News Release
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Advanced Manufacturing Roadmap for the Canadian Nuclear Industry

The Organization of Canadian Nuclear Industries (OCNI), KSB and Kinectrics are pleased to announce the release of the "Advanced Manufacturing Roadmap for the Canadian Nuclear Industry." Advanced Manufacturing, or more specifically additive manufacturing, offers a potential solution to address equipment or component obsolescence challenges in Canada's CANDU reactor fleet and has the potential to reduce fabrication costs of certain complex SMR components.

"The Advanced Manufacturing Roadmap benefited from review and inputs from many groups who are acknowledged in Roadmap" said OCNI President and CEO Ron Oberth. "Production of the roadmap was a true team effort – characteristic of how the Canadian nuclear industry - suppliers, utilities, universities, industry groups, and the National Lab collaborate to realize the best outcomes for the industry".

"Other tech industries, aerospace in particular, have achieved performance and cost savings through application of additive manufacturing of complex components." said Christine Burow, Business Development Manager at KSB Pumps. "There is an example from the nuclear industry in Europe where a failed pump impellor as been digitized, "printed", and installed to return a pump to service within 48 hours".

"This AM Roadmap is intended to brief Canadian nuclear industry stakeholders on the advantages of additive manufacturing and how it can be methodically adopted to help sustain the Canadian CANDU fleet until 2065 and beyond and to enable Canada to be a leader in SMR development and deployment through potential cost savings on the manufacture of specific SMR components", said Sean Donnelly, Director, Licensing & New Technology at Kinectrics.

The Advanced Manufacturing Roadmap also provides a comprehensive overview of the current status of Advanced Manufacturing development and application in the nuclear industry, outlines next steps in 2022, and sets out a ten-year vision and beyond. The Roadmap lays out a high-level plan on how to develop advanced manufacturing capacity in the nuclear supply chain and highlights some of the ongoing projects in the nuclear advanced manufacturing space.

"OCNI plans to lead the formation of a "Canadian Advanced Manufacturing in Nuclear Alliance" in early 2022. The Alliance with include nuclear suppliers, nuclear utilities, SMR developers, research organizations and universities that will convene on a regular basis to share experience, discuss manufacturing challenges, review R&D programs, and seek collaboration opportunities that will encourage adoption of Advanced Manufacturing technologies in the Canadian nuclear industry." added Dr. Oberth.

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Organization of Canadian Nuclear Industries (OCNI) is an association of more than 230 Canadian suppliers to the nuclear industry that employ 20,000 highly skilled and specialized engineers, technologists, and trades people. OCNI companies design reactors, manufacture major equipment and components, and provide engineering services and support to CANDU and future SMR power plants in Canada as well as to CANDU and Light Water Reactor (LWR) plants in offshore markets. For more information visit OCNI.ca

KSB is a leading supplier of pumps, valves and related systems used in a large variety of applications including nuclear power plants, with Canada being a country of focus for development of the nuclear market. KSB has a presence on all continents with its own sales and marketing organizations, manufacturing facilities and service operations and employs more than 15,000 people. The company also has 190 service centres and over 3,500 service staff to provide inspection, maintenance, and repair services worldwide. KSB is an international pioneer in additive manufacturing thanks to forward-thinking innovation management, early involvement in research and the acquisition of valuable practical experience. Today, we turn to additive manufacturing when conventional components need replacing, for specially customised designs, and for new components specifically developed and designed for the process. From consulting to manufacturing and quality assurance, we liaise with our customers at every stage of the process to deliver the best solution. For more information visit ksb.com/en-global/company/innovation/additive-manufacturing

Kinectrics is the category leader in providing life cycle management services for the electricity industry. Trusted by clients worldwide, our expertise in engineering, testing, inspection, and certification is backed by our independent laboratory and testing facilities, a diverse fleet of field inspection equipment and an award-winning team of over 1,000 engineers and technical experts. From initial design and type testing to operational deployment and maintenance services, Kinectrics collaborates closely with customers to ensure that utility assets perform safely, reliably and efficiently throughout their entire life-cycle. For more information visit kinectrics.com

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