PLASTIC OMNIUM

AUTO SHOW
IAA FRANKFURT

PRESS KIT
17 - 27 SEPTEMBER 2015

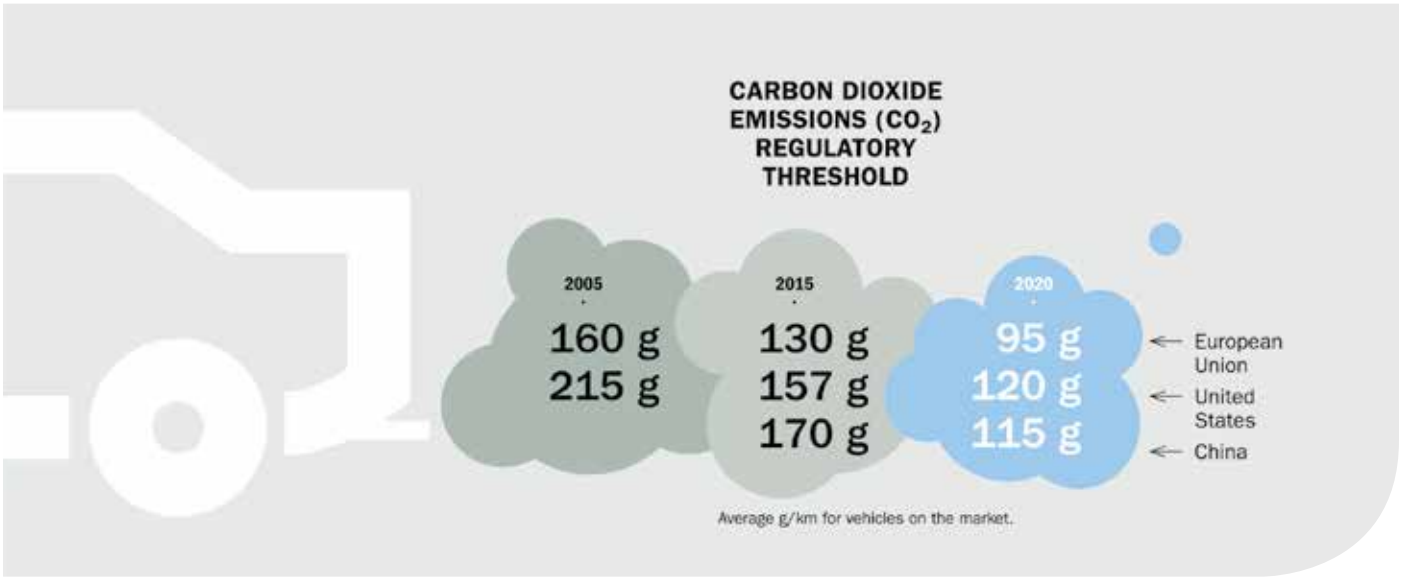
INNOVATING FOR A BETTER FUTURE

PLASTIC OMNIUM AND THE CHALLENGES OF SUSTAINABLE MOBILITY

The international community's goal to limit the rise in temperature by 2100 to 2 °C will require a 40-70% reduction in greenhouse gas emissions by 2050, including carbon dioxide (CO_2) emitted by cars. The climate emergency and energy crisis are driving the move toward a restrictive regulation with an average 100g CO_2 per kilometer target by 2020/2025 in both developed and emerging countries. In addition, nitrogen oxide (NOx) emissions standards are increasingly stringent, envisioning their possible elimination by 2050.

As the effects of these regulatory pressures are felt in the market, Plastic Omnium, a major automotive equipment supplier, actively supports its customers in complying with new emissions regulations.

With an international footprint, operating in key major markets, Plastic Omnium serves automakers through its capacity for innovation, focused on vehicle light- weighting, design freedom and emissions reduction.



THE COMPANY IS ACTIVE IN TWO AUTOMOTIVE FIELDS:

1. Auto body parts and modules

Auto body parts and modules, in which it is the worldwide leader, with 10% market share and nearly 18 million painted bumpers manufactured in 2014. The company designs and produces a wide range of parts and modules: bumpers and energy absorption systems, tailgates, fenders and fender modules, front-end modules and composite parts. Through its offer in the exterior body panels market, Plastic Omnium provides customized multi-material solutions with high added value that increasingly integrate functions and enhance safety to reduce vehicle weight and CO_2 emissions. In 2014, 80 new programs were launched in this area, including 46 in China, 22 in Europe and 10 in the Americas. In 2015, 87 new programs will be added, including 13 on new product lines.

2. Fuel tank systems and SCR*

Fuel tank systems and SCR (Selective Catalytic Reduction) diesel emissions reduction systems, in which it is the worldwide leader, with a market share of 21% and 18 million fuel tank systems manufactured in 2014. A vehicle safety component, the fuel tank system performs several essential functions, from the filler cap to the engine: filling, storage, gauging, venting and feeding. The SCR system manages onboard depollution fluids as well as performing heating and other measurement functions (quality, temperature...). In 2014, 16 new fuel tank system programs were launched: 5 in Asia (including two in China), 5 in Europe and 6 in the Americas. These figures will increase sharply in 2015, with 37 new fuel systems programs plus 8 SCR programs.

