

Ucore Provides Update on RapidSX(TM) Commercialization Development for Near-Term Commercial Heavy and Light Rare-Earth Elements Separation in USA

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Halifax, October 1, 2020 - [Ucore Rare Metals Inc.](#) (TSXV: UCU) (OTCQX: UURAF) ("Ucore" or the "Company") is pleased to provide the following update on the Company's wholly owned subsidiary, Innovation Metals Corp. ("IMC") and the commercialization development program for IMC's RapidSX technology, at the RapidSX Commercialization and Development Facility ("CDF") in Kingston, Ontario, Canada.

IMC's proprietary RapidSX technology is being commercialized for the cost-effective bulk separation and purification of rare-earth elements ("REEs") - including both heavy REE ("HREEs") and light REEs ("LREEs") - for the production of REE oxides ("REOs"), in addition to other critical metals, such as lithium ("Li"), nickel ("Ni"), and cobalt ("Co") for lithium-ion ("Li-ion") battery materials.

RapidSX REE Development Program

The RapidSX commercialization program, currently underway, is being led by IMC CEO and Chairman, Dr. Gareth Hatch, and IMC COO, Dr. Kurt Forrester, in conjunction with Dr. Boyd Davis and Mr. Alain Roy, Principals of Kingston Process Metallurgy ("KPM"), supported by additional technical expertise that IMC engaged for the program. As announced on June 23, 2020, KPM is IMC's laboratory partner and will be supporting all aspects of IMC's technical work to commence the optimization and commercialization program to scale up the RapidSX technology.

Additionally, the critical data derived from the RapidSX development program will be incorporated into the ongoing planning for Ucore's Alaska Strategic Metals Complex ("Alaska SMC") in Southeast Alaska.

In the first four months since Ucore completed its acquisition of IMC, a significant amount of work has been undertaken to advance the RapidSX technology, including:

- Engaging KPM as IMC's long-term laboratory partner;
- Technical onboarding of Dr. Forrester and KPM with respect to the fundamentals of the RapidSX technology, and past work;
- Initiating the RapidSX technical-validation and optimization program;
- Relocating the entirety of IMC's laboratory and all RapidSX equipment to IMC's RapidSX CDF, including IMC's existing pilot-scale RapidSX circuit;
- Numerous ongoing meetings with multiple potential RapidSX REE end users and REE business partners;
- Providing ongoing REE expert advisory services to a leading U.S. Department of Defense contractor in support of its U.S. REE business initiatives;
- Working directly with J. A. Green & Company to support Ucore's and IMC's proposals to the U.S. federal government (Ucore's efforts in Washington D.C. are spearheaded by government-relations firm J.A. Green & Company, led by well-known strategic-materials advocate Jeff Green. Dr. Hatch is an advisor to J.A. Green & Company and has been working with Mr. Green for more than 10 years);
- Working directly with the Canadian Rare Earth Elements Network ("CREEN") regarding advancing various initiatives underway with the Canadian federal government; and
- Advancing multiple Ucore and IMC U.S.-based REE supply-chain business-development proposals with multiple potential partners concurrently.

The RapidSX project team continues to be focused on a comprehensive technical program to finalize the

design, construction and configuration of the RapidSX demonstration-scale pilot plant ("Demonstration Plant") for both HREE and LREE separation. Expected to be completed in Q2 2021, the program is taking a systems-engineering approach - focused on platform engineering (hardware), applications engineering (separation chemistry), and computational process simulation - and will be completed in two Phases:

1) Laboratory-Scale Program (Q4 2020 - Q1 2021)

- Quantitative characterization and design optimization of physical RapidSX hardware, independent of the chemistry of the separation applications that will utilize the technology, using a new multi-column RapidSX research platform built for this specific purpose;
- Use of the new research platform to quantitatively characterize process kinetics, equilibrium isotherms and other parameters for various REE feedstocks; and
- Development, utilization and optimization of a state-of-the-art process simulation tool, combining empirical results from the research platform, with the thermodynamic and other mathematical equations required to effectively model applications using the RapidSX technology. (Once optimized, the tool will give IMC the ability to rapidly test and to simulate large numbers of different test conditions, to determine the optimum flowsheet parameters and equipment configurations for particular REE and other feeds, at various scales).

2) Demonstration-Scale Program (Q1 - Q2 2021)

- Finalization of the Demonstration Plant design and configuration, based on the results of the laboratory-scale development program, including the process simulation tool;
- Construction and commissioning of the Demonstration Plant at the CDF; and
- Initial testing of separation flowsheets for specific REE feedstocks using the Demonstration Plant, to produce commercial evaluation and qualification samples for partners, potential REE end users and licensees.

The objectives of the current RapidSX development program include:

- 1) Validation of previous RapidSX REE technical work;
- 2) Optimization and validation of the physical design of the RapidSX platform at demonstration scale;
- 3) Validation of the specific process flowsheets developed for particular REEs, including multiple U.S.-allied-sourced commercial REE feedstocks currently under consideration;
- 4) Initial generation of REO qualification samples for potential customers and licensees for evaluation;
- 5) Creation of inputs required for the design of commercial-scale RapidSX HREE and LREE separation facilities; and
- 6) Initiation of a detailed techno-economic assessment of RapidSX-based separation, as part of the commercialization process.

Dr. Hatch stated, "We are grateful to Ucore for providing the financial backing required in 2020 for the continued advancement of RapidSX, and IMC is particularly pleased with the RapidSX development work completed since May 2020. The significant contributions of Dr. Kurt Forrester, the KPM technical team and others have been invaluable to the advancement of our RapidSX technology."

