



MKANGO RESOURCES LTD. 550 Burrard Street Suite 2900 Vancouver BC V6C 0A3 Canada COTEC HOLDINGS CORP.
755 Burrard Street
Suite 428
Vancouver
V6Z 1X6
Canada

# HYPROMAG USA EXPANDS DETAILED ENGINEERING PHASE TO INCLUDE THREE HPMS VESSELS AND INITIATES CONCEPT STUDIES FOR FURTHER EXPANSION AND COMPLEMENTARY "LONG LOOP" RECYCLING

**London / Vancouver: March 11, 2025** – CoTec Holdings Corp. (TSXV: CTH; OTCQB: CTHCF) ("CoTec") and Mkango Resources Ltd. (AIM/TSX-V: MKA) ("Mkango") are pleased to announce that HyProMag USA LLC ("HyProMag USA") will expand the upcoming detailed design phase of its U.S. permanent magnet recycling and manufacturing project (the "Project") to include three HPMS<sup>i</sup> vessels.

In addition, and concurrently, HyProMag USA will begin conceptual studies to evaluate further expansion to triple the capacity of the Project, versus that envisaged in the Feasibility Study, across the Project footprint of Fort Worth, Texas ("Texas Hub"), South Carolina and Nevada as well as integrated USA development of long loop chemical processing, which is complementary to the HPMS short-loop process. Long-loop chemical processing is used to process any material not suitable for short-loop recycling as well as swarf generated from magnet finishing. HyProMag USA is targeting to supply 10% of U.S. domestic demand for NdFeB magnets within five years of commissioning.<sup>II</sup>

The November 2024 base case Feasibility Study (the "Feasibility Study")<sup>iii</sup>, which was based on two HPMS vessels, indicated a NPV<sub>7%</sub> of US\$262<sup>iv</sup> million based on current market prices<sup>v,vi</sup> and US\$503 million based on forecast prices<sup>vii</sup>. With the inclusion of the third HPMS vessel for an incremental capital cost of circa US\$7 million, the Feasibility Study indicated a NPV<sub>7%</sub> of US\$279 million based on current market prices and US\$593 million based on forecast prices.

**Julian Treger, CoTec CEO commented:** "The potential expansion of HyProMag USA is compelling from a value perspective as the modular design of the production hubs is expected to allow for significant upfront cost savings and optimization opportunities could result in even higher returns than the strong economics shown by the Feasibility Study. Additionally, it will also play a key role in supporting the US strategy of reshoring manufacturing capability, reducing dependance on foreign magnets and rare earths.

The increased production capacity could also allow the flexibility to produce a wider range of products and specialist magnets, further improving both financial returns and the company's ability to become a supplier of choice."

**Will Dawes, Mkango CEO commented:** "The HyProMag USA Feasibility Study highlighted the strong economics of the Project, with significant opportunities for further expansions, coupled with ancillary developments to add value, broaden the product suite and strengthen the competitive positioning."

The Feasibility Study included the Texas Hub, and two pre-processing facilities located in South Carolina and Nevada respectively. It is envisaged that additional expansion capacity and downstream development could be added at either the Texas Hub and / or the two pre-processing facilities, which will be evaluated during the concept studies,

as well as the potential to process additional primary feed if required to initially support the expansion. The modular nature of the production design should allow duplication with limited design adjustments and should benefit from the construction and ramp-up learnings of the Texas Hub, and commissioning of the UK and Germany operations. With the increased production capacity, the Project will generate additional NdFeB co-products suitable for long loop chemical processing. The opportunity to develop an integrated long loop chemical processing plant will also be evaluated during the concept studies.

Both long-loop and short-loop recycling technologies are underpinned by the HPMS technology, which liberates magnets from end-of-life scrap streams in a cost effective and energy efficient way to produce a recycled NdFeB alloy powder, which is manufactured into a magnet (via the short loop process) or into a rare earth carbonate or oxide (via the long loop chemical process). In March 2025, HyProMag USA announced the results of an independent ISO-Compliant product carbon footprint study which confirmed an exceptionally low CO<sub>2</sub> footprint of 2.35 kg CO<sub>2</sub> eq. per kg of NdFeB cut sintered block product.<sup>viii</sup>

The Texas Hub's annual production with a third HPMS vessel will be 750 metric tons per annum of recycled sintered NdFeB magnets and 807 metric tons per annum of associated NdFeB co-products (total payable capacity – 1,557 metric tons NdFeB within five years of commissioning) over a 40 year operating life. It is expected that the third reactor will provide the Texas Hub with significant optionality to supply the U.S. market with additional NdFeB alloy powder. The detailed design will further incorporate debottlenecking and optimization of the three existing magnet lines at the proposed Texas Plant.

### **Ownership**

HyProMag USA is owned 50:50 by CoTec and HyProMag Limited. HyProMag Limited is 100 per cent owned by Maginito Limited ("Maginito"), which is owned on a 79.4/20.6 per cent basis by Mkango and CoTec.

#### About HyProMag

HyProMag is commercializing HPMS recycling technology in the UK, Germany and United States. HyProMag is also evaluating other jurisdictions, and in mid-2024 launched a collaboration with Envipro on rare earth magnet recycling in Japan. HPMS technology was developed at the Magnetic Materials Group (MMG) at University of Birmingham, 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.

