

INDEPENDENT RESEARCH

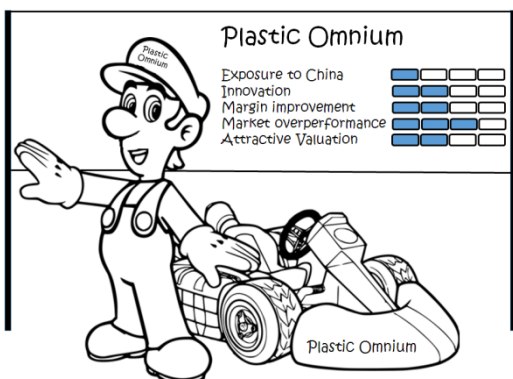
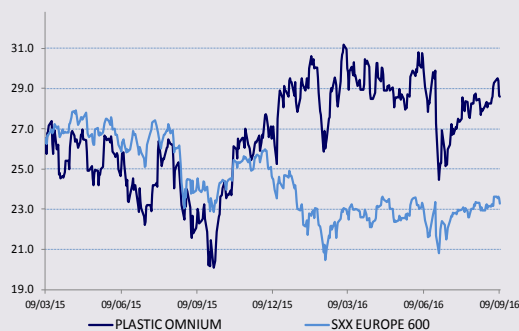
14th September 2016

Automotive

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 9<sup>th</sup> September



# Plastic Omnium


Playing in the big league

Fair Value EUR36 (price EUR28.61)

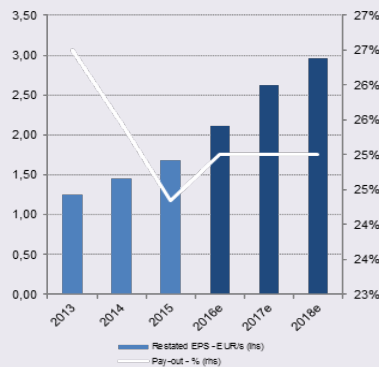
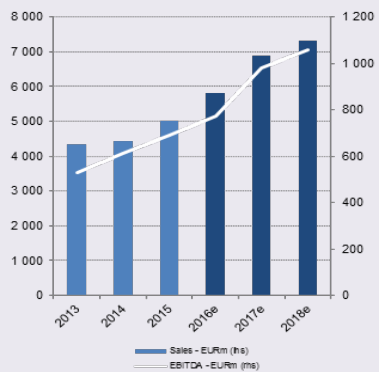
**BUY**  
Coverage initiated

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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## Plastic Omnium



### Company description

Plastic Omnium is a France-based plastic processing group with activities in the Automobile and Environment sectors. The Automobile 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?*

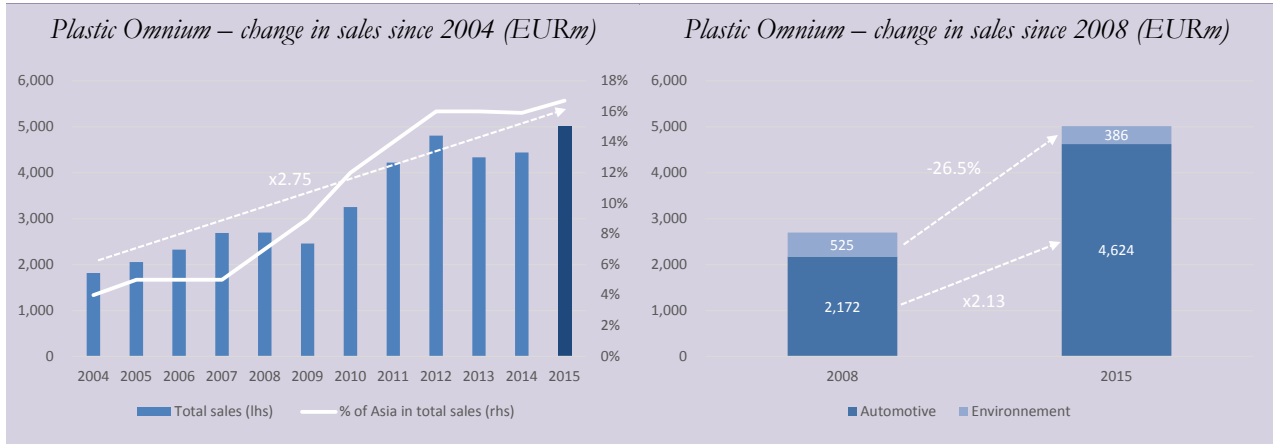


## Risks to our investment case

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.

