

ECLin project

Influence of lifetime on textile product LCA

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ensait

5^{ème} édition **COngrès [avniR]**
8&9/11 à Lille
La Pensée Cycle de Vie, levier du manager visionnaire

Context

According to ECO TLC study, each year, 2,5 billions (600.000 tons) of Clothing, Home textiles and Footwear come to the french market.

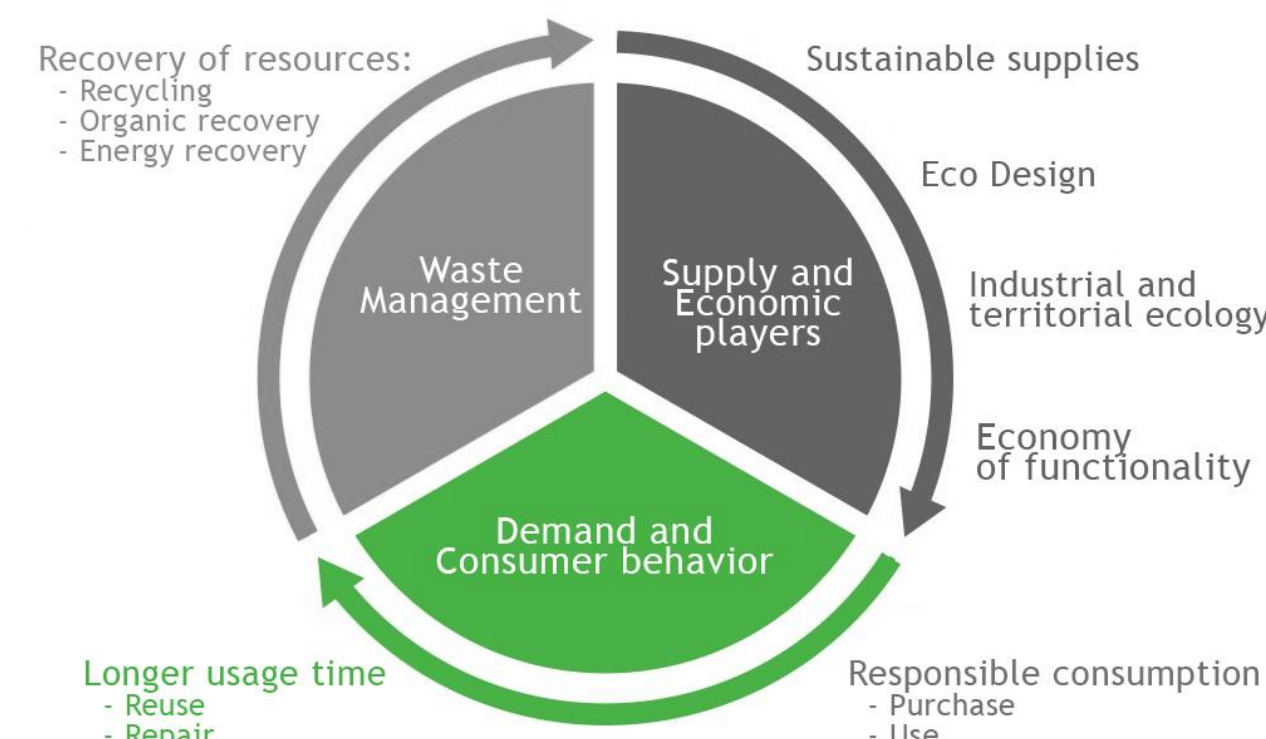
Most of them have a low lifetime.

The question raises by ECLin Project is:
What if we extend lifetime of textiles products ?

ECLin project integrate the "LCA & NEM" research program led by Hauts de France Region. The aims is to link LCA with Circular Economy.

Objectives

According to ADEME, the three areas of action of the circular economy are:



The study focus on increasing of lifetime and its consequences.

