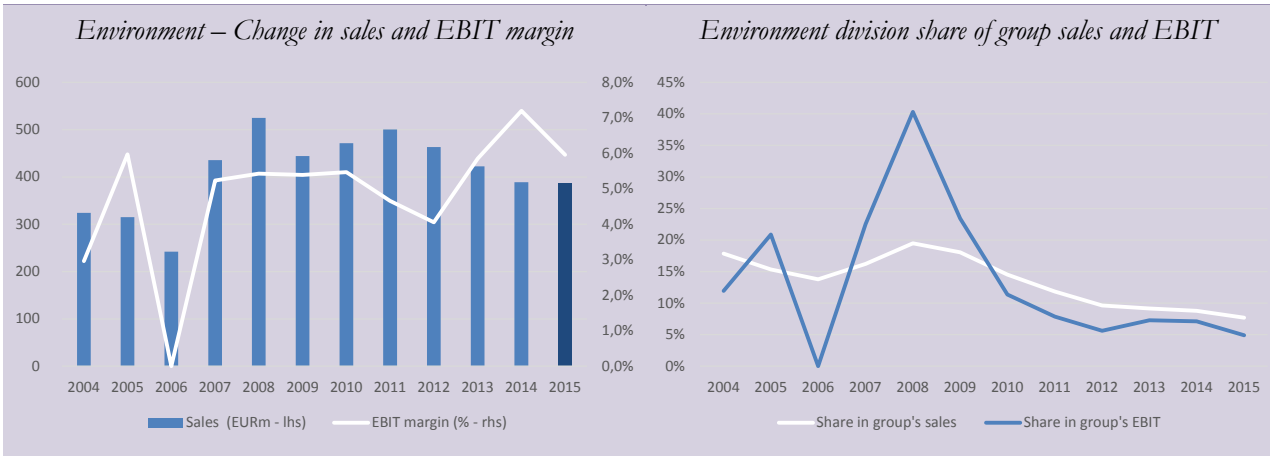
This type of business is primarily **underpinned by the tightening of regulations** for the gradual reduction in CO_2 and NOx emissions in diesel vehicles, whether in Europe or the US. These standards have encouraged carmakers to **review weight and aerodynamic aspects,** the answer to which primarily lies in plastic parts (*plastic fuel systems are 30-40% lighter than steel and equip 70% of new vehicles*) and systems to reduce gas and particle emissions. As an example, out of the **35g/km** in CO_2 emissions that need to be eliminated per vehicle, **six grams** could stem from lightening the weight representing an additional cost of EUR300, while aerodynamics could reduce emissions by **three grams** for an additional cost of **EUR100**.

Plastic Omnium is aiming to increase its market share in this segment from **20% to 24%** in 2018 via its strong positions in plastics as well as its innovations in fuel systems for virtually **emission free, hybrid and electric vehicles.** In geographical terms, **China** is set to remain at the heart of international development with a virtual doubling in market share targeted for plastic fuel systems *(bringing it to 15%)* accompanied by the opening of four new production plants in the country.

12.2.3. The environment division – 8% of sales

The **environment** division contributes the least in terms of sales and EBIT margin for the group (*8% of sales for 5% of overall EBIT margin*). This segment is completely distinct from the automotive division apart from its use of plastic, and includes all of the waste containers activities. **Plastic Omnium** generates sales of **EUR386m** and EBIT of **EUR23m** in this sector (*EBIT margin of 6%)*. The group's main rivals in Europe are German groups **ESE** (*20% market share*) and **Schaefer** *(17% market share*) whereas Plastic Omnium's market share remains at around **30%**.

Fig. 39: Division accounting for an increasingly low share of sales but with increasingly wide margins



Source: Plastic Omnium; Bryan, Garnier & Co ests.

This division is divided into three sub-segments: **1/** production and sales of **containers** or household waste bins, glass recycling bins, compost containers, underground or semi-embedded containers; **2/ associated services** which include the installation of equipment, maintenance and washing of containers sold, and finally; **3/ urban equipment** including a large range of street furniture destined for collective areas such as bin areas, play areas and parks. **Plastic Omnium** has a resilient portfolio of European clients that guarantee it solid market share (*30%*) as well as a production network of 11 plants spread between France, Germany, the UK and Spain. These positions reflect a **virtually exclusive European exposure,** although the group is present in Asia with Singapore and in Latin America with Mexico and Chile, which nevertheless remain insignificant compared with Europe.

Growth in **Europe can only be underpinned by the associated services offering**, such as computerised management solutions and systems (*pre-collection stage, management of the fleet of waste collection vehicles, planning of use of waste collection service etc.*). In contrast, all potential **growth in the global market is based on emerging markets** where increased standards of living are set to go hand-in-hand with an increase in the waste generated. This trend is set to prompt a rising need for local authorities to provide waste containers. In mid-2016, the group announced the disposal of two subsidiaries in the environment division (*Emball*agen GmbH and Signature Limited), representing combined sales of **EUR60m** (*15% of sales*) in order to refocus on the containerisation business, development of smart solutions, waste recycling and reducing the carbon footprint of local authorities.

BRYAN, GARNIER & CO

INDEPENDENT RESEARCH

Valeo

The "French Tech"

14th September 2016

Automotive

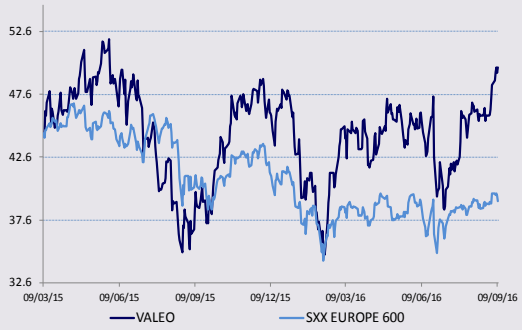
Fair Value EUR49 (price EUR49.74)

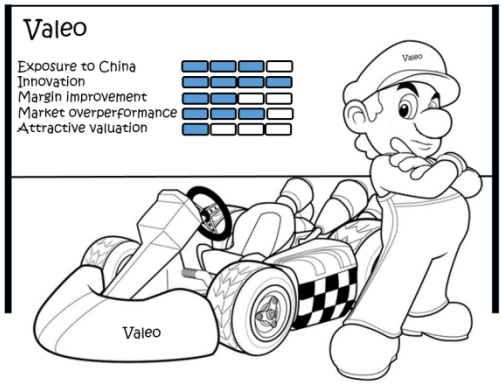
NEUTRAL
Coverage initiated

Bloomberg	FR FP
Reuters	VLOF.PA
12-month High / Low (EUR)	49.7 / 34.9
Market capitalisation (EURm)	11,857
Enterprise Value (BG estimates EURm)	13,962
Avg. 6m daily volume ('000 shares)	844.3
Free Float	2.3%
3y EPS CAGR	14.2%
Gearing (12/15)	1%
Dividend yields (12/16e)	2.18%

YE December	12/15	12/16e	12/17e	12/18e
Revenue (EURm)	14,544	15,996	17,602	18,716
EBIT(EURm)	1,060	1,225	1,402	1,520
Basic EPS (EUR)	3.11	3.62	4.23	4.64
Diluted EPS (EUR)	3.11	3.62	4.23	4.64
EV/Sales	0.88x	0.87x	0.77x	0.71x
EV/EBITDA	6.9x	6.9x	5.8x	5.3x
EV/EBIT	12.1x	11.4x	9.7x	8.7x
P/E	16.0x	13.7x	11.8x	10.7x
ROCE	23.7	19.6	20.8	21.3

Price and data as at close of 9th September





Since 2007, Valeo has outperformed the SXAP index, the automotive market and its main rivals. Boasting expertise in buoyant markets, autonomous cars and connected vehicles, and with strong presence in the Asian and US markets, Valeo aims to outperform the automotive market again (+5pp) over the next four years, while improving its EBIT margin by 130bp. Although we appreciate the group's positioning and strategy, we are initiating coverage of Valeo with a Neutral recommendation and FV of EUR49, primarily for valuation reasons.

- **Conquering Asia:** With more than **27%** of sales derived from Asia and **14%** from China, Valeo is the French car parts maker the most exposed to the leading global auto market. Although very cyclical and volatile like other markets in emerging countries, we estimate growth at more than **3%/year** in the region, driven by China primarily. Valeo should benefit from the increase in its equipment rate per inhabitant as well as premiumisation in the market.
- **Conquering connected and autonomous vehicles:** The group's recent acquisition of **Peiker** as well its partnerships with **Safran** and **Mobileye** make Valeo a key parts supplier for carmakers in the race for autonomous vehicles. This high-potential market could structurally modify the sector to the benefit of car parts suppliers.
- **Ambitious but realistic 2020 targets**: For **2020**, Valeo is aiming to continue outperforming the global automotive market thanks especially to its very technological and innovative product portfolio. Although **feasible,** we consider these targets **ambitious** since they are based on a doubling in the group's average outperformance relative to the market since 2007 and on a CAGR in auto production of **3%,** thereby implying an acceleration relative to 2015 and 2016, which we see as quite aggressive. Any downgrade to sector forecasts by any player would have a negative impact on the Valeo share price. This risk combined with a fairly unattractive valuation makes us cautious on the share. **We are initiating coverage with a Neutral recommendation and a FV of EUR49.**

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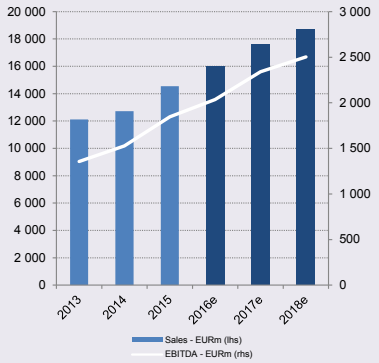
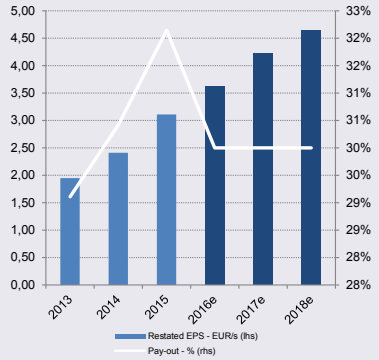




Company description

As an automotive supplier Valeo supplies original equipment spares to automakers and replacement parts to the independent aftermarket. It is engaged in products and systems that contribute to carbon dioxide (CO2) emissions reduction, as well as to the development of intuitive driving. It develops interior and exterior lighting systems. Its operating segments include Comfort & Driving Assistance Systems, Powertrain Systems, Thermal Systems and Visibility Systems. The Comfort & Driving Assistance Systems segment includes driving assistance, interior electronics and interior controls. The Powertrain Systems segment includes electrical systems, transmission systems, combustion engine systems and electronics. The Thermal Systems segment develops and manufactures systems, modules and components. The Visibility Systems segment designs and produces systems to support the driver and passengers. The group has a strong presence in Asia (27% of OE sales) and in North America (22% of OE sales).

Simplified Profit & Loss Account (EURm)	**2013**	**2014**	**2015**	**2016e**	**2017e**	**2018e**
Revenues	12,110	12,725	14,544	15,996	17,602	18,716
Change (%)	*3.0%*	*5.1%*	*14.3%*	*10.0%*	*10.0%*	*6.3%*
Adjusted EBITDA	1,356	1,526	1,847	2,036	2,341	2,504
EBIT	795	862	1,060	1,225	1,402	1,520
Change (%)	*9.7%*	*8.4%*	*23.0%*	*15.5%*	*14.5%*	*8.4%*
Financial results	(147)	(137)	(119)	(111)	(106)	(103)
Pre-Tax profits	588	722	880	1,126	1,308	1,431
Exceptional	(67.0)	(54.0)	(117)	(48.0)	(52.8)	(56.1)
Tax	(119)	(129)	(106)	(225)	(262)	(286)
Profits from associates	7.0	51.0	56.0	60.4	65.0	69.9
Minority interests	(30.0)	(31.0)	(45.0)	(47.3)	(49.6)	(52.1)
Net profit	439	562	729	853	997	1,092
Restated net profit	439	562	729	853	997	1,092
Change (%)	*15.5%*	*28.0%*	*29.7%*	*17.0%*	*16.8%*	*9.6%*
Cash Flow Statement (EURm)						
Operating cash flows	1,236	1,242	1,659	1,660	1,845	2,046
Change in working capital	232	40.0	111	71.4	9.6	63.9
Capex, net	(914)	(958)	(1,119)	(1,184)	(1,303)	(1,385)
Financial investments, net	(5.0)	(104)	(8.0)	(1,429)	0.0	0.0
Dividends	(129)	(144)	(201)	(234)	(256)	(299)
Other	(164)	(25.0)	26.0	23.6	24.8	26.0
Net debt	366	342	124	1,288	977	589
Free Cash flow	322	284	540	476	542	661
Balance Sheet (EURm)						
Tangible fixed assets	2,181	2,497	2,744	4,321	4,435	4,583
Intangibles assets	850	1,012	2,141	2,411	2,657	2,901
Cash & equivalents	1,510	1,497	1,725	561	872	1,260
current assets	4,342	4,551	5,324	4,473	5,262	5,925
Other assets	159	462	(494)	658	406	66.8
Total assets	9,042	10,019	11,440	12,424	13,633	14,736
L & ST Debt	1,876	1,839	1,745	1,745	1,745	1,745
Others liabilities	4,633	5,231	6,003	6,405	6,914	7,267
Shareholders' funds	2,380	2,740	3,473	4,031	4,707	5,431
Total Liabilities	9,042	10,019	11,440	12,424	13,633	14,736
Capital employed	3,872	3,872	4,313	4,717	6,549	7,039
Ratios						
Operating margin	6.56	6.77	7.29	7.65	7.96	8.12
Tax rate	20.24	17.87	12.05	20.00	20.00	20.00
Net margin	3.63	4.42	5.01	5.33	5.66	5.84
ROE (after tax)	18.45	20.51	20.99	21.16	21.17	20.12
ROCE (after tax)	20.71	21.17	23.66	19.62	20.84	21.28
Gearing	14.45	11.60	0.54	27.70	17.54	8.47
Pay-out ratio	29.11	30.42	32.14	30.00	30.00	30.00
Number of shares, diluted	75.22	77.75	78.16	239	239	239
Data per Share (EUR)						
EPS	1.95	2.41	3.11	3.62	4.23	4.64
Restated EPS	1.95	2.41	3.11	3.62	4.23	4.64
% change	*15.6%*	*23.8%*	*29.0%*	*16.4%*	*16.8%*	*9.6%*
EPS bef. GDW	1.95	2.41	3.11	3.62	4.23	4.64
BVPS	10.55	11.75	14.81	16.89	19.73	22.76
Operating cash flows	16.43	15.97	21.23	6.96	7.73	8.57
FCF	1.43	1.22	2.30	1.99	2.27	2.77
Net dividend	0.57	0.73	1.00	1.09	1.27	1.39

Source: Valeo; Bryan, Garnier & Co ests.

Table of contents

1. Investment Case

Why the interest now?

The reason for writing now

We are initiating coverage of French car components maker **Valeo** as part of the publication of our automotive sector report. Boasting recognised expertise in the auto industry in the driver visibility and assistance segments, since 2007, the group has **outperformed car production, the SXAP auto index and its main rivals.** Thanks to its very technological products, we estimate that this outperformance could last over coming years.

Cheap or Expensive?

Valuation

As for **Faurecia**, **Plastic Omnium** and **Hella,** we value **Valeo** using two methods: historical **EV/sales, EV/EBIT** and **P/E multiples** and a **DCF valuation**. Sharp growth in the share price since 2008 on the back of the sector recovery since the crisis and **the share's rerating limit further upside potential for the share.** We are initiating coverage of the stock with a **Neutral recommendation** and a **FV of EUR49 per share.**

When will I start making money?

