



Life Cycle Assessment

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THE COMPANY

The history of **Cafissi S.p.A.** is a success story spanning three generations. For decades, the company has operated internationally, combining past, present and future through the vision and determination of a Tuscan family.

The origins of Cafissi S.p.A. date back to the 1950s, when the five Cafissi brothers — Francesco, Roero, Paolo, Mario and Umberto — founded a small artisanal weaving workshop operating as a subcontractor. In just over a decade, the company evolved from a local weaving mill into an international enterprise.

Today, Cafissi S.p.A. is a unique integrated manufacturing and commercial group in Italy, offering the widest range of fabrics for apparel, footwear, accessories and home textiles currently available on the Italian market.

1951

The five Cafissi brothers establish a small artisanal weaving workshop, laying the foundations for a shared entrepreneurial vision.



1962

Lanificio Cafissi Figli di Alfredo is founded. The first blankets and recycled fabrics reflect the ingenuity and tradition of the Prato textile district.



1968

Creativity expands into the footwear sector. The first pile fabrics and the "canapino" are introduced, becoming icons of textile recycling in those years.



1973

The company becomes Cafissi S.p.A., marking a new phase characterised by strategic vision and solid industrial growth.



1974

The Via della Fattoria production site is inaugurated, featuring the characteristic ramp that becomes a symbol of the company's manufacturing identity.



1979-1984

The second generation joins the company, bringing new energy and driving international expansion.



1989

Production expands to include apparel fabrics, opening new pathways and strengthening the dialogue with the fashion industry.



2006

The third generation enters the company, renewing the family tradition and reinforcing its long-term vision.



2018

Cafissi establishes Officina Shanghai Ltd, building a bridge between Prato and one of the world's most dynamic manufacturing hubs.



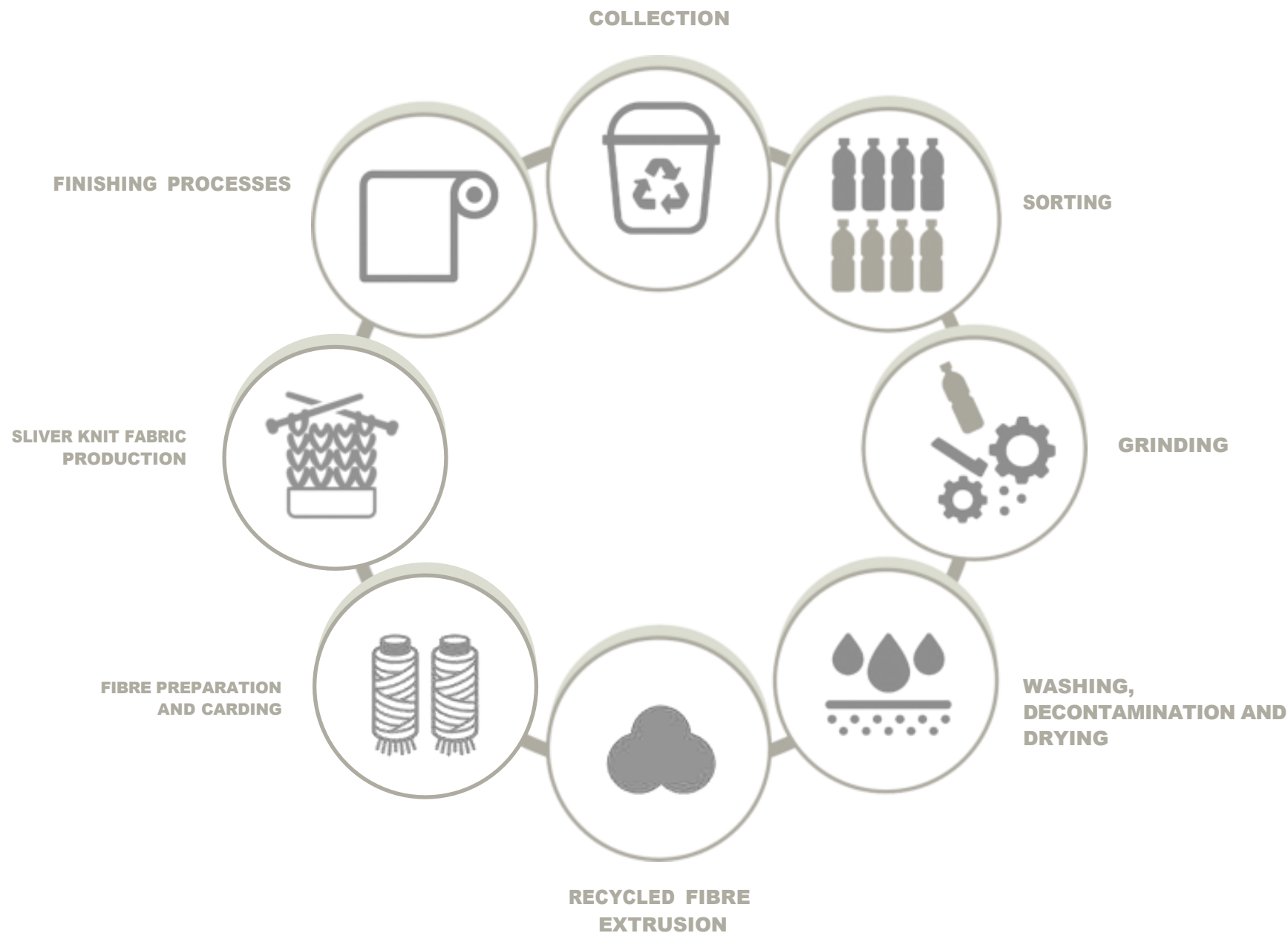
2019

The Via Sabadell production facility is inaugurated: a modern, distinctive site that reinterprets the historic ramp in a contemporary architectural language.



PRODUCT INTRODUCTION

This LCA report represents the **technical study supporting the Environmental Product Declaration (EPD)** certification for the following product:
Sliver knit fur fabric made with recycled dope dyed polyester fibre and yarn, manufactured by Cafissi S.p.A.
Main production phases





LCA

Life Cycle Assessment

Sliver Knit fur with recycled dope dyed polyester fiber and yarn

PRODUCT DATA

Dimensions and weight

Fabric width	1.5	mt
Area per linear mt	1.5	m2
Average roll weight	22.3	kg
Average roll weight	41.9	mt lineari
Fabric weight	0.355	kg/m2

