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Spherical concept tire takes

AI on the road

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Abstract :

Good year unveiled a spherical tire concept known as the [Eagle 360](#). Linked to the car using a magnetic levitation suspension system, a set of the tires would allow the vehicle to move in any direction even sideways. The concept is taken further with the artificial-intelligence-packed Eagle 360 Urban. The "360 Urban's exterior consists of a sensor-laden rubber "bionic skin." This would allow it to continuously monitor road conditions, *and* adapt its tread accordingly. The new tire would do the latter via electrically-triggered actuators beneath its surface, which pull the individual tread elements in to form "dimples" in wet conditions, or pushes them out to form a smooth tread when the roads are dry. Using its artificial intelligence system, it could then learn what tread patterns work best in which conditions, and apply that knowledge in the future. The spherical tire is also designed to communicate via the internet with other vehicles that are running the same kind of tires. In this way, it could both transmit and receive data regarding conditions on the road ahead, allowing the tread to change proactively so it's ready for what's coming. Additionally, its "brains" would allow it to detect when punctures occur. Should this happen, it could rotate itself so that the punctured section was no longer making contact with the road. Sealant would then flow out from within the tire, sealing the hole. They won't fit on regular cars, so compatible vehicles will have to be manufactured first.

Key Words: Magnetic levitation, artificial intelligence, urban's exterior.