



MKANGO RESOURCES LTD.  
550 Burrard Street  
Suite 2900  
Vancouver  
BC V6C 0A3  
Canada

## **Hypromag To Collaborate With Areera On Recovery And Recycling Of Rare Earth Magnets From Speaker Assemblies**

### **Highlights**

- **HyProMag is collaborating with Areera, which has developed Europe’s most technologically advanced screen-based recycling facility in West Yorkshire, UK**
- **The collaboration is focused on recovery and recycling of rare earth magnets embedded within speaker assemblies associated with a range of display equipment**
- **In parallel, HyProMag and Areera are working with Inserma and RISE Research Institutes of Sweden (“RISE”) on the pre-processing of speakers and automated sorting to provide a concentrated feed of NdFeB magnets for recycling via the Hydrogen Processing of Magnet Scrap (HPMS) technology**
- **Rare earth magnets derived from speakers represent a major market opportunity for recycling in the UK and other jurisdictions, given that minimal quantities are currently recovered, with the majority currently lost to landfill - this collaboration can unlock that potential**

**London / Vancouver: January 13, 2025** – Mkango Resources Ltd. (AIM/TSX-V: MKA) (the “Company” or “Mkango”) is pleased to announce that pursuant to a non-binding (the “Term Sheet”), HyProMag Limited (“HyProMag”) is collaborating with Areera Limited (“Areera”) on the recovery and recycling of rare earth magnets embedded within speaker assemblies associated with a range of display equipment. HyProMag is 100% owned by Maginito Ltd, a subsidiary of Mkango (79.6%) and CoTec (20.4%)

**Nick Mann, Managing Director of HyProMag, stated:** *“This collaboration unlocks an additional feed source for HPMS and allows HyProMag and Areera to recycle critical materials that are currently lost in traditional recycling routes. It is very encouraging that Areera sees the benefit of the technology developed by Inserma and RISE as well as the solution that the HPMS process presents. HyProMag is looking forward to further developing this supply chain.”*

**Craig Thompson, Chief Executive of Areera, stated:** *“Areera is excited to have partnered with HyProMag on the recovery of critical rare earth materials from speakers in televisions and monitors, an EU and UK first. This demonstrates one of the benefits of Areera’s unique separation process for recycling of display equipment without shredding of whole screens.”*

Pursuant to the collaboration, HyProMag partners, Inserma and RISE have developed an automated sorting system, combining AI Vision and magnetic imaging, which successfully sorts and separates speakers containing NdFeB magnets for recycling from those containing ferrite magnets. This system is currently being trialled on speaker assemblies supplied by Areera. Speakers containing NdFeB magnets are then further processed by Inserma using a bespoke pre-processing technology to provide a concentrated feed for HyProMag.

The ultimate objective is to deploy automated sorting and pre-processing units, developed by Inserma, to Areera sites in the UK to provide speaker derived NdFeB feedstock to HyProMag. This enables Areera to capture more value from its scrap streams, unlocks a new source of NdFeB feedstock supply for HyProMag, and is aligned with both companies' visions for development of sustainable, circular supply chains.

Although there can be no certainty at this stage given the non-binding nature of the Term Sheet, the Directors remain confident that the Term Sheet will lead to a binding definitive agreement between the parties and in the meantime, the collaboration is already underway. Further announcements will be made as appropriate.

### **About HyProMag**

HyProMag is commercialising the patented Hydrogen Processing of Magnet Scrap ("HPMS") technology in the United Kingdom (2025), Germany (2025) and United States (2027), and evaluating other jurisdictions, including a collaboration with Envipro in Japan.

HPMS technology was developed at the University of Birmingham Magnetic Materials Group and is exclusively licenced to HyProMag. The technology is underpinned by approximately US\$100 million of research and development funding, and has major competitive advantages versus other rare earth magnet recycling technologies, which are largely focused on chemical processes but do not solve the challenges of liberating magnets from end-of-life scrap streams – HPMS provides this solution.

HyProMag was one of the first projects to be selected by the Minerals Security Partnership for support given its strong potential to contribute towards the development of responsible critical mineral supply chains: [Joint Statement on the High-Level Minerals Security Partnership Forum Events in Brussels - United States Department of State](#)

Please contact [magnets@hypromag.com](mailto:magnets@hypromag.com) for magnet sales and scrap solutions, and [technical@hypromag.com](mailto:technical@hypromag.com) for consultation and collaboration.

