

United Nations Trade and Development (UNCTAD)

**GLOBAL COMMODITIES FORUM**  
**9-10 December 2024, Geneva**

**Establishing/positioning flax-linen as a sustainable fiber in the textile and apparel market**

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The views expressed are those of the author and do not necessarily reflect the views of UNCTAD.



Alliance for European  
Flax-Linen & Hemp

# ESTABLISHING/POSITIONING FLAX-LINEN AS A SUSTAINABLE FIBRE IN THE TEXTILE & APPAREL MARKET

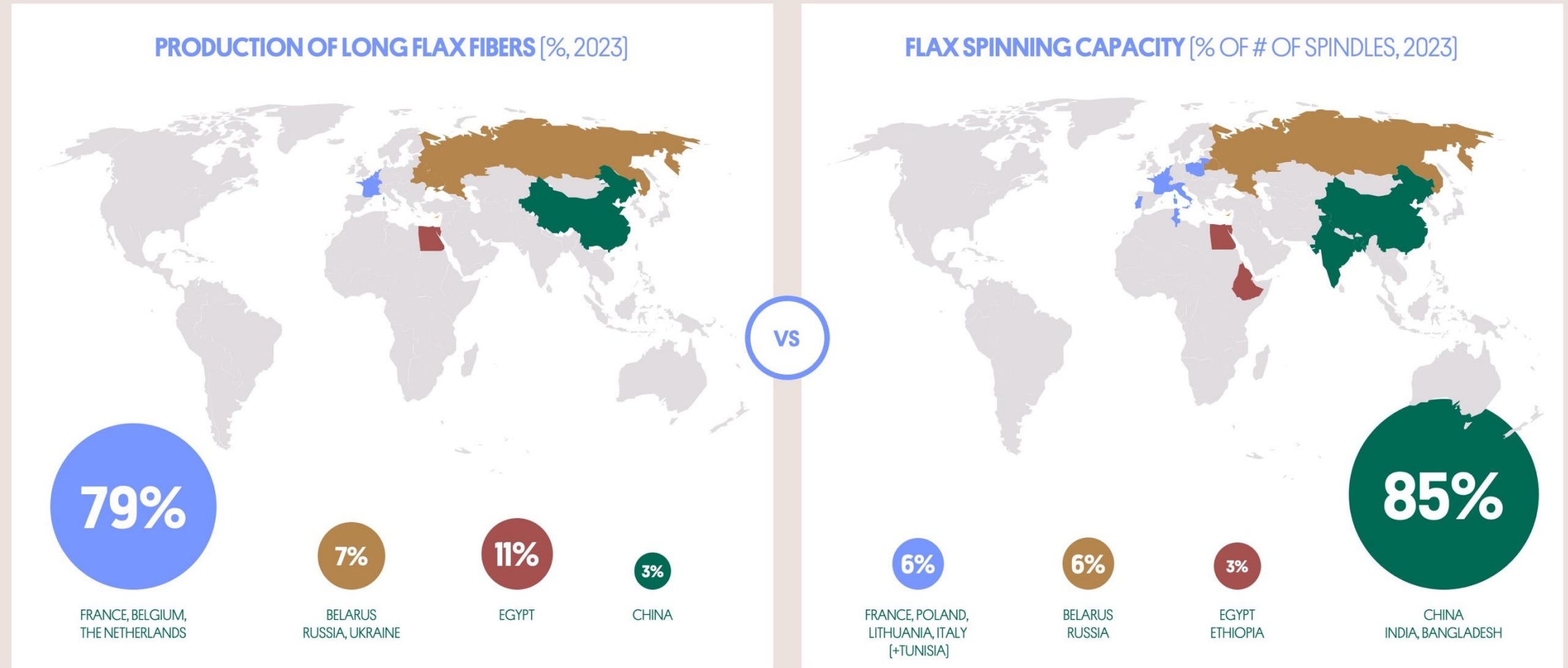
UNCTAD GLOBAL COMMODITIES FORUM, GENEVA — DECEMBER THE 9<sup>TH</sup>, 2024



**FLAX-LINEN & HEMP**  
ECONOMIC OBSERVATORY

# MAPPING OF WORLD FLAX-LINEN PLAYERS

# SPOTLIGHT: GLOBAL MAP OF FLAX PLAYERS IN FIBER PRODUCTION AND SPINNING



Source: Alliance



# EUROPE: THE #1 GLOBAL PLAYER IN FLAX

## QUANTITY

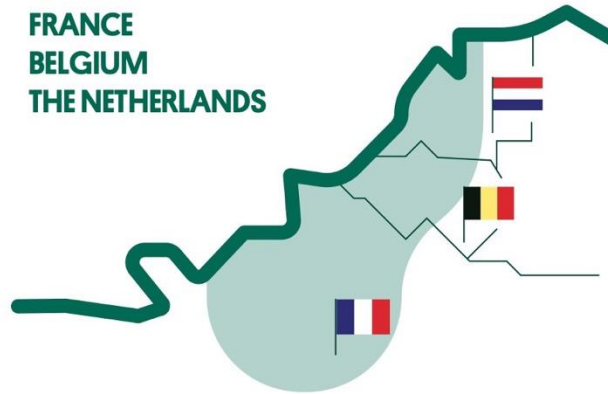


**3/4 OF LONG FIBRE  
PRODUCTION  
TAKES PLACE IN EUROPE**

185,000 ha grown  
[incl. 87%, or 162,000 ha in France]  
140,000 t of long fibres [incl. 122,000 t in France]