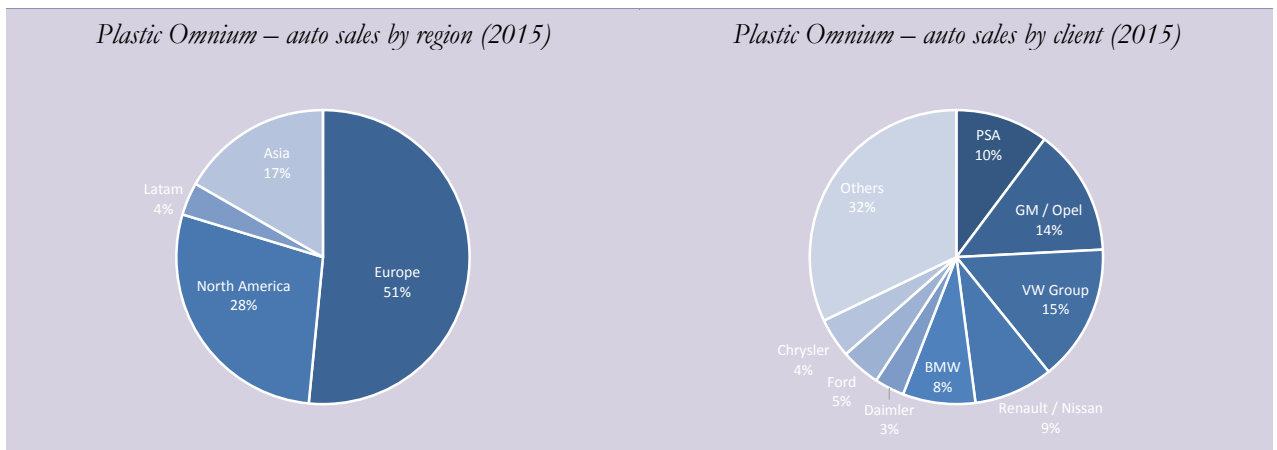
## 2. Plastic Omnium in six charts

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



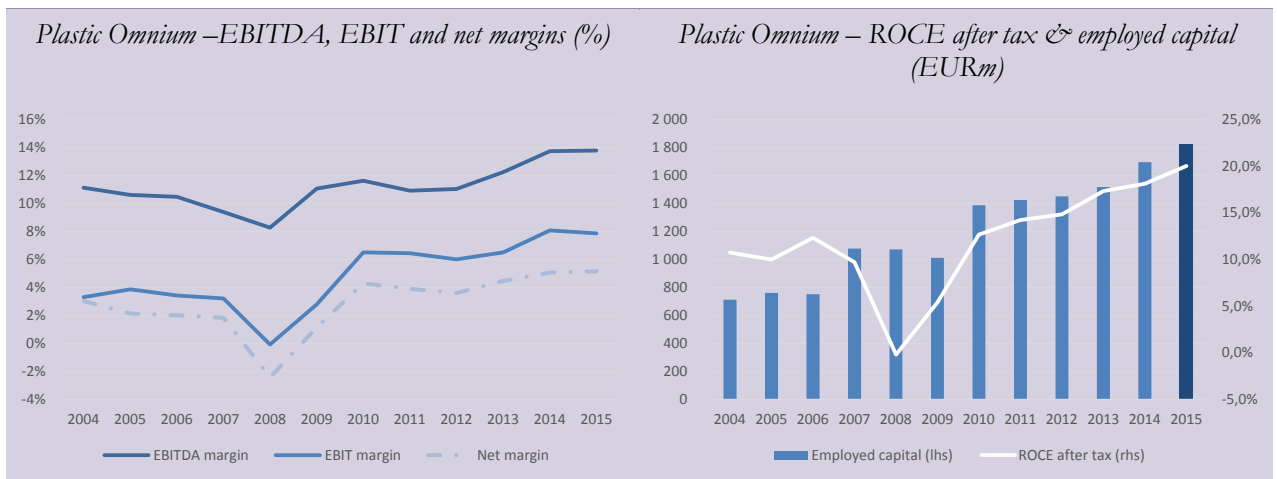
Source: Plastic Omnium; Bryan, Garnier & Co ests.

**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<sub>2</sub> and NO<sub>x</sub> 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.

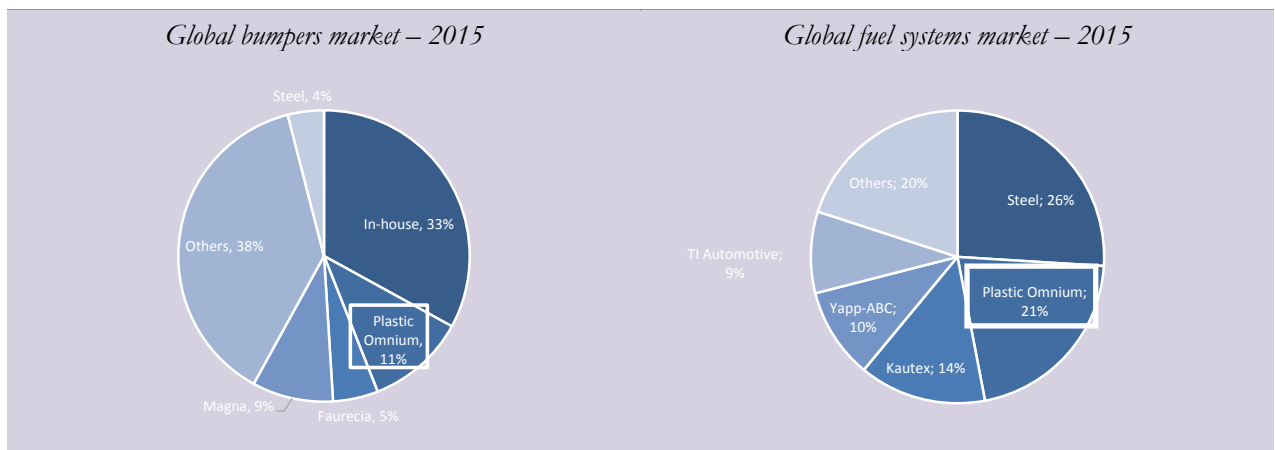
Despite the share's excellent performance since its low-point in early 2009 (*share price multiplied by 48x vs. just 3.2x for the SXAP index*), growth potential still looks attractive at the current price. The 2017-18 consensus has yet to fully price in the acquisition of **FAE** and looks too low still 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.

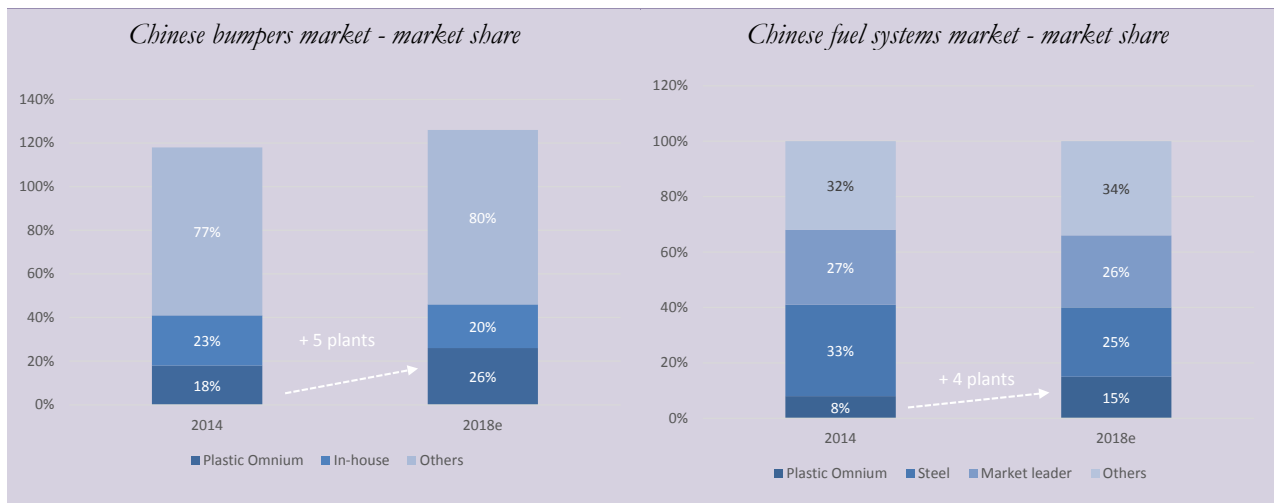
Plastic Omnium is keen to maintain its leading global position in these two segments and also aims to increase its market share to **25%** in the **fuel systems market by 2019**, thanks especially to the recent contracts signed by the group with new carmakers and the opening of additional production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

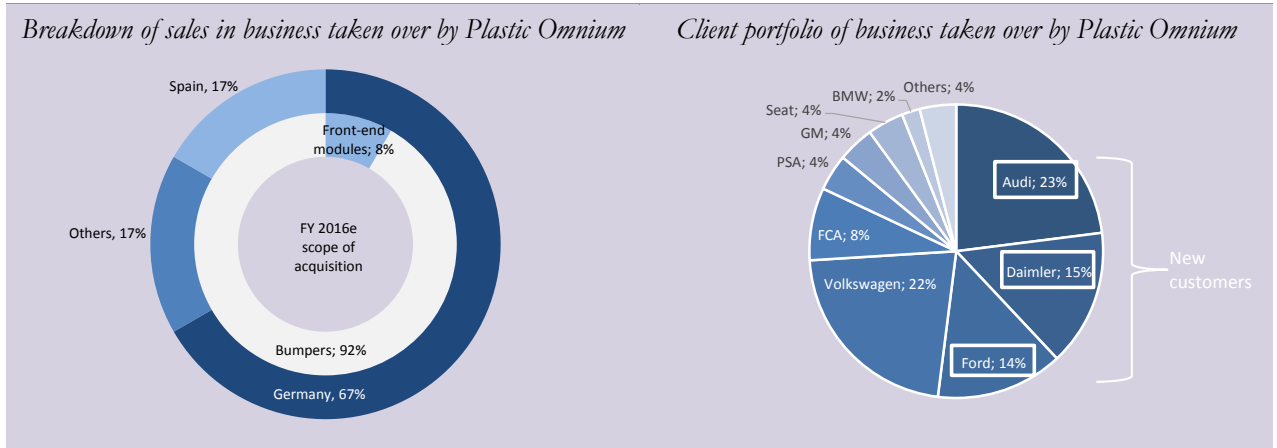
### 5.1. An operation that makes sense

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.

