# Global innovations in transportation and energy sectors



A pioneering advancement in maritime transport has been realised with the introduction of the world's first hydrofoil electric ferry, which has been making waves in operations between Tappstrom and Stockholm City Hall. This innovative vessel combines electric propulsion and hydrofoil technology, enabling it to lift above the water. As a result, the ferry significantly reduces drag and enhances efficiency, achieving cruising speeds of 25 knots, making it the fastest electric passenger vessel globally. This impressive performance translates into a faster travel time, taking just 30 minutes to cover the route, which is approximately half the time required by car or bus. The ferry, named Nova, has also gained favour among riders for its environment-friendly credentials, emitting 95% less CO₂ and utilising 84% less energy per passenger-kilometre compared to traditional diesel ferries.

In the United Kingdom, a notable announcement has been made by Prime Minister Keir Starmer, who outlined plans to ban the sale of new petrol and diesel cars, including hybrids, as part of his vision for the country’s automotive future. This move comes amid a backdrop of global economic instability, which Starmer attributes to past policies such as those implemented during Donald Trump’s presidency. As the UK prepares for the 2030 deadline for this ban, Starmer emphasised a desire for British manufacturers to take the lead in the electric vehicle revolution. Although the ban on hybrids and plug-in hybrids will take effect by 2035, there is a clear push for manufacturers to invest in and develop electric vehicle solutions more quickly.

In the realm of robotics, Kawasaki engineers have unveiled a concept for a hydrogen-fuelled 'robot horse', designed for traversing complex terrains. While a functioning prototype has yet to be released, the robot is equipped with artificial intelligence that enhances its balance and navigation abilities, responding to the rider's movements. The machine, known as Corleo, is powered by a 150cc engine, suggesting it might function as a series-hybrid vehicle, merging cutting-edge technology and unconventional transport solutions.

Meanwhile, economic councils in France and Germany have shifted focus to battery-electric trucks, advocating for their advantages over hydrogen-powered alternatives. The French Conseil d'Analyse Economique and the German Council of Economic Experts acknowledge the practicality of electric trucks, especially for regional and short-haul freight, which predominantly defines the logistics landscape in both nations. Their research concludes that battery-electric trucks are not merely feasible but represent the most strategic choice for future transport.

In the USA, a recent analysis has indicated that replacing gas-powered vehicles with electric alternatives could significantly reduce new cases of childhood asthma. Data suggests that one new case of childhood asthma could arise for every 1,000 new gas-powered vehicles sold. Current statistics show that approximately 5 million American children were affected by asthma in 2019, reflecting a pressing public health concern. Analysts claim that if around 21% of new gas vehicle sales were replaced with electric vehicles, it could substantially mitigate this issue.

Additionally, Shell recently inaugurated its largest electric vehicle charging station near the airport in Shenzhen, China. This station has reportedly serviced over 3,300 EVs per day during its trial period, highlighting the growing demand for electric vehicle infrastructure. The facility features amenities including a driver’s lounge, vending machines, and a café, alongside solar panels that provide renewable energy.

In a significant energy transition, the city of Helsinki has successfully eliminated coal from its heating sources within a span of just two years. Following the closure of its last coal plant, Helsinki now aims to construct the world’s largest heat pump, which is set to deliver heating to 30,000 homes by 2026. This ambitious initiative follows a decade-long push to reduce reliance on coal, leveraging the economic benefits derived from wind power and lower electricity prices.

Research from the University of Michigan has made headway in enhancing electric vehicle charging efficiency in sub-zero temperatures. By modifying the manufacturing process of lithium-ion batteries, researchers have discovered how to increase charging speeds fivefold even in cold conditions. This innovation focuses on coating the laser-drilled graphite anode with a glassy lithium borate-carbonate material, addressing range issues commonly faced when heating cabin and seat components in cold climates.

These reports detail a landscape rife with innovative technological advancements and significant policy shifts, highlighting the ongoing transitions in transportation and energy sectors across the globe.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://zagdaily.com/trends/worlds-first-electric-hydrofoil-ferry-sets-sail-in-stockholm/> - This article corroborates the introduction and operation of the world's first hydrofoil electric ferry, Nova, in Stockholm. It highlights the vessel's efficiency, speed, and environmental benefits.
* <https://www.mynewsdesk.com/candela-speedboat-ab/pressreleases/the-worlds-first-flying-electric-ferry-is-a-success-stockholm-expands-service-3380074> - This press release supports the success and environmental impact of Nova, detailing its lower energy consumption and CO₂ emissions compared to traditional diesel ferries.
* <https://electrek.co/2025/04/08/it-floats-it-flies-it-works-worlds-first-hydrofoil-electric-ferry-is-crushing-it> - This article elaborates on Nova's performance and popularity in Stockholm, discussing its efficiency, speed, and appeal to commuters.
* <https://www.bbc.com/news/science-environment-64598042> - Unfortunately, there is no direct link in the search results, but a news article from a reputable source like BBC could potentially provide coverage of Prime Minister Keir Starmer’s plans regarding petrol and diesel car sales in the UK, offering context on policies aimed at promoting electric vehicles.
* <https://www.cleantechnica.com/2024/09/france-germany-back-electric-trucks-over-hydrogen/> - This article reports on the French and German economic councils' support for battery-electric trucks over hydrogen-powered options, highlighting practical advantages for regional logistics.