

Health Care Collaboration in Denmark Aims to Reduce Medical Waste

Five organizations are collaborating to evaluate recycling program for blood collection tubes at Odense University Hospital

COPENHAGEN, Denmark, May 8, 2023 /PRNewswire/ -- A new health care sector collaboration in Denmark will evaluate the feasibility of recycling used blood collection tubes to reduce medical waste as part of the participants' sustainability goals and Denmark's Climate Action Strategy.

The pilot program is a collaboration among BD (Becton, Dickinson and Company) (NYSE:BDX), Odense University Hospital, the Health Innovation Centre of Southern Denmark, Danish Technological Institute, and GMAF Circular Medico/EcoFitt that will occur at the Odense University Hospital in Odense, Denmark.

The initiative models a circular economy, which reduces material use, redesigns materials, products and services to be less resource intensive, and recaptures waste as a resource to manufacture new materials and products.ⁱ The collaboration is part of a broader effort to further progress toward Denmark's Climate Action Strategy, which aims to reduce the country's greenhouse gas emissions by 70 percent in 2030 compared to 1990 levels.ⁱⁱ

"Hospitals in Denmark are an active participant in the country's green agenda, and knowing that blood collection tubes are one of health care's most commonly used products, we saw an opportunity to explore a solution that would allow for these tubes to be recycled," said Mads Nybo, chief physician of the Department of Clinical Biochemistry at Odense University Hospital.

Amit Limaye, director of the BD Sustainable Medical Technology Institute said, "BD is the world's largest manufacturer of evacuated blood collection tubes and, as part of our 2030+ environmental, social and governance goals, we are focused on reducing the environmental impact of our product portfolio. This partnership and program are a great example of like-minded stakeholders coming together to drive progress toward a greener, more sustainable health care system, because success cannot be accomplished by any one stakeholder alone."

Used blood collection tubes are often considered a biohazardous and regulated medical waste, and in Denmark, they are currently disposed via incineration. This initiative will investigate steps involved in recycling the plastic tubes, which are made of very high-quality raw materials. Ensuring safety and proper hygiene, followed by recycling and evaluating the quality of the plastic obtained are key focus areas of the pilot. The program is currently in an evaluation phase to establish basic technical feasibility and will move to the next phase later this year, with an ultimate goal of demonstrating reuse of plastics used in manufacturing blood collection tubes.

The pilot is being showcased at Christiansborg Palace in Copenhagen on May 9, 2023, as one of five selected projects that address how hospitals can call attention, resources and action to sustainability challenges being faced by the health care sector.

About BD

BD is one of the largest global medical technology companies in the world and is advancing the world of health by improving medical discovery, diagnostics and the delivery of care. The company supports the heroes on the frontlines of health care by developing innovative technology, services and solutions that help advance both clinical therapy for patients and clinical process for health care providers. BD and its 77,000 employees have a passion and commitment to help enhance the safety and efficiency of clinicians' care delivery process, enable laboratory scientists to accurately detect disease and advance researchers' capabilities to develop the next generation of diagnostics and therapeutics. BD has a presence in virtually every country and partners with organizations around the world to address some of the most challenging global health issues. By working in close collaboration with customers, BD can help enhance outcomes, lower costs, increase efficiencies, improve safety and expand access to health care. For more information on BD, please visit bd.com or connect with us on LinkedIn at www.linkedin.com/company/bd1/ and Twitter [@BDandCo](https://twitter.com/BDandCo).

About OUH

Odense University Hospital (OUH) is one of the four university hospitals in Denmark, with all medical specialties represented in one place. A new Odense University Hospital (New OUH) is currently under construction and is expected to be complete in 2025. With a total ground floor area of 212,000 m², the hospital will become the largest newly built hospital in Denmark. New OUH will be integrated with the University of Southern Denmark in order to ensure better connection between research and practice. OUH has a longstanding tradition for research and innovation collaborations with regional, national and international partners. The hospital works with strategic innovation to prepare for the new hospital and the future healthcare sector.

About Region of Southern Denmark

The Region of Southern Denmark (RSD) is one of five administrative public units in Denmark. RSD's primary task is to operate the healthcare service in Southern Denmark, a region of approximately 1.2 million people. The Region also handles specialist assignments in the field of social services, and in relation to both children and adults with disabilities. Finally, the Region is responsible for assuring and coordinating regional development in Southern Denmark. The Region of Southern Denmark has an

annual budget of approximately 25 billion DKK.

About Health Innovation Centre of Southern Denmark (SDSI)

Established in 2012, the Health Innovation Centre of Southern Denmark (SDSI) is the central division for health innovation in the Region of Southern Denmark. SDSI supports the hospitals, social- and psychiatric facilities and pre-hospital services in the region in developing sustainable health- and social care services that tackle current and future challenges. With innovation as the central focus, SDSI employs co-creation to develop strong solutions that add value for citizens, the health- and social care sector, and society at large. SDSI has a significant role in supporting public-private innovation partnerships, including establishing links and building bridges between needs in the clinical operations and companies who develop new solutions for healthcare. With 70 full-time employees, the Health Innovation Centre is the largest health innovation unit in Denmark.

About Danish Technological Institute

Danish Technological Institute (DTI) is an independent and non-profit research and development institute. DTI delivers 40,000 advanced technological solutions annually in response to concrete needs and challenges of our more than 10,000 customers.

The Institute's work for this purpose is carried out by approximately 1,000 specialists, who - in close cooperation with 1,500 research and development partners, assist both small and large enterprises to remain competitive and innovative. We provide a solid technological infrastructure built on specialised professional and domain-specific knowledge and world-class equipment. The Institute delivers technological services that contribute to the required development and conversion in Danish companies. This takes place in line with interdisciplinary and highly relevant societal drivers: digital transformation, green conversion, the circular economy and growth, productivity, and innovation

About GMAF Circular Medico ApS

Established in 2020, the Danish manufacturing company GMAF Circular Medico ApS, owned by the Danish foundation Global Material & Asset Fond ([materials.fund](#)), developed the world's first medical face mask that can be returned to the manufacturer where the recycled mask will gain over 90% of its material back and save over 90% of CO2 emission through the material's lifespan. The main part of the mask, the polypropylene, is upcycled to become new material for a new product cycle of medical face masks. GMAF Circular Medico/EcoFITT has developed valuable insights on the challenges met on establishing take-back facilities at healthcare site, reverse logistics and the upcycle/disinfection process to keep healthy materials in the loop. In this way creating single use products as-a-service with zero waste at user site. For more information, please visit us on [circularmedico.com](#) and connect on LinkedIn at <https://www.linkedin.com/company/gmaf-circular-medico-aps/>

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ⁱ EPA: <https://www.epa.gov/circulareconomy/what-circular-economy>

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<https://www.ccacoalition.org/en/partners/denmark#:~:text=The%20Climate%20Act%20sets%20a,be%20set%20every%20five%20years>

SOURCE BD (Becton, Dickinson and Company)

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