From production to recycling to production.

Connecting the garment lifecycle through Digital Product Passports
Powered by GS1 Digital Link

LUGA ntgas.no



LUGA OS

There's a missing link in today's fashion value chain.

- Manual handling
- Scattered information
- Friction for customers & operations
- Extended Producer Responsibility (EPR)



Design → Raw materials → Garment production → Distribution → Retail → **After the sale?**



LUGAOS

One connected workflow

Repairs | Cleaning | Alterations | Logistics

- Received
- Work documented
- Returned

Every service becomes part of the garment's story.

LUGAOS

One product.
One identity.
One connected lifecycle.

Connecting the physical garment to its digital history.



Powered by GS1 Digital Link

One identity.
Throughout the lifecycle.

LUGA OS



The garment moves. Its history stays connected.

Your Digital Wardrobe.

Smarter decisions for every garment.

LUGAOS

01

Avoid new purchases

See what you have, who has it, and what is in stock.

Issued · Transferred

02

Repair

Report the issue, route it to the right workshop, and record the completed work on the garment.

Repaired

03

Reuse

Return garments when roles change or employees leave. Assess, clean, and issue to the next wearer.

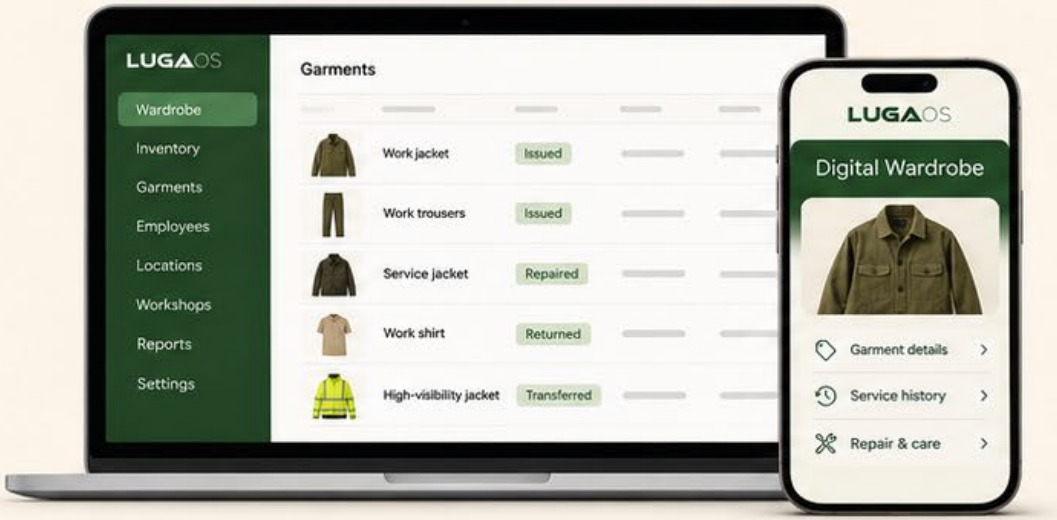
Returned · Reissued

04

Recycle

Garments that can no longer be used go to Norsk Tekstilgjenvinning for material recycling.

Retired





Technology gives each garment an identity.
We give that identity a story.

LUGA | Repass | KEZZLER

healthworkers.no

Fleece jacket with pockets

GS1 Digital Link · Norway

Platform	LUGA Passport
Traceability	India to Sandefjord
Certification	OEKO-TEX Standard 100
Repair	Book directly from the passport

LUGA Passport
Built and operated by LUGA Norge AS

ZONE security

Softshell jacket

Repass DPP · Norway

Platform	Repass
Traceability	Production and service
Repairs	3 events recorded
Repair provider	LUGA

Source: Repass Case Study, 2025

Holzweiler

Loen Down Jacket

Kezzler Digital ID · Norway

Platform	Kezzler
Materials	Traceable down and lining
Repair provider	LUGA — recommended partner
Source	Holzweiler 2024

Source: Holzweiler Due Diligence Report 2024


Nothing ever ends.