Catalysts

We consider the various announcements by carmakers on the development of **electric and autonomous vehicles** as positive. We see no specific catalysts for Valeo, at least in the short term. **The Paris car show (end of September) could potentially provide positive newsflow in the sector.**

What's the value added?

Difference from consensus

We are currently in line with the consensus in terms of the group's 2016-18 sales, but are respectively **4.1%** and **2.6%** higher for EBITDA expectations. So far, we see little potential for an upgrade to consensus figures given the risks of a slowdown in the global automotive market.

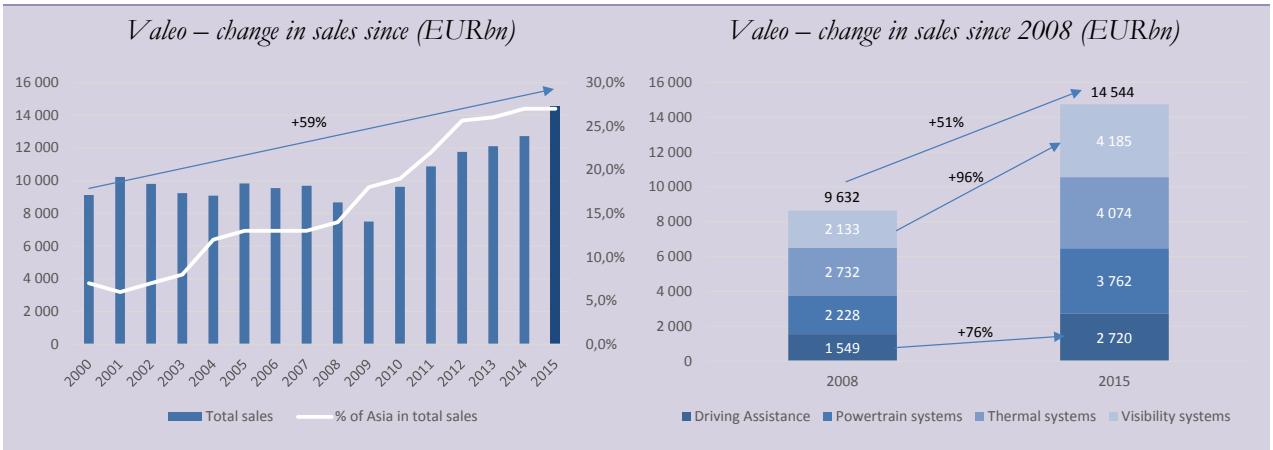
Could I lose money?

Risks to our investment case

The auto sector cycle is on the verge of a slowdown in both mature markets and emerging markets and this slowdown could be worse than expected, especially due to **Brexit** and **international tension**. Like all car components manufacturers, **Valeo** could suffer from a **rapid slowdown in auto production** and **stock rundown moves**.

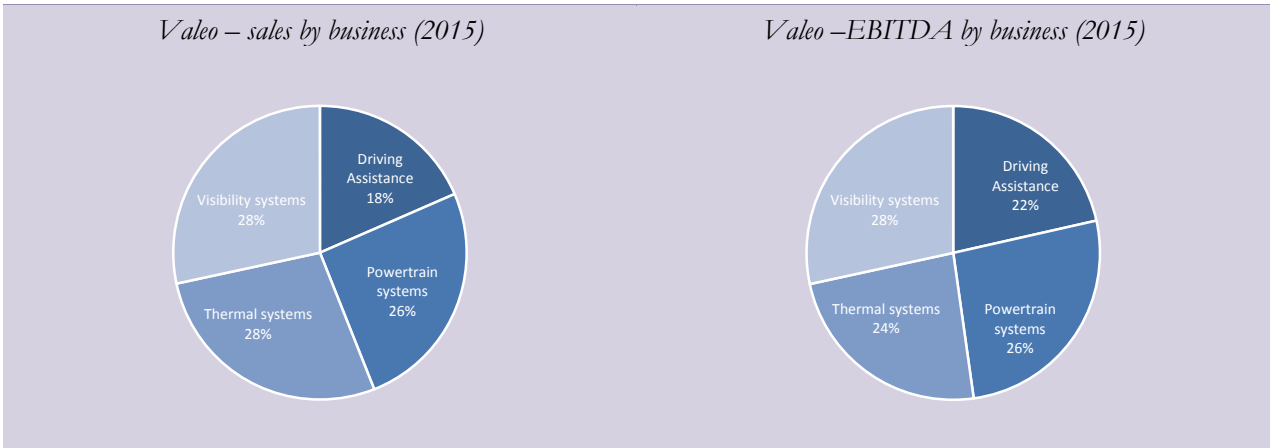
2. Valeo in six charts

Fig. 1: Growth primarily driven by Asia and the driving assistance and visibility segments



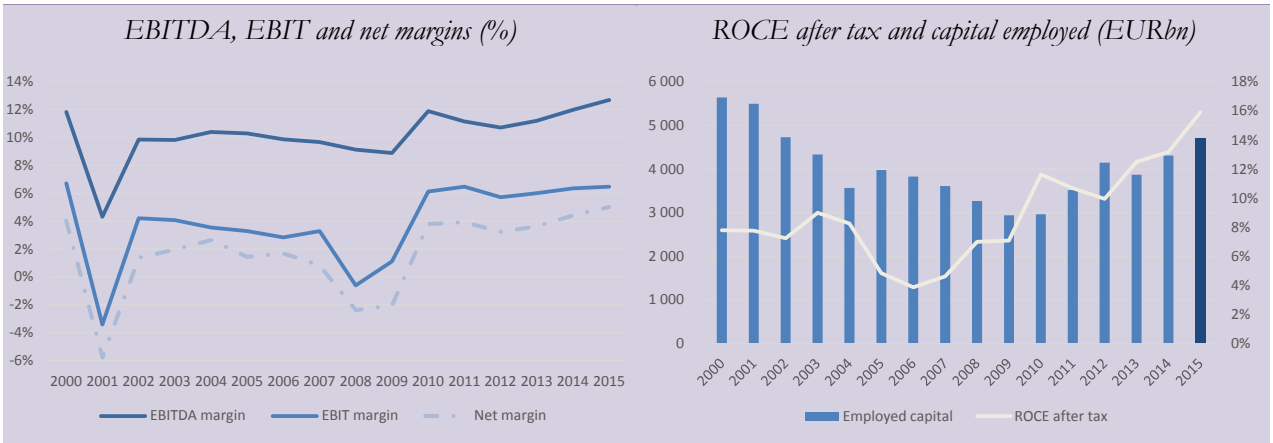
Source: Valeo; Bryan, Garnier & Co ests.

Fig. 2: A fairly well-balanced product portfolio



Source: Valeo; Bryan, Garnier & Co ests.

Fig. 3: Ratios at peak levels



Source: Valeo; Bryan, Garnier & Co ests.

3. The French Tech

Boasting expertise in buoyant markets, **autonomous** and **connected vehicles**, and with strong presence in **the Asian** and **US markets,** Valeo has outperformed the SXAP index, the automotive market and its main rivals since 2007.

Whereas automotive production has only risen by **26%** since 2007, Valeo's sales have leapt **50%** *(+43% excluding scope effects*), while **EBIT has multiplied by 2.9x** (*2.75x excluding scope effects*) **and net profit by 8.6x**. The group's strategy to focus on four high value-added businesses (*powertrain systems, thermal systems, driving comfort and assistance systems, visibility systems*), combined with its rising exposure to Asian and German carmakers since 2007, has enabled it to grow far faster than the sector but also to increase its profitability. **In early 2017, the group is likely to report record 2016 earnings in both value and profitability terms.**

Between **2016** and **2020,** the group is set to outperform the global automotive market, thanks primarily to its very technological and innovative product portfolio. The recent acquisition of **Peiker** combined with its partnerships with **Safran** and **Mobileye** make Valeo a key parts supplier for carmakers, in the race towards autonomous vehicles, which is set to become a high potential market in coming years. As such, we estimate that the various partnerships combined with significant R&D investments should be at the root of higher sales growth for Valeo relative to the automotive market.

However, albeit **feasible**, we consider these targets **ambitious** since they are based on a doubling in the group's average outperformance relative to the market since 2007 and on a CAGR in automotive production of **3%,** implying an acceleration relative to 2015 and 2016, which we see as quite aggressive. Any downward adjustment to sector forecasts by any player whatsoever would have a negative impact on the Valeo share price. This risk combined with a not particularly attractive valuation prompts us to remain cautious on the share.

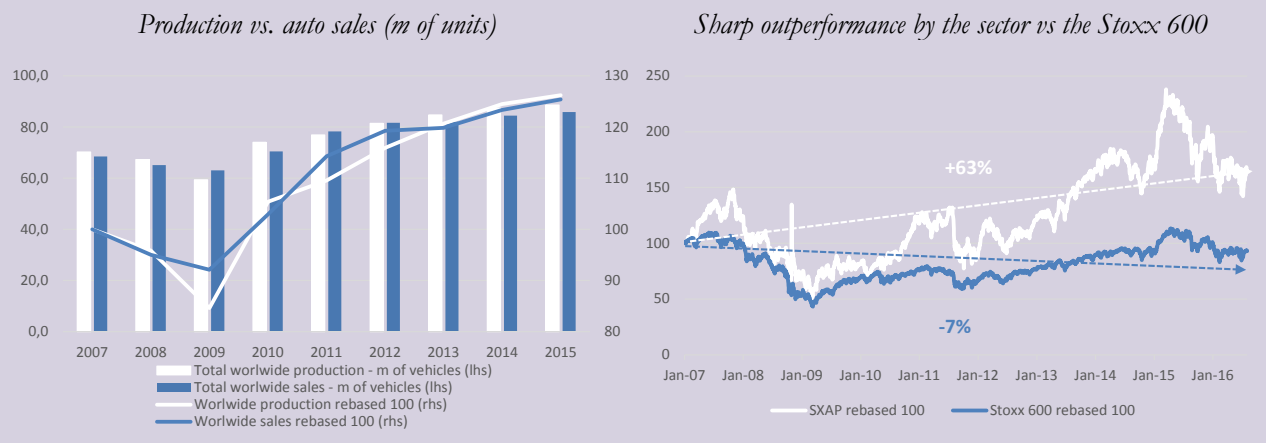
As such, although we welcome the group's strategic positioning, we have a Neutral recommendation on Valeo and a FV of EUR49, primarily for valuation reasons.

4. A solid track-record since 2007

4.1. Sector far stronger than before the crisis

Since 2009, like the majority of auto parts suppliers, Valeo has emerged far stronger from the financial crisis that affected the automotive sector and many other consumer goods sectors considered as discretionary. After plummeting **12%** on average (production and sales) between 2007 and 2009, global sales are now **more than 25% higher** than their low-point of 2009 thanks in particular to a recovery in mature markets, but especially thanks to an acceleration in demand from emerging markets. The **SXAP** index **covering the 16 largest auto stocks in Europe** is currently **over 60% higher** than its level of January 2007 whereas the **Stoxx 600** index is currently still **7%** below, thereby clearly reflecting the healthy state of the sector over the period.

Fig. 4: A stronger sector than in 2007



Source: Datastream; Bryan, Garnier & Co ests.

Car parts suppliers underperform the sector the majority of the time when growth in auto production becomes negative

Primarily driven by robust momentum in emerging markets, which are benefiting in full from the rising middle classes, the auto market and all its players are currently in **better health than they were before 2007**, despite the plunge in the market in 2008 and 2009. As indicated in our sector report, it is important to note that car parts suppliers in general have performed better than carmakers or tyre makers, primarily in view of higher R&D spending on their part as reflected in the value-added of their products and hence in their margins, but also thanks to lower **country** and **product** risk.

Note also the outperformance by car parts suppliers relative to the market when the market is growing, but an underperformance when growth in production becomes negative *(the main reason being stock rundown effects)*.

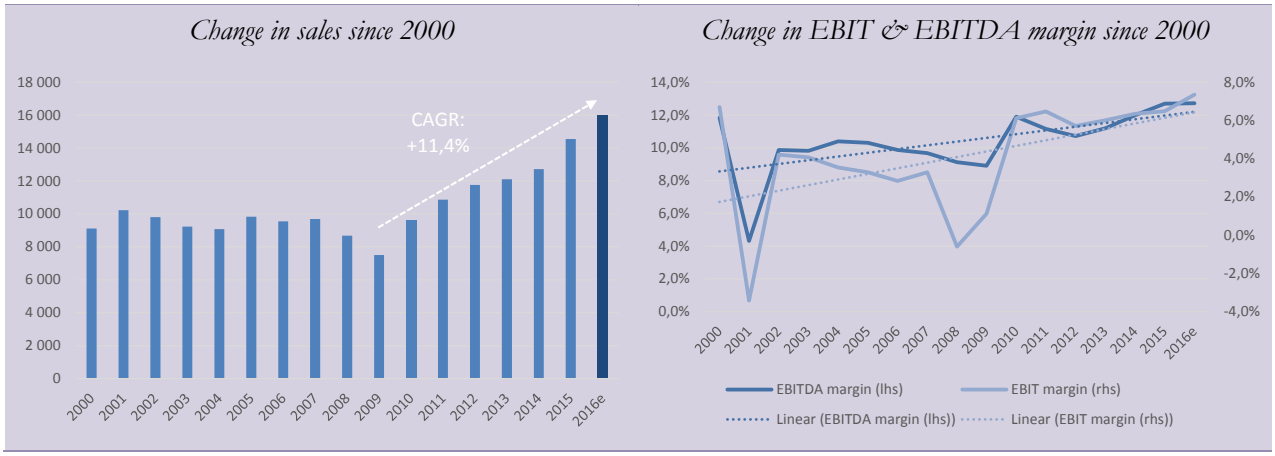
4.2. Valeo, stronger than the sector

Among the panel of outperformers, since 2007 Valeo has stood out from the majority of its rivals by publishing better sales and earnings performances and this has been reflected in its share price. Its presence in niche markets and above all in high value-added markets has enabled Valeo to stand out more easily from the competition while enabling it to outstrip growth in margins.

Since 2007, Valeo's sales have increased 43% whereas automotive production has only risen by 26%

Whereas auto production has only gained **26%** since 2007 (*88.6m vehicles produced in 2015 vs. 65.5m products in 2007*), sales at Valeo have rocketed **50%** *(+43% excluding scope effects)* whereas **EBIT has multiplied by 2.9x** (*2.75x excluding scope effects*) and **net profit by 8.6x**. The group's strategy to focus on four high value-added businesses (*powertrain systems, thermal systems, driving comfort and assistance systems and visibility systems*), combined with its rising exposure to Asian and German carmakers since 2007, has enabled it to grow far faster than the sector but also to increase its profitability. **In early 2017, the group is likely to report record 2016 earnings, in both value and profitability terms.**

Fig. 5: Valeo, close to its record high margin rate



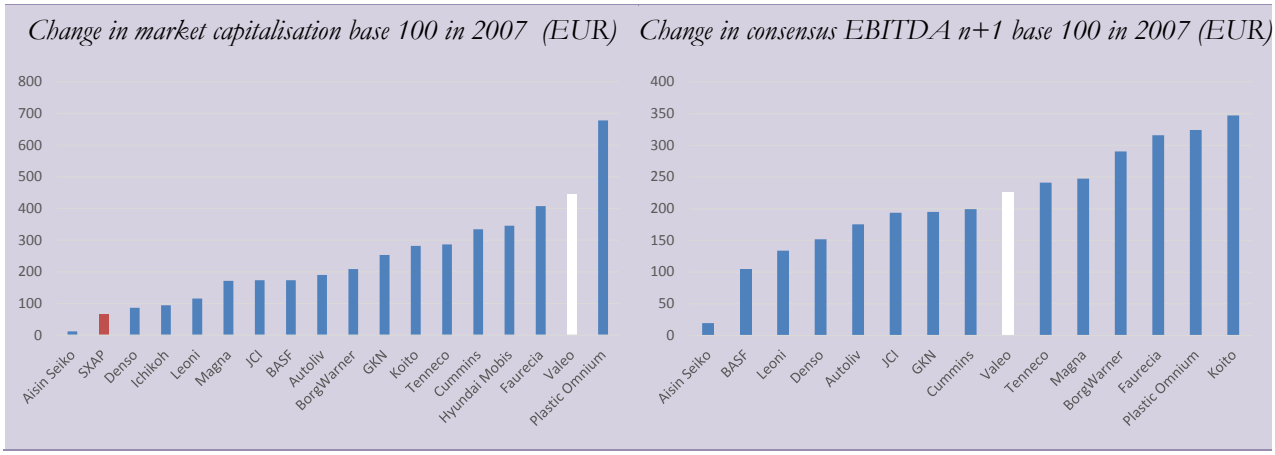
Source: Valeo; Bryan, Garnier & Co ests.

