

Sustainable Hospital: Circular Endoscopy

Waste audit and identification of hotspots of Endoscopy department

Erasmus Medical Center (EMC) and Delft University of Technology (DUT) are working together in the Sustainable Hospital project to increase circularity and dramatically reduce the amount of waste generated in the healthcare sector. <https://sustainablehospital.org>

Within the hospital, gastrointestinal endoscopy has high waste generation, due to reliance on single-use devices and relatively high procedure volumes. In the Netherlands, 625.000 endoscopies have been performed in 2021. This varies from gastroscopy (240.00 per year) to colonoscopy (290.000 per year) but also endoscopic retrograde cholangio-pancreatography (ERCP) and endoscopic ultrasound (EUS). In Erasmus MC, 10.500 endoscopic procedures were performed in 2021. Endoscopy has direct and indirect ecological harms and is estimated to be the third highest generator of (hazardous) waste in healthcare facilities.

During this graduation project you will start with mapping the waste streams of the Endoscopy department at the EMC. From this waste audit, environmental hotspots are determined. Furthermore, from the hotspots, one or two cases are chosen for developing circular interventions.

You will be part of a sustainability impact-driven team of EMC and TUD and can work in our Sustainable Hospital Living Lab at the EMC. The Endoscopy department has a professor and team dedicated to innovation and Sustainability. Next to your graduation project you can join us in other sustainable healthcare activities like symposia, workshops and more. We are open to discuss how to finetune the assignment with your graduation ambitions.



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