"Additionally, IMC continues to work extensively with US-allied commercial REE feedstock suppliers and several active and near-term REE producers outside of China, who have expressed interest in potentially incorporating the RapidSX technology into their operations," said Dr. Hatch.

IMC will evaluate and test multiple specific LREE and HREE commercially available, U.S.-allied-sourced feedstocks to develop a comprehensive dataset that will demonstrate the versatility of the RapidSX technology for REE separation, and the robustness of the mathematical process model used to accelerate optimization. Commissioning of the Demonstration Plant is targeted for Q2 2021. Following the operations to validate the flowsheets and hardware configurations, a comprehensive techno-economic study will be conducted and the design of a commercial-scale REE separation facility will be finalized and is presently targeted for completion in Q4 2021. It is at this point that IMC expects that RapidSX will be ready for commercial adoption and implementation by IMC's customers via revenue-producing licensing agreements.

IMC and Ucore look forward to providing further updates on the commercialization of the RapidSX

technology for the separation of HREEs and LREEs in the coming months.

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About Ucore Rare Metals Inc.

Ucore is focused on rare and critical metals resources, extraction and beneficiation technologies with potential for production, growth, and scalability. The Company has a 100% ownership stake in the Bokan-Dotson Ridge Rare Earth Project. Ucore's vision and plan is to transition to become a leading advanced technology company that provides mineral separation products and services to the mining and mineral extraction industry. This vision includes the development of the Alaska SMC in Southeast Alaska and the development of the Company's rare earth minerals property located at Bokan Mountain in Alaska.

Ucore is listed on the TSX Venture Exchange under the trading symbol "UCU" and in the United States on the OTC Markets' OTCQX® Best Market under the ticker symbol "UURAF". For further information, please visit www.ucore.com.

About Innovation Metals Corp.

IMC has developed the proprietary RapidSX® process, for the low-cost separation and purification of REEs, Ni, Co, Li and other technology metals, via an accelerated form of solvent extraction. IMC is commercializing this approach for a number of metals, to help enable mining and metal-recycling companies to compete in today's global marketplace. IMC is a wholly owned subsidiary of [Ucore Rare Metals Inc.](#)

For more information, please www.innovationmetals.com.

About the RapidSX® Technology

IMC developed the RapidSX separation technology with the assistance of US\$1.8 million in funding from the United States Department of Defense ("US DoD"), resulting in the production of commercial-grade, separated REOs at the pilot scale. RapidSX combines the time-proven chemistry of conventional solvent extraction ("SX") with a new column-based platform, which significantly reduces time to completion and plant footprint, as well as potentially lowering capital and operating costs. SX is the international REE industry's standard commercial separation technology and is currently used by 100% of all REE producers worldwide for bulk commercial separation of both HREEs and LREEs. Utilizing the same chemistry as conventional SX, RapidSX is not a "new" technology, but represents a significant improvement on the well-established, well-understood, proven conventional SX separation technology preferred by REE producers.

Forward-Looking Statements

This press release includes certain statements that may be deemed "forward-looking statements". All statements in this release (other than statements of historical facts) that address future business development, technological development and/or acquisition activities (including any related required financings), timelines, litigation outcomes, events, or developments that the Company expects, are forward-looking statements. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance or results and actual results or developments may differ materially from those in forward-looking statements. In regard to the disclosure in the "About Ucore Rare Metals Inc." section above, the Company has assumed that it will be able to procure or retain additional partners and/or suppliers, in addition to IMC, as suppliers for Ucore's expected future Alaska Strategic Metals Complex ("Alaska SMC"). Ucore has also assumed that sufficient external funding will be found to prepare a new National Instrument 43-101 ("NI 43-101") technical report that demonstrates that the Bokan Mountain Rare Earth Elements project ("Bokan") is feasible and economically viable for the production of both REE and co-product mineral materials and metals and the then prevailing market prices based upon assumed customer off-take agreements. Ucore has also assumed that sufficient external funding will be secured to develop the specific engineering plans for the Alaska SMC and its construction. Factors that could cause actual results to differ materially from those in forward-looking statements include, without limitation: IMC failing to protect its

intellectual property rights in RapidSX; RapidSX failing to demonstrate commercial viability in large commercial-scale applications; Ucore not being able to procure additional key partners or suppliers for the Alaska SMC; Ucore not being able to raise sufficient funds to fund the specific design and construction of the Alaska SMC and/or the continued development of RapidSX; adverse capital-market conditions; unexpected due-diligence findings; unexpected or adverse outcomes in the currently outstanding litigation matters between Ucore and IBC Advanced Technologies, Inc.; the emergence of alternative superior metallurgy and metal-separation technologies; the inability of Ucore and/or IMC to retain its key staff members; a change in the legislation in Alaska and/or in the support expressed by the Alaska Industrial Development and Export Authority ("AIDEA") regarding the development of Bokan and/or the Alaska SMC; the availability and procurement of any required interim and/or long-term financing that may be required; and general economic, market or business conditions.

Neither the TSX Venture Exchange ("TSXV") nor its Regulation Services Provider (as that term is defined by the TSXV) accepts responsibility for the adequacy or accuracy of this release.

QUALIFIED PERSON

Dr. Gareth Hatch, CEng, FRSA, FIMMM, FIET, Chief Executive Officer of IMC and Chief Technology Officer of Ucore, is a Qualified Person as defined by National Instrument 43-101 (“N.I. 43-101”) guidelines, and has reviewed and approved the scientific and technical disclosure in this news release.

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