4.3. A performance welcomed by the markets!

Since 1st January 2007, Valeo's market capitalisation has been multiplied by **4.45x** positioning the group in the number two spot behind **Plastic Omnium** in the ranking of the best stockmarket performances of the main global car components makers over 2007-16. It is also interesting to note that the **consensus EBITDA N+1 forecasts for Valeo** over the same period have only multiplied by **2.25x**, positioning the group **not in the no. 2 spot** but in the **no.7 position** in the ranking of the widest EBITDA changes over the period.

The share has therefore benefited more than others from a rerating effect, thereby primarily explaining its excellent stockmarket performance relative to the sector and its main rivals.

Fig. 6: Valeo has benefited from a rerating effect since 2007



Source: Datastream; Bryan, Garnier & Co ests.

At the current share price of **EUR49.7 per share**, the Valeo share is just **4.4%** below its peak level reached at the end of May 2015.

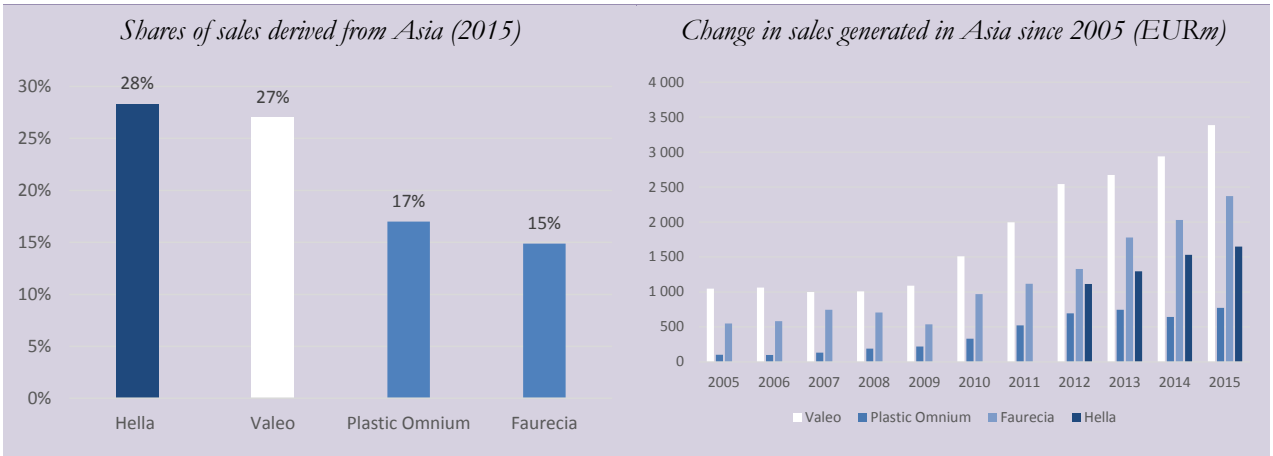
In our view, this impressive stockmarket performance leaves little room for unwelcome surprises, whereas any good news is unlikely to be that well appreciated with the market.

5. Conquering Asia

Valeo's presence in Asia was built up more rapidly than that of the two other French car parts suppliers **Faurecia** and **Plastic Omnium,** and also **Hella**, thanks in particular to the roll-out of an efficient sales strategy as of the 1990s *(deployment in China in 1994, India in 1997 and Japan in 2000*), and also thanks to strategic acquisitions in order to access new clients in the region (*acquisition of* ***Niles*** *in 2011, a Japanese company present in the interior controls sector, enabling Valeo to become the global leader in this market*). As such, **Valeo is now ahead of rivals in this high-potential market.**

Whereas the region only accounted for **7%** of the group's sales in 2000, it currently represents **more than 27%**, with the increase having been achieved to the detriment of mature countries and more precisely Europe and the US, which in 2015 only accounted for **49%** and **22%** of the group's sales vs. **61%** and **29%** in 2000. Thanks to this new strategy implemented as of 2009 with the nomination of **Pascal Colombani** and **Jacques Aschenbroich** respectively as Chairman and CEO, and a strategic plan to reorganise the group into four businesses (*see section 11 page 35*), Valeo has outperformed the majority of its rivals in the region and has a fairly wide range of clients enabling it to smooth out **client risk**, and also **product risk** more easily.

Fig. 7: Valeo is the most exposed French actor to the Asian market vs. Plastic Omnium and Faurecia



Source: Company Data; Bryan, Garnier & Co ests.

The group currently has **51 production sites** in Asia (*38% in all*), **15 R&D centres** (*29% in all*) and headcount present in the region representing **31%** of the group's headcount with **25,574 employees**. The region is therefore clearly a priority focus for the group and should continue to generate a significant portion of its future growth, in view of the order book at end-2015.

With Asia currently accounting for around **40%** of new sales and more than **50%** of global auto production, it is indeed vital for all players in the sector to be present locally in the region, and more specifically in China, which alone accounts for **28%** of sales and **26%** of production.

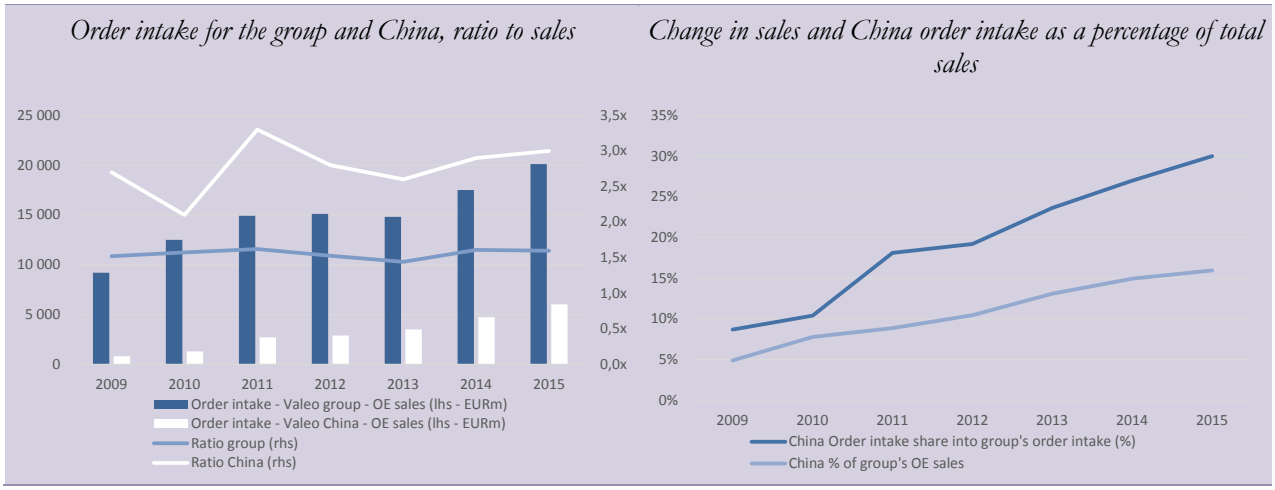
5.1. Tomorrow's growth to stem from China

At 14% of Valeo's sales today, China is now the group's largest country

As indicated previously, China is the largest market in the auto sector **in terms of both vehicle sales and production**. Although very different from mature markets (*lower average age of buyers, lower share of financing in purchases, weak market share of local carmakers*), the market remains very buoyant and should continue to expand massively in coming years, with the main catalyst set to stem from the equipment rate, which should approach levels in Europe, Japan and the US, driven by the increase in size and wealth of the middle classes.

Currently accounting for **14%** of Valeo's sales, China is now the group's largest country, ahead of the US, and by 2020 should represent more than **20%** of the group's sales. With more than **15,000 employees** present in the country, spread over **26 production sites**, **10 development centres and three R&D centres,** the group is preparing tomorrow's growth and the country accounts for **27%** of its order intake. The **order book/sales** ratio for China stood at more than **3x** at end-2015, higher than in 2013 and 2014 with a **27%** increase in 2015 relative to 2014. Note interestingly that this ratio is almost twice as high as the group's ratio on a global level (*1.6x*), thereby strengthening the idea that this market is extremely important for Valeo's future growth.

Fig. 8: China, the driver behind Valeo's future growth



Source: Valeo; Bryan, Garnier & Co ests.

Primarily exposed to foreign carmakers in China and less to local carmakers, (*local brands represent less than 20% of Valeo's sales in China whereas they account for 40% of the Chinese market*), Valeo should continue to extend its exposure with these groups in coming years. Concentration moves likely in coming years in the market, combined with the rising momentum of local carmakers in the **SUV** (*Sport Utility Vehicle)* and **MPV** (*Multi-Purpose Vehicle*) segments that are set to expand rapidly in coming years, should be beneficial to them.

Thanks to its strong presence with Asian carmakers (*26% of sales, with Nissan*), but also via its presence with US and European carmakers in the region, we estimate that the group should continue to outperform its rivals and the market in coming years.

6. Conquering autonomous and connected vehicles

6.1. The race for the driverless car

The automotive industry is in the throes of change, like many other sectors, following the widespread roll-out of connected devices and embedded communication technologies (*In Vehicle Infotainment or IVI*). Carmakers work directly with traditional parts makers but also with new entrants in the technology sector on the development of the connected vehicle (*navigation, multimedia, telephony, service...*) and the autonomous car. Players foreign to the auto sector such as **Google** and **Apple**, are also developing automatic pilot systems internally, using their technological expertise to get ahead of historical carmakers.

This transformation is increasing the amount of equipment necessary in a vehicle and is likely to have a **positive impact on car parts makers such as Valeo** without necessarily having such a positive impact for carmakers.

For several years, the main car and car components manufacturers have been in a race for connectivity by developing systems that enable a vehicle to connect to other connected objects and/or the cloud either internally or via partnerships with technological groups specialised in connectivity. Once these systems are connected to another system managing cameras, sensors and other lasers a vehicle can become entirely autonomous.

Very present in this high-potential segment notably via its partnership with **Safran**, **Valeo** belongs to a closed circle of very large technological components makers that develop expertise in connectivity or driving assistance systems, either internally or externally via very targeted acquisitions.

Fig. 9: Main players in the autonomous vehicles market

	Name of prototype/system
Apple	Projet Titan
Delphi	Audi SQ5
Google	Google Car
Mercedes	F015
PSA	Citroën C4 Picasso
Renault	Next Two (Visteon)
Tesla	Model S
Valeo/Safran	**Drive4U**

Source: Company Data; Bryan, Garnier & Co ests.

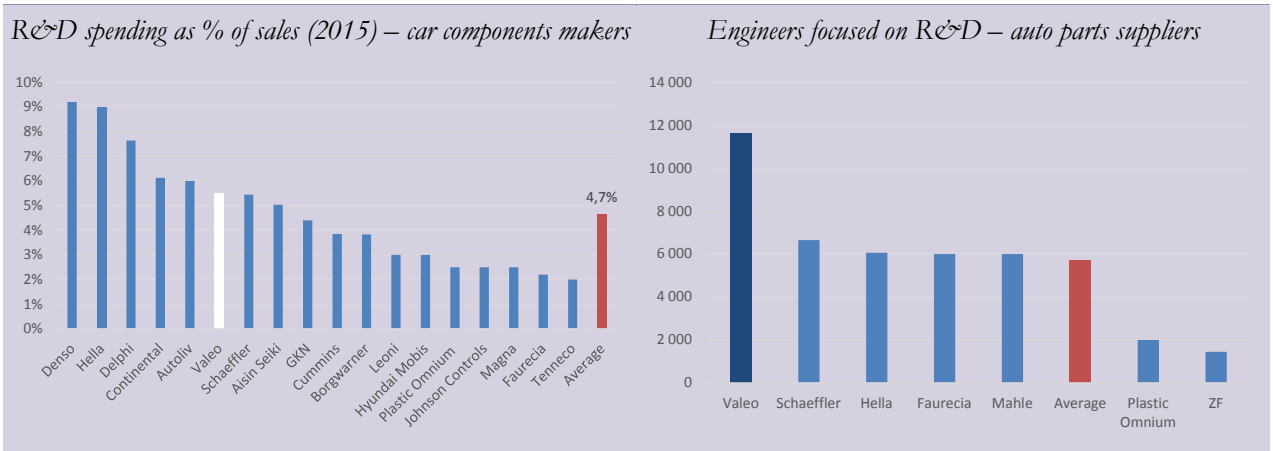
6.2. Valeo, deep into innovation

6.2.1. Resembling a start-up

Behind Valeo's **EUR14.5bn** in sales reflecting its status as a major group and generated by almost **83,000** employees, lies the resemblance of a start-up company notably via a **culture of innovation** and a degree of **proximity with start-ups**. Although the auto sector remains focused on innovation with hefty R&D spending, especially for car parts suppliers who spend an average of **4.7%** of sales (*vs. 5.5% for Valeo*), Valeo stands out for the number of patents its files each year.

With more than **11,600** engineers dedicated to R&D (*more than double the European average for similar-sized players*) and **1,400** patents filed in 2015, the group clearly stands out as one of the **most dynamic car parts makers in terms of innovation**, bettered only by European giants such as **Continental, Bosch** and Japanese group **Denso** whose activities are also far wider. This dynamic presence in research led Valeo to rank among the Top 100 Global Innovators listing undertaken by Thomson Reuters in 2012, 2013 and 2015. Note that the group was **the only European parts maker to rank in this Top 100.**

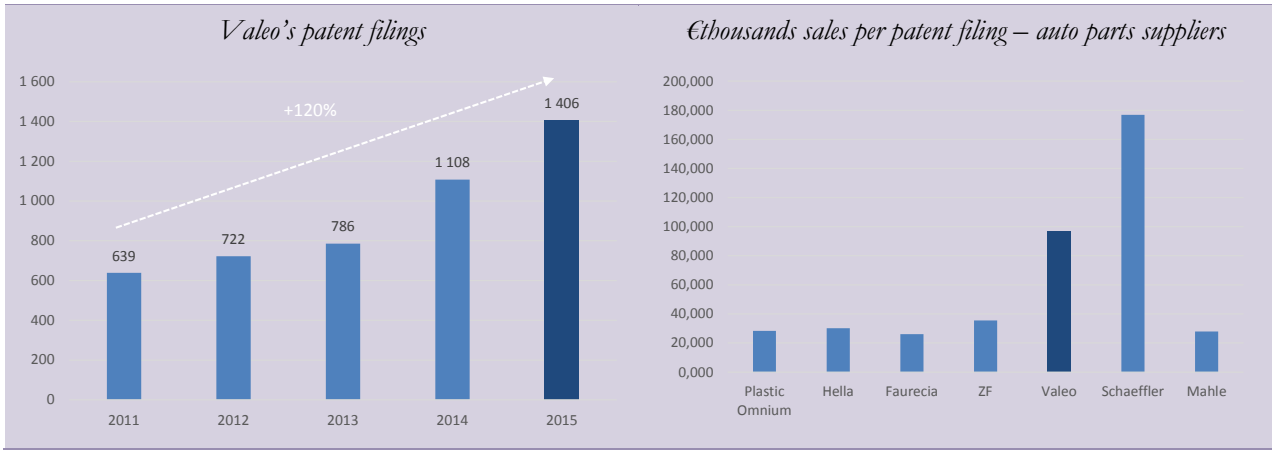
Fig. 10: Valeo, one of the European parts suppliers the most focused on innovation



Source: Datastream; Bryan, Garnier & Co ests.