The Challenge

- **High environmental impact.** Over 30,000 tons of textile waste were exported **unsorted** from Norway
- **Low recycling rate.** Only 7.5% of fibers were recycled in 2023, with less than **1%** coming from textiles.
- **Need for solutions.** The EU is demanding better handling of textiles, but current solutions are limited, mostly manual, costly and inefficient.





Today's solution...

Mechanical Recycling

- **Shredding textiles into fibers:** Mainly used for nonwoven application

Chemical recycling

- **Chemical Recycling:** Breaking down textiles into chemical components to create new fibers.
  - Pilot stage
  - Requires high volumes, preferable mono-materials textiles.



NTG AS

- **First** mechanical recycling facility in Scandinavia
- **First** automatic sorting line in Norway



- Specialised on **textile-to-textile** recycling

Sorting - Prefabrication – Defibering

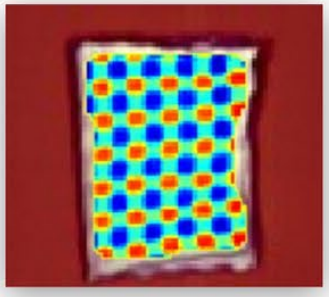
Capasity around 10 000 tonn in 2026

ntgas.no

The sorting facility

- **Sorting** manual for:
  - Reuse – Repair - Recycling

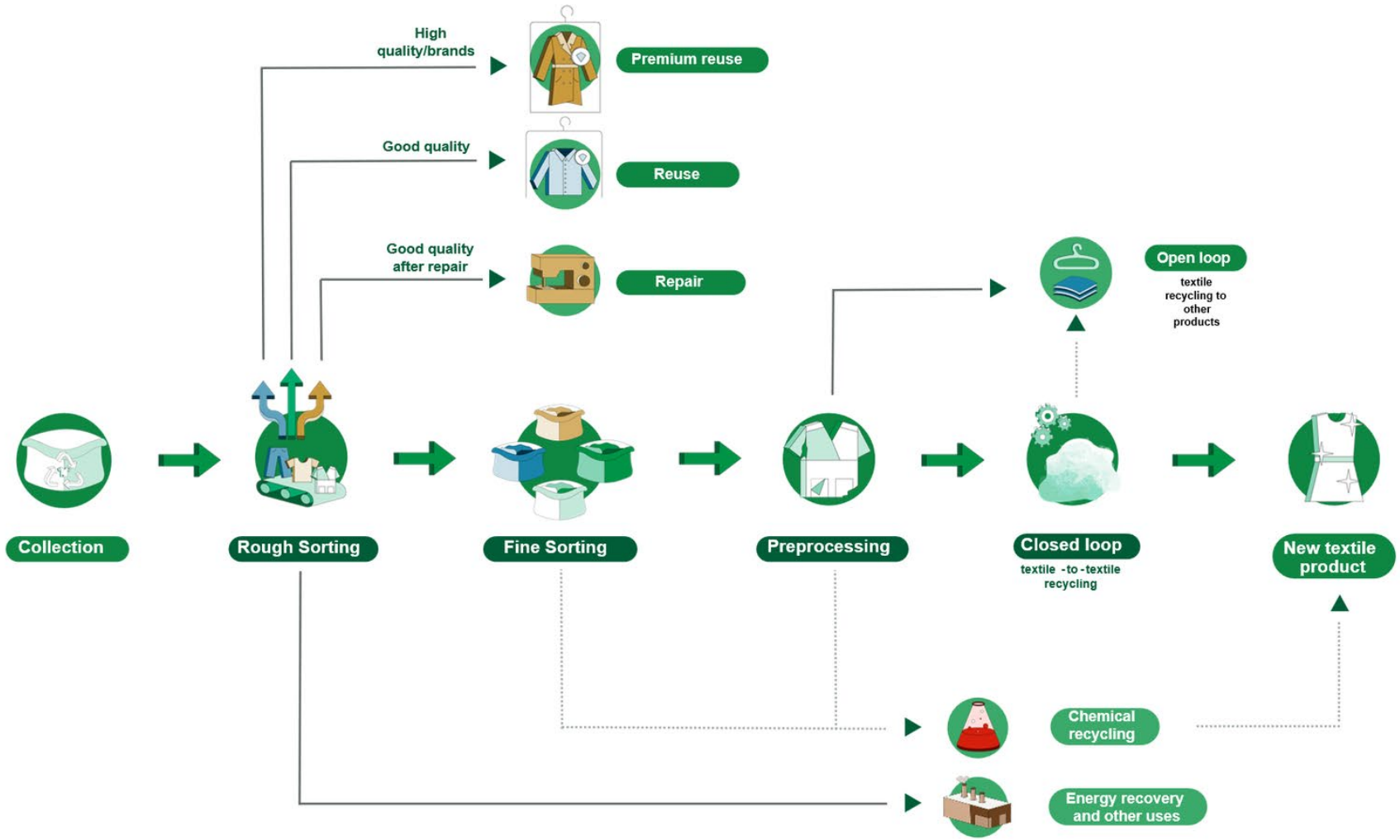
- **Automated sorting systems:**
  - Fiber content
  - Colors
  - Qualities
  - Brands/reuse
  - Condition