(*) Selective Catalytic Reduction (SCR)

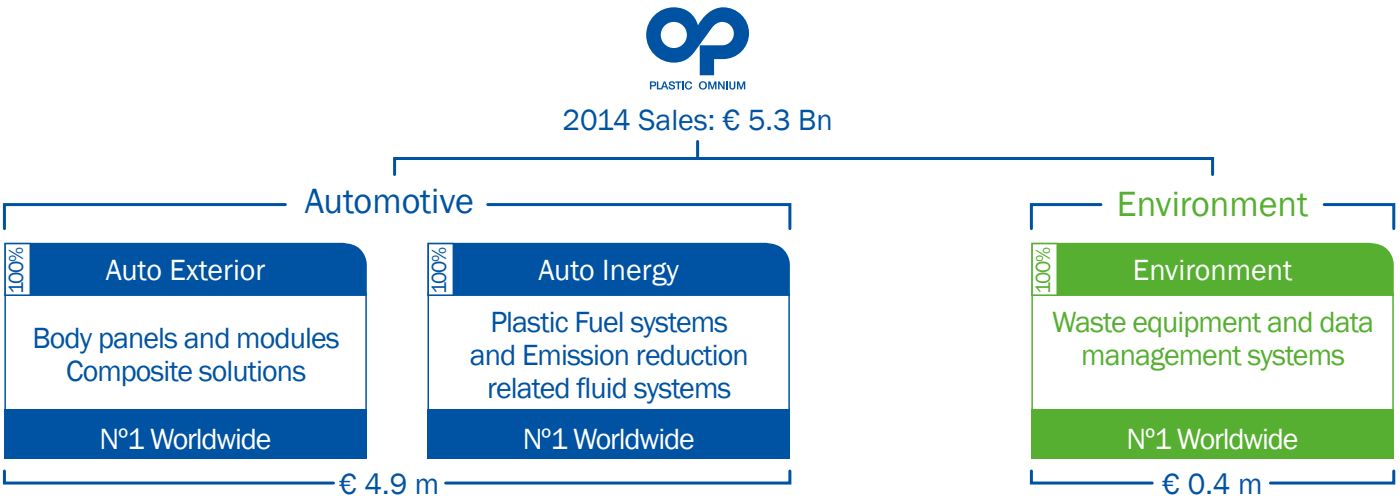
2014 key figures

30 countries

115 plants

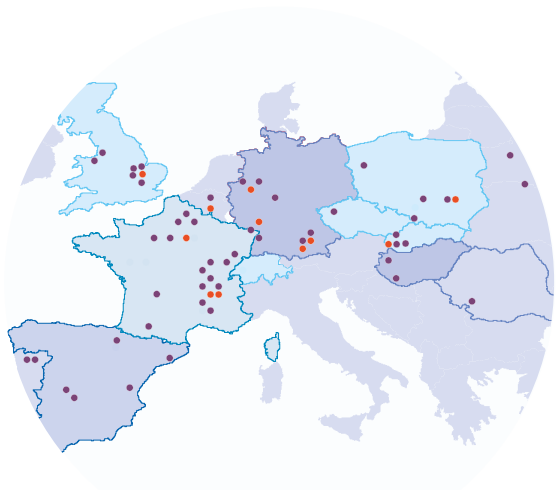
R&D investment 5% of total sales

25,000 employees



GLOBAL FOOTPRINT

With 115 plants in 30 countries, Plastic Omnium partners with all of the world's major automotive manufacturers, delivering the same high level of innovation and execution quality, worldwide.



WESTERN EUROPE

43% of total sales

43 plants
9 R&D centers

EASTERN EUROPE

10% of total sales

13 plants
2 R&D centers

ASIA

17% of total sales

37 plants
6 R&D centers

NORTH AMERICA

26% of total sales

15 plants
2 R&D centers

SOUTH AMERICA

4% of total sales

5 plants
2 R&D centers

AFRICA

2 plants

In 2014, Plastic Omnium equips worldwide:

Over 10 million cars with bumpers

More than one million cars with tailgates

More than two million cars with rear spoilers

1 out of 5 vehicle with fuel tank systems

PLASTIC OMNIUM PARTNERS WITH 45 GLOBAL AUTOMAKERS

PLASTIC OMNIUM: SUSTAINED INVESTMENT IN R&D

Plastic Omnium's innovation strategy is a major contributor to its development, along with its industrial investment in high-growth areas.

This strategy draws upon two international R&D centers: Σ-Sigmatech (500 people, Lyon, France), dedicated to external body parts and composite materials and α-Alphatech (Compiègne, France), dedicated to fuel tank systems, SCR tank systems and new energy storage solutions. Inaugurated September 1, 2014, α-Alphatech represents an investment of 65 million euros and employs 450 people. In support of Plastic Omnium's growth and globalization strategy, R&D is reinforced by 19 development centers located in growth areas, such as in Slovakia and China, where two centers were opened in 2013.