Source: figures for 2024 - Flax-Linen and Hemp Economic Observatory

## QUALITY



**TERROIR  
+ CLIMATE  
+ EUROPEAN EXPERTISE  
=  
CANNOT BE RELOCATED**

## SUSTAINABILITY



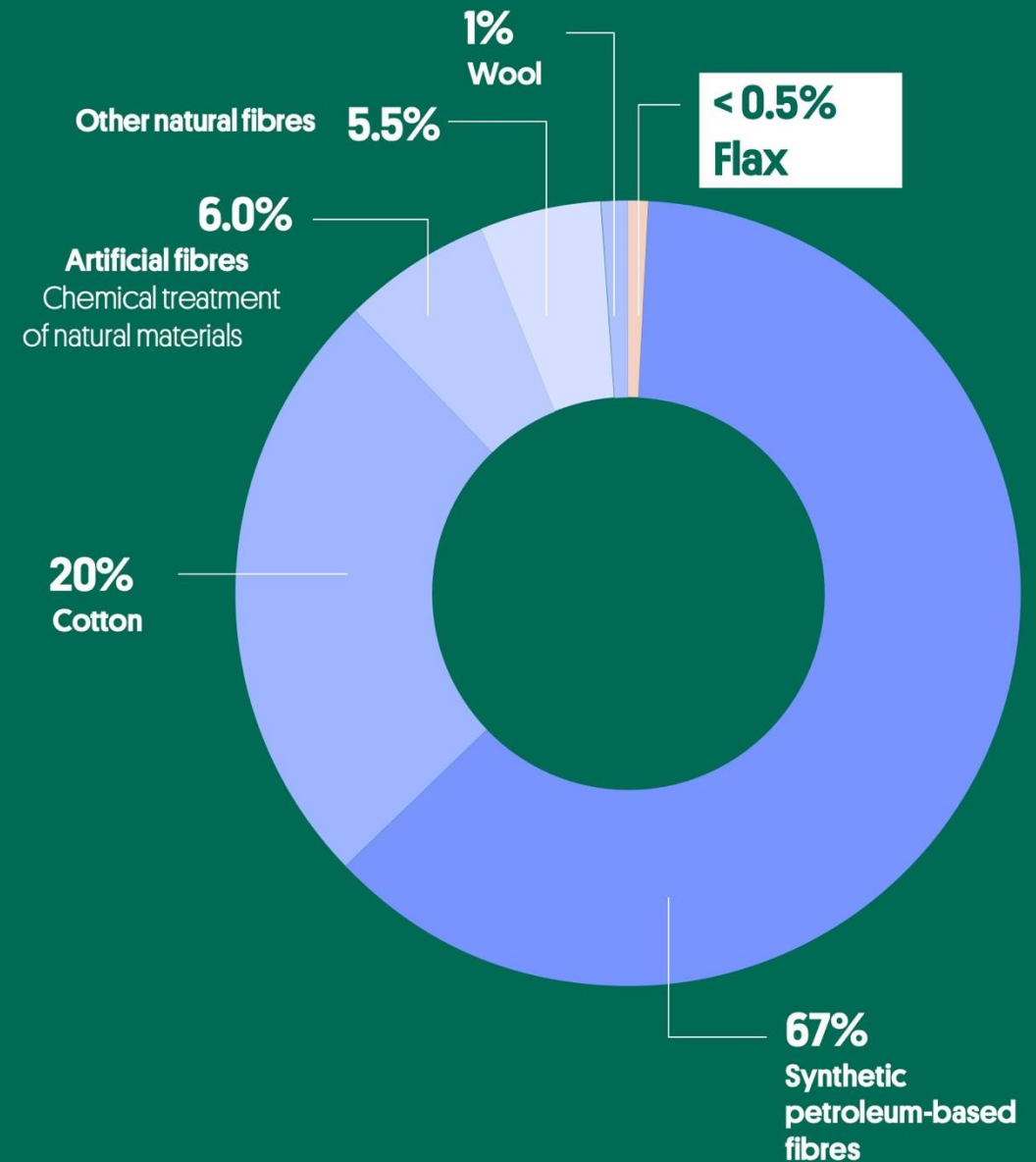
**CSR COMMITMENTS  
TRACEABILITY**





# FLAX ACCOUNTS FOR LESS THAN **0.5% OF THE GLOBAL SUPPLY OF TEXTILE FIBRES**

Source: Textile Exchange + INTL Pro Organizations



# STRONG GROWTH IN PRODUCTION AREA **+128% IN 10 YEARS** **(2014 – 2024)**

**1 HA OF EUROPEAN FLAX**

**= 900 KG OF YARN**

**= 3,750 M<sup>2</sup> OF FABRIC**

**= 4,000 SHIRTS**

**= 450 SETS OF BED LINEN**

**= 1,375 CHAIRS MADE OF FLAX COMPOSITE**

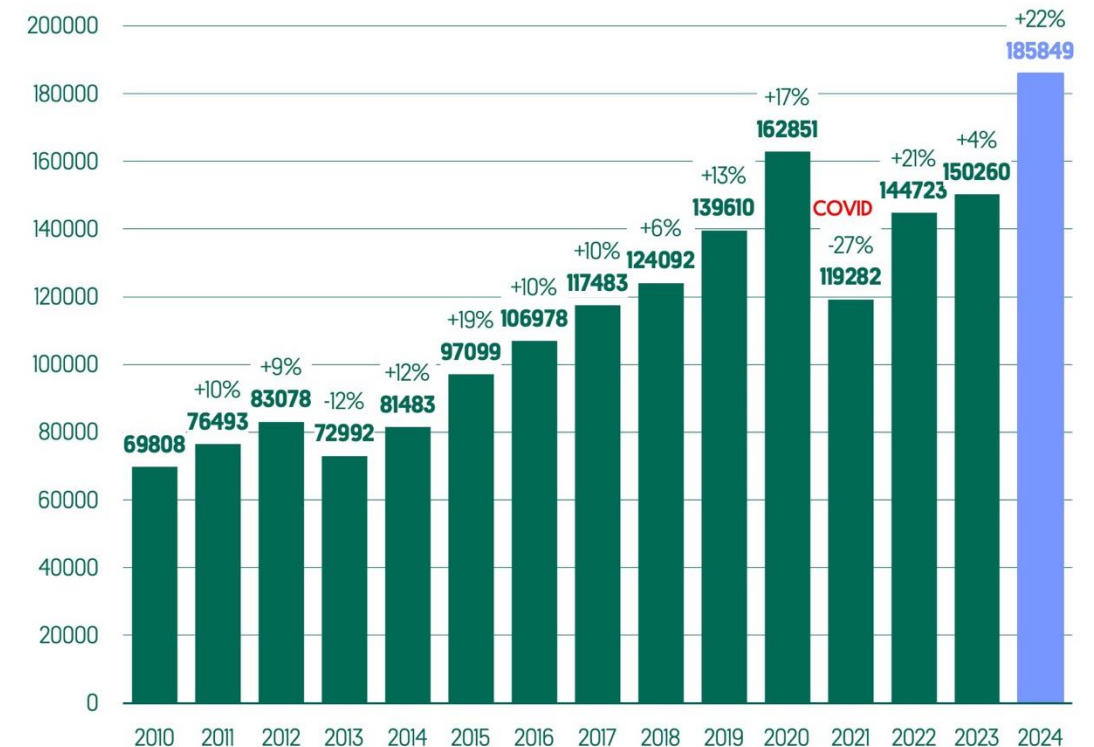
