

Press Release

August 9, 2022

Adhesive Technologies to further strengthen expertise for predictive maintenance solutions

Henkel invests in technology start-up Direct-C

Düsseldorf, Germany – Henkel Adhesive Technologies strengthens its capabilities for predictive maintenance solutions by investing in Direct-C LTD (Direct-C), Edmonton, Canada. The company has developed a sophisticated sensor technology for the early detection of hydrocarbon leakages. With the investment Henkel aims to further expand its maintenance, repair and overhaul (MRO) business and to drive the implementation of innovative digital applications.

Henkel Adhesive Technologies is one of the leading providers of MRO solutions in more than 800 different industry segments. Adhesives and sealants under the well-known Loctite brand improve the maintenance of production machinery and equipment for example in oil and gas plants, steel mills, car factories, mining equipment or power turbines around the globe. With the recent launch of Loctite Pulse Henkel offers a novel portfolio of Industrial Internet of Things (IIOT) solutions designed to minimize downtime, save maintenance costs and underpin safety as well as sustainability. These data-enabled solutions empower customers in various industries to increase maintenance efficiency and effectiveness by monitoring the status of critical assets. With the implementation of these IIOT solutions across its MRO portfolio Henkel further expands its offering beyond materials to create additional value for its customers.

"The combination of the Direct-C sensor technology and our broad MRO portfolio and expertise offers great potentials for innovative end-to-end solutions", explained Paolo Bavaj, Head of Corporate Venturing at Henkel Adhesive Technologies. "The contributions of start-up technologies are crucial for us to develop predictive maintenance solutions for our customers. Together we aim to develop digital business models that help innovating our traditional MRO business towards the increasing demands for novel and efficient industrial IoT applications. Thus, the investment perfectly fits to our business strategy to implement and enable predictive maintenance solutions across industries under our constantly growing Loctite Pulse portfolio."

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Founded in 2014, Direct-C has developed a polymer nanocomposite sensor material that is adaptable to various polymer matrices and sensing parameters. The technology is specifically designed to react to liquid hydrocarbons and provides a sophisticated leak detection solution for the integrity monitoring of the oil and gas infrastructure. The technology enables significantly enhanced response times to unexpected incidents and helps limiting costintensive unplanned production downtimes.

"We are very pleased to receive this investment from Henkel as it comes at a crucial time when we plan to considerably scale our manufacturing capabilities and customer acquisitions in the hydrocarbon production and transportation markets," added Adrian Banica, CEO of Direct-C. "More importantly however, we look forward to collaborating with Henkel's MRO team and various initiatives and creating new and unique digital monitoring offerings for industrial equipment operators."

About Henkel

Henkel operates globally with a well-balanced and diversified portfolio. The company holds leading positions with its three business units in both industrial and consumer businesses thanks to strong brands, innovations and technologies. Henkel Adhesive Technologies is the global leader in the adhesives market – across all industry segments worldwide. In its Laundry & Home Care and Beauty Care businesses, Henkel holds leading positions in many markets and categories around the world. Founded in 1876, Henkel looks back on more than 140 years of success. In 2021, Henkel reported sales of more than 20 billion euros. The company employs about 53,000 people globally – a passionate and highly diverse team, united by a strong company culture, a common purpose, and shared values. As a recognized leader in sustainability, Henkel holds top positions in many international indices and rankings. Henkel's preferred shares are listed in the German stock index DAX. For more information, please visit www.henkel.com.

About Henkel Tech Ventures

Henkel Tech Ventures is the corporate venture capital arm of Henkel Adhesive Technologies, established in 2016. Headquartered in Düsseldorf, it functions as a connector between external innovators and Henkel. Through networking, consulting, partnerships and investments, the unit supports the growth of startups and at the same time enhances Henkel's new business development efforts. For more information, please visit <u>www.henkel-tech.ventures</u>.

About Direct-C Limited

Direct-C has developed a platform sensor technology that uses a proprietary, polymer-based nanocomposite "paint". This "paint" can be applied to any surface of interest that requires large area measurements for temperature, stress/strain/cracking and chemical exposure (such as a building, bridge, engine, pipeline, etc.) or it can be built into small area sensors that provide location specific measurements. The first revenue generating commercial market application deploys a formulation specifically designed to detect liquid hydrocarbons and is currently used in the implementation of a variety of oil leak detection solutions that provide unparalleled performance for the integrity monitoring of oil and gas infrastructure. The solutions provide no false positives, instant alerts, and precise locations of a release – all which lead to enhanced response times to unexpected incidents. <u>www.direct-c.ca</u>

Photo material is available at www.henkel.com/press

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Henkel has invested in the technology start-up Direct-C that has developed a sophisticated sensor technology for the early detection of hydrocarbon leakages in flanges and pipelines.