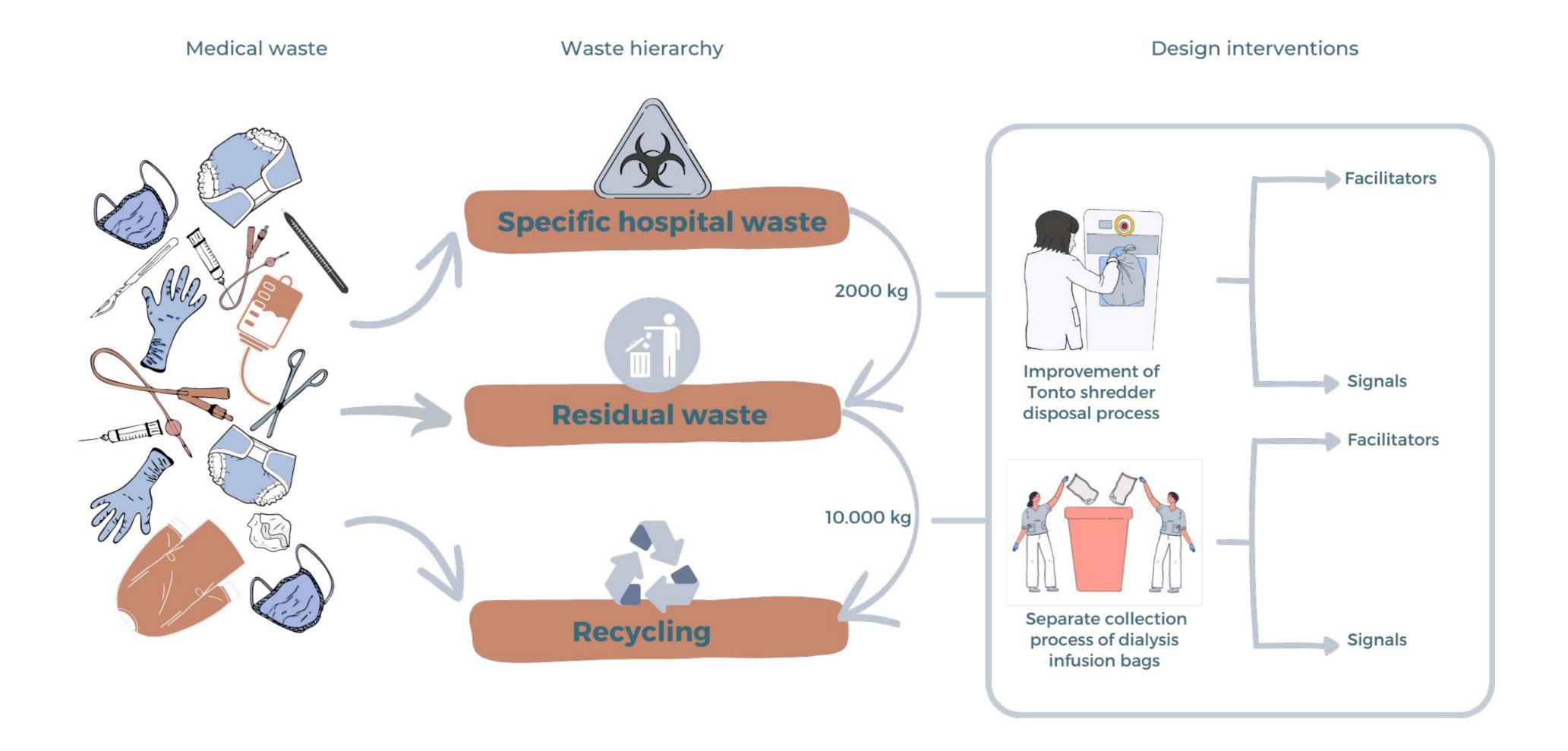
Stimulating waste separation in the Intensive Care Unit

Exploring opportunities for Circular waste streams

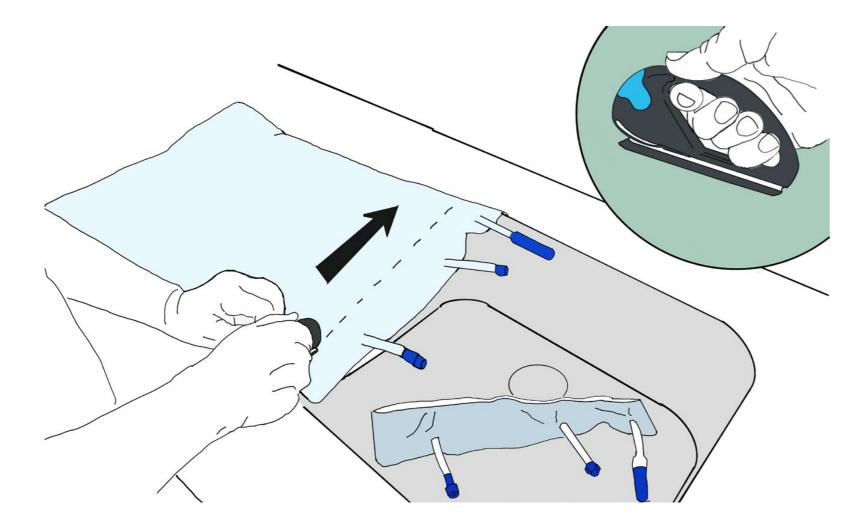
The outcome of the project gives solutions for bringing waste upwards in the hospital waste hierarchy, resulting in decreasing the environmental impact of the waste disposal and creating circular waste streams. From Specific Hospital waste, 2000 kg is brought to residual waste, while from the residual waste, 10.000 kg can be transferred to recycling. Both of this result can be achieved by the proposed design interventions.

First, an improvement in the waste shredder disposal process is proposed to help nurses in quick and informed decision making and disposal procedure, resulting in more infectious waste disposed through the waste shredder. This waste is sterilized and can be treated as residual waste to dispose in a safe and more environmentally positive way.

Secondly, a new procedure is proposed for the separate collection of dialysis infusion bag packaging to produce a clean and high-value recyclable stream. The proposal gives recommendations to the entire journey of the waste, but provides detailed design solutions to the nurses on the ward to ensure proper and effortless collection. Both solution is aided with a set of facilitators and signals that support behaviour change.



SEPARATION OF DIALYSISINFUSION BAGS



Step 1. For the recycling of the infusion bags, part of it needs to be removed. With the help of a safety cutter, they can perform this task quickly and safely.



Step 2. The empty infusion bags can be stored in a collection basket attached to the utility card used by the nurses. Later, it can be taken to the waste storage room.

Júlia Pongrátz Stimulating waste separation in the Intensive Care Unit 14th April 2023 Integrated Product Design **Committee** Dr. ir. J.C Diehl Anna Ruiter

Company Erasmus MC