Focus

Influence of lifetime will be led on:
3 types of products



T-shirt ^[1]



Blazer ^[2]



Bedsheet ^[3]

3 materials



Flax ^[4]



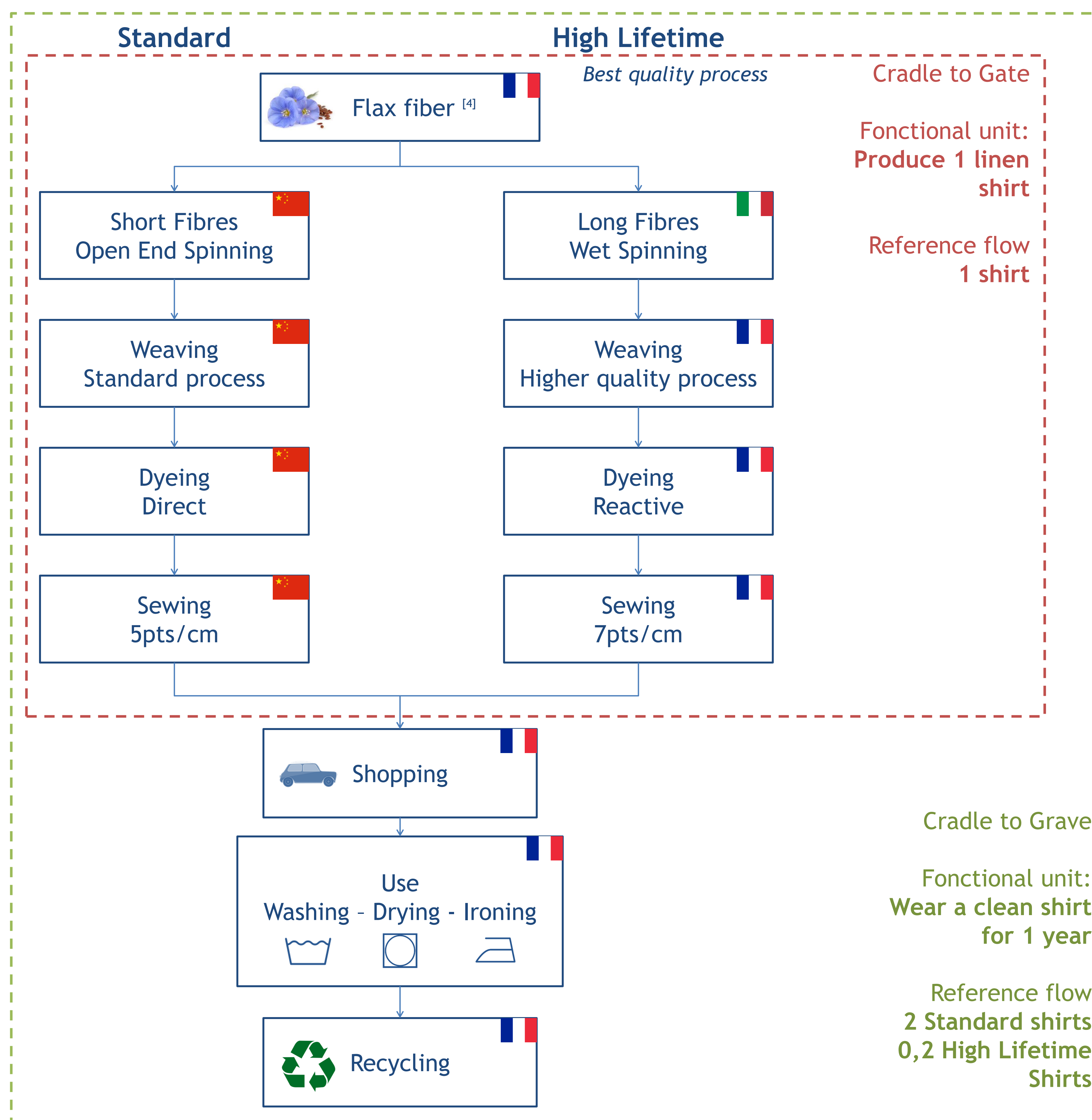
Cotton ^[5]



Polyester ^[6]

Preliminary study

Preliminary study aims to compare 2 scenario for the life cycle of shirts:
This study was done with EIME Software, by Bureau Veritas.