With a number of **patent filings that has more than doubled** within the space of just four years (*1,406 in 2015 vs 639 in 2011*), Valeo tends to protect its innovations more strictly. This approach makes sense in an industry in which **innovation enables car component makers to protect themselves against price pressure** from carmakers but ensuring that carmakers remain captive in an environment where only innovation can help meet regulatory targets. As such, Valeo ranks among the car parts suppliers (*according to a panel of players communicating sufficient information to be able to list them)* with more than **1,400** patents filed in 2015 and a portfolio of more than **37,000** patents. In 2015, Valeo filed almost **100 brevets per EUR1bn in sales,** a threshold well above the majority of other components makers in the panel which generally do not exceed more than **40 patents per EUR1bn** in sales.

Fig. 11: Valeo or protection of IP at all costs

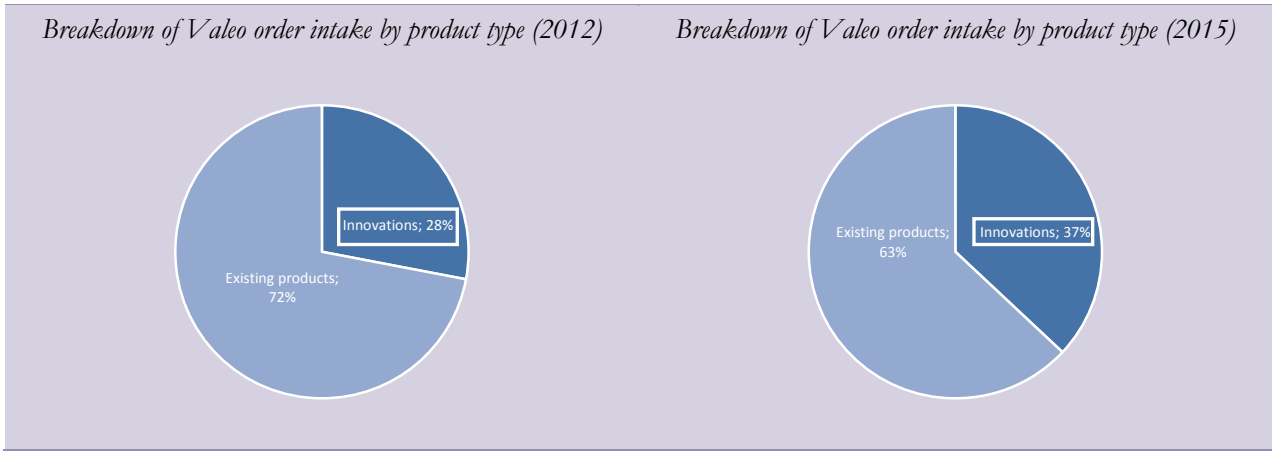


Source: Valeo; Bryan, Garnier & Co ests.

Innovation has a positive price impact on the group's sales and on its pricing power

Allocating resources to research and industrialising innovation is one thing, but **monetising** it with clients in another, especially since this is vital for Valeo and its aim to outstrip market growth. In reality, history has shown that more than a quarter of new orders at Valeo concern innovations i.e. recently developed products. This share has even tended to strengthen, rising from **28%** in 2012 to **37%** in 2015, following the uptrend in the number of patents filed by the group, in a sign that **spending on research is capable of triggering a renewal in the product portfolio and meets genuine customer needs**. Note importantly that these innovations also have a positive price impact on the group's sales and hence on its pricing power.

Fig. 12: Breakdown of Valeo order intake by product category



Source: Valeo; Bryan, Garnier & Co ests.

In addition to direct R&D spending, Valeo has also multiplied its **actions in the start-up universe** (*private equity, innovation promotion, incubation programmes, and search for partnerships*). In August 2015 for example, the group invested **EUR22m** in **Cathay Capital** (*a Sino-French innovation fund*) in the form of a partnership attributing it a more pre-eminent role than simple investor in an investment fund, and therefore providing access to the companies targeted by the fund. With an investment spectrum ranging from the **US to Europe and China**, Valeo has therefore acquired targeted access to the most innovative companies and those requiring the most funds, the implied aim being to forge partnerships over the medium and long terms.

Similarly, the group has opened an office in **Palo Alto** in **California**, located in the famous technological hotspot **Sillicon Valley** in order to remain as close as possible to other more technological players such as internet giants and other expanding start-ups. In reality, this office supervises the innovations that companies in the consumer electronics sector can provide to the auto sector.

In Europe, Valeo recently invited no less than **40 start-ups** to its stand at the Viva Technology exhibition in order to promote their latest innovations in terms of autonomous driving and reducing polluting emissions with visitors at the famous international technological exhibition. This action also follows the launch of a virtual **incubation programme** launched by Valeo earlier this year, dedicated to the search for technological start-ups with which the group could eventually collaborate in its connected and autonomous vehicle projects.

This less capital intensive way of gaining faster access to technology is clearly beneficial for Valeo as well as for the start-up companies, which benefit from the group's infrastructure and network to industrialise ultra-specific know-how on a wide scale. **This should help Valeo outperform global auto production more easily.**

6.2.2. Highly technological partnerships

In addition to internal R&D efforts, Valeo intends to remain focused on **developing connected and autonomous vehicles via a partnership and participation approach to R&D.** In this respect, the group has multiplied the number of strategic ties with technological players but also public and collaborative agreements, in particular through **institutional collaborative organisation partnerships** (*with the European Road Transport Research Advisory Council responsible for creating the roadmap for the development of autonomous vehicles in Europe*), **competitions departments** (*SystemX institute for technological research, Institute for energy transition*) or via **academic partnerships** (*thesis framework and financing, multi-partite collaborative projects etc.).*

Nevertheless, **private agreements remain the most value creative and one of the pillars of the group's technological innovation strategy since 2001,** with the first partnerships developed in driving assistance. The driving assistance theme and more widely, autonomous vehicles, has since remained the focus of the group's investments.

With a view to strengthening its expertise in driving assistance, Valeo has created two partnerships, one with **Fujitsu Ten** (*a Japanese parts supplied*) and one with **LeddarTech** *(detection and telemetrics solutions*) in embedded active safety systems and more specifically, **obstacle detection** via millimetric wave radars and infrared sensors. These procedures help the vehicle rapidly detect the presence of obstacles on the road as well as other vehicles irrespective of weather conditions. The technology also includes an automatic braking system in the event of an imminent collision.

Since active safety is only an intermediary tool to making a vehicle autonomous, Valeo has also entered partnerships that concern **autonomous vehicles** directly. This is notably the case of **Safran** (*development of applications specific to aerospace, defence and safety*) and **Mobileye** (*Israeli car components maker*) in order to develop products concerning driving vigilance monitoring, 360° vision, vision in extreme weather conditions and vehicle robotisation. In early 2015, the partnership with Safran enabled Valeo to present a functional **prototype of a highly automated vehicle named** "Drive4U", equipped with sensors such as cameras, radars, ultra-sounds and a laser scanner. These sensors generate real-time data that detect and characterise the driving environment. At the same time, the combination of Valeo's skills (*embedded cameras*) and those of Mobileye (*microchips, digital visions algorithms and laser scanner*) has led to the creation of an **autonomous vehicle prototype** presented at the end of 2015: **Cruise4U** (*standard VW Golf SW equipped with a Scala laser scanner from Valeo*).

In extension of this partnership, Valeo recently undertook a **21,000km** trip through the US with its Cruise4U prototype, representing the longest distance travelled by a partially automated vehicle ever seen in North America, in order to prove the feasibility of its innovation.

To a lesser extent, the **connected vehicle** theme was also the object of a partnership between Valeo and **Cap Gemini** with the creation of an access and start-up system enabling the driver to use a smartphone to lock, unlock and start their car. The InBlue **virtual key** is currently only in an experiment phase for company car fleets and short-term car rentals since early 2016.

Valeo nevertheless seems to have extended the range of skills targeted by its partnership strategy by announcing the creation of a **joint venture with Siemens** in April 2016 in the **electric vehicle components segment.** The creation of a new jointly-owned company should be **operational by the end of 2016**, and made up of **700** staff (*200 Valeo staff set to join the 500 Siemens engineers already working on the subject).* The aim is to offer a comprehensive range of components and systems of 60 volts and

over to equip **hybrid, hybrid rechargeable and 100% electric vehicles**: electric engines, embedded chargers, inverters and DC/DC convertors. Valeo is to provide its expertise in high-voltage power electronic activities whereas Siemens is to contribute to the partnership via its powertrain systems division for electric vehicles. The joint-venture, for which management expects sales to reach **"several millions of euros by 2020"** is therefore set to face competition from **Denso, Continental** and **Bosch** in a market that should grow by around **20% a year** out to 2020. This partnership is an opportunity for Valeo to develop its expertise in electric engines, which have been the missing element in order to offer a comprehensive range in electric traction.

Today, joining forces with technological experts helps **share R&D investments,** was well as create **synergy effects associated with the flagship skills of each party.** These advantages cannot be rejected in the **race for the self-driving car** in which the lion's share of car and car components players are running.

Fig. 13: Examples of technological partnerships

Date	Partner	Autonomous car	Connected car	Electric car	Related project/product
Mar-13	**Safran**	**x**			**Drive4U**
Nov-13	Fujitsu Ten	x			
Feb-14	LeddarTech	x			
Mar-15	**Mobileye**	**x**			**Cruise4U**
Nov-15	Cap Gemini		x		InBlue
End 2016	Siemens			x	

Source: Valeo; Bryan, Garnier & Co ests.

6.3. Highly strategic recent acquisitions

Following the last acquisition in 2011 of Japanese group **Niles** (switching systems), recent announcements in December 2015 and early 2016 confirmed a **genuine turnaround in the pace of acquisitions** made by Valeo. As announced by management, the group now wants to take part in the consolidation underway in the car components sector, by focusing primarily on **leading players positioned in niche, buoyant and very technological markets**. The aim is to extend the group's range of skills in future segments, and not limit itself to the connected and autonomous vehicle, by integrating companies that are enjoying higher growth rates than those of Valeo.

Since end-2015, Valeo has invested EUR1.4bn in M&A to acquired three German specialists

At the end of 2015, Valeo announced the acquisition of **Peiker**, a German supplier of **embedded telematics and mobile connectivity solutions**, for an estimated amount of **EUR300m** *(5.1x EBITDA and 7.7x EBIT*), as well as the acquisition of **Spheros**, a global leader in **air conditioning systems for buses** for an estimated amount of **EUR314m** (*8.4x EBITDA and 12.6x EBIT*). Then in June 2016, Valeo announced it was taking control of **FTE**, a German company specialised in car clutch and transmission systems for an amount of **EUR819m** (*10.8x EBITDA and 21.6x EBIT*).

Note that the acquisitions of **Peiker** and **Spheros** have already been approved by the competitions authorities and only **FTE** is still waiting for a green light from the European and Brazilian competitions watchdog.

Fig. 14: Earnings-enhancing acquisitions as of 2016

Integration	Target	Activities	Employees	2015 sales (EURm)	EV	EBITDA margin	2015 EV/EBITDA	2015 EV/EBIT
Q2 2016	Peiker	Connectivity (telematics)	1 000	325	296	15.0%	10.8x	21.6x
Q2 2016	Spheros	Thermal systems (buses)	1 100	250	314	15.0%	8.4x	12.6x
Q1 2017	FTE Automotive	Clutch and transmission systems (cars)	3 700	505	819	20.0%	8.2x	11.7x
Average						**16.0%**	**8.1x**	**14.0x**
Valeo - 2015						12.7%	6.5x	11.2x

Source: Valeo; Bryan, Garnier & Co ests.

6.3.1. Peiker

After signing a technological partnership agreement in February 2015 with German parts maker **Peiker** *(embedded telematics and connectivity)*, in December 2015 Valeo announced it was acquiring the company in order to extend its range of products in **geolocalisation and connectivity of vehicles to mobile networks and cyber security.** Valeo's know-how in terms of embedded electronics, combined with Peiker's technological expertise should help the group offer carmakers new telematic systems equipped with high-speed connectivity functions. This potential range includes products enabling **vehicle to vehicle** (*V2V*) and **vehicle to infrastructure** (*V2I*) communication, compatible with future LTE Advanced mobile internet services (*4G+*).

Via this operation, Valeo is set to **rank world no. 2 in the segment** behind Korean components supplier LG, while inheriting Peiker's customer portfolio primarily focused on **upscale German carmakers.** The integration of Peiker's teams also includes a team of more than **150** engineers based in Germany, rounding out Valeo's R&D clout. As a reminder, the generalisation of in-car connectivity should underpin the telematics market by around **30% a year** (*BergInsight, Mordor Intelligence*).

Fig. 15: Peiker, active in automotive connectivity

Cell system - Peiker

Connection module - Peiker

Source: Motorlegend; Bryan, Garnier & Co ests.

6.3.2. Spheros

In December 2015, two days after the announcement of the Peiker acquisition, Valeo also unveiled the takeover of parts supplier **Spheros** (*leader in bus air-conditioning systems*) from private equity fund Deutsche Beteiligungs. Valeo intends to extend its skills in **thermal systems for buses** (*the market for which is expected to grow by at least 5% a year over coming years*), driven by the development of public

transport systems and an accelerated urbanisation process, while **transposing its skills to other lighter vehicle types** such as individual cars and light utility vehicles.

Synergies prompted by the operation concern both industrial processes and geographical location. Spheros buys a large number of components for its thermal systems, while Valeo itself produces a large amount for its own systems destined for cars. Moreover, Spheros has developed solid strategic positions in all the major global regions, apart from China, where Valeo has a strong presence and can value Spheros' skills.

Fig. 16: Spheros, active in thermal systems for buses

Spheros Thermo S thermal system

Air conditioning model - Spheros

Source: Spheros; Bryan, Garnier & Co ests.

6.3.3. FTE

German car parts maker **FTE** (*specialised in production of actuators for clutch and transmission systems)* is owned by private equity fund **Bain Capital** and is Valeo's latest target. Its takeover was officialised when an agreement was signed with Bain Capital in June 2016 and the company is set to round out Valeo's offer in **actuators**, and especially active hydraulic actuator systems. This segment is proving to be increasingly strategic, driven by momentum in **double-clutch transmission** and **hybrid vehicles** in response to current trends aiming to reduce CO_2 emissions.

Beyond the complementary nature of FTE's client base relative to Valeo's, the German company should help **strengthen Valeo's aftermarket business**, which is generally far more profitable (*10% EBIT margin on average*) than the OE market.