The worldwide network is thus comprised of 21 centers and 2,000 employees, representing 20 nationalities, who are dedicated to innovative solutions that enable Plastic Omnium's customers to meet the most stringent environmental standards. This policy has produced a portfolio of 3,121 patents, including 131 filed in 2014, which ranks 30th among French patent holders (source INPI ranking, 2014) and 7th among automobile companies.

Industrial excellence:

Beyond product development, Plastic Omnium is recognized by its customers for its:

- expertise and standards of excellence, from the development phase (design, simulation and validation) to industrialization (mass production).

- mastery of key industrial processes such as injection, compression and blow molding, assembly, painting, sequencing and logistics.

- ability to manage complex programs, based on global manufacturer platforms. Each project's implementation is strictly managed according to standardized processes that ensure quality, performance and reliability.

R&D key figures

R&D investments:
5% of sales

9% of the workforce
or 2,000 people

21 centers on four continents, including two international centers based in France

A portfolio of 3,121 patents

Plastic Omnium equips 10 models premiered by manufacturers at the Frankfurt International Motor Show, IAA 2015

INNOVATION FOCUS AREAS FOR PLASTIC OMNIUM INVESTMENTS

In a context of tightening global regulations, Plastic Omnium focuses its research on solutions to reduce carbon dioxide (CO_2) and nitrogen oxide (NOx) emissions to support automakers in designing and building the clean car of the future, through two main actions:

- reduction of polluting emissions, a major concern for the automotive sector.
- freedom of design, allowing manufacturers to optimize aerodynamic benefits as well as to promote stylistic creativity.

1. Reducing emissions

End-user vehicle selection criteria are changing, with more emphasis on safety and connectivity, as well as economics and the environment. Plastic Omnium, a leading player in its fields, explores new design solutions for more sustainable cars:

• **The reduction in weight of vehicle body parts** requires completely rethinking the design, a key expertise through which Plastic Omnium serves its customers. The solutions developed by its engineers enable reductions of up to 40% in the weight of body components, compared with steel parts. Solutions to optimize passive and active aerodynamics allow reductions of more than 3 g CO_2 /km.

• **High performance composites is another innovation area** being developed by Plastic Omnium: lighter than aluminum iso-function, with excellent mechanical performance and resistance to high temperatures, composite structural parts reinforced with carbon or glass fibers can generate an overall weight reduction of up to 50 kg, reducing CO_2 emissions by around 5 g/km.

• **Plastic fuel tank systems** present the perfect combination of safety, cost and weight performance (a 30% to 40% weight improvement compared with steel technologies). They also represent an ideal solution to

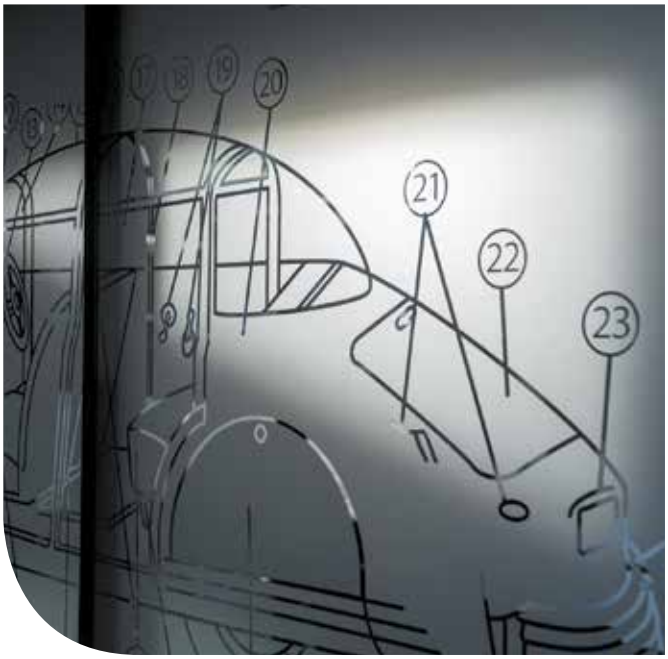
support the development of hybrid vehicles. Plastic Omnium offers solutions specifically adapted for these engines, in particular INWIN and TANKTRONIC®. These solutions are based on the filing of 64 patents by Plastic Omnium.

• **Plastic Omnium is developping its SCR systems** SCR is an effective and recognized technology for diesel vehicle exhaust emissions reduction. It consists of a urea solution sprayed within the exhaust line, which causes a chemical reaction upon contact with the gases created by diesel combustion, transforming the nitrogen oxide pollutants into nitrogen and water vapor. In total, Plastic Omnium has filed more than 172 patents on its various SCR solutions.

2. Freedom of design:

• **Since its introduction in automotive applications**, plastic has achieved superior performance compared with other materials: reducing the weight of components by 30% on average compared to steel, providing processing flexibility and design freedom, integration of functions, control of the amount of material used, impact and fire resistance, durability and noise mitigation. Plastic Omnium products also offer electro magnetic transparency, responding to a changing market that requires increasing integration of radar systems, antennas, parking aids...