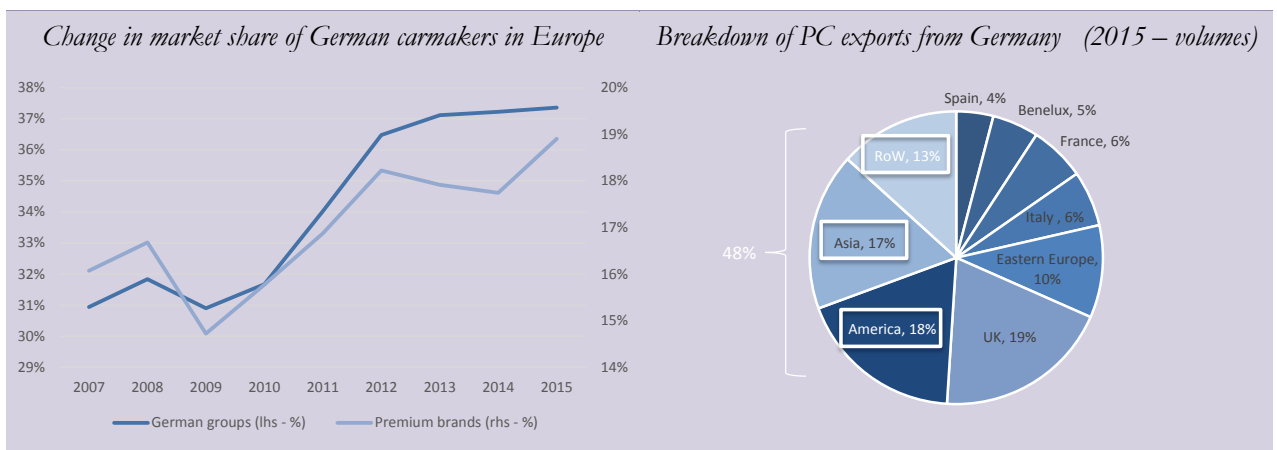
**Fig. 6: Integration of a very European business destined for premium clients**



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.**

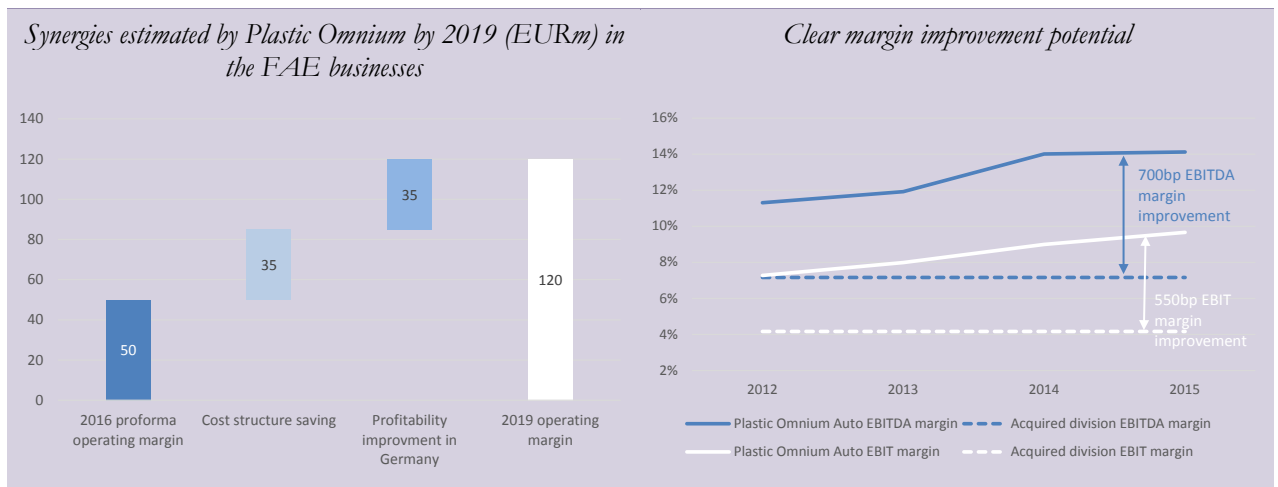
## 5.2. Clear synergies in favour of the group's margin

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

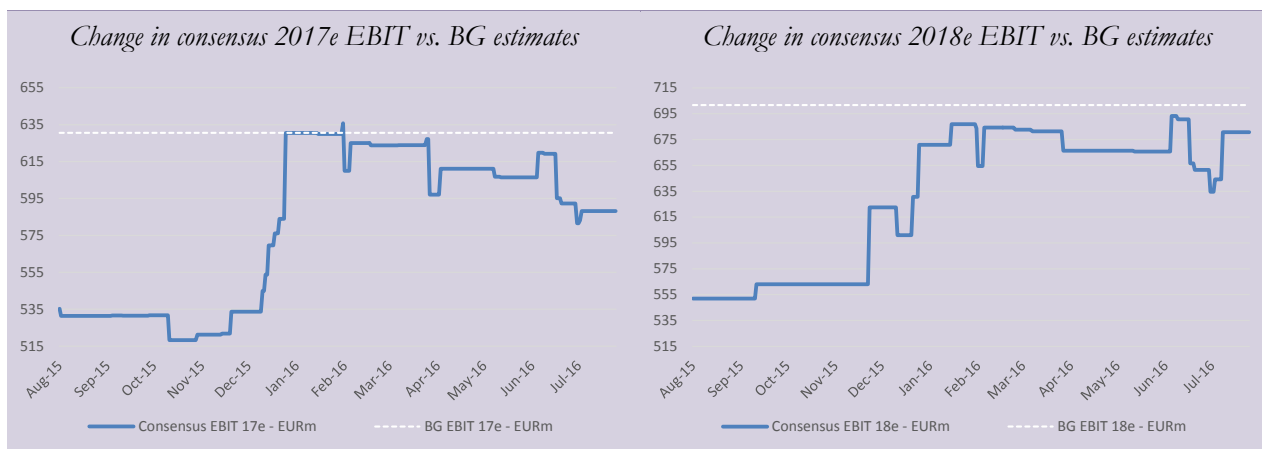
The change in scope imposed by the European Commission obliging Plastic Omnium to sell off around EUR800m in sales from the former **Faurecia Auto Exteriors business**, clearly made estimates models more complex to establish for the consensus for 2017. Nevertheless, now that all the details have been 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.