## STRONG GROWTH IN AREA UNDER CULTIVATION IN 10 YEARS

Changes in flax area under cultivation in France,  
Belgium and the Netherlands

France area 2024: 162,124 ha, or 87% of area in Western Europe.  
Belgium: 20,156 ha. Netherlands: 3,569 ha



**Acrages of European Flax™ 2010 – 2024**  
in hectares



# SPINNING: A DYNAMIC EUROPEAN SECTOR

## 8 SPINNING MILLS

- **Lithuania:** 1
- **Poland:** 3
- **Italy:** 1
- **Tunisia:** 1
- **France:** 2

## 2 OPERATIONAL SPINNING MILLS IN FRANCE

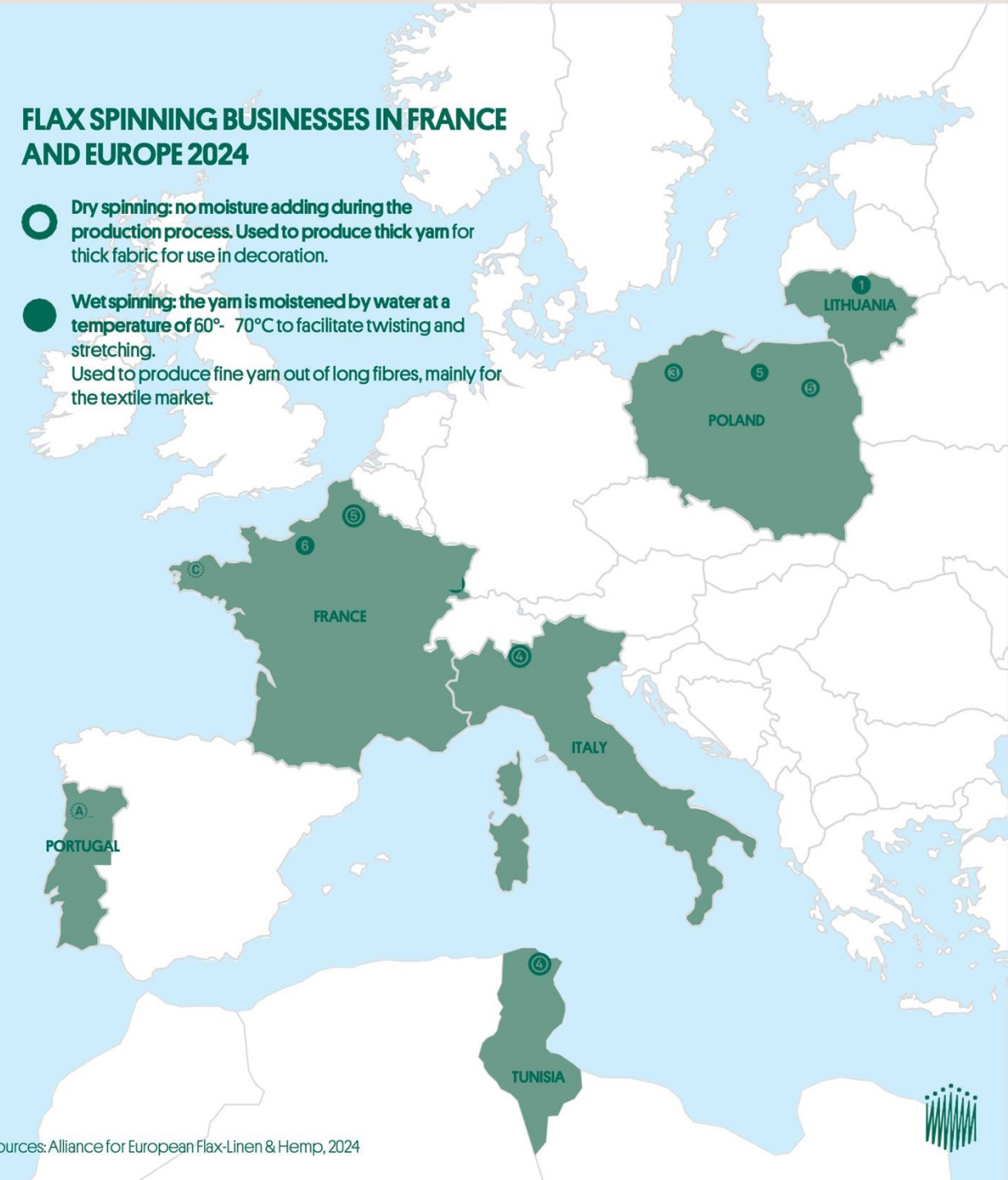
- **Safilin:** Hauts-de-France
- **Natup:** French Filature / Normandie

