

Towards Circular ICUs

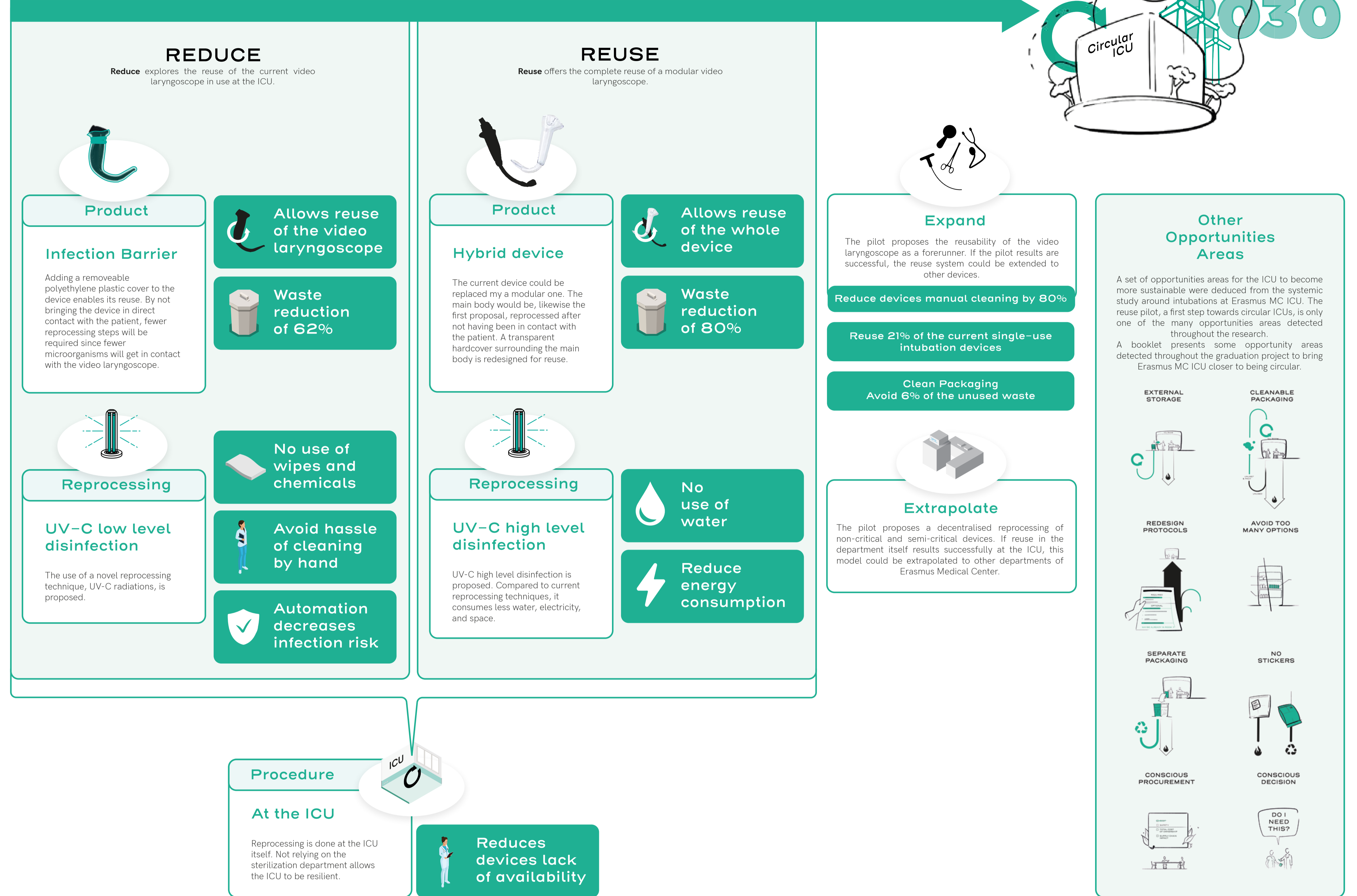
Reuse of intubation devices as a catalyser for systemic change

This project aims to reduce the Intensive Care Units' environmental impact, the department that provides constant care to critical patients. One of the most common and wasteful ICU procedures is intubation, needed when patients cannot breathe by themselves.

A set of challenges derived from the research were used to ideate on different systems which could improve intubation sustainability. It was decided to detail further a system that allows reuse of devices, articulating the first pilot around a specific product, the video laryngoscope.

This video laryngoscope is used to intubate patients. It is composed of various plastics and electronics and has a relatively high procurement cost. Nevertheless, it is a single-use device, disposed of and incinerated after a few minutes of use.

Roadmap to



Other Opportunities Areas

A set of opportunities areas for the ICU to become more sustainable were deduced from the systemic study around intubations at Erasmus MC ICU. The reuse pilot, a first step towards circular ICUs, is only one of the many opportunities areas detected throughout the research. A booklet presents some opportunity areas detected throughout the graduation project to bring Erasmus MC ICU closer to being circular.

EXTERNAL STORAGE

CLEANABLE PACKAGING

REDESIGN PROTOCOLS

AVOID TOO MANY OPTIONS

SEPARATE PACKAGING

NO STICKERS

CONSCIOUS PROCUREMENT

CONSCIOUS DECISION

DO I NEED THIS?

Procedure At the ICU

Reprocessing is done at the ICU itself. Not relying on the sterilization department allows the ICU to be resilient.

Reduces devices lack of availability

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Towards circular ICUs. Reuse of intubation devices as a catalyser for systemic change.
16th March 2022
Integrated Product Design

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