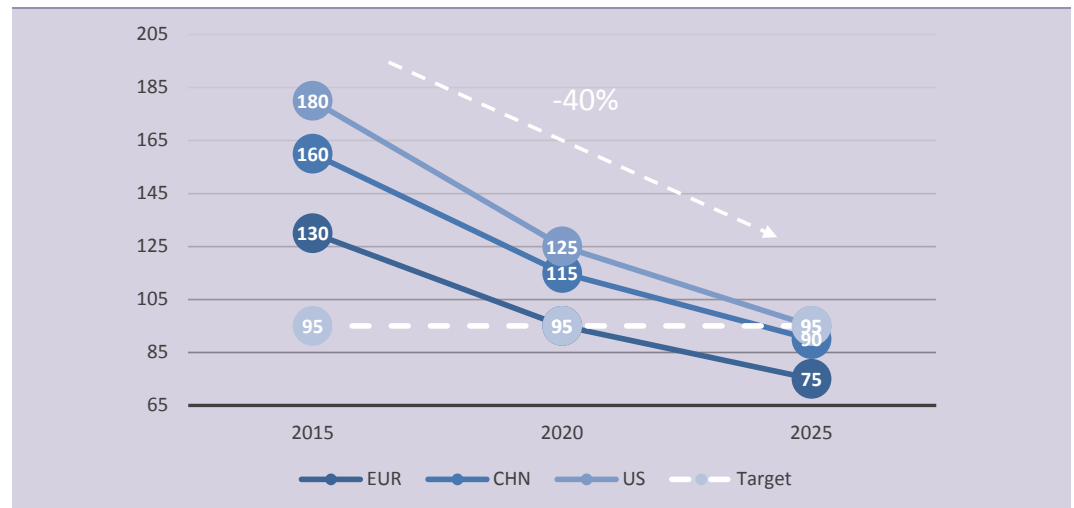
## 6. ... Strengthening positions in the rapidly changing plastic car parts market

### 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<sub>2</sub> 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<sub>2</sub> per km. Since the transport sector accounts for around a third of global CO<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> emissions (CO<sub>2</sub> g/km)**



Source: Faurecia; Bryan, Garnier & Co ests.



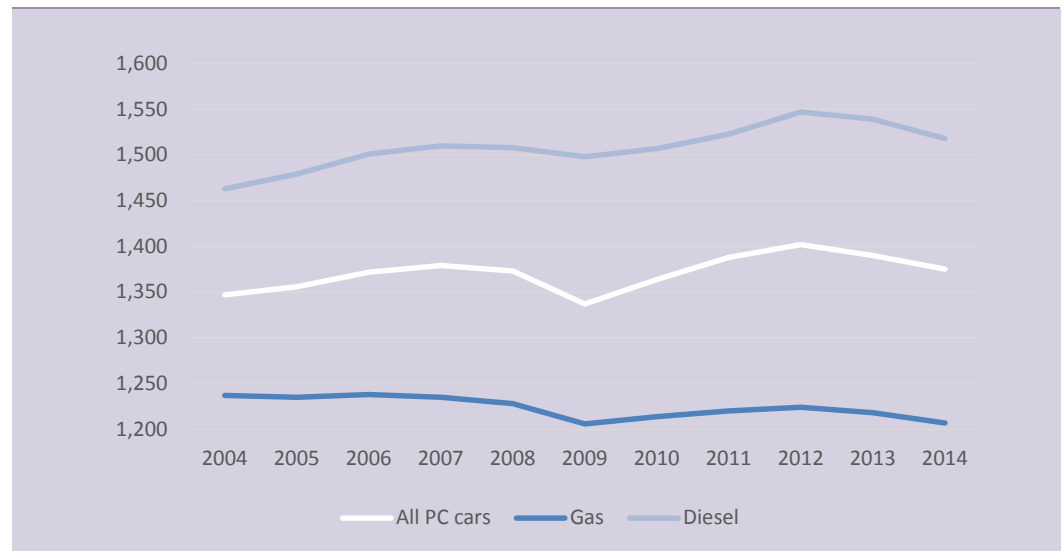
Plastic is 30% lighter than other materials such as steel, which remains the most used in car production

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.

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<sub>2</sub> 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<sub>2</sub> emissions by 40g/km**, whereas their weight increased slightly (+2%). A closer look 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 (*NO<sub>x</sub> trap or SCR system*).

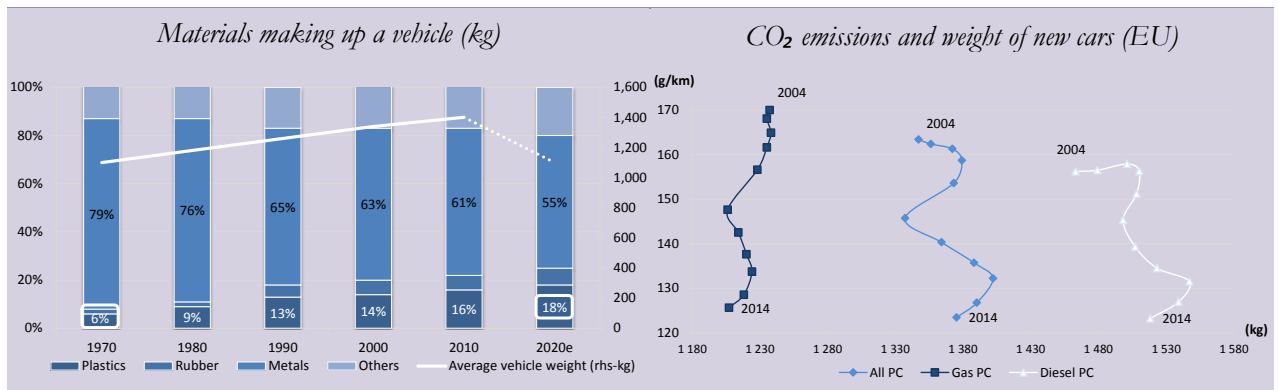
**Fig. 12: European vehicles slightly heavier in 2014 than in 2004 (kg)**



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**

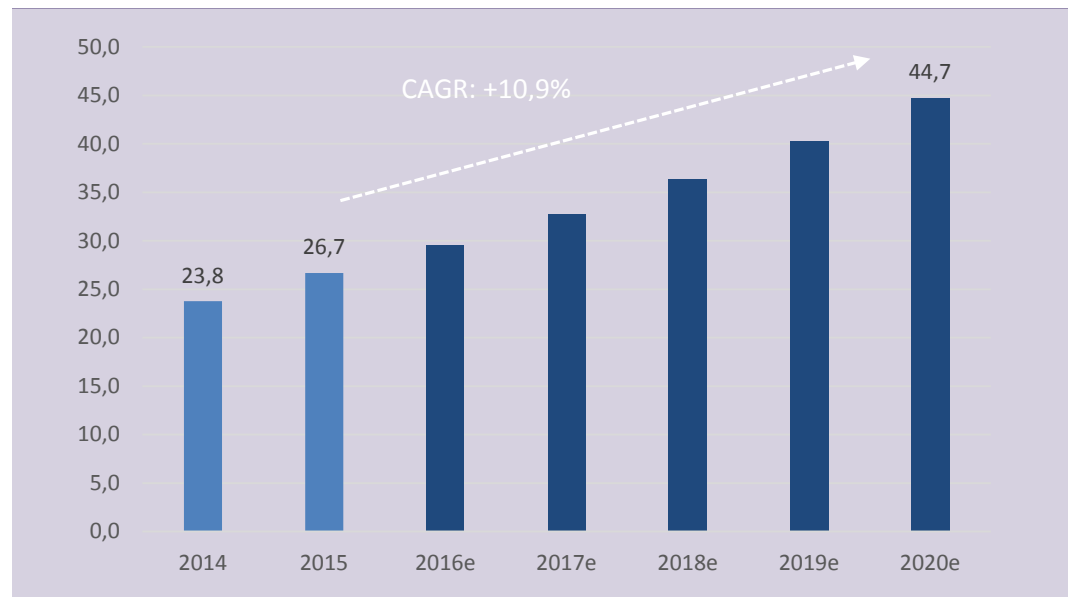


Source: AT Kearney; European environmental agency; Bryan, Garnier & Co ests.