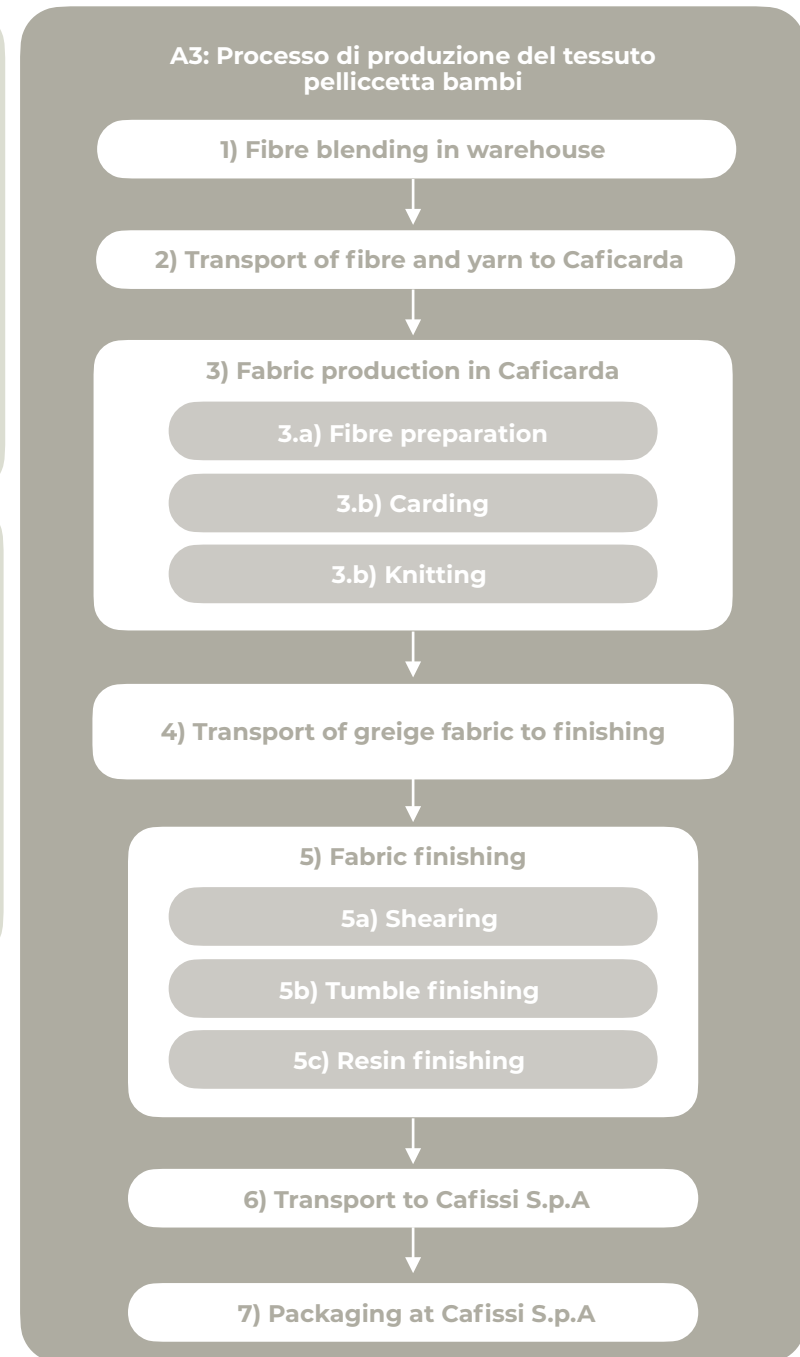
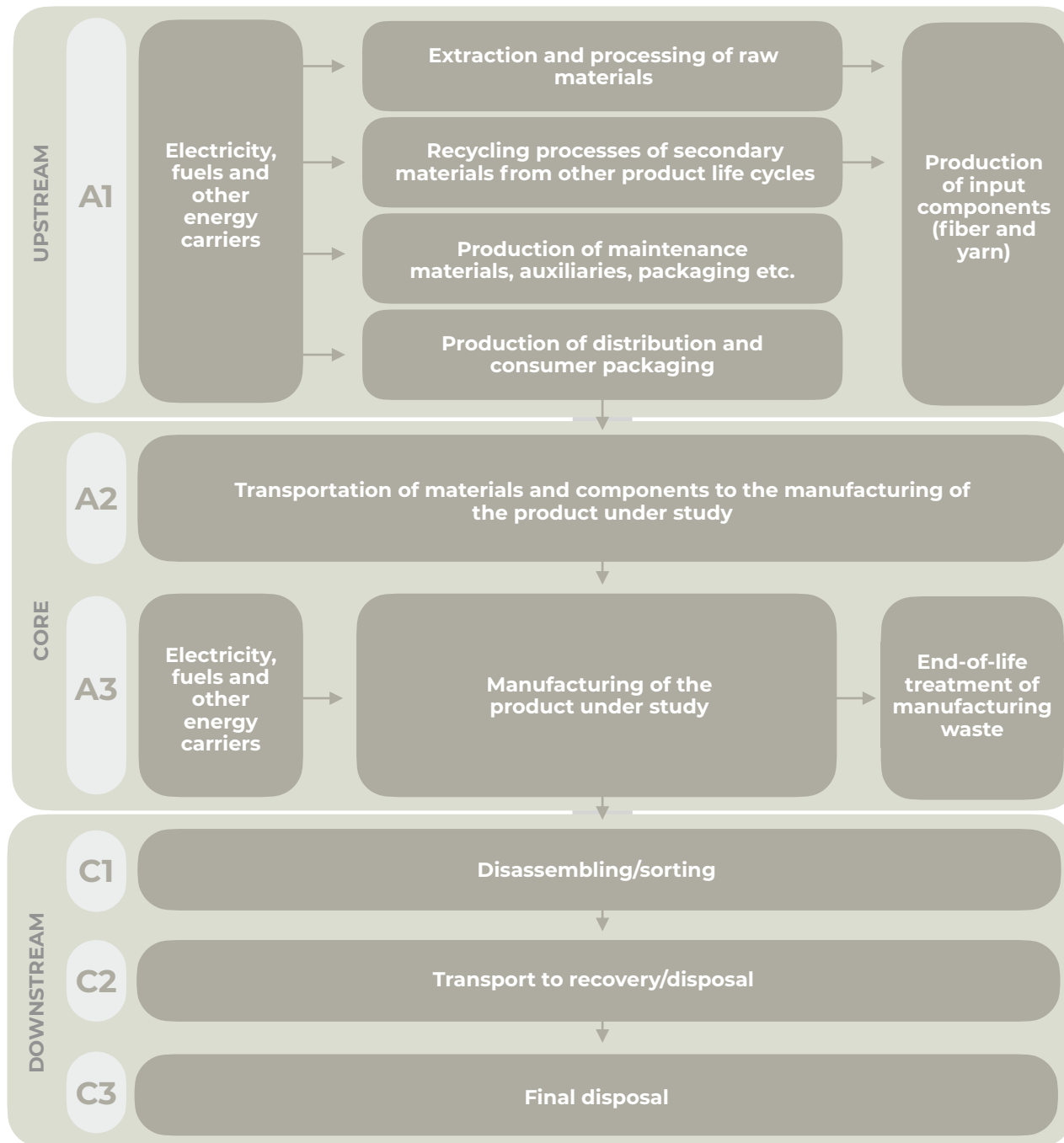
Composition of finish fabric

Component	%	kg/m²	Post-consumer recycled PET
Fiber	88%	0.314	82%
of which Supplier 1	46%	0.163	66%
of which Supplier 2	42%	0.150	99%
yarn Supplier 3	12%	0.042	99%
TOT	100%	0.355	84%

Packaging

	kg per 1 kg	kg per 1m2	Recycled content
PE plastic	0.012	0.004	95.26%
Cardboard	0.009	0.003	-

SYSTEM BOUNDARIES AND FLOWCHART



LIFE CYCLE INVENTOY (LCI)

