

# Thatcham Research 1st

## Peugeot Citroen EMP2 platform



The EMP2 platform is the modular architecture that allows a range of models to be built using the same production and technology. This has already been seen under the Citroen C4 Picasso and Grand Picasso, and the Peugeot 308, with many more models to follow.

### MANUFACTURERS:

ALFA ROMEO  
AUDI  
BENTLEY  
BMW  
CADILLAC  
CHEVROLET  
CHRYSLER/JEEP

### CITROEN

DACIA  
FIAT  
FORD  
GEELY  
GREAT WALL  
HONDA  
HYUNDAI  
INFINITI  
ISUZU  
JAGUAR  
KIA  
LAND ROVER  
LEXUS  
LOTUS  
MAZDA  
MERCEDES BENZ  
SAIC MG  
MINI  
MITSUBISHI  
NISSAN

### PEUGEOT

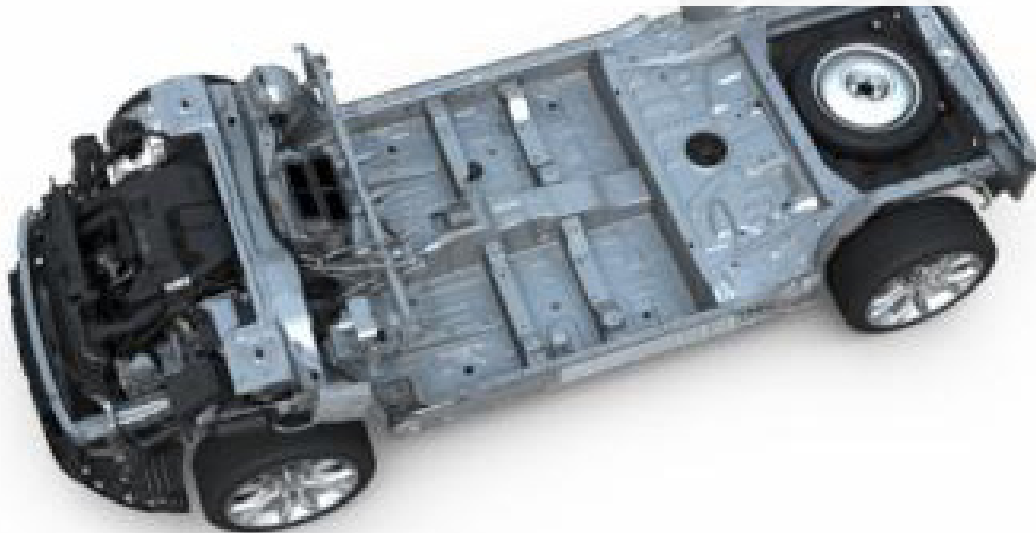
PORSCHE  
PROTON  
RENAULT  
ROLLS ROYCE  
SEAT  
SKODA  
SSANGYONG  
SUBARU  
SUZUKI  
TATA  
TOYOTA  
VAUXHALL  
VW  
VOLVO  
OTHERS

### OTHER CAT.:

REPAIR  
SAFETY  
GENERAL



# Peugeot Citroen EMP2 platform

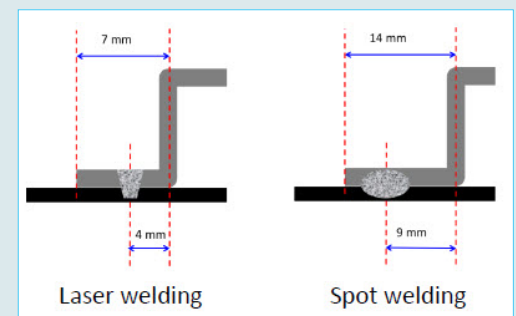


The EMP2 platform set is to be used for C,D,E, and F segment vehicles (Peugeot 308/Citroen C4 and above) with the production plants at Rennes, Sochaux and Mulhouse in France, the plant in Buenos Aires, Wuhan in China, and Mangualde in Portugal all being prepared to build vehicles on EMP2 architecture.

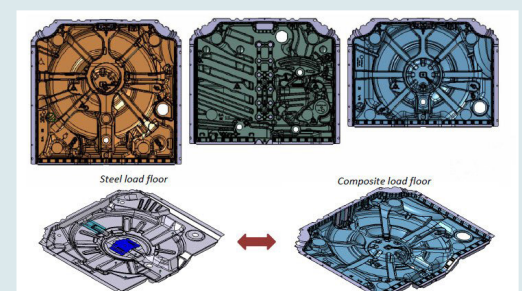
The EMP2 architecture involves a unified front structure for the front floor, engine bay and frontal crash structure. There will be two bulkhead modules; high and low for SUV's/ LCV's and cars respectively. There will be rear main floor modules to allow 5 different wheelbases and 4 track widths, utilising 3 rear axle assembly choices, and four rear floor and 4 boot floor modules, including modules that can incorporate a high voltage battery. These modules allow for higher or lower ride height flexibility for the range of models required.

The material mix of the EMP2 platform, effectively the floor, is predominantly >350MPa Very High Strength Steel (55%), with Ultra High Strength Steel making up a further 17%, mainly in the front, rear and side structural members. It features cold-stamped DP980, though this is either side of the transmission tunnel and heel panel. It is not expected that aluminium will feature in any of the platform varieties as the cost outweighs the benefits.

Dependant on which platform composition is selected the platform is made up of approximately 1600 resistance spot welds and 3 metres of laser stitches (though this is as high as 6 metres ofn the C4 Picasso). This was chosen for weight reduction and speed as smaller panel flanges are required, and Peugeot Citroen opted for no adhesive joining as this was seen as complicated to include. The damper supports are MAG welded though this method is likely to be replaced by CMT joining soon.



The boot floor can be either steel or composite for additional weight saving. The composite is surrounded by a steel belt so that this can be joined the same as the steel version.



source:Citroen Peugeot



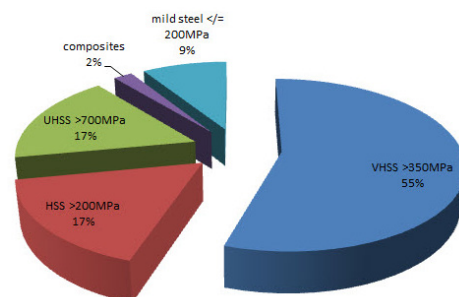
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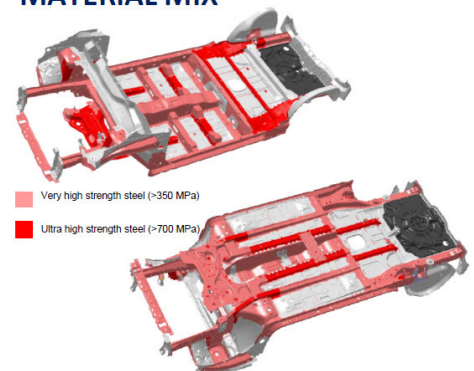
## Technology :

The production features a high degree of consistency for quality control. 98% of spot welding is done with a conventional weld tip, with 2% being done with an angled tip. These welding robots have been synchronised so that all weld tips are replaced at the same time, to minimise down-time.

The laser welding was optimized by live data feedback to achieve the optimum welding speed, without compromising weld quality.



## MATERIAL MIX



source: Citroen Peugeot

