



EVERY 'CLOUD' HAS A PLATINUM LINING

The rise of social media and big data will vastly increase cloud-based data storage needs. Platinum, a key component of computer hard drives, will play a major role in enabling our connected future

Platinum plays a vital role in the magnetic media alloy for modern hard disk drives (HDDs). Its inclusion in the ultra-thin magnetic storage layer of disks improves thermal and magnetic stability and, therefore, enables higher density data storage.

Modern HDDs could not exist without platinum and it will continue in the same crucial role in upcoming, next-generation technologies.

These technologies include microwave-assisted magnetic recording (MAMR) and heat-assisted magnetic recording (HAMR), both of which are scheduled for commercialisation in 2019.

A 'connected' future generates significant data - requiring more platinum

By 2025, global data generation is forecast to be 10 times greater than the amount of data generated in 2016. This expansion will be driven by growth in social media use and the major trends of big data and the internet of things.

As these trends increasingly influence daily life, the rising number of connected devices will result in

vast growth in the amount of data created. Today, for example, approximately six hours of video are uploaded to YouTube and approximately 5,000 photos are uploaded to Facebook and Instagram every second.

Although not all the data created are stored, this data proliferation will increase the need for additional data storage capacity. As a result, global data storage requirements are forecast to rise by more than 19 zettabytes (zb) by 2025, according to estimates by the International Data Corporation. This is equivalent to the storage capacity of 19 billion new laptops.

The vast majority of this extra data storage capacity is likely to be based in data centres, with nearly 60% of all data stored worldwide set to be held in enterprise storage (data centres) by 2025, up from less than 40% in 2017.

DID YOU KNOW?

The use of platinum enabled the development of the lightweight, terabyte laptops we have today

Next-generation HDDs use platinum

MAMR and HAMR are intended to help secure HDDs as the primary data storage device in the future, particularly for use in data centres (e.g. cloud and cold storage), by increasing capacity

potential and maintaining the HDD's cost advantage over solid-state drives, the principal rival technology.

Supported by MAMR and HAMR, HDDs are forecast to account for most of this additional capacity, they will still comprise more than 80% of all enterprise storage capacity shipped in 2025. Overall, HDDs are predicted to account for almost 60% of the extra data capacity required worldwide, equivalent to 11zb.

Data centres typically use higher capacity enterprise HDDs, which contain much greater quantities of platinum than standard laptop drives.

Therefore, growth in enterprise storage (data centre) capacity is likely to be positive for platinum demand.

The breadth of platinum's industrial applications continues to grow. The metal is also increasingly being recognised as an effective investment asset, delivering demonstrable diversification benefits in a private portfolio or pension plan.

Investors seeking exposure to this premier precious metal have a broad range of options to consider including online bullion accounts, physical bars and coins, and exchange-traded funds.

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