LCI per 1 kg di tessuto pellicettata							
	FASE	INPUT	QT per 1 kg di tessuto a pelo	QT per 1 m2 di tessuto a pelo	UDM	DATASET	DATA QUALITY
	peso prodotto finito		1,00E+00	3,55E-01	kg		
A1	materie prime	fibra tot	1,03E+00	3,65E-01	kg		
A1		di cui da Fornitore 1	5,34E-01	1,90E-01	kg	fibra da Fornitore 1 [IT]	SPEC
A1		di cui da Fornitore 2	4,92E-01	1,75E-01	kg	fibra da Fornitore 2 [IN]	SPEC
A1		filato	1,22E-01	4,33E-02	kg	0_Filato [CN], Fibre, polyester [IN] polyester fibre production, finished Cut-off, U	GENERICO SELEZIONATO
	pack fornitore fibra	teli plastica	1,11E-03	3,96E-04	kg	Packaging film, low density polyethylene [GLO] market for packaging film, low density polyethylene Cut-off, U	SPEC
A1		reggette plastica	1,05E-03	3,75E-04	kg	Polyethylene terephthalate, granulate, amorphous [GLO] market for polyethylene terephthalate, granulate, amorphous Cut-off, U; Extrusion, plastic film [GLO] market for extrusion, plastic film Cut-off, U	SPEC
A1	pack fornitore filato	cono carta	4,34E-03	1,54E-03	kg	Core board [GLO] market for core board Cut-off, U	SPEC
A1		cartone	3,54E-03	1,26E-03	kg	Core board [GLO] market for core board Cut-off, U	SPEC
A1		pallet	4,92E-03	1,75E-03	kg	EUR-flat pallet [RER] market for EUR-flat pallet Cut-off, U	SPEC
A1	pack per mix magazzino materia prima	ferro	7,73E-05	2,75E-05	kg	Iron pellet [GLO] market for iron pellet Cut-off, U; Metal working, average for metal product manufacturing [GLO] market for metal working, average for metal product manufacturing Cut-off, U	SPEC
A1		telo	3,02E-04	1,07E-04	kg	Polypropylene, granulate [GLO] market for polypropylene, granulate Cut-off, U; Extrusion, plastic film [GLO] market for extrusion, plastic film Cut-off, U	SPEC
A1		telo	3,37E-04	1,20E-04	kg	Polypropylene, granulate [GLO] market for polypropylene, granulate Cut-off, U; Extrusion, plastic film [GLO] market for extrusion, plastic film Cut-off, U	SPEC
A1	materiali ausiliari e pack rifinizione	imballaggi di carta e cartone	7,92E-03	2,81E-03	kg	Core board [GLO] market for core board Cut-off, U	SPEC
A1		plastica	2,83E-03	5,21E-05	kg	Polyethylene terephthalate, granulate, amorphous [GLO] market for polyethylene terephthalate, granulate, amorphous Cut-off, U; Extrusion, plastic film [GLO] market for extrusion, plastic film Cut-off, U	SPEC
A1		legno	2,21E-04	1,33E-05	kg	EUR-flat pallet [RER] market for EUR-flat pallet Cut-off, U	SPEC
A1		materiali misti	2,53E-03	8,10E-05	kg	Core board [GLO] market for core board Cut-off, U; EUR-flat pallet [RER] market for EUR-flat pallet Cut-off, U; Polyethylene terephthalate, granulate, amorphous [GLO] market for polyethylene terephthalate, granulate, amorphous Cut-off, U	GENERICO SELEZIONATO
A1		alluminio	4,77E-04	1,70E-04	kg	Aluminium, cast alloy [GLO] market for aluminium, cast alloy Cut-off, U	GENERICO SELEZIONATO
A1		tessuto non tessuto	2,24E-03	7,95E-04	kg	Textile, nonwoven polypropylene [GLO] market for textile, nonwoven polypropylene Cut-off, U	GENERICO SELEZIONATO
A1		apparecchi anutensione	2,14E-03	7,59E-04	kg	Cable, unspecified [GLO] market for cable, unspecified Cut-off, U	GENERICO SELEZIONATO
A1		ferro	8,36E-03	2,97E-03	kg	Iron pellet [GLO] market for iron pellet Cut-off, U; Metal working, average for metal product manufacturing [GLO] market for metal working, average for metal product manufacturing Cut-off, U	SPEC
A1		resina	1,41E-01	5,00E-02	kg	Acrylonitrile-butadiene-styrene copolymer [GLO] market for acrylonitrile-butadiene-styrene copolymer Cut-off, U; Tap water [GLO] market group for tap water Cut-off, U	GENERICO SELEZIONATO
A1	pack per depositi temporanei in Tessitura/ Cardatura	ferro	5,39E-02	1,91E-02	kg	Iron pellet [GLO] market for iron pellet Cut-off, U; Metal working, average for metal product manufacturing [GLO] market for metal working, average for metal product manufacturing Cut-off, U	SPEC
A1	ausiliari Tessitura/ Cardatura	antistatico	1,82E-03	6,48E-04	kg	Glycerine [Europe without Switzerland] esterification of rape oil Cut-off, U; Organophosphorus-compound, unspecified [RER] organophosphorus-compound production, unspecified Cut-off, U; Tap water [RER] market group for tap water Cut-off, U	SPEC
A1		acqua	3,65E-03	1,30E-03	kg	Tap water [Europe without Switzerland] market for tap water Cut-off, U	SPEC
A1	manutenzioni Tessitura/ Cardatura	olio lubrificante	9,86E-03	3,50E-03	kg	Lubricating oil [RER] market for lubricating oil Cut-off, U	SPEC
A1		acciaio aghi	1,24E-04	4,42E-05	kg	Steel, low-alloyed, hot rolled [GLO] market for steel, low-alloyed, hot rolled Cut-off, U	SPEC
A1	pack prodotto finito	film PE riciclato	1,21E-02	4,30E-03	kg	0_Film PE riciclato, Packaging film, low density polyethylene [RER] packaging film production, low density polyethylene Cut-off, U	GENERICO SELEZIONATO
A1		cartone	8,96E-03	3,18E-03	kg	Core board [GLO] market for core board Cut-off, U	SPEC

A2	trasporto materie prime da fornitore a magazzino	trasporto NAVE fibra da Fornitore	5,21E+03	1,85E+03	kgkm	Transport, freight, sea, container ship [GLO] market for transport, freight, sea, container ship Cut-off, U	SPEC
A2		trasporto CAMION fibra da Fornitore	1,28E+03	4,56E+02	kgkm	Transport, freight, lorry 16-32 metric ton, EURO5 [RoW] market for transport, freight, lorry 16-32 metric ton, EURO5 Cut-off, U	SPEC
A2		trasporto NAVE filato da Fornitore	2,15E+03	7,64E+02	kgkm	Transport, freight, sea, container ship [GLO] market for transport, freight, sea, container ship Cut-off, U	SPEC
A2		trasporto CAMION filato da Fornitore	1,23E+02	4,36E+01	kgkm	Transport, freight, lorry 16-32 metric ton, EURO5 [RoW] market for transport, freight, lorry 16-32 metric ton, EURO5 Cut-off, U	SPEC
A2	trasporto pack prodotto finito	trasporto camion	3,26E+00	1,16E+00	kgkm	Transport, freight, lorry 16-32 metric ton, EURO6 [RER] market for transport, freight, lorry 16-32 met	SPEC