FTE derives around **one third** of its sales from the replacement market and more than **30%** outside Europe, fully in line with the robust international expansion undertaken by Valeo for some years now. The operation remains subject to approval by the competitions authorities but should be **finalised during Q4 2016 or Q1 2017.** Given that FTE has higher margins than Valeo, its integration should have an immediate accretive impact. **In our model, we have consolidated FTE as of 1st January 2017.**

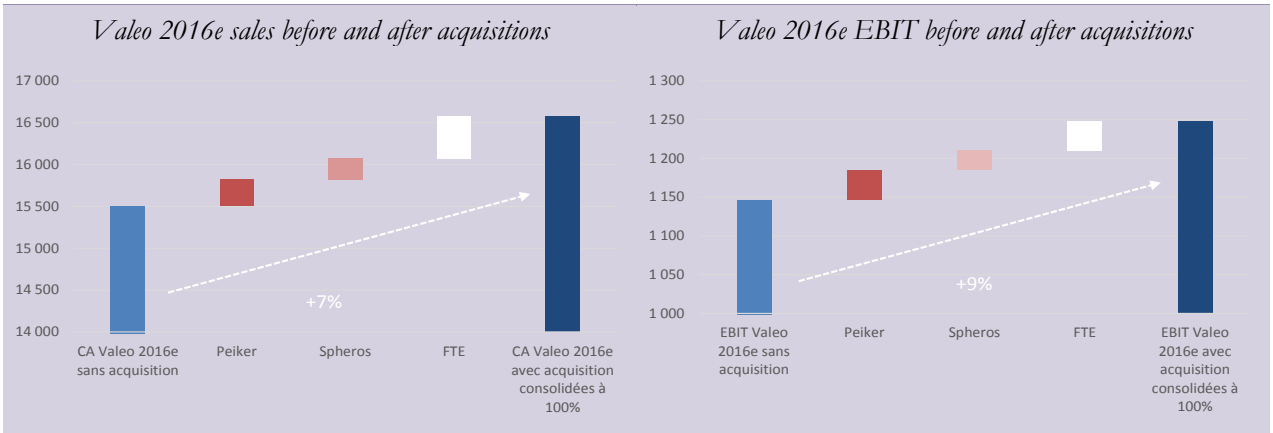
6.3.4. Earnings-enhancing acquisitions as of the first year

Concerning the three acquisitions, it is important to note that:

- All three **boost the group's EPS** as of the first year of consolidation.
- They also enhance the **group's EBITDA and EBIT margins** *(+15bp for the group's operating margin, post-consolidation, without taking into account potential synergies/cost gains).*
- They all help access either a new market or a new client base (*bus market for Spheros, transmission in hybrid vehicles with FTE and finally the connectivity market with German carmakers for Peiker*).
- The consolidations enhance the group's growth and profitability profile, but are not factored into the group's 2020 targets, which were unveiled in 2015 (*see section 7 on page 23*). In our view the group should fine-tune its targets during 2017 in order to take account of the acquisitions and provide better guidance for the market, given that the three acquisitions are set to increase the group's 2016e sales by **7%** (*100% consolidated in 2016*) and the group's operating profit by **virtually 9%.**

The group should fine-tune its targets during 2017 in order to integrate its acquisitions and provide investors better guidance

Fig. 17: Structuring acquisitions for the group

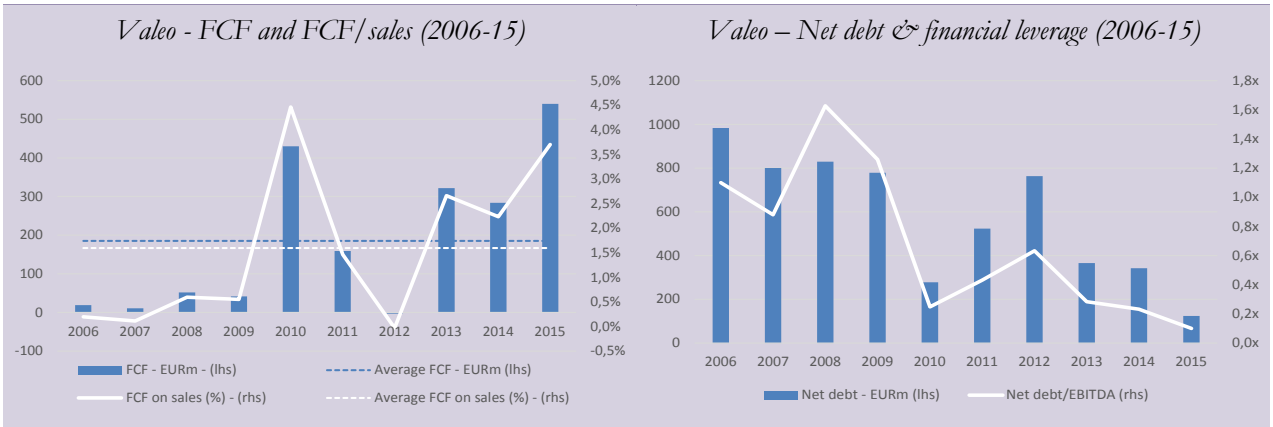


Source: Bryan, Garnier & Co ests.

6.3.5. Others to come?

Thanks to its high cash generation and low level of debt even after the acquisitions of **Peiker**, **Spheros** and **FTE**, Valeo boasts considerable financial leeway, enabling it to continue its opportunist acquisitions strategy. Since the arrival of Mr Aschenbroich as head of the group in 2009, Valeo has always aimed to acquire **one or two companies a year** in order to enhance its skills in an existing market or on the contrary, in order to enter a new market. Since 2009, in addition to its three recent acquisitions, Valeo has bought equipment maker **Niles** for **EUR313m**, enabling it to become the global leader in the market of interior controls. **With just four operations signed in six/seven years, the group is therefore lagging behind its acquisitions target.** After taking into account our 2017 estimates and an average **net debt/EBITDA ratio** of **0.7x** (*2008-16*), we estimate the group is still capable of spending at least **EUR660m**. This budget could nevertheless easily increase to **EUR2.5bn** if we assume financial leverage of **1.6x**, the maximum level the group reached during the 2008-09 crisis that affected the sector. Note that out of a gross amount of long and short-term financial debt of **EUR2.4bn**, just **EUR123m** (*syndicated loans and European Investment Bank loans*) is subject to Valeo's pledge to maintain the net debt/EBITDA multiple at below **3.25x**, far from the **0.1x** shown by the group at end-2015 and **0.7x** estimated following the acquisition in 2016 *(negative impact on cash of purchase of FTE at end-2016*), with a full consolidation planned for 2017.

Fig. 18: Valeo, a good example of a cash cow in the sector



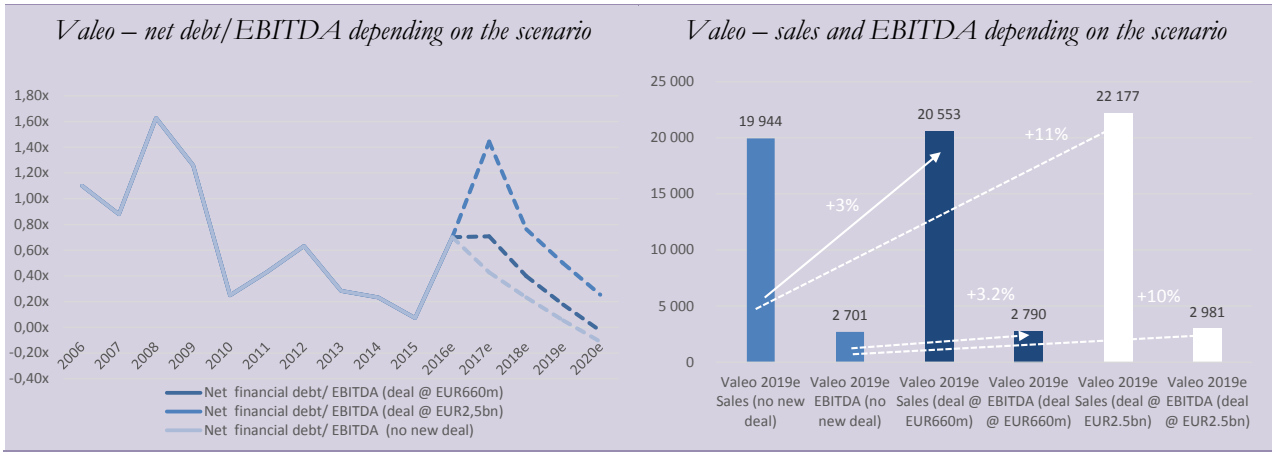
Source: Valeo; Bryan, Garnier & Co ests.

We estimated a positive impact of respectively EUR1/share and EUR4/share on our FV assuming Valeo further expand its footprint with either a EUR660m or a EUR2.5bn acquisition.

The group's high cash generation, prompted by an improvement in EBIT margin and strict control of investments, should enable Valeo to finance its acquisitions without resorting to the equities market. By investing **EUR660m** in 2017 in addition to the **EUR1.4bn** spent to acquire **Peiker, Spheros and FTE**, we estimate that Valeo's financial leverage could return to its average 2013-15 level of **0.25x** in 2019 (*two years after the consolidation of the new target*), whereas it would return to this level in 2020 (*three years afterwards*) if the group invested **EUR2.5bn.** While the first acquisition would enable it to strengthen its positions in a niche market (*acquisition such as Peiker or Spheros*), and would help the group clearly exceed its 2020 target by **EUR20bn** in sales as of 2019, the second would help it take control of a smaller rival or to enter the capital of a highly technological player (*not particularly very exposed to the automotive sector*) as well as generate more than **EUR22bn** in sales in 2019. **We estimated a positive impact of respectively EUR1/share and EUR4/share on our FV assuming Valeo further expand its footprint with either a EUR660m or a EUR2.5bn acquisition.**

The latest bond issue by Value in March 2016 under the framework of the **Euro Medium Term Note** medium and long-term financing programme (*EUR600m maturing in 2026, with a fixed coupon of 1.625%*), suggests that the group will have no particular difficulty in obtaining financing for fresh acquisitions.

Fig. 19: Flexible financial leverage for significantly increasing the size of the group



Source: Valeo; Bryan, Garnier & Co ests.

7. Ambitious financial targets, already factored in by the consensus

At the Investor Day organised on **16th March 2015** in London, **Valeo's management team** unveiled its medium and long-term financial and sales targets, which we consider **potentially ambitious,** especially in view of the current backdrop in the automotive sector.

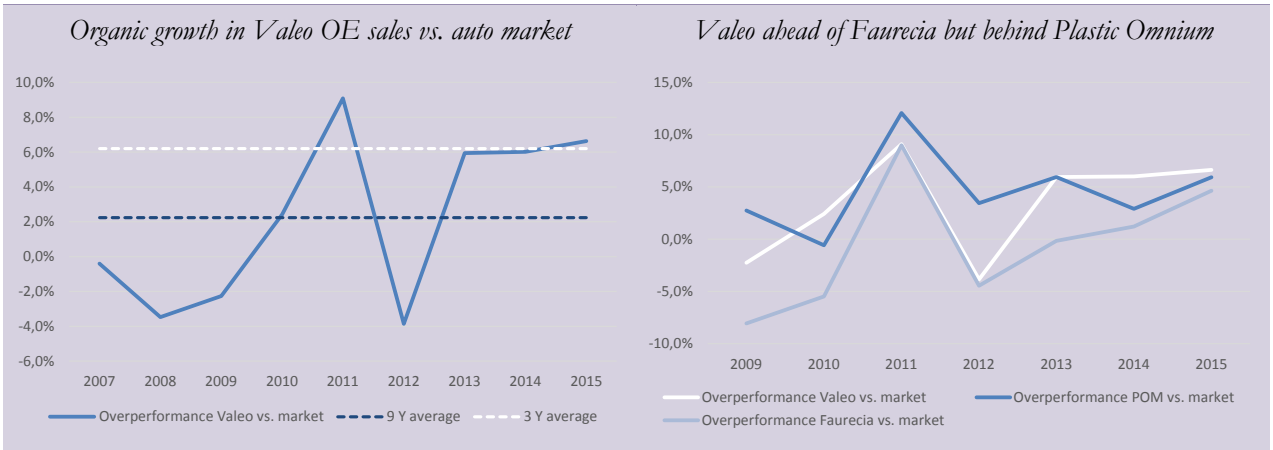
Boasting a very positive track-record in the past, the degree of success for the group looks high. However, given that a significant share of growth in the group's sales over the next four years is set to be driven by **global automotive production,** we estimate that the risk of a downward revision is likely. Note nevertheless that the 2020 targets announced by the group in 2015 **do not take account of acquisitions,** thereby making the comparative analysis between market expectations for this plan and what the group will report following the consolidations of **Peiker, Spheros and FTE** more complex.

7.1. Ambitious financial targets?

7.1.1. Overly-optimistic market assumptions?

Based on assumptions made at the time by automotive consultant LMC for a CAGR in global automotive production of **3%** between 2014 and 2020, notably on the back of annual growth of **5%** in production in China, and of **4.5%** in South America, Valeo aims to generate OE sales of **EUR17.4bn** vs. **EUR10.4bn** reflecting a CAGR of **8%** in sales, and therefore implying an annual outperformance by Valeo relative to the automotive market of **five percentage points.** Note that since 2009, the group's annual outperformance relative to the market has run at **more than 2% on average** (*organic growth in OE sales compared with change in volumes in global automotive production*). Over the past three years, this outperformance was notably close to **6%,** thereby explaining the guidance for **five points indicated by the group.**

Fig. 20: The group has historically outperformed the market, but not by 5pp



Source: Valeo; Bryan, Garnier & Co ests.

Thanks to its technological and innovative products but also its significant order intake stemming from China (*27% of the group's orderbook vs. just 14% of sales*), Valeo is aiming to grow by more than **16%** a year in Asia, or more than **9.5pp** higher than the market over the same period. The group is also aiming to outperform US market growth by **9pp**, although we consider the US is at risk like China over the medium term (*peak in the US in 2015 and downturn in the Chinese auto market during 2015).*

Note importantly that over the past three years, Valeo's outperformance has primarily been driven by **Europe** and **Asia** whereas the group's outperformance forecasts focus primarily on the US and Asian markets.

Fig. 21: Valeo aims to outperform the market by 5pp a year between now and 2020

	2014	2015	2020	2015-20	TCAM 2015-20	2014-20	TCAM 2014-20	LCM 2014-20	Valeo vs. market
Europe & Africa	5 445	6 125	6 887	12,4%	2,4%	26,5%	4,0%	3,10%	0,89%
North America	2 178	2 826	3 951	39,8%	6,9%	81,4%	10,4%	0,90%	9,53%
Asia-Oceania	2 940	3 385	6 175	82,4%	12,8%	110,0%	13,2%	3,50%	9,67%
South America	327	264	386	46,3%	7,9%	18,2%	2,8%	4,50%	-1,67%
Total	**10 890**	**12 600**	**17 400**	**38,1%**	**6,7%**	**59,8%**	**8,1%**	**3,00%**	**5,12%**

Source: Company Data; Bryan, Garnier & Co ests.

Although the group confirmed its medium-term growth estimates during its Q1 and H2 2016 publications, **our Faurecia, Hella, Plastic Omnium, and Valeo** models include growth of **2.4%** in global automotive production for 2016 (*in line with Valeo's market forecasts*) and an average increase of **1.7%** a year by 2020, below the group's estimates (*estimate based on LMC's figures*).

This **1.3pp** annual difference over the next four years implies lower growth in our Valeo estimates over 2015-20 compared with the group's targets. Excluding the three acquisitions announced by the group at the start of the year (*Peiker, Spheros et FTE*), and hence, not integrated into the sales target of **EUR20bn,** our model for Valeo points to sales of just **EUR20.04bn**, primarily on the back of the lead gained by the market and by Valeo in 2015 and 2016 relative to the 2014-20 plan. Note that production increased by **2%** in 2015, and Valeo outperformed this production by **six points**, while current forecasts for 2016 stand at **2.4%** for the market and an **eight-point outperformance** for Valeo.