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

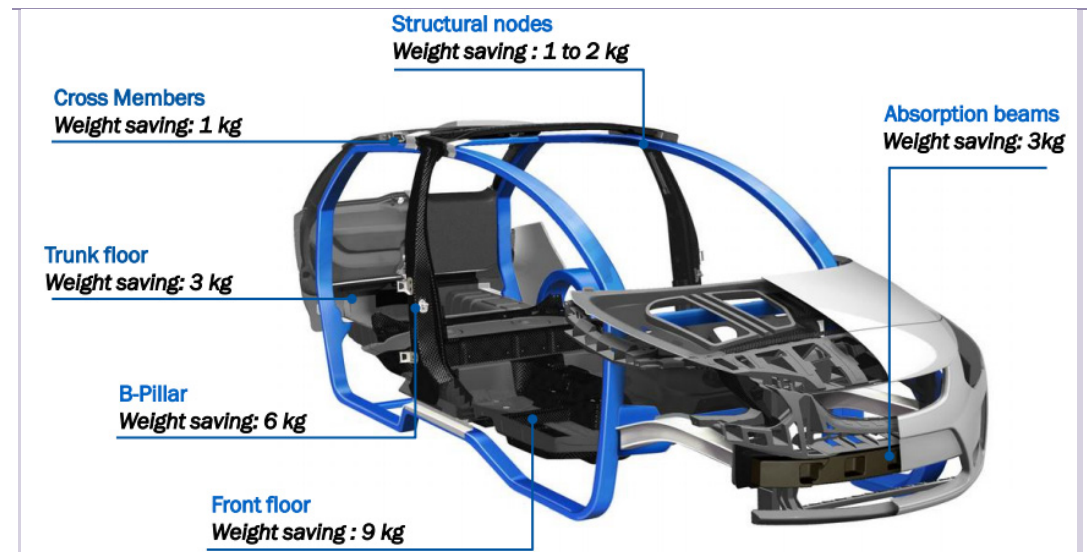
### 6.2.1. Still a niche market...

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**



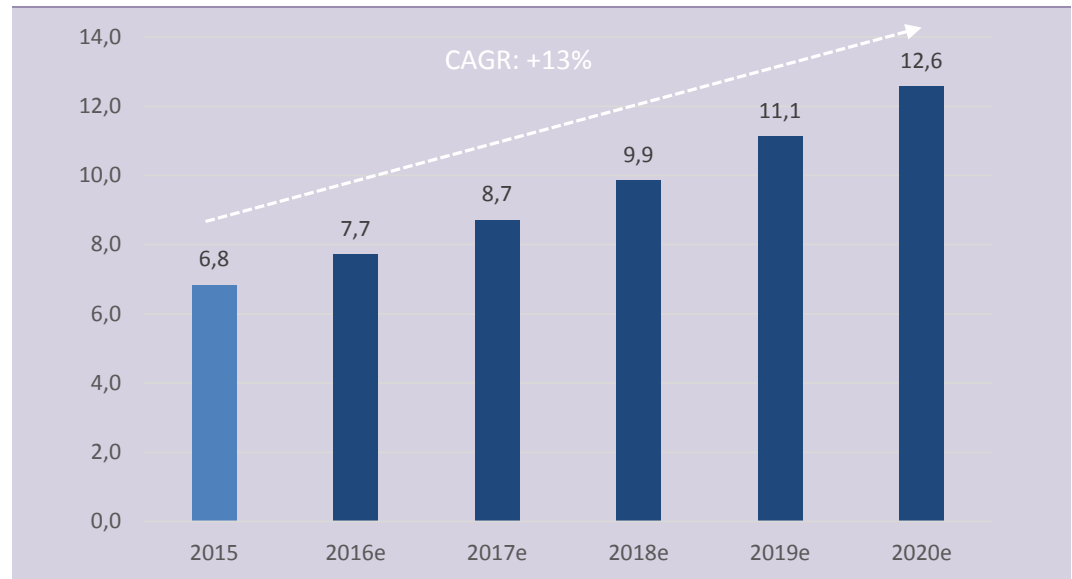
Source: Plastic Omnium; Bryan, Garnier & Co ests.

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
<b>Worldwide automotive production (m) - BG</b>	<b>84,7</b>	<b>87,4</b>	<b>88,6</b>	<b>90,7</b>	<b>92,3</b>	<b>93,6</b>	<b>95,0</b>	<b>96,4</b>
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%
<b>Implied addressable market for composite tailgate systems</b>	<b>1,5</b>	<b>1,6</b>	<b>2,1</b>	<b>3,3</b>	<b>3,9</b>	<b>4,5</b>	<b>5,1</b>	<b>5,8</b>
<b>Market share % POM</b>	<b>65,0%</b>	<b>63,0%</b>	<b>59,0%</b>	<b>54,0%</b>	<b>49,0%</b>	<b>44,0%</b>	<b>40,0%</b>	<b>40,0%</b>
<b>Implied volumes for POM</b>	<b>1,0</b>	<b>1,0</b>	<b>1,3</b>	<b>1,8</b>	<b>1,9</b>	<b>2,0</b>	<b>2,1</b>	<b>2,3</b>

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<sub>2</sub> and NO<sub>x</sub> 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 (NO <sub>x</sub> )	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 NO<sub>x</sub> particle emissions from their diesel engines: 1/ **SCR systems** (*Selective Catalytic Reduction*); 2/ **NO<sub>x</sub>-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 **NO<sub>x</sub>-trap system** (*a full SCR system costs between EUR300 and EUR500 per vehicle*).

Please see the section headed "Important information" on the back page of this report.

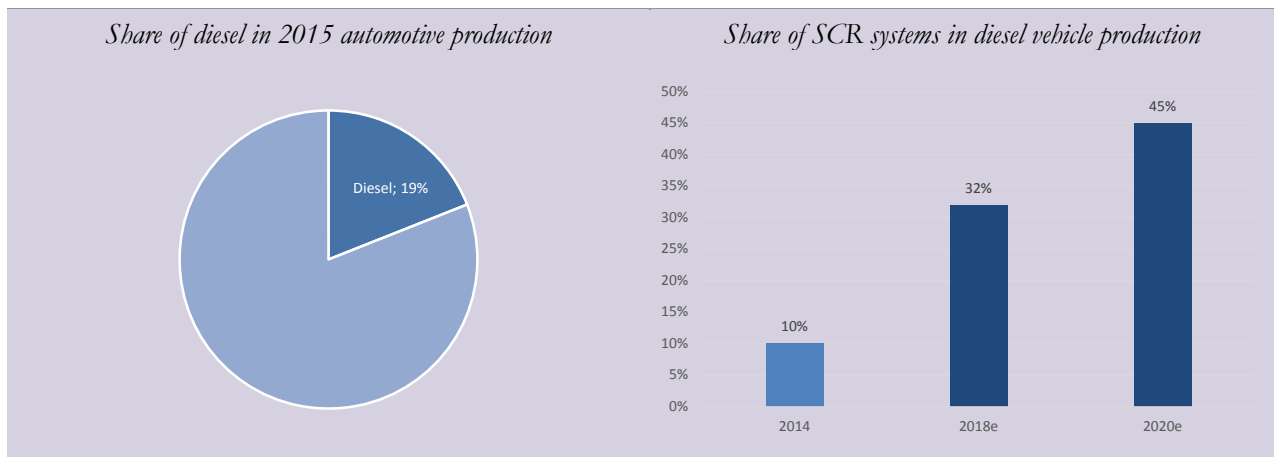


The less efficient **NOx-trap** system (**70% efficient**) is used less than the SCR system due to a clogging problem that blocks the EGR valve. This problem means carmakers are obliged to reduce the number of recirculation processes, thereby implying an increase in temperature and hence, and a rise 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**