	LCI per 1 kg di tessuto pelliccetta						
	FASE	INPUT	QT per 1 kg di tessuto a pelo	QT per 1 m2 di tessuto a pelo	UDM	DATASET	DATA QUALITY
A3	movimentazioni tra sedi	trasporto fibra magazzino-tessitura/cardatura	1,23E+01	4,39E+00	kgkm	Transport, freight, lorry 16-32 metric ton, EURO6 (RER) market for transport, freight, lorry 16-32 metric ton, EURO6 (RER) Cut-off, U	SPEC
A3		trasporto filato magazzino-tessitura/cardatura	1,62E+00	5,74E-01	kgkm	Transport, freight, lorry 16-32 metric ton, EURO6 (RER) market for transport, freight, lorry 16-32 metric ton, EURO6 (RER) Cut-off, U	SPEC
A3		trap rifinizione	3,59E+00	1,27E+00	kgkm	Transport, freight, lorry 16-32 metric ton, EURO6 (RER) market for transport, freight, lorry 16-32 metric ton, EURO6 (RER) Cut-off, U	SPEC
A3		trap rifinizione	1,58E+01	5,0E+00	kgkm	Transport, freight, lorry 16-32 metric ton, EURO6 (RER) market for transport, freight, lorry 16-32 metric ton, EURO6 (RER) Cut-off, U	SPEC
A3	energia elettrica magazzino materia prima	energia da rete	9,85E-03	3,50E-03	kWh	O_res mix 2023_Electricity, medium voltage [IT] market for electricity, medium voltage Cut-off, U	SPEC
A3	energia elettrica preparazione	energia da rete	8,83E-02	3,14E-02	kWh	O_res mix 2023_Electricity, medium voltage [IT] market for electricity, medium voltage Cut-off, U	SPEC
A3	energia elettrica cardatura	energia da rete	3,21E-01	1,14E-01	kWh	O_res mix 2023_Electricity, medium voltage [IT] market for electricity, medium voltage Cut-off, U	SPEC
A3	energia elettrica tessitura	energia da rete	2,56E+00	9,08E-01	kWh	O_res mix 2023_Electricity, medium voltage [IT] market for electricity, medium voltage Cut-off, U	SPEC
A3	energia elettrica rifinitone	Consumi energia elettrica	8,66E-01	3,08E-01	kWh	O_res mix 2023_Electricity, medium voltage [IT] market for electricity, medium voltage Cut-off, U	SPEC
A3	gas rifinitone	Consumi di gas metano	3,47E-01	1,23E-01	Sm3	Natural gas, high pressure [IT] market for natural gas, high pressure Cut-off, U	SPEC
A3	acqua rifinitone	Consumi di acqua	5,54E-03	1,97E-03	m3	Tap water [Europe without Switzerland] market for tap water Cut-off, U	SPEC
A3	energia elettrica packaging	energia da rete	1,79E-03	6,37E-04	kWh	O_res mix 2023_Electricity, medium voltage [IT] market for electricity, medium voltage Cut-off, U	SPEC
A3	energia elettrica consumi generali casisi	energia da rete	1,40E-03	4,97E-04	kWh	O_res mix 2023_Electricity, medium voltage [IT] market for electricity, medium voltage Cut-off, U	SPEC
A3		energia PV	2,77E-04	9,86E-05	kWh	Electricity, low voltage [IT] electricity production, photovoltaic, 3kWp slanted-roof installation, multi-Si, panel, mounted Cut-off, U	SPEC
A3	rifiuti magazzino materia prima	rifiuti tessili	7,03E-02	2,50E-02	kg	Waste yarn and waste textile [RoW] treatment of waste yarn and waste textile, unsanitary landfill Cut-off, U	SPEC
A3	trasporto rifiuti magazzino materia prima	trasporto rifiuti	2,29E+01	8,15E+00	kgkm	Transport, freight, lorry 16-32 metric ton, EURO6 (RER) market for transport, freight, lorry 16-32 metric ton, EURO6 (RER) Cut-off, U	SPEC
A3	rifiuti SPECIFICI tessitura/cardatura	peluria	2,48E-02	8,82E-03	kg	Waste yarn and waste textile [RoW] treatment of waste yarn and waste textile, unsanitary landfill Cut-off, U	SPEC
A3		tessuto	2,02E-02	7,16E-03	kg	Waste yarn and waste textile [RoW] treatment of waste yarn and waste textile, unsanitary landfill Cut-off, U	SPEC
A3	rifiuti tessitura/cardatura	rifiuti tessili	4,79E-02	1,70E-02	kg	Waste yarn and waste textile [RoW] treatment of waste yarn and waste textile, unsanitary landfill Cut-off, U	SPEC
A3	trasporto rifiuti tessitura/cardatura	trasporto rifiuti	8,75E-01	3,11E-01	kgkm	Transport, freight, lorry 16-32 metric ton, EURO6 (RER) market for transport, freight, lorry 16-32 metric ton, EURO6 (RER) Cut-off, U	SPEC
A3	rifiuti rifinitone	rifiuti tessili	8,83E-02	3,14E-02	kg	Waste yarn and waste textile [RoW] treatment of waste yarn and waste textile, unsanitary landfill Cut-off, U	SPEC
A3		imballaggi di carta e cartone	7,92E-03	2,81E-03	kg	REC	SPEC
A3		plastica discarica	1,47E-04	5,21E-05	kg	Waste plastic, mixture [RoW] treatment of waste plastic, mixture, sanitary landfill Cut-off, U	SPEC
A3		plastica incenerimento	1,69E-04	6,01E-05	kg	Waste plastic, mixture [CH] treatment of waste plastic, mixture, municipal incineration FAE Cut-off, U	SPEC
A3		plastica riciclo	2,51E-03	8,92E-04	kg	REC	SPEC
A3		legno incenerimento	3,75E-05	1,33E-05	kg	Waste wood, untreated [CH] treatment of waste wood, untreated, municipal incineration FAE Cut-off, U	SPEC
A3		legno riciclo	1,83E-04	6,53E-05	kg	REC	SPEC
A3		misti discarica	2,28E-04	8,10E-05	kg	Municipal solid waste [GLO] treatment of municipal solid waste, unsanitary landfill, moist infiltration class (300mm) Cut-off, U	SPEC
A3		misti incenerimento	4,81E-04	1,71E-04	kg	Municipal solid waste [IT] treatment of municipal solid waste, municipal incineration Cutoff, U	SPEC
A3		misti riciclo	1,82E-03	6,48E-04	kg	REC	SPEC
A3		imballaggi contenenti residui	4,77E-04	1,70E-04	kg	Hazardous waste, for incineration [Europe without Switzerland] market for hazardous waste, for incineration Cut-off, U	SPEC
A3		assorbenti, materiali filtranti	2,24E-03	7,95E-04	kg	Miconicolpaesi solid waste [GLO] treatment of municipal solid waste, unsanitary landfill, moist infiltration class (300mm) Cut-off, U	SPEC
A3		apparecchi fuori uso	214E-03	7,59E-04	kg	REC	SPEC
A3		ferro e acciaio	8,36E-03	2,97E-03	kg	REC	SPEC
A3	trasporto rifiuti rifinitone	trasporto rifiuti	9,66E+00	3,43E+00	kgkm	Transport, freight, lorry 16-32 metric ton, EURO6 (RER) market for transport, freight, lorry 16-32 metric ton, EURO6 (RER) Cut-off, U	SPEC
A3	rifiuti generali Cafasi	rifiuti tessili	9,16E-04	3,25E-04	kg	Waste yarn and waste textile [RoW] treatment of waste yarn and waste textile, unsanitary landfill Cut-off, U	SPEC
A3		cartone	1,75E-05	6,21E-06	kg	REC	SPEC
A3	trasporto rifiuti generali Cafasi	trasporto rifiuti	2,96E-01	1,05E-01	kgkm	Transport, freight, lorry 16-32 metric ton, EURO6 (RER) market for transport, freight, lorry 16-32 metric ton, EURO6 (RER) Cut-off, U	SPEC