• **Freedom of design** is also provided to manufacturers through Plastic Omnium's ability to integrate functions in the components and modules it designs and produces. The company offers pre-equipped modular solutions to meet growing demands from the automotive industry for increasingly differentiated vehicles with ever more variations and options.



• **Plastic Omnium is the first manufacturer** to have used blow molding techniques for plastic fuel tank systems, which enable the production of hollow-bodied complex shapes in a single operation. Today, over 70% of newly produced vehicles worldwide are equipped with a plastic fuel tank system as a result of its intrinsic benefits, including 30% weight reduction and design freedom that provides great freedom to adapt to the constraints of the chassis.

• **Like emissions, noise reduction is a key challenge** in vehicle design and is essential to passenger comfort. Hybrid vehicles, because they are quieter, have more subtle noises related to aerodynamics, rolling and the movement of the fuel inside the tank. Plastic Omnium has developed a wide range of INBAFFLE anti-slosh noise devices: partitions of varying shapes and sizes can be installed within the fuel tank on the assembly line or during blow molding (24 patents filed).

AUTO EXTERIOR DIVISION

BUMPERS AND BODYWORK:

1. An innovative and global supply at the highest quality level.

Thermoplastic body color painted bumpers and panels have become the norm in the automotive industry. Their light weight (density seven times less than that of steel), impact resistance and forming properties have made these technologies successful with both designers and carmakers. Plastic Omnium masters these technologies globally with unparalleled levels of appearance and dimensional qualities. In addition to bumpers, the fenders, door panels, sill moldings, tailgates and roof spoilers are increasingly popular among both premium and high volume manufacturers.

These products and associated technologies are the subject of 873 patents filed worldwide.

BMW X5

The bumpers and fenders of the new BMW X5 are injection moulded thermoplastic and body-color painted, with a guarantee of optimally matched color with the entirety of the vehicle in painted metal. The use of thermoplastic material enables weight reduction of 1 kg per fender while offering design freedom sought by manufacturers to allow model customization.

Benefits include light-weighting, design and aerodynamics through openings integrated into the fender and bumper to guide and extract the air at wheel level, optimizing vehicle aerodynamic performance.

2. Strong potential for integrating electronic and mechatronic functions for the connected and autonomous automobiles of the future.

Today, automobiles are overwhelmingly integrating communications and driver assistance systems. Plastic Omnium body components offer an ideal integration platform for these devices. The forming options, integration of functions and electromagnetic transparency can accommodate sensors, radar, antennas and active aerodynamic systems with maximum performance and reliability. The automotive front bumper becomes a true radome, allowing the vehicle to communicate with its environment for enhanced safety.

BMW X5 Bumpers

Front-end modules, Porsche Cayenne

Porsche Cayenne, integration of functions for multiple benefits

Plastic Omnium was chosen by Porsche to equip its Cayenne model with bumpers and front-end modules.

The modules are delivered assembled, allowing the integration of driver assistance, safety, communications, lighting and signaling features.

Assembled front driver assistance systems offer long-range ACC radar, blind spot detection radar and parking assistance sensors.

The module also includes controlled air inlet vents to optimize vehicle aerodynamics.

LightAir : innovative concept of lightweight, aerodynamic bumpers

Plastic Omnium's LightAir is an innovative concept for bumpers, prefiguring changes of the vehicle front-end with ever greater freedom of design, reduced CO_2 emissions and integration of electronic and mechatronic systems.
In addition to the passive air inlets side grilles, LightAir incorporates active aerodynamic systems that enable concealment of the air inlet and deployment of a high-speed lower spoiler. The reduction in CO_2 can be up to 3 g/km for an SUV type vehicle.
The concealed air inlet grille helps to provide a different style to the vehicle when stationary and moving, emphasized with high gloss lacquered dark material on the metallic surfaces using hot stamp technologies.
LightAir uses low density materials such as foam-injected thermoplastics and front facing architecture enabling a reduced overhang and weight savings of 10% compared to traditional bumpers.
LightAir also accommodates driving assistance equipment (camera, radar, sensors...), making them effective under all weather conditions through defrosting solutions for the plastic protection surfaces.

Finally, light-conducting optical fibers are used to create day-time running lights that are less sensitive to small shocks.

LightAir technologies and product innovations have been the subject of 24 patents worldwide.

Innovative concept: LightAir

TAILGATES:

Attractive modular solutions for a wide range of vehicles

With more than 60% market share, Plastic Omnium is the world leader in composite tailgates , a rapidly growing product line in the automotive world. In 2015, Plastic Omnium will equip more than one million vehicles worldwide.
Composite tailgates offer automakers unparalleled freedom for styling on the rear of the vehicle, weight savings of around 30% compared to a traditional steel solution and modularity that simplifies management of a growing variety of vehicles on assembly lines.

Plastic Omnium offers two technologies covering a wide range of vehicles:
• «Higate Hybrid» combines an inner structural panel of thermoset composite bonded together with thermoplastic body-color painted exterior panels. This technology responds to the needs of large tailgates of medium and big vehicules such as SUVs and touring cars.
• «Higate Thermoplastic» allows for production of the tailgate inner panel through thermoplastic glass fiber composite injection together with over-molded steel reinforcements bonded together with thermoplastic body-color painted. exterior panels. This technology responds to the needs of the small and medium sized vehicle segments including hatchbacks and station wagons.