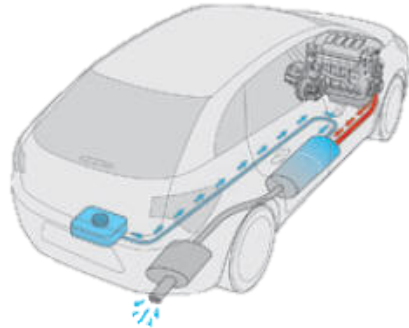
Source: Plastic Omnium; IHS; Bryan, Garnier & Co ests.

### 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<sub>2</sub> 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*).

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 (*Sigmattech 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.

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

**Fig. 21: SCR system sales forecasts**

	2013	2014	2015	2016e	2017e	2018e	2019e	2020e
<b>Worldwide automotive production (m) - BG</b>	<b>84,7</b>	<b>87,4</b>	<b>88,6</b>	<b>90,7</b>	<b>92,3</b>	<b>93,9</b>	<b>95,5</b>	<b>97,2</b>
Share of Diesel (%)	19%	19%	19%	19%	19%	19%	19%	19%
<b>Implied Diesel vehicle production (m)</b>	<b>16,1</b>	<b>16,6</b>	<b>16,8</b>	<b>17,2</b>	<b>17,5</b>	<b>17,8</b>	<b>18,1</b>	<b>18,5</b>
Share of SCR within Diesel production	8,0%	10,0%	15,5%	21,0%	24,7%	32%	39%	45%
<b>Implied addressable market for SCR plastic tank systems</b>	<b>1,3</b>	<b>1,7</b>	<b>2,6</b>	<b>3,6</b>	<b>4,3</b>	<b>5,7</b>	<b>7</b>	<b>8,3</b>
<b>Market share % POM</b>	<b>12%</b>	<b>15%</b>	<b>15%</b>	<b>20%</b>	<b>25%</b>	<b>30%</b>	<b>30%</b>	<b>30%</b>
Implied volume sold by Plastic Omnium (m)	0,15	0,2	0,6	0,7	1,1	1,7	2,1	2,5
<b>ARPU SCR tank system (EUR)</b>	<b>220</b>	<b>220</b>	<b>220</b>	<b>220</b>	<b>220</b>	<b>220</b>	<b>220</b>	<b>220</b>
<b>Sales Inergy SCR (EURm)</b>	<b>33</b>	<b>55</b>	<b>130</b>	<b>159</b>	<b>238</b>	<b>377</b>	<b>461</b>	<b>548</b>
% 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
<b>Weight (full tank/cartridge)</b>	<b>40 kg</b>	<b>27 kg</b>
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.

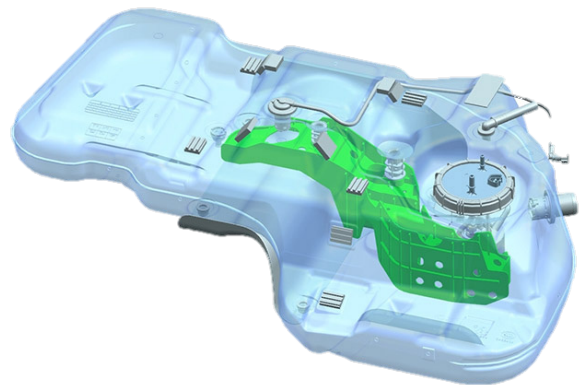
The segment of rechargeable hybrid vehicles has only very recently been addressed by the group via a **specific plastic fuel tank**, the launch of which was announced in **June 2016** with a first contract with **Hyundai** to equip its rechargeable vehicles. Note that **seven other contracts** have been 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 cars*), 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.

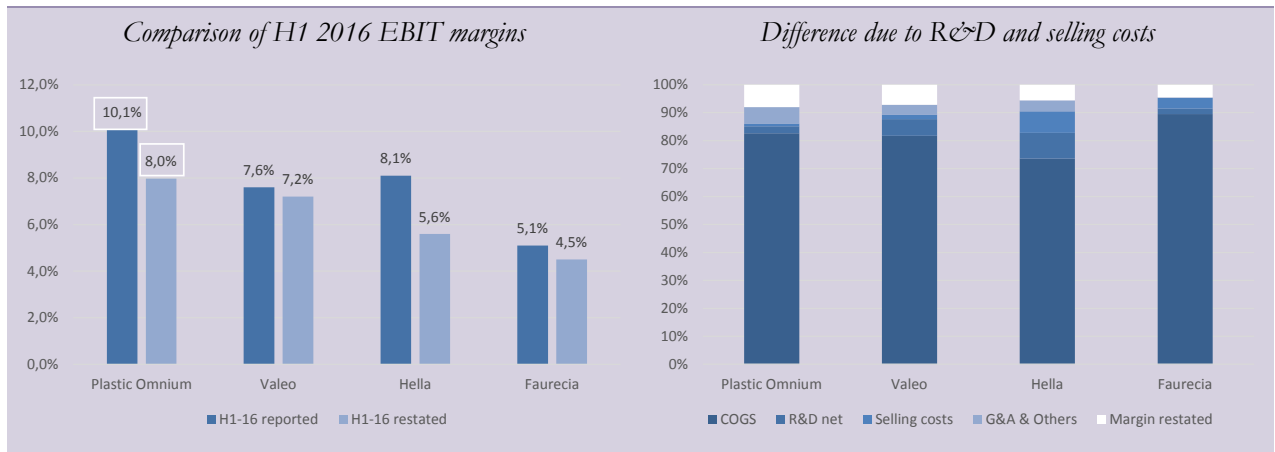
Under this framework, no acquisition or strategic partnership is likely to be signed in order to acquire expertise or invest in R&D on the subject, contrary to Valeo for example, which is multiplying acquisitions and technological partnerships. As such, **innovation is only likely to be shouldered internally 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.