C1	disassembling/ sorting	manuale	0,00E+00		kg		SPEC
C2	trasporto rifiuto	camion	1,00E+02		kgkm	Transport, freight, lorry 16-32 metric ton, EURO5 (RoW)) market for transport, freight, lorry 16-32 metric ton, EURO5 (RoW))	SPEC
C3	smaltimento	discarica	8,00E-01		kgkm	Waste polyethylene terephthalate (RoW)) treatment of waste polyethylene terephthalate, sanitary landfill Cut-off	SPEC

RESULTS

LCA report



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 Committente: Cafissi spa

Titolo del documento:

Project report per la certificazione EPD del prodotto: Sliver Knit Fur Fabric from Carded Top made of Recycled Polyester di Cafissi spa.

Data: 21/05/2025
 Ver.00

Note: LCA del tipo "from cradle to gate with module C1-C3" del prodotto: Sliver Knit Fur Fabric from Carded Top made of Recycled Polyester (Tessuto a maglia a pelo da fibra e filato riciclati in poliestere riciclato di colore neutro) di Cafissi spa

EPD document

Environmental Product Declaration



In accordance with ISO 14025:2006 for:

**Sliver Knit Fur Fabric from Carded Top made
of Recycled Dope Dyed Polyester**
from

Cafissi S.p.A



Programme:
 Programme operator:
 EPD registration number:
 Publication date:
 Date of validity:

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 EPD-IES-0023231
 2025-07-29
 2030-07-28

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RESULTS

Results of environmental impact indicators and resource indicators

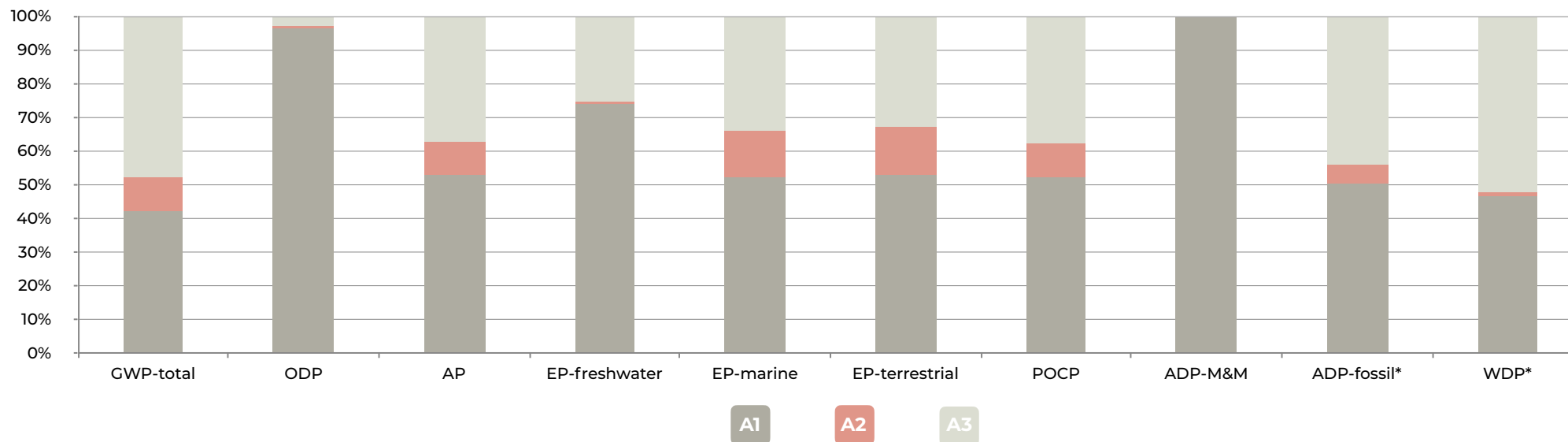
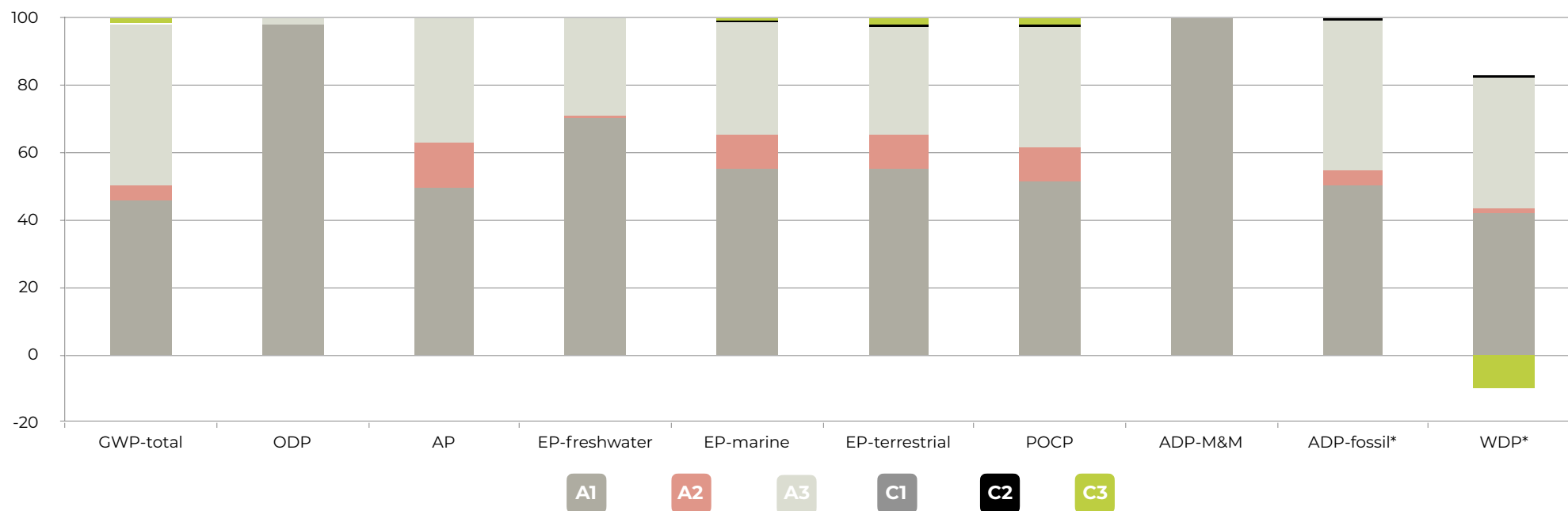
Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	TOTAL
GWP-fossil	kg CO ₂ eq.	1.21E+00	1.02E-01	1.18E+00	2.49E+00	0.00E+00	5.49E-03	2.32E-02	2.52E+00
GWP-biogenic	kg CO ₂ eq.	8.16E-02	1.24E-05	1.62E-01	2.44E-01	0.00E+00	6.48E-07	2.81E-05	2.44E-01
GWP-luluc	kg CO ₂ eq.	1.18E-03	2.97E-06	3.58E-05	1.22E-03	0.00E+00	1.60E-07	1.42E-06	1.22E-03
GWP-total	kg CO ₂ eq.	1.29E+00	1.02E-01	1.34E+00	2.75E+00	0.00E+00	5.49E-03	2.32E-02	2.76E+00
ODP	kg CFC 11 eq.	1.11E-06	1.94E-08	1.14E-06	1.14E-06	0.00E+00	7.36E-11	7.73E-11	1.14E-06
AP	mol H ⁺ eq.	5.14E-03	9.88E-04	3.57E-03	9.70E-03	0.00E+00	1.49E-05	2.14E-05	9.73E-03
EP-freshwater	kg P eq.	6.77E-05	2.11E-07	2.27E-05	9.07E-05	0.00E+00	1.36E-08	2.63E-08	9.07E-05
EP-marine	kg N eq.	9.32E-04	2.04E-04	5.77E-04	1.78E-03	0.00E+00	5.41E-06	3.35E-05	1.82E-03
EP-terrestrial	mol N eq.	9.78E-03	2.99E-03	6.43E-03	1.92E-02	0.00E+00	5.93E-05	9.11E-05	1.94E-02
POCP	kg NMVOC eq.	4.11E-03	8.87E-04	7.92E-03	7.92E-03	0.00E+00	2.22E-05	1.57E-05	7.98E-03
ADP-minerals & metals*	kg Sb eq.	8.49E-06	4.85E-09	1.14E-08	8.15E-06	0.00E+00	3.25E-10	1.08E-09	8.51E-06
ADP-fossil*	MJ	1.87E+01	1.34E+00	1.72E+01	3.72E+01	0.00E+00	7.33E-02	6.63E-02	3.73E+01
WDP*	m ³ eq	2.42E-01	1.07E-03	2.72E-01	5.15E-01	0.00E+00	6.75E-05	-4.54E-02	4.70E-01
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption.								

Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	TOTAL
PERE	MJ	8.82E-01	2.25E-03	5.09E-01	1.39E+00	0.00E+00	1.18E-04	7.10E-04	1.39E+00
PERM	MJ	1.66E-01	0.00E+00	-4.58E-02	1.20E-01	0.00E+00	0.00E+00	0.00E+00	1.20E-01
PERT	MJ	1.05E+00	2.25E-03	4.63E-01	1.51E+00	0.00E+00	1.18E-04	7.10E-04	1.51E+00
PENRE	MJ	1.74E+01	1.34E+00	1.72E+01	3.59E+01	0.00E+00	7.33E-02	1.70E+00	3.77E+01
PENRM	MJ	9.68E+00	0.00E+00	-4.26E-02	9.64E+00	0.00E+00	0.00E+00	-1.63E-02	8.00E+00
PENRT	MJ	2.71E+01	1.34E+00	1.72E+01	4.56E+01	0.00E+00	7.33E-02	6.63E-02	4.57E+01
SM	kg	3.69E-01	0.00E+00	0.00E+00	3.69E-01	0.00E+00	0.00E+00	0.00E+00	3.69E-01
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m ³	7.41E-03	4.06E-05	6.52E-03	1.40E-02	0.00E+00	2.46E-06	-1.05E-03	1.29E-02
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water; MJ = MJ net calorific value.								

RESULTS

Results of environmental impact indicators and resource indicators



Results A1-A3

Global Warning Potential (GWP)

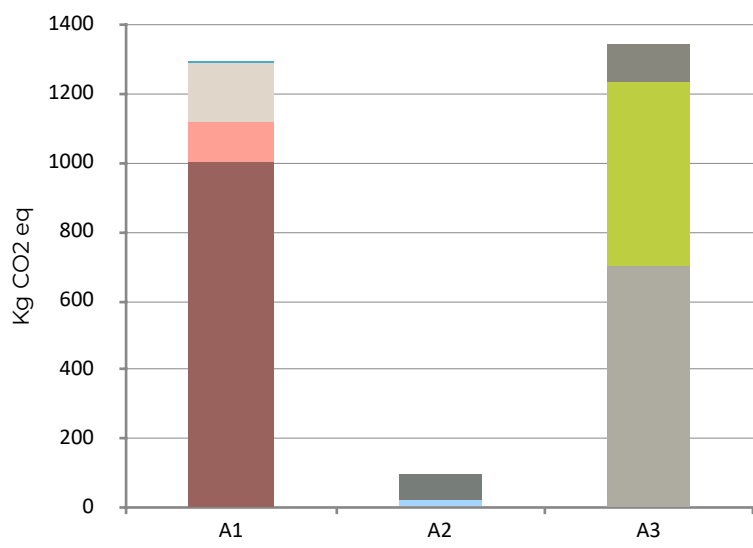
Per **1m2** of fabric **2,73 kg CO2eq.**

Per **1 kg** f fabric **7,69 kg CO 2eq.**

	GWP-total			
	Kg CO2 eq			
	A1	A2	A3	%
Fiber production	1.003			37%
Yearn production	0.114			4%
Raw material packaging	0.003			0%
Production packaging and auxiliaries	0.165			6%
Finish product packaging	0.007			0%
Raw material transport - sea		0.025		1%
Raw material transport - road		0.077		3%
Packaging transport		0.000		0%
Internal logistic			0.002	0%
Caficarda S.r.l. energy consumption			0.699	26%
Finishing process energy consumption			0.531	19%
Cafissi S.p.A energy consumption			0.001	0%
Waste treatment and transport			0.107	4%
TOTAL A1-A3	2.732			100%