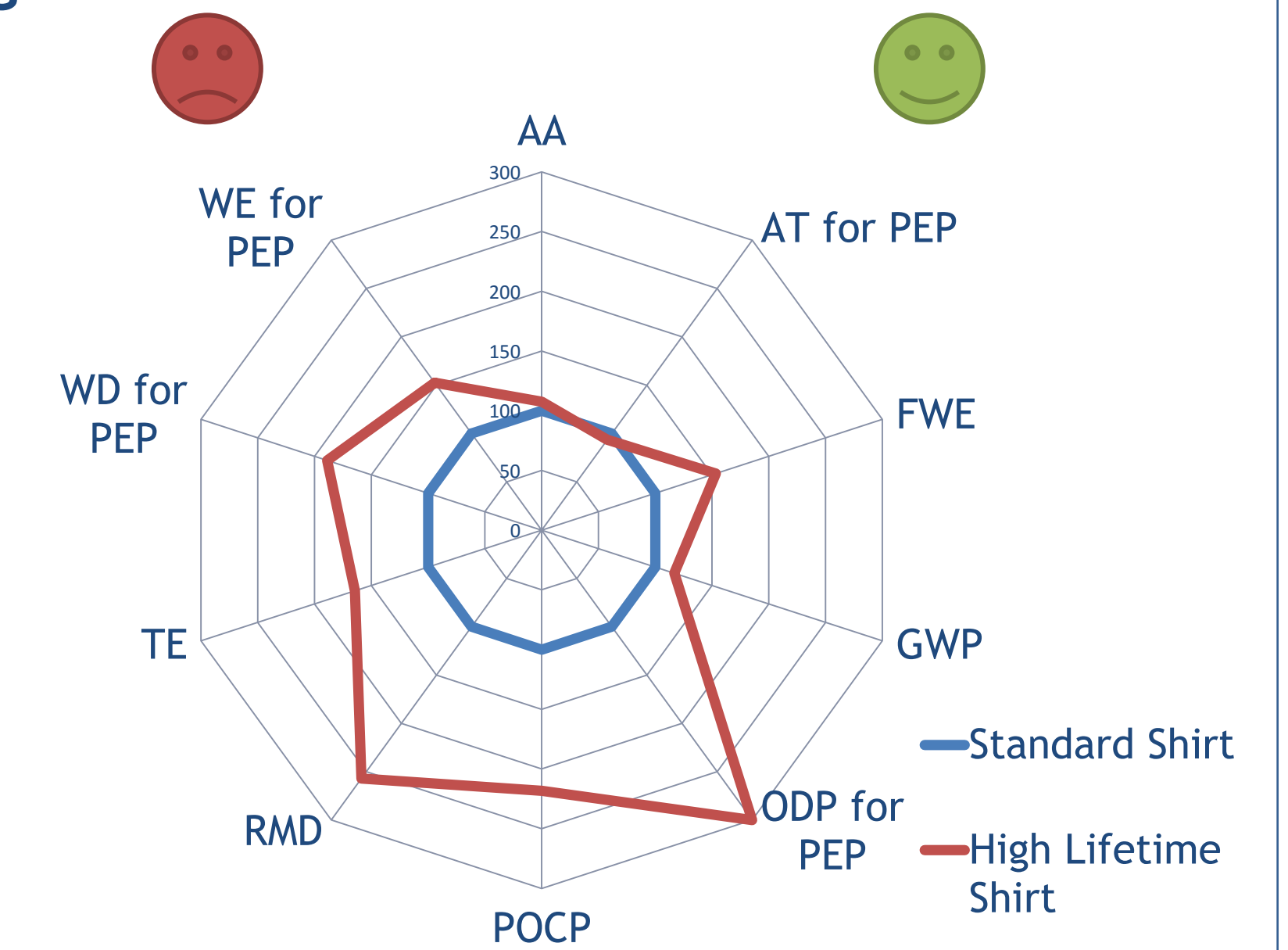


EIME Results

Cradle to gate assessment:

High Lifetime shirt

Standard shirt



→ slower process

→ more energy required

→ more materials, more waste

Cradle to grave assessment:

High Lifetime shirt

Standard shirt



→ Lower reference flow

→ Less shopping transport

Further research

Further assessments are required on:

- Lifetime:
Lab test procedure
Survey about the consumer behavior
- Manufacturing process
- Recycling

Conclusion

Lifetime of product is a powerful tool for decreasing the environmental impact.

Not only the industrial phase can lead to improvements. The use phase and the consumer behavior are as important as the manufacturing.

In this way, it's important to propose a profitable economic context to initiate people to act.

Contact

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ECO TLC
L'éco-organisme du textile - du linge - de la chaussure

Région Hauts-de-France

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