Plastic Omnium technologies and product innovations developed for tailgates fulfill all carmakers' specifications and are covered by 205 patents worldwide.

C4 Picasso component, an exclusive Plastic Omnium innovation for Citroën

Higate Hybrid technology is a Plastic Omnium innovation, consisting of thermoplastic outer panels and a thermoset inner structure.

This hybrid technology enables great freedom of design and form in the parts, not achievable with conventional stamping techniques.

In addition to styling freedom, Higate offers a number of advantages:
- Reducing the complexity of production, reducing investment costs by 50% compared with conventional stamping technology.
- Reducing the weight of the tailgate by 7 kg, or -0.7 g CO_2/km.
- Integration of numerous functions: the rear spoiler, the safety straps in the event of rear impact, the rear lights with a new, unseen design and integrated interior trim.

Component, Citroën C4 Picasso

Range Rover Sport:

Jaguar Land Rover chose Higate for equipping most of their vehicles with lighter tailgates and unprecedented style at the highest possible level of quality.
Higate technology equips the new Range Rover Sport, which benefits from a 35% weight reduction.
This motorized tailgate allows easy access to the rear compartment, offering greater comfort for users.

Higate, Range Rover Sport

Higate Premium : innovative concept of lightweight and multifunctional rear opening

The Higate Premium concept illustrates the potential for light-weighting, providing freedom of design and function integration for future SUVs or large touring cars.

It includes a carbon composite compartment with the same shaping qualities and dimensional stability as the Higate tailgate but with superior mechanical performance (Young's module up to 30 GPa) and a density of 1.5, enabling weight reduction of up to 2 kg compared to composite fiberglass structure, and 6 kg compared to a steel version.

Higate Premium combines the forming possibilities of composites with rear window glass transparency to better integrate and enhance the vehicle signaling and light signature. The use of optical fibers allows for new light sources directly assembled between the tailgate structure and glazing, simplifying design and reducing weight.

Finally, new electronic and mechatronic equipment are integrated into Higate Premium such as a touchless opening control that facilitates the opening of the tailgate or an active spoiler system that adapts to driving conditions.

It offers four positions to improve aerodynamics for better road holding or to direct an air flow tangentially to the surface of the window to reduce splashing and dirt.

Higate Premium has been the subject of 33 patents.

Higate Premium: Tailgate concept

Tailgate, Peugeot 308

Peugeot 308, a world first

The technology of this thermoplastic composite tailgate also offers great freedom of design, coupled with a weight saving of nearly 4 kg, providing reduced CO_2 emissions.

The technology developed by Plastic Omnium increases the speed of the production cycle by 50% compared to a thermoset composite.

The Higate TP (thermoplastic) tailgate equips the Peugeot 308 and 308 SW with production volumes of more than 1,000 vehicles per day.

Higate Entry: optimized plastic tailgate concept

Plastic Omnium is developing a new range of optimized plastic tailgates for A and B segment vehicles. The ambition for the Higate Entry is the design and production of an economic plastic tailgate for sub-C segment vehicle ranges.

Higate Entry is designed around two structural injected thermoplastic composite panels assembled directly with the rear window opening to form the structure. This structure is then fitted with a spoiler, side deflectors and an injected body-color painted outer panel.

Higate Entry simplifies the design of the opening and combines the best of each material and component used to meet the needs of smaller vehicles produced in large series. However, Higate Entry provides the same benefits of stylistic freedom, light-weighting and modularity of a Higate, always with a dimensional quality and appearance at the highest level.

Higate Entry : Tailgate concept

STRUCTURAL COMPONENTS:

Affordable, high performance composite solutions for mass produced automobiles.

Plastic Omnium produces and processes about 20,000 tons of composite materials for the automotive and truck industries and occupies a leading position in this growing market for vehicle light-weighting.

Today, the Group manages the entire chain of composite parts design and manufacturing; from formulation of materials to their transformation in high speed processes. Plastic Omnium equips many vehicles with semi-structural parts made of SMC glass fibers for tailgate structures, rear floors and fender or front-end supports. Innovative solutions have been developed around these applications to improve mechanical or dimensional performance or to make the composite compatible with the assembly processes of auto manufacturers (spot welding, sheet metal hemming, cataphoresis treatment at 210° C).

Plastic Omnium's ambition is to develop high performance composite solutions for structural components (floors, pillars, cross beams...) with a new generation of materials (new resins, high rate of reinforcement, carbon fiber...). New types of processes such as Advanced SMC or "pultrusion" combined with thermoplastic molding are also used to reduce cycle time (target of one to two minutes) and limit the finishing steps to make the high-performance composite compatible with automotive mass production.