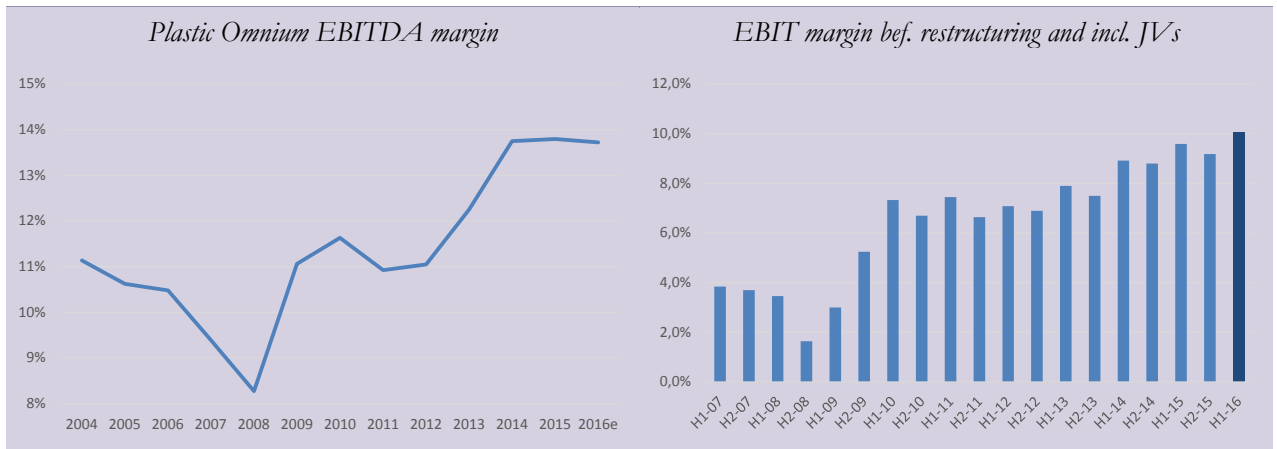
Delivering EBIT margin of **10%** on a lasting basis remains an ambitious target for all automotive parts suppliers. Today in the automotive industry, carmakers generate average margins of **6.9%** whereas parts makers generate margins of **8.6%**, thereby positioning **Plastic Omnium among the most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

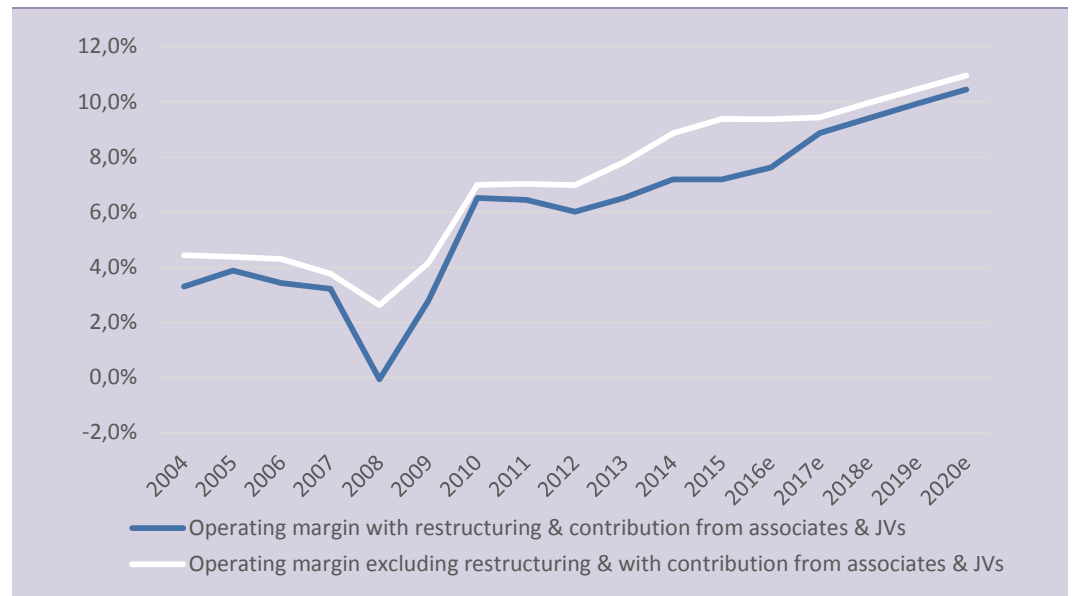


**Fig. 25: EBIT margin at a peak level**



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
<b>EBITDA reported</b>	<b>223</b>	<b>272</b>	<b>378</b>	<b>461</b>	<b>531</b>	<b>531</b>	<b>610</b>	<b>691</b>	<b>774</b>	<b>982</b>	<b>1 057</b>	<b>1 151</b>	<b>1 251</b>
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%
<b>Operating cash-flow</b>	<b>100</b>	<b>265</b>	<b>332</b>	<b>382</b>	<b>429</b>	<b>404</b>	<b>409</b>	<b>525</b>	<b>558</b>	<b>742</b>	<b>796</b>	<b>870</b>	<b>950</b>
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
<b>Net financial debt reported</b>	<b>598</b>	<b>535</b>	<b>538</b>	<b>471</b>	<b>390</b>	<b>410</b>	<b>390</b>	<b>268</b>	<b>842</b>	<b>456</b>	<b>266</b>	<b>44</b>	<b>(211)</b>
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
<b>Revenues</b>	<b>3 250</b>	<b>4 220</b>	<b>4 806</b>	<b>4 335</b>	<b>4 437</b>	<b>5 010</b>	<b>5 813</b>	<b>6 878</b>	<b>7 310</b>
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
<b>EBIT</b>	<b>227</b>	<b>296</b>	<b>335</b>	<b>339</b>	<b>393</b>	<b>470</b>	<b>533</b>	<b>631</b>	<b>702</b>
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
<b>Restated net profit</b>	<b>140</b>	<b>165</b>	<b>173</b>	<b>193</b>	<b>225</b>	<b>259</b>	<b>324</b>	<b>401</b>	<b>454</b>
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
<b>Operating cash flows</b>	<b>332</b>	<b>382</b>	<b>429</b>	<b>404</b>	<b>409</b>	<b>525</b>	<b>558</b>	<b>742</b>	<b>796</b>
Change in working capital	10	53	62	28	(17)	34	3	2	(9)
<b>Capex, net</b>	<b>(155)</b>	<b>(265)</b>	<b>(310)</b>	<b>(314)</b>	<b>(346)</b>	<b>(378)</b>	<b>(442)</b>	<b>(481)</b>	<b>(512)</b>
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
<b>Free Cash flow</b>	<b>193</b>	<b>153</b>	<b>168</b>	<b>97</b>	<b>100</b>	<b>203</b>	<b>117</b>	<b>260</b>	<b>284</b>

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

## Plastic Omnium

**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
<b>Total assets</b>	<b>2 551</b>	<b>1 610</b>	<b>1 743</b>	<b>1 809</b>	<b>2 003</b>	<b>2 224</b>	<b>3 052</b>	<b>2 982</b>	<b>3 126</b>
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
<b>Total Liabilities</b>	<b>2 551</b>	<b>2 792</b>	<b>3 152</b>	<b>3 252</b>	<b>3 588</b>	<b>4 091</b>	<b>4 499</b>	<b>5 029</b>	<b>5 461</b>
<b>Capital employed</b>	<b>1 387</b>	<b>1 426</b>	<b>1 450</b>	<b>1 517</b>	<b>1 696</b>	<b>1 826</b>	<b>2 642</b>	<b>2 555</b>	<b>2 702</b>

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

**Fig. 32: Plastic Omnium - Ratios - %**

	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e
<b>Operating margin</b>	<b>7,0%</b>	<b>7,0%</b>	<b>7,0%</b>	<b>7,8%</b>	<b>8,9%</b>	<b>9,4%</b>	<b>9,2%</b>	<b>9,2%</b>	<b>9,6%</b>
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%
<b>ROCE (after tax)</b>	<b>12,7%</b>	<b>14,2%</b>	<b>14,8%</b>	<b>17,3%</b>	<b>18,1%</b>	<b>20,0%</b>	<b>15,7%</b>	<b>19,0%</b>	<b>20,0%</b>
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
<b>EPS</b>	<b>1,45</b>	<b>1,04</b>	<b>1,12</b>	<b>1,25</b>	<b>1,45</b>	<b>1,68</b>	<b>2,12</b>	<b>2,62</b>	<b>2,97</b>
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
<b>Net dividend</b>	<b>0,20</b>	<b>0,23</b>	<b>0,25</b>	<b>0,33</b>	<b>0,37</b>	<b>0,41</b>	<b>0,53</b>	<b>0,65</b>	<b>0,74</b>

