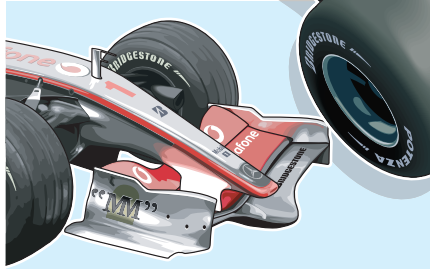


# Rule changes introduce F1 hybrids

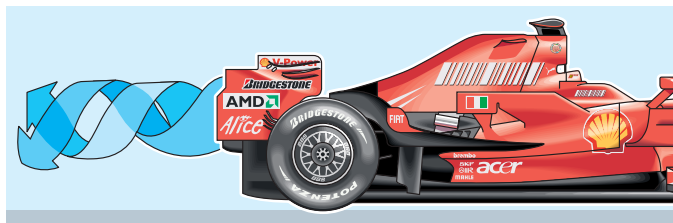
A raft of new rules is intended to make F1 a more dramatic spectacle, encouraging overtaking by reducing the effect of aerodynamics on performance – such as when following another car – and storing braking energy to supply a boost of acceleration

**Front wing:** Width 1.8m  
Up from 1.4m  
Height 75mm  
Down from 150mm  
Driver-adjustable section to alter front downforce when overtaking



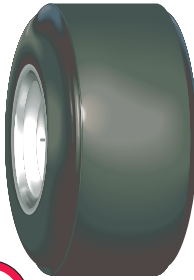
**Bargeboards:** Generate around 15% of downforce and affect transverse airflow when following another car. **Banned**

**Winglets:** Extraneous aero devices including turning vanes and chimneys. **Banned**



**Rear wing:** Larger gap between surfaces for less turbulent wake

**Tyres:** Change from grooved to slick control tyres – provides 18% increase in contact area



**Diffuser:** Longer and further back – reduces both downforce and turbulence in wake

## KINETIC ENERGY RECOVERY SYSTEM

Energy normally lost during deceleration is stored in either an electrical system – like current hybrid road cars – or a mechanical flywheel system

Total weight of system: **24kg**  
Maximum energy storage capacity: **400 kilojoules**

**CVT receives energy from driveline during deceleration**

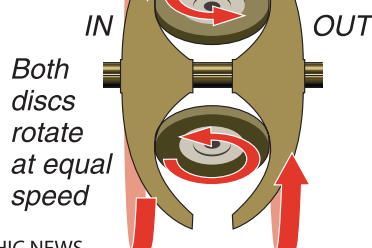
**Energy released into driveline for acceleration**

Highly viscous traction fluid enables maximum power transfer between discs

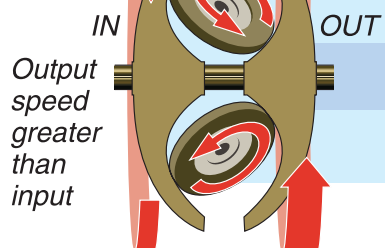
## Adjustable rollers

Angle determines speed delivered to flywheel, or torque from flywheel to driveline. Curved inner surface of discs allows continuously variable ratio change – up to 6-to-1 within one revolution

**1** Rollers straight



**2** Rollers angled



Equivalent gear ratio

Contact point diameter of roller and input disc

Contact point with output disc

**Reverse input-output direction for acceleration boost of 60kW (80bhp) for 6.67 seconds per lap**