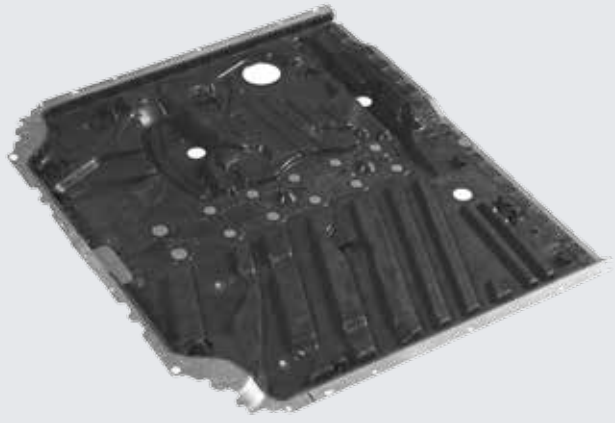
The first tangible results of this ambition are arriving with the start of production in 2015 of a recycled SMC carbon fiber component. Other applications are expected for front floors, impact beams and structural cross members.

Through its work on the new generations of high-performance plastics, recycled carbon fiber and implementation processes, Plastic Omnium is committed to developing affordable composite applications for automotive mass production.

C4 Picasso: a Plastic Omnium innovation

The floor designed by Plastic Omnium for the C4 Picasso is the first composite floor welded to the chassis. This innovation allows:
- Weight reduction of the component by 30% compared with its steel equivalent (-3 to -5 kg depending on the vehicle model, or a CO_2 reduction of -0.3 to -0.5 g/Km).
- Reducing assembly complexity during production by reducing the number of welded parts from four to only one.
- Investment savings resulting from the reduction in components.

This exclusive Plastic Omnium innovation is protected by 29 patents and equips the Citroën C4 Picasso as well as the Peugeot 308.



Floor Citroën C4 Picasso

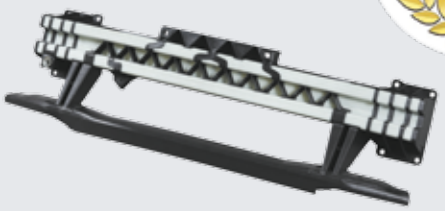
Plastic Omnium Innovation: High Performance Composite

- Weight gain 10 kg (-30%)
- 4 composite components instead of 34 metal parts
- Production cycle reduced to 2 minutes

Front Floor Composite - PSA Peugeot Citroën collaboration

Plastic Omnium is developing a solution with PSA Peugeot Citroen to substitute the traditional steel base with a self-supporting floor of thermoset resin reinforced with glass fibers (50% reinforced vinylester resin reinforcement). The key is a reduction in the number of parts to be assembled from 34 down to 4 main components, and a decrease in the mass of about 10 kg for a mid-range model. This technology is compatible with the assembly processes for automobile bodies and may be implemented through a multi-material approach with steel.

This floor equips the Peugeot 208 Hybrid Air and Citroën C4 Cactus Concept Airflow prototype presented at the Paris Automotive Show in October 2014. The first applications may be available by 2020.



- 100% glass fiber
- Weight savings of 3.7 kg (-43%)
- Delivering choc performance requeriments at high speed, parking as well repetability accuracy
- Pedestrian protection

Front bumper beam - Hyundai Motor Europe Technical Center collaboration

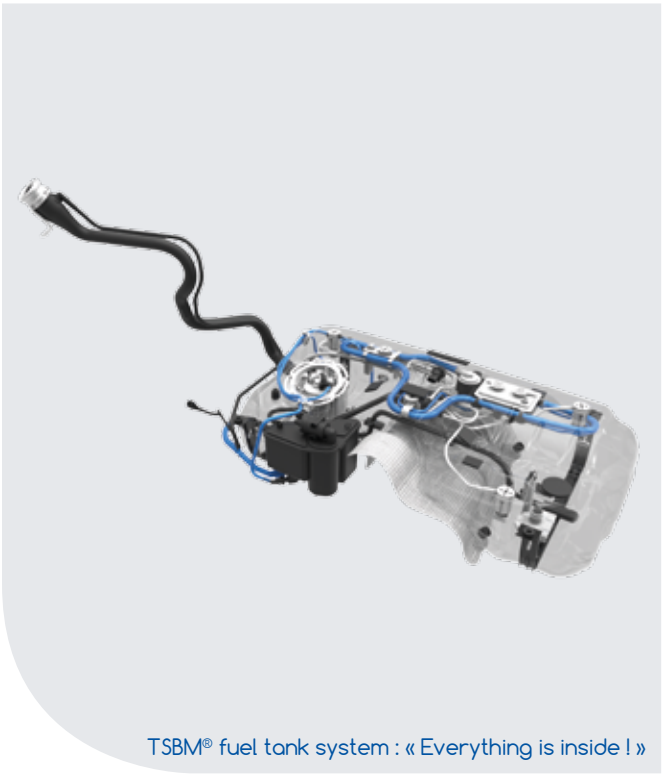
For Hyundai Motor Europe, Plastic Omnium has developed a front bumper beam more than 43% lighter, a gain of 3.7 kg compared to the equivalent steel product. A new technology combining a pultruded carbon glass fiber reinforcement overmolded with a thermoplastic resin achieves a high level of performance at a competitive cost.

The aim is to equip a first Hyundai vehicle with this new bumper beam beginning in 2018. The innovation can then be implemented in future vehicles.

