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**BMW Group and PSA Peugeot Citroën Present Their Cooperation:  
A New Standard in Gasoline Engines**

BMW Group and PSA Peugeot Citroën have unveiled the state-of-the-art technologies deployed in their new gasoline engines, the first to be jointly developed and produced by their cooperative venture.

Announced in July 2002, the two Companies' cooperation in gasoline engines is now setting new standards for performance, driving comfort and reductions in fuel consumption and CO<sub>2</sub> emissions.

Beginning in 2006, the engines will equip small and mid-size cars produced by the Peugeot and Citroën marques as well as future models of the MINI. Production is expected to eventually total roughly one million units a year.

At a special technology day at BMW Group's Research and Development Center in Munich, executives from both companies presented the technical features of two types of engines:

- A 1.6-liter atmospheric engine with a variable geometry turbocharger and a power output of 85 kW (115 hp).
- A 1.6-liter direct injection, compressed turbo engine with a power output of 105 kW (143 hp).

The new models are the first in a family that will eventually comprise engines delivering a range of power outputs from 55 kW (75 hp) to 125 kW (170 hp).

As a result of both group's expertise, these engines offer a large number of new features including:

- Variable valve timing.
- Fully controlled oil pump.
- Single belt drive for all ancillary components.
- Cylinder heads produced by lost foam casting.

In addition, several innovations have been developed, including:

- Direct injection to optimize power.
- Twin-Scroll turbocharger to improve response time and driving comfort.
- Self-disengaging water pump to reduce fuel consumption and emissions.

The co-operation between BMW Group and PSA Peugeot Citroën clearly demonstrates that gasoline engines still offer a great potential of technological progress, thus contributing to the reduction of consumption and CO<sub>2</sub> emissions while enhancing the car performances and its related driving pleasure.

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