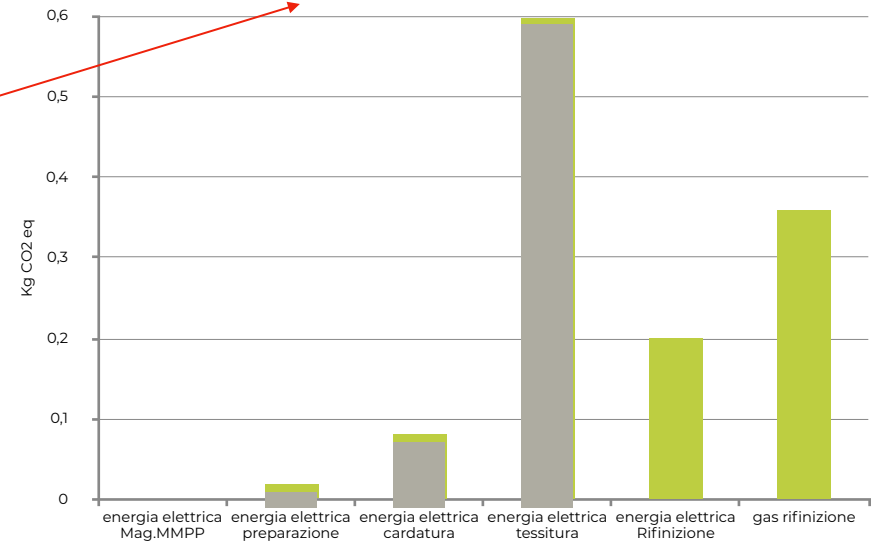


GWP-total

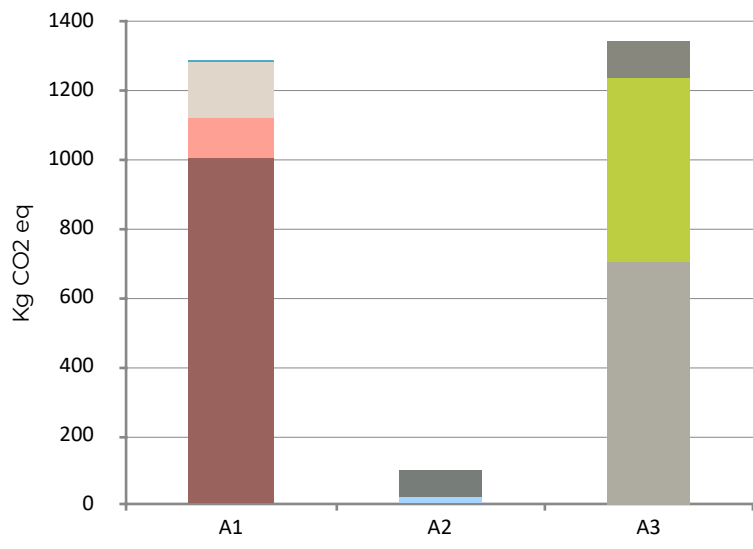


- Waste and transport
- Cafissi S.p.A consumption
- Finishing Mill consumption
- Caficarda consumption
- movements between locations
- packaging transport
- transport of raw material by truck
- transport of raw material by boat
- packaging finish product
- packaging and production auxiliaries
- Raw material packaging
- yarn
- fiber