## PLANNED

- **1 project in Portugal**
- **1 project in France** [Brittany]

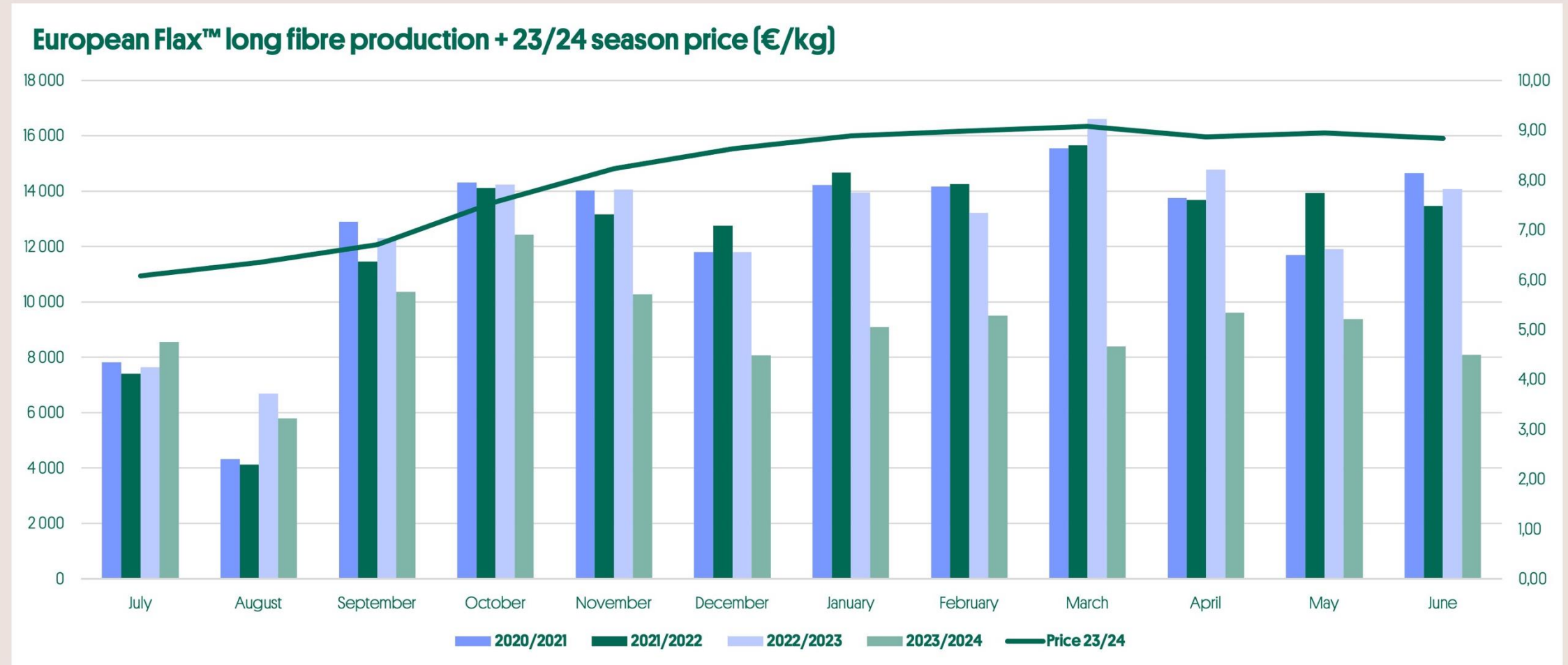
## FLAX SPINNING BUSINESSES IN FRANCE AND EUROPE 2024

- **Dry spinning:** no moisture adding during the production process. Used to produce thick yarn for thick fabric for use in decoration.
- **Wet spinning:** the yarn is moistened by water at a temperature of 60°- 70°C to facilitate twisting and stretching. Used to produce fine yarn out of long fibres, mainly for the textile market.