We estimate that the group's guidance for 2020 sales could be at risk if: **1/** automotive production over the 2017-20 period grows by **0.7%,** compared with **3%** expected by Valeo and **1.7%** in our model at present, or **2/** if the group's outperformance relative to the market over 2017-20 only stands at **3.7%** compared with the **5%** expected by the group. Given the group's outstanding performance over the past three years, we believe that the second scenario for underperformance is less credible, however in view of the group's forecasts relative to change in global automotive production, we continue to believe that a risk of downward revisions to market estimates is possible.

As such, in view of our various calculations, we consider that the group should deliver its 2020 sales guidance, especially thanks to the lead gained in 2015 and 2016, but only just so. **This guidance therefore looks ambitious, but feasible.**

7.1.2. Margin targets never reached before

Valeo is also aiming to deliver EBIT margin of **8%** by 2017 (*including contributions from joint ventures and associates*) and **8-9%** by 2020 compared with **7.2%** in 2014 and **7.7%** in 2015, implying a gain of **4.3pp** relative to the group's average EBIT margin over 2007-15. Delivering **9%** would therefore be a record and a challenge for the group, requiring the internal roll-out of new working methods in order to optimise the fixed cost base for industrial assets, but also to reduce administrative spending. **Note that this target announced in 2015 is a same-structure target and therefore automatically excludes any impact on margins stemming from earnings-enhancing acquisitions.** The group also indicated 2020 EBITDA margin targets by business and is aiming to generate its highest improvement in margins in the driving assistance segment *(+3bp*).

In order to reach this target, the group has a number of sources of leverage **in addition to improving operating leverage,** which consists of absorbing the group's fixed costs as well as possible:

- **Improvement in the product mix:** with **growth 10-12 times higher** in innovative products than in the group's traditional products, generating higher gross margins, to the benefit of operating leverage.

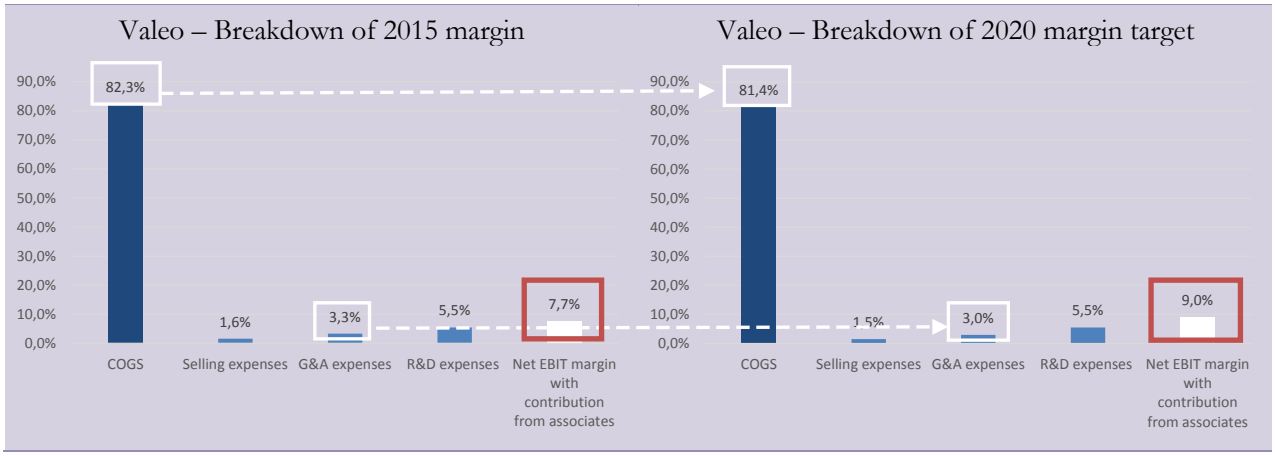
- **A decline in administrative spending** to below **3%** of sales compared with **3.3%** in 2015 and **3.5%** in 2014 helped especially by stepping up the internal digitalisation strategy and aligning working methods according to an internal benchmark.

- **Control of R&D spending:** Valeo aims to dedicate a significant share of R&D spending to innovative products to the detriment of more traditional products with lower value-added, while optimising the share of non-capitalised spending as a percentage in the P&L account. The group aims to maintain a ratio of net R&D spending to sales of **5.5%** by 2020 in line with 2015 and 2014.

- **Optimising capex** by implementing more standardisation processes in terms of industrial tools and more synergies between the existing production sites, especially in high-growth regions. The group is aiming to maintain the ratio of investments to sales at between **4.5%** and **5%** compared with **4.9%** in 2015 and 2014.

- **Improving the net profitability of joint ventures and equity associates:** Since the group's operating profitability calculation includes net profit from joint ventures and other associates (*without including their sales in the group's sales*), any considerable improvement in net profits or net margin at **Ichikoh**, **Detroit Thermal Systems** or the **Chinese joint ventures** would have a direct impact on Valeo's profitability. At end-2015, out of the **7.7%** margin announced by the group, these companies represented **40bp** alone.

Fig. 22: Higher margins thanks to better control of G&A and fixed costs



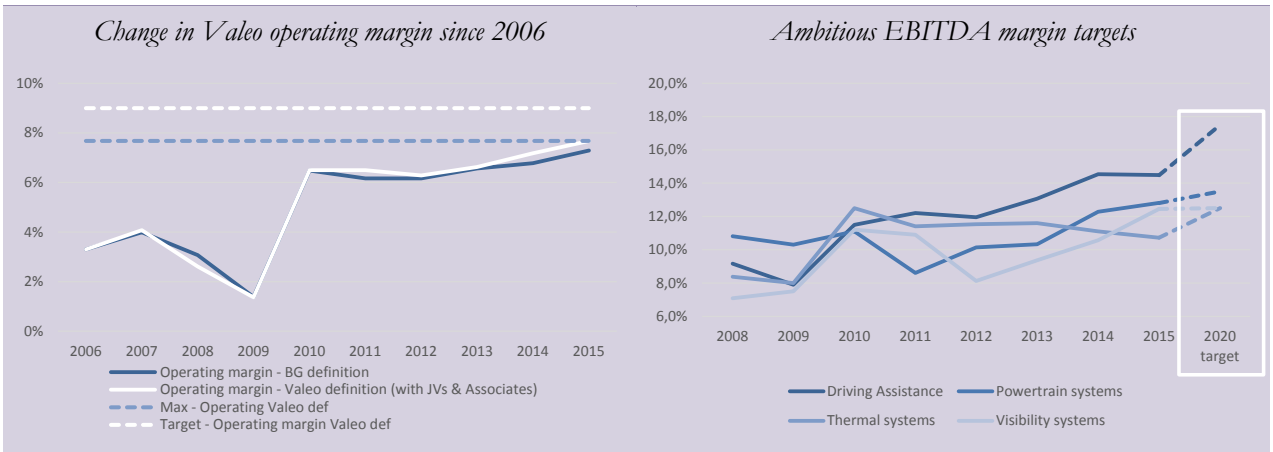
Source: Valeo; Bryan, Garnier & Co ests.

In a sector where car components makers now generate higher margins than carmakers (*8.6% EBIT margin on average for car components makers compared with 6.6% for carmakers*) and where the best parts suppliers generate margins of **11-13%**, we estimate that Valeo's aim to raise its margin from **7-7.5% to 8-9% is feasible**. However, we believe that optimising the various cost bases and absorbing a higher amount of fixed costs remains partly dependent on good conditions in the sector. However, our current vision on the sector is pretty cautious given that we are factoring in a slowdown in global automotive production in 2017 and the following years.

As such, for 2020, we are factoring in EBIT margin of just **8.6%** (*Valeo's definition without integrating the recent acquisitions of Peiker, Spheros and FTE which should boost the group's profitability*) below the top-end of the group's range and **in line with market forecasts.**

This target therefore looks feasible, but not entirely so, and already seems to be priced in by the market.

Fig. 23: Heading for operating margin of 9% and EBITDA margin of 14% on a group scale



Source: Valeo; Bryan, Garnier & Co ests.

8. Our estimates

As for **Faurecia, Hella** and **Plastic Omnium**, our model for **Valeo** includes auto production estimates of **+2.4%** for 2016, **+1.7%** for 2017 and **+1.7%** for 2018. We therefore expect market growth of around **1.5%** over 2019-2025.

Our estimates also factor in an average outperformance of **5pp** a year by Valeo relative to the market and include the consolidation of **FTE** as of **1st January 2017**.

Fig. 24: Valeo P&L account (EURm)

	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e
Revenues	**9 632**	**10 868**	**11 759**	**12 110**	**12 725**	**14 544**	**15 996**	**17 602**	**18 716**
Change (%)		12,8%	8,2%	3,0%	5,1%	14,3%	10,0%	10,0%	6,3%
Adjusted EBITDA	1 146	1 212	1 260	1 356	1 526	1 847	2 036	2 341	2 504
EBIT	**617**	**704**	**725**	**795**	**862**	**1 060**	**1 225**	**1 402**	**1 520**
Change (%)		14,1%	3,0%	9,7%	8,4%	23,0%	15,5%	14,5%	8,4%
Financial results	(99)	(106)	(133)	(147)	(137)	(119)	(111)	(106)	(103)
Pre-Tax profits	490	600	553	588	722	880	1 126	1 308	1 431
Exceptional	(27)	0	(53)	(67)	(54)	(117)	(48)	(53)	(56)
Tax	(104)	(148)	(146)	(119)	(129)	(106)	(225)	(262)	(286)
Profits from associates	(1)	2	14	7	51	56	60	65	70
Minority interests	(19)	(24)	(25)	(30)	(31)	(45)	(47)	(50)	(52)
Net profit	365	427	380	439	562	729	853	997	1 092
Restated net profit	**365**	**427**	**380**	**439**	**562**	**729**	**853**	**997**	**1 092**
Change (%)		17,0%	-11,0%	15,5%	28,0%	29,7%	17,0%	16,8%	9,6%

Source: Valeo; Bryan, Garnier & Co ests.

Fig. 25: Valeo Cash flow statement (EURm)

Cash flow statement (EURm)	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e
Operating cash flows	**906**	**842**	**869**	**1 236**	**1 242**	**1 659**	**1 660**	**1 845**	**2 046**
Change in working capital	31	(29)	(49)	232	40	111	71	10	64
Capex, net	**(476)**	**(683)**	**(872)**	**(914)**	**(958)**	**(1 119)**	**(1 184)**	**(1 303)**	**(1 385)**
Financial investments, net	0	(269)	(19)	(5)	(104)	(8)	0	0	0
Dividends	0	(110)	(124)	(129)	(144)	(201)	(1 429)	(256)	(299)
Other	22	201	162	(164)	(25)	26	24	25	26
Net debt	**278**	**523**	**763**	**366**	**342**	**124**	**1 288**	**977**	**589**
Free Cash flow	**430**	**159**	**(3)**	**322**	**284**	**540**	**476**	**542**	**661**

Source: Valeo; Bryan, Garnier & Co ests.

Fig. 26: Valeo balance sheet (EURm)

	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e
Tangible fixed assets	1 655	1 956	2 075	2 181	2 497	2 744	4 321	4 435	4 583
Intangibles assets	544	641	736	850	1 012	2 141	2 411	2 657	2 901
Cash & equivalents	1 316	1 295	1 334	1 510	1 497	1 725	561	872	1 260
current assets	3 622	4 110	4 428	4 342	4 551	5 324	4 473	5 262	5 925
Other assets	303	560	347	159	462	(494)	658	406	67
Total assets	**7 440**	**8 562**	**8 920**	**9 042**	**10 019**	**11 440**	**12 424**	**13 633**	**14 736**
L & ST Debt	1 679	1 876	2 077	1 876	1 839	1 745	1 745	1 745	1 745
Others liabilities	3 991	4 606	4 648	4 633	5 231	6 003	6 405	6 914	7 267
Shareholders' funds	1 708	1 936	2 052	2 380	2 740	3 473	4 031	4 707	5 431
Total Liabilities	**7 440**	**8 562**	**8 920**	**9 042**	**10 019**	**11 440**	**12 424**	**13 633**	**14 736**
Capital employed	**2 968**	**3 522**	**4 146**	**3 872**	**3 872**	**4 313**	**4 717**	**6 549**	**7 039**

Source: Valeo; Bryan, Garnier & Co ests.

Fig. 27: Valeo ratios (%)

Ratios	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e
Operating margin	**6,4%**	**6,5%**	**6,2%**	**6,6%**	**6,8%**	**7,3%**	**7,7%**	**8,0%**	**8,1%**
Tax rate	21,2%	24,7%	26,4%	20,2%	17,9%	12,0%	20,0%	20,0%	20,0%
Net margin	3,8%	3,9%	3,2%	3,6%	4,4%	5,0%	5,3%	5,7%	5,8%
ROE (after tax)	105,2%	76,9%	40,7%	102,5%	131,3%	161,3%	183,2%	174,5%	163,3%
ROCE (after tax)	**23,4%**	**22,9%**	**17,8%**	**20,7%**	**21,2%**	**23,7%**	**19,6%**	**20,8%**	**21,3%**
Gearing	16%	25%	34%	14%	12%	1%	28%	18%	8%
Pay-out ratio	24,7%	24,6%	29,7%	29,1%	30,4%	32,1%	30,0%	30,0%	30,0%
Number of shares, diluted	75	75	75	75	78	78	239	239	239

Source: Valeo; Bryan, Garnier & Co ests.

Fig. 28: Valeo - Per share data - EUR

	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e
EPS	**4,86**	**5,68**	**5,05**	**5,84**	**7,23**	**9,33**	**3,62**	**4,23**	**4,64**
Restated EPS	4,86	5,68	5,05	5,84	7,23	9,33	3,62	4,23	4,64
% change		17,0%	-11,1%	15,6%	23,8%	29,0%	-61,2%	16,8%	9,6%
EPS bef. GDW	4,86	5,68	5,05	5,84	7,23	9,33	3,62	4,23	4,64
BVPS	22,71	25,76	27,26	31,64	35,24	44,44	16,89	19,73	22,76
Operating cash flows	12,0	11,2	11,5	16,4	16,0	21,2	7,0	7,7	8,6
FCF	5,7	2,1	0,0	4,3	3,7	6,9	2,0	2,3	2,8
Net dividend	**1,20**	**1,40**	**1,50**	**1,70**	**2,20**	**3,00**	**1,09**	**1,27**	**1,39**

Source: Valeo; Bryan, Garnier & Co ests.

Fig. 29: Valeo valuation (EURm)

	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e
Market capitalization	**2 180**	**2 927**	**2 728**	**4 138**	**7 293**	**10 373**	**11 716**	**11 716**	**11 716**
Net debt	278	523	763	366	342	124	1 288	977	589
Pensions	651	776	916	791	1 059	1 001	1 001	1 001	1 001
Minorities	266	336	350	420	434	630	662	695	729
Financial assets	(14)	28	196	98	714	784	846	910	979
EV	**3 389**	**4 534**	**4 561**	**5 617**	**8 414**	**11 344**	**13 821**	**13 479**	**13 057**
EV/Sales	35%	42%	39%	46%	66%	78%	86%	77%	70%
EV/EBITDA	2,96x	3,74x	3,62x	4,14x	5,51x	6,14x	6,79x	5,76x	5,22x
EV/EBIT	**5,7x**	**6,4x**	**6,8x**	**7,7x**	**10,4x**	**12,0x**	**11,7x**	**10,0x**	**8,9x**
P/E	6,0x	6,9x	7,2x	9,4x	13,0x	14,2x	13,7x	11,8x	10,7x
Dividend Yield (%)	**4,1%**	**3,6%**	**4,1%**	**3,1%**	**2,3%**	**2,3%**	**2,2%**	**2,6%**	**2,8%**

Source: Valeo; Bryan, Garnier & Co ests.