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

**Fig. 34: Plastic Omnium - Valuation EURm**

	2010	2011	2012	2013	2014	2015	2016e	2017e	2018e
<b>Market capitalization</b>	<b>565</b>	<b>735</b>	<b>984</b>	<b>2 231</b>	<b>3 213</b>	<b>4 244</b>	<b>4 219</b>	<b>4 219</b>	<b>4 219</b>
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
<b>EV</b>	<b>1 453</b>	<b>1 370</b>	<b>1 565</b>	<b>2 330</b>	<b>3 214</b>	<b>4 190</b>	<b>4 697</b>	<b>4 312</b>	<b>4 113</b>
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
<b>EV/EBIT</b>	<b>6,9x</b>	<b>5,0x</b>	<b>5,4x</b>	<b>9,3x</b>	<b>10,1x</b>	<b>11,6x</b>	<b>10,8x</b>	<b>8,0x</b>	<b>6,8x</b>
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
<b>Dividend Yield (%)</b>	<b>10,2%</b>	<b>2,4%</b>	<b>2,7%</b>	<b>1,2%</b>	<b>1,3%</b>	<b>1,4%</b>	<b>1,9%</b>	<b>2,3%</b>	<b>2,6%</b>

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%	
<b>Implied FV</b>		<b>€36,0</b>
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
<b>Revenues - Core business</b>	<b>5 813</b>	<b>6 878</b>	<b>7 310</b>	<b>7 752</b>	<b>8 224</b>	<b>8 489</b>	<b>8 764</b>	<b>9 049</b>	<b>9 345</b>	<b>9 652</b>
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%
<b>EBIT (excluding JVs &amp; Associates, with restr. Charges)</b>	<b>437</b>	<b>537</b>	<b>603</b>	<b>673</b>	<b>748</b>	<b>780</b>	<b>813</b>	<b>847</b>	<b>882</b>	<b>919</b>
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)
<b>Free Cash Flow</b>	<b>165</b>	<b>308</b>	<b>320</b>	<b>362</b>	<b>407</b>	<b>435</b>	<b>463</b>	<b>491</b>	<b>518</b>	<b>546</b>
<b>Present Value of Free Cash Flow</b>	<b>161</b>	<b>278</b>	<b>265</b>	<b>276</b>	<b>286</b>	<b>281</b>	<b>275</b>	<b>269</b>	<b>261</b>	<b>253</b>

Source: Bryan, Garnier & Co ests.



**Fig. 37: Plastic Omnium – DCF @ €36**

<b>Valuation</b>	
PV of Free Cash Flows	2 607
PV of Terminal Value	3 383
<b>EV implied - EURm</b>	<b>5 990</b>
- 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
<b>Value of Equity</b>	<b>5 392</b>
<b>Value of Equity per share</b>	<b>€36,3</b>
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
<ul style="list-style-type: none"> <li>• Core expertise in <b>vehicle weight reduction</b>, a long-term growth trend in the automotive sector</li> <li>• An expansion in the product portfolio to include hybrid and rechargeable hybrid vehicles</li> <li>• Diversified geographical exposure with <b>Asia</b> (17% of sales) and the <b>US</b> (28% of sales)</li> <li>• Increasing exposure to premium carmakers</li> <li>• Refocusing on the most profitable businesses (automotive, 14% EBITDA margin) via disposals in the environment division</li> <li>• A solid competitive positioning in bumpers (11% global market share) amplified by the acquisition of Faurecia's exteriors division</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of presence in the connected and autonomous vehicle segment</li> <li>• A still limited product offering in the composites segment despite the signing of a few contracts</li> <li>• Acquisition of Faurecia division amputated by the European Commission (EUR1.2bn in sales acquired vs. EUR2bn for the division)</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• Penetration of the <b>German market</b> and acquisition of OEM premium clients thanks to the operation with Faurecia</li> <li>• Sizeable improvement potential for margins in businesses acquired from Faurecia thanks to <b>synergies in terms of structural costs</b></li> <li>• A technological shift at European carmakers towards <b>SCR systems</b></li> </ul>	<ul style="list-style-type: none"> <li>• A slowdown in the global automotive market would directly impact <b>92%</b> of Plastic Omnium's sales</li> <li>• Confirmation of a slowdown in the Chinese market in the event of a halt to government incentives</li> <li>• Plastic Omnium is preparing to integrate the largest acquisition in its history (reorganisation of industrial processes and risk of social conflict)</li> <li>• Momentum in <b>Faurecia's ASDS depollution</b> systems could make Plastic Omnium's SCR tanks obsolete</li> </ul>

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 Contier, 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<sub>2</sub> 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.

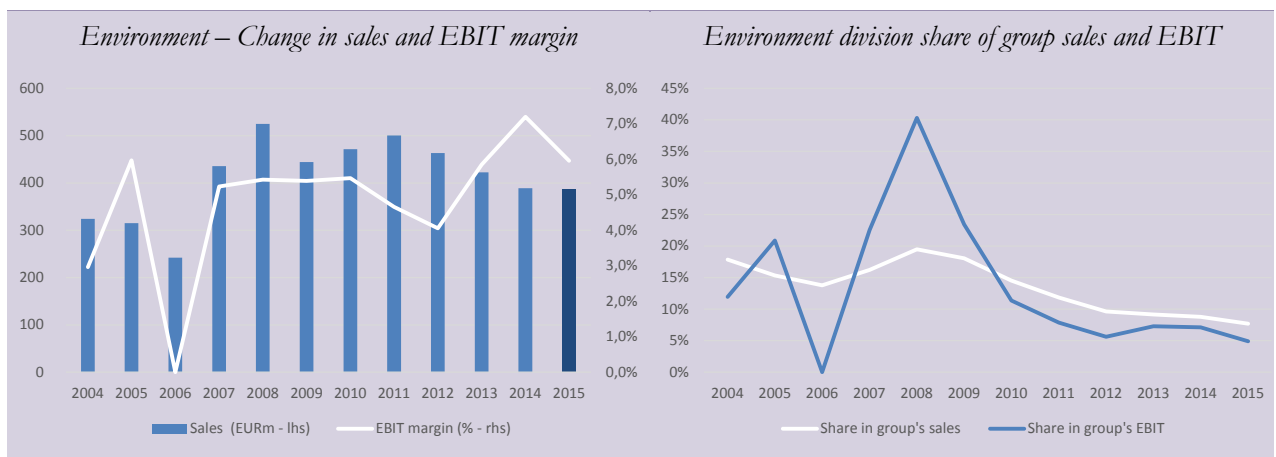
This type of business is primarily **underpinned by the tightening of regulations** for the gradual reduction in CO<sub>2</sub> and NOx emissions in diesel vehicles, whether in Europe or the US. These standards have encouraged carmakers to **review weight and aerodynamic aspects**, the answer to which 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<sub>2</sub> 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 (*Emballagen 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.

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