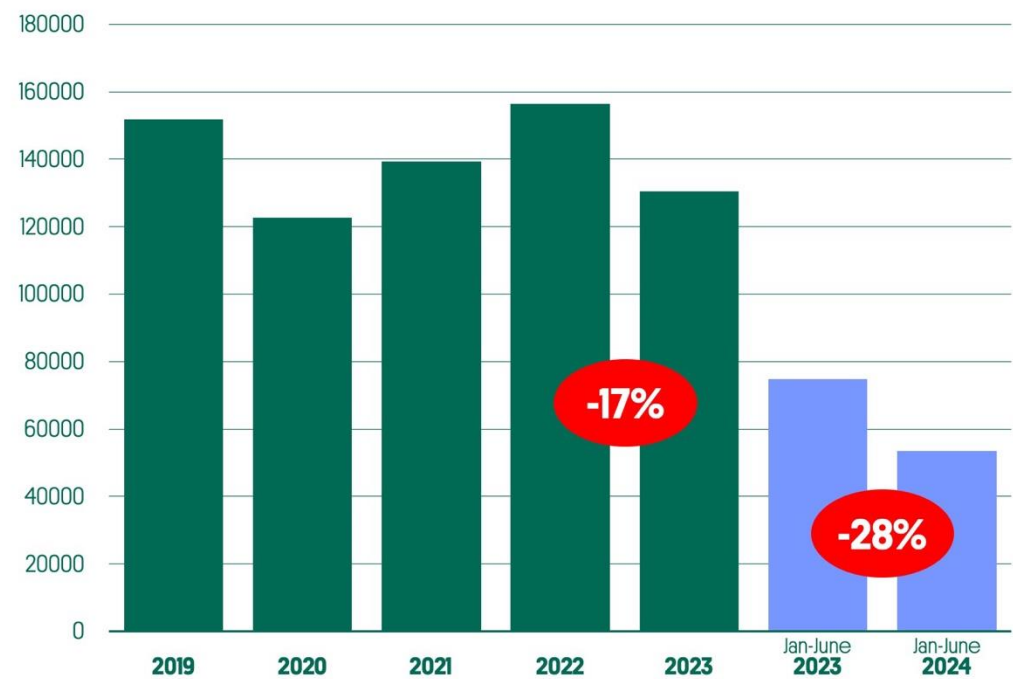
# EUROPEAN FLAX™ 2023/2024: TENSION ON SUPPLY FOR LONG FIBRE



# EUROPEAN FLAX™ EXPORTS: A SIGNIFICANT DROP IN EXPORTS IN 2023, CONFIRMED IN 2024

## European Flax™ exports of Flax, broken and scutched

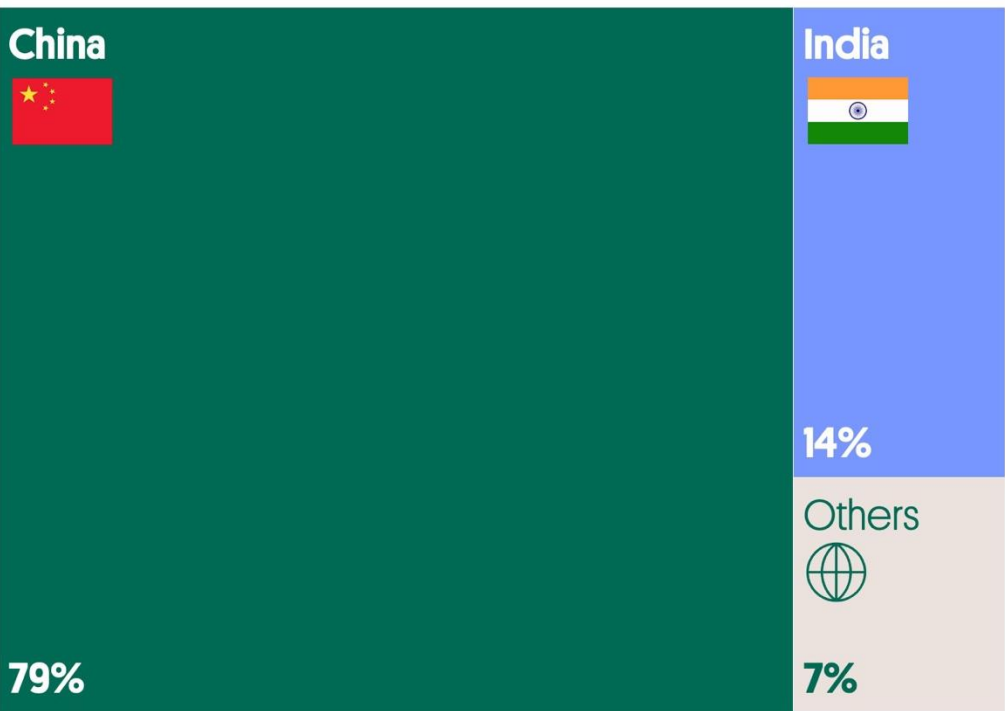
HS 530121, ton



Source: UNComtrade





## Partners' countries

HS 530121, Jan-Dec 2023, % of total



# LINEN MARKET SHARES IN FASHION BRANDS

LINEN PENETRATES ALL PRICE POINTS, WITH SOME FLAGSHIP BRANDS IN EACH SEGMENT

SEGMENT	VALUES OF THE GLOBAL APPAREL MARKET (M€)	LINEN PENETRATION	MIN / MAX OBSERVED <sup>(1)</sup>
Luxury	 <b>76</b> [5,2%]	+	0.1% <b>5%</b>
Affordable luxury	 <b>187</b> [12,7%]	+ +	2% <b>10%</b>
Middle market	 <b>828</b> [56,3%]	+	2% <b>3%</b>
Mass market	 <b>381</b> [25,9%]	—	0.5% <b>1.5%</b>