9. Valuation

As for **Faurecia**, **Hella** and **Plastic Omnium**, we value **Valeo** using two types of method: **1/**comparison of **historical multiples**, and **2/DCF**. In all, the combination of these methods (*three fair values stemming from peer comparison and one from DCF, with a 25% weighting for each valuation*), points to a **FV of EUR49** per share for Valeo, implying 1.5% downside relative to the recent share price (*EUR49.7*).

Like for the other automotive suppliers stock we are initiating in our sector report, we decided to **overweight the method by multiple** (*three times 25% each*) to **the detriment of DCF** (*25%*) to reflect properly the high volatility of the sector.

We are therefore initiating coverage of Valeo with a Neutral recommendation despite the fact that we appreciate the group's strategy, its product positioning and efforts to increase its skills in the connected and autonomous vehicles market.

The share's excellent ride since January 2007 (p*rice multiplied by four whereas the SXAP index has only been multiplied by 1.6*) also recently helped Valeo **enter the CAC 40 on 23rd June 2014**. Since then, the share has also outperformed the French index by more than **50pp** *(+52% for Valeo compared with +1.5% for the CAC 40*).

Fig. 30: Valeo – FV @ EUR49

	Multiples	FV
EV/Sales (*2016-25*) – 25%	***85%***	**€45,6**
EV/EBIT (*2016-25*) – 25%	***10,0x***	**€45,2**
P/E (*2016-25*) – 25%	***14,0x***	**€50,7**
DCF model (*2016-25*) – 25%		**€53,1**
o/w WACC	*8,8%*	
o/w LTG	*2,8%*	
o/w Average EBIT margin	*7,8%*	
o/w LT EBIT margin	*8,0%*	
Implied FV		**€49,0**
Current price		€49,7
Upside		-1,5%

Source: Bryan, Garnier & Co ests.

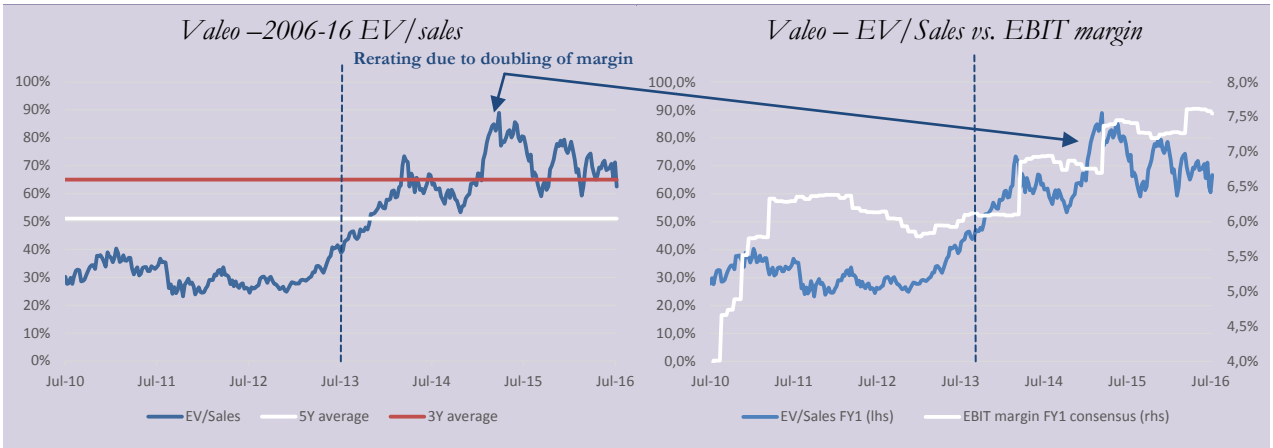
9.1. Valuation by multiples

We have used historical **EV/sales, EV/EBIT and P/E** multiples to value the group. Our three FVs are calculated over the 2016-25 period (*WACC discounted each year*) and imply levels of **EUR45.6, EUR45.2 and EUR50.7** respectively. Our valuations are based on the group's historical multiples over **2013-16** in order to take account of the share's rerating prompted by the improvement in operating margin (*doubling in margin in % over the period*). Furthermore, we have slightly revalued the group's historical EV/sales multiple in order to take account of a fresh improvement in profitability between now and 2020. The only four major automotive parts suppliers that generate operating margin of **close to 9%** are **Plastic Omnium, JCI, Denso and Koito** and these are currently valued by the market on **FY1 EV/sales of 90%-100%** and **FY1 EV/EBIT of 10.3x** on average. We have maintained assumptions of **85%** and **10.5x** respectively for Valeo given that the **9%** margin is unlikely to be reached before 2020.

As such, we have used the following multiples:

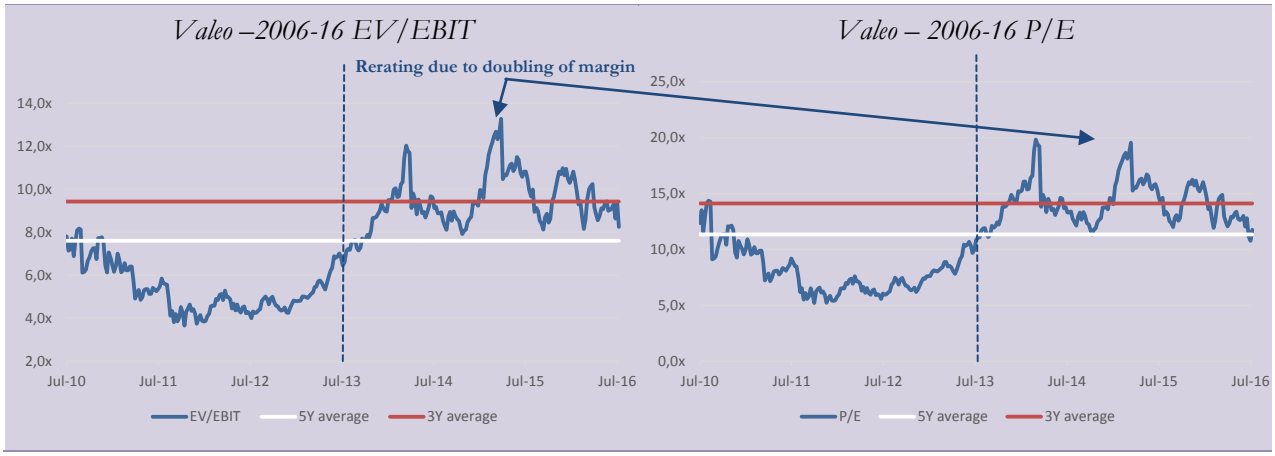
- **EV/sales** of **85%** compared with a historical three-year average of **65%** and a historical two-year average of **75%**.
- **EV/EBIT** of **10.5x** compared with a historical three-year average of **9.4x**.
- **A P/E** multiple of **14x** in line with the historical three-year average and peer comparison.

Fig. 31: The share has enjoyed a rerating since July 2013



Source: Datastream; Bryan, Garnier & Co ests.

Fig. 32: The share has enjoyed a rerating since July 2013



Source: Datastream; Bryan, Garnier & Co ests.

9.2. DCF valuation

We have also valued **Valeo** using a DCF calculation based on the following assumptions:

- **WACC** of **8.8%**
- A **growth rate to infinity** of **2.8%,** implying a slight outperformance by **Valeo** relative to the automotive market *(+1.5%)*
- **EBIT** margin (including restructuring and without the JVs) of **7.8%** on average and a margin to infinity of **8.0%,** corresponding to margins as defined by Valeo of **8.8%** and **9%** respectively.

Fig. 33: Valeo DCF estimates (EURm)

	2016e	2017e	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	Perpetuity
Revenues - Core business	**15 996**	**17 602**	**18 716**	**19 944**	**21 298**	**21 999**	**22 728**	**23 486**	**24 275**	**25 095**	**25 798**
Revenue Growth Rate	-	10,0%	6,3%	6,6%	6,8%	3,3%	3,3%	3,3%	3,4%	3,4%	2,8%
Operating Margin	7,4%	7,7%	7,8%	8,0%	8,1%	8,2%	8,3%	8,3%	8,4%	8,5%	8,0%
EBIT *(excluding JVs & Associates, with restr. Charges)*	**1 177**	**1 349**	**1 464**	**1 589**	**1 726**	**1 801**	**1 878**	**1 959**	**2 042**	**2 128**	**2 064**
Adjustment for provisions	18	21	14	16	18	9	9	10	10	11	14
(-) Taxes on EBIT	(235)	(270)	(293)	(318)	(345)	(360)	(376)	(392)	(408)	(426)	(413)
(+/-) Movements in working capital	71	10	64	70	77	40	42	44	45	47	51
(+) Depreciation and amortization	812	939	984	1 052	1 111	1 211	1 314	1 429	1 470	1 609	1 909
(-) Capital Expenditures	(752)	(827)	(880)	(937)	(1 001)	(1 034)	(1 068)	(1 104)	(1 141)	(1 179)	(1 212)
(-) Intangibles	(432)	(475)	(505)	(538)	(575)	(594)	(614)	(634)	(655)	(678)	(697)
Free Cash Flow	658	746	848	933	1 011	1 073	1 186	1 311	1 362	1 512	
Present Value of Free Cash Flow	**639**	**664**	**693**	**700**	**695**	**677**	**687**	**696**	**663**	**675**	

Source: Bryan, Garnier & Co ests.

Fig. 34: Valeo DCF @ EUR53

Valuation	
PV of Free Cash Flows	6 865
PV of Terminal Value	8 214
EV implied - EURm	**15 078**
- Net financial debt (N-1) - EURm	124
- Pensions Liabilities (N-1) - EURm	1 001
- Minority Interest value - EURm	630
+ Financial assets - EURm	784
- Cash/debt spent for acquisitions (Spheros, FTE) not included in our 2015 debt	1 429
Value of Equity	**12 678**
Value of Equity per share	**€53,1**
Price	€49,7
Upside/Downside	6,8%

Source: Bryan, Garnier & Co ests.

We are therefore initiating coverage of Valeo with a Neutral recommendation even though we like the group's strategy, its product positioning and efforts to increase its skills in the connected and autonomous vehicles market.

10. Valeo – SWOT

Fig. 35: Valeo – SWOT analysis

Strengths	Weaknesses
• One of the most technological European components suppliers (*ADAS, autonomous car, thermal systems*) • High exposure to the **Asian market** (*27% of sales*) • **Earnings enhancing** and **highly technological** recent acquisitions • A good competitive positioning in transmission and thermal systems (*world no. 2*) and in the **driving assistance systems** market (*no. 1 in the world*) • Multiplication of strategic partnerships in R&D in the connected and autonomous car (*Safran, Mobileye*)	• Cost structure weighed down by the development and virtually systematic protection of innovative products • Margin already at a **historical peak level** limiting potential for improvement • Underexposure to Chinese carmakers (*20% of the group's sales in China*)
Opportunities	**Threats**
• Financial flexibility leaving **room to manoeuvre for future acquisitions** • New partnerships with technological companies present in the autonomous vehicle market	• A slowdown in the global automotive market would directly affect **>85%** of Valeo's sales • Ambitious targets (*8-9% operating margin by 2020 vs. 7.7% in 2020*) depend partly on changes in the automotive market • Confirmation of a slowdown in the Chinese market if government incentives are halted • Extension of regulatory timeframes concerning circulation start for autonomous vehicles.

Source: Bryan, Garnier & Co ests.

11. Valeo in short

11.1. A bit of history

Valeo is the oldest French car components supplier in the small closed circle of companies listed on the stockmarket (*Faurecia, Plastic Omnium, MGI Coutier, Plastivaloire, and Valeo*). Its origins date back to **1923** when Eugène Buisson created **SAFF** (*Société Anonyme française du Ferodo*), a distributor and exclusive agent in France for friction products of UK group **Ferodo**. After a number of acquisitions (*La Plastose, Flertex, patent purchases froms ZF Sachs, BorgWarner and Daimler Motor Company, Hersot*) and a diversification in its product offering, the group was renamed **Valeo** in **1980** *("I am well" in Latin, this being the name of the Ferodo group's Italian subsidiary at the time*). The group and continued to expand taking on the dimension of one of the largest international companies in the car components sector.

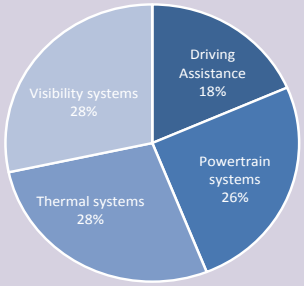
With sales of **EUR14.5bn** at end-2015, **87%** of which generated directly in the OE market with carmakers (*the rest stemming from the aftermarket*), Valeo currently boasts the **no. 11 spot** in the global ranking of car components suppliers behind **Faurecia** (*no. 7)* but ahead of **Plastic Omnium** (*no. 40*). After refocusing its activities on innovative products with higher value added, in particular by selling its **cabling business** to German group **Léoni** in **2007** (*sales of **EUR545m** and EBITDA of **EUR36m** sold for **EV** of **EUR255m***), and its **vehicle safety systems** business to Japanese group **U-Shin** in 2013, the group became one of the global leaders in interior controls thanks to the acquisition of Japanese components supplier **Niles**.

11.2. A group present in four businesses

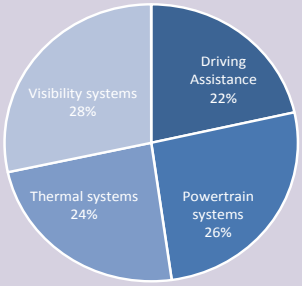
Present in the **original equipment market (***87% of 2015 sales***)** but also the **replacement parts market** (*10% of 2015 sales*), Valeo is specialised in **four flagship businesses** in the automotive market: **1/ driving assistance**, a genuine growth segment notably linked to the development of the autonomous and connected vehicle, **2/ powertrain systems**, which house the development and design of gear boxes and other components necessary for vehicle propulsion, **3/visibility systems**, which develop headlamps and windscreen wipers and finally, **4/thermal systems** (*air conditioning, heating etc.*). The four businesses are well balanced within the group, in terms of both contribution to sales and contribution to operating margin.

Fig. 36: A fairly well balanced product portfolio

Valeo –sales by business (2015)



Valeo –EBITDA by business (2015)



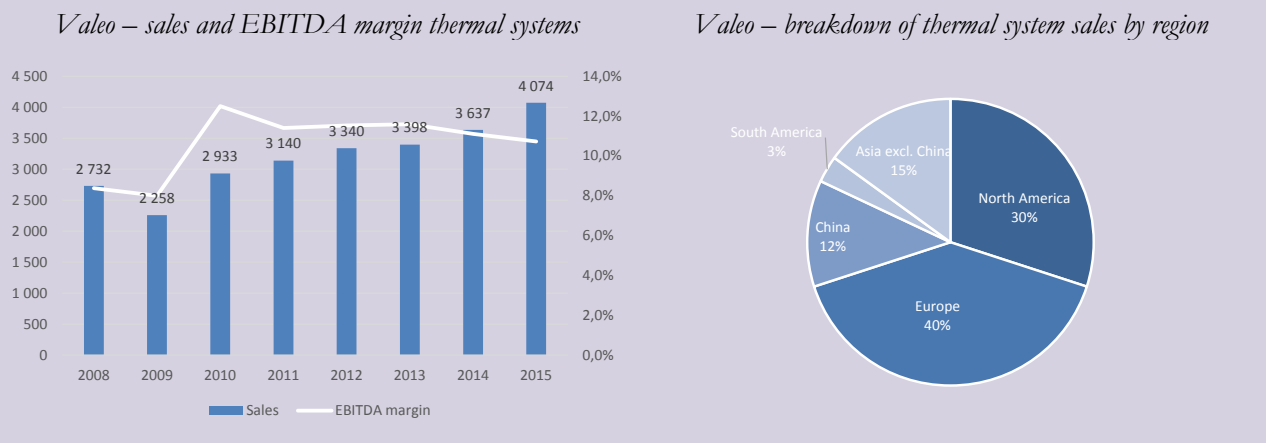
Source: Valeo; Bryan, Garnier & Co ests.