Focus on energy consumption

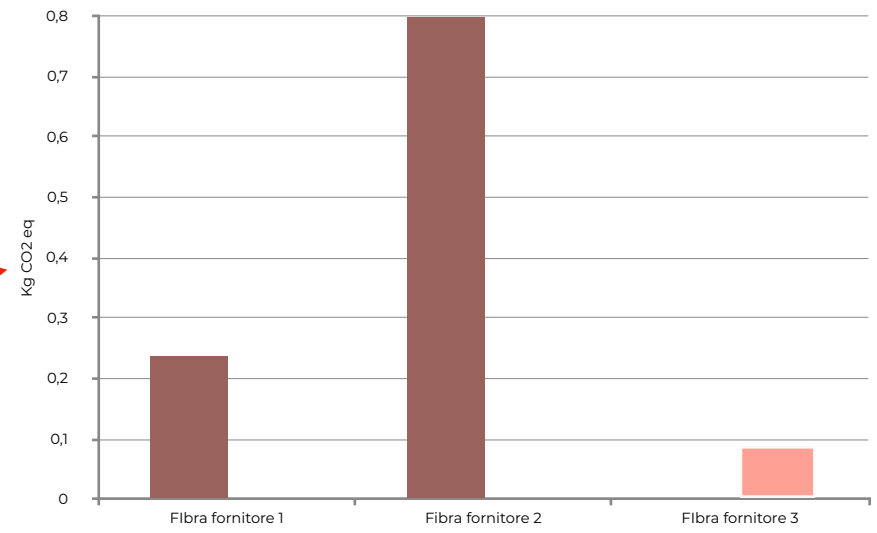


GWP-total

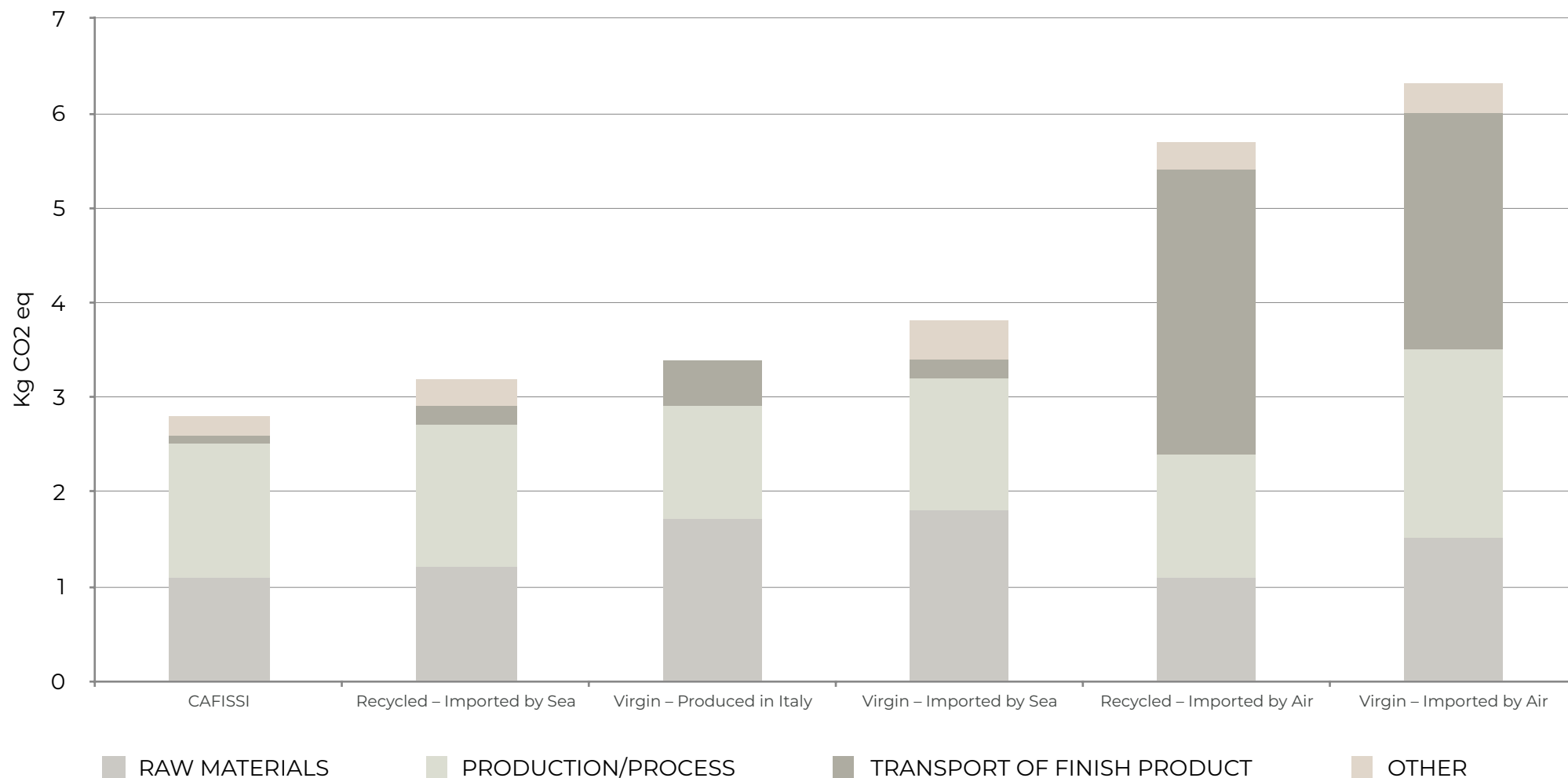


- Waste and transport
- Cafissi S.p.A consumption
- Finishing Mill consumption
- Caficarda consumption
- movements between locations
- packaging transport
- transport of raw material by truck
- transport of raw material by boat
- packaging finish product
- packaging and production auxiliaries
- Raw material packaging
- yarn
- fiber

Focus on raw material

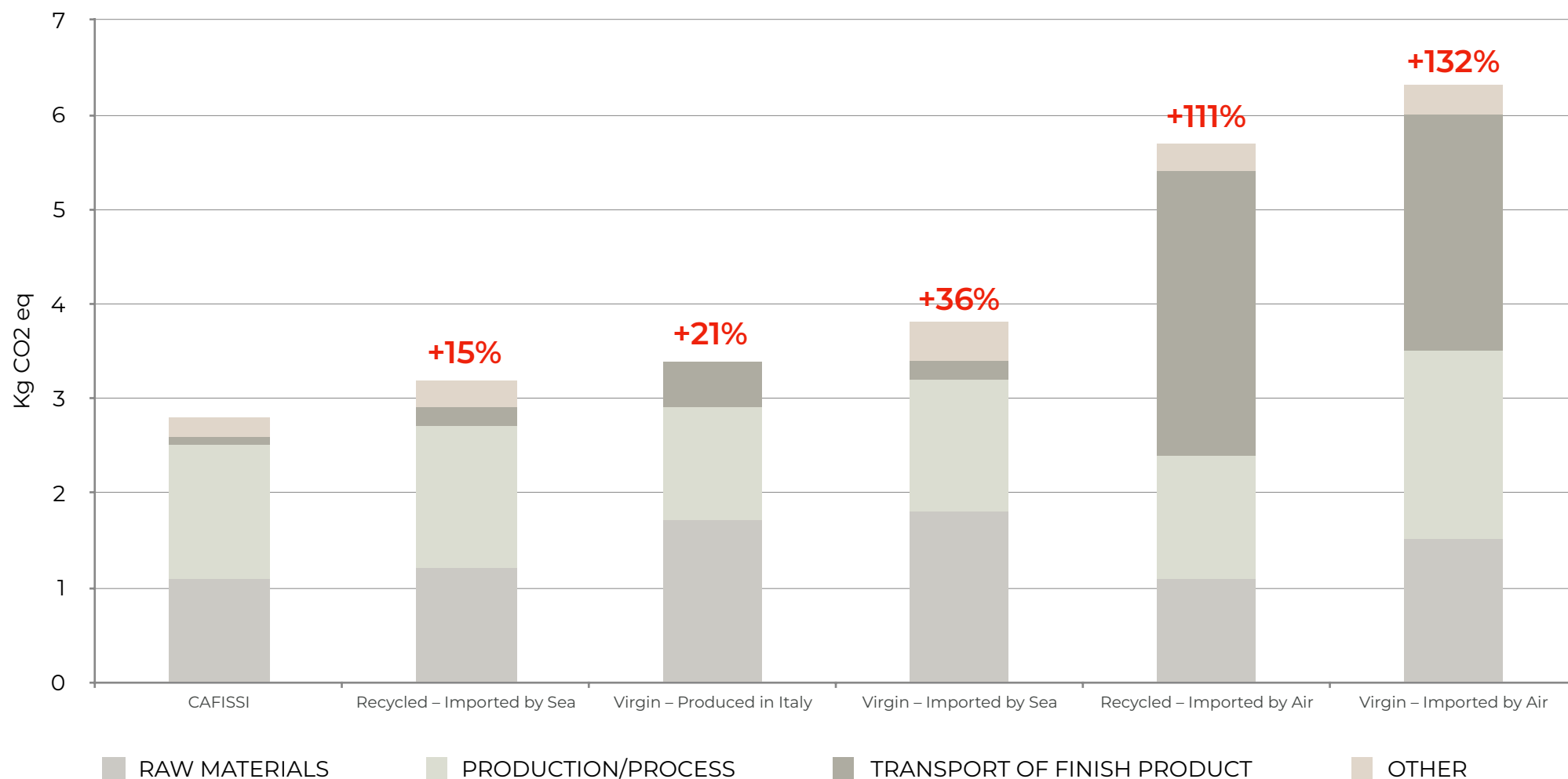


SCENARIO COMPARISONS



- **CAFISSI:** Recycled dope dyed raw material, sliver knit fur fabric produced in Italy
- **Recycled – Imported by Sea:** recycled raw material, fabric produced in China, finished product transported by sea from Shanghai to Civitavecchia
- **Virgin – Produced in Italy:** virgin polyester raw material, fabric produced in Italy
- **Virgin – Imported by Sea:** virgin polyester raw material, fabric produced in China, finished product transported by sea
- **Recycled – Imported by Air:** recycled raw material, fabric produced in China, finished product transported by air
- **Virgin – Imported by Air:** virgin polyester raw material, fabric produced in China, finished product transported by air

SCENARIO COMPARISONS



• Comparisons are based on dope-dyed color; piece-dyed product commonly offered on the market may have even higher CO2eq values, considering that they required additional processing..

• China-Italy transport has a greater impact depending on the way used and the final volume of the finished, semi-finished, or raw material product. Processing the fiber in Italy always reduces the impact compared to importing finish fabric made in China

COMPARISON WITH OTHER EPDs

EPD Number	Weight kg/m2	Kg Co2eq/m2	Kg Co2eq/kg
EPD-IES-0023231 cafissi Fabrics for creating.	0.355	2.73	7.69
EPD-IES-0001440:003 (S-P-01440)	0.134	1.75	13.02
EPD-IES-0012471:001 (S-P-12471)	0.315	2.87	9.12
EPD-IES-0012469:001 (S-P-12469)	0.230	3.36	14.61
EPD-IES-0012475:001 (S-P-12475)	0.360	3.31	9.20
EPD-IES-0012447:002 (S-P-12447)	0.090	1.32	14.69

METHODOLOGY

The LCA study was developed according to the following methodological steps:

- Collection of inventory data from production sites and suppliers
- Definition of the declared unit: **1 m² of sliver knit fur fabric made with recycled dope dyed polyester fibre and yarn**
- Modelling of the life cycle according to LCA principles and applicable PCRs
- Development of the calculation model using **SimaPro software** and recognised databases
- Calculation of environmental impacts and interpretation of results



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