- **Linen penetration rate in brands' collections (2021)**
- **High potential compared to Linen's market size**  
< 0,5% of the global Linen fibre production
- **The future is bright**



# FLAX, A SUSTAINABLE FIBRE



# FLAX, THE FIBRE OF CIVILISATION



**36,000 BCE**

Linen, made of the first plant textile fibre of humanity

**5,000 BCE**

Linen, a key player in the pharaonic economy

**356 - 323 BCE**

Alexander the Great is protected by his armour, the linothorax, during his conquests

**789**

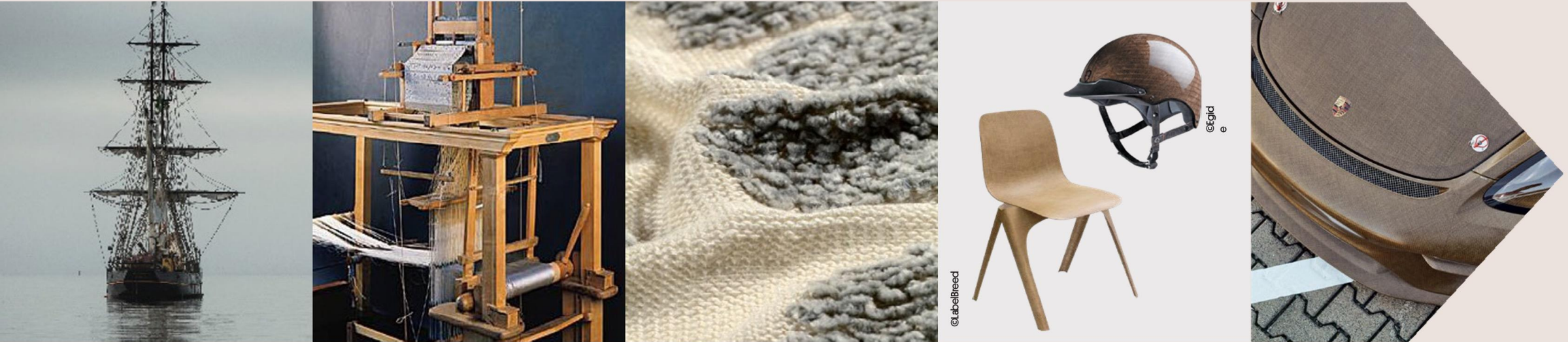
Charlemagne passes laws imposing Flax growing and weaving in his empire

**13<sup>th</sup> century**

French weaver Baptiste from Cambrai created batiste fabric, the "Cloth of Kings"



# FLAX, THE FIBRE OF CIVILISATION



1685

The Edict of Nantes is revoked, leading to the loss of knowledge about Flax

1810

Philippe de Girard invents a Flax spinning machine

2010

Linen knitwear and washed Linen create avenues for new uses

2012

A high-performance fibre, Linen asserts itself in the composites industry

2020
























# TEXTILE INDUSTRY:

## EUROPE, A COMPLETE VALUE CHAIN ACROSS ALL SECTORS

All stages of Flax fibre processing are active in the Europe + Euromed zone.

AGRICULTURE	SCUTCHING	HACKLING/ COMBING	SPINNING	WEAVING /KNITTING
 FR  BE  NL  UK	 FR  BE  NL	 FR  BE  NL  LT  PL	 FR  PL  LT  IT  TN  PT	



# WE ENSURE ORIGIN & TRACEABILITY

## THROUGH OUR LABELS

For more than fifteen years, we have been working to prove and publicize the remarkable properties of Flax-Linen and products and to implement **certified traceability**.



**European  
Flax™** Premium  
linen fibre

The guarantee of traceability for premium quality Flax fibre grown in Western Europe for all end uses. A plant fibre, produced through Integrated crop management farming, without irrigation (barring exceptional circumstances) or GMOs.



*100% MADE IN EUROPE*

The guarantee of traceability for Linen made by European companies on European and Euromed 1 sites.

A textile of excellence, local at all stages: from the vegetal European Flax™ fibre, to yarn and fabric.





# THE PROPERTIES OF EUROPEAN FLAX™ FIBRE

UNIQUE FUNCTIONAL AND ENVIRONMENTAL PROPERTIES ALIGNING WITH CURRENT SOCIETAL EXPECTATIONS

## RSE

- **Proximity and traceability**
- **No irrigation<sup>(1)</sup> from sowing to harvesting**  
including dew retting [vs water retting]
- **Certified and GMO free<sup>(2)</sup> seeds**
- **Renewable resource**
- **Helps preserve soil quality**  
Grown in rotation: contributes to optimal soil structure and increases yield of the following crop<sup>(3)</sup>
- **Low input crop**  
Reasoned use of pesticides and fertilizers<sup>(3)</sup>
- **Zero-waste plant**  
100% used
- **Scutching: fibre extraction**  
Mechanical process, without solvents
- **Ethical production**  
Performed by a skilled local workforce