11.2.1. Thermal systems – 28% of sales – 24% of EBITDA

Valeo's **thermal systems** division develops and manufactures systems, models and components ensuring management of thermal energy in the powertrain system and in-car comfort, during all phases of use of the vehicle and for all types of engine. **Valeo is the number two** in this market behind **Denso** but ahead of **Malhle** and **Hanon System** with sales of more than **EUR4bn**.

Sub-divided into **four product groups** (*interior thermal systems, powertrain thermal systems, compressor thermal systems and front-end thermal systems*), the division develops heating and cooling systems which are necessary for optimal management of engine thermal energy (*engine-ventilation group placed in the front-end of the vehicle, distribution and pump valves, thermal regulators*), compressors and front-end modules. In this market, innovation primarily concerns technologies aimed at reducing pollution and $C0_2$ emissions, electrification of powertrain groups (*electric and hybrid cards*) and targeting an improvement in the on-board trio of comfort, health and well-being.

Fig. 37: Sales and EBITDA margin – Valeo thermal systems (EURm)



Source: Valeo; Bryan, Garnier & Co ests.

Development of this division is primarily set to take place in **Asia**, and more precisely in the segments of **reducing $C0_2$ emissions** and **electrification of power**. The group aims to increase its base of industrial sites in the world *(+6% in 2016-17)* and is targeting sales of more than **EUR5bn** in 2020 with **EBITDA margin of 12.5%** vs. respectively **EUR4bn** and **10.7%** in 2015, thereby implying a CAGR of **4.6%** in sales and an annual gain of **36bp** in its EBITDA margin.

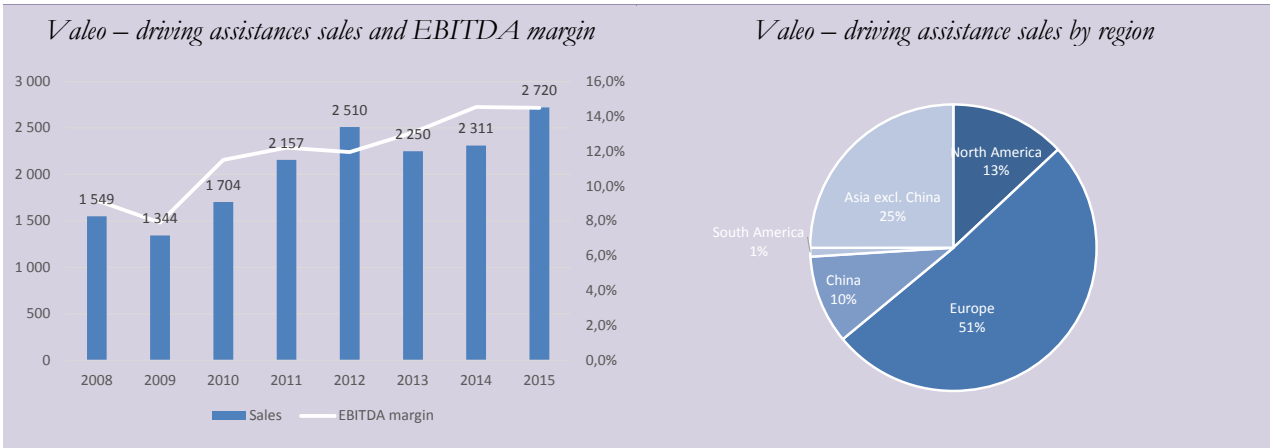
In a market set to grow by around **3-4% a year** driven in particular by **1/** tougher regulations concerning emissions ($C0_2$ *and* No_x), **2/** electrification of engines and **3/** an improvement in comfort, we estimate that Valeo should continue to win market share as in 2014 and in 2015, on the back of new contract signings with Asian carmakers in particular. **Note importantly that this division is the one in which the group has invested the least amount as a percentage of group sales and a percentage of sales in the division, thereby explaining why EBITDA margin and ROCE is lower than the group average.**

11.2.1.1. Driving assistance – 18% of sales – 22% of EBITDA

This segment is currently the one that contributes the least in terms of sales for the group (18%) but which generates the highest margins (EBITDA margin of 14.5% vs. 12.7% for the group), thanks in particular to a strong utilisation of production capacity in order to face robust demand in this market, and thanks to the group's **pricing power** in innovative products. **Valeo is the number one player** in the sub-segment of **driving assistance systems** ahead of **Bosch** and **Continental** and is the **number two** in the sub-segment of **interior control systems**. In 2015, the group extended its range of solutions in geolocalisation and connectivity of vehicles to mobile networks thanks to the acquisition of German group **Peiker** (*sales of EUR350m*) and signed three partnerships, one with **Capgemini** in the field of smart mobility, one with **Safran** (*facial recognition, navigation camera etc.*) and one with **Mobileye**, the global leader in driving assistance systems using frontal cameras.

The group's expertise in this market is considerable and explains the high level of profitability relative to other segments. The division is organised into three sub-segments, **driving assistance** (*ultrasounds, radars, cameras, parking assistance, lane departure warning systems…*), **on-board electronics** (*access systems and hand-free start-up, remote controls, sensors*) and **interior controls** (*man-machine interface, tactile screens, smart driving controls, head-up displays, top column modules…)*

Fig. 38: Sales and EBITDA margin - Valeo driving assistance (EURm)



Source: Valeo; Bryan, Garnier & Co ests.

In this segment, Valeo is targeting 2020 sales of more than **EUR4.1bn** and **EBITDA margin** of **17.5%** compared with **EUR2.7bn** and **14.5%** in 2015, thereby implying a CAGR of **8.5%** in its sales and an annual gain of **60bp** in EBITDA margin. This segment is the one in which the group has invested the most (*32% of net spending whereas the segment represents 18% of sales and 22% of EBITDA*) since needs for development and innovation are the highest. The creation of partnerships with technological companies underpin this stance and clearly show that the automotive market is set to become increasingly connected.

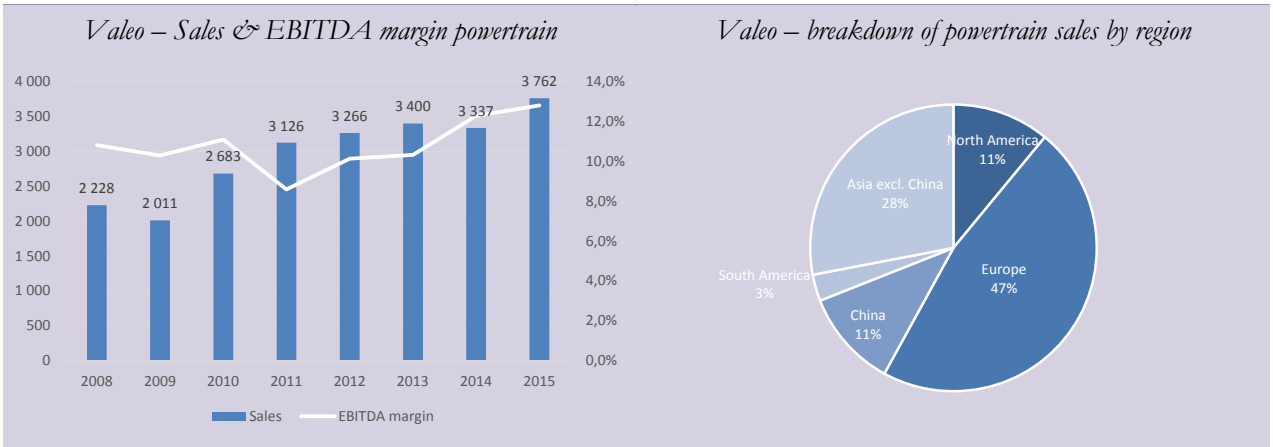
As such, we estimate that the group's future growth in mature countries is set to stem primarily from this segment, in particular in view of the gradual shift in the current market (non-automated car, automated car) towards the autonomous vehicle market.

11.2.1.2. Powertrain systems – 26% of sales – 26% of EBITDA

Valeo's **powertrain systems division** develops powertrain solutions aimed at reducing fuel consumption and emissions of $C0_2$ and pollutive substances notably by optimising combustion engines. With sales of **EUR3.8bn, Valeo is the no. 2 player** in the sub-segment of transmission systems behind **Luk,** and is the leader in the electric systems market ahead of **Denso** and **Bosch**.

Also sub-divided into **four product groups** (*electrical systems, transmission systems, combustion and electronic engine systems*), this division offers electrical systems that manage key vehicle functions (*switches, starters, braking energy recovery systems, hybrid transmission modules*), transmission systems (*clutch, double clutch systems*), combustion engine systems (*mechanical actuators, electric supercharger and sensors for management of the air loop in thermal engines*) and also designs power electronics (*inverters, voltage converters, control electronics, stop-start systems*).

Fig. 39: Sales and EBITDA margin – Valeo powertrain (EURm)



Source: Valeo; Bryan, Garnier & Co ests.

In this segment, the group has high growth ambitions in view of its positioning in markets with high requirements for energy efficacy in engines and transmission. Reduction in engine cylinders and the development of small direct-injection turbo-compressed engines in order to respect increasingly restrictive standards on emissions of polluting substances, combined with increased automation of gear boxes, should help Valeo continue to expand strongly in this segment.

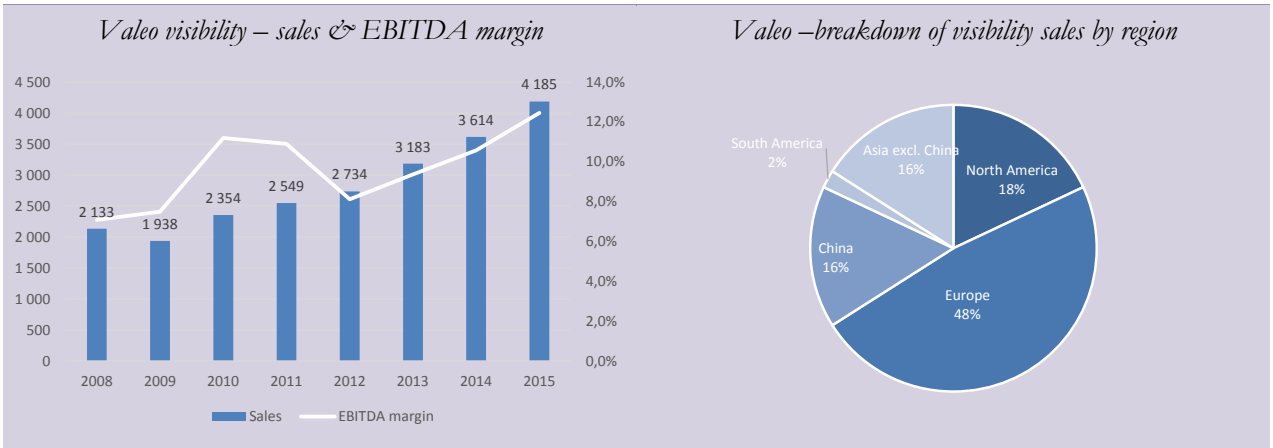
The group is targeting 2020 sales of more than **EUR6bn** and **EBITDA margin of 13.5%** in this segment, compared with respectively **EUR3.7bn** and **12.8%** in 2015, implying a CAGR of **10.5%** in sales and an annual gain of **14bp** in EBITDA margin. The group estimates that the market should only grow by **6-7%** a year over the same period.

11.2.1.3. Visibility systems – 28% of sales – 28% of EBITDA

Via this business, Valeo designs and produces systems for lighting and vehicle visibility both day and night, and in the various on-board activities. With sales of **EUR4.2bn, Valeo is the number one player** in the sub-segment of **wiper systems** ahead of Bosch and Denso and is **the no. 2** with its Japanese partner **Ichikoh** in the **lighting systems market** after **Koito** and ahead of **Magneti Marelli**.

In the lighting systems market, Valeo is present in the budget and premium segments and designs lighting for safety (*LED projectors, signalling systems*), but also for the design and in-car atmosphere (*side lighting that can be directed and adjusted by a simple hand gesture*). In this field, the group is also present in the wipers market (*optical sensors washing systems, electrified wiping systems, arms and brushes and wiper modules*), a low value-added market but which should benefit from the development of autonomous/automated vehicles (*need for greater visibility than a traditional vehicle*).

Fig. 40: Sales and EBITDA margin – Valeo visibility (EURm)



Source: Valeo; Bryan, Garnier & Co ests.

In this segment, which has been the largest contributor in terms of growth since 2008 *(+96% vs an average of 51% for the group*), but which has long suffered from lower profitability given the lower value-added of products, Valeo should benefit from an increasing appetite in all market segments (*mid and upscale)* for LED technology (*premiumisation of the market*), as well as the increase in the fleet of cars in emerging markets, which will require more lighting and wiper systems, and the development of autonomous and automated vehicles. The market's expansion should therefore stem from **higher global demand in volume terms** (*primarily in China*), **a premiumisation of demand** and an **increase in the number of products per vehicle**.

The group is targeting 2020 sales of more than **EUR5.7bn** and **EBITDA margin of 12.5%** in this division, compared with **EUR4.2bn** and **12.4%** respectively in 2015, thereby implying a CAGR of **6.4%** in sales and virtually no EBITDA margin gains. Market maturity in Europe is likely to limit the group's growth in this segment.

11.2.1.4. Examples of Valeo products

Fig. 41: Examples of Valeo products – driver assistance

Smart control panel

Telematic module

Source: Valeo; Bryan, Garnier & Co ests.

Fig. 42: Examples of Valeo products – visibility

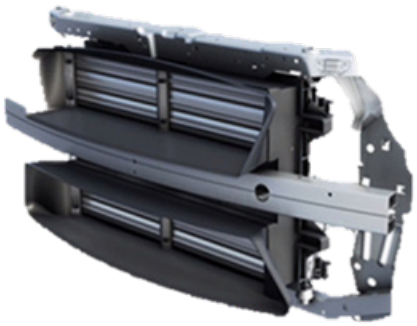
Aquablade

LED rear lights

Source: Valeo; Bryan, Garnier & Co ests.

Fig. 43: Examples of Valeo products – thermal systems

Active grilled shutter



Air admission module

Source: Valeo; Bryan, Garnier & Co ests.

Fig. 44: Examples of Valeo products – powertrain systems

Electric supercharger

Inverter/charger

Source: Valeo; Bryan, Garnier & Co ests.

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Bryan Garnier stock rating system

For the purposes of this Report, the Bryan Garnier stock rating system is defined as follows:

Stock rating

BUY — Positive opinion for a stock where we expect a favourable performance in absolute terms over a period of 6 months from the publication of a recommendation. This opinion is based not only on the FV (the potential upside based on valuation), but also takes into account a number of elements that could include a SWOT analysis, momentum, technical aspects or the sector backdrop. Every subsequent published update on the stock will feature an introduction outlining the key reasons behind the opinion.

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SELL — Negative opinion for a stock where we expect an unfavourable performance in absolute terms over a period of 6 months from the publication of a recommendation. This opinion is based not only on the FV (the potential downside based on valuation), but also takes into account a number of elements that could include a SWOT analysis, momentum, technical aspects or the sector backdrop. Every subsequent published update on the stock will feature an introduction outlining the key reasons behind the opinion.

Distribution of stock ratings

BUY ratings 55.3% NEUTRAL ratings 33.3% SELL ratings 11.3%

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