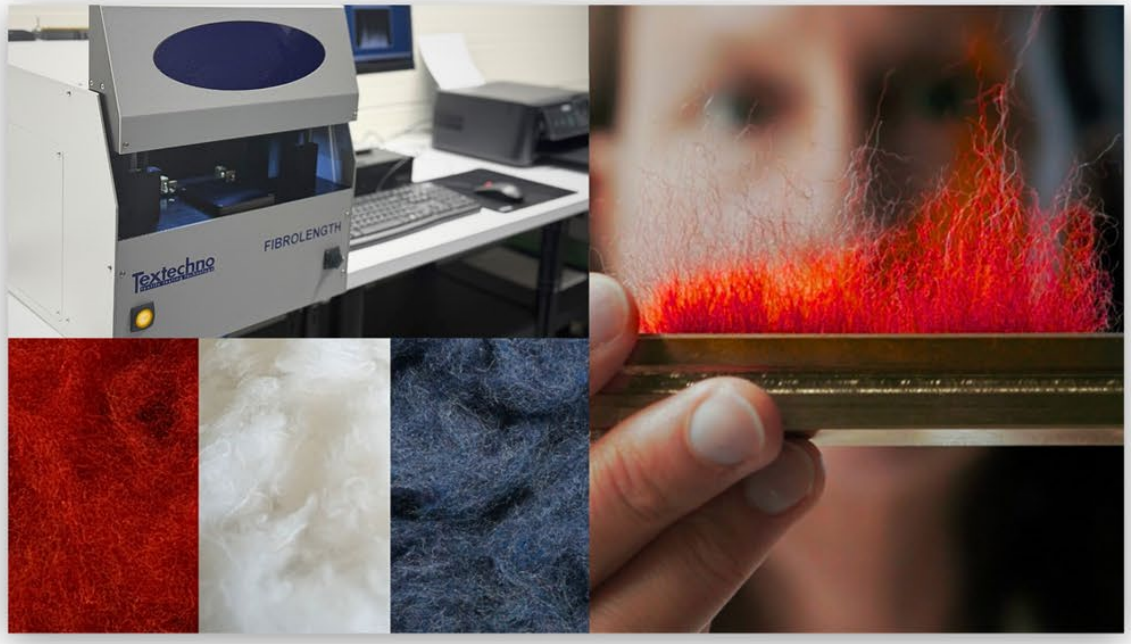


VALUE CHAIN



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R&D



- Achieving
  - The **best** possible fibre quality
  - **Automation** of manual processes
  - **Contributing** to the development of textile strategies and solutions through collaboration with Norwegian and European stakeholders
  - ReHubs
  - CEN (The European Committee for Standardization)
  - Euratex

Innovation Norway

Funded b
The Rese

Norwegian Retailers' Environment Fund

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