## TEXTILE

- **Ventilation and breathability<sup>(4)</sup>**
- **Thermo-regulation<sup>(4)</sup>**
- **Absorption and moisture management<sup>(4)</sup>**
- **Positive influence on sleep<sup>(5)</sup>**
- **Biodegradation<sup>(6)</sup>**
- ✗ **Hypoallergenic:** drastic regulations and not a generic mention
- ✗ **Antibacterial:** no, regarding to ISO test



## TECHNICAL

- **Stiff & lightweight**
- **Strength & strong**
- **Sound insulation**
- **Thermal insulation**
- **Vibration damping<sup>(7)</sup>**
- ? **Fatigue behaviour** [work in progress]



<sup>(1)</sup> Barring exceptional circumstances

<sup>(2)</sup> Source: European Flax™ Charter, 2012

<sup>(3)</sup> Source: Life Cycle Assessment [LCA] of European Flax™ Scutched Fibre, February 2022

<sup>(4)</sup> Source: Study Linen Comfort and Performance, Cetelor Lab for the Alliance, 2014

<sup>(5)</sup> Source: Study The Impact of Flax-Linen on sleep quality: A textile performance study, Cetelor Lab for the Alliance, 2022

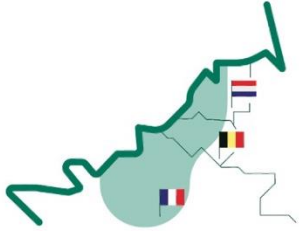
<sup>(6)</sup> Source: Aerobic Biodegradation Test Seawater/Sediment Interface according to modified ISO 19679: for fibres coming from an untreated Linen fabric

<sup>(7)</sup> Source: Study Vibration Damping, The enlarged European Scientific Council of Alliance for European Flax-Linen & Hemp, March 2023



# EUROPEAN FLAX™

## THE ADDED VALUES OF USING CERTIFIED FLAX-LINEN



Guaranteeing Flax fibres origin  
grown and scutched in Western  
Europe FR BE NL



Premium quality Flax fibres from  
shared collective cultivation and  
scutching practices



Third-party verified traceability  
through the entire value chain



Supported by composition tests  
under the ISO standard co-created  
by Alliance Bast Fibre Observatory:  
ISO standard #20706-1, dec.2019

## WHAT'S BEHIND THE EUROPEAN FLAX™ CERTIFICATION...



Ensuring environmental  
& social responsibility  
of the fibre



Proven added values  
& functional properties



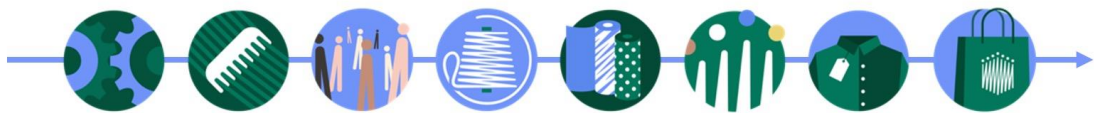
The certification is a marketing lever  
for the companies that obtain it:  
a Linen experience in retail



# DIGITAL TRACEABILITY FOR EUROPEAN FLAX™ & MASTERS OF LINEN™



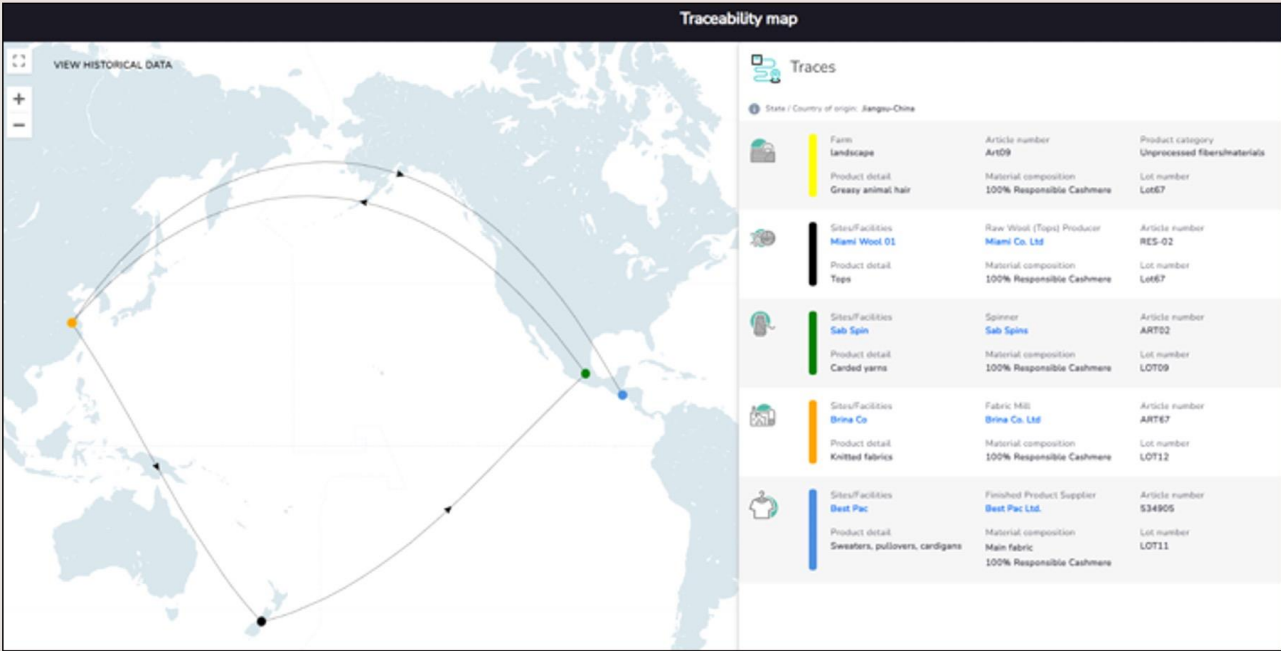
DOWNSTREAM TRACEABILITY:  
FROM FIBER TO FINISHED PRODUCT



BLOCKCHAIN DATA PRIVACY SYSTEM

+

VOLUME TRACKING AND TRACING VIA TOKEN



Example of a traceability map that a brand can see at the end of the fibre's journey