**For more information, please visit <http://hypromag.com>**

### **About Areera**

Areera is the UK's largest dedicated recycler of all Display Equipment from retail Electronic Point of Sale to Sports Stadia screens and all sizes and types of screens in between.

Using the latest automation and robotics to process Display Equipment, along with x-ray technology for processing of plastics, Areera continues to invest and develop new technology without the use of shredding of whole screens to recover clean separated fractions for reuse and recycling.

The recovery of Critical Rare Earth materials from electronic waste demonstrates Areera's drive to push the recycling industry to develop Best Available Treatment Recovery and Recycling Techniques (BATRR) for recovery and recycling of fractions from display equipment.

This collaboration forms part of Areera's continued development and installation of additional new technologies to produce clean commodities using robotics, 3D scanning and laser polymer separation.

**For more information, please visit <https://areera.co.uk> or email [hello@areera.co.uk](mailto:hello@areera.co.uk)**

### **About Mkango**

Mkango is listed on the AIM and the TSX-V. Mkango's corporate strategy is to become a market leader in the production of recycled rare earth magnets, alloys and oxides, through its interest in Maginito Limited ("Maginito"), which is owned 79.4 per cent by Mkango and 20.6 per cent by CoTec, and to develop new sustainable sources of neodymium, praseodymium, dysprosium and terbium to supply accelerating demand from electric vehicles, wind turbines and other clean energy technologies.

Maginito holds a 100 per cent interest in HyProMag and a 90 per cent direct and indirect interest (assuming conversion of Maginito's convertible loan) in HyProMag GmbH, focused on short loop rare earth magnet recycling

in the UK and Germany, respectively, and a 100 per cent interest in Mkango Rare Earths UK Ltd (“Mkango UK”), focused on long loop rare earth magnet recycling in the UK via a chemical route.

Maginito and CoTec are also rolling out HPMS recycling technology into the United States via the 50/50 owned HyProMag USA LLC joint venture company.

Mkango also owns the advanced stage Songwe Hill rare earths project and an extensive rare earths, uranium, tantalum, niobium, rutile, nickel and cobalt exploration portfolio in Malawi, and the Pulawy rare earths separation project in Poland.

**For more information, please visit [www.mkango.ca](http://www.mkango.ca)**

#### **Cautionary Note Regarding Forward-Looking Statements**

This news release contains forward-looking statements (within the meaning of that term under applicable securities laws) with respect to Mkango. Generally, forward looking statements can be identified by the use of words such as “targeted”, “plans”, “expects” or “is expected to”, “scheduled”, “estimates” “intends”, “anticipates”, “believes”, or variations of such words and phrases, or statements that certain actions, events or results “can”, “may”, “could”, “would”, “should”, “might” or “will”, occur or be achieved, or the negative connotations thereof. Readers are cautioned not to place undue reliance on forward-looking statements, as there can be no assurance that the plans, intentions or expectations upon which they are based will occur. By their nature, forward-looking statements involve numerous assumptions, known and unknown risks and uncertainties, both general and specific, that contribute to the possibility that the predictions, forecasts, projections and other forward-looking statements will not occur, which may cause actual performance and results in future periods to differ materially from any estimates or projections of future performance or results expressed or implied by such forward-looking statements. Such factors and risks include, the ability to scale the HPMS and chemical recycling technologies to commercial scale, competitors having greater financial capability and effective competing technologies in the recycling business of HyProMag, availability of scrap supplies for recycling activities, government regulation (including the impact of environmental and other regulations) on and the economics in relation to recycling and the development of the various recycling plants . The forward-looking statements contained in this news release are made as of the date of this news release. Except as required by law, the Company disclaims any intention and assume no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law. Additionally, the Company undertakes no obligation to comment on the expectations of, or statements made by, third parties in respect of the matters discussed above.

**For further information on Mkango, please contact:**

#### **Mkango Resources Limited**

William Dawes  
Chief Executive Officer  
[will@mkango.ca](mailto:will@mkango.ca)  
Canada: +1 403 444 5979  
[www.mkango.ca](http://www.mkango.ca)  
@MkangoResources

Alexander Lemon  
President  
[alex@mkango.ca](mailto:alex@mkango.ca)

#### **SP Angel Corporate Finance LLP**

Nominated Adviser and Joint Broker  
Jeff Keating, Caroline Rowe  
UK: +44 20 3470 0470

#### **Alternative Resource Capital**

Joint Broker  
Alex Wood, Keith Dowsing  
UK: +44 20 7186 9004/5

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