# **About CoTec Holdings Corp.**

CoTec is a publicly traded investment issuer listed on the Toronto Venture Stock Exchange ("TSX-V") and the OTCQB and trades under the symbol CTH and CTHCF respectively. CoTec Holdings Corp. is a forward-thinking resource extraction company committed to revolutionizing the global metals and minerals industry through innovative, environmentally sustainable technologies and strategic asset acquisitions. With a mission to drive the sector toward a low-carbon future, CoTec employs a dual approach: investing in disruptive mineral extraction technologies that enhance efficiency and sustainability while applying these technologies to undervalued mining assets to unlock their full potential. By focusing on recycling, waste mining, and scalable solutions, the Company accelerates the production of critical minerals, shortens development timelines, and reduces environmental impact. CoTec's strategic model delivers low capital requirements, rapid revenue generation, and high barriers to entry, positioning it as a leading mid-tier disruptor in the commodities sector.

For more information, please visit www.cotec.ca.

## **About Mkango Resources Ltd.**

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. Mkango has signed a letter of Intent with Crown PropTech Acquisitions to list the Songwe Hill and Pulawy rare earths projects on NASDAQ via a SPAC Merger.

For more information, please visit www.mkango.ca

# Market Abuse Regulation (MAR) Disclosure

The information contained within this announcement is deemed by the Company to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014 ('MAR') which has been incorporated into UK law by the European Union (Withdrawal) Act 2018. Upon the publication of this announcement via Regulatory Information Service, this inside information is now considered to be in the public domain.

# **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 and CoTec. Generally, forward looking statements can be identified by the use of words such as "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, without limiting the foregoing, the successful conclusion of the MDA, the availability of (or delays in obtaining) financing to develop Songwe Hill, the Recycling Plants being developed by Maginito in the UK, Germany and the US (the "Maginito Recycling Plants"), the results of the Feasibility Study and the Pulawy Separation Plant, governmental action and other market effects on global demand and pricing for the metals and associated downstream products for which Mkango is exploring, researching and developing, geological, technical and regulatory matters relating to the development of Songwe Hill, 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 and separation business of Maginito and Mkango, availability of scrap supplies for Maginito's 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 Maginito Recycling Plants, and the Pulawy Separation Plant and future investments in the United States pursuant to the proposed cooperation agreement between Maginito and CoTec, the outcome and timing of the completion of the feasibility studies, cost overruns, complexities in building and operating the plants, and the positive results of feasibility studies on the various proposed aspects of Mkango's, Maginito's and CoTec's activities. 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 and CoTec disclaim any intention and assume no obligation to update or revise any forward-looking statements, whether because of new information, future events or otherwise, except as required by applicable law.

Additionally, the Company and CoTec undertake 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 CoTec, please contract: CoTec Holdings Corp. Braam Jonker Chief Financial Officer braam.jonker@cotec.ca Canada: +1 604 992-5600

For further information on Mkango, please contact: Mkango Resources Limited

William Dawes Alexander Lemon
Chief Executive Officer President
will@mkango.ca alex@mkango.ca
Canada: +1 403 444 5979

www.mkango.ca @MkangoResources

SP Angel Corporate Finance LLP Nominated Adviser and Joint Broker Jeff Keating, Jen Clarke, Devik Mehta UK: +44 20 3470 0470 Alternative Resource Capital Joint Broker Alex Wood, Keith Dowsing UK: +44 20 7186 9004/5

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<sup>&</sup>lt;sup>1</sup> Patented Hydrogen Processing of Magnet Scrap (HPMS) technology developed at University of Birmingham, which liberates NdFeB magnets from end-of-life scrap streams in a cost effective and energy efficient way

<sup>&</sup>lt;sup>ii</sup> Federal Register: 88 FR 9430, Pages 9430-9475 (46 pages). Department of Commerce, Bureau of Industry and Security: "The Effect of Imports of Neodymium-Iron-Boron (NdFeB) Permanent Magnets on the National Security."

iii November 2024 independent HyProMag USA feasibility study undertaken by a multidisciplinary team appointed by CoTec and Mkango and led by independent engineers, Canada-based BBA USA Inc. ("BBA") and U.S. based PegasusTSI Inc. ("PegasusTSI") with other independent experts and support from University of Birmingham, HyProMag Ltd and HyProMag GmbH.

 $<sup>^{</sup> ext{iv}}$  7% real discount rates. NPVs are calculated by discounting real US dollar cash flows from 2025 post tax

<sup>&</sup>lt;sup>v</sup> Current market prices ("Current Prices") for all NdFeB products sold in the U.S, excluding residual scrap, derived from U.S. 2024 price quotes, over the life of the asset

 $<sup>^{\</sup>mathrm{vi}}$  NPV does not include the economic benefit of any government or state incentives, or carbon pricing

vii Forecast market prices ("Forecast Prices") are the prices for all NdFeB products sold in the U.S, excluding residual scrap feed, with the rare earth price component thereof derived from the latest rare earth oxide price forecasts from Q4 (2024) Adamas Intelligence, over the life of the asset

 $<sup>^{\</sup>mbox{\tiny {\rm Viii}}}$  Cut Sintered Block Product is the final product prior to nickel plating and magnetization