AUTO INERGY DIVISION

Plastic Omnium is developing new solutions to support sustainable mobility, in particular hybrid powertrains.

Twin Sheet Blow-molding (TSBM®) – Breakthrough technology for fuel system enhancement



TSBM® fuel tank system : « Everything is inside ! »

“Everything is inside!”

TSBM® is an innovative manufacturing process patented by Plastic Omnium that allows permeability reduction thanks to:

- The integration of internal components during the blow-molding process, thus minimizing the number of holes in the tank.
- The production of a low permeation filler pipe connection during the blow molding process.

TSBM® technology also offers freedom of design that allows for optimized fuel functions. As internally mounted components (such as baffles, complex line routings...) are not limited to assembly ergonomics any more, integration possibilities are considerably enhanced and provide an opportunity for usable volume maximization.

As a LEV 3 regulation enabler and with the ability to integrate internal structures to manage pressure, TSBM® is a solution of choice to produce pressurized systems. Plastic Omnium uses this technology for its INWIN applications aimed at Plug-In Hybrid Electric Vehicles (PHEV).

TSBM® is also a champion at saving weight, as it allows further optimization of material placement during blow-molding.

INBAFFLE – Advanced slosh noise reduction

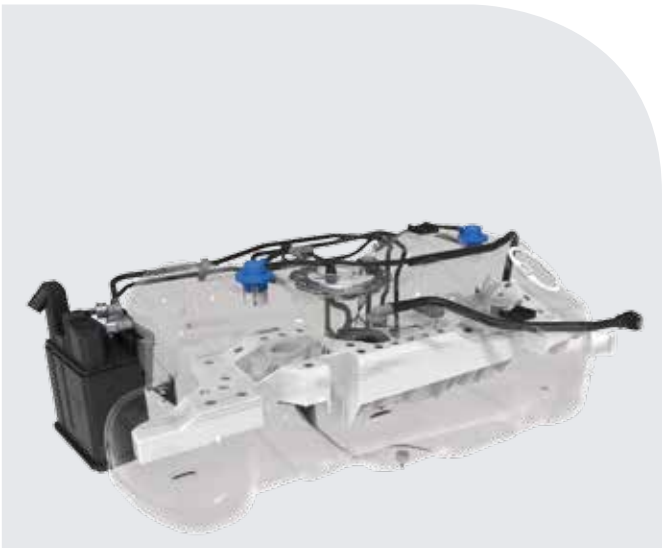
INBAFFLE is Plastic Omnium’s complete range of innovative and efficient solutions to soften the noise generated by the waves of fuel moving inside the fuel tank, also called “slosh noise.”

It consists of a product family ranging from natural baffles to inserted baffles . These answers to the noise challenge are specifically designed according to each tank architecture and customized to the OEM’s requirements. Among the solutions, Plastic Omnium’s patented PIB (Parison Inserted Baffle) process allows to integrate baffles of large dimensions during the blow-molding.

On top of this, Plastic Omnium has developed an exclusive approach for NVH (Noise-Vibration-Harshness) that enables:

- The consideration of acoustic constraints from the fuel system design.
- The use of simulation and noise transfer path analysis.
- The prediction of noise through the auralization method.

INBAFFLE is particularly adapted to address the increased acoustic comfort requirements Start&Stop and mild hybrid vehicles.



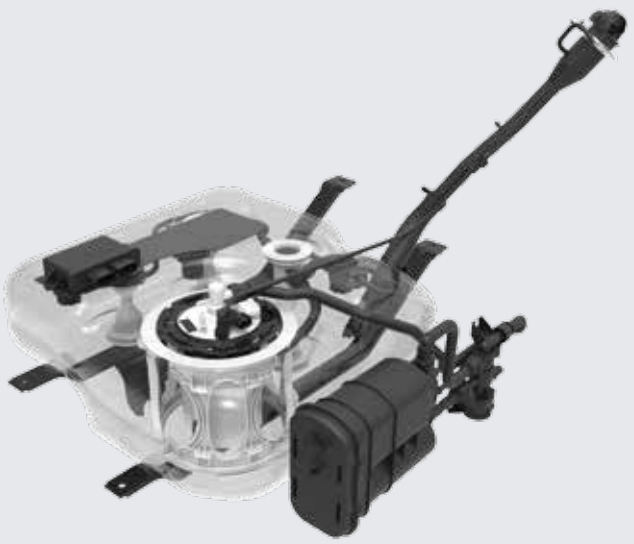
Fuel tank system of the Opel Astra, INBAFFLE-equipped

INWIN – Light weight plastic fuel tank system for Plug-In Hybrid Electric Vehicles

INWIN is Plastic Omnium's technical solution addressing LEV3 applications like Plug-In Hybrid Electric Vehicles (PHEV).
It consists of a pressurized plastic tank with internal and external tank shell reinforcements and optimized fuel vapor management, produced using the TSBM® process.
The INWIN fuel tank system is equipped with a Fuel System Control Unit, allowing control strategies such as leak check, fuel delivery or pressure management.
Compared to equivalent systems in steel technology, INWIN generates a weight saving of 5 to 10 kg.

