



## BIG IN JAPAN

Japan has long been associated with platinum innovation and investment, from platinum-based hydrogen fuel cells for the 2020 Tokyo Olympics to platinum accumulation plans

Japan is an important market for precious metals investment, so it is especially fitting that its commitment to delivering the greenest games ever when it hosts the Summer Olympics in Tokyo next year is based around the deployment of platinum-based hydrogen fuel-cell electric vehicles (FCEVs) to transport athletes and attendees.

In a platinum-based hydrogen fuel cell, hydrogen and oxygen are combined to generate electricity, with heat and water as the only by-products. Molecules of hydrogen and oxygen react and combine using a proton exchange membrane (PEM) which is coated with a platinum catalyst.

Platinum is especially suited as a fuel cell catalyst as it enables the hydrogen and oxygen reactions to take place at an optimal rate, while being stable enough to withstand the complex chemical environment within a fuel cell and high electrical current density, performing efficiently over the long-term.

By choosing to showcase emerging FCEV technology during the Olympics, Japan is demonstrating its belief that hydrogen will become an important automotive power source in the coming years. The Tokyo Metropolitan Government aims to have 100,000 hydrogen passenger vehicles, 100 hydrogen buses and 80 hydrogen refuelling stations by 2025.

### Physical platinum ownership

Platinum is valued not only for its industrial applications like fuel-cell components, but also its precious metal status. Savvy Japanese investors know that adding platinum to an investment portfolio can have diversification benefits, reducing volatility, especially for portfolios with significant equity and real estate exposure.

Retail investors in Japan have been investing in precious metals for decades, with the purchase of kilogram and smaller platinum ingots produced by Japanese precious metals refiners and, more latterly, through exchange traded funds.



*Fuel cell electric vehicles will be used to transport athletes during the Tokyo 2020 Olympic Games*

The demand for physical platinum was further fuelled by the introduction of Platinum Accumulation Plans (PAPs) in the early 1980s. Unique to Japan, PAPs enable individuals to pay a monthly amount into an account in order to purchase platinum, a core part of their retirement savings.

Each month their balance of physically-owned platinum accrues, although they are free at any time to sell all or part of their balance, or withdraw it in the form of bullion, coins or jewellery.

With the highest per capita consumption of platinum jewellery globally, platinum accounts for over 50 per cent of jewellery sold in Japan and recent developments in its jewellery market have seen platinum continuing to take market share over white gold.

Platinum is well established as the metal of choice in the bridal sector, as well as through the sale of 'kihei' chains, a heavy type of men's chain that is purchased for investment purposes.

Contacts:

Brendan Clifford, Investor Development, [bclifford@platinuminvestment.com](mailto:bclifford@platinuminvestment.com)

Trevor Raymond, Research, [traymond@platinuminvestment.com](mailto:traymond@platinuminvestment.com)

Vicki Barker, Investor Communications, [vbarker@platinuminvestment.com](mailto:vbarker@platinuminvestment.com)



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