# ENVIRONMENTAL TRAJECTORY TO-DATE

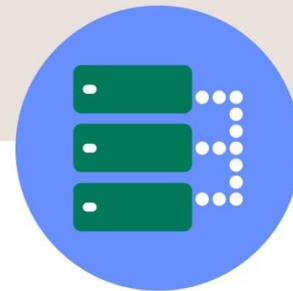
## PEF [Product Environmental Footprint] of the European Commission



### METHOD

- **Harmonization**  
**+ robustness,**
- 16 categories  
+ single score
- Supporting new EU regulations

[https://green-business.ec.europa.eu/environmental-footprint-methods\\_en](https://green-business.ec.europa.eu/environmental-footprint-methods_en)



### EF DATABASE

- Alliance is
- A **data provider**
  - A stakeholder in future **governance**

<https://eplca.jrc.ec.europa.eu/LCDN/contactListEF.html>



### PEF APPAREL & FOOTWEAR

- **Sectorial rules**
- **Alliance is a voting member**
- **Release April 2025**
- **future updates**

<https://pefapparelfootwear.eu/>





# EUROPEAN FLAX™ FIBRE LIFE CYCLE DATA

ACCESS THROUGH LEADING DATABASES



**HIGG INDEX**

**By Sustainable Apparel Coalition**

**EUROPEAN FLAX™  
hackled fibre data**

Since Dec. 2020

[app.worldly.io](https://app.worldly.io)



**PEF: EF 3.1**

**In the framework of the  
European Commission's Product  
Environmental Footprint (PEF)**

**EUROPEAN FLAX™  
scutched fibre data**

Since Jan. 2023

<https://eplca.jrc.ec.europa.eu/LCDN/contactListEF.html>



**ECOINVENT**

**Leading global database  
plugged into all main LCA software**

**EUROPEAN FLAX™  
scutched fibre data**

Since Nov. 2023

[ecoinvent.org](https://ecoinvent.org)

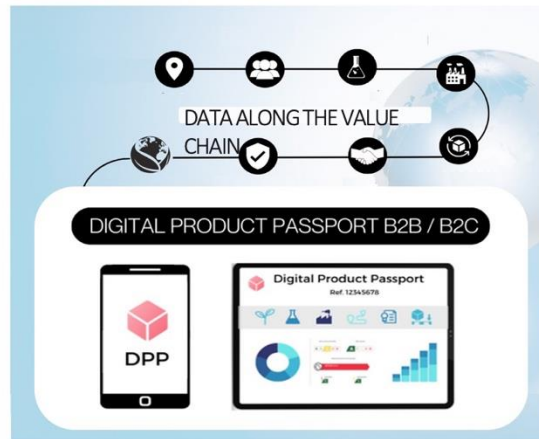


# ALLIANCE TRAJECTORY FOR REGULATION COMPLIANCE



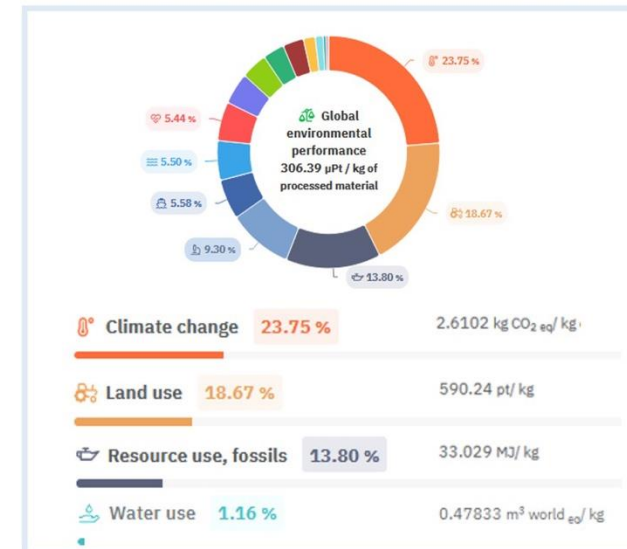
- TO MEET BRAND AND CONSUMER EXPECTATIONS
- TO PROVIDE RELIABLE DATA WITH SCIENTIFIC ROBUSTNESS AND TRANSPARENCY
- TO HIGHLIGHT THE ENVIRONMENTAL PROFILE OF EUROPEAN FLAX-LINEN
- TO SUPPORT EUROPEAN COMPANIES MEMBERS OF ALLIANCE

**ESPR**  
**Digital**  
**Product**  
**Passport**



**ALLIANCE IS COMMITTED AND ACTIVELY ENGAGES ITS MEMBERS ON STRATEGIC PROJECTS, incl.:**

- **DIGITAL TRACEABILITY ( BLOCKCHAIN)**
- **DIGITAL IMPACT CALCULATION TOOL**





Alliance for European  
Flax-Linen & Hemp

# THANK YOU

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