

# Peugeot Citroen's Hybrid Air technology

Peugeot's Hybrid Air system uses a high-pressure air tank rather than heavy batteries to store recaptured energy. Air power can boost both fuel economy and cut CO<sub>2</sub> emissions by as much as 45 percent

**Hybrid Air system:** Uses reversible hydraulic motor/compressor and sealed system that contains nitrogen gas and hydraulic fluid

*Prototype Citroen C3 has achieved fuel economy of 2.9 litres per 100km (81mpg), and CO<sub>2</sub> emissions of 69g/km*

## 1 Petrol mode

1.2-litre, three-cylinder, petrol engine drives front wheels and compressor

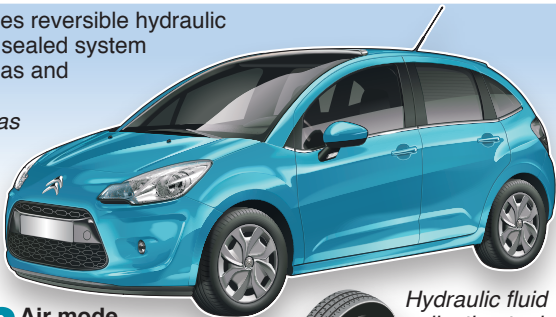
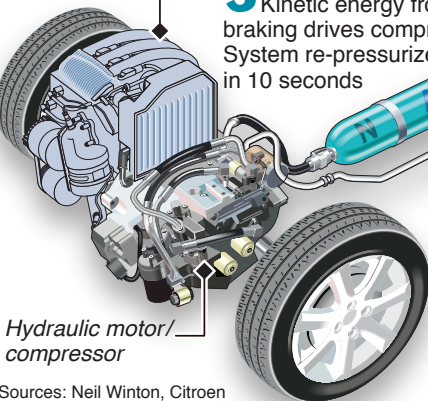
*Petrol engine*

## 2 Air mode

Compressed gas forces fluid through hydraulic motor to drive wheels

## 3 Energy capture

Kinetic energy from braking drives compressor. System re-pressurized in 10 seconds



*Hydraulic fluid collection tank*

*Petrol tank*

*Hydraulic fluid line*

**Pressure tank:** 20 litre tank contains nitrogen at 250kg/cm<sup>2</sup> (3,600psi) plus hydraulic fluid. *Energy stored in tank is equivalent to about 25cm<sup>3</sup> of petrol*