TANKTRONIC® – Complete mechatronic fuel system for increased performance

TANKTRONIC® is a complete mechatronic solution to increase the performance of fuel tank systems for PHEV like INWIN.
It features Plastic Omnium's E-Valve, combining two existing valves, in one single component. It is able to operate with a low power consumption and allows for cost and mass reduction.
On top of E-Valve, TANKTRONIC® consists of a set of advanced control strategies: optimized leak detection, electronic refueling, pressure management, smart gauging and advanced fuel pump control.
With TANKTRONIC®, Plastic Omnium brings the fuel tank system one step forward.



INWIN and TANKTRONIC®

INWIN et TANKTRONIC® innovations generated the filing of 70 patents.

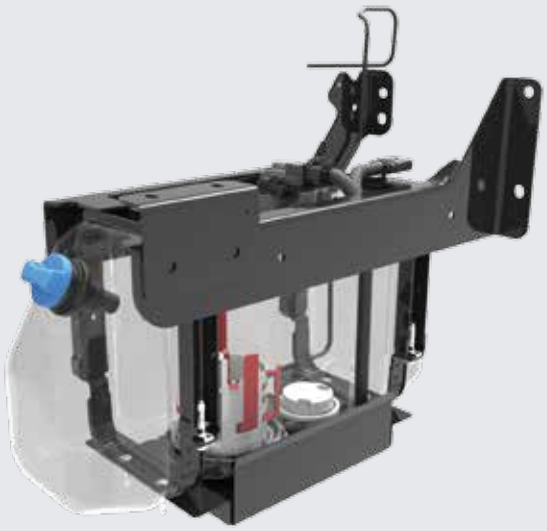
Plastic Omnium is expanding its DINOx product family, now addressing the emissions reduction needs of all mainstream diesel applications, from mass market passenger cars to mid-duty commercial vehicles.

DINOx Premium, DINOx Enhanced and DINOx Compact are designed to comply with Tier 2 Bin 5 and Euro 6-C requirements.

DINOx Premium – Plug&Play SCR system, setting the standard

DINOx Premium is Plastic Omnium's best-selling Diesel Exhaust Fluid (e.g. AdBlue®) storage and delivery system. It offers an integrated solution, from filler cap to injector, to Selective Catalytic Reduction (SCR) applications.
SCR technology consists in spraying a urea solution in the exhaust line, to create a chemical reaction which will transform nitrogen oxydes (NOx) into harmless nitrogen and water vapor.
DINOx Premium features a standard AdBlue® Delivery Module base, a vehicle specific Urea Tank and fully autonomous control system (software and hardware) for easy integration in the vehicle's electrical architecture.
Its flexible architecture and key components will fit the OEM's vehicle package and AdBlue® refilling strategy.
Already chosen by 7 OEMS on more than 30 clean diesel programs, DINOx Premium sets standard performance under all temperature conditions.

DINOx Premium passenger car application:
SCR system for Opel Zafira



DINOx Premium medium-duty application:
SCR system for Ford F-650

DINOx Enhanced – Extreme Performance, Modular SCR System

DINOx Enhanced is an evolution of DINOX Premium, Plastic Omnium's best-selling Diesel Exhaust Fluid (e.g. AdBlue®) storage and delivery system. It offers a high performance integrated solution, from filler cap to injector, to Selective Catalytic Reduction (SCR) applications.
DINOx Enhanced was designed to offer a higher performance level for the most demanding applications:
- Benchmark heating performance with optional secondary heater to boost system sustainability.
- Injected tanks: optimized storage capacity, weight saving and integrated features.
- 40 L/min filling capability.
- Continuous and motionless level sensors.
- Reliable and accurate quality sensors.

DINOx Enhanced is also a fully autonomous system, using Plastic Omnium's Control System, which integrates tailored software strategies for easy integration in the vehicle's electrical architecture.
DINOx Enhanced sets Best-in-Class performance under all temperature conditions.

DINOx Enhanced: high performance level for the most demanding applications

DINOx Compact – All-in-one AdBlue® Delivery Module with Optimized Performance

DINOx Compact is the Plastic Omnium's latest innovation in Selective Catalytic Reduction (SCR) technology. It completes the group's Diesel Emission Reduction DINOx range.
For the first time, DINOx Compact integrates the Dosing Control unit (DCU), as well as all sensors, inside a compact Delivery Module package.
Capitalizing on over 10 years experience in SCR development, Plastic Omnium optimized its proven DINOx technology for Pump, Heater and Sensors, to offer the best cost/performance effectiveness on DINOx Compact.
Furthermore, DINOx Compact was designed to make the best use of Plastic Omnium's proprietary control strategies and diagnostics.
This all-in-one module is compatible with blow-molded or injected tank shells.
DINOx Compact is designed to meet upcoming regulations.

SCR Innovations generated the filing of 172 patents.

Compagnie Plastic Omnium
1, Allée Pierre Burelle, 92593 Levallois Cedex
Tél. : +33 (0)1 40 87 64 00 – Fax : +33 (0)1 47 39 